

bucholzmcevoyARCHITECTS

NEW COUNTY & CITY LIBRARY KILKENNY - PART 8

75 & 76 JOHN STREET,
KILKENNY,
IRELAND

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SECTION A
BUCHOLZ MCEVOY ARCHITECTS
ARCHITECTURAL REPORT

A NEW COUNTY AND CITY LIBRARY FOR KILKENNY

1 . PROJECT OUTLINE

The design of the new City and County Library for Kilkenny, adjacent to the existing Kilkenny County Hall, will create a vibrant new civic place and focus for the local and wider community, stitching the project into the unique historic fabric of the city with its textured urbanscape of backlanes and backlands. The proposal aims to optimize the potential of this new civic building as a nodal point on a number of natural movement patterns, making connections, and bringing new energy to the local area.

As such the proposal is in accordance with the objective of the Kilkenny City and Environs Development Plan 2008-2014, and Kilkenny City Centre Local Area Plan, to expand the role of the County Hall and its environs through the creation of a new public park and to investigate the creation of a new urban square to John Street.

The Library design and layout will accommodate regular, casual and short-term visits but also entice users to spend longer periods of time within the civic campus and its associated landscaped areas and magnificent riverside setting. Its design and orientation will minimize the energy load of the Library through environmentally sensitive design, which will also harness as much natural and renewable energy as possible.

2 . SITE /EXISTING BUILDINGS

The site for the proposed City and County Library is located next to County Hall (the old Kilkenny College), including, and to the rear of, Nos. 75 & 76 John Street.. It is located in the John Street Architectural Conservation Area (see Conservation Assessment Report), and incorporates the two buildings on John Street, their rear gardens and yards, running adjacent to the County Hall, to the riverside parkland to the south. The site is also located within the zone of archaeological potential of Kilkenny (see Conservation Assessment Report)

No. 75 and No. 76 John Street feature in the National Inventory of Architectural Heritage (NIAH), and No. 75 is on the Record of Protected Structure (RPS). These buildings form an integral part of the character of the John Street area and the new addition is inserted into this fabric in a manner respectful of the scale and grain of this particular context, whilst retaining the integrity of the John Street streetscape. The removal of the boundary wall between No.75&76 John St. and the County Hall offers possibilities for creating a new public courtyard off John St, whilst enhancing the existing County Hall forecourt off John St., (previously a rear yard to County Hall), both of which spaces will benefit from the creation of new pedestrian connections between the city and the riverside park,. Locating this new civic amenity, as a destination and pivotal point in this again re-framed urban context, will bring new energy and civic uses to the existing urban fabric, offering permeability and urban spaces off the main street in a manner in evidence in other parts of Kilkenny city fabric.

The Conservation Assessment Report includes photographic and drawn surveys of No.s 75 & 76 - the John St. façades of both have been refurbished in recent years – minimal work is proposed to these facades, to include a new timber security gate. The existing buildings on site are currently in use as an Arts Centre,, office space and storage facility for Kilkenny County Council. The current usage of No.s 75 & 76 will continue as office space and caretaker's space.

Works to No.75 will primarily include internal reorganization on the ground floor (to include a caretakers room and WC), and redecoration, along with demolition of the existing modern one-storey flat-roofed extension to the rear, an improvement which will enhance the original architectural fabric and the public courtyard. The newly exposed section of the original rear wall will be rendered, painted and made good to match the existing wall, with the existing timber double-hung sash windows to be repaired or replaced as required, to match the existing. The opening on the ground floor in the rear wall is to be glazed with a timber frame as per the elevation drawing. The boundary wall between No.75&74 will form the edge of the newly landscaped John St. courtyard, which will incorporate stone paving, soft landscaping and public seating. The lean-to shed to the rear of No.75 along with the corresponding section of the rear boundary wall is to be demolished to enhance pedestrian permeability between John St. and the river as noted. Works to No. 76 will primarily include internal renovations and redecoration, along with demolition of the existing later two-storey extension to the rear, exposing the original rear wall, which will be rendered and painted to match the existing. Two new timber framed double-hung sash windows to match the existing will be incorporated as per the elevation drawing. At the rear of the ground floor the existing arched opening will be glazed with a timber frame, so offering visual connectivity from John St. The existing roof will be cut back and made good as required and will incorporate a new gutter to match the existing. The passage-way will be re-finished as required, retaining the existing remains of an old fire-place in the upper eastern wall, and will incorporate a new steel-framed timber security gate at the John Street entrance. The boundary wall between No.76 and County Hall is to be demolished in order to allow for the positioning of the new Library, addressing both the newly re-furbished John St courtyard and County Hall forecourt, whilst offering views to the riverside park beyond. The location of the original wall will be echoed in the new stone paving pattern.

3. PURPOSE

The proposed project comprises the following accommodation; a new Library & Community Building, an Arts and

Local Cultural Facility, a new courtyard off John Street. The adjacent shared Civic Plaza (which is due to be re-landscaped and will include disabled access parking), addresses the entrances to the County Hall and the new Library building.

The new building will provide approximately 1450 m² of Library accommodation on two levels, in a new building to the rear of No. 76 John Street. Accommodation for the Arts Office and associated support spaces will be provided in the refurbished Nos. 75 & 76 John Street. The Library will include space for Adult and Teenage lending, areas for on-line E-learning and Interactive Resources, a Children's section, staff areas, stores, a local information section, exhibition space, and areas for authors reading events and cultural promotions.

4. SITE ORGANISATION

The primary organisation of the site allows for the Library project to create a strong connection of the public realm of the city /John Street to the public realm of the riverside park, which is to be further developed, with its backdrop of Kilkenny Castle. This is achieved by the development of the shared civic plaza to the front of the County Hall, and the creation of a new public courtyard to the rear of the John Street buildings, thus opening up and forging links from John Street to the riverside park. The Library building and facilities will be fully accessible to the public via the new pedestrian connections, or by vehicular access through the existing entrance on Maudlin Street. It is envisaged that the overall scheme and the new Library will instill within the larger site a new energy, re-framing it in the context of the town, reinforcing its civic and cultural significance, re-connecting to its past, whilst creating a new destination for Kilkenny City.

5. DESIGN PROPOSAL

An environmentally responsive building, of natural materials that is sensitively integrated into its historic urban setting is proposed for the new City and County Library. On a larger city-wide scale the proposed Library development has been examined in the context of the adjacent County Hall (the old Kilkenny College) and the setting of the grounds and gardens between County Hall, the river Nore and Kilkenny Castle. The main entrance to the Library will be from the civic plaza in front of County Hall, with additional approaches as mentioned from the John Street courtyard, and from the riverside park.

The building will be 2-storey with courtyard spaces to allow for optimized natural daylight and ventilation. North-facing rooflights will further the penetration of even northern light into the Library spaces, whilst also providing roof surfaces angled to face the southern sun, from which solar energy can be harnessed.

- **Materials** - In keeping with the history of timber craftsmanship in Kilkenny buildings, it is proposed that the new Library be constructed of timber which will create a high quality, finely crafted human-scaled building. A palette of natural and renewable materials of low-embodied energy is proposed where possible, with a view to durability and ease of maintenance. Internal finishes with low chemical emissions will be used.

- **Accessibility** - The Library building will be fully accessible to all in accordance with Building Regulations & Part M of the TGDs. Pedestrian access will be granted via the original archway under no.76 John Street, leading to a public space and onto a civic plaza that will be a 'shared pedestrian prioritised zone', this space will also accommodate set down and parking as per National Disability Authority guideline documents.

- **Transparency/Permeability** - Transparency within the building and its various activities and between the interior and exterior provides an active and exciting environment for users and the general public alike, whilst promoting an engaging connection with the urban spaces and landscape setting beyond. Views from spaces within the Library are optimized, especially those over the park, the River Nore and Kilkenny Castle beyond.

- **Internal Layout** - The internal layout will provide an open, stimulating physical environment which will support and enhance the progressive vision for this new Library. With state-of-the-art facilities and a diverse range of settings, it offers potential for many new ways of using library space, for individual readers, group study, community space etc., Providing spatial relationships which will facilitate and encourage interaction between different user groups, whilst also providing for individual focused activities, the layout offers a 'long-life loose-fit' solution, which will accommodate possible future changes of use or re-configurations.

- **Landscaping**- New trees, soft landscaping and planting will be set in the urban space, civic plaza and courtyards of the library. The removal of four young ash trees currently in the line of proposed Library will be supplemented with compensatory new planting of 12 no ash trees within the County Hall Grounds. New trees to be as follows: 12 no. Fraxinus excelsior, 16-18cm girth rootballed, the location of which will be agreed with Parks Department.

6. ENVIRONMENTAL DESIGN

The new Library will be an environmentally responsive building, with a light filled and naturally ventilated internal environment, this will offer an open and inviting space to the benefit of its users and staff alike. A general policy of minimizing energy usage through design has been employed, reducing dependence on imported energy and maximizing the use of naturally occurring energy sources, thus reducing running costs. The new Library will be of high per-

formance fabric, with high energy-efficient building systems, harnessing renewable energies, with water conservation and rainwater re-use where possible, and will minimize waste in construction and use.

- Orientation - The building orientation has been carefully considered with regard to maximizing passive solar gain (to reduce energy load) and wind direction (to enhance natural ventilation).
- Solar Shading - The different facades of the building incorporate different degrees of screening and solar protection according to use and orientation.
- Renewable Energies- The use of naturally occurring energy sources has been maximized, with photovoltaic cells provided on the roofs harnessing solar energy and passive wind energy being used to enhance natural ventilation.
- Natural Ventilation - Natural cross-ventilation of the internal spaces is maximized with ventilation openings on the external facades and roof being strategically placed for this purpose, and high floor to ceiling dimensions employed to enhance air movement.
- Natural Daylighting- In order to minimize dependence on artificial lighting, natural daylighting of the internal spaces of the building have been maximized, particularly light from the North which lends itself well to the Library's function

7. VEHICULAR ACCESS/PARKING

In accordance with the aims of 'Smarter Travel, a Sustainable Transport Future, 2009', and other initiatives encouraging non-vehicular modes of traffic, there is a 'shared pedestrian prioritized zone', to the front of and adjacent to the County Hall and the new Library. This space, to be re-landscaped in the near future will also accommodate set down and parking as per National Disability Authority guideline documents. 2 no. new parking spaces for disabled persons and 18 no. sheltered public bicycle parking facilities will be provided close to the Library entrance in the courtyard. Existing parking to the northeast along the party wall with Langtons will be retained.

General vehicular access will continue to be via the existing entrance to the County Hall on Maudlin Street, with parking facilities to be provided on the riverside of County Hall, in a revised shared parking scheme, which will accommodate any requirements of the new Library facility. It should be noted that the prior use of the site as a retail establishment equates to a requirement for 52 parking spaces according to the requirements of the Kilkenny City Development Plan. The proposed Library use would equate to a requirement for approximately 34 parking spaces (based on the requirements of DLRCC Development Plan for example, as there are no figures given specifically for Library use in Kilkenny City Development Plan).

Emergency and service access will be accommodated in the shared zone of the refurbished civic plaza.

8. CONSTRUCTION PHASE

- Demolition - The existing 2-storey building to the rear of No. 76 John Street will be demolished prior to commencement of the new-build project. Prior to demolition an Asbestos Survey will be carried out and any asbestos identified will be removed in accordance with Safety, Health and Welfare at Act 2005 and regulations, with particular regard to Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006. The existing shed, boundary walls, and lean-to extensions to the rear of the of No.75&76 are to be demolished as per the demolition drawings, and the exposed walls to the rear of the John St. buildings to be made good to match the existing.
- Construction Traffic- A traffic management plan will be put into place during the construction phase as has been implemented on previous occasions during construction work on the County Hall site. Street. Accommodation for the Arts Office and associated support spaces will be provided in the refurbished Nos. 75 & 76 John Street. The Library will include space for Adult and Teenage lending, areas for on-line E-learning and Interactive Resources, a Children's section, staff areas, stores, a local information section, exhibition space, and areas for authors reading events and cultural promotions.

SECTION B
PUNCH CONSULTANTS
CIVIL AND STRUCTURAL ENGINEERING REPORT

Kilkenny City and County Library

**Site Flood Risk Assessment Report
Stage 1&2**

March 2013

Document Control

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1.0 Introduction

1.1 Background

This Site Specific Flood Risk Assessment (FRA) study was prepared for submission with the Part 8 planning package for the development of a new city and county library in Kilkenny City. The FRA study is in full compliance with the requirements of the “Planning System & Flood Management Guidelines” published by the Department of Environment in November 2009. These current guidelines recognise the balance required between providing the opportunity to develop lands in the appropriate manner whilst minimising the flood risk to persons and properties.

This study addresses the flood risk for the development, the impact of the proposed development on flooding including storm run-off from the proposed development and should be read in conjunction with the other documentation and drawings submitted with the planning package.

1.2 Existing Site

The site currently contains an arts office. In the neighbouring site to the rear is public open space, the Kilkenny Council Offices and a car park. The site is approx 0.33ha and is situated off John Street Lower, Kilkenny City.

There is an existing river, the River Nore, bounding the site to the south. The site is bounded to the north and west by residential and commercial properties.

The topographical survey of the immediate area of the site relative to O.D Malin Head is recorded on the survey drawing attached in Appendix A of this report. The site is relatively flat with existing levels only varying from 44.05 m O.D. (Malin Head) in the west of the site to 42.85 O.D. (Malin Head) in the south of the site. There is approx 1.5m level difference between the southern boundary and the river level. There is an embankment between the river and the buildings on the site which acts as a flood defence. This was constructed as part of the flood relief works that was carried out on the River Nore between 2001-2005 by the OPW.

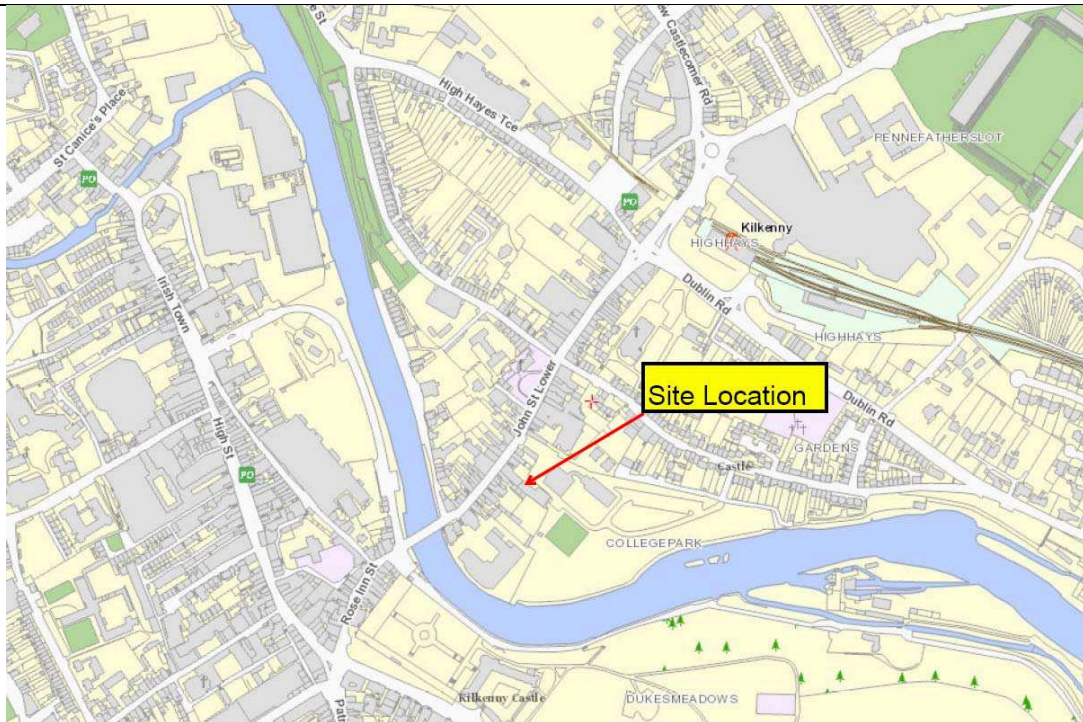


Figure 1: Site Location Map 1



Figure 2: Site Location Map 2

1.3 Nature of the Proposed Development.

The proposed development comprises of refurbishment and demolition of the existing arts office building on the site. A new two storey timber frame library will be constructed in its place. As part of the works the hardstanding area of the existing site will increase by circa 590m². The existing foul connection to the public sewer will be maintained on Johns Street

Lower and a new surface water connection will be made to an existing 150mm diameter surface water sewer on the site that currently takes the runoff from the roof and hardstanding area near the council offices and discharges to the river through an existing outfall.

As the proposal consists of a change of use and an extension we would suggest that the proposed development, in the context of the “Planning System & Flood Management Guidelines”, represents a ‘Minor Proposal’ as defined in Section 5.28 of the guidelines as opposed to a ‘Major Proposal’ as defined in Section 5.27 of the guidelines. As these proposals concern existing buildings the sequential approach cannot be used to locate them in lower-risk areas and so the Justification Test will not apply.

2.0 The Planning System & Flood Risk Management Guidelines

In September 2008 “The Planning System and Flood Risk Management” Guidelines were published by the Department of the Environment, Heritage and Local Government in Draft format. In November 2009 the adopted version of the document was published.

The Flood Risk Management Guidelines give guidance on flood risk and development. The guidelines recommend a precautionary approach when considering flood risk management in the planning system. The core principle of the guidelines is to adopt a risk based sequential approach to managing flood risk and to avoid development in areas that are at risk. The sequential approach is based on the identification of flood zones for river and coastal flooding.

The guidelines include definitions of Flood zones A, B and C as noted below. It should be noted that these do not take into account the presence of flood defences, as there remain risks of overtopping and breach of the defences.

Zone A (high probability of flooding) is for lands where the probability of flooding is greatest (greater than 1% or the 1 in 100 for river flooding and 0.5% or 1 in 200 for coastal flooding).

Zone B (moderate probability of flooding) refers to lands where the probability of flooding is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 and 0.5% or 1 in 200 for coastal flooding)

Zone C (low probability of flooding) refers to lands where the probability of flooding is low (less than 0.1% or 1 in 1000 for both rivers and coastal flooding)

Once a flood zone has been identified, the guidelines set out the different types of development appropriate to each zone. Exceptions to the restriction of development due to potential flood risks are provided for through the use of the Justification Test, where the planning need and the sustainable management of flood risk to an acceptable level must be demonstrated. This recognises that there will be a need for future development in existing towns and urban centres that lie within flood risk zones, and that the avoidance of all future development in these areas would be unsustainable.

A three staged approach to undertaking a FRA is recommended:

Flood Risk Identification (Stage 1) - Identification of any issues relating to the site that will require further investigation through a Flood Risk Assessment.

Initial Flood Risk Assessment (Stage 2) - Involves establishment of the sources of flooding, the extent of the flood risk, potential impacts of the development and possible mitigation measures.

Detailed Flood Risk Assessment (Stage 3) - Assess flood risk issues in sufficient detail to provide quantitative appraisal of potential flood risk of the development, impacts of the flooding elsewhere and the effectiveness of any proposed mitigation measures.

This report addresses the requirements for both Stages 1 and Stage 2.

3.0 Flood Risk Identification

The proposed development comprises the construction of a new city and county library on the site of the existing arts office at Johns Street Lower, Kilkenny. The River Nore flows in an easterly direction along the southern boundary of the site and has been known to flood in the past. According to the Strategic Flood Risk Assessment for Kilkenny City and Environs Development Plans 2008-2014 the site is located in an area that is subject to a site-specific Flood Risk Assessment appropriate to the type and scale of the development being proposed.

3.1 Hydrology of the River Nore

The River Nore rises in the Devil's Bit Mountain in the townland of Borrisnoe, North Tipperary and flows in south-eastwards through counties Laois and Kilkenny. North of New Ross it joins the River Barrow where it then flows south where it enters the Celtic Sea at Waterford Harbour along with the River Suir. The River Nore, along with the River Suir and River Barrow make up the group known as the Three Sisters. Major tributaries of the Nore include the Dinin the Breagagh, the King's River, the Little Arrigle and the Black Water.

The River Nore is approximately 140km long and the total catchment area is approximately 2530km². Much of the catchment is given to tillage, pastureland and bloodstock.



We have reviewed the hydrometric information available from the OPW in proximity to the site. The OPW operates a flow monitoring station (15002) at John's Bridge in Kilkenny City. The station has been recording data recorded from 1953 to 2002. There is also data from 2007-2010 following on from flood relief works that were undertaken from 2001-2005. See Appendix B.

(Note: The data provided by the OPW is relative to Poolbeg Datum. This data was adjusted to Malin Head Datum however following discussions with Mr. Peter Newport in the OPW Hydrological Office regarding conversion of the levels these Malin Datum levels should only be used as an approximation.)

PUNCH consulted with OPW floodmaps.ie and Mr. Cyril McCarthy & Mr. John Murphy of the OPW regarding the flooding in Kilkenny City. From the information received it was established that in previous instances, during times of excessive rainfall, the River Nore would burst it's banks upstream of the site and flood waters would enter the sites through John Street Lower. The flood relief measures installed on the River Nore including a flood wall along the quays and an embankment along the boundary with our site to prevent the river bursting its banks. A pumping station was also installed at the quays to drain the area in the event of flooding.

The proposed library development is located in an area that has flooded in the past however since the flood relief works were completed in 2005 there has been no recorded flooding on the site.

3.3 Walkover Survey

PUNCH attended site on the morning of the 28th May 2012. The purpose of the site visit was to establish any potential sources of flooding, likely routes of flood waters and the sites key features. The following was established on site (Refer to Appendix C for photographs):

The day of the visit was a dry day.

The brownfield site currently contains an arts office and is located next to Kilkenny Council Offices. To the rear of the site is public open space. The area is reasonable flat with the site sloping towards the river.

The embankment located between the site and the river bank is in a good, well kept condition.

The majority of the site was of sound reasonable solid ground. There were no reeds or plant species suggestive of flooding or marshy lands etc growing on the site.

The presence of large debris including branches on the river weir was noted, indicating high water flows during times of flooding.

There were no visible outfalls from the site to the river however following discussions with Mr. Billy Mernagh of the Sanitary Service Department it is thought that there is a surface water outfall from the council offices site to the river.

No obstructions were observed under John Street Bridge which would restrict flows in the river.

3.4 Flood Risk Identification Summary

Flood Risks have been identified at the sites that do require further investigation. Therefore it is proposed to proceed to Stage 2 - Initial Flood Risk Assessment.

4.0 Initial Flood Risk Assessment

This section of the report assesses the adequacy of the existing information and identifies what further studies may need to be done to address flooding issues.

4.1 Sources of Flooding

When carrying out a flood risk assessment one should consider all the potential flood risks and sources of flood water at the site. In the case of proposed site the relevant flood sources are:

- Fluvial

Fluvial Flooding is the result of the River Nore exceeding its capacity and excess water spills out onto the adjacent floodplain.

- Pluvial

Pluvial flooding is the result of rainfall-generated overland flows which arise before run-off can enter any watercourse or sewer. It is usually associated with high intensity rainfall. Flood risk from pluvial sources is not thought to be significant at this site due to the building level and adjacent drainage network.

4.2 Flood Zone

As the site is within the 100 year flood envelope established by the OPW on the draft PFRA, refer to Appendix D, the site lies within Flood Zone A.

Flood zone A as defined in the Planning System and Flood Risk Management Guidelines, has the highest probability of flooding from Rivers (greater than 1% or 1 in 100 year).

4.3 Vulnerability and Justification

Table 3.1 of the Planning System and Flood Risk Management Guidelines for Planning Authorities gives a detailed classification of vulnerability of different types of development. A library development is classed as a less vulnerable development and therefore is required to meet the justification test for development in flood zone A. However, as stated previously, the proposal consists of a change of use and an extension and in this context the project constitutes a 'Minor Proposal' and as such the Justification Test need not apply.

4.4 Flood Risk Management

Flood risk management under the EU Floods Directive aims to minimise the risks arising from flooding to people, property and the environment. Minimising risk can be achieved through structural measures that block or restrict the pathways of floodwaters, such as river defences or non structural measures that are often aimed at reducing the vulnerability of people and communities such as flood warning, effective flood emergency response, or resilience measures for communities or individual properties.

The OPW flood relief scheme was undertaken on the River Nore between 2001 and 2005. This included channel modifications and physical flood defences among other works. As part of these works a flood wall was constructed on the quays and an embankment was constructed between the site and the River Nore thus protecting the site from future flood events.

The embankment is indicated as varying in height from +45.00 to +44.09. The OPW have confirmed that the embankment would have been constructed 500mm above the 1 in 100 year flood level. Using this information and the information from the HEC-RAS model carried out on the river incorporating these flood defences (Refer to Appendix E) the 1 in 100 year flood level at the site would be approx 44.11m. Therefore the proposed floor level for the proposed building should be raised above this level to 44.40 to reduce the risk of flooding.

In addition to providing protection from future flood events, the proposed development has adopted SUDS measures to protect the receiving environment. Surface water discharge from the site will be maintained at Greenfield run-off rate by the use of a soakaway.

4.5 Climate Change

Advice on the expected impacts of climate change and the allowances to be provided for future flood risk management in Ireland is given in the "OPW Assessment of Potential Future Scenarios, Flood Risk Management Draft Guidance", 2009. Two climate change scenarios are considered. These are the Mid-Range Future Scenario (MRFS) and the High-End Future Scenario (HEFS). The MRFS is intended to represent a "likely" future scenario based on the wide range of future predictions available. The HEFS represents a more "extreme" future scenario at the upper boundaries of future projections. Based on these two scenarios the OPW recommended allowances for climate change are given in Table below.

	MRFS	HEFS
Extreme Rainfall Depths	+20%	+30%
Flood Flows	+20%	+30%
Mean Sea Level Rise	+500mm	+1000mm
Land Movement	-0.5mm / year*	-0.5mm / year*
Urbanisation	No General Allowance - Review on Case by Case Basis	No General Allowance - Review on Case by Case Basis
Forestation	-1/6 Tp**	-1/3 Tp** +10% SPR***

Notes:

* Applicable to the southern part of the country only (Dublin - Galway and south of this)

** Reduce the time to peak (Tp) by a third; this allows for potential accelerated runoff that may arise as a result of drainage of afforested land

*** Add 10% to the Standard Percentage Runoff (SPR) rate; this allows for increased runoff rates that may arise following felling of forestry

4.6 Impact and Mitigation Measures

Understanding flood risk and identifying the potential impacts is a key step in managing flood risk. This is highlighted in Chapter 2 of the Planning system and Flood Risk Management Guidelines for Planning Authorities.

When assessing the elements of flood risk at the site the potential impacts of the development on flooding in the surrounding area must be taken into account. Consideration must also be made of how flooding will impact on the development and based on the likelihood or level of risk involved, recommend appropriate mitigation measures.

This Flood Risk Assessment report seeks to demonstrate that the flood risk to the development can be adequately managed and the use of the development of the lands will not cause unacceptable adverse impacts elsewhere.

4.6.1 Hydrological Impact and Mitigation

While the site is located in flood zone A the flood relief works carried out on the River Nore between 2001 and 2005, including the installation of an embankment between the development and the river, have resulted in the area surrounding the site no longer acting as a flood plain. This means:

- The development within the site will not result in the displacement of floodplain storage through up-filling.
- The site no longer operates a storage or conveyance function during times of flooding and so does not interfere with the flood levels upstream or downstream.

The design of the drainage system network for the development will include discharging the surface water to a soakaway with an overflow to the existing surface water network. This provides a sustainable drainage solution for the site. A non return valve will also be placed on the overflow to prevent water surcharging through the system.

4.6.2 Development Service Impact and Mitigation

Flooding of the building can have an impact on the community owing to the service provided by the development.

It is recommended that the finished floor level of the proposed development is set above the maximum predicted flood level of 44.11mOD for the 0.1% AEP event and include a freeboard. While the floor level of the existing building fronting onto John Street Lower can not be adjusted a minimum finished floor level of 44.40mOD is considered appropriate for the new build portion of the development. This level will still provide a freeboard even allowing for climate change.

As a further measure to protect the contents of the building from more severe flooding events it is proposed that valuable materials i.e. literary or software are not stored at ground floor level but raised off the floor through the use of shelving etc. Also where possible the internal layout should be designed to reduce the impacts of flooding by placing essential mechanical and electrical services above the floor level.

5.0 Conclusion

As requested by the Strategic Flood Risk Assessment for Kilkenny City and Environs Development Plans 2008-2014 a site-specific Flood Risk Assessment appropriate to the type and scale of the development being proposed has been carried out on the site. The proposed development comprises of refurbishment and demolition of the existing arts office building on the site. A new two storey timber frame library will be constructed in its place and as part of the works the existing building footprint will be extended.

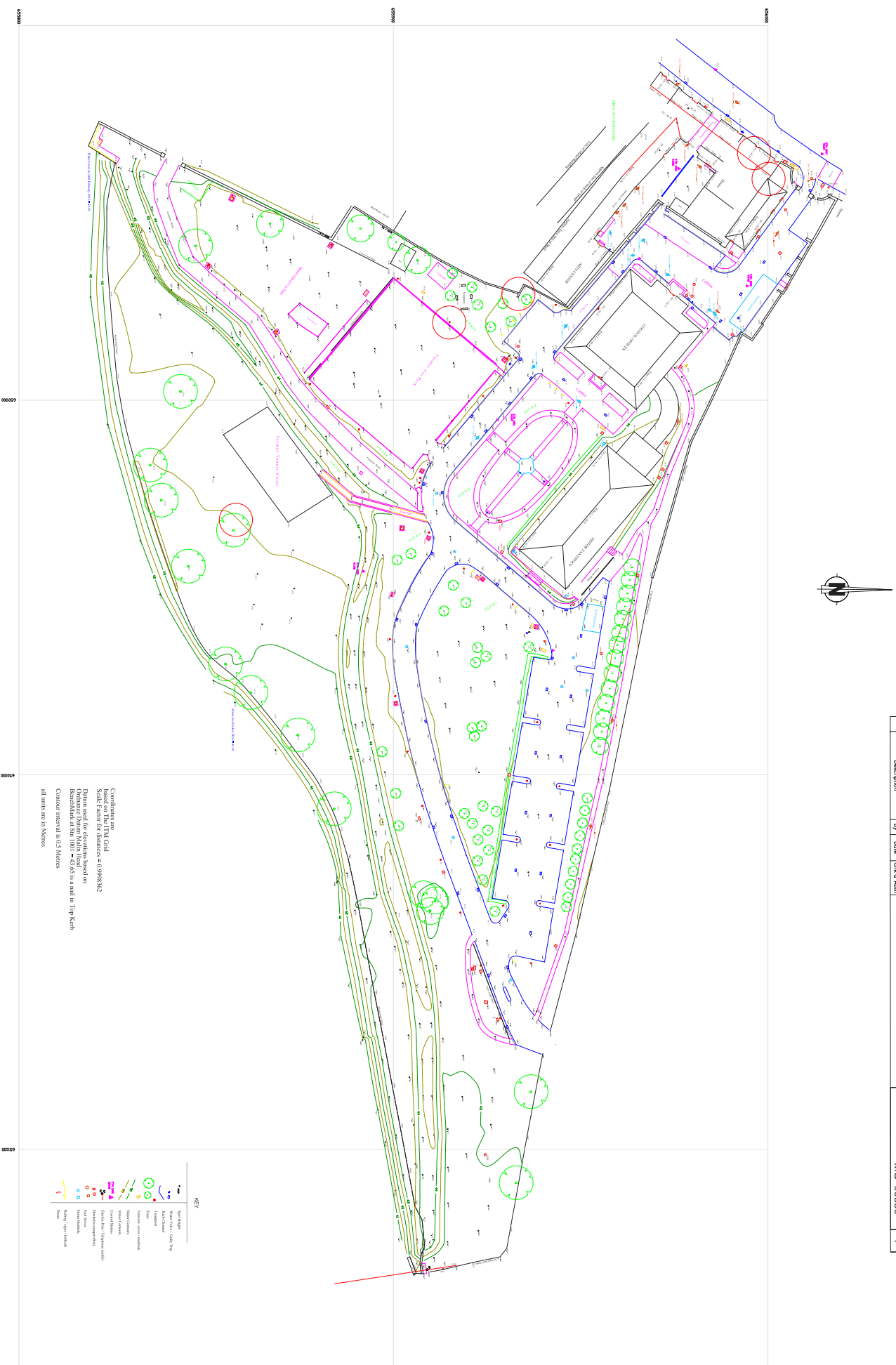
The Library development is located on Johns Street Lower in lands that have a history of flooding from the River Nore. The site lies within Zone A and the proposed development type is classed as less vulnerable development. Therefore the appropriate design flood condition for the site is a 100 year flood event.

Between 2001 and 2005 flood relief works were undertaken by the OPW on the River Nore and surrounding tributaries including the construction of flood walls along the quays and flood defence embankment between the proposed development and the River Nore. These works protect the site from future flood events and as a consequence the site no longer acts as a flood plain and therefore the proposed development will not have a negative impact on flooding events.

However to mitigate against residual risks of breaching/overtopping of the embankments the minimum finished floor levels of the proposed development are to be set above the maximum predicted flood level of 44.11mOD for the 0.1% AEP event and include a freeboard. The predicted flood level is taken from a HEC-RAC model that was undertaken on the river incorporating the relief works proposed by the OPW. Considering that the site is no longer in a flood plain since the construction of the flood defences and that the site is currently a brown field site a minimum finished floor level for the new build of 44.40mOD is considered appropriate. While the proposed finished floor levels will require up-filling a small portion of the existing ground, as the site lands are no longer a flood plain this will not impede the conveyance of flood waters or reduce flood water storage.

As requested by Kilkenny County Council the surface water runoff from this development will no longer connect into the combined public system where it is currently treated downstream in a wastewater treatment plant. The new surface water drainage design will provide a sustainable drainage solution for the site by discharging the runoff into a soakaway. Therefore while there will be a small increase in the overall footprint of the building this will not have an effect on the public drainage system.

Appendix A: Topographical Survey

[illegible]

Appendix B: River Nore Hydro-metric Data at John's Bridge (Extract)

Office of Public Works

GENERAL STATION DETAILS

Station Name: John's Bridge	Station No: 15002	Watercourse: Nore	NGR: S 506 561
Catchment Area (km ²): 1605	Catchment: Nore	Gauge Type: AR	Datum: Poolbeg

Rank	HYDROMETRIC YEAR ¹	WATER LEVEL (mAOD-Poolbeg)	WATER LEVEL (mAOD-Malin Head)	ESTIMATED FLOWS (m ³ /s)	DATE
1	1968	47.53	44.82	393	25/12/1968
2	1989	47.02	44.31	299	06/02/1990
3	1994	47.01	44.30	297	27/01/1995
4	1979	47.00	44.29	295	27/12/1979
5	1960	47.00	44.29	-	04/12/1960
Since Flood Relief Works 2001-2005					
1A	2009	45.96	43.25	352	19/11/2009
2A	2007	45.96	43.25	350	16/08/2008
3A	2010	45.54	42.83	213	29/10/2010
4A	2008	45.41	42.70	176	30/01/2009

Appendix C: Photographs



Photograph 1 & 2: Council Offices from River



Photograph 3 & 4: Embankment on the Site



Photograph 5: Weir in River Nore by Site



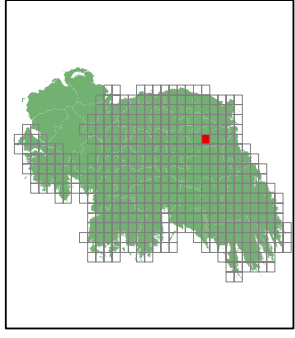
Photograph 6: Flood defences Upstream on the River Nore



Photograph 7: Johns Bridge

Appendix D: Draft PFRA Map from OPW

Location Plan :



Legend:

Flood Extents

- Fluvial - Indicative 1% AEP (100-yr) Event
- Fluvial - Extreme Event
- Coastal - Indicative 0.5% AEP (200-yr) Event
- Coastal - Extreme Event
- Pluvial - Indicative 1% AEP (100-yr) Event
- Pluvial - Extreme Event
- Groundwater Flood Extents

Lakes / Turboughs

PFRA Outcomes

- Probable Area for Further Assessment
- Possible Area for Further Assessment

Important User Note:

The flood extents shown on these maps are based on broad-scale simple analysis and may not be accurate for a specific site. These maps are intended to provide a general overview of flood risk and are not to be used for detailed design or construction purposes. Users should seek professional advice if they intend to rely on the maps in any way.

If you believe that the maps are inaccurate in some way please forward full details by contacting the OPW (refer to PFRA information leaflets or 'Have Your Say' on www.dfram.ie).



Project: PRELIMINARY FLOOD RISK ASSESSMENT (PFRA)

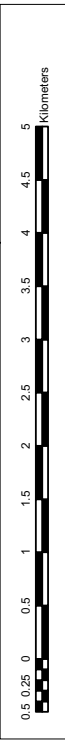
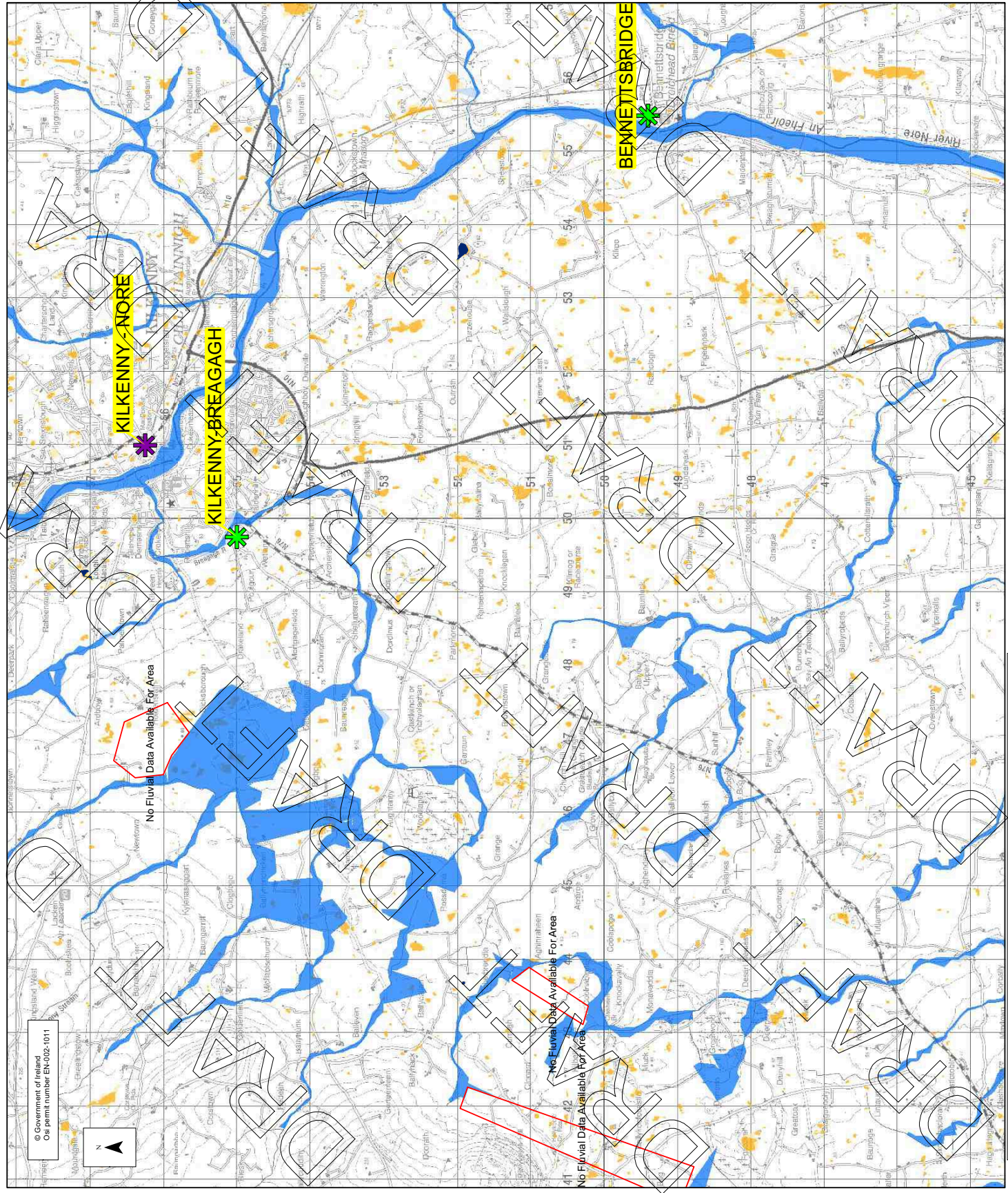
Map: PFRA Indicative extents and outcomes - Draft for Consultation

Figure By: PJW Date: July 2011

Checked By: MA Date: July 2011

Figure No.: 2019 / MAP / 137 / A Revision: 0

Drawing Scale: 1:50,000 Plot Scale: 1:1 @ A3



Appendix E: HEC-RAS Model Flood Levels

HEC-RAS Plan: Imported Pla River: 1 Reach: 1

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
1	39	Original	440.00	41.68	46.27		46.41	0.001366	2.08	397.21	195.90	0.32
1	39	Orig + 20%	530.00	41.68	46.70		46.82	0.001184	2.06	480.85	197.78	0.30
1	38.6666*	Original	440.00	41.41	46.05	45.16	46.24	0.001796	2.36	335.70	179.26	0.37
1	38.6666*	Orig + 20%	530.00	41.41	46.51	45.39	46.68	0.001484	2.30	416.45	181.62	0.34
1	38.3333*	Original	440.00	41.11	45.82		46.01	0.001195	2.00	277.58	115.32	0.30
1	38.3333*	Orig + 20%	530.00	41.11	46.26		46.47	0.001188	2.12	338.87	157.67	0.31
1	38	Original	440.00	41.02	45.69		45.88	0.001233	2.01	269.21	114.24	0.31
1	38	Orig + 20%	530.00	41.02	46.13		46.34	0.001228	2.14	325.75	144.65	0.31
1	37	Original	440.00	40.80	45.40		45.70	0.002048	2.42	185.01	48.00	0.38
1	37	Orig + 20%	530.00	40.80	45.79		46.15	0.002193	2.66	203.68	48.00	0.40
1	36.60	Original	440.00	40.42	45.23		45.50	0.001947	2.34	188.97	48.00	0.37
1	36.60	Orig + 20%	530.00	40.42	45.60		45.94	0.002105	2.58	206.98	48.00	0.39
1	36.4*	Original	440.00	39.86	45.16		45.42	0.001726	2.25	201.08	52.96	0.35
1	36.4*	Orig + 20%	530.00	39.86	45.54		45.85	0.001877	2.48	220.99	53.50	0.37
1	36.20	Original	440.00	39.30	45.11		45.34	0.001494	2.14	217.55	58.00	0.33
1	36.20	Orig + 20%	530.00	39.30	45.49		45.76	0.001635	2.36	239.04	58.00	0.35
1	35.4	Original	440.00	40.68	45.05		45.30	0.001612	2.24	201.92	57.05	0.36
1	35.4	Orig + 20%	530.00	40.68	45.41		45.71	0.001716	2.46	222.82	57.05	0.38
1	35.2	Original	440.00	41.00	45.06	43.07	45.28	0.001086	2.08	211.26	57.00	0.33
1	35.2	Orig + 20%	530.00	41.00	45.43	43.32	45.69	0.001156	2.27	232.28	57.00	0.35
1	35.15		Bridge									
1	35.1	Original	440.00	41.00	44.96		45.21	0.000366	2.18	202.17	51.00	0.35
1	35.1	Orig + 20%	530.00	41.00	45.30		45.60	0.000410	2.41	219.52	51.00	0.37
1	35	Original	440.00	41.00	45.00		45.15	0.000193	1.74	261.32	69.50	0.28
1	35	Orig + 20%	530.00	41.00	45.35		45.53	0.000211	1.92	285.61	69.50	0.29
1	34.5	Original	440.00	40.72	44.98		45.15	0.000209	1.85	274.52	92.56	0.29
1	34.5	Orig + 20%	530.00	40.72	45.33		45.53	0.000228	2.04	307.18	95.90	0.30
1	34	Original	440.00	40.72	44.92	42.72	45.14	0.000310	2.08	212.18	53.00	0.33
1	34	Orig + 20%	530.00	40.72	45.25	42.98	45.52	0.000351	2.32	229.42	53.00	0.35
1	33.3	Original	440.00	40.71	44.94	42.63	45.13	0.000262	1.95	227.67	59.00	0.30
1	33.3	Orig + 20%	530.00	40.71	45.27	42.89	45.51	0.000296	2.17	247.20	59.00	0.33
1	33.22	Original	440.00	40.70	44.95	42.55	45.11	0.000216	1.79	265.59	103.40	0.28
1	33.22	Orig + 20%	530.00	40.70	45.29	42.79	45.49	0.000236	1.97	298.07	103.40	0.30
1	33.21	Original	440.00	42.00	44.71	43.81	45.09	0.000489	2.77	170.03	105.20	0.54
1	33.21	Orig + 20%	530.00	42.00	45.03	44.05	45.46	0.000476	2.95	200.61	114.40	0.54
1	33.2	Original	440.00	39.49	44.90	41.34	45.01	0.000076	1.42	328.16	114.40	0.20
1	33.2	Orig + 20%	530.00	39.49	45.24	41.58	45.37	0.000088	1.60	360.32	114.40	0.22
1	33.1	Original	440.00	39.48	44.87	41.47	45.00	0.000097	1.60	293.91	96.44	0.22
1	33.1	Orig + 20%	530.00	39.48	45.20	41.73	45.37	0.000114	1.81	319.75	96.46	0.24
1	32	Original	440.00	39.43	44.86	41.55	45.00	0.000099	1.69	316.60	98.19	0.23
1	32	Orig + 20%	530.00	39.43	45.19	41.83	45.36	0.000115	1.90	348.97	98.19	0.25
1	31.9		Bridge									
1	31.7	Original	440.00	39.43	44.82		44.96	0.000102	1.71	312.87	98.19	0.23
1	31.7	Orig + 20%	530.00	39.43	45.14		45.32	0.000119	1.92	344.29	98.19	0.26
1	31	Original	475.00	39.39	44.70	41.87	44.95	0.000195	2.22	236.52	73.00	0.31
1	31	Orig + 20%	570.00	39.39	44.98	42.20	45.30	0.000234	2.52	251.42	73.00	0.34
1	30	Original	475.00	39.38	44.72	41.68	44.93	0.000153	2.03	242.56	69.62	0.28
1	30	Orig + 20%	570.00	39.38	45.01	41.98	45.28	0.000184	2.31	258.60	75.00	0.31
1	29.60	Original	475.00	39.30	44.48		44.89	0.000704	2.83	169.37	41.47	0.43
1	29.60	Orig + 20%	570.00	39.30	44.69		45.23	0.000901	3.24	178.08	41.89	0.48
1	29.30	Original	475.00	39.24	44.48		44.82	0.000685	2.60	184.27	45.90	0.40
1	29.30	Orig + 20%	570.00	39.24	44.69		45.14	0.000853	2.97	193.99	45.90	0.44
1	29	Original	475.00	39.19	44.48		44.79	0.000553	2.47	193.85	47.90	0.38
1	29	Orig + 20%	570.00	39.19	44.69		45.09	0.000687	2.82	204.05	47.90	0.42
1	28.9*	Original	475.00	39.18	44.45		44.78	0.000472	2.52	189.34	42.87	0.37
1	28.9*	Orig + 20%	570.00	39.18	44.65		45.08	0.000742	2.89	198.16	45.81	0.43

HEC-RAS Plan: Imported Pla River: 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
1	28.8*	Original	475.00	39.16	44.40		44.76	0.000525	2.66	178.38	37.89	0.39
1	28.8*	Orig + 20%	570.00	39.16	44.57		45.06	0.000718	3.08	185.22	40.71	0.45
1	28.70	Original	475.00	39.15	44.35		44.75	0.000441	2.81	168.80	33.01	0.40
1	28.70	Orig + 20%	570.00	39.15	44.49		45.04	0.000694	3.28	173.62	34.62	0.47
1	28.56	Original	475.00	39.13	44.32		44.74	0.000383	2.88	165.00	37.27	0.44
1	28.56	Orig + 20%	570.00	39.13	44.45		45.02	0.000506	3.35	170.06	38.23	0.51
1	28	Original	475.00	39.03	44.34		44.67	0.000446	2.55	186.64	39.53	0.37
1	28	Orig + 20%	570.00	39.03	44.49		44.93	0.000621	2.96	192.37	40.27	0.43
1	27.75*	Original	475.00	39.00	44.33		44.66	0.000437	2.54	187.12	41.33	0.38
1	27.75*	Orig + 20%	570.00	39.00	44.47		44.91	0.000574	2.96	192.84	41.39	0.44
1	27.5	Original	475.00	38.98	44.30		44.64	0.000608	2.55	185.95	41.68	0.39
1	27.5	Orig + 20%	570.00	38.98	44.43		44.89	0.000798	2.98	191.35	41.68	0.44
1	27.25	Original	475.00	38.95	44.27		44.61	0.000819	2.60	182.70	41.96	0.40
1	27.25	Orig + 20%	570.00	38.95	44.38		44.85	0.001085	3.04	187.48	41.96	0.46
1	27	Original	475.00	38.93	44.22		44.58	0.000851	2.68	177.24	42.25	0.42
1	27	Orig + 20%	570.00	38.93	44.30		44.81	0.001157	3.15	180.95	42.25	0.49
1	26.5	Original	475.00	38.89	44.25		44.54	0.000340	2.38	210.71	43.60	0.33
1	26.5	Orig + 20%	570.00	38.89	44.36		44.75	0.000463	2.79	215.17	43.61	0.38
1	26.41	Original	475.00	38.89	44.26	41.46	44.53	0.000168	2.32	211.78	43.61	0.32
1	26.41	Orig + 20%	570.00	38.89	44.36	41.79	44.73	0.000226	2.72	216.34	43.61	0.37
1	26.40	Bridge										
1	26.38	Original	475.00	38.88	44.22		44.51	0.000163	2.38	202.01	39.06	0.33
1	26.38	Orig + 20%	570.00	38.88	44.30		44.70	0.000223	2.81	205.28	39.06	0.39
1	26.31	Original	475.00	38.89	44.23	41.46	44.50	0.000170	2.33	210.65	43.61	0.32
1	26.31	Orig + 20%	570.00	38.89	44.32	41.79	44.70	0.000232	2.74	214.55	43.61	0.38
1	26.30	Bridge										
1	26.28	Original	475.00	38.88	44.20		44.48	0.000166	2.39	201.01	39.06	0.33
1	26.28	Orig + 20%	570.00	38.88	44.26		44.67	0.000228	2.83	203.69	39.06	0.39
1	26.21	Original	475.00	38.89	44.21	41.46	44.48	0.000173	2.34	209.52	43.61	0.33
1	26.21	Orig + 20%	570.00	38.89	44.28	41.79	44.66	0.000238	2.77	212.76	43.61	0.38
1	26.20	Bridge										
1	26.18	Original	475.00	38.88	44.17		44.46	0.000168	2.40	200.01	39.06	0.33
1	26.18	Orig + 20%	570.00	38.88	44.22		44.64	0.000234	2.85	202.11	39.06	0.40
1	26	Original	475.00	38.88	44.17	41.43	44.46	0.000187	2.39	199.13	43.55	0.33
1	26	Orig + 20%	570.00	38.88	44.22	41.76	44.64	0.000260	2.84	201.19	43.55	0.39
1	25	Original	475.00	38.86	44.13	41.48	44.45	0.000246	2.51	189.04	38.46	0.35
1	25	Orig + 20%	570.00	38.86	44.16	41.82	44.61	0.000348	3.00	190.07	38.49	0.42
1	24.8	Original	475.00	38.84	44.12	41.45	44.44	0.000265	2.50	189.84	42.38	0.35
1	24.8	Orig + 20%	570.00	38.84	44.15	41.80	44.61	0.000375	2.99	190.80	42.44	0.41
1	24.6	Original	475.00	38.83	44.12	41.44	44.44	0.000203	2.50	190.26	41.33	0.35
1	24.6	Orig + 20%	570.00	38.83	44.14	41.79	44.60	0.000288	2.98	191.15	41.33	0.41
1	24.4	Original	475.00	38.82	44.11	41.44	44.43	0.000284	2.52	189.77	38.65	0.35
1	24.4	Orig + 20%	570.00	38.82	44.13	41.78	44.59	0.000404	3.01	190.51	38.65	0.42
1	24.2	Original	475.00	38.80	44.11	41.41	44.42	0.000261	2.49	192.13	39.75	0.34
1	24.2	Orig + 20%	570.00	38.80	44.13	41.75	44.58	0.000371	2.97	192.87	39.75	0.41
1	24	Original	475.00	38.82	44.11		44.42	0.000170	2.50	196.03	45.40	0.35
1	24	Orig + 20%	570.00	38.82	44.13		44.57	0.000241	2.99	196.90	45.41	0.41
1	23.6666*	Original	475.00	38.79	44.14		44.40	0.000144	2.30	215.88	50.59	0.32
1	23.6666*	Orig + 20%	570.00	38.79	44.17		44.55	0.000203	2.74	217.59	50.60	0.38
1	23.3333*	Original	475.00	38.76	44.15		44.39	0.000133	2.18	228.26	54.91	0.30
1	23.3333*	Orig + 20%	570.00	38.76	44.19		44.53	0.000186	2.60	230.51	54.91	0.36
1	23.0	Original	475.00	38.73	44.16		44.38	0.000126	2.08	239.81	53.76	0.29
1	23.0	Orig + 20%	570.00	38.73	44.21		44.51	0.000175	2.48	242.32	53.76	0.35
1	22.9166*	Original	475.00	38.72	44.16		44.38	0.000124	2.09	255.28	70.65	0.30
1	22.9166*	Orig + 20%	570.00	38.72	44.21		44.51	0.000172	2.48	258.57	70.65	0.35

HEC-RAS Plan: Imported Pla River: 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
1	22.8333*	Original	475.00	38.71	44.17		44.38	0.000120	2.07	270.28	87.53	0.30
1	22.8333*	Orig + 20%	570.00	38.71	44.21		44.51	0.000167	2.45	274.55	87.53	0.35
1	22.75*	Original	475.00	38.70	44.17		44.37	0.000118	2.05	284.66	104.42	0.29
1	22.75*	Orig + 20%	570.00	38.70	44.22		44.50	0.000163	2.42	289.98	104.42	0.35
1	22.6666*	Original	475.00	38.69	44.17		44.37	0.000116	2.02	298.31	121.31	0.29
1	22.6666*	Orig + 20%	570.00	38.69	44.23		44.50	0.000160	2.39	304.76	121.31	0.34
1	22.5833*	Original	475.00	38.68	44.18		44.37	0.000114	2.00	312.34	132.41	0.29
1	22.5833*	Orig + 20%	570.00	38.68	44.23		44.50	0.000156	2.36	319.66	132.41	0.34
1	22.50	Original	475.00	38.67	44.16	41.48	44.36	0.000120	2.04	286.32	149.31	0.30
1	22.50	Orig + 20%	570.00	38.67	44.21	41.81	44.49	0.000166	2.41	291.38	149.31	0.35
1	22.00	Original	475.00	38.62	44.17	41.05	44.36	0.000110	1.98	307.64	110.05	0.27
1	22.00	Orig + 20%	570.00	38.62	44.22	41.37	44.48	0.000152	2.35	312.90	110.06	0.32

Kilkenny Library

**Foul Water, Surface Water & Watermain
Planning Report**

March 2013

Document Control

Document Number 112255-Planning Submission

Revision	Date	Prepared	Checked	Approved
P0 (1 st issue)	June 2012	Sarah Curran	Dave Skene	Dave Skene
P1 (2 nd issue)	March 2013	Sarah Curran	Dave Skene	Dave Skene
P2 (3 rd issue)	March 2013	Sarah Curran	Dave Skene	Dave Skene

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1.0 Introduction

This report was prepared for Kilkenny Local Authorities (KLA) in relation to Part 8 (development by a planning authority) for the proposed development of the Kilkenny City and County Library at No. 75-76 John Street Lower, Kilkenny City and deals specifically with the proposals for the provision of surface water, foul water and watermain design to the development.

Pre-planning discussions took place with Kilkenny Local Authorities in particular with Mr. Brendan Sheehan of the Environmental Department, Mr. Billy Mernagh of the Water Department and Mr. Kieran Fitzgerald of the Kilkenny Area Office. This report should be read in conjunction with Punch Consulting Drawings 112225-001 to 112255-007.

The existing site is a brownfield site approximately 0.3ha which contains the Kilkenny Arts Office. To the rear of the site are the Kilkenny Council Offices and public open space. The site is bounded to the west by John Street Lower and to the east by the River Nore. The proposed development consists of the redevelopment of the existing Arts Office.

2.0 Existing Services

2.1 Existing Drainage

A topographical and GPR survey were undertaken on the site and they indicate that the foul and surface water runoff from the existing arts office building currently drains into the 225mm diameter public combined sewer on John Street Lower.

There is an existing 150mm diameter surface water network on the site taking the surface water runoff from the council offices, car park and roads within the site and discharges into the River Nore. A 1200mm diameter combined sewer also crosses the site along the northern boundary and flows to a wastewater treatment plant.

2.2 Existing Watermain

There is an existing water connection serving the arts office building from the 100mm cast iron public watermain running along John Street Lower. There is also a fire main within the neighbouring site serving the arts office and council offices.

3.0 Proposed Surface Water Drainage

Surface water runoff from the building will be collected in a new separate surface water system. We propose that the roof overlooking John Street Lower continues to drain as is and the remaining hardstanding areas of the new library will discharge into a soakaway to be located in an existing car park to the rear of the new library building provided there are acceptable levels of infiltration which will be confirmed on site. An overflow from this

soakaway will discharge into the existing 150mm surface water sewer which discharges into the River Nore.

The above measures will remove the site surface water runoff from the combined public system thus reducing the pressure on the public wastewater treatment plant. It also ensures that the surface water system proposed is a sustainable solution that will have minimum impact on existing system and is a fully sustainable system designed in accordance with the BS EN standards and CIRIA Guidelines.

Details of the surface water proposals are indicated on PUNCH Drawings 112225-002 and PUNCH standard details drawings. The surface water soakaway calculations, designed using Windes, can be found in Appendix A.

4.0 Proposed Foul Drainage

The foul water run-off will be collected in a separate foul water system within the site before discharging through the existing foul connection into the combined public sewer on John Street Lower.

The design guidelines of the Environmental Protection Agency (EPA) Wastewater Treatment Manual, "Treatment Systems for Small Communities, Business, Leisure Centres and Hotels" is used to calculate the proposed foul run-off.

The total flow generated from the development is calculated as follows:

Building Use	Unit	Quantity	Flow (lit/person/day)	BOD (g/hd/d)	Daily Flow	Daily BOD (g)
Library						
Staff	No.	10	60	30	600	300
Visitors	No.	240	5	10	1200	2400
Total					1800	2700

Equivalent PE	Daily Flow @ 180 l/hd/d	10 PE
---------------	-------------------------	-------

Daily Organic @ 60 g/hd/d 45 PE

Foul Sewer System Designed for 6 DWF

Loading @180 l/hd/d 10 PE = 1,800 l/day
= 0.02 l/s (1 DWF)

Foul sewer designed for $Q = 0.125 \text{ l/s}$ (6 DWF)

Details of the foul proposals are indicated on PUNCH Drawings 112255-002 and PUNCH standard details drawings.

5.0 Proposed Watermain

The existing water connection shall be maintained to the new building. This shall be metered if necessary.

It is generally accepted that the design loading for foul drainage can be used to evaluate an approximation of the water demand on the site. On this basis a water demand of some 1,800 litres/day is estimated. Watermain demand is generally designed with a peak flow of 2.5 times the average therefore the peak demand is estimated at 0.05 l/s.

The existing fire main within the site shall be maintained and additional hydrants installed if required.

Details of the watermain proposals are indicated on PUNCH Drawings 112255-003 and PUNCH standard details drawings.

6.0 Flood Risk

Refer to Site Flood Risk Assessment Report Stage 1 & 2 submitted with planning package. This report was carried out in compliance with the requirements of the "Planning System & Flood Management Guidelines."

The report recommends that the finish floor level of 44.40mOD be applied to the new building, this includes a freeboard. Our client, Kilkenny Borough Council in conjunction with Kilkenny County Council, considers raising the building to this level unnecessary as extensive flood relief work has been undertaken along the River Nore and its tributaries. These works, undertaken by the OPW, took place between 2001 and 2005 and included the construction of flood walls along the quays and flood defence embankment between the proposed development and the River Nore. As these measures protect the site from future flood events a finished floor level of 44.00mOD is proposed for the new building.

Appendix A: Soakaway Storage Calculations

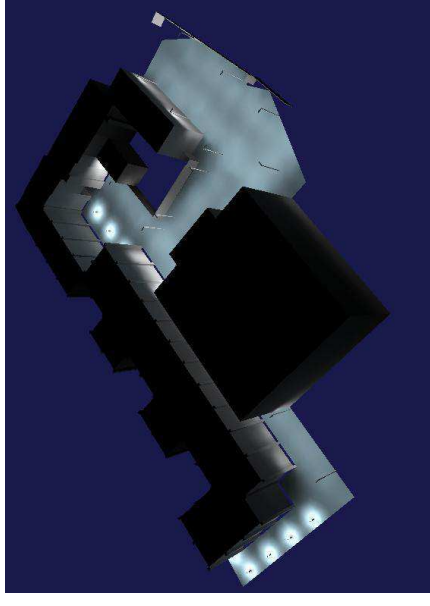
Punch Consulting Engineers					Page 1		
97 Henry Street		112255					
Limerick		Kilkenny Library					
Ireland		Soakaway					
Date March 13		Designed By SC					
File Soakaway_Planning...		Checked By					
Micro Drainage					Source Control W.12.4		
<u>Summary of Results for 10 year Return Period (+10%)</u> Half Drain Time : 1304 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	41.553	0.373	0.1	0.0	0.1	15.8	O K
30 min Summer	41.660	0.480	0.2	0.0	0.2	21.1	O K
60 min Summer	41.778	0.598	0.2	0.0	0.2	27.1	O K
120 min Summer	41.910	0.730	0.3	0.0	0.3	33.8	O K
180 min Summer	41.993	0.813	0.3	0.0	0.3	37.9	O K
240 min Summer	42.052	0.872	0.3	0.0	0.3	40.9	O K
360 min Summer	42.135	0.955	0.4	0.0	0.4	45.1	O K
480 min Summer	42.190	1.010	0.4	0.0	0.4	47.9	O K
600 min Summer	42.227	1.047	0.4	0.0	0.4	49.8	O K
720 min Summer	42.253	1.073	0.4	0.0	0.4	51.1	O K
960 min Summer	42.289	1.109	0.5	0.0	0.5	52.9	O K
1440 min Summer	42.339	1.159	0.5	0.0	0.5	55.4	O K
2160 min Summer	42.379	1.199	0.5	0.0	0.5	57.4	O K
2880 min Summer	42.396	1.216	0.5	0.0	0.5	58.2	O K
4320 min Summer	42.393	1.213	0.5	0.0	0.5	58.1	O K
5760 min Summer	42.369	1.189	0.5	0.0	0.5	56.9	O K
7200 min Summer	42.338	1.158	0.5	0.0	0.5	55.4	O K
8640 min Summer	42.305	1.125	0.5	0.0	0.5	53.7	O K
Storm Event	Rain (mm/hr)	Overflow Volume (m³)	Time-Peak (mins)				
15 min Summer	49.619	0.0	16				
30 min Summer	33.440	0.0	31				
60 min Summer	21.611	0.0	62				
120 min Summer	13.667	0.0	122				
180 min Summer	10.390	0.0	182				
240 min Summer	8.540	0.0	242				
360 min Summer	6.465	0.0	360				
480 min Summer	5.302	0.0	480				
600 min Summer	4.544	0.0	600				
720 min Summer	4.005	0.0	720				
960 min Summer	3.281	0.0	834				
1440 min Summer	2.476	0.0	1080				
2160 min Summer	1.868	0.0	1472				
2880 min Summer	1.529	0.0	1876				
4320 min Summer	1.152	0.0	2720				
5760 min Summer	0.943	0.0	3512				
7200 min Summer	0.807	0.0	4320				
8640 min Summer	0.710	0.0	5096				
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Punch Consulting Engineers					Page 2		
97 Henry Street		112255					
Limerick		Kilkenny Library					
Ireland		Soakaway					
Date March 13		Designed By SC					
File Soakaway_Planning...		Checked By					
Micro Drainage		Source Control W.12.4					
<u>Summary of Results for 10 year Return Period (+10%)</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Overflow (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
10080 min Summer	42.272	1.092	0.4	0.0	0.4	52.0	O K
15 min Winter	41.590	0.410	0.2	0.0	0.2	17.6	O K
30 min Winter	41.710	0.530	0.2	0.0	0.2	23.7	O K
60 min Winter	41.843	0.663	0.3	0.0	0.3	30.4	O K
120 min Winter	41.991	0.811	0.3	0.0	0.3	37.8	O K
180 min Winter	42.084	0.904	0.4	0.0	0.4	42.5	O K
240 min Winter	42.151	0.971	0.4	0.0	0.4	45.9	O K
360 min Winter	42.245	1.065	0.4	0.0	0.4	50.6	O K
480 min Winter	42.307	1.127	0.5	0.0	0.5	53.8	O K
600 min Winter	42.351	1.171	0.5	0.0	0.5	56.0	O K
720 min Winter	42.383	1.203	0.5	0.0	0.5	57.6	O K
960 min Winter	42.423	1.243	0.5	0.0	0.5	59.6	O K
1440 min Winter	42.470	1.290	0.5	0.0	0.5	62.0	O K
2160 min Winter	42.501	1.321	0.5	0.0	0.5	63.6	O K
2880 min Winter	42.502	1.322	0.5	0.0	0.5	63.6	O K
4320 min Winter	42.468	1.288	0.5	0.0	0.5	61.9	O K
5760 min Winter	42.417	1.237	0.5	0.0	0.5	59.3	O K
7200 min Winter	42.362	1.182	0.5	0.0	0.5	56.6	O K
8640 min Winter	42.309	1.129	0.5	0.0	0.5	53.9	O K
Storm Event	Rain (mm/hr)	Overflow Volume (m³)	Time-Peak (mins)				
10080 min Summer	0.638	0.0	5848				
15 min Winter	49.619	0.0	16				
30 min Winter	33.440	0.0	31				
60 min Winter	21.611	0.0	62				
120 min Winter	13.667	0.0	120				
180 min Winter	10.390	0.0	180				
240 min Winter	8.540	0.0	238				
360 min Winter	6.465	0.0	354				
480 min Winter	5.302	0.0	468				
600 min Winter	4.544	0.0	582				
720 min Winter	4.005	0.0	692				
960 min Winter	3.281	0.0	902				
1440 min Winter	2.476	0.0	1112				
2160 min Winter	1.868	0.0	1576				
2880 min Winter	1.529	0.0	2020				
4320 min Winter	1.152	0.0	2896				
5760 min Winter	0.943	0.0	3744				
7200 min Winter	0.807	0.0	4544				
8640 min Winter	0.710	0.0	5360				
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Punch Consulting Engineers				Page 3			
97 Henry Street Limerick Ireland		112255 Kilkenny Library Soakaway					
Date March 13 File Soakaway_Planning...		Designed By SC Checked By					
Micro Drainage		Source Control W.12.4					
<u>Summary of Results for 10 year Return Period (+10%)</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Overflow (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
10080 min Winter	42.260	1.080	0.4	0.0	0.4	51.4	O K
	Storm Event		Rain (mm/hr)	Overflow Volume (m³)	Time-Peak (mins)		
	10080 min Winter		0.638	0.0	6152		
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SECTION C
IN2
LIGHTING REPORT

D-1202 KILKENNY LIBRARY



PROPOSED EXTERNAL LIGHTING INSTALLATIONS

Planning Stage
Rev00

14th June 2012

CONTENTS

- 1.0 EXECUTIVE SUMMARY
- 2.0 DESIGN CRITERIA
- 3.0 PROPOSED INSTALLATIONS
- 4.0 RESULTS

1.0 EXECUTIVE SUMMARY

This report outlines the design intent and considerations to be taken with regards to the external lighting scheme within the proposed development of Kilkenny City and County Library, Lower John Street, Kilkenny.

The report considers the lighting design as developed by IN2 Engineering in conjunction with Bucholz McEvoy Architects which will be developed with the following principal considerations:

- Provide adequate illumination to contribute towards the safe use of the site by both vehicles and pedestrians.
- Provide a visually interesting environment.
- Enhance security.
- Contain the lighting within the site to levels which will not impinge adversely on surroundings.
- Minimise light pollution and visual glare for both pedestrians and neighbouring areas.

The complete external lighting installation will be designed in accordance with the regulations for electrical services as ETCI National Rules for Electrical Installations ET 101 2008 as well as Design Guidelines from CIBSE and CIE regarding Illumination levels and “Obtrusive Light” to neighbouring buildings respectively. These design criteria are outlined in Section 2.0.

The predicted performance of the external lighting installations has been assessed in detail using Lighting Simulation software. The Lighting Simulation software used was Relux; which includes ray-tracing rendering capabilities.

A proposed design comprising of column lighting to both Car Park and Plaza areas and bollard lighting to both Inner Court Yard and along the East Facade of the building are described in Section 3.0. In each case, an indicative example of the type of proposed luminaire (light fitting) and associated lamp specification have been included, with accompanying images, photometric and dimensional data.

Section 4.0 provides analysis of the predicted illumination results for both the overall site (ground) and the neighbouring property No.74 Lower John Street’s wall (window) and rear garden in order to assess design illumination and associated potential light overspill respectively. The results indicate how the design proposal, whilst providing a design illumination level of 20 Lux to the Car Park, Plaza and Inner Court Yard, would have negligible impact on its surrounding environment and that the predicted light overspill of 1 - 1.5 Lux the neighbouring property which is considerably lower than the recommended maximum level of 10 Lux, in compliance with design criterion for obtrusive light within an urban environment.

2.0 DESIGN CRITERIA

The design criteria applied to the proposed external lighting installations shall be in accordance with CIBSE¹ Lighting Guide - The External Environment for car park and amenity external spaces and CIE² Guide to the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations. These design guidelines respectively state:

- Design Illumination level of 20 Lux, measured horizontally at Ground level.
- Maximum "Obtrusive Light" Illumination level of 10 Lux to neighbouring buildings, measured vertically at relevant surfaces containing a window.

The design criterion for Obtrusive Light outlined above varies by category of Surrounding Light Environment; namely, Natural, Rural, Suburban or Urban. It may be noted that we have selected the Suburban category ("Medium district brightness"/"Residential Suburbs") rather than Urban, which would allow a more onerous illumination level as a worst case criterion to neighbouring properties.

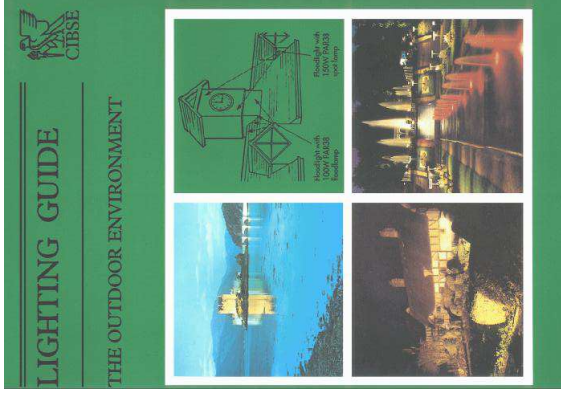
Design Criteria:

Zon e	Surrounding	Lighting Environment	Examples
E1	Natural	Intrinsically dark	National parks or protected sites
E2	Rural	Low district brightness	Industrial or residential rural areas
E3	Suburban	Medium district brightness	Industrial or residential suburbs
E4	Urban	High district brightness	Town centres and commercial areas

Light Technical Parameter	Application Conditions	Environmental Zones			
		E1	E2	E3	E4
Illuminance in vertical plane (E_v)	Pre-curfew:	2 lux	5 lux	10 lux	25 lux
	Post-curfew:	0* lux	1 lux	2 lux	5 lux

¹ Chartered Institute of Building Services Engineers

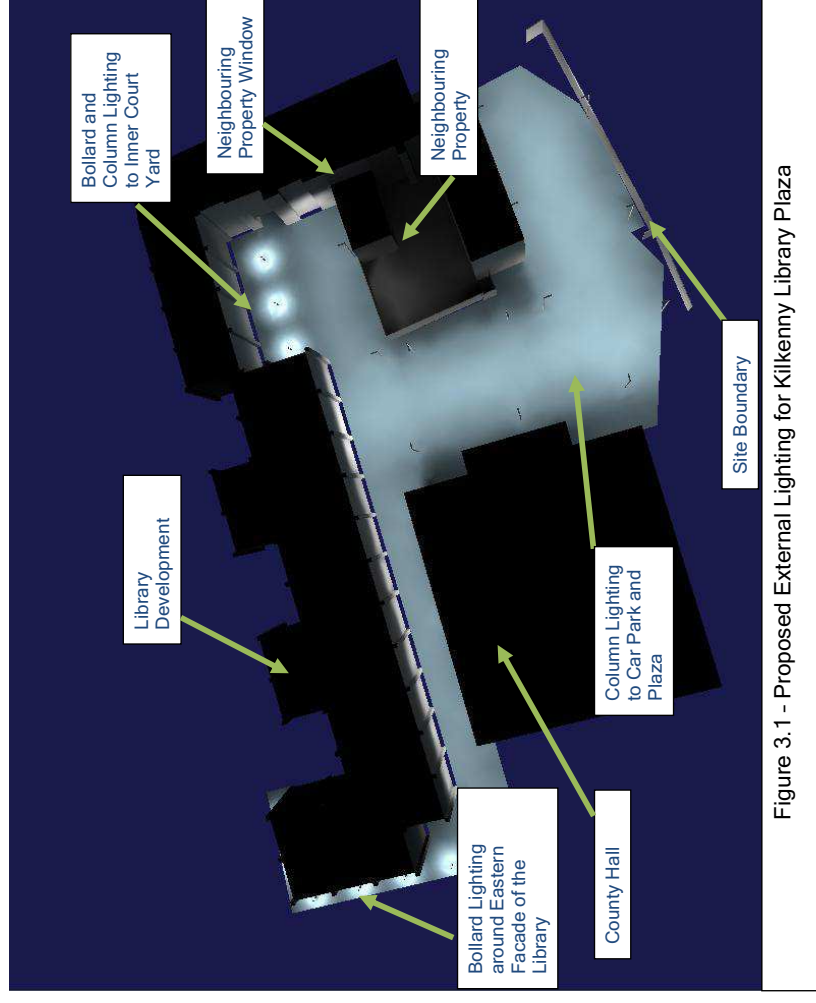
² *Commission Internationale de l'Eclairage* or International Commission on Illumination



3.0 PROPOSED INSTALLATIONS

3.1 The proposed external lighting installations comprise of two aspects:

- Column Lighting to Car Park, Plaza and Inner Court Yard
- Bollard Lighting at Inner Court Yard and around the Eastern Facade of the Library.



3.0 PROPOSED INSTALLATIONS

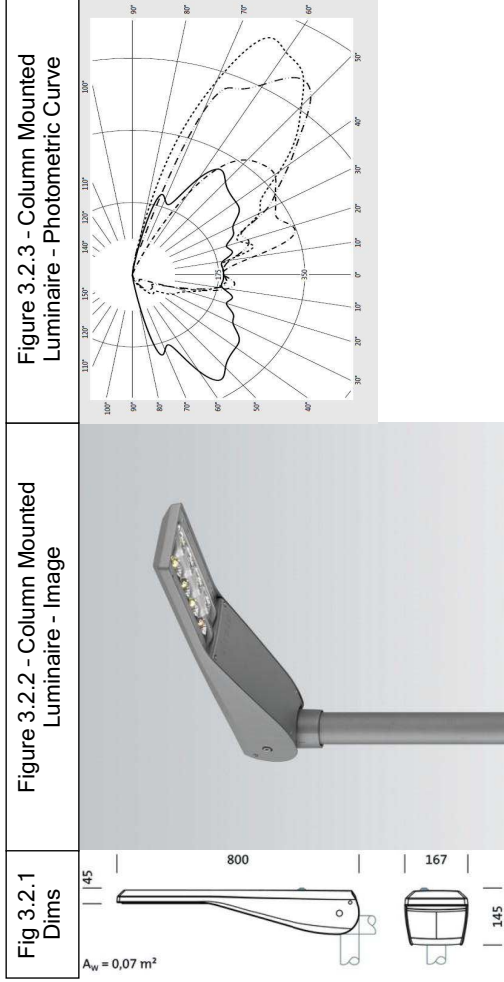
3.2 Column Lighting to Car Park

It is proposed to provide 6m high column-type light fittings to Car Park area in order to achieve average illumination level of 20 Lux at ground.

The proposed column light fittings are indicatively displayed in the accompanying image.

The indicative luminaires selected would be provided with 52W LED lamp, with a lamp output of 3,970 lumens.

The photometric curve displayed indicates how all light output is directed downwards; i.e. no risk of sky glow.



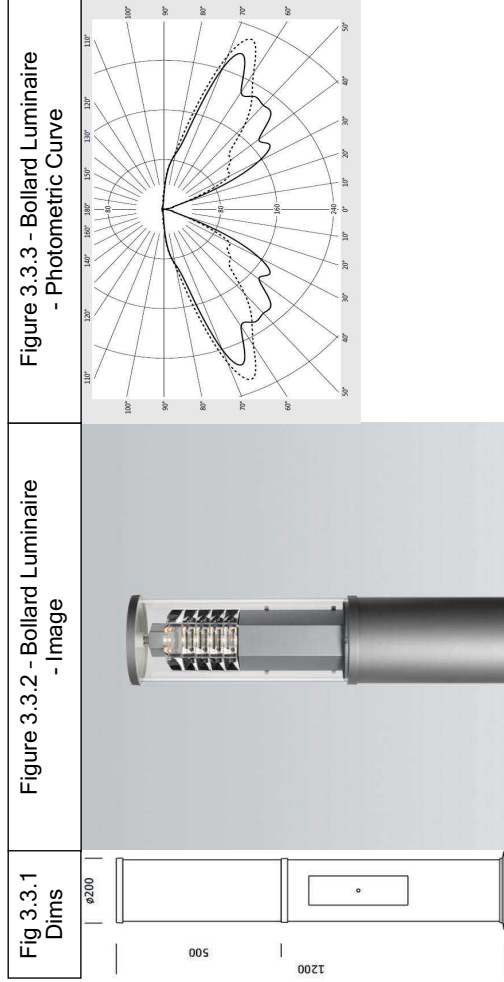
3.3

Bollard Lighting to Inner Court Yard and East Facade

It is proposed to provide bollard type light fittings to locally illuminate the Inner Court Yard and area around the East Facade of the Building.

The proposed bollard light fittings are indicatively displayed in the accompanying image.

The indicative luminaires selected would be provided with 34W LED lamp, with a lamp output of 1,800 lumens.



4.0 RESULTS

4.1 Site - Ground Illumination

Figure 4.1 indicates the predicted illumination levels on Ground for the proposed installations. Illumination is indicated using a False-colour scale

The results indicate:

- Car Park and Plaza illumination achieves 20 Lux average at ground level.
- There is minimal light overspill outside the boundary of the site, with negligible impact from new Car Park or Plaza lighting to neighbouring property.
- The potential for obtrusive light overspill to properties from new column lighting (adjacent to the Inner Court Yard) is assessed in further detail in Section 4.2 below.

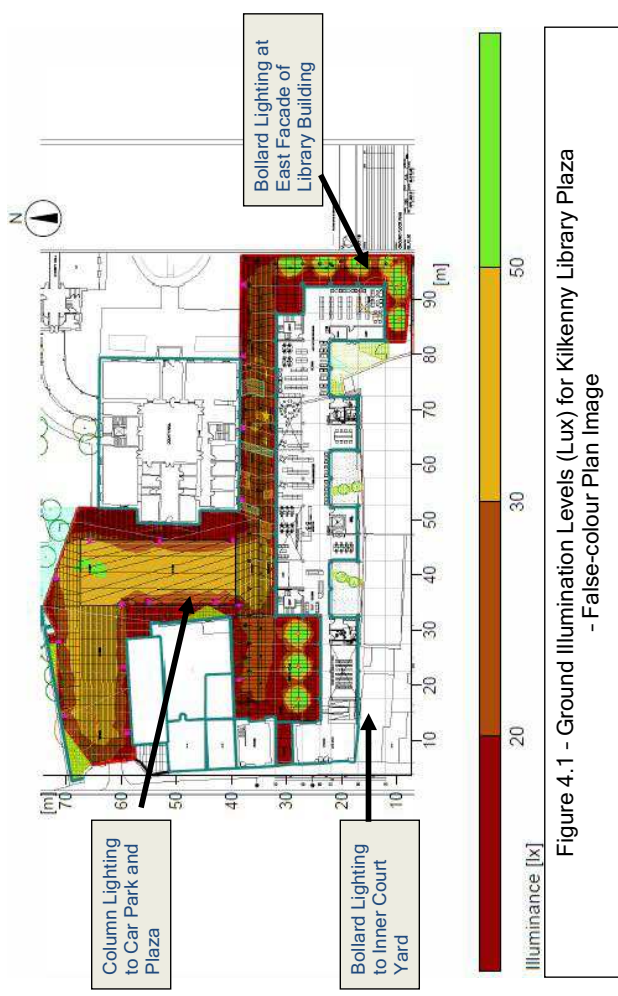


Figure 4.2.1 – Illumination Levels (Lux) to Neighbouring Property's Window to Inner Court Yard

SECTION D
VALERIE J. KEELEY
ARCHAEOLOGICAL IMPACT ASSESSMENTS

**Kilkenny City & County Library Development Project:
ARCHAEOLOGICAL IMPACT ASSESSMENT (Phase 1)**

REPORT 1

Site Name: 75–76 John Street Lower, Kilkenny City
NGR: E 250875, N 155930
Site Type: Urban–post-medieval / Early modern
RMP ref.s: KK019:026001(City wall environs), KK019:120069(environs)
Ministerial Consent: C523
Excavation number: E4417
Detection Device: R300

EXECUTIVE SUMMARY

Archaeology Report 1 (Phase 1) comprises an archaeological impact assessment report on archaeological testing and archaeological monitoring (of geological trial pits), undertaken in May and June 2012. Work was conducted by Paul Stevens, Valerie J Keeley Ltd. on behalf of Kilkenny Council and Borough Councils, for a proposed City and County Library development. The area of investigations are located in the yard area to the rear of 75-6 John Street, and in the Kilkenny County Council Offices car-parking area.

Phase 1 represented mechanically-dug archaeological test-trenches/test pits and geo-technical slit trenches located in available lands not currently occupied by standing buildings.

Assessment forms part of the pre-planning (pre-Part VIII) site investigations phase of the development programme. A copy of the report was issued to the Department of Arts, Heritage and the Gaeltacht, and the National Museum of Ireland for consultation on 6th July 2012.

**Kilkenny City & County Library Development:
Archaeology (Phase 1)**

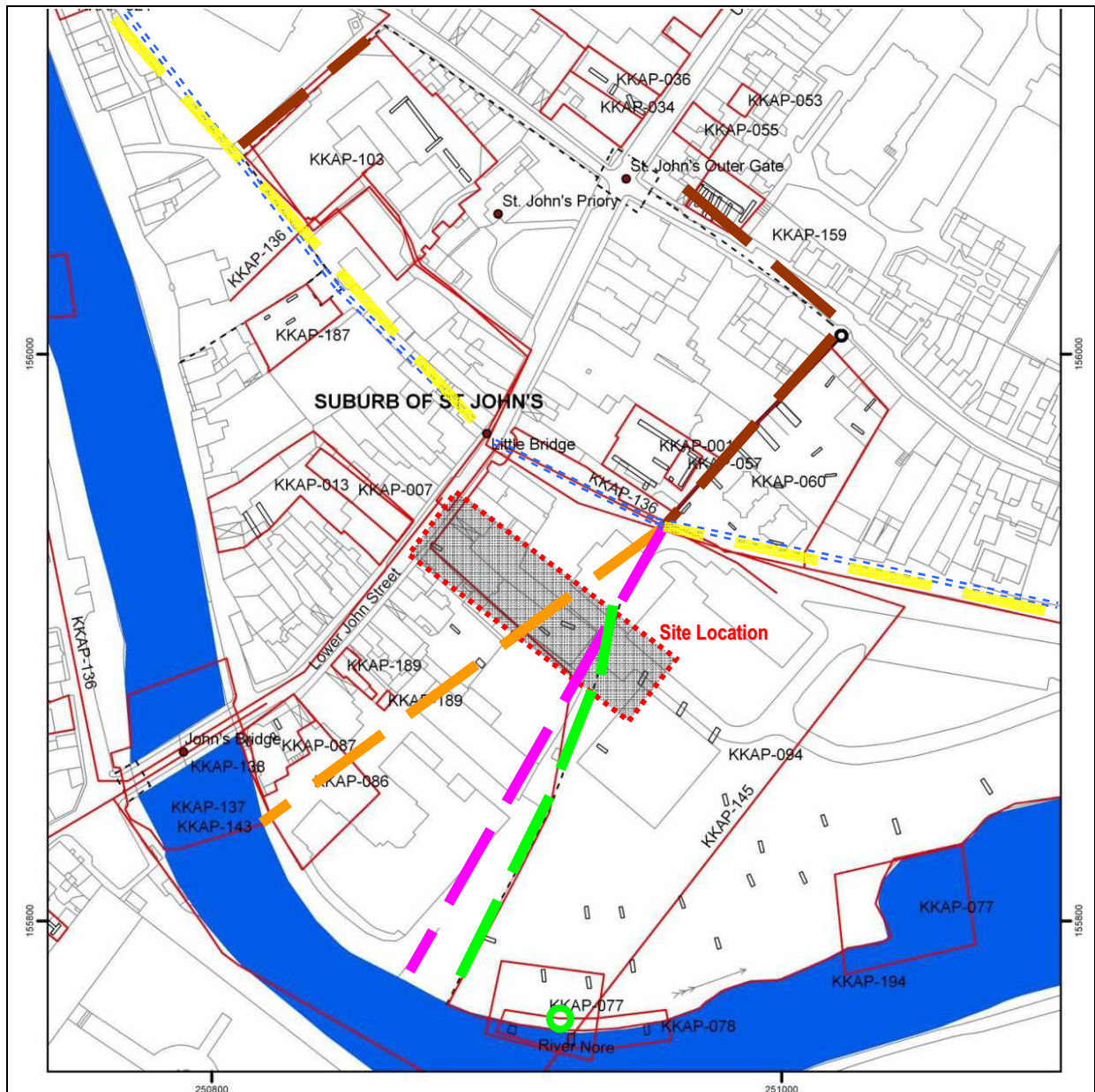
ARCHAEOLOGICAL IMPACT ASSESSMENT

**75 & 76, John Street Lower,
Kilkenny**

Ministerial Consent: **C523**
Excavation number: **E4417**
Detection Device: **R300**

Author: Paul Stevens
Job No: 1574-12-400
Client: Bucholz McEvoy Architects Ltd.
Date: July 2012

Valerie J. Keeley Ltd.



KEY

Brown: confirmed Town Wall locations of upstanding masonry or excavated fosse

Blue indicates River Nore (solid line) & medieval mill-stream (dashed line).

Purple: possible circuit option 1, after Thomas 1992; Bradley 1994-5.

Orange: possible circuit option 2, after O'Donovan 1998 & Stevens 2000.

Green: circuit option 3, after Ó Drisceoil et al 2008.

Yellow: possible circuit option 4.

Illus. 1: Possible interpretations of the (lost) line of the south Town Wall and ditch, from all available excavation data (base map after Ó Drisceoil et al 2008).

SUMMARY

An archaeological impact assessment was undertaken by Valerie J Keeley Ltd., for Bucholz McEvoy Architects Ltd on behalf of Kilkenny Council and Borough Councils, on a proposed City and County Library development at 75–6 John Street Lower, Kilkenny. This follows a preliminary archaeological assessment was carried out in May 2011 (Ó Drisceoil 2011), and an architectural conservation assessment in May 2012 (Goodbody 2012).

This report describes archaeological test trenching of available areas within the proposed development site and includes monitoring of geological trial pits. Phase 1, archaeological testing was undertaken in advance of a Part VIII application, on dates between 28–30th May 2012. Archaeological monitoring was undertaken on 19th June 2012. Phase 2 archaeological testing is proposed following demolition of existing structures following submission of the Part VIII.

The site is located in the medieval suburb of St John's, within the zone of archaeological potential for Kilkenny (RMP Ref: KK019-026; historic town). Although, the occupying building to be demolished is modern, some limestone property boundary walls are much earlier in date, and may delineate medieval 'burgage' boundaries. Testing revealed limited evidence of medieval deposits beneath 1m of post-medieval reclamation soil and cobbles, closest to the street frontage (no. 76), and post-medieval boundary walls, later partition walls and associated garden deposits (no.s 75 & 76). The rear boundary wall (no. 76) is the 'supposed' line of the medieval town wall, however it is more likely this wall is associated with a later mill-race rather than defensive. Testing revealed it to be a mortared limestone-rubble wall, rebuilt over 1.8m above ground, that continues 2.9m below ground level, with a slightly splayed base (rather than a *base-batter*), resting on a narrow plinth. The wall lines one side of a backfilled mill-race (of unknown date) and is abutted by an early modern mill building.

Preservation *in situ* of the standing masonry walls and archaeological features/deposits is recommended. However, should this prove impossible an approved mitigation strategy allowing for full resolution i.e. preservation 'by-record' and/or partial preservation *in-situ* would be necessary.

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- Illus. 1 Possible interpretations of the (lost) line of the south Town Wall and ditch, from all available excavation data (base map *after* Ó Drisceoil *et al* 2008)
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1.0 INTRODUCTION

This Archaeological Impact Assessment report has been compiled in advance of a Part VIII application by Kilkenny Council and Borough Councils for a proposed City and County Library development at 75–6 John Street Lower, Kilkenny. This report describes Phase 1 archaeological test trenching of accessible areas within the proposed development footprint, and also includes monitoring of geological trial pits. Phase 2 archaeological testing is proposed after demolition of existing structures, and following submission of the Part VIII. This report should be read in conjunction with, and follows on from a preliminary archaeological assessment, carried out in May 2011 (Ó Drisceoil 2011), and an architectural conservation assessment, carried out in May 2012 (Goodbody 2012).

Archaeological assessment (Phase 1) was undertaken by Valerie J Keeley Ltd. Archaeological Consultancy, on behalf of Bucholz McEvoy Architects Ltd. Phase 1, archaeological testing, was undertaken by P. Stevens, for Valerie J Keeley Ltd., on dates between 28–30th May 2012. Archaeological monitoring was undertaken on 19th June 2012 (See Figures 1–10; Plates 1–19). Archaeological test testing was undertaken at the consent of the Minister of Arts, Heritage and the Gaeltacht (Consent ref. C523; Excavation number E4417; Permission to use a detection device ref. R300), granted under Section 5 of the National Monuments (Amendment) Act 2004.

The site is located at the rear of no. 75–6, John Street Lower, and extends into the car park of Kilkenny County Council Offices, within both Gardens and Collegepark townlands, St John's parish, Kilkenny (NGR 230875, 155930; OS Sheet 19; See Figures 1–2). It lies in the medieval suburb of St John's, within the urban zone of archaeological potential for Kilkenny city (RMP Ref: KK019-026; historic town), and along the predicted line of the town wall defences (Oxford Archaeology 2005), and adjacent to no. 73–75 John Street Lower, the site of the 16th/17th Century Seix House and former Kilkenny College building (RMP ref. KK019:0260069; NIAH ref. 12000161-3. No 75 John Street is a protected structure Ref: NIAH ref. 12000161). The occupying building and shed proposed to be demolished are modern, although, some property boundary walls also proposed to be demolished are limestone rubble. These are earlier in date, and may overlie medieval 'burgage' plot boundaries (Ó Drisceoil 2011, 11–1, 23–4).

The aim of assessment is to identify the nature, extent and date of all features and material of archaeological significance within the development area. Plus to assess any potential impact the proposed development works may have on extant archaeological remains and make recommendations for mitigation of this impact.

2.0 PROPOSED DEVELOPMENT

Kilkenny Borough and County Councils intend to develop the site at no. 75–6 John Street Lower, to construct a new purpose-built City and County Library building. Preliminary designs are currently being prepared for the submission of a Part VIII application. The precise nature of the development are not finalised but all proposed ground disturbance lies within the limits of the site area, as defined in this report (See Figure 2).

The site development measures c.95m in length (northwest-southeast), by 15–24 m in width, and consists of two, three-storey properties fronting John Street Lower (no.s 75–6), tarmac yard to the rear, including modern corrugated shed, a long linear modern two-storey range, and rubble-built limestone walls. The development site also extends beyond the present property boundary for a length of 30m into the County Council Offices car parking area, Collegepark townland.

The area of proposed construction works covers an area of c. 1500m², and includes the prior demolition of the modern shed, modern two-storey rear building range and the lean-to rear porch abutting no. 75. A full historical architectural assessment of the standing buildings and structures on this site was carried out separately, in advance of demolition, by Rob Goodbody, in May 2012 (Goodbody 2012).

Summary of the proposed development involves the following impacts:

- A Demolition of rear modern two-storey building range, adjustment of the associated roof-line to no. 76.
- B Demolition of modern corrugated roof shed at the rear of no. 75.
- C Removal of modern lean-to rear porch abutting no. 75.
- D Removal of rear and side limestone boundary walls and to the rear of no. 75 and 76.
- E Ground reduction over the entire development footprint to accommodate two-storey library building.
- F Preservation of existing street frontage properties, features, windows, stair-cases and original fabric of no. 75 & 76 John Street Lower and associated archway is proposed. Additions may be required to adhere to fire-regulations and may include blocking of doorways and extending the gable walls to roof-line.

3.0 METHODOLOGY

3.1 Test trenching strategy

A phased approach was adopted for this assessment (Phases 1 & 2). Phase 1, archaeological testing assessment was undertaken prior to demolition of upstanding buildings and boundary walls within the development site limits. This report is presented exclusively for archaeological testing prior to demolition. A separate report will be made accordingly for Phase 2, archaeological testing, proceeding demolition works (subject to ministerial approval and grant of the Part VIII application).

Each test trench or pit was investigated to determine whether archaeological deposits, soils or features were present, determine the nature and extent of such material and assess the potential impact from the proposed development.

Archaeological test excavation work was carried out, under archaeological supervision, by a 6-ton mechanical excavator, using a 1.5m tooth-less trenching (ditching) bucket. Material was mechanically removed, carefully in spits, down to the level of any surviving archaeological materials, soils or features, or natural subsoil should none exist. On discovery of extant archaeological materials, soils or features, and/or natural subsoil, all mechanical excavation was suspended to allow for any such remains to be investigated further and recorded, before being preserved *in situ* and re-buried.

Any archaeological materials, soils or features revealed in excavation was investigated by hand and recorded, photographed and a measured plan drawn in relation to the national grid and ordnance datum. The composition, stratigraphic position and interpretation of all contexts was recorded in the back of this report (See Appendix A). The position of all finds from archaeological contexts was recorded in relation to context (if practicable) and in relation to the trench.

3.2 Finds and sample strategy

Finds retrieval: All archaeological or cultural heritage artefacts found in archaeological context were fully recorded by context. Finds/artefacts were labeled individually with a unique museum accession number to archival standard. A full list of the finds is included at the end of this report (see Appendix B).

Sampling strategy: A sampling strategy for materials such as soil, wood, metal slag, charcoal, mortar and uncut stone was employed. Samples of mortar were retained for post-excavation analysis should it prove it be approved by the client and the statutory authorities.

A full list of the samples is included at the end of this report (see Appendix C).

Conservation: On-site works conformed to conservation guidelines issued by the Irish Professional Conservation and Restorers Association. A professional conservator was not required during this phase of assessment.

3.3 Ground Investigations monitoring strategy

Site investigations were carried out by IGSL and work took place on 13–15th June & 19th June 2012. This investigation work included geo-technical bore-hole, trial pit and soak away pit excavation. Where possible, the excavations were located within backfilled archaeological test trenches. Otherwise excavation was subject to archaeological monitoring. The results from these investigations as well as the mapping showing Ground Penetrating Radar (GPR) anomalies were incorporated into this report (See Figures 3, 8).

3.4 Health and safety strategy

Valerie J Keeley Ltd., and safety consultant, TS Sheridan oversaw sub-contractors James Moore Plant Hire who, in conjunction with the site director, on behalf of Valerie J Keeley Ltd. undertook the site operations and mechanical excavations. All steps were taken to ensure workers were compliant with the current safety regulations and best practice. A full electronic scan of the sites was undertaken in advance of excavation, and in close attention was paid with services layout mapping. A number of live services were identified close to the site trenches, and in some cases trenches were relocated a safe distance from these to ensure safe work practice. No incidents or accidents were reported during the operation of the site works.

4.0 RECEIVING ENVIRONMENT

4.1 Topography and Geology

The entire area of John Street Lower and Collegepark was reclaimed from marshland and occupies the flood plain of the River Nore. This ground is generally low-lying flat lands sloping gently south to the River Nore, with steep inclines to the north along Michael and Maudlin Streets. The underlying soils are fertile brown sandy loams, overlying river gravels and limestone bedrock. The area drains to the south into the River Nore.

4.2 Archaeological Background

4.2.1 St John's medieval suburb:

The development site is on the eastern/left bank of the River Nore, accessed by St John's Bridge, within the medieval suburb of St John's, which grew up around St John's Priory (Finn & Murphy 1962, 35). The suburb was founded by William Marshall, earl of Pembroke and lord of Leinster, who was responsible between 1192 and 1219 for the re-organisation and expansion of Kilkenny and it was probably he who promoted the development of the suburb. William Marshall founded the priory for the Canons Regular of St Augustine (also called the Brethren of the Hospital of St John). The monks' first foundation, near John's Bridge, continued in use until 1325, when it moved to its present location at the eastern end of the suburb. The suburb was linked to the Hightown via John's bridge which was in place from perhaps as early as c.1202 (Carrigan 1905 iii, 248).

John Street is the central axis from which the suburb was laid out (Lanigan & Tyler 1987). This continued into the Tudor period, when large stone houses were built. With the redevelopment of the street over the past 400 years many of these buildings have been removed or altered. However, no.s 78–81, the seventeenth-century residence of a branch of the Fitzgeralds and Shees, survives, as well as no.s 88–9 (Bridge House, the Dower House of the Ormond family).

The earliest recorded mentions of town walling around the suburb of St John's occur in the early 16th century, when there are references to a stone and lime wall, with reference to a turret in 1570 (Thomas, 1992). The suburb is mentioned in Cromwell's account of the siege of Kilkenny in 1650: 'Having possessed the Irishtown, and there being another walled town on the other side of the river (St John's); eight companies of foot were sent over to possess that'. The town wall was evidently in existence from at least the mid-sixteenth century and continued in use through to the end of the seventeenth century.

4.2.2 Medieval burgage:

The burgesses of St. John's enjoyed the same rights and privileges as those in the Hightown, as granted in the town's foundation charter of 1207. On Rocque's 1758 'survey' of Kilkenny and the first edition Ordnance Survey (1842; Illus. 3) maps the framework of the medieval burgages can be seen. Indeed, the names of some of the

burgesses of the suburb are known from contemporary documents: John de Eynesham, David le Marshall (Sweetman 1875-86, v, 187), John Tanker (McNeill 1931, 12-13), John Rothe, Patrick Power and Richard Power (McNeill 1931, 84). William Marshal's charter provided for burgage-plot widths of 20 (medieval) feet – c.6.1m (MacNiocaill 1964, 135 – and examples of these can be seen on the large-scale (1:1056) first edition Ordnance Survey map. Within the walls little of the original plot pattern can be seen but about a quarter of the widths of the buildings on the street frontage conform to the 20 foot standard and are likely to be fossilisations of the medieval boundaries. A certain amount of amalgamation of the burgages is probably responsible for the many of the wider plots that are marked on the map. On Upper John street, Michael's Lane and Maudlin street, outside the walls, there is better survival of the medieval plot pattern and some 50% measure 20 feet in width.

The 1307 extent notes that 'the burgesses of St. John's Street hold their burgages, with the lands thereunto belonging in the vill, and render therefore 4*l.* 13*s.* 11*d.*...' (Sweetman 1875-86, v, 187). This equates to some 94 burgesses, indicating a population of c.400-650 in the suburb in the early fourteenth century (Bradley 2000, 4). However, on the 1842 Ordnance Survey map (Illus. 3) it is possible to count only c.20 plots inside the town wall at St. John's, which indicates that as well as some amalgamations having occurred, many additional tenements must have continued beyond St. John's Outer gate towards the Dublin road, to the east in the direction of the Magdalen hospital and to the west on Michael's Lane. In common with the burgage plots that are found throughout Kilkenny each of the plots in St. John's would have had a working yard and a garden and/or orchard to the rear of the dwelling house. Features such as dovecots were also common in gardens of the period and one is alluded to in the 1307 extent (Sweetman 1875-86, v, 187).

4.2.3 Medieval defences:

The suburb possessed its own town wall which included a gate-tower that guarded the west (Hightown) side of the Nore river-crossing (Thomas 1992 ii, 127). The walls enclosed a roughly trapezoidal area, measuring approx. 230m x 200m, comprising a substantial curtain wall that linked with at least two gates -St. John's Outer Gate and St. Michael's Gate – and two turrets. Neither gate survives but both the mural towers are still in place. Much of the town defences at St. John's was rented by the Corporation to the landowners of the suburb so for instance the 1628 rental notes 'the rooms over the east gate of St. John's and 'bays' nearby (Ledwich 1781, 398). Likewise 'the rooms over St. John's castle' are noted (Ledwich 1781, 399). Rents were also paid for 'the incroachment upon the town ditch at St. John's', perhaps indicating permission was given to backfill some of the fosse (Ledwich 1781, 399). The c.1650 'Downe Survey' map of Kilkenny depicts a townland called 'Towne Ditch' to the north of St. John's (Illus. 2). According to Doyle the name derives from 'once a deep wide pit, that stretched along the Ballybought Road. Over a long period it was used as a dumping ground for refuse from the city. After many decades this pit was filled and levelled and became pasture land' (Doyle 1990, 45).

The earliest records of defensive walling around the suburb occur in the early sixteenth century, when there are references to a stone and lime wall, and a turret in 1570 (Thomas 1992). The medieval suburb of St John's is

mentioned in Cromwell's account of the Siege of Kilkenny in 1650. The town wall was evidently in existence from at least the mid-sixteenth century and continued in use through to the end of the seventeenth century.

4.2.4 Previous archaeological excavations:

A recent Heritage Council and Government (INSTAR)-funded study (Ó Drisceoil *et al* 2008, www.kkap.com) has shown numerous (approx. 29) archaeological and architectural investigations, including some full excavations, have taken place with the medieval suburb in the last 30 years (see Illus 1; Table 1). These investigations have contributed significantly to our knowledge and understanding of medieval and later medieval/post-medieval Kilkenny, and helped plot the layout, morphology and wealth of the suburb. Medieval fabric including several masonry walls of houses, towers and surviving portions of medieval town wall and fosse, have been archaeologically excavated.

Upstanding fabric and surviving archaeological traces have survived of the north-eastern and eastern circuit at various locations along 67-8 , 68-9 & 86, 87-9 Johns Street and along Mauldin Street (Stevens 1998, 1999, 2006, 2007; O'Donovan 1996, 68-9, 1997 & 1998, 116-17; Hayden 2001 (See Table 1; Illus. 1). Little or no trace of the northern or western circuit remains above ground. However, recent excavations by Walsh along Back Lane have revealed possible evidence of the Town Wall along this lane as far as the in-filled mill-race known as 'The Lake' (Walsh 2010; 2011). In addition, negative evidence (without trace of the town defences) from excavations to the rear of Johns Street, College Park and Evan's Home/Barrack Lane, where preserved medieval and post medieval layers survive intact, are also significant. (Stevens 1999, 2006, 2007; King 1991, Doyle 2000).

Therefore, the potential for unearthing surviving medieval fabric from the defensive circuit within the limits of the Library development site is high and would require preservation and possibly even display. However, the precise layout of the medieval fortifications is still subject to ongoing debate and not fully understood, especially along the southern circuit (Bradley 1975–76; 2000, 3; Thomas 1992, Oxford Archaeology 2005, 162; Stevens 2006, 47-66).

Location, Street Name	Year	Feature(s)	Licence	Type & Summary of Findings	Reference(s)
County Hall, Collegepark	1991	Town wall (Circuit?)	91E091	<i>Testing:</i> Straddled the line of the town wall and trenches on the circuit revealed a limestone rubble wall 0.7m wide and 0.8m high, which was interpreted by the King as a boundary wall rather than a defensive feature. Test trenches within Collegepark revealed horticultural soils.	King 1991:079; Bradley & King OKR 1992; KKAP-094
70-71 John Street	1994	Town wall (line of?)	94E057	<i>Testing:</i> Rear of no. 71, directly inside the town wall, revealed a garden soil, overlying the boulder clay subsoil. Features included two red-brick and masonry wall foundations, a stone-lintelled red-brick drain cut into subsoil and 5m of a very well-preserved cobbled surface some 400mm below present ground level. A few fragments of late post-medieval pottery were recovered. An examination of the boundary wall to the south of site along the line of the mill-race concluded that it formed part of a warehouse-type structure, possibly dating to the 18th or early 19th century.	Gowen 1995, 49-50; Excavation 1994:139
Bridge House, 88-9 John Street	1995	Town wall (line of?)	95E0053	<i>Testing 1 & 2:</i> 13x trenches were excavated across the site of the Rivercourt Hotel at the rear of 84-89 John St. Lower, occupied by a cobbled yard, coach-house and stables and two gardens bounded by stone walls. Bridge House (No 88-9) incorporates an earlier late 16th century stone building in a fine 18th-century facade, but much of the fabric of the three other main walls is medieval to second-floor level. The test-trenching revealed no archaeological remains or soils in garden behind Bridge House. The southern boundary wall is not the late medieval wall and no evidence for the wall was located during the site assessment: <u>the exact line of the medieval wall was not established</u> . The cobbled yard covers the demolished remains of at least one red brick wall which probably dates to the 18th century. Of more significance is a second wall and associated cobbled surface 0.6m below the present cobbled surface which may date to the late medieval period. The demolished foundations occur in soils that are not rich in archaeological material (i.e. no habitation deposits were noted).	Gowen 1996; Excavation 1995:169 KKAP-086
Langton's Hotel, 68-69 John Street	1996	Town wall (circuit)	96E131	<i>Testing:</i> Rear of John St/Maudlin St immediately outside the medieval suburb of and the remains of the town wall. Evidence of breaches and repair in places. The town wall was 78m long, constructed of limestone and standing between 2.6m and 3m above ground level. The wall foundations extended to a depth of 3m below ground level, with a significant base batter identified in the trial-trenches. An internal mural tower located midway along the wall portion rises to c.5m above ground level and is 7.4m wide. Originally, the tower may have been rectangular, with its south wall backing onto the town wall. All the internal walls are gone above ground level, though the south wall of the tower has dressed quoins and scars from where the tower joined the inside of the town wall. The tower appears to be contemporary with the town wall. A watercourse which may have served as a moat outside the town wall was also uncovered as the mill-race that ran through the line of the wall, bisecting the suburb of St John's as illustrated in Rocque's map.	O'Donovan 1997; Excavations 1996:210 KKAP-060
Bridge House, 85-9 John Street	1998	Town wall (Wall?)	98E0053	<i>Testing 3:</i> Rear No. 85: a section of town wall was identified, 24m south of and parallel to John Street, was 0.43m wide and lined the western edge of a ditch. The wall was 0.19m deep on its western side and 1.7m deep on its eastern side, where it displayed a characteristic basal batter. The ditch outside the wall was 2.5m wide, 0.8m deep and cut into natural boulder clay. The basal 0.3m of the ditch was filled with poorly humified organic material, containing occasional fragments of red brick. A deposit of grey clay, 0.5m thick, sealed this. A thick mantle of demolition rubble made up of mortar, red brick and stone sealed all of the features in the trench. The soil profiles recorded in all other trenches was modern and insignificant.	O'Donovan 1998; Excavations 1999:351 KKAP-086

Location, Street Name	Year	Feature(s)	Licence	Type & Summary of Findings	Reference(s)
Maudlin Street,	1999	Town wall (Fosse)	98E0346	<i>Excavation:</i> Section of the town ditch, dated early-mid 14 th century by pottery, measured 6m wide by 1.45m in depth, aligned with Maudlin Street, and corner tower. No evidence of the masonry town wall, possibly robbed out in antiquity. Sealed by clay and refuse pits by 17 th century. <i>Monitoring:</i> (Tr.s I-VIII) c.11m to the rear of Bridge House Tr. I uncovered a possible fosse (large defensive ditch) of the town wall in section-measuring 3m+ in width & 3m in depth, truncated by early modern buildings. Tr. II a water pipe-trench under John Street in front of Matt the Millers pub revealed a medieval wall for a house aligned to an earlier bridge. Tr. III-VIII revealed early modern/late medieval cobbled courtyards, early modern walls and demolition rubble.	Stevens OKR 2006, 55-9; KKAP-0159
Bridge House/ River Court Hotel, 85-9 John Street	1999	Town wall (Fosse?)	95E053ext	<i>Testing:</i> x 4 Trenches were excavated on the left bank of the River Nore, to the rear of the Rivercourt Hotel. Topsoil sealed a silty, sandy clay and wet, sandy clay, with occasional root and early modern brick and pottery, overlay river gravels occurring at a depth of 1.5-2m, containing early modern/post-medieval material, incl. sherds of 17th-century pottery, a sherd of medieval coarseware.	Stevens 2000: <i>Excavations</i> 1999:446 KKAP-086
Banks of the River Nore, Collegepark	2000	Soils	00E0405	<i>Testing:</i> Rear of Langton's Hotel, near the upstanding remains of the town wall uncovered the remains of a limestone and red brick foundation for a mill building, parallel to the town wall, depicted on Roque, 1758 & 1 st ed. OS map, 1842. Red brick wall projects from the city wall is likely that both are associated with the mill building.	Stevens 2001: <i>Excavations</i> 2000:529 KKAP-078
Langton's Hotel, 68-69, John Street	2001	Post med. Mill	01E1031	<i>Excavation:</i> Medieval circular tower excavated on the banks of the River Nore, interpreted by the excavator as a medieval toll tower, no adjoining mural tower walls.	Molloy 2003; <i>Excavations</i> 2001:707 KKAP-057
Banks of the River Nore, Collegepark	2001	Tower	01E0980	<i>Monitoring:</i> Small test pit revealed nothing of archaeological significance revealed. Riverine silt and modern disturbance recorded.	Doyle OKR 2005, 32-42: <i>Excavations</i> 2001:529
The Quays Pub, John Street Lower	2002	None	02E0124	<i>Testing:</i> revealed a number of wall and wall foundation features, probably of 18/19 th Century date, which may be associated with a mill and distilling activities. Walls overlay an earlier layer of imported horticultural soil that is probably of medieval date.	Hayden 2004: <i>Excavations</i> 2002:1020
Set Theatre, 71, John Street	2008	Med. soils	08E434	<i>Testing:</i> Multiple test trenching of the Evans Home / 18 th C infantry barracks complex, took place in advance of Butler Gallery development. Testing revealed rubble from the earlier barracks building & possible post-medieval and earlier soils, evidence for the mill-race. No evidence for the town wall revealed.	Ó Drisceoil 2010, 13
Back Lane, Kilkenny	2010	Mill-race	E4109 C414	<i>Testing:</i> Single test trench & extensive buildings survey of Back Lane/Evans Home complex, in advance of Butler Gallery development. Testing consisted one test wall pit alongside the exterior of the town wall in Back Lane, the pit could not be excavated beyond 1m depth. Evidence for an earlier wall was revealed 1.32m below ground level, but it was inconclusive whether this was medieval or the town wall.	Walsh 2010
Back Lane, Kilkenny	2011	Town wall (Circuit?)	E4109 C414		Walsh 2011

Table 1: Licenced-archaeological excavations (1991-2011) within the development site environs (Sources: www.excavations.ie, www.kkap.ie & www.archaeology.ie)

4.2.5 Town Wall (SE) route options:

Based on a review of the current available excavation data from the last 21 years, a number of alternative route options can be considered viable alternatives to the established view. These are discussed below (See Illus 1; Tables 1, 2). Four possible route options may be considered viable for the lost southeastern line of the defensive Town Wall and ditch (Table 2). All of the options commence and continue the line from upstanding masonry remnants of the Town Wall at the rear of Langton's (67-9 John Street, O'Donovan, 1997; Illus. 1 [brown]; Tables 1, 2) extending to the small upstanding masonry mural tower on Maudlin Street (Illus. 1).

Option 1 (Purple, Illus. 1): The most commonly held view of the location of the supposed line of the town wall is option 1 (shown in purple on Illus. 1). This is discussed in detail by J. Bradley (1975-6) and A. Thomas (1992) and also assigned with a note of caution in the Heritage Conservation Plan for Kilkenny City Wall (Oxford Archaeology 2005, 172-3; #12.6). These authors speculate, based on Rocque's map 1758 (Illus. 2), that the town wall ran along the largely unaltered eastern boundary of tenements fronting John Street depicted on Rocque's map. This alignment option for the Town Wall passes directly through the proposed development footprint and would be directly impacted by development. However, this route option is largely based on identification of a fragment of wall at the north-eastern corner of the suburb (by Kilkenny County Council/Collegepark buildings), even though the excavator described the wall as a boundary wall rather than defensive in function (King 1991:079; Bradley & King 1992, 983-6; Table 1). Furthermore, no evidence of the medieval town wall was located at the eastern boundary wall to properties 88-9 John Street, during archaeological testing for the rear car park of the Rivercourt Hotel (Gowen 1996; Table 1).

Option 2 (Orange, Illus. 1): The second option is based on positive identification from two separate locations, recorded during archaeological excavation or monitoring for the Rivercourt Hotel development, at 85-9 John Street Lower (O'Donovan 1998; Stevens 2000; Table 1). In 1995, an in-tact section of the Town Wall was excavated 24m to the rear of no. 85 John Street Lower, measuring 0.43m wide and with a pronounced base-batter, to the southwest of this was a 3m-deep section of ditch (or fosse) that appeared to be medieval in date and also aligned to the Town Wall. If this route option is a straight alignment from no. 85 to 72 John Street Lower (See Illus. 1), it was not revealed in monitoring and survey of no. 85 John Street Lower, although the nature of this work was limited in scope and depth (Hayden 2002; Table 1). This alignment option for the Town Wall passes directly through the proposed development footprint and would be directly impacted by development.

Option 3 (Green, Illus. 1): The third option is taken from the most recent publication of The Kilkenny Archaeological Project (KKAP) Report for the Irish National Strategic Archaeological Research (INSTAR) Programme 2008 (Final Report, Dec. 2008; Ó Drisceoil *et al* 2008, 114; Fig. 54). This option is similar to Option 1

(Purple), with a variation to the south to include the archaeological findings adjacent to the river bank at the rear of Rivercourt Hotel and the River Nore (Kilkenny City) Drainage Scheme (Gowen 1995; Doyle 2005). The route commences 5m east of Option 1, at the River Nore and continues parallel through the development site, conjoining the Option 1 alignment under the present County Council Offices building (Kilkenny College) (See Illus. 1). However, this alignment discounts the archaeological findings of no. 85–9 John Street Lower (O'Donovan 1998; Stevens 2000; Table 1). This alignment option for the Town Wall passes directly through the proposed development footprint and would be directly impacted by development.

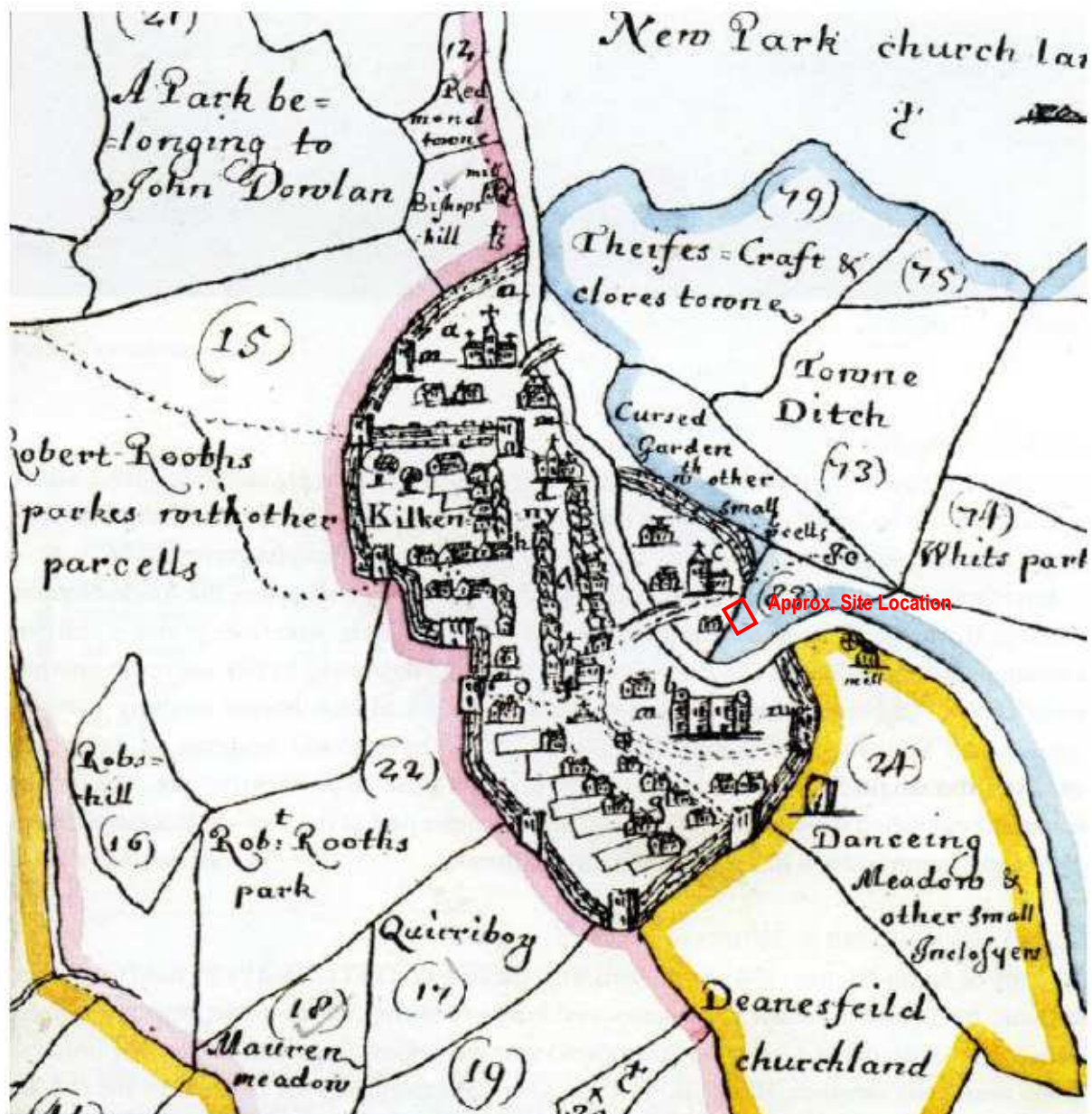
Option 4 (Yellow Illus. 1): A fourth possible route option is that none of the three options describe above are correct, and furthermore an alternative route or no route at all in this part of the suburb is possible. The case for the latter is borne out in the Down Survey map of 1655, where the wall of the suburb is absent from the area around Collegepark, and rather depicted as a field boundary (Illus. 2). If this was the case the Town Wall may have terminated at the mill-stream to the rear of no. 71 John Street. This mill-stream, believed to date to the medieval period, bisects the suburb of St. John's, extending from Green's Bridge Mills in the northwest, via the 'Little Bridge' on John Street, continuing east to Maudlin Mills (at Lacken) (Illus. 1). Equally possible, is the mill-stream served as part of the defences either walled or un-walled, a possibility recently suggested by Walsh for the (lost) western circuit of the Town Wall (Walsh 2011, 2). This alignment discounts the archaeological findings of 1991 in Collegepark, already discounted by the excavator at the time as a boundary wall (Bradley & King 1991). Furthermore, it discounts the evidence at no. 85–9 John Street Lower in 1998 and 1999 (O'Donovan 1998; Stevens 2000; Table 1). The former evidence may represent a localised defence to a single building or urban castle, the latter may represent a large and deep pit, rather than a linear feature. This possible alignment option for the Town Wall is a significant distances from the development site and there would be no predicted impact by the proposed development footprint.

	Option 1 (Purple)	Option 2 (Orange)	Option 3 (Green)	Option 4 (Yellow)
Description:	Aligned along the rear John Street walls & excavations within Collegepark	Aligned on excavations within no. 85-9 John Street Lower	Based on Route 1 amended after excavation data	Aligned along the eastern mill-stream within Collegepark
Proximity:	0m	0m	0m	45m
Predicted Impact:	Direct	Direct	Direct	None
Mitigation:	Preservation <i>in situ</i>	Preservation <i>in situ</i>	Preservation <i>in situ</i>	Archaeological monitoring
Sources:	Thomas 1992; Bradley 1994-5; Oxford Archaeology 2005.	O'Donovan 1998 & Stevens 2000	Ó Drisceoil et al 2008	N/A

Table 2: Review of possible options for the (lost) circuit of Town Wall along St John's medieval suburb, based on recent sources.

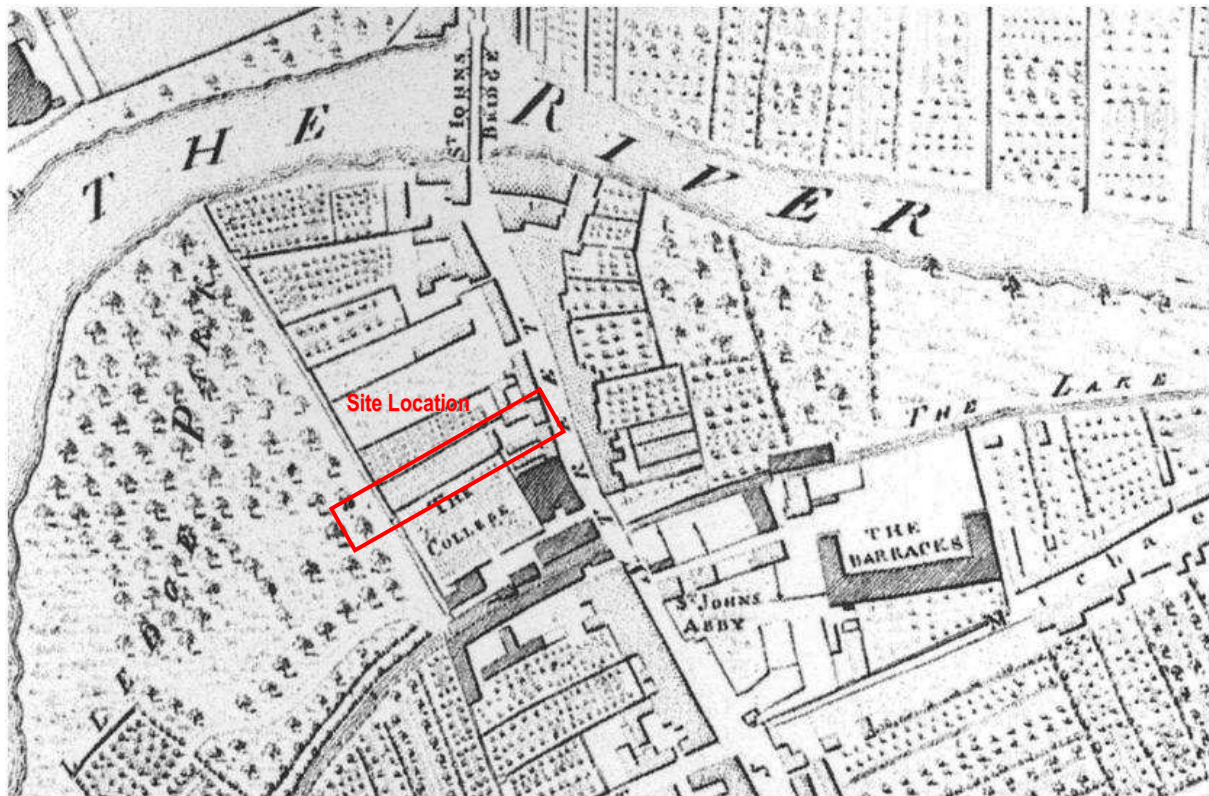
4.3 Historical Background

4.3.1 Cartographic sources:



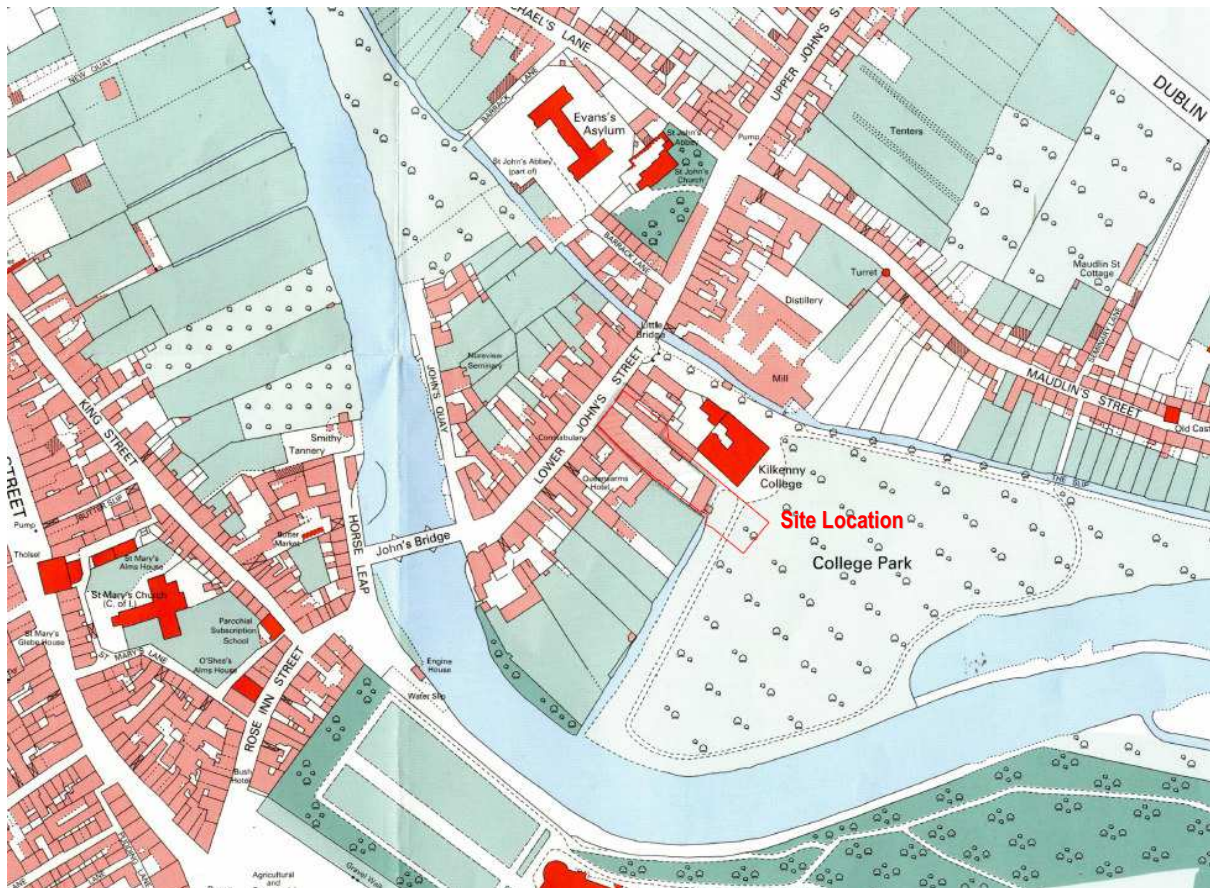
Illus. 2: Petty's Down survey of Kilkenny, c. 1655. In this early depiction of the suburb of St John's the circuit of the town wall appears to be absent from Collegepark.

17th Century: The Down Survey map (Illus. 2) of the liberties of the city of Kilkenny, surveyed in 1655, shows the suburb as a built-up area, though shown only diagrammatically, with specific development along the street not indicated. In addition, this map shows the Town Wall for both High (English) Town and the suburb of St. John's – significantly the southern portion of the wall is not shown in this survey in Collegepark, which is depicted as a field. Furthermore, a single large property is shown on John Street Lower, possibly representing a large mansion.



Illus. 3: Detail of John Rocque's exact survey of the city of Kilkenny, 1758

18th Century: The development site is first depicted in detail on Rocque's map of Kilkenny in 1758 (Illus. 3), and much of the same detail is repeated on Byron's map, 1790. The buildings of no.s 75 and 76 John Street Lower are clearly depicted as three separate buildings, each with associated ranges extending to the rear, with a perpendicular range or second house in no. 76. The archway for no. 76 John Street Lower is also visible on these maps. Adjacent to no 75 John Street Lower is a large square building labelled *The College* and its associated walled garden to the rear. From 1684, Kilkenny College occupied the site of the Seix House (built 1666), and demolished in 1782, when new premises were built to the rear (current Kilkenny County Council building). The original location of the college is possibly reflected in the townland boundary, that runs along the rear boundary between no. 76 and Collegepark, and continues along the rear boundaries of no.s 72–5 John Street Lower before joining the street frontage. The townland boundary extends along a former linear mill-race, depicted on Rocque as *The Lake* and flowing west/east from the River Nore, passing under John Street, past a number of mills to rejoin the river at Lacken weir. The Lake passes to the north of *The College* and is joined by a perpendicular mill-race channel, extending south to the River Nore from a mill located at the rear of the walled College garden. This channel also delimits the western-most extent of the rear plots fronting John Street Lower. To the east of the mill-race is open parkland, denoted as *College Park*.



Illus. 3: Detail of Ordnance Survey 1st edition (6 inch) sheet of Kilkenny, 1842

19th Century: The nineteenth century produced three maps of note. The Ordnance Survey for Kilkenny for the city was first published in 1842 (Illus. 3), with the first edition six inch map, and the second edition, 25inch map, was published in 1871. A third 25inch map, was also compiled for the Griffiths valuation and is dated to c. 1850. These show the development site, delineated to the north and east by the townland boundary. Both properties are depicted as two separate plots, no. 16(=76) and no. 17(=75) Lower John's Street or John Street Lower. The archway is clearly depicted and both plots are shown with substantial extensions or ranges to the rear.

No. 17(=75) Lower John's Street is almost completely covered by a range that extends beyond the present plot boundary, and extends to touch the corner of the Kilkenny College building (built in 1782, now County Council Offices). The valuation maps, c.1850 show the middle section and rear area of the plot as open (or derelict), with two small open structures in the back wall within the development area. By 1871, the range is covered again, with a small rectangular open courtyard is also depicted to the north of the yard, with a circular pump also depicted. No. 16(=76) is depicted with long southern range spanning two thirds of the length of the rear plot, and an open yard elsewhere. A small rectangular lean-to structure or shed is depicted abutting the northern boundary wall. This is also shown in 1871 in more detail, and includes a *pump* within the yard area. The replacement Kilkenny College building, built in 1782 (now in use as County Council Offices), is depicted for the first time on the first edition Ordnance Survey. This structure includes several structures to the northwest and southwest. The

space between the College and the east / west mill-race known as '*The Slip*' is blank in 1842, but later editions shown various buildings along its banks. The north / south mill-race channel is partially truncated by the College which lies over the northern-most circuit of the channel. A small square (mill) building is depicted in 1842, tacked onto the rear wall of no. 76 John Street Lower, spanning the north/south mill-race channel. The townland boundary skirts around this mill building before extending to the southern channel and the River Nore. By 1871, this mill building is expanded to a rectangular three-bay structure. A formal layout of paths, trees and gardens associated with the grounds of the college is also depicted on the OS mapping from 1841 onwards.

20th Century: Some significant changes to the site are recorded on the early twentieth century third edition 25 inch map, Ordnance Survey map, dated 1900. The rear yard of no. 76 John Street Lower is depicted with a larger range of structures abutting the northern boundary wall, and also a perpendicular structure, along the interior of the southeastern boundary wall. Two pumps are shown at either end of the yard. The rear of no. 75 is shown as an open yard, with two small structures along the southern boundary wall with no. 76.

4.3.2 Valuation Records:

Research into the valuation records by Rob Goodbody (May, 2012) has revealed much of the financial and business details from the mid 19th to 20th Century of the buildings for no.s 75 and 76 John Street Lower. Griffith's Valuation of Kilkenny, 1850 show the properties were numbered as 16 (=76), 17 and 18 (=75) John Street Lower. Whereas, in the early twentieth century the numbering system was changed again to no. 29 (=75) and no. 27/28 (=76) John Street Lower.

No. 75 John Street Lower was originally two plots, and in use variously as a wool store (from c.1850–81), and then a grocery store (1884–9). This property was bought by the Byrnes in the 1890s, who also owned no. 76 and used the site as a store for the neighbouring bakery. No. 76 John Street Lower was occupied by a blanket manufacturer, in 1850 and used as a grocer and spirit dealer business in the 1860s until 1884.

The valuation on these properties reduced consistently over the period 1884–91. By 1898, the property value was increased as it was acquired by J and E Smithwick, of Smithwick & Son brewers and became a licensed house, with out-offices and yard. In 1898, the present buildings fronting the street on the site were extensively rebuilt to their present form.

5.0 ARCHAEOLOGICAL ASSESSMENT RESULTS

5.1 Archaeological Test Trenching (Phase 1)

Archaeological test trenching (Phase 1) was undertaken, prior to demolition of upstanding buildings and boundary walls within the development site limits. A total of six test trenches / pits in two areas of investigation (Phase 1A and 1B; See Figure 2), were excavated within the footprint of the proposed development. Investigations took place in accessible areas available and not currently occupied by standing buildings or obstructed and disturbed by live and known services or drainage (See Figures 2, 3 & 8). Phase 1A was located adjacent to the exterior boundary walls of no. 76 John Street Lower, partially encroaching into public car-parking bays and a grass verge, for the County Council Offices within Collegepark. Phase 1B was to the rear of three storey buildings fronting John Street.

Phase 1A: constituted testing one of two available areas of the proposed development site (See Figures 3–7; Plates 1–8). It is located to the southeast of the development site within the car park of the County Council Offices, Collegepark townland. This area comprises an measuring approximately 30m in length (northwest-southeast) by 19m in width. Testing was undertaken adjacent to the rear boundary wall of no. 76 John Street Lower, a wall believed to be the line of the medieval town wall (lost) and site of a possible mill building, depicted on early editions of the Ordnance Survey (Illus. 3). Three trenches were excavated in this area (Trenches I–III), measuring between 7m to 19m in length, 1.5m in width (See Figures 2, 3–7).

Phase 1B: constituted testing the second of two available areas of the proposed development site, located to the northwest of the development site within the rear tarmaced yard area of no. 75–6 John Street Lower in Gardens townland, and one small test pit (Trench IV) immediately adjacent car-park area within the County Council Offices, in Collegepark townland (See Figures 2, 8–10). The former comprises an area measuring approximately 34m in length (northwest-southeast) by 6–13m in width. Testing was undertaken adjacent to the northern property boundary walls of no.s 74 & 75 John Street Lower (Trench V), in the vicinity believed to be the site of the Seix town house building (c.1666-1780; Illus. 2) and associated walled garden. As well as the area adjacent to the archway between no.s 75 & 76 John Street Lower (Trench VI), and the boundary wall between no. 76 and Collegepark (Trenches IV & VI). Two trenches (Trenches V & VI) and one test pit (Trench IV) were excavated in this area, measuring 1.5m x 2m and between 9m and 24.5m in length, 1.5–2m in width (see Figures 2, 3, 8–10).

5.2 Phase 1A: County Hall Car park, Collegepark Townland

TRENCH I

This trench was one of three cuttings (Trenches I–III) located within the southeastern extent of the development site, in the townland of Collegepark, in the grounds and car park of Kilkenny County Hall, and 2m southeast of the rear boundary wall of no. 76 John Street Lower, (C1). It measured 9.6m in length (orientated northwest / southeast), 1.5m in width and up to 1.5m in depth. (See Figures 2, 3, 4; Plate 3)

The archaeological stratigraphy of this trench was as follows:

43.79–43.35m OD	C3 Road surface , tarmac / kerb (130mm in thickness), mortar foundation deposit (300mm in thickness).
43.45–42.85m OD	C4 Road foundation Black aggregate compacted road foundation (500–600mm in thickness), over Terram geo-textile mesh covering.
42.85–42.33+m OD	C5 Drainage pipe (fill of Cut C6), disused brown ceramic pipe, orientated northeast / southwest, (600mm in external diameter), truncated concrete surround and rubble infill foundation deposit (1m–1.5+m in depth). <i>Partially unexcavated</i> .
42.85–42.25m OD	C7 Deposit , mid-brown sticky clay with hand-made red brick rubble and occasional stone (500mm in depth).
41.25+m OD	C8 Riverine (Fluvial) clay : Organic water-borne deposit of dark grey-green clay, archaeologically-sterile. <i>Unexcavated</i> .

Summary: Trench I contained a waterlogged river clay deposits (C8), sealed by a garden deposit of eighteenth–nineteenth century date (C7), truncated by a defunct modern ceramic drain and the foundations for a recent car park.

Nothing of archaeological significance was revealed in this trench. Archaeological monitoring is recommended for any further work in this area.

TRENCH II

This trench was also located within the southeastern extent of the development site, 1.5m southeast of the rear boundary wall of no. 76 John Street Lower (C1). It was 2.5m south of and roughly parallel to *Trench I* and extended alongside the upstanding southern wall of a nineteenth-century mill house (C2). It measured 17.5m in length (orientated northwest / southeast), 1.5m in width and up to 1.5–1.7m in depth. (See Figures 3, 5; Plate 4)

The archaeological stratigraphy of this trench was as follows:

43.69–43.19m OD	C9 Topsoil , light brown silty clay deposit (270–500mm in thickness) with occasional stone, modern debris & significant 1m depth of root-disturbance from 4 x ash trees (<25–30 years of age).
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43.29–42.29+m OD	C11 Disturbance , modern-amorphous pit filled with recent concrete rubble / debris (1.5m in depth).
43.39–42.29m OD	C10 Overburden , (abuts SE / outer face of wall C2) dark silty clay deposit with modern debris (1000-600mm in thickness), also contains demolition rubble, slates and brick from mill building.
43.05–42.34m OD	C5 Drainage pipe (fill of Cut C6 ; also seen in Trench I), disused brown ceramic pipe, orientated northeast / southwest, (600mm in external diameter), truncated concrete surround and rubble infill foundation deposit (1m-1.5+m in depth). <i>Partially unexcavated</i> .
43.49–43.29+m OD	C13 Path sandy-gravel linear path, aligned northeast / southwest (250mm in depth).
43.15–42.11m OD	C14 Deposit , (= C7 abuts inner face of walls C2 & C12) internal deposit of mid-brown sticky clay with hand-made red brick rubble, ceramic jars, glass, roof slates (at base), mortar and occasional stone (1000mm in depth).
42.79–42.25m OD	C7 Deposit , (abuts SE / outer face of wall C12) mid-brown sticky clay with hand-made red brick rubble and occasional stone (500mm in depth).
45.83–41.65+m OD	C2 Mill wall , (abuts wall C1) southwestern-most wall of square mill. Vertical masonry wall orientated northwest / southeast; uniformly-coursed limestone rubble with occasional brick fragments. Outer finish is pebbled-dashed from ground floor level and capped with modern concrete plinth. <i>Features</i> : ope with brick-lined curved headed / stone jambs at undercroft level (sluice-hole; 640mm wide, 700mm high; 42.49–41.80+m OD). Blocked-up with red brick-lined round headed half-circle ope with red-brick lined sill (window) at first floor. Three putlocks extant (300mm x 200mm), would have housed timber floor beams (at 43.4m OD) to the mill building.
43.23–41.60m OD	C12 Mill wall , (bonded to wall C2 ; Rests on / abuts river clay C8) southeastern-most wall of square mill, orientated northeast / southwest, uniform coursed rubble vertical masonry wall. Traces of red brick and a slight boot foundation.
42.25–41.71+m OD	C8 Riverine (Fluvial) clay : Organic water-borne deposit of dark grey-green clay, archaeologically-sterile. <i>Unexcavated</i> .

Summary: Trench II contained a sterile, waterlogged river clay deposit (**C8**), abutted by the walls of a partially-exposed square mill building (**C1/C2/C12**), of late eighteenth-early nineteenth century date (also revealed on 1st [1842] / 2nd [1871] editions OS mapping). This building was truncated by modern activity 0.5m below ground level, and a demolition deposit sealed the wall, which included a defunct ceramic drain and a light gravel footpath, leading to the College (County Hall) building. Localised modern/recent disturbance from a refuse dump was also revealed, associated with the car park construction.

The early modern mill building is of local archaeological significance and preservation *in-situ*, or if this is not possible preservation 'by record', is recommended.

TRENCH III

This trench was the third to be located within the southeastern extent of the development site, and was alongside the rear boundary wall of no. 76 John Street Lower (**C1**) and the southwestern wall of the nineteenth-century mill (**C2**). It was 0.4m west of and perpendicular to *Trench I* and extended perpendicular to *Trench II*. It measured 7m in length (orientated northeast / southwest), 1.5m in width and up to 2.9m in depth. (See Figures 3, 6, 7; Plates 5–8)

The archaeological stratigraphy of this trench was as follows:

43.80–43.19m OD	C9 Topsoil , light brown silty clay deposit (270-500mm in thickness) with occasional stone, modern debris & significant 1m depth of root-disturbance from 4 x ash trees (<25-30 years of age).
43.08–42.30m OD	C4 Road foundation Black aggregate compacted road foundation (500-650mm in thickness).
43.08–42.65m OD	C10 Overburden , (abuts NE / outer face of wall C15) dark silty clay deposit with modern debris (400mm in thickness), also contains demolition rubble, mortar and brick from mill building.
42.65–42.05m OD	C7 Demolition , (abuts NE / outer face of wall C15) mid-brown sticky clay external to mill deposit with hand-made red brick rubble, roof slates (at base) and occasional stone (600mm in depth).
43.15–41.85m OD	C14 Deposit , (=C7 abuts inner face of walls C1 , C2 , C12 & C15) upper internal deposit of demolition mill, mid-brown sticky clay with hand-made red brick rubble, ceramic jars, glass, roof slates (at base), mortar and occasional stone (1000mm in depth).
42.21–41.68+m OD	C17 Deposit , (abuts inner face of walls C1 , C2 , C12 & C15) lower internal silt deposit of mill, dark-brown organic silt with hand-made red brick rubble, ceramic jars, glass, roof slates (at base), mortar and occasional stone (1000mm in depth). <i>Partially unexcavated</i> .
42.20–42.00m OD	C16 Surface (abuts C1 & C15), external stone surface of possible head race(?), hydraulic lime-mortared large blocky limestone (200mm in depth) (water ingress level at 42.2m).
45.83–41.65+m OD	C2 Mill wall , (abuts wall C1) southwestern-most wall of square mill. Vertical masonry wall orientated northwest / southeast; uniformly-coursed limestone rubble with occasional brick fragments. Outer finish is pebbled-dashed from ground floor level and capped with modern concrete plinth. <i>Features</i> : ope with brick-lined curved headed / stone jambs at undercroft level (sluice-hole; 640mm wide, 700mm high; 42.49–41.80+m OD). Blocked-up with red brick-lined round headed half-circle ope with red-brick lined sill (window) at first floor. Three putlocks extant (300mm x 200mm), would have housed beams for a timber floor (at 43.4m OD) to the mill building.
43.23–41.60m OD	C12 Mill wall , (bonded to wall C2) southeastern-most wall of square mill, orientated northeast / southwest, uniform coursed rubble vertical masonry wall. Traces of red brick and a slight boot foundation. Rests on / abuts riverine clays C8 .

43.18–41.50m OD	C15 Mill wall , (abuts wall C1) northwestern-most wall of square mill. Vertical masonry wall orientated northwest / southeast parallel to C2 ; uniformly-coursed limestone rubble with stone boot foundation (100mm wide).
42.25–40.71+m OD	C19 Fill , of head-race channel to mill (C18 , abuts wall C1), black imported natural river gravel with water-logged organic sandy clay deposits, archaeologically-sterile. <i>Unexcavated</i> .
47.74–40.80m OD	C1 Mill-race wall , (revets C18) western revetment of mill-race, southeastern boundary wall of No 76 John Street Lower and reused as southwestern-most wall of square mill. Masonry wall, orientated northeast / southwest, uniform coursed limestone rubble wall, slight splayed base / possible base-battered (18 degree angle; below 42.65m OD). Extensively rebuilt above 45.44m OD. Plaster occasionally surviving below ground level; pebbled dashed above ground level.
42.25–40.71+m OD	C18 Mill-race channel ; linear channel orientated NE / SW, extending from Rover Nore to mill building. Appears on 1758 (Rocque), 1840 (1 st edition O/S), 1900 (2 nd edition O/S) and later maps, filled in before 1950. <i>Unexcavated</i> .

Summary: Trench III contained a linear mill-race channel (**C18**) that is revetted on it's western side by a high masonry wall (**C1**) of uncertain date. This channel extended 125m south to join the River Nore and is also revealed on Rocque's map, 1758 and later editions of OS mapping. The mill-race channel was filled with (**C19**) imported, sterile river gravels, and sealed by a head-race floor (**C16**) and by the walls of a partially-exposed square mill building (**C1/C2/C12/C15**) of late eighteenth-early nineteenth century date (also revealed on 1st [1842] / 2nd [1871] edition OS mapping). This mill building was demolished and sealed by c.0.5–0.7m of demolition deposits and overburden, and also truncated by a recent localised disturbance associated with the car park.

The mill-race, mill-race wall and mill building are all of local archaeological significance and preservation *in-situ*, or if this is not possible preservation 'by record' is recommended. The mill-race and associated wall lie on the *supposed* line of the medieval defensive wall for the suburb of St. John's, which is a feature of regional archaeological significance and protected under the National Monuments Act (2004) and specifically mentioned in the Department of Environment, Heritage and Local Government National Policy Guidelines (2005).

Phase 1B: 75–76 John Street Lower, Gardens (St John's Parish) & Collegepark Townlands

TRENCH IV

This trench was a small test pit located in the north of the development site, also in the townland of Collegepark within Kilkenny County Council car park. The pit was positioned alongside the northern boundary wall between

no. 76 John Street Lower and Collegepark (County Hall) (**C20**). The wall demarks the fossilised line of a medieval 'burgage plot' dividing no.s 75 / 76 John Street Lower. It measured 2m in length (orientated northeast / southwest), 1.5m in width and up to 2.5m in depth. (See Figures 2, 8; Plate 9)

The archaeological stratigraphy of this trench was as follows:

44.01–43.88m OD	C3 Road surface , tarmac / kerb (130mm in thickness), mortar foundation deposit (300mm in thickness).
43.88–43.38m OD	C4 Road foundation , black aggregate and mortar road foundation (500mm in thickness).
44.08–43.80m OD	C21 Border , modern, mid-brown bedding soil with climbing shrubs (c5 years of age).
43.88–42.88m OD	C22 Deposit , (abuts outer face of wall C20) dark brown garden-soil silty-clay deposit with very occasional stone (1000mm in depth).
47.68–42.38m OD	C20 Wall , (=C40?; bonded to C1 ?; seals C23) northern boundary wall between no. 76 John Street Lower and Collegepark/Kilkenny County Council (possibly continues into Trench V as C40 ?) where wall demarks the possible line of a medieval 'burgage plot' dividing no.s 75 / 76 John Street Lower. May also represent garden wall associated with Kilkenny College and earlier Seix House, c 1666. Masonry wall, orientated northwest / southeast, uniform coursed rubble masonry wall, no evidence of a base-battered at 1m below ground level, rebuilt at 1.8 above). Plaster surviving below 43.8m OD. Pebbled dashed from ground level. Full-buttresses positioned intermittently along the length of the wall. Top capped with massed concrete and rebuilt to four courses in concrete block (Plate 10). (No artefactual evidence of date, or evidence for a foundation trench or boot or earlier deposits was noted)
42.38–41.51+m OD	C23 Riverine (Fluvial) clay : Organic water-borne deposit of dark grey-green clay, archaeologically-sterile. <i>Unexcavated</i> .

Summary: Trench IV contained a waterlogged riverine clay deposit (**C23**) on which rests a 5.3m-high masonry limestone rubble wall (**C20**), possibly of late seventeenth / early eighteenth century date. The wall was abutted by garden soil deposits (**C22**), representing the seventeenth century walled garden depicted on Rocque's map, 1758 and associated with Kilkenny College, and Seix mansion c.1666. Recent localised disturbance associated with the car park, plaster and ornamental border to wall.

The wall is post-medieval in date but not of intrinsic architectural or archaeological value, as fabric visible to the south is devoid of architectural features, and is rebuilt in places. However, the boundary of a medieval burgage plot (between no.s 75 & 76 John Street Lower) is possibly fossilised in this wall's alignment, and is protected under the National Policy Guidelines (2005), which includes reference to preservation of walls demarking the line of medieval burgage plot boundary (see page 11). Preservation *in-situ*, or if this is not possible preservation 'by record' is recommended, together with maintaining the integrity of the burgage plot boundary.

TRENCH V – No. 75 (formerly 17 & 29) Johns Street Lower

This trench was one of two cuttings (Trenches V & VI) located in the townland of Gardens (St John's Parish), to the rear yard of No.s 75–76, John Street Lower.

This trench was located within the northern extent of the development site, spanning the width of the no. 75 John Street Lower plot, abutting both the boundary wall to no. 74 and Trench VI. The trench measured 7.5m in length (orientated northeast / southwest), 2m in width and up to 2m in depth. (See Figures 2, 8, 9; Plates 11–14)

The archaeological stratigraphy of this trench was as follows:

44.01–43.88m OD	C3 Tarmac (seals C24), yard surface (70mm in thickness), mortar foundation deposit (130mm in thickness).
43.90–43.70m OD	C24 Deposit (seals C25–C40), demolition layer (modern), associated with Meubles site, 'smoking' shed. Large rounded stone, mortar, rubble, (250mm in depth).
43.65–43.30 m OD	C28/C42 Drain (contemp. with C33/C43 ; cuts C27 , C32). Linear trench for C42 ceramic drainage pipe orientated northeast-southwest; Ceramic drainage pipe C28 (600mm external diameter), concrete surround and rubble infill foundation deposit (0.4m-0.75+m in depth).
43.65 - 43.30 m OD	C33/C43 Drain (cuts C25 , C26 , C32) Fill of C33. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (0.4m-0.75+m in depth).
43.75–43.30 m OD	C25 Deposit (=C26? seals walls C43 & C36/C37), black silty clay, with building rubble (400mm in depth).
43.75–42.90 m OD	C26 Backfill , (in between walls C30 , C32 & C34 ; abuts C27 ; seals C44). Dark brown clayey silt with occasional small stone and clay pipe (800mm in depth).
43.75–43.30 m OD	C27 Upper backfill , (in between walls C30 , C32 & C41 , seals C29). Brick & mortar rubble backfill of upper building (450mm in depth).
43.30–42.85 m OD	C29 Lower backfill , (between walls C30, C32 & C41) Brick & mortar rubble demolition collapse / occupation fill of lower building (450mm in depth)
44.24–42.75 m OD	C30 Wall (abuts wall C32). Mortared cobble wall (aligned northwest-southeast, 420mm in width), on foundation boot 70mm in width (shown on 1 st [1842] editions OS mapping, not shown on 3 rd [1900] edition).
43.38–42.86 m OD	C31 Backfill (=C26?; between walls C32 , C35 & C41). Dark brown clayey silt with occasional small stone and clay pipe. <i>Unexcavated</i>
43.48+m OD	C34 Wall (contains fireplace C37 ; abuts walls C32 & C40). Mortared rubble wall (aligned northwest-southeast, 420mm in width) (also revealed on 1 st [1841] edition OS mapping). <i>Unexcavated</i>
43.48+m OD	C36/C37 Fireplace (set within floor inside walls C34/C40). Dark ash fill of fireplace (C37) within rectangular brick-lined (red/yellow) formal hearth.
43.48+m OD	C38 Wall (abuts C40). Triangular fragment of masonry-origin uncertain (abuts C40). <i>Unexcavated</i> .
43.48+m OD	C35 Masonry (abuts walls C32 & C38) Concentration of irregular masonry rubble - origin uncertain (abuts C32, C38). <i>Unexcavated</i>

43.38–43.00 m OD	C32 Wall (abuts wall C41 ; seals C44). Mortared rubble wall with occasional brick (aligned northeast-southwest). <i>Partially unexcavated</i> (also revealed on 1 st [1842] edition OS mapping).
42.85–42.7+m OD	C44 Deposit (seals C45 ; abuts wall C41) Rubble with mortar & (yellow) brick in clayey silt (250mm in depth).
42.60–42.00m OD	C45 (seals C39). Dark humic silty clay with animal bone.
43.48+m OD	C40 Wall (abutted by C32). Mortared rubble/cobble wall (aligned northwest-southeast), boundary wall no.s 75-6 Johns St Lower. <i>Unexcavated</i> (on Rocque's map, c. 1758).
48.40–42.75+ m OD	C41 Wall , Mortared rubble/cobble wall (aligned northwest-southeast), boundary wall no.s 74-5 Johns St Lower. <i>Unexcavated</i> (on Rocque's map, c. 1758).
42.20+m OD	C39 Riverine (Fluvial) clay (=C23?) : Organic water-borne deposit of dark grey-green clay, archaeologically-sterile. <i>Unexcavated</i> .

Summary: Trench V contained a sterile water-logged riverine clay deposit (**C39**) sealed by an undated organic garden deposit (**C45**) onto or in which is constructed an irregular limestone cobble/rubble boundary wall (**C41**), of late sixteenth/early seventeenth century date sub-dividing plots 74 and 75 John Street Lower (depicted on Rocque's map, 1758). A parallel (unexcavated) contemporary limestone rubble wall (**C40**) sub-divides plots 75 and 76 John Street Lower (=C20). A mortar-rich building layer (**C44**) abutted the northern-most wall, and a number of contemporary light limestone-mortared partition walls (**C30/C34/C38/C35**), for garden structures, were constructed (also visible on the 1st edition OS map, 1842). One such structure contained a brick-lined fireplace (**C36/C37**), with *in-situ* iron grate. Following a series of demolition deposits relating to modern activity, and disturbance from two ceramic inserted drains, the plot was sealed by tarmac, sealing both properties and thus relating to the amalgamation of the two plots after the 'Meubles' furniture showrooms were built in the late 20th century.

The earlier organic riverine clay and surviving structural fragments of garden and boundary walls are post-medieval in date and of local archaeological significance. The two parallel plot boundary walls enclose no. 75 John Street Lower and also represent a fossilised medieval burgage plot and may conceal earlier medieval fabric. Preservation *in-situ*, or if this is not possible preservation 'by record' is recommended.

TRENCH VI – No. 76 (formerly 16 & 27) Johns Street Lower

This trench was one of two cuttings (Trenches V & VI) located in the townland of Gardens (St John's Parish), to the rear yard of No.s 75–76, John Street Lower.

This trench was located within the northwestern extent of the development site, 1m southeast of the rear walls and arch of no.s 75 & 76 John Street Lower. The trench measured 25m in length (orientated northwest / southeast), 1.5m in width and up to 1.7m in depth. (See Figures 2, 8, 10; Plates 15–19)

NB A 100mm-thick concrete slab was encountered across c. 18.4m of the mid and southeastern sections of this trench, which could not be penetrated without potentially causing significant structural damage to surrounding boundary walls from vibration. Due to this obstruction, a significant proportion of this trench was inaccessible.

The archaeological stratigraphy of this trench was as follows:

Central / Southeastern Section (Plate 14):

43.89–43.69m OD	C3 Tarmac , yard surface (70mm in thickness), mortar foundation deposit (130mm in thickness).
43.69–43.65+m OD	C46 Surface (abuts C48 & C40) Concrete yard surface (130+mm in thickness). <i>Unexcavated due to potential vibration damage to neighbouring structures.</i>
43.78–43.57+m OD	C47 Walls (abuts C20) Truncated walls of a rectangular lean-to building (7.6m x 3.1m x 0.42m), mortared limestone rubble walls, (420mm in thickness) also visible on 1840 (1 st edition), 1871 (2 nd edition) & 1900 (3 rd edition) OS mapping. <i>Unexcavated – encased in C24</i>

Northwestern Section (Plates 15–9):

43.89–43.69m OD	C3 Tarmac , yard surface (70mm in thickness), mortar foundation deposit (130mm in thickness).
43.69–43.53m OD	C48 Cobbles Surface of large regular water-rolled limestone cobbles–mortared and evidence of wheel ruts (100mm in thickness), set in mortar and rubble foundation deposit (1300mm).
43.53–43.44m OD	C49 Deposit. (seals C52) demolition deposit, mortar, rubble, slate and seventeenth Century pottery with very occasional stone (150mm in depth).
43.44–42.29m OD	C50 Backfill , fill of cellar (C51). Deposit of modern concrete, building rubble, mortar and occasional redeposited natural yellow clay (1300mm in thickness). <i>Partially unexcavated.</i>
43.44–42.25+m OD	C51 Cellar large modern cellar (cuts C52–56) with machine-made red-brick floor, red-brick kerb (parallel to no. 76 John Street Lower), and possible drain set into the floor (aligned northeast / southwest), 3.3m in length, 1.5m+ in width, 1.5+m deep. <i>Partially unexcavated.</i>
43.44–43.39m OD	C52 Deposit , (Seals C53) Mortar foundation deposit (100mm in depth).
43.39–42.84m OD	C53 Deposit , (seals C54 & C55) Imported reclamation deposit, dark brown silty-clay with very occasional stone (1000mm in depth).
42.84–42.82m OD	C54 Fire pit or refuse from hearth: Localised area of red heat-affected clay. Contains slag inclusions. (Seals cobbles C55). <i>Partially excavated (sondage).</i>
42.84–42.70m OD	C55 Cobbles , (Seals C56) Surface of irregular medium limestone water-rolled cobbles–unmortared (150mm in thickness)-contains medieval green-glazed pottery (Leinster Cooking ware). <i>Partially unexcavated.</i>

42.70–42.49+m OD **C56 Deposit (=C39)**, dark grey-green/blue sticky riverine clayey-silt. *Partially unexcavated (sondage).*

Summary: Trench VI contained a riverine clay soil (**C56**) sealed by an archaeological cobbled surface (**C55**), and associated fire-pit or deposit from a hearth rake out (**C54**), of medieval origin and date. Above this was post-medieval reclamation (**C53**), imported to raise the ground level after the floods associated with the building of the Ormonde and Greens Bridge weirs across the River Nore in the early 19th century (*op. cit.*). A series of post-medieval / early modern building levels followed, including the insertion of a large brick-lined half-cellar floor (**C50/C51**), and a rear rectangular lean-to building (**C47**) depicted on the 1st [1842] edition OS mapping, abutting the boundary wall (**C20**) to no. 76 John Street Lower and the County Council offices. Following demolition, the plot was sealed by successive yard surfaces of cobbles, concrete and finally tarmac (the latter sealing both properties for 'Meubles' furniture showrooms).

The surviving fragment walls of the lean-to shed and half-cellar floor are both of early modern date and of no intrinsic archaeological value. However, to the front of the plot are earlier archaeological soils and features, surviving at c.1m below the present ground surface (42.84m OD), likely to be associated with medieval occupation activity and are of archaeological significance. Preservation *in-situ*, or if this is not possible preservation 'by record' is recommended.

5.2 Ground Investigations monitoring strategy

Site investigations were carried out by IGSL and work took place on 13–15th June & 19th June 2012. This investigation work included geo-technical bore-holes, soak way and trial pit excavations. Where possible, the former was located within the backfilled archaeological test trenches; the latter was subject to archaeological monitoring. The results from these investigations as well as the mapping showing Ground Penetrating Radar (GPR) anomalies were incorporated into this report (See Figures 3, 8).

TRIAL PIT 1 – No. 75 Johns Street Lower

This trial pit was one of two (Trial Pits 1 & 2) located in the townland of Gardens (St John's Parish), to the rear yard of No. 75–6, John Street Lower (See Figure 8).

This trial pit was located within the northwestern corner of the development site, adjacent to the rear wall of no. 75 and 0.85m south of the property boundary wall between no.s 74 & 75 John Street Lower. The trench measured 1.5m in length (orientated northwest / southeast), 0.41m in width and up to 0.7m in depth.

The archaeological stratigraphy of this trench was as follows:

44.02–43.71m OD	C3 Tarmac , yard surface (70mm in thickness), mortar foundation deposit (310+mm in thickness). Included a large tree stump and concrete retaining wall (310mm in height) to step.
46.73–43.31m OD	Porch (abuts no. 74 & 75 John Street Lower) Modern block wall built on light concrete foundation (400mm deep).

Summary: Trial pit 1 was excavated to determine the extent of the foundations to the modern extension to no. 75 John Street Lower. This was determined as a light structure on a shallow 400mm footing. Nothing of archaeological significance was revealed in monitoring.

TRIAL PIT 2 – No. 75 Johns Street Lower

This was the second trial pit of two (Trial Pits 1 & 2) and was also located in the townland of Gardens (St John's Parish), to the rear yard of No. 75–6, John Street Lower (See Figure 8).

This trial pit was located within the northwestern corner of the development site, 2.2m south of the property boundary wall between no.s 74 & 75 John Street Lower, and perpendicular to the archaeological Trench V. The trench measured 1.65m in length (orientated northwest / southeast), 0.45m in width and up to 1.7m in depth.

The archaeological stratigraphy of this trench was as follows:

44.01–43.86m OD	Tarmac (=C3) , yard surface (70mm in thickness), mortar foundation deposit (150mm in thickness).
43.90–43.75m OD	Rubble (=C24/C25/C43) , demolition layer (modern). Large rounded stone, mortar, rubble, (100mm in depth).
43.75–43.41 m OD	Deposit (=C25/C26/C27) , black silty clay, with building rubble with occasional small stone and clay pipe (350mm in depth).
43.41–43.34 m OD	Lens orange sand (150mm in depth).
42.35–43.10m OD	Deposit (=C44) Mixed mid-brown silty clay with crushed mortar & red brick (250mm in depth).
43.10–42.35m OD	Deposit (=C45) . Dark humic silty clay with animal bone.
42.35–41.90+m OD	Riverine (Fluvial) clay (=C23/C39?) : Organic water-borne deposit of dark grey-green clay.

Summary: Trial pit 2 was excavated to determine the geology of the development footprint and the depth of natural undisturbed deposits and subsoil. Excavation revealed a disturbed deposits to a depth of 2.1m, with water egress at a depth of 1.78m. A water-borne riverine clay deposit sealed by an organic mixed sandy gravel garden deposit under a successive levels of demolition rubble mixed with silty clay soil and large rubble. The site was under a layer of modern tarmac and foundation aggregate.

SOAK WAY PIT 1 – Collegepark / Kilkenny County Council Car park

A soak way pit was excavated in the grounds of the County Council Offices.

This isolated rectangular pit was located within the extreme southeastern corner of the development site, 19m southeast of the Trench II. The trench measured 1.5m in length (orientated northwest / southeast), 0.45m in width and up to 1.7m in depth.

The archaeological stratigraphy of this trench was as follows:

43.34–43.04m OD	C3 Tarmac , yard surface (50mm in thickness), black gravel / aggregate foundation deposit (200mm in thickness). Old tarmac surface below (100mm).
43.04–42.74 m OD	Drainage , Orange sand and gravel fill with ceramic drainage pipe (200mm in depth).
42.74–42.50m OD	Deposit Mixed horizon of grey-green sandy gravel silt.
42.50–41.64+m OD	Riverine (Fluvial) clay (=C8) : Organic water-borne deposit of dark grey-green clay, occasional stone.

Summary: Soak away pit 1 was excavated to determine the moisture content and porous nature of the natural soils and geology, within the development footprint. Excavation revealed a water-borne riverine clay deposit revealed elsewhere (C8) sealed by an mixed horizon of grey-green sandy gravel garden deposit truncated by early modern drainage pipes and sealed by two successive layers of modern tarmac and foundation aggregate.

6.0 ARCHAEOLOGICAL IMPACT STATEMENT (PHASE 1)

The proposed development site lies within the Zone of Archaeological Potential (RMP ref.: KK19:26) for the Historic Town of Kilkenny. It is located 15m from the site of a bridge (RMP ref.: KK19:26:071), associated with a medieval mill-stream on John Street is situated 15m from the entrance to no. 75 John Street Lower, and also located c.100m from the medieval St. John's Augustinian Priory (RMP ref.: KK19:26:018). The proposed development area is subject to the statutory protections of the National Monuments Acts 1930-2004, the Planning and Development Act 2000 and the provisions of the documents 'Frameworks and Guidelines for the Protection of the Archaeological Heritage' (DoEHLG 1999) and Architectural Heritage Guidelines for Local Authorities (DoEHLG 2005), and National Policy Guidelines on Town Defences (DoEHLG 2005).

The occupying buildings and lean-to shed and porch proposed to be demolished are late 20th century in date. However, some limestone property boundary walls within the development (also proposed to be demolished) are post-medieval and potentially earlier in date, and these may delineate or fossilize the alignment of the medieval burgage boundaries (See Figure 2). In addition, archaeological test trenching revealed archaeological evidence of significance in both areas of investigation (See Figures 1–10; Plates 1–19). Evidence for medieval and later medieval deposits and feature survive beneath 1m of post-medieval reclamation soil and cobbling, closest to the street frontage in no. 76 John Street Lower. Excavation also revealed post-medieval / early modern limestone rubble-mortared boundary walls, later brick and limestone rubble partition walls, an *in situ* fireplace and associated garden deposits to the rear of no.s 75 & 76 John Street Lower. (See Figures 2, 8–10; Plates 11–19).

In Collegepark (Phase 1A; See Figure 3), the site crosses the supposed line of the medieval Town Wall, which may extend along the line of an in-filled mill-race (See Section 3.2.5 for discussion on alternative locations). Testing of the rear boundary wall, to no. 76 John Street Lower, revealed a mortared limestone-rubble wall that continues 2.9m below ground level, with a slightly-splayed base, resting on a narrow plinth and it was completely rebuilt above 1.8m above ground level (See Figures 2, 3, 5–7; Plates 5–8). The wall appeared to be associated with an undated mill-race depicted on Rocque's map of 1758, and was abutted by a later, ruined-mill building of early modern date, depicted on 1842 Ordnance survey mapping. No evidence of defensive arrow loops, mural towers, or pronounced base-batter was found in testing that would indicate this wall originally functioned as a defensive Town Wall. However, much of this wall was obscured by modern pebble-dash plaster finish and ivy, and the thickness of the wall could not be determined in this phase of testing. Additional assessment would be necessary to provide a definitive interpretation of the wall.

Item	Natural of Impact	Location	Trench	Feature(s)	Context	Figure	Plates	Proposed Mitigation
1	Direct impact to 'suggested' line of Defensive Town Wall	76 John St Lwr, Collegepark / Gardens Td.s	II, III	Wall	C01	2, 3, 5	1, 5-8	a. Further assessment of wall to include testing (Phase 2); chemical analysis of mortar samples; removal of renders. b. Preservation <i>in situ</i> of surviving Town Wall. c. Development not to cross line of Town Wall Defences (DoEHLG Guidelines 2005, 11).
2	Direct impact to upstanding walls over burgage plot boundaries	Collegepark / Gardens Td.s	IV, V, VI	Walls	C20, C40, C41	2, 9	9-11	a. Archaeological assessment, excavation & recording. b. Preservation <i>in situ</i> surviving pre-1700 fabric. c. Development to maintain existing street layout plot widths & boundaries (DoEHLG Guidelines 2005, 11).
3	Indirect impact to surviving fabric pre-1700 & sub-surface archaeology	75-6 John St Lr, Gardens Td.	V, VI	Hearth, surfaces, soils, walls	C18, C19, C39, C45, C54, C55, C56	8, 9, 10	12-3, 18-9	a. Archaeological excavation & recording. b. Preservation <i>in situ</i> or preservation by record of surviving pre-1700 features. c. Development foundations to avoid and maintain buffer to surviving pre-1700 features.
4	Survival of historic mill building (and associated elements)	Collegepark Td.	II, III	Walls, Sluice, Surface	C2, C12, C14, C15, C16, C17	3, 5, 6, 7	2, 4-8	a. Archaeological excavation & recording. b. Preservation <i>in situ</i> or preservation by record of surviving pre-1700 features. c. Development foundations to avoid and maintain buffer to surviving pre-1700 features.
5	Survival of post-1700 historic fabric	75-6 John St Lr Collegepark / Gardens Td.s	I-VI	Walls, Fireplace, Surface, Path, Cellar, Gardens	C7, C13, C22, C30, C32, C34, C36-C38, C44, C47-C53	3, 5, 6, 7, 8, 9, 10	12-9	a. Archaeological excavation & recording. b. Preservation 'by record' of surviving post-1700 historic features.

Table 3: Archaeological impact table with proposed recommendation for mitigation.

7.0 RECOMMENDATIONS & MITIGATION MEASURES

The recommendations and mitigation measures presented in this report follow on from those suggested in the preliminary archaeological assessment carried out in May 2011 (Ó Drisceoil 2011, 22–5), and the historical architectural conservation assessment carried out in May 2012 (Goodbody 2012, 36–8).

Preservation *in situ* of the pre-1700 standing masonry walls, archaeological features, structures and deposits is recommended. Should this prove impossible, an agreed mitigation strategy would be necessary, approved in writing by the National Monuments Section, Department of the Arts, Heritage & Gaeltacht. This strategy may allow for full resolution *i.e.* preservation 'by-record' and / or partial preservation *in-situ*. Recommendations for potential archaeological impact and possible mitigation, plus additional investigation work, are presented in detail in the table below (Table 3).

This phase of assessment work (Phase 1) forms part of a two-phased approach to the archaeological impact assessment of this development. Additional archaeological assessment is proposed to take place following the approved demolition of existing structures following submission of the Part VIII. However, some limited additional assessment and recommended analysis can take place beforehand, including removal of plaster and chemical mortar analysis (See Table 3).

PLEASE NOTE:

Recommendations are subject to written approval by the National Monuments Section, Department of the Arts, Heritage & Gaeltacht, who may choose to issue additional or alternative requirements.

Prior to the beginning of the construction and also during construction, an agreed archaeological mitigation strategy is required to ensure conservation and preservation of historical and archaeological fabric impacted by this development.

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JRSAI	Journal of the Royal Society of Antiquaries of Ireland
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APPENDICES

APPENDIX A: CONTEXT REGISTER

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
1	1A, III	Wall	Wall, orientated NE/SW, uniform coursed rubble masonry wall, slightly battered at 1m below ground level, rebuilt at 1.8m above ground level. Pebbled dashed from ground level. Plaster occasionally surviving	13.8+	0.6+	7.00	47.74	40.80
2	1A, II & III	Wall	Wall, orientated NE/SW, uniform coursed rubble masonry wall, vertical, with brick-headed ope at ground floor (sluice) & brick-lined ope (window) at first floor, pebbled dashed from ground level. No plaster. Abuts C1	3.70	0.30	4.3+	45.83	41.65+
3	1A, I	Deposit	Tarmac / kerb, road surface (130mm in thickness) & mortar foundation deposit (300mm in thickness).	14.00	6.00	0.42	43.80	43.25
3	1B, VI	Deposit	Tarmac / kerb, road surface (130mm in thickness) & mortar foundation deposit (300mm in thickness).	21.50	5.00	0.42	44.01	43.88
4	1A, I	Deposit	Black aggregate road foundation	14.00	6.00	0.60	43.45	42.85
5	1A, I	Fill	Fill of C6. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (1m-1.5+m in depth).	6+	1.00	1.5	42.85	42.33+
6	1A, I	Drain	Linear trench for C5 ceramic drainage pipe orientated NE-SW	6+	1.00	1.5+	42.85	42.33+
7	1A, I-III	Deposit	Deposit of mid-brown sticky clay with red brick and occasional stone (500mm in depth)	10+	1.5+	0.50	42.85	42.25
8	1A, I-III	Deposit	Possibly-natural deposit of blue-grey water-affected sticky boulder clay, archaeologically-sterile.	10+	1.5+	X	42.25+	X
9	1A, II-III	Topsoil	Light brown silty clay with modern debris and stone	18.00	14.00	0.30	43.69	43.29
10	1A, II & III	Deposit	Modern overburden, dark silty clay with modern debris	17.5+	1.5+	1.00	43.39	42.39
11	1A, II	Pit	Modern amorphous pit filled with recent concrete rubble / debris	x	1.70	1.50	43.29	42.29
12	1A, II	Wall	Southeastern-most mill wall, orientated northeast / southwest, uniform coursed rubble vertical masonry wall. Traces of a slight boot foundation. Rests on / abuts fluvial clay C8.	1.3+	0.60	1.55	43.23	41.60

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
13	1A, II	Path	Light buff sandy-gravel linear path, aligned northeast / southwest (250mm in depth).	1.5+	1.20	0.25+	43.49	43.29+
14	1A, II & III	Deposit	Inner (upper) demolition deposit, (=C7 abuts inner face of walls C2 & C15) internal deposit of mid-brown sticky clay with hand-made red brick rubble, bone, oyster shell, ceramic jars, glass, floor tile and roof slates (at base), mortar and occasional stone (1000mm in depth).	3.25	2.10	1.00	43.15	42.11
15	1A, II & III	Wall	Mill wall, (abuts wall C1) northwestern-most wall of square mill. Vertical masonry wall orientated northwest / southeast parallel to C2; uniformly-coursed limestone rubble with stone boot foundation (100mm wide).	1.50	0.52	1.50	43.18	41.50
16	1A, III	Floor	Mill head-race? Stone boulder floor, set against wall C15. Overlying natural river gravels, external stone surface of hydraulic lime-mortared large blocky limestone.	2.5+	1.5+	0.20	42.20	42.00
17	1A, III	Deposit	Lower internal silting fill deposit of mill building, waterlogged silt, with brick rubble and stone.	3.25	2.10	x	43.79	41.68+
18	1A, III	Cut	Mill race; linear channel orientated NE / SW, extending from Rover Nore to mill building. Appears on 1758 (Rocque's map), 1840 (1st edition OS), 1900 (2nd edition OS) and later maps, filled in before 1950, (unexcavated).	130.00	3.25	1.2+	42.25	40.71+
19	1A, III	Fill	Fill of mill head race channel (C18, abuts wall C1), black imported natural river gravel with water-logged organic sandy clay deposits, archaeologically-sterile. <i>Unexcavated</i>	2.5+	1.5+	1+	42.00	41.00
20	1B, VI	Wall	Wall, (=C40; bonded to C1?) northern boundary wall between no. 76 John Street Lower and Collegepark/Kilkenny County Council (continues into Trench V as C40) where wall demarks the possible line of a medieval 'burgage plot' dividing no.s 75 / 76 John's Street Lower. May also represent continued revetment of mill-race (if the northern extend of the mill-race is fossilised in the townland boundary). Masonry wall, orientated northwest / southeast, uniform coursed rubble masonry wall, no evidence of a base-battered at 1m below ground level, rebuilt at 1.8 above). Plaster surviving below 43.8m OD. Pebbled dashed from ground level. Full-buttresses positioned intermittently along the length of the wall. Top capped with massed concrete and rebuilt to four courses in concrete block.	37.50	0.60	5.30	47.68	42.38
21	1B, VI	Border	Border, modern, mid-brown bedding soil with climbing shrubs (c5 years of age).	37.50	0.90		44.08	43.80

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
22	1B, VI	Deposit	Garden deposit, (abuts outer face of wall C20) dark brown garden-soil silty-clay deposit with very occasional stone (1000mm in depth).	2+	1.5+	1.00	43.88	42.88
23	1B, V-VI	Fluvium	Deposit of dark blue-black sticky-boulder clay natural riverine clay deposit.	2+	1.5+	1+	42.38	41.51+
24	1B, IV	Deposit	Demolition deposit (modern), associated with Meubles site, 'smoking' shed (seals C25-C40) large rounded stone, mortar, rubble, (200mm in depth).	5+	2+	0.20	43.90	43.70
25	1B, IV	Deposit	Black silty clay, with building rubble (seals C43 & C36/C37)	2.5+	0.6+	0.40	43.75	43.30
26	1B, IV	Deposit	Dark brown clayey silt with occasional small stone and clay pipe (between walls C30, C32 & C34)	3.35	0.6+	0.80	43.75	42.90
27	1B, IV	Deposit	Brick & mortar rubble backfill of upper building (between walls C30, C32 & C41)	1.5+	1.50	0.45	43.75	43.30
28	1B, IV	Drain	Linear trench for C42 ceramic drainage pipe orientated NE-SW	3.7+	0.40	0.40	43.65	43.30
29	1B, IV	Deposit	Brick & mortar rubble demolition collapse / occupation fill of lower building (between walls C30, C32 & C41)	1.5+	1.50	0.45	43.30	42.85
30	1B, IV	Wall	Mortared cobble wall (aligned NW-SE), on foundation boot 70mm in width (on 1st & 2nd edition OS mapping)	0.65+	0.42	0.95	44.24	42.75
31	1B, IV	Deposit	Dark brown clayey silt with occasional small stone (between walls C32, C35 & C41)	5.15	0.80	0.52	43.38	42.86
32	1B, IV	Wall	Mortared rubble wall with occasional brick (aligned NE-SW). Partially unexcavated (also revealed on Rocque, 1st & 2nd edition OS mapping)	7.00	0.58	0.40	43.38	43.00
33	1B, IV	Drain	Linear trench for C43 ceramic drainage pipe orientated NW-SE	2.3+	0.50	0.40	43.65	43.30
34	1B, IV	Wall	Mortared rubble wall (aligned NW-SE) (contains fireplace C37). Unexcavated (also revealed on 1st & 2nd edition OS mapping)	0.58+	0.42	x	43.48	x
35	1B, IV	Masonry	Concentration of irregular masonry rubble - origin uncertain (abuts C32, C38). <i>Unexcavated</i>	1.40	0.80	x	43.48	x

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
36	1B, IV	Fill	Dark ash fill of fireplace (C37)	0.70	0.50	x	43.48	x
37	1B, IV	Fireplace	Rectangular brick-lined (red/yellow) formal hearth (set within floor inside walls C34/C40)	0.90	0.75	x	43.48	x
38	1B, IV	Wall?	Triangular fragment of masonry-origin uncertain (abuts C40). <i>Unexcavated</i>	1.00+	0.40	x	43.48	x
39	1B, IV	Fluvium	Dark grey - green river clay mottled blue (natural?)	1.1+	0.50	x	42.20	x
40	1B, IV	Wall	Mortared rubble/cobble wall (aligned NW-SE), boundary wall no.s 75-6 Johns St Lower. <i>Unexcavated</i> (on Rocque's map, 1st & 2nd edition OS mapping)	2.00+	0.60	x	43.48	x
41	1B, IV	Wall	Mortared rubble/cobble wall (aligned NW-SE), boundary wall no.s 74-5 Johns St Lower. <i>Unexcavated</i> (on Rocque, 1st & 2nd edition OS mapping)	15.00	x	5.65+	48.40	42.75+
42	1B, IV	Fill	Fill of C28. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (0.4m-0.75+m in depth).	3.7+	0.40	0.40	43.65	43.30
43	1B, IV	Fill	Fill of C33. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (0.4m-0.75+m in depth).	2.3+	0.50	0.40	43.65	43.30
44	1B, IV	Deposit	Rubble with mortar & (yellow) brick in clayey silt (cut by walls C30, C32 & C34)	5+	2+	0.25	42.85	42.7+
45	1B, IV	Deposit	Dark humic silty clay with animal bone	5+	2+	0.60	42.60	42.00
46	1B, V	Surface	Concrete (abuts C48), Surface concrete yard surface (130+mm in thickness). <i>Unexcavated</i>	18+	3+	0.13	43.69	43.65+
47	1B, V	Walls	Truncated walls of a rectangular lean-to building (abuts C20), mortared limestone rubble walls, (420mm in thickness) also visible on 1900 3 rd edition OS map.	7.60	3.10	0.42	43.78	43.57+
48	1B, V	Surface	Cobbles (abutted by C46), Surface of large regular water-rolled limestone cobbles-mortared and evidence of wheel ruts (100mm in thickness), set in mortar and rubble foundation deposit (1300mm)	0.7+	1.5+	1.00	43.69	43.63
49	1B, V	Deposit	Demolition deposit, (seals C52) mortar, rubble, slate with very occasional stone (150mm in depth).	7+	1.5+	0.15	43.53	43.44

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
50	1B, V	Fill	Backfill, fill of cellar (C51). Deposit of modern concrete, building rubble, mortar and occasional redeposited natural yellow clay (1300mm in thickness).	3.3+	1.5+	1.30	43.44	42.29
51	1B, V	Cellar	Structure: large modern cellar (cuts C50) with machine-made red-brick floor, red-brick kerb (parallel to no. 76 John Street Lower), and possible drain set into the floor (aligned northeast / southwest), 3.3m in length, 1.5m+ in width, 1.5+m deep.	3.3+	1.5+	1.5+	43.44	42.25+
52	1B, V	Deposit	(Seals C53) Mortar foundation deposit (100mm in depth).	2m+	1.5+	0.10	43.44	43.39
53	1B, V	Deposit	Imported reclamation deposit, (seals C54 & C55) dark brown silty-clay with and 17th C pottery very occasional stone (1000mm in depth).	2m+	1.5+	0.30	43.39	42.84
54	1B, V	Hearth	Fire pit/hearth: Localised area of red heat-affected clay. Contains slag inclusions. (Seals cobbles C55)	0.9+	0.5+	0.02	42.84	42.82
55	1B, V	Surface	Cobbles (seals C56); surface of irregular medium limestone water-rolled cobbles-unmortared (150mm in thickness). Partially unexcavated	0.7+	1.5+	0.50	42.84	42.79
56	1B, V	Fluvium	(=C23) Dark grey-green sticky boulder clay (1000mm+ thickness)	0.8+	0.75+		42.82	42.49+

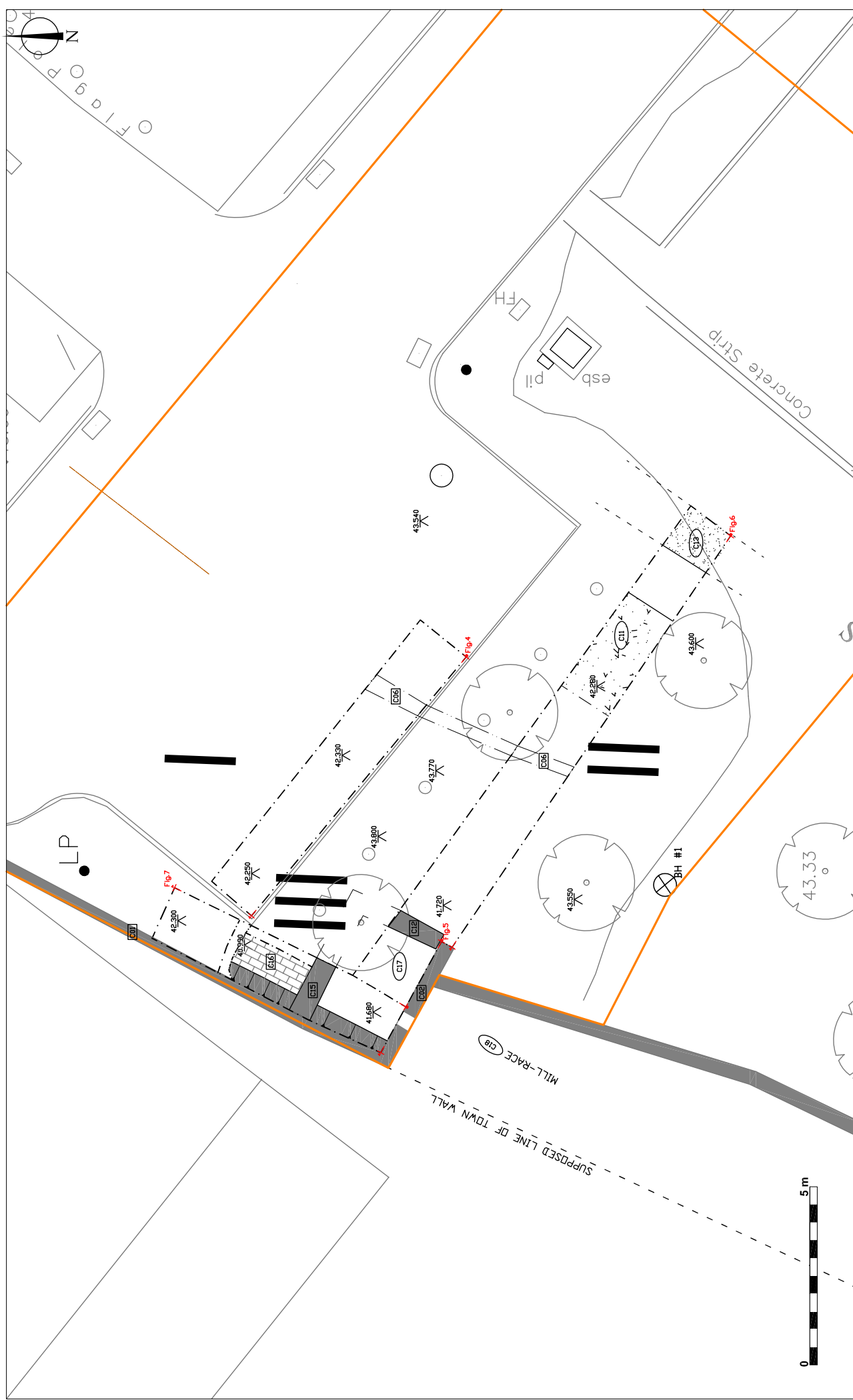
APPENDIX B LIST OF ARTEFACTS

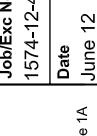
Find No.	Material	Type	Description	Context	Area/Trench	Context Type
E4417:1	Glass	Bowl	Complete clear decorated glass sugar bowl	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:2	Ceramic	Pottery	Stoneware ointment jar complete	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:3	Ceramic	Pottery	Stoneware ointment jar complete	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:4	Ceramic	Pottery	Earthenware roof tile	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:5	Ceramic	Pottery	China/porcelain egg cup, broken foot otherwise complete	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:6	Ceramic	Pottery	Earthenware body/rim sherd with impressed ridge of flower pot	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:7	Ceramic	Pottery	Complete stoneware jars-ointment	C14	1A, II & III	Fill of Mill
E4417:8	Ceramic	Pottery	Complete stoneware-flagon	C14	1A, II & III	Fill of Mill
E4417:9	Ceramic	Pottery	Rim sherd earthenware with impressed ridge	C14	1A, II & III	Fill of Mill
E4417:10	Ceramic	Pottery	Body rim sherd earthenware flower pot	C14	1A, II & III	Fill of Mill
E4417:11	Glass	Bottle	Complete clear glass bottle-mineral, floral decoration on body	C14	1A, II & III	Fill of Mill
E4417:12	Glass	Bottle	Complete dark green glass wine bottle (1/2 size) wine green	14	1A, II & III	Fill of Mill
E4417:13	Glass	Bottle	Body/base sherd dark green glass wine bottle very pronounced base kick <i>DBC (Dublin Bottle Co.)</i>	14	1A, II & III	Fill of Mill
E4417:14	Glass	Bottle	Complete dark green wine bottle; tall neck (hand-blown) with high basekick & nipple.	14	1A, II & III	Fill of Mill
E4417:15	Stone	Tile	Complete stone (green rhyolite?) floor tile	14	1A, II & III	Fill of Mill
E4417:16	Ceramic	Tobacco pipe	Clay tobacco pipe stems (x 2) c1800's	26	1B, IV	Fill of Building
E4417:17	Ceramic	Pottery	Brownware body sherd	29	1B, IV	Fill of Building

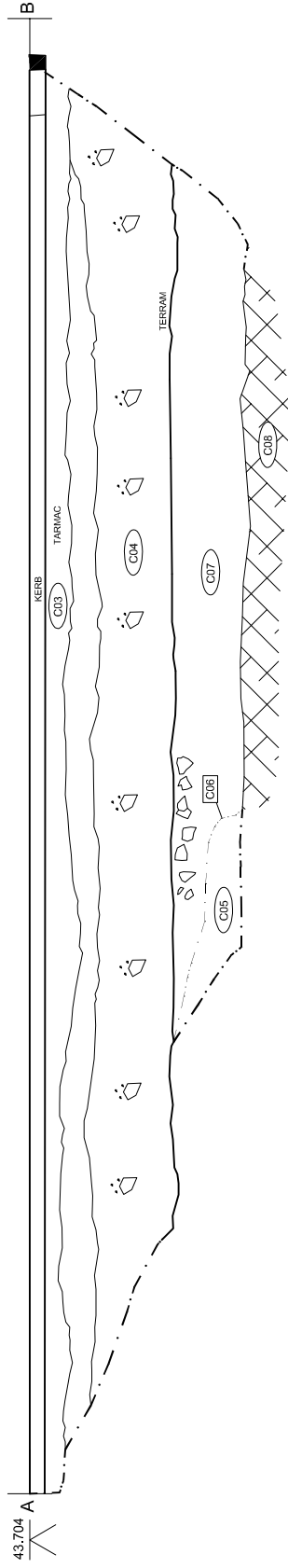
Find No.	Material	Type	Description	Context	Area/Trench	Context Type
E4417:18	Ceramic	Pottery	Brownware body sherd	29	1B, IV	Fill of Building
E4417:19	Ceramic	Pottery	Brownware base sherd	29	1B, IV	Fill of Building
E4417:20	Glass	Bottle	Fragment clear glass, neck/body, with circular crest stamp " <i>Chateau Ruasan Segla Margaux, T. W. Stapleton</i> "	29	1B, IV	Fill of Building
E4417:21	Glass	Bottle	Clear glass soda bottle sherd base/rounded	29	1B, IV	Fill of Building
E4417:22	Ceramic	Pottery	17th C pottery Sgraffitto ware body sherd	53	1B, V	Reclamation
E4417:23	Ceramic	Pottery	body sherd green-glazed pottery (Leinster Cooking ware)	55	1B, V	Cobbles

APPENDIX C LIST OF SAMPLES

Sample No.	Material	Description	Purpose	Size	Context #	Area/Trench	Conext Type
1	Mortar	Mortar	Specialist analysis	1 sm bag	C1	1A, III	Wall
2	Mortar	Mortar	Specialist analysis	1 sm bag	C2	1A, II & III	Wall
3	Mortar	Mortar	Specialist analysis	1 sm bag	C20	1B, VI	Wall
4	Mortar	Mortar	Specialist analysis	1 sm bag	C21	1B, VI	Wall
5	Mortar	Mortar	Specialist analysis	1 sm bag	C30	1B, IV	Wall
6	Mortar	Mortar	Specialist analysis	1 sm bag	C32	1B, IV	Wall
7	Mortar	Mortar	Specialist analysis	1 sm bag	C40	1B, IV	Wall
8	Mortar	Mortar	Specialist analysis	1 sm bag	C41	1B, IV	Wall
9	Mortar	Mortar	Specialist analysis	1 sm bag	C57	1A	Wall



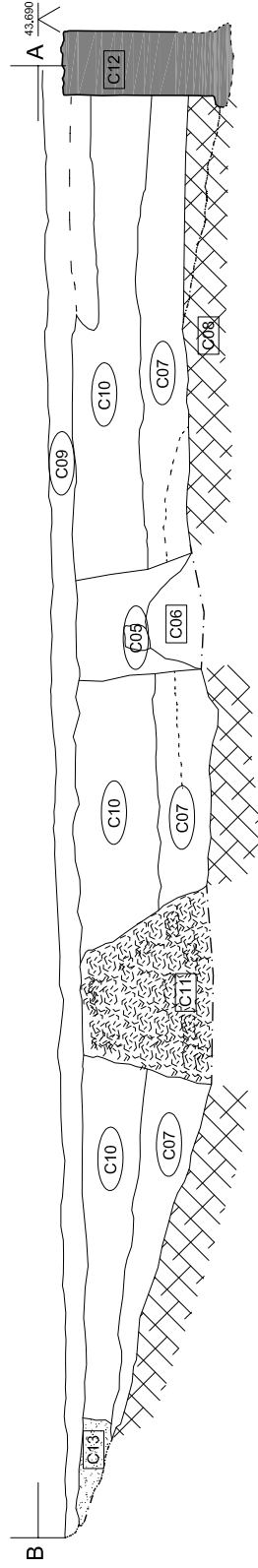
Title Site plan, Phase 1A showing trenches I-III, boreholes, trial pits and GPR anomalies	Notes - - - Test Trenches Walls Stone Floor GPR --- Clay Pipes Path Concrete --- Extent of Phase 1A	Job/Exc No. 1574-12-400 Date June 12	Completed by GW Scale 1:100	CAD reference R:Figs1-10.dwg Drawing No. Figure 3	Client Bucholz McEvoy Architects Ltd. Project Kilkenny Library Project	 Valerie J. Kealey Ltd. ARCHAEOLOGICAL CONSULTANCY	Brehon House Kilkenny Road Castlecomer Co. Kilkenny.	Tel: (+353) 056 4440236 Fax: (+353) 056 4440237 Email: vjk@vjk.ie Website: www.vjk.ie
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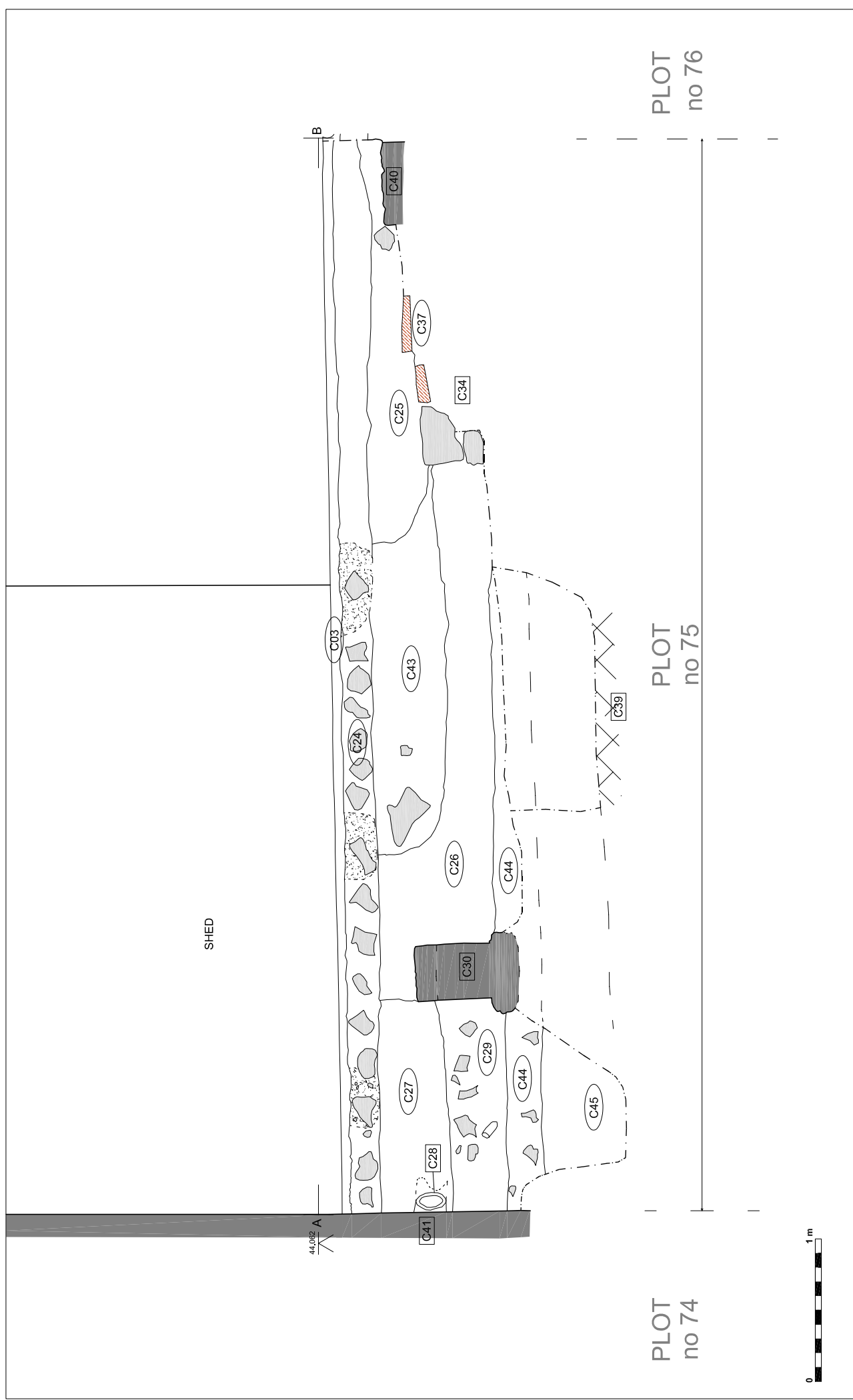
Title Northeast-facing section of Trench I	Notes Road Foundation Excavation Subsoil	Works/Exc No. 1574-12-400	Compiled by GW	CAD reference R:Figs1-10.dwg	Client Bucholz McEvoy Architects Ltd.		Brehon House Kilkenny Road Castlecomer Co. Kilkenny.	Tel: (+353) 056 4440236 Fax: (+353) 056 4440237 Email: vjk@vjk.ie Website: www.vjk.ie
		Date June 12	Scale 1:50	Drawing No. Figure 4	Project Kilkenny Library Project			



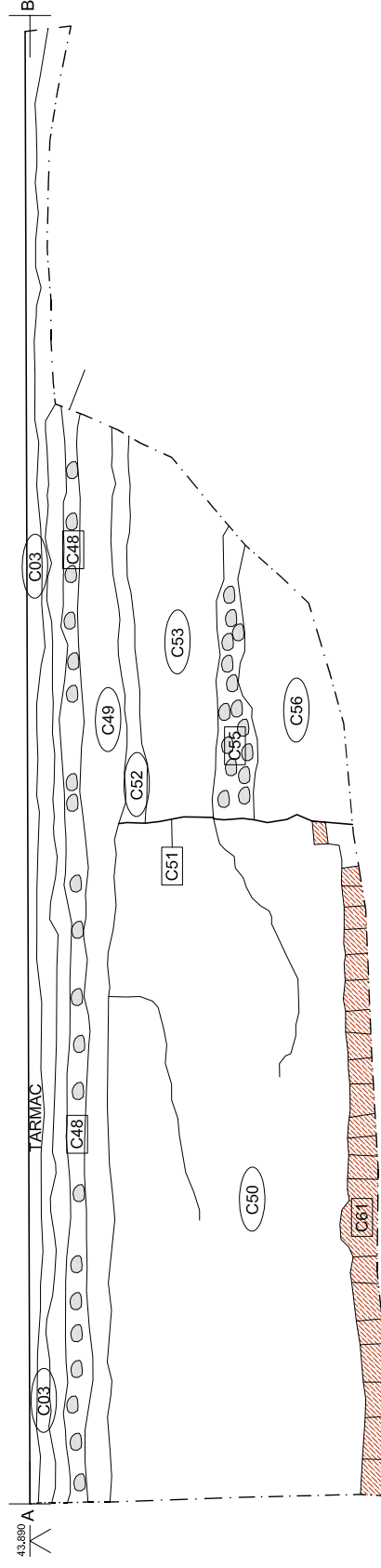
Title Northeast-facing elevation of southern gable wall (C02) of mill, Trench II	Notes P Putlock S Sill  Pebbledash  Concrete	 Wall  Stone  Brick	Works/Exc No. 1574-12-400	Compiled by GW	CAD reference R:\Figs1-10.dwg	Client Bucholz McEvoy Architects Ltd.	 Valerie J. Kenley Ltd. ARCHAEOLOGICAL CONSULTANTS Tel: (+353) 056 4440236 Fax: (+353) 056 4440237 Email: vjk@vjk.ie Website: www.vjk.ie Brehon House Kilkenny Road Castlecomer Co. Kilkenny.
						Project Kilkenny Library Project	



Title Northeast-facing section of Trench II	Notes Concrete Sand Subsoil Wall	Job/Exc No. 1574-12-400 Date June 12	Completed by GW	CAD reference R:Figs 1-10.dwg	Client Bucholz McEvoy Architects Ltd. Project Kilkenny Library Project	 Brehon House Kilkenny Road Castlecomer Co. Kilkenny. Tel: (+353) 056 4440236 Fax: (+353) 056 4440237 Email: vjk@vjk.ie Website: www.vjk.ie
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Title Northeast-facing section through Trench V	Notes		Job/Exc No. 1574-12-400		Compiled by GW	CAD reference R:Figs 1-10.dwg	Client Bucholz McEvoy Architects Ltd.
	Concrete Stone Subsoil Brick Wall		Date June 12	Scale 1:25	Drawing No. Figure 9		



Title Northeast-facing section through Trench VI	Notes  Brick  Stone	Job/Exc No. 1574-12-400 Date June 12	Completed by GW Scale 1:25	CAD reference R:Figs 1-10.dwg Drawing No. Figure 10	Client Bucholz McEvoy Architects Ltd. Project Kilkenny Library Project	 Brehon House Kilkenny Road Castlecomer Co. Kilkenny. Tel: (+353) 056 4440236 Fax: (+353) 056 4440237 Email: vjk@vjk.ie Website: www.vjk.ie
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PLATES



Plate 1: Pre-excavation view of Collegepark townland (Phase 1A; Trench I-III), looking northwest.



Plate 2: Pre-excavation view of Trenches I-III, Collegepark townland (Phase 1A), looking south.



Plate 3: Post-excavation view of Trench I, Collegepark townland (Phase 1A), looking northwest.



Plate 4: Post-excavation view of Trench II, Collegepark townland (Phase 1A), looking northwest.



Plate 5: Walls C1 (left) & C15 (right), Trench III, Collegepark townland (Phase 1A), looking northwest.



Plate 6: Walls C15 (left) & C1 (right), Trench III, Collegepark townland (Phase 1A), looking southwest.



Plate 7: Upper mill wall C2, Trench II, Collegepark townland (Phase 1A), looking south.



Plate 8: Lower mill wall C2 and sluice. Trench II, Collegepark townland (Phase 1A), looking south.



Plate 9: Boundary wall C20, and garden soil C22. Trench IV, Collegepark townland (Phase 1B), looking southeast.



Plate 10: Boundary wall C20, view from rear no. 76 John Street Lower (Gardens townland), looking east.



Plate 11: Trench V, (Phase 1B), rear yard no.s 75 John Street Lower (Gardens townland), looking northeast.

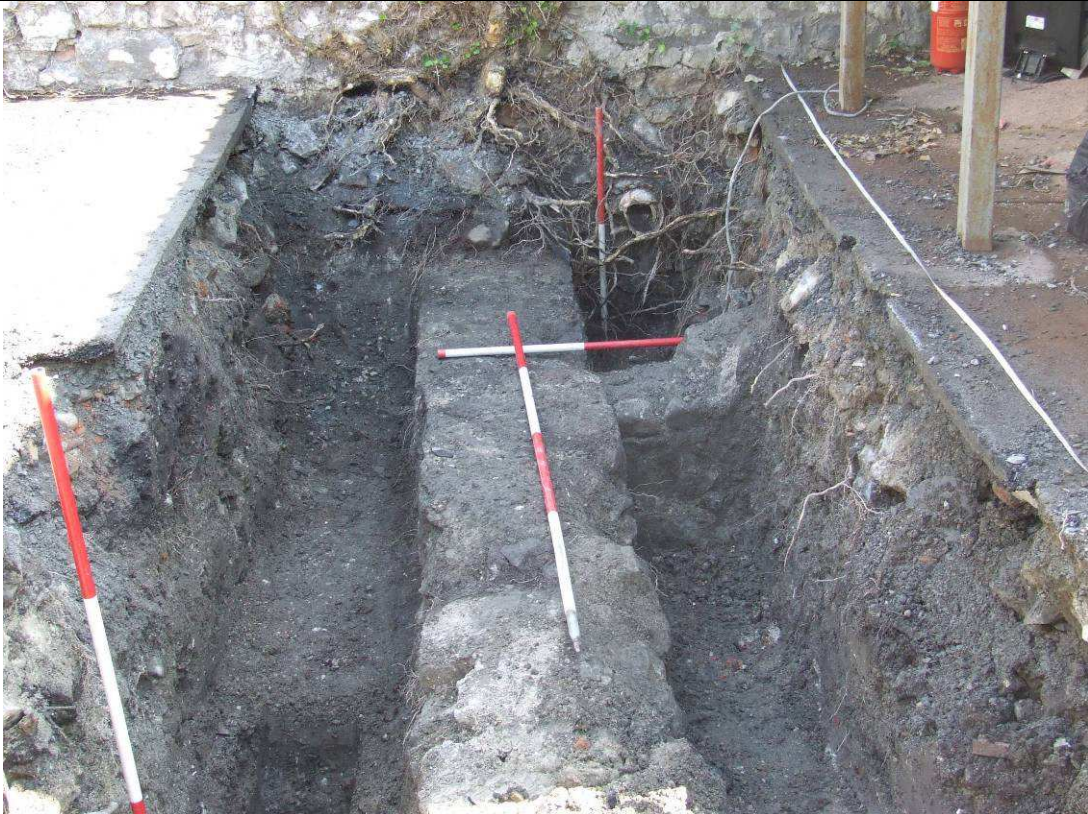


Plate 12: Trench V (northern extent), showing internal walls C30 & C32, abutting the rear boundary wall C41. No. 75 John Street Lower, Gardens townland (Phase 1B), looking northeast.



Plate 13: Trench V (southern extent), showing internal walls C32, C34 & C40. No. 75 John Street Lower, Gardens townland (Phase 1B), looking southwest.



Plate 14: Trench V (southern extent), showing fireplace and iron grate C36/C37 & masonry features C38 & C35. No. 75 John Street Lower, Gardens townland (Phase 1B), looking southwest.

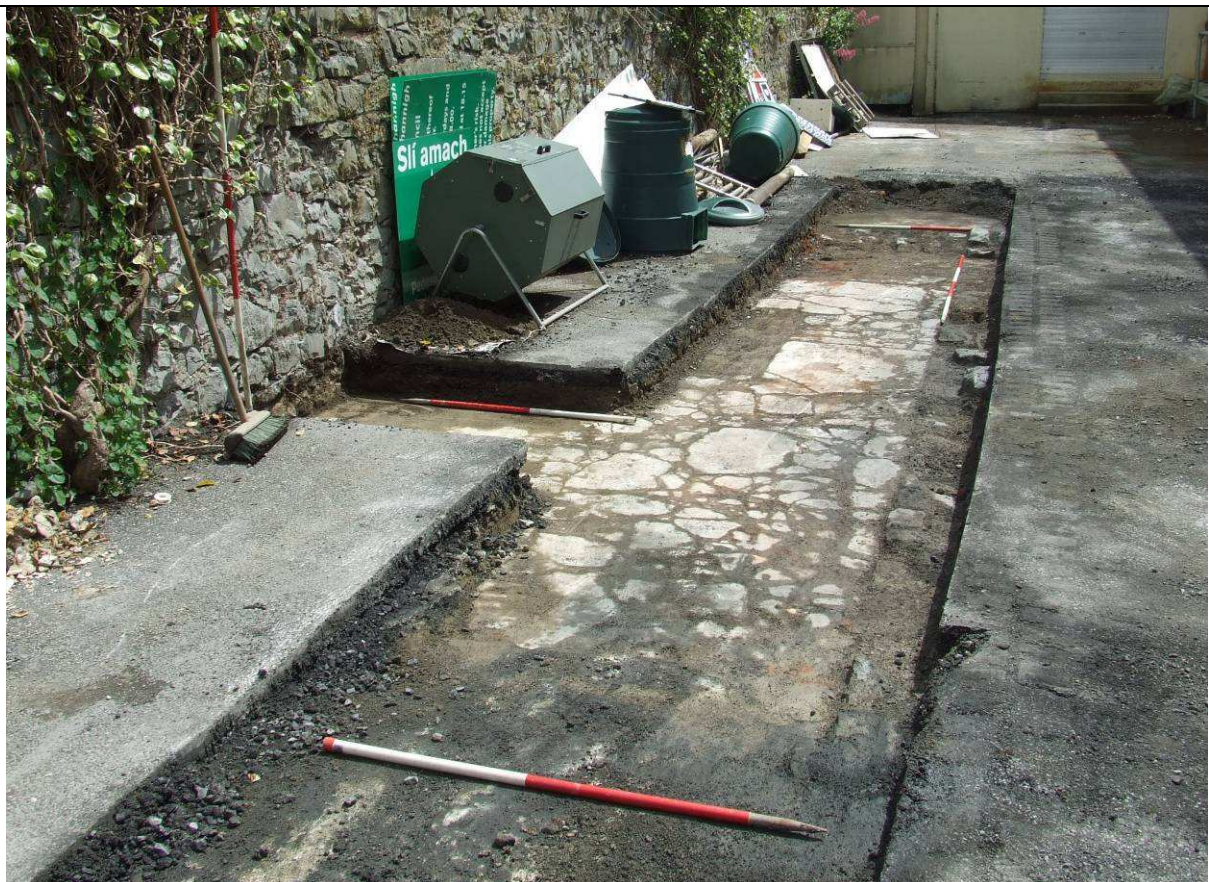


Plate 15: Trench VI (east), showing concrete floor C46 and lean-to walls C47. No. 76 John Street Lower (Gardens townland), looking southeast.



Plate 16: Trench VI (west), showing post-medieval cobbles surface C48. No. 76 John Street Lower (Gardens townland), looking southeast.



Plate 17: Trench VI (west), showing cellar floor C51. looking southwest.



Plate 18: Trench VI (west), showing cellar ledge C51 cutting features C54 & C55, looking northeast.



Plate 19: Trench VI (west), showing cellar ledge C51 cutting reclamation deposit C53, medieval ash/hearth features C54, looking northeast.



Plate 20: Trial Pit 1, under excavation, looking northwest.



Plate 21: Trial Pit 2, under excavation, looking northwest.

**Kilkenny City & County Library Development Project:
ARCHAEOLOGICAL IMPACT ASSESSMENT (Phase 1 – part 2)**

REPORT 2

Site Name: 75–76 John Street Lower, Kilkenny City
NGR: E 250875, N 155930
Site Type: Urban–post-medieval / Early modern
RMP ref.s: KK019:026001(City wall environs), KK019:120069(environs)
Ministerial Consent: C523
Excavation number: E4417
Detection Device: R300

EXECUTIVE SUMMARY

Archaeology Report 2 (Phase 1–part 2) comprises an archaeological impact assessment report on additional archaeological testing and investigation, undertaken in September and October 2012. Work was conducted by Paul Stevens, Valerie J Keeley Ltd. on behalf of Kilkenny Council and Borough Councils, for a proposed City and County Library development. The area of investigation was located around the rear boundary wall and inside the building at the rear of 76 John Street.

Phase 1 – Part 2 represented a single hand-dug archaeological test-pit located inside a standing building, and assessment following manual removal of plaster/render from the rear boundary wall to 76 John Street Lower.

This report was issued following correspondence from Department of Arts, Heritage and the Gaeltacht, dated 25th July 2012, requesting clarification and further information on the archaeological findings and possible impacts.



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

Your Ref: 1574-12-400
Our Ref: G Pre00300/2012

25th July 2012

Valerie J Keeley Ltd
FAO Paul Stevens
Brehon House
Kilkenny Road
Castlecomer
Co Kilkenny

Re: Proposed library development at 75 & 76 John Street Lower, Kilkenny

A Chara

I refer to your pre-planning enquiry in relation to the above-proposed development and documents submitted in relation to same.

Outlined below are the recommendations/observations of the **Department of Arts, Heritage and the Gaeltacht** in relation to archaeology.

It is noted that the proposed development is within the zone of archaeological potential established around the historic city of Kilkenny, Recorded Monument KK019-026, which is subject to statutory protection in the Record of Monuments and Places, established under section 12 of the National Monuments (Amendment) Act, 1994. As the proposed development is located along the projected line of the town wall it would also be subject to Ministerial Consent under the National Monuments (Amendment) Act 2004.

The information presented in the archaeological assessment report submitted has been reviewed. The issue of the identification of the town wall is critical to the proposed development and to its appropriate design in this location. The report states that "No evidence of defensive arrow loops, mural towers, or pronounced base-batter was found in testing that would indicate this wall [C01] originally functioned as a defensive town wall." Equally, the archaeological evidence presented does not demonstrate that the wall C01 is not the town wall.

If the developer wishes to contend that the wall C01 is not the town wall, then this section concurs with the following statement, also from the archaeological report, that "additional assessment would be necessary to provide a definitive interpretation of the wall." As it stands, the demonstrable evidence of the full character and extent of this wall is incomplete. In the absence of definitive evidence to the contrary the wall C01 may be accepted as an indicating the validity of the projected line of the town wall in this area. Any proposed development on the subject site should take account of this, particularly in relation to the National Policy on Town Defences (DoEHLG 2008). The Department would also highlight the numerous policies and statements in the Kilkenny Development Plan 2008-2014 that refer to Kilkenny City and its historic character and other archaeological and heritage items, including H5, H13, H14, CCACA2, JSACA7, among others. In its present form the development as proposed may be considered contrary to national policy.

It is recommended therefore that any proposal for development at this location take account of the following, in particular: the “known and expected circuits of the defences (both upstanding and buried, whether of stone or embankment construction) and associated features of all town defences are to be considered a single national monument and treated as a unit for policy and management purposes. There should be a presumption in favour of preservation in situ of archaeological remains and preservation of their character, setting and amenity” (National Policy on Town Defences, DoEHLG 2008, p.4). Furthermore, this Department “may require a satisfactory buffer area to be established between any new development and the town defences in order to ensure the preservation and enhancement of the amenity associated with the presence of town defences within the historic urban environment” (National Policy on Town Defences, DoEHLG 2008, p.10).

The above observations and recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in his role as statutory consultee under the Planning and Development Act 2000, as amended.

Please forward any further communication to:

The Manager
Development Applications Unit
Department of Arts, Heritage and the Gaeltacht
Newtown Road
Wexford

Alternatively, documentation associated with the above can be referred electronically to this office to manager.dau@ahg.gov.ie

Is mise, le meas



Muiris Ó Conchúir
Manager
Development Applications Unit
Department of Arts, Heritage & the Gaeltacht
Newtown Road
Wexford
Tel: 053-911 7387
e manager.dau@ahg.gov.ie

**Kilkenny City & County Library Development:
Archaeology (Phase 1 – part 2)**

ARCHAEOLOGICAL IMPACT ASSESSMENT

**75 & 76, John Street Lower,
Kilkenny**

Ministerial Consent: **C523**
Excavation number: **E4417**
Detection Device: **R300**

Author: Paul Stevens
Job No: 1574-12-400
Client: Bucholz McEvoy Architects Ltd.
Date: November 2012

Valerie J. Keeley Ltd.

SUMMARY

An archaeological impact assessment was undertaken by Valerie J Keeley Ltd., for Bucholz McEvoy Architects Ltd on behalf of Kilkenny Council and Borough Councils, in advance of a Part VIII application, on a proposed City and County Library development at 75–76 John Street Lower, Kilkenny. This forms part 2 of Phase 1, archaeological test trenching and monitoring of geological trial pits, undertaken between May 2012 and June 2012.

Trench VII was located inside the Arts Building and adjacent to the masonry wall, across the supposed line of (lost) Town Wall for the medieval suburb of St John's (RMP Ref: KK019-026-001). Testing revealed two modern concrete floor levels to the building that sealed approx. 1m of early modern /post-medieval imported garden and demolition soils. The masonry wall itself shows no evidence for defensive or medieval architectural features, is 0.43-0.57m in thickness and, apart from patches of modern repair, is of uniform construction to formation level, where a slightly-splayed base rests on narrow 1m-wide plinth, over an archaeologically-sterile fluvial clay deposit. The wall appears contemporary with the other masonry property walls around No. 75 and 76 John Street Lower, and probably dates to the 17th century or later.

Testing revealed no evidence for medieval town defences at this location. However, a masonry wall of post-medieval origin was revealed to seal an earlier undated fluvial deposit that may represent a natural flood event(s). Furthermore, due to a low-impact lightweight timber design, this development is unlikely to have any significant impact on archaeological levels, soils or structures. However, further assessment of the site (Phase 2) post-demolition of the Arts Building is recommended to further determine the extent of archaeological impact across its footprint.

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FIGURES

- Figure 1 Location map shown on Ordnance Survey mapping.
- Figure 2 Site overview, showing archaeological test trenches and proposed development ground plan.
- Figure 3 Site plan, showing Trenches I-III and VII.
- Figure 4 Northeast-facing section of Trench VII incorporating Trenches I & III

PLATES

- Plate 1 View of masonry wall C01 with pebble-dash removed, from Collegepark townland looking southwest.
- Plate 2 View of masonry wall C01 with pebble-dash removed, from Collegepark townland looking northwest.
- Plate 3 View of northeast corner of masonry wall from above. Note the corner of the Arts Building (top left).
- Plate 4 View of external southeast wall of Arts Building adjacent to heavily overgrown masonry wall from above.
- Plate 5 Trench VII showing initial removal of concrete floor and new opening in block wall. Looking southeast.
- Plate 6 Trench VII in progress showing 1m of modern overburden over 2nd concrete floor. Looking south.
- Plate 7 Trench VII following removal of 2nd floor and concrete ring-beam under block wall C60. Looking south.
- Plate 8 Trench VII, showing masonry wall C01, modern wall & ring-beam C60, floors and overburden C58/C59, post-medieval deposits (C62, C63 & C64). Looking south.
- Plate 9 Trench VII, showing water-table, lower masonry wall C01, and archaeological deposits C65 (mortar) C66 (sticky clay) and C67 (fluvial clay), looking south.

1.0 INTRODUCTION

This Archaeological Impact Assessment report has been compiled in response to a request for further information by the Planning Development Unit of the National Monuments Service, Department of Arts, Heritage and the Gaeltacht, issued on 25th July 2012. Work was carried out for a pre-Part VIII application by Kilkenny Council and Borough Councils for a proposed City and County Library development at 75–6 John Street Lower, Kilkenny. This report should be read in conjunction with / and follows on from, a preliminary archaeological assessment, carried out in May 2011 (Ó Drisceoil 2011), an architectural conservation assessment, carried out in May 2012 (Goodbody 2012), and an archaeological assessment and monitoring report, carried out between May and June 2012 (Consent ref. C523; E4417, Stevens, July 2012). Phase 2 archaeological testing is proposed after demolition of existing structures, and following submission of the Part VIII.

This report describes Phase 1 (Part 2) archaeological test trenching within the proposed development footprint of one area (Trench VII) located inside an existing modern building on the site and adjacent to the rear boundary masonry wall (C01) of No. 76 John Street Lower – the possible Town Wall.

Archaeological assessment (Phase 1) was undertaken by Valerie J Keeley Ltd. Archaeological Consultancy, on behalf of Bucholz McEvoy Architects Ltd. Phase 1 (Part 2), archaeological testing, was undertaken by P. Stevens, for Valerie J Keeley Ltd., on dates between 20th September and 1st–4th October 2012. (See Figures 1–2; Plates 1–9). Archaeological test testing was undertaken at the consent of the Minister of Arts, Heritage and the Gaeltacht (Consent ref. C00523; Excavation number E4417; Permission to use a detection device ref. R300), granted under Section 5 of the National Monuments (Amendment) Act 2004.

The aim of this additional test trench was to clarify the nature of the masonry wall (C01); to identify possible medieval fabric and / or defensive architectural features, establish the width, morphology, and associated stratigraphy and possibly build date of the masonry wall C01. Work was carried out in order to further assess the potential impact the proposed development works on extant archaeological remains and make recommendations for mitigation of this impact.

2.0 METHODOLOGY

2.1 Test trenching strategy

A phased approach was adopted for this assessment (Phases 1 & 2). Phase 1, archaeological testing assessment and monitoring of engineering trial pits was undertaken in several parts, prior to demolition of upstanding buildings and boundary walls within the development site limits. This report is the second part of two testing reports carried out for Phase 1, and both are presented exclusively for archaeological testing prior to demolition. A separate report(s) will be made accordingly for Phase 2, archaeological testing, proceeding demolition works (subject to ministerial approval and grant of the Part VIII application).

Prior to excavation the pebble-dash from the southeastern face of the masonry wall was manually removed by Kilkenny County Council (see Plates 1, 2), and examined by the author for any architectural features, repair or changes to the fabric. The top and inner face of the wall was also examined from a ladder by the author (See Plates 3, 4).

One test trench was investigated assess the potential impact from the proposed development and specifically to further determine the nature and extent of a masonry wall, previously exposed in Phase 1A testing in Trenches II and III (C01; Stevens 12). This wall lies on the line of the possible medieval Town Wall. Archaeological test excavation work was carried out within the existing Arts Building, and was exclusively by hand. Following removal of concrete floors and foundations, archaeological material was manually removed, carefully in spits, down to the level of any surviving archaeological materials, soils or features, or natural subsoil should none exist. Archaeological materials, soils or features revealed in excavation were investigated and recorded, photographed and a measured plan drawn in relation to the national grid and ordnance datum. The composition, stratigraphic position and interpretation of all contexts was recorded in the back of this report (See Appendix A).

2.2 Finds and sample strategy

All archaeological or cultural heritage artefacts found in archaeological context were fully recorded by context. Finds/artefacts were labeled individually with a unique museum accession number to archival standard. A full list of the finds is included at the end of this report (see Appendix B).

No relevant samples were encountered so none were taken from this phase of excavation.

2.3 Health and safety strategy

Valerie J Keeley Ltd., and Kilkenny County Council, oversaw the excavations, in conjunction with the site director, on behalf of Valerie J Keeley Ltd. All steps were taken to ensure workers were compliant with the current safety regulations and best practice. Part of the Arts Building wall was removed and a temporary lintel inserted by the Council. The cutting was excavated in steps, within safe working limits to avoid danger from collapse, cave-in. A safe-working area of access / egress was maintained at all times. This site was completely boarded up, locked and alarmed at the end of each evening. On completion, the site was handed over to Kilkenny County Council to oversee its reinstatement. No incidents or accidents were reported during the operation of the site works. A temporary timber partition wall was also erected by the Council to prevent moisture or rodents damage to the contents of the Arts Building.

3.0 ARCHAEOLOGICAL ASSESSMENT RESULTS

3.1 Archaeological Test Trenching (Phase 1–Part 2), Gardens (St John’s Parish) Townland

TRENCH VII – Rear of No. 76 (formerly 16 & 27) Johns Street Lower

Archaeological test trenching (Phase 1 – Part 2) was undertaken, prior to demolition of upstanding buildings and boundary walls, within the development site limits and the footprint of the proposed development. One test trench (labelled **Trench VII**) was located within the middle of the development site, in Gardens Townland, 2.4–4m southwest of the interior northeast corner of the No. 76 John Street Lower property boundary (See Figures 1, 2, 3; Plate 1–4). The trench was excavated within the northeast corner of the present Arts Building and continued under the northeast wall of this building to abut the masonry wall (C01) bounding the rear of the property. This masonry wall, which is also believed to be on the (lost) line of the medieval town wall, marked the western bank of an undated mill stream, depicted on Rocques map of Kilkenny, 1758 and early editions of the Ordnance Survey.

Trench VII measured 1.7–3.25m in length, 0.8–2.5m in width, and 1–2.05m in depth (See Figures 2–4; Plates 5–9). The soil profile and archaeological stratigraphy of this trench was as follows:

43.67–43.57m OD	C57 Deposit (external). Tree roots and modern detritus build up post-Arts Building, between Masonry wall and Arts Building wall. Humic deposit with tree roots, debris and leaf mould (100mm in thickness).
44.34–43.8m OD	C58 Floor, upper / existing floor level. Concrete (110mm in thickness), damp course layer (DCL 44.23m OD), with mixed aggregate (Clause 804–100mm in thickness), over rubble and river cobbles upper mortar foundation deposit (120mm in thickness), over imported loose brown silt with occasional animal bone, brick and rubble lower foundation deposit (220mm in thickness).
43.8–43.70m OD	C59 (=C47/C58) Floor, lower / original floor possibly associated with yard (C47), possibly raised after successive periods of flood damage. Lean-mix concrete (110mm in thickness), with no foundation deposit.
c.47.53–43.10m OD	C60 Wall, SE wall of Arts Building. Single cavity-block concrete wall (210mm in thickness), constructed on a ring-beam foundation boot of massed concrete, stone and cement (660mm wide, 600mm deep).
43.57–43.47m OD	C61 (=C59/C47) Floor, cut by Arts Building wall C60, abuts Masonry wall C01, seals C63. Lean-mix concrete (100mm in thickness), with no foundation deposit. Maybe associated with floor of earlier lean-to buildings depicted on 1 st / 2 nd editions O/S. mapping.
43.47–43.25m OD	C62 Deposit, early-modern detritus and broken bottles possibly from lean-to associated with J & E Smithwicks rebuild of the property in 1898. Humic deposit with tree roots, debris and leaf mould (100mm in thickness). Truncated by ring-beam of C60 and seals C64.
43.70–43.30m OD	C63 Deposit, compact mid-brown clay loam with red brick rubble, slates, animal bone and occasional stone (400mm in depth). Similar to and may

	relate to C10 demolition / garden deposit, however this layer post-dates and abuts C01 and seals C65/C66.
43.30–42.70m OD	C64 Deposit , firm mid-brown sticky clay with clay pipe stem, hand-made red brick rubble, occasional animal bone and small stone (500mm in depth). Similar to and may relate to C43 / C53 imported reclamation deposit(s). This layer abuts, and therefore post-dates, the masonry wall C01.
42.70–42.50m OD	C65 Mortar lens (upper fill of possible foundation?), aligned parallel to the masonry wall C01 this layer of loose mortar (200mm in external diameter), was uncovered at the water table. It may be associated with the masonry wall C01. Abuts sticky clay deposit C66, seals C67. <i>Partially unexcavated.</i>
43.70–42.50m OD	C66 Deposit , light-brown sticky clay with occasional animal bone and small stone (200mm in depth). Similar to C07 garden deposit in Trench II, however this layer post-dates and abuts C01, seals C67. <i>Partially unexcavated.</i>
42.35–42.29+m OD	C67(=?C8/C23/C39/C56) Deposit , Riverine (Fluvial) clay: water-borne deposit of dark grey-green clay, archaeologically-sterile, very similar to C08 fluvial clay deposit in Trenches II & III and Soak Away Pit 1. <i>Unexcavated.</i>
47.74–40.80m OD	C1 Masonry Wall (Mill-stream; Property Boundary & Garden wall), southeastern boundary wall of No 76 John Street Lower, also western revetment of mill-stream (C18), and reused as southwestern-most wall of square mill (C12/C15/C16). Masonry wall, orientated northeast / southwest, uniform coursed limestone rubble wall. Traces of repair at NE end – possibly recent in nature. Brick inserted with repair. Extensively rebuilt above 45.44m OD. Outer face: slight splayed base / possible base-battered (18 degree angle; below 42.65m OD). Uniform build of rubble mortared courses, 0.43-0.56m thick, built on a splayed outer base and narrow 1m-wide foundation plinth Plaster occasionally surviving below ground level; pebbled dashed above ground level. Inner face: vertical wall to base, plastered (recently from top to 43.57m OD), slightly recessed / under hanging below 42.85m OD.

Summary: Trench VII contained an archaeologically-sterile sticky clay deposit (**C67=?C8/C23/C39/C56**), partially sealed by a lens of mortar, suggestive of a plaster finishing level (**C65**) up-against / post-dating the masonry wall (**C01**). The fluvial clay was also partially sealed by a light brown sticky clay deposit with occasional animal bone (**C66**). Both deposit and lens were then sealed 1m of compact imported soils, including a deposit of eighteenth-nineteenth century date (**C64=?C45/C53**), under later nineteenth century demolition (**C63**) and debris (**C62**) layers. These imported soils were then partially truncated by a concrete ring-beam foundation (**C60**) and sealed by concrete floors (**C59 & C58**), both associated with the present Arts Building constructed as part of the *Meubles* Furniture retail complex in c.1975.

No evidence for a defensive wall-walk or any other defensive architectural or medieval features was revealed in this trench. The masonry wall appears to be contemporary with other property boundary walls around both No. 75 and 76 John Street Lower, which appear to be post-medieval in date and constructed on a sterile sticky clay.

4.0 ARCHAEOLOGICAL IMPACT STATEMENT (PHASE 1 – PART 2)

This phase of testing revealed no evidence for a medieval Town Wall, defensive bank and fosse, or any other medieval fabric, soils or structures at this location.

The masonry wall (C01) was revealed to measure 0.43–0.57m in thickness, is of uniform construction to formation level (c. 40.80m OD) (apart from isolated patches of modern repair, and concrete-block capping), and is built on a slightly-splayed base on narrow 1m-wide plinth that seals a sterile fluvial deposit (C67, c. 42.35m OD) – representing a natural flood event(s). C01 therefore appears contemporary with other masonry property boundary walls around both No.s 75 and 76 John Street Lower (Walls C20, C40 & C41; See Stevens 2012), and appears to be post-medieval (late 17th century to early 18th century) in date.

Testing revealed the occupying modern building floor level was itself raised in the recent times by approx. 1m and seals over 1m of early modern imported garden and demolition soils (C63/C64, 43.70–42.70m OD). Both of which may in fact represent flood mitigation measures in various centuries.

Current flood prevention building regulations require the finished floor level (FFL) of the proposed development to be an additional 400mm (c. 44.25m OD) above the current ground level (c. 43.85m OD). Furthermore, due to a lightweight timber design, this development will be constructed on a raft foundation requiring a maximum excavation depth of 1200mm (c. 43.00m OD). This low-impact foundation design is unlikely to have any significant impact on archaeological levels, soils or structures. However, further assessment of the site (Phase 2) post-demolition of the Arts Building is recommended to further determine the extent and levels of archaeological impact across the development footprint.

4.0 CONCLUSION & RECOMMENDATIONS

4.1 Conclusions

The aim of this additional test trench in Phase 1 was to clarify the nature, thickness, morphology, possibly date and associated stratigraphy of the masonry wall (C01) located along the possible line of the Town Wall, for the medieval suburb of St. Johns. Work was carried out in response to a request for further information by the Development Applications Unit of the National Monuments Service, Department of Arts, Heritage and the Gaeltacht, issued on 25th July 2012. This phase of assessment work (Phase 1) forms part of a two-phased approach to the archaeological impact assessment of this development. Additional archaeological assessment is proposed to take place following the approved demolition of existing structures following submission of the Part VIII by Kilkenny County Council.

Testing revealed no evidence for medieval town defences at this location. A masonry wall of post-medieval origin was revealed to seal an earlier undated fluvial deposit that may represent a natural flood event(s). Due to a lightweight timber and low-impact raft foundation design, this proposed development is unlikely to have any significant impact on archaeological levels, soils or structures (if extant).

The location of the medieval town wall and fosse defences is known from Langton's Hotel car park and along Maudlin Street, but is lost along much of the remaining circuit of the medieval suburb of St John (RMP Ref: KK019-026-001; see also Section 4.2, Stevens 2012). Despite a general lack of archaeological evidence elsewhere, it was previously assumed to have once existed on this development site, at the location of the masonry wall (C01); largely based on the existence of a linear mill-stream (C18) and continuous limestone rubble property boundaries, as depicted in the mid-18th century map by Lt. J. Rocque. However, whilst these features still partially delineate properties to the present day, it appears unlikely to represent the medieval land demarcation or 'burgage plots'.

4.2 Recommendation

Further assessment of the site (Phase 2) post-demolition of the Arts Building is recommended to further determine the extent of archaeological impact across its footprint.

PLEASE NOTE: The recommendations and mitigation measures presented in this report follow on from those suggested in the Phase 1 archaeological assessment issued in July 2012 (Stevens 2012), and the historical architectural conservation assessment carried out in May 2012 (Goodbody 2012, 36–8).

Recommendations are subject to written approval by the National Monuments Section, Department of the Arts, Heritage & Gaeltacht, who may choose to issue additional or alternative requirements.

Prior to the beginning of the construction and also during construction, an agreed archaeological mitigation strategy is required to ensure conservation and preservation of historical and archaeological fabric impacted by this development.

5.0 BIBLIOGRAPHY

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APPENDIX A: CONTEXT REGISTER (Continued)

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
1	1A, III. 1:pt2, VII	Wall	Wall, orientated NE/SW, uniform coursed rubble masonry wall, slightly battered (to 1m in total thickness) at 1m below ground level, rebuilt at 1.8m above ground level. Reverse plastered to the rear to ground level. Obverse: pebbled-dashed from ground level. Plaster occasionally surviving.	13.8+	0.3- 0.58	7.00	47.74	40.80
2	1A, II & III	Wall	Wall, orientated NE/SW, uniform coursed rubble masonry wall, vertical, with brick-headed ope at ground floor (sluice) & brick-lined ope (window) at first floor, pebbled dashed from ground level. No plaster. Abuts C1	3.70	0.30	4.3+	45.83	41.65+
3	1A, I	Deposit	Tarmac / kerb, road surface (130mm in thickness) & mortar foundation deposit (300mm in thickness).	14.00	6.00	0.42	43.80	43.25
3	1B, VI	Deposit	Tarmac / kerb, road surface (130mm in thickness) & mortar foundation deposit (300mm in thickness).	21.50	5.00	0.42	44.01	43.88
4	1A, I	Deposit	Black aggregate road foundation	14.00	6.00	0.60	43.45	42.85
5	1A, I	Fill	Fill of C6. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (1m-1.5+m in depth).	6+	1.00	1.5	42.85	42.33+
6	1A, I	Drain	Linear trench for C5 ceramic drainage pipe orientated NE-SW	6+	1.00	1.5+	42.85	42.33+
7	1A, I-III	Deposit	Deposit of mid-brown sticky clay with red brick and occasional stone (500mm in depth)	10+	1.5+	0.50	42.85	42.25
8	1A, I-III	Deposit	Possibly-natural deposit of blue-grey water-affected sticky boulder clay, archaeologically-sterile.	10+	1.5+	X	42.25+	X
9	1A, II-III	Topsoil	Light brown silty clay with modern debris and stone	18.00	14.00	0.30	43.69	43.29
10	1A, II & III	Deposit	Modern overburden, dark silty clay with modern debris	17.5+	1.5+	1.00	43.39	42.39
11	1A, II	Pit	Modern amorphous pit filled with recent concrete rubble / debris	x	1.70	1.50	43.29	42.29
12	1A, II	Wall	Southeastern-most mill wall, orientated northeast / southwest, uniform coursed rubble vertical masonry wall. Traces of a slight boot foundation. Rests on / abuts fluvial clay C8.	1.3+	0.60	1.55	43.23	41.60
13	1A, II	Path	Light buff sandy-gravel linear path, aligned northeast / southwest (250mm in depth).	1.5+	1.20	0.25+	43.49	43.29+
14	1A, II & III	Deposit	Inner (upper) demolition deposit, (=C7 abuts inner face of walls C2 & C15) internal deposit of mid-brown sticky clay with hand-made red brick rubble, bone, oyster shell, ceramic jars, glass, floor tile and roof slates (at base), mortar and occasional stone (1000mm in depth).	3.25	2.10	1.00	43.15	42.11
15	1A, II & III	Wall	Mill wall, (abuts wall C1) northwestern-most wall of square mill. Vertical masonry wall orientated northwest / southeast parallel to C2; uniformly-coursed limestone rubble with stone boot foundation (100mm wide).	1.50	0.52	1.50	43.18	41.50

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
16	1A, III	Floor	Mill head-race? Stone boulder floor, set against wall C15. Overlying natural river gravels, external stone surface of hydraulic lime-mortared large blocky limestone.	2.5+	1.5+	0.20	42.20	42.00
17	1A, III	Deposit	Lower internal silting fill deposit of mill building, waterlogged silt, with brick rubble and stone.	3.25	2.10	x	43.79	41.68+
18	1A, III	Cut	Mill race; linear channel orientated NE / SW, extending from Rover Nore to mill building. Appears on 1758 (Rocque's map), 1840 (1st edition OS), 1900 (2nd edition OS) and later maps, filled in before 1950, (unexcavated).	130.00	3.25	1.2+	42.25	40.71+
19	1A, III	Fill	Fill of mill head race channel (C18, abuts wall C1), black imported natural river gravel with water-logged organic sandy clay deposits, archaeologically-sterile. Unexcavated	2.5+	1.5+	1+	42.00	41.00
20	1B, VI	Wall	Wall, (=C40; bonded to C1?) northern boundary wall between no. 76 John Street Lower and Collegepark/Kilkenny County Council (continues into Trench V as C40) where wall demarks the possible line of a medieval 'burgage plot' dividing no.s 75 / 76 John's Street Lower. May also represent continued revetment of mill-race (if the northern extend of the mill-race is fossilised in the townland boundary). Masonry wall, orientated northwest / southeast, uniform coursed rubble masonry wall, no evidence of a base-battered at 1m below ground level, rebuilt at 1.8 above). Plaster surviving below 43.8m OD. Pebbled dashed from ground level. Full-buttresses positioned intermittently along the length of the wall. Top capped with massed concrete and rebuilt to four courses in concrete block.	37.50	0.60	5.30	47.68	42.38
21	1B, VI	Border	Border, modern, mid-brown bedding soil with climbing shrubs (c5 years of age).	37.50	0.90		44.08	43.80
22	1B, VI	Deposit	Garden deposit, (abuts outer face of wall C20) dark brown garden-soil silty-clay deposit with very occasional stone (1000mm in depth).	2+	1.5+	1.00	43.88	42.88
23	1B, V-VI	Fluvium	Deposit of dark blue-black sticky-boulder clay natural riverine clay deposit.	2+	1.5+	1+	42.38	41.51+
24	1B, IV	Deposit	Demolition deposit (modern), associated with Meubles site, 'smoking' shed (seals C25-C40) large rounded stone, mortar, rubble, (200mm in depth).	5+	2+	0.20	43.90	43.70
25	1B, IV	Deposit	Black silty clay, with building rubble (seals C43 & C36/C37)	2.5+	0.6+	0.40	43.75	43.30
26	1B, IV	Deposit	Dark brown clayey silt with occasional small stone and clay pipe (between walls C30, C32 & C34)	3.35	0.6+	0.80	43.75	42.90
27	1B, IV	Deposit	Brick & mortar rubble backfill of upper building (between walls C30, C32 & C41)	1.5+	1.50	0.45	43.75	43.30
28	1B, IV	Drain	Linear trench for C42 ceramic drainage pipe orientated NE-SW	3.7+	0.40	0.40	43.65	43.30
29	1B, IV	Deposit	Brick & mortar rubble demolition collapse / occupation fill of lower building (between walls C30, C32 & C41)	1.5+	1.50	0.45	43.30	42.85
30	1B, IV	Wall	Mortared cobble wall (aligned NW-SE), on foundation boot 70mm in width (on 1st & 2nd edition OS)	0.65+	0.42	0.95	44.24	42.75

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
			mapping)					
31	1B, IV	Deposit	Dark brown clayey silt with occasional small stone (between walls C32, C35 & C41)	5.15	0.80	0.52	43.38	42.86
32	1B, IV	Wall	Mortared rubble wall with occasional brick (aligned NE-SW). Partially unexcavated (also revealed on Rocque, 1st & 2nd edition OS mapping)	7.00	0.58	0.40	43.38	43.00
33	1B, IV	Drain	Linear trench for C43 ceramic drainage pipe orientated NW-SE	2.3+	0.50	0.40	43.65	43.30
34	1B, IV	Wall	Mortared rubble wall (aligned NW-SE) (contains fireplace C37). Unexcavated (also revealed on 1st & 2nd edition OS mapping)	0.58+	0.42	x	43.48	x
35	1B, IV	Masonry	Concentration of irregular masonry rubble - origin uncertain (abuts C32, C38). Unexcavated	1.40	0.80	x	43.48	x
36	1B, IV	Fill	Dark ash fill of fireplace (C37)	0.70	0.50	x	43.48	x
37	1B, IV	Fireplace	Rectangular brick-lined (red/yellow) formal hearth (set within floor inside walls C34/C40)	0.90	0.75	x	43.48	x
38	1B, IV	Wall?	Triangular fragment of masonry-origin uncertain (abuts C40). Unexcavated	1.00+	0.40	x	43.48	x
39	1B, IV	Fluvium	Dark grey - green river clay mottled blue (natural?)	1.1+	0.50	x	42.20	x
40	1B, IV	Wall	Mortared rubble/cobble wall (aligned NW-SE), boundary wall no.s 75-6 Johns St Lower. Unexcavated (on Rocque's map, 1st & 2nd edition OS mapping)	2.00+	0.60	x	43.48	x
41	1B, IV	Wall	Mortared rubble/cobble wall (aligned NW-SE), boundary wall no.s 74-5 Johns St Lower. Unexcavated (on Rocque, 1st & 2nd edition OS mapping)	15.00	x	5.65+	48.40	42.75+
42	1B, IV	Fill	Fill of C28. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (0.4m-0.75+m in depth).	3.7+	0.40	0.40	43.65	43.30
43	1B, IV	Fill	Fill of C33. Ceramic drainage pipe (600mm external diameter), concrete surround and rubble infill foundation deposit (0.4m-0.75+m in depth).	2.3+	0.50	0.40	43.65	43.30
44	1B, IV	Deposit	Rubble with mortar & (yellow) brick in clayey silt (cut by walls C30, C32 & C34)	5+	2+	0.25	42.85	42.7+
45	1B, IV	Deposit	Dark humic silty clay with animal bone	5+	2+	0.60	42.60	42.00
46	1B, V	Surface	Concrete (abuts C48), Surface concrete yard surface (130+mm in thickness). Unexcavated	18+	3+	0.13	43.69	43.65+
47	1B, V	Walls	Truncated walls of a rectangular lean-to building (abuts C20), mortared limestone rubble walls, (420mm in thickness) also visible on 1900 3rd edition OS map.	7.60	3.10	0.42	43.78	43.57+
48	1B, V	Surface	Cobbles (abutted by C46), Surface of large regular water-rolled limestone cobbles-mortared and evidence of wheel ruts (100mm in thickness), set in mortar and rubble foundation deposit (1300mm)	0.7+	1.5+	1.00	43.69	43.63
49	1B, V	Deposit	Demolition deposit, (seals C52) mortar, rubble, slate with very occasional stone (150mm in depth).	7+	1.5+	0.15	43.53	43.44

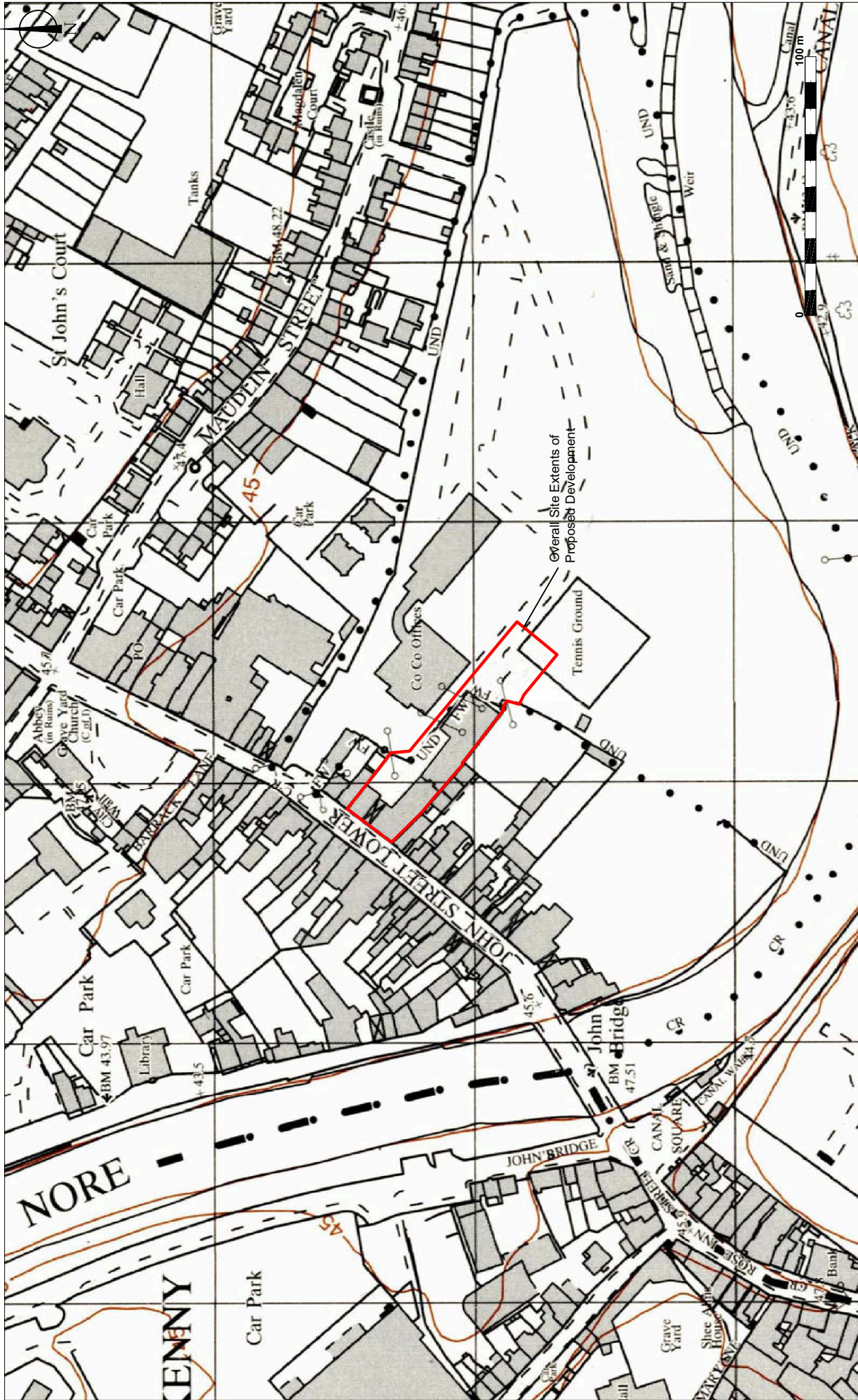
C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
50	1B, V	Fill	Backfill, fill of cellar (C51). Deposit of modern concrete, building rubble, mortar and occasional redeposited natural yellow clay (1300mm in thickness).	3.3+	1.5+	1.30	43.44	42.29
51	1B, V	Cellar	Structure: large modern cellar (cuts C50) with machine-made red-brick floor, red-brick kerb (parallel to no. 76 John Street Lower), and possible drain set into the floor (aligned northeast / southwest), 3.3m in length, 1.5m+ in width, 1.5+m deep.	3.3+	1.5+	1.5+	43.44	42.25+
52	1B, V	Deposit	(Seals C53) Mortar foundation deposit (100mm in depth).	2m+	1.5+	0.10	43.44	43.39
53	1B, V	Deposit	Imported reclamation deposit, (seals C54 & C55) dark brown silty-clay with and 17th C pottery very occasional stone (1000mm in depth).	2m+	1.5+	0.30	43.39	42.84
54	1B, V	Hearth	Fire pit/hearth: Localised area of red heat-affected clay. Contains slag inclusions. (Seals cobbles C55)	0.9+	0.5+	0.02	42.84	42.82
55	1B, V	Surface	Cobbles (seals C56); surface of irregular medium limestone water-rolled cobbles-unmortared (150mm in thickness). Partially unexcavated	0.7+	1.5+	0.50	42.84	42.79
56	1B, V	Fluvium	(=C23) Dark grey-green sticky boulder clay (1000mm+ thickness)	0.8+	0.75+		42.82	42.49+
57	1:pt2, VII	Deposit	Soil and leaf-mould, tree roots and modern detritus build up post-Arts Building, located between Masonry wall and Arts Building wall. Humic deposit with tree roots, debris and leaf mould.			0.10	43.67	43.57
58	1:pt2, VII	Floor	Floor upper / existing level; Concrete (110mm in thickness), damp course layer (DCL 44.23m OD), with mixed aggregate (Clause 804–100mm in thickness), over rubble and river cobbles upper mortar foundation deposit (120mm in thickness), over imported loose brown silt with occasional animal bone, brick and rubble lower foundation deposit (220mm in thickness)..			0.90	44.43	43.80
59	1:pt2, VII	Floor	2nd Floor Lower / original; Possibly associated with yard (C47), possibly raised after successive periods of flood damage. Lean-mix concrete (110mm in thickness), with no foundation deposit.			0.1	43.80	43.70
60	1:pt2, VII	Wall	SE-wall of Arts Building; Single cavity-block concrete wall (210mm in thickness), constructed on a ring-beam foundation boot of massed concrete, stone and cement.		0.21-0.6	0.6		43.10
61	1:pt2, VII	Floor	Cement floor. Lean-mix concrete (100mm in thickness), with no foundation deposit. Seals C63, abuts Masonry wall C01/cut by Arts Bldg wall C60		0.9+	0.1	43.57	43.47
62	1:pt2, VII	Deposit	Soil dump, early-modern detritus and broken bottles possibly from lean-to associated with J & E Smithicks rebuild of the property in 1898. Humic deposit with tree roots, debris and leaf mould (100mm in thickness). Truncated by ring-beam of C60.		0.9+	0.1	43.67	43.25
63	1:pt2, VII	Deposit	Garden soil; Compact mid-brown clay loam with red brick rubble, slates, animal bone and occasional stone (400mm in depth). Similar to and may relate to C10 demolition / garden deposit, but layer post-dates / abuts C01 and seals C65/C66.	1.7+	0.9+	0.4	43.70	43.3
64	1:pt2, VII	Deposit	Garden soil; Firm mid-brown sticky clay with clay pipe stem, hand-made red brick rubble, occasional animal bone and small stone (500mm in depth). Similar to and may relate to C07 garden deposit,	1.7+	0.9+	0.5	43.30	42.70+

C#	Phase, Trench	Type	Description	L	W	D/H	Level	Level
			however this layer post-dates and abuts C01.					
65	1:pt2, VII	Lens / Fill?	Mortar-rich deposit (or upper fill of possible foundation?), aligned parallel to the masonry wall C01. Layer of loose mortar (200mm in external diameter), uncovered at the water table. May be associated with the masonry wall C01. Abuts sticky clay deposit C66 / Seals C67. Partially unexcavated.	1.7+	0.9+	0.2	42.70	42.50
66	1:pt2, VII	Deposit	Garden deposit; light-brown sticky clay with occasional animal bone and small stone (200mm in depth). Similar to and may relate to C07 garden deposit, post-dates and abuts C01. Partially unexcavated	1.7+	0.9+	0.2	42.70	42.50
67	1:pt2, VII	Fluvium	Fluvial deposit; light-brown sticky clay with occasional animal bone and small stone (200mm in depth). Similar to and may relate to C07 garden deposit, however this layer post-dates and abuts C01. Partially unexcavated	1.7+	0.9+	0.2+	42.35	42.29+

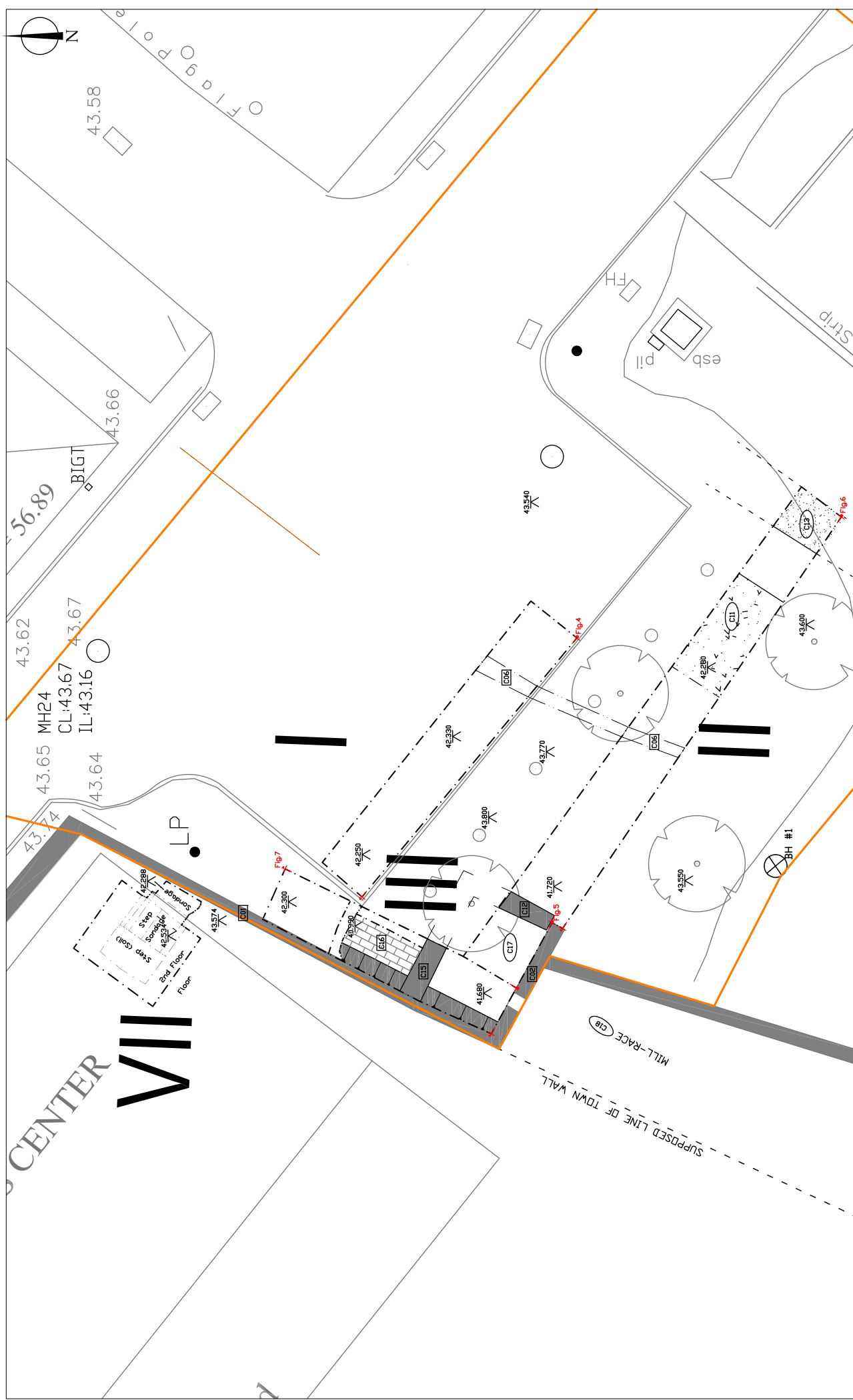
APPENDIX B LIST OF ARTEFACTS

Find No.	Material	Type	Description	Context	Area/Trench	Context Type
E4417:1	Glass	Bowl	Complete clear decorated glass sugar bowl	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:2	Ceramic	Pottery	Stoneware ointment jar complete	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:3	Ceramic	Pottery	Stoneware ointment jar complete, 'W.P. Hartley Liverpool & London' name & logo on base.	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:4	Ceramic	Pottery	Earthenware roof tile	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:5	Ceramic	Pottery	China/porcelain egg cup, broken foot otherwise complete	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:6	Ceramic	Pottery	Earthenware body/rim sherd with impressed ridge of flower pot	C9	1A, II-III	Topsoil (Vicinity of Mill)
E4417:7	Ceramic	Pottery	Complete stoneware jars-ointment	C14	1A, II & III	Fill of Mill
E4417:8	Ceramic	Pottery	Complete stoneware-flagon	C14	1A, II & III	Fill of Mill
E4417:9	Ceramic	Pottery	Rim sherd earthenware with impressed ridge	C14	1A, II & III	Fill of Mill
E4417:10	Ceramic	Pottery	Body rim sherd earthenware flower pot	C14	1A, II & III	Fill of Mill
E4417:11	Glass	Bottle	Complete clear glass bottle-mineral, floral decoration on body	C14	1A, II & III	Fill of Mill
E4417:12	Glass	Bottle	Complete dark green glass wine bottle (1/2 size) wine green	14	1A, II & III	Fill of Mill
E4417:13	Glass	Bottle	Body/base sherd dark green glass wine bottle very pronounced base kick <i>DBC (Dublin Bottle Co.)</i>	14	1A, II & III	Fill of Mill
E4417:14	Glass	Bottle	Complete dark green wine bottle; tall neck (hand-blown) with high basekick & nipple.	14	1A, II & III	Fill of Mill
E4417:15	Stone	Tile	Complete stone (green rhyolite?) floor tile	14	1A, II & III	Fill of Mill
E4417:16	Ceramic	Tobacco pipe	Clay tobacco pipe stems (x 2) c1800's	26	1B, IV	Fill of Building
E4417:17	Ceramic	Pottery	Brownware body sherd	29	1B, IV	Fill of Building

Find No.	Material	Type	Description	Context	Area/Trench	Context Type
E4417:18	Ceramic	Pottery	Brownware body sherd	29	1B, IV	Fill of Building
E4417:19	Ceramic	Pottery	Brownware base sherd	29	1B, IV	Fill of Building
E4417:20	Glass	Bottle	Fragment clear glass, neck/body, with circular crest stamp "Chateau Ruasan Segla Margaux, T. W. Stapleton"	29	1B, IV	Fill of Building
E4417:21	Glass	Bottle	Clear glass soda bottle sherd base/rounded, embossed letters '..LEY', '..IN' & '..R' 'P' on base.	29	1B, IV	Fill of Building
E4417:22	Ceramic	Pottery	17th C pottery Sgraffitto ware body sherd	53	1B, V	Reclamation
E4417:23	Ceramic	Pottery	body sherd green-glazed pottery (Leinster ware)	55	1B, V	Cobbles
E4417:24	Glass	Bottle	Fragment dark green glass, neck with string-cut rim (irregular). Hand-blown	62	VIII	Silt
E4417:25	Glass	Bottle	Fragment dark green glass, base with (moderate) kick. Hand-blown	62	VIII	Silt
E4417:26	Ceramic	Brick	Fragment, red-brick. Handmade, with straw impressions	64	VIII	Reclamation



Client Buchoiz McEvoy Architects Ltd. Project Kilkenny Library Project	CAD reference R: Figs 1-4.dwg Drawing No. Figure 1	Compiled by GW Scale 1:2000	Job/Exc No. 1574-12-400 Date Oct 12	Notes	Title Location map shown on Ordnance Survey mapping	Architect Valerie J. Kealey Ltd. ARCHITECTURAL CONSULTANCY	Architect Brehon House Kilkenny Road Castlecomer Co. Kilkenny.	Contact Tel: (+353) 056 4440236 Fax: (+353) 056 4440237 Email: vjk@vjk.ie Website: www.vjk.ie	Logo
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Title		Notes		Job/Exc No.		Completed by	CAD reference	Client
Site plan, showing trenches III and VII		--- Test Trenches		1574-12-400		GW	R:Figs 1-4.dwg	Bucholz McEvoy Architects Ltd.
		--- Clay Pipes		Date		Scale	Drawing No.	
		Walls		Oct 12		1:100	Figure 3	Kilkenny Library Project
		Stone Floor						
		GPR						
		Extent of Phase 1A						
</								

PLATES



Plate 1: View of masonry wall C01 with pebble-dash removed, from Collegepark townland looking southwest.



Plate 2: View of masonry wall C01 with pebble-dash removed, from Collegepark townland looking northwest.



Plate 3: View of northeast corner of masonry wall from above. Note the corner of the Arts Building (top left).



Plate 4: View of external southeast wall of Arts Building adjacent to heavily overgrown masonry wall from above.



Plate 5: Trench VII showing initial removal of concrete floor and new opening in block wall. Looking southeast.



Plate 6: Trench VII in progress showing 1m of modern overburden over 2nd concrete floor. Looking south.



Plate 7: Trench VII following removal of 2nd floor and concrete ring-beam under block wall C60. Looking south.



Plate 8: Trench VII, showing masonry wall C01, modern wall & ring-beam C60, floors and overburden C58/C59, post-medieval deposits (C62, C63 & C64). Looking south.



Plate 9: Trench VII, showing water-table, lower masonry wall C01, and archaeological deposits C65 (mortar) C66 (sticky clay) and C67 (fluvial clay), looking south.

**Kilkenny City & County Library Development Project:
ARCHAEOLOGICAL IMPACT ASSESSMENT (Phase 1)**

REPORT 3

Site Name: 75–76 John Street Lower, Kilkenny City
NGR: E 250875, N 155930
Site Type: Urban–post-medieval / Early modern
RMP ref.s: KK019:026001(City wall environs), KK019:120069(environs)
Ministerial Consent: C523
Excavation number: E4417
Detection Device: R300

EXECUTIVE SUMMARY

Archaeology Report 3 (Phase 1–part 2) comprises an additional information report on the results of the Reports 1 & 2 (archaeological impact assessment: Phase 1, Parts 1 & 2), undertaken in January 2013. The report was compiled by Paul Stevens, Valerie J Keeley Ltd. on behalf of Kilkenny Council and Borough Councils, for a proposed City and County Library development.

This report was issued following additional correspondence from Department of Arts, Heritage and the Gaeltacht, dated 14th January 2013, requesting additional clarification and further information on the archaeological findings and possible impacts from Reports 1 & 2.



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht

14th January 2013

Our Ref: G Pre00300/2012

Paul Stevens,
Valerie J. Keeley Ltd.,
Brehon House
Kilkenny Road
Castlecomer
Co Kilkenny

Re: Kilkenny library development

A Chara,

I refer to your correspondence re the above. Outlined below are the archaeological observations of the Department of Arts, Heritage and the Gaeltacht with respect to the above-proposed development.

The following points are those that have been discussed previously in relation to the submission of an archaeological assessment on Phase 1, Part 2 of the archaeological investigations at 75 & 76 John Street. The archaeological investigations have been undertaken in advance of a planning application for the Kilkenny City and Library Development.

The known significance of this site is that the medieval town wall, or parts thereof, may survive in situ on the site. A wall uncovered during testing, wall C01, relates to the possible line of the medieval town wall. A case has been made to argue that the wall is in fact not related to the medieval town wall at all. However, the evidence, as uncovered in Part 1 of the testing, was insufficient to clearly substantiate the case made.

The Department's response to Part 1 of the archaeological investigations highlighted issues in relation to the clarity of evidence uncovered during testing of the site in relation to the case that was put forward.

A second programme of testing was undertaken in order to try and clarify the situation. The results of the second phase of testing also raise some issues in relation to clarity of evidence.

In order to make a decision on the character and date of the wall, C01, it is important that the evidence base is sufficient and also that it is reported as clearly and in as detailed a manner as

possible for this purpose. In this regard, there are a few items of information that are necessary to address in more detail before an appropriately informed decision can be made.

1. In relation to the character indicators put forward for a medieval town wall it is not necessarily the case that every stretch of town wall will exhibit all or any of the characteristics highlighted in the reports. In other words, the absence of mural towers, arrow loops and a pronounced base batter (although this has not been defined) is not a sufficient case in itself to argue that a wall is not a medieval town wall. In such a case it is recommended that additional evidence is required that will allow for a definitive interpretation of the wall.
2. The presentation of more detail of the evidence uncovered, in terms of description and illustration, may help to resolve some of these queries. It is therefore requested that more detailed written and illustrative material is submitted to substantiate the arguments made in the second archaeological report.
3. Using broad date categories does not amount to firm evidence, for instance a post medieval wall can be a wall built as early as the mid-16th century or much later. If the wall is of early post medieval date it may still represent the town wall or a later addition to same.
4. The dimensions of a walls structure are not always an indication of age. There are stretches of town wall from other areas that have been modified or rebuilt over time and that have left portions of the town wall with a reduced height or width or which may survive only below the present ground surface.

In summary, there have been a number of points raised to argue a case that the small portions of wall (CO1) excavated indicate that it is not the town wall. Unfortunately, however there is no conclusive or definitive evidence that can be read from the reports submitted to date that would allow this department to concur with the case presented. You may, however, wish to submit further information to substantiate your case.

Kindly forward any further information to the following address:

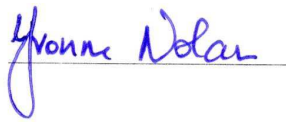
The Manager,
Development Applications Unit,
Department of Arts, Heritage and the Gaeltacht,
Newtown Road,
Wexford

Alternatively, documentation associated with the above can be referred electronically to the DAU at the following address:

manager.dau@ahg.gov.ie

Finally, the above observations and recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in his role as statutory consultee under the Planning and Development Act 2000, as amended.

Is mise le meas,



Yvonne Nolan,
Development Applications Unit
Tel: (053) 911 7382

**Kilkenny City & County Library Development:
Archaeology (Phase 1)**

ADDITIONAL INFORMATION

**75 & 76, John Street Lower,
Kilkenny**

Author:	Paul Stevens
Job No:	1574-12-400
Client:	Bucholz McEvoy Architects Ltd.
Date:	January 2013

Valerie J. Keeley Ltd.

Ministerial Consent Ref.: C523

Excavation Number: E4117

DAU Ref.: G Pre00300/2012

Drafted in response to the DAU letter, from Yvonne Nolan dated 14th January 2013, I submit the following as additional information to clarify the evidence already reported in Phase 1, part 1 and Phase 1, part 2 reports (Stevens 2012a & 2012b). The information presented here is drawn from both published and unpublished sources and existing excavation data and is presented to facilitate for the DAU, DAHG in making a decision on the character and date of the wall C01 (ibid), in advance of the Part VIII planning application for the proposed development of a new Kilkenny City and County Library, at 75-76, John Street Lower and College park, in Kilkenny City.

DISCUSSION, HISTORICAL AND ARCHAEOLOGICAL EVIDENCE

1. Early Historical & Cartographic Sources

1.1 Mills, mill-race and mill-stream

Historical and cartographical references confirm excavation data from Phase 1, part 1 (C2, C12, C15 & C16; Stevens, July 2012) that show a stone-built water mill stood at the development site, dating back to the late 18th or early 19th century, and depicted on the first edition 1842 Ordnance Survey maps (Bradley 2000). Although this mill was not depicted on the earlier pictorial and cartographic sources, but was built over (and feed by) a long linear water course (mill-race C18, *ibid*), which flows through the development site, is also lined one side by the masonry wall C01. The linear mill-race, is however depicted on both early Ordnance Survey maps, Byron's copy of 1780 and also Rocque's map of 1758 (and possibly on the Down Survey map of 1655). Both Rocque and Byron show the mill stream and an adjoining large rectangular building, possibly also a mill, further upstream and northeast of the development site, at a site now under the present site of the County Offices (built in 1782). The rectangular mill structure is sited opposite a larger milling (and distillery) complex to the rear of 67-9, John Street Lower (now Langton's Pub; Molloy 2003) and also at the T-junction of a longer mill stream, recorded on Rocque and Byron's maps as 'The Lake' and 'The Slip'. Although the origins of the branching mill-race C18 are uncertain and undated, the main mill-stream to the north, which it joins and feeds off, dates back to c. 1170 and pre-dates the very earliest foundation of Kilkenny and medieval suburb of St John's.



Plate 1: View south, masonry wall C01 (right) abutted by remains of 19th century mill.

The mill-stream was built from Friar's Inch under Noremount to Maudlin Street. The origins of the 1.1 mile long mill-stream also provide the earliest evidence for milling in Kilkenny. Construction of the millstream (and mills along its length) was attributed to Flemish settlers 'Flemings' around 1170 (Egan 1884). Doyle suggests this may coincide with the Augustinian's monks of St Johns Priory, who's arrival in Kilkenny is dated to before 1202. The latter are also attributed with the proliferation of the vertical mill in Ireland (Doyle 1985, 149). Perhaps significantly, a large re-used oak timber dendro-chronologically dated to AD 1125 $\pm$ 9 years, (Q10220), was recovered from archaeological excavation of the post-medieval V-shaped weir at the head of the mill-stream, at Mill Island by Greens Bridge (Stevens 2001).

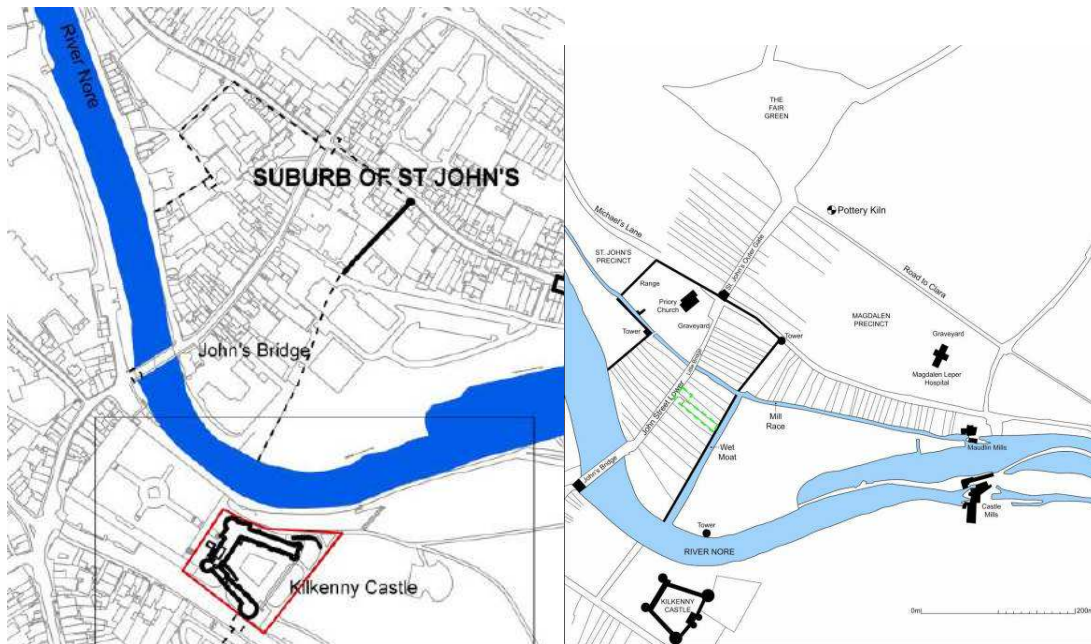


Plate 2: Map extract from KAP 2008, and (left) simplified medieval interpretation (site indicated in green) (after Ó Driscoll 2011). Mill-race C18 is labelled 'wat moat' and 12th century mill-stream labelled 'mill-race'.

To the north of the site is the parish of St. Maul's, also located on the left/east bank of the river Nore, and immediately adjacent to St. John's medieval suburb. This was an earlier occupation and the ruins of a church site still survive today as an earthwork. The name St. Maul's has been associated with Saint Mollaing, a late 7th-century monk believed to have first imported rye to Ireland and one of the saints most commonly associated with milling in Ireland; indeed, the word mill or '*muileann*' in Irish, may be derived from the saint's name (O'Sullivan, 1995). However, other histories of Kilkenny suggest that St. Mauls was established as a cell around the same time as the establishment of St Canice's; according to that tradition, St. Canice named the church in honour of his mother, Mealla (Carrigan, 1905, VOL III, 194). In 1114, both St Maul's church and St Canice's church were burned during an attack on Kilkenny, which this is also earliest mention of St Maul's (*ibid*, 194).

1.2 St John's Priory

The parish of St John takes its name from the Augustinian Priory of the same name, established in 1211 by William Marshall, Earl of Pembroke and Lord of Leinster, for the Cannons Regular of St. Augustine (also called the Brethren of the Hospital of St. John). The Priory replaced an earlier hospital of St. John the evangelist, possibly on the site of St. Maul's (above), first mentioned in a grant to the hospital by Bishop Felix O'Dulaney, established by the Augustinians prior to his death in 1202. (Carrigan 1905, 248; Bradley 2000).

The foundations of the Augustinian Priory and medieval suburb of St John's were founded between 1207 and 1231 on lands granted to the Augustinians on the east bank of the River Nore (Bradley 2000). The suburb sites on a curved spur of flood plain formed by a bend in the river and a linear ridge to the northeast and was accessed via roads along the ridge northeast and southeast, and also via John Gate to the northwest and John's Bridge to the southwest, built in 1223 and initially known as St Johns bridge, built connecting St. John's to Hightown (Carrigan, 1905). A second bridge, known as the 'little bridge', mid way along John Street, was first built c. 1223 spanned the long mill-stream (Carrigan 1905, 248-9).

Recent archaeological investigation work for the redevelopment of Evan's Home by Paul Stevens (1999, 2006, 2007) and Clare Walsh (2010, 2011) and R O'Hara (pers comm.) has disputed the previously-supposed line of the town wall, in favour of alternatives. This latter work also contained a portion of the mill-stream wall in the Carnegie Carpark, as well as an inconclusive investigation of the medieval town wall at a point along its circuit along Back's Lane, together with elevations and a plan of original and inserted fabric of the precinct enclosure walls (Walsh 2010). In addition, Walsh has suggested that the original ground plan of the Priory may have mirrored that of the sister Priory at Kells, Co. Kilkenny (Walsh 2010, 2011, fig 11). If proved correct, this may alter our perspective on the complexity of the layout of this suburb, with Kells displaying multiple precinct walls roads and mill-streams (Tietzsch-Tyler 1993).

1.3 St John's suburb wall and defences

The earliest historical reference to defensive wall is not until 1570 (Thomas 1992, O'Donovan 1997, 68-9, Oxford 2005). Whereas, the earliest cartographic evidence is from the Down Survey map, 1654. This pictorial depiction is inaccurate but does show a defensive wall circuit extending northwest from John Street to the River Nore, at a point opposite St Francis Abbey (coincidentally this also appears to be following the topography of the natural ridgeline overlooking the river). There is however, no record from this map of a

circuit southeast of John Street, instead a field boundary is depicted enclosing the College Park area. Although, this would appear to contradict the archaeological evidence, it cannot be completely discounted.

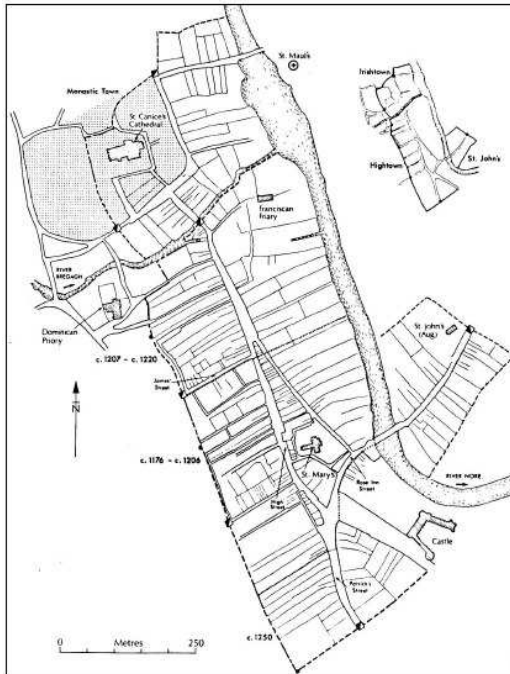


Plate 3: Early interpretation of the medieval layout of Kilkenny (after Bradley 1995)



Plate 4: An interpretations of the medieval layout of Kilkenny, model on display in St Canice's Cathedral. The location, layout and extend of the defensive walls and ramparts around the suburb and Priory precinct is mostly lost, accept fragmentary upstanding evidence (Oxford 2005). Much of the proposed line/circuit of

the suburb town wall was extrapolated by Thomas and Bradley from cartographic sources such as early Ordnance Survey and Rocque's map of Kilkenny (Thomas 1992; Bradley 1994/1995, Oxford 2005). Although, recent archaeological investigations have added significantly to the information available to accurately map the line of these defences.

A 78m-long stretch of upstanding town wall was recorded at 68-9 John Street Lower, and a corner tower stands on Maudlin Street. Both structures have 1m-thick walls built of large mortared block limestone, dressed in rough quoins and brought to courses and measuring 3m+ above ground. In the former case, excavation revealed a 'moat' was also observed from excavation in front of a 3m-deep section of the wall, which displayed a noticeable splay or 'base batter'. The Maudlin Street corner tower is significantly smaller than examples in 'High Town' Kilkenny, such as Talbot's Tower or Evan's Turret. However, a small stub of wall extends south and this alignment corresponds to that revealed at the rear of 68-9 John Street Lower, as well as roughly aligned to an excavated portion of the town ditch, 6-m wide and 1.46m deep, excavated in 1998 at Maudlin Street close to the junction with John Street Lower (Stevens 1998, 2006, 55-9). Significantly, there was no trace of the town wall foundation or base-batter at Maudlin Street site, and it appeared to have been completely robbed out (ibid). However, there are close comparisons with the excavation at Cleeres' factory, Ormonde Road, Kilkenny of a section of 1m-thick 'High Town' defensive wall and its 6m-wide town ditch (Channing 1991). These results show the ditch fosse was lined or revetted by the base-batter and the town wall built immediately behind, on virgin ground, with little or no foundation. Thus, any trace of a defensive town wall could be removed altogether leaving only negative evidence from the fosse – if one existed.



Plate 5: View south of Talbot's Tower and extant town defensive wall, on Ormonde road, Kilkenny.

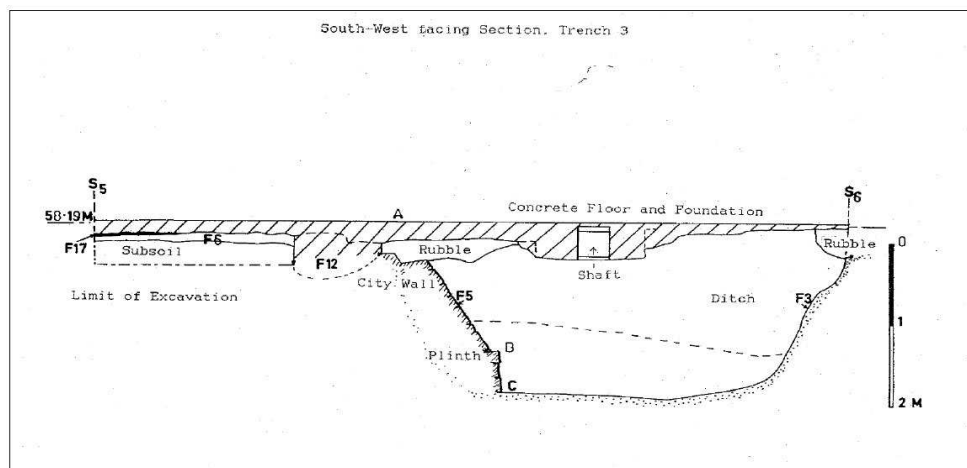


Figure 58: Section through the town ditch at Cleere's factory, Ormonde road (KKAP-091). The excavation demonstrated that the inner edge of the ditch was revetted in stone.

Plate 6: Excavation of the town ditch at Ormonde road Kilkenny (after Channing 1991; KKAP, 2008, fig 58).

There is a general lack of hard evidence for a medieval town wall and ditch anyway in Collegepark, as is presented from this phase of test excavation at the development site. Furthermore, archaeological test and monitoring investigations in 1995 throughout the site of the Rivercourt Hotel, 85-9 John Street Lower, failed to identify any extant town wall or fosse at the supposed location of the town wall (Gowen 1996). This was also the case for limited excavations in advance of the building of the County Office complex in 1991 (Bradley and King, 1991).

In addition to this, conflicting evidence was revealed of medieval fabric elsewhere and away from the supposed line of the town wall in this part of the suburb. At the edge of the river bank, overlooked by Kilkenny Castle, a large circular tower was excavated c. 20m east of the projected line of the town wall or the line of the mill-race (Doyle 2005, 32-42). This tower was observed without attached wall protruding from it. Further conflicting evidence of a possible 0.46m thick, 0.19m deep section of town wall and base-batter and 2.5m-deep ditch was excavated at 89 John Street Lower, 24m east of the street (O'Donovan 1998).

2. Archaeological Excavations

2.1 Medieval defensive walls

A total of 35 excavations have been carried out in or around the defensive town walls of Kilkenny, with 12-14 producing significant findings. A search of town wall related excavations in Ireland from the DAHG database website 'www.excavations.ie' revealed a total of 629 related results and included excavations in towns and cities across Ireland in town as such as Carrickfergus, Cork, Cashel, Clonmel, Dublin, Drogheda, Dundalk, Londonderry/Derry, Galway, Kells, Kilkenny, Loughrea, Naas, Wexford and Waterford. In general,

the medieval or late medieval fabric of these walls is largely found to be similar in form, build and stature, if differing in design, scale and aspect. Many surviving examples are fragmentary and altered or reduced in size in antiquity, and tend not to be fully excavated in favour of preservation in situ, so comparative excavation data for foundation typology is rare. However, in relation to comparing the findings in this phase of testing to the compendium of excavated examples, comparatively few if any excavated examples exist for a completely vertical wall, less than 0.6m in thickness throughout, and built on a narrow plinth, as that found at C01. Moreover excavations of mill-stream revetment walls and mill building walls tend to show similar form and design, notably those excavated in the river Nore for the Kilkenny (River Nore) Drainage Scheme (Stevens 2001, 2002; Doyle 2004, 2005)



Plate 7: Composite views of masonry wall looking west, with plaster removed and under excavation.

Paul Stevens, January 2013

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OKR – Old Kilkenny Review

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**Kilkenny City & County Library Development Project:
ARCHAEOLOGICAL IMPACT ASSESSMENT (Phase 1)**

REPORT 4

Site Name: 75–76 John Street Lower, Kilkenny City
NGR: E 250875, N 155930
Site Type: Urban–post-medieval / Early modern
RMP ref.s: KK019:026001(City wall environs), KK019:120069(environs)
Ministerial Consent: C523
Excavation number: E4417
Detection Device: R300

EXECUTIVE SUMMARY

Archaeology Report 4 (Phase 1–part 2) comprises a summary of evidence concerning the rear wall of 76 John Street Lower, pertaining to the results of the Reports 1 & 2 (archaeological impact assessment: Phase 1, Parts 1 & 2), also undertaken in January 2013. The report was compiled by Thaddeus Breen, Valerie J Keeley Ltd. on behalf of Kilkenny Council and Borough Councils, for a proposed City and County Library development.

This report was issued together with Report 3, following additional correspondence from Department of Arts, Heritage and the Gaeltacht, dated 14th January 2013, requesting additional clarification and further information on the archaeological findings and possible impacts from Reports 1 & 2.

**Kilkenny City & County Library Development:
Archaeology (Phase 1)**

**SUMMARY OF EVIDENCE
CONCERNING THE REAR WALL
OF 76 JOHN STREET LOWER, KILKENNY**

Author:	Thaddeus Breen
Job No:	1574-12-400
Client:	Bucholz McEvoy Architects Ltd.
Date:	January 2013

Valerie J. Keeley Ltd.

KILKENNY CITY AND COUNTY LIBRARY DEVELOPMENT

REAR WALL OF 76 JOHN STREET LOWER

Two questions about the wall at the rear of 76 John Street must be considered: whether any part of this wall dated from before the 18th century and whether it is on the line of the town wall.

Evidence comes from three sources:

- Historical documents
- Cartography
- Archaeological excavations

Reports:

- Kilkenny Walls Heritage Conservation Plan, 2005
- Preliminary archaeological assessment by Kilkenny Archaeology, May 2011
- Architectural conservation assessment, VJKL, July 2012
- Archaeological assessment, VJKL, July 2012

Kilkenny Walls Heritage Conservation Plan – The Heritage Council, 2005 (Fig.1)

The Kilkenny Walls Heritage Conservation plan states that from the Council Offices to the River Nore, the wall no longer exists.

The existing back wall of the properties 77-84 John Street Lower follows the probable original line, but is not the original Town Wall. The rear wall of 76 John Street is excluded, probably because it is set back at least 5.50m from the presumed line of the Town Wall.

However, this may not be the true line of the Town Wall. Archaeological excavations along that line found no medieval remains, whereas two excavations at the southern end uncovered likely parts of the defences much nearer to the street.

Preliminary Archaeological Assessment Report, 75-6 John Street, Kilkenny City. Kilkenny Archaeology, May 2011.

This was a desktop-based study and site assessment.

It points out that parts of the medieval Town Walls and/or ditch were found in archaeological excavations at Maudlin Street, and at the rear of 68-69 John Street.

The wall at the rear of No 76 may be on the line of the Town Wall.

The other boundary walls of Nos. 75-6 may follow the boundaries of the original medieval properties (known as burgage plots).

Recommendations include removal of rendering and ivy from the rear wall, and test excavation.

Conservation Assessment Report, 75 & 76 John Street Lower, Kilkenny. Rob Goodbody for Valerie J. Keeley Ltd., May 2012

This report deals mainly with the buildings on the street. In the section referring to the curtilage (p38), it states of the boundary walls: 'Rubble stone walls are difficult to date and hence it is difficult to be certain when these boundary walls were built... Given the presence of brick in the walls it is clear that they cannot be medieval in date.'

Archaeological Impact Assessment (Phase 1), 75 & 76 John Street Lower, Kilkenny. Valerie J. Keeley Ltd., July 2012

This report describes Phase 1 archaeological test trenching (i.e. before demolition of existing structures).

The four possible lines of the missing part of the Town Wall are outlined (map on p. 12, detailed analysis on pp. 10-11). Only two of these are near the rear wall of 76 John Street.

Trench 3 investigated the mill and mill-race at the back of the property. The rear wall of 76 John Street, on the possible line of the town wall, was investigated and interpreted as the western revetment of the mill-race, its date uncertain. No features diagnostic of a defensive wall were found, and the pronounced base batter (sloping out at the base) found on the parts of the town wall found in the excavations mentioned above was not present. However, the thickness could not be established, and much of the stonework was still obscured by pebble-dash and ivy. However, just as the side walls of the property may follow the line of the burgage plot boundaries, the rear wall may follow the line of the Town Wall.

Archaeological Impact Assessment (Phase 1 – part 2), 75 & 76 John Street Lower, Kilkenny. Valerie J. Keeley Ltd., October 2012

In response to a request for further information from the Department of Arts, Heritage and the Gaeltacht, an additional test trench was excavated to clarify the nature of the rear boundary wall (listed in the report as CO1) of No. 76 John Street Lower.

The pebble-dash rendering was removed from the southeastern face of the wall so that the masonry could be examined, then the trench was dug by hand on the northwestern side of the wall, inside the property.

No evidence was found of a medieval defensive wall. The wall, CO1, appears to be contemporary with the boundary walls on either side of Nos. 75 and 76 John Street Lower, which are likely to be 17th to 19th-century in date.

No further assessment is possible until the existing structures near the wall have been demolished.

Historical Records

The earliest references to a wall around the suburb of St. John's occur in the early 16th century, when there are references to a stone and lime wall, with a reference to a turret in 1570 (Thomas, 1992), and in 1650 there is a specific reference to 'another walled town on the other side of the river'.

Cartographical Records

The Down Survey of circa 1655 distinctly shows the walls of St John's suburb, but only the north-east line: the south-east line is shown as an ordinary field boundary (Fig. 2). It cannot be that there was no wall on this side, as parts of a medieval Town Wall have been found in excavations (see below) and part of the wall survives above ground behind Langton's hotel. However, it is possible that the stone wall was not continuous. There are references to part of the 'town ditch' in the area being 'broken down' shortly before 1596 (Heritage Conservation Plan, p. 172). Some towns in County Kilkenny, such as Gowran, seem to have had defences made up partly of walls and partly of ditches and banks (Thomas, I, 49)

Rocque's map of Kilkenny (1758) is the first detailed survey (Fig. 3). It shows the properties on John Street Lower as bounded by a straight watercourse. It does not show the back of 75-76 as set back. The 1st edition of the Six-Inch OS map shows this same watercourse, but it is now evidently underground from No. 75 northwards. It flows through a mill at the back of No. 75, and the rear wall of the latter is shown as it is today, set back from the line of the remainder of the properties.

Archaeological Excavations in the area

Maudlin Street 1998

Town Ditch running SE-NW; early 13th-century pottery at base.

County Hall 1991

Rubble wall, interpreted as a boundary wall.

68-69 John Street (Langton's) 1996

78 metre long stretch of Town Wall; foundations 3m deep, base batter, internal tower, mill race outside: possibly served as moat.

68-69 John Street (Langton's) 2001

Remains of 18th/19th-century mill.

70-71 John Street 1994

Remains of 18th/19th-century warehouse.

71 John Street 2008

18th/19th-century foundations over imported mediaeval garden soil.

87-9 John Street Lower (Bridge House) 1995

Town Wall, Tudor house, basements.

87-9 John Street Lower (Bridge House) 2001

Late medieval spine-wall. Front wall/cellar of house.

Nore river bank SE of River Court Hotel 2001

Remains of circular stone tower.

SUMMARY

All of the reports suggest that the rear wall of No. 76 John Street Lower (C30 in the Archaeological investigation) is not a defensive Town Wall but a boundary wall built at some time between the 17th and 19th centuries. They agree that it may have been built on the line of the Town Wall, but there are some doubts as to whether this was the case.

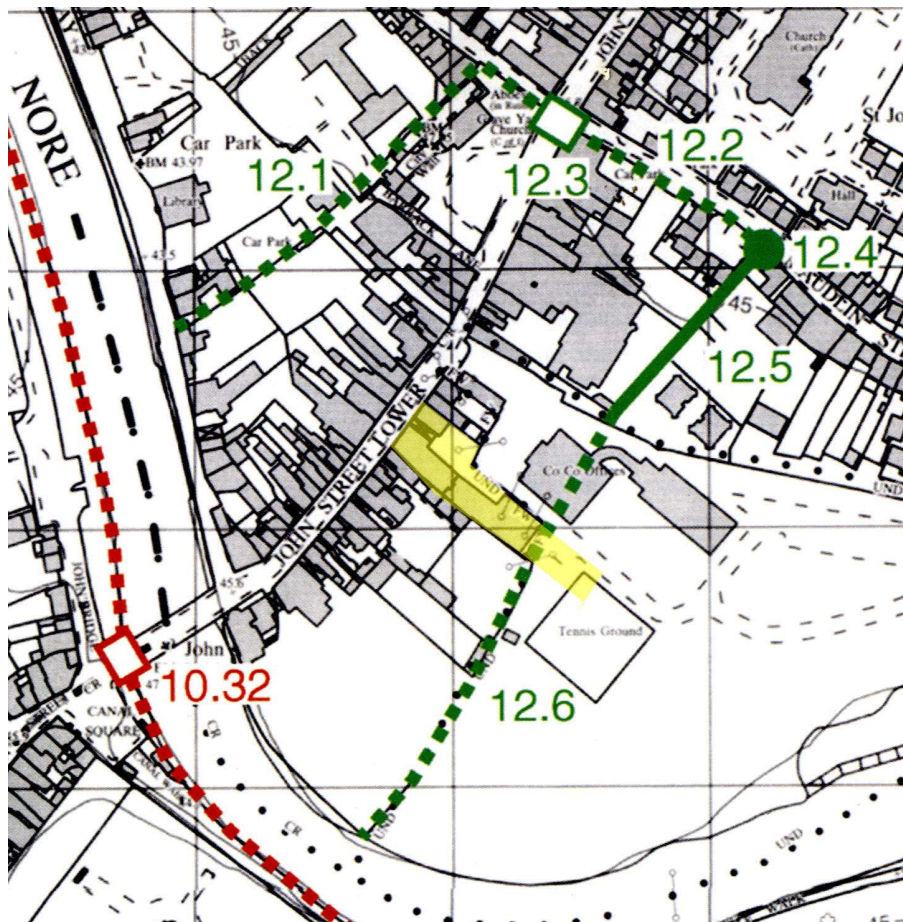


Figure 1. Outline of the walls of St John's Suburb (in green) from the Heritage Conservation Plan. The dotted lines represent possible lines of walls which are no longer extant. The site of the proposed development is shown in yellow.

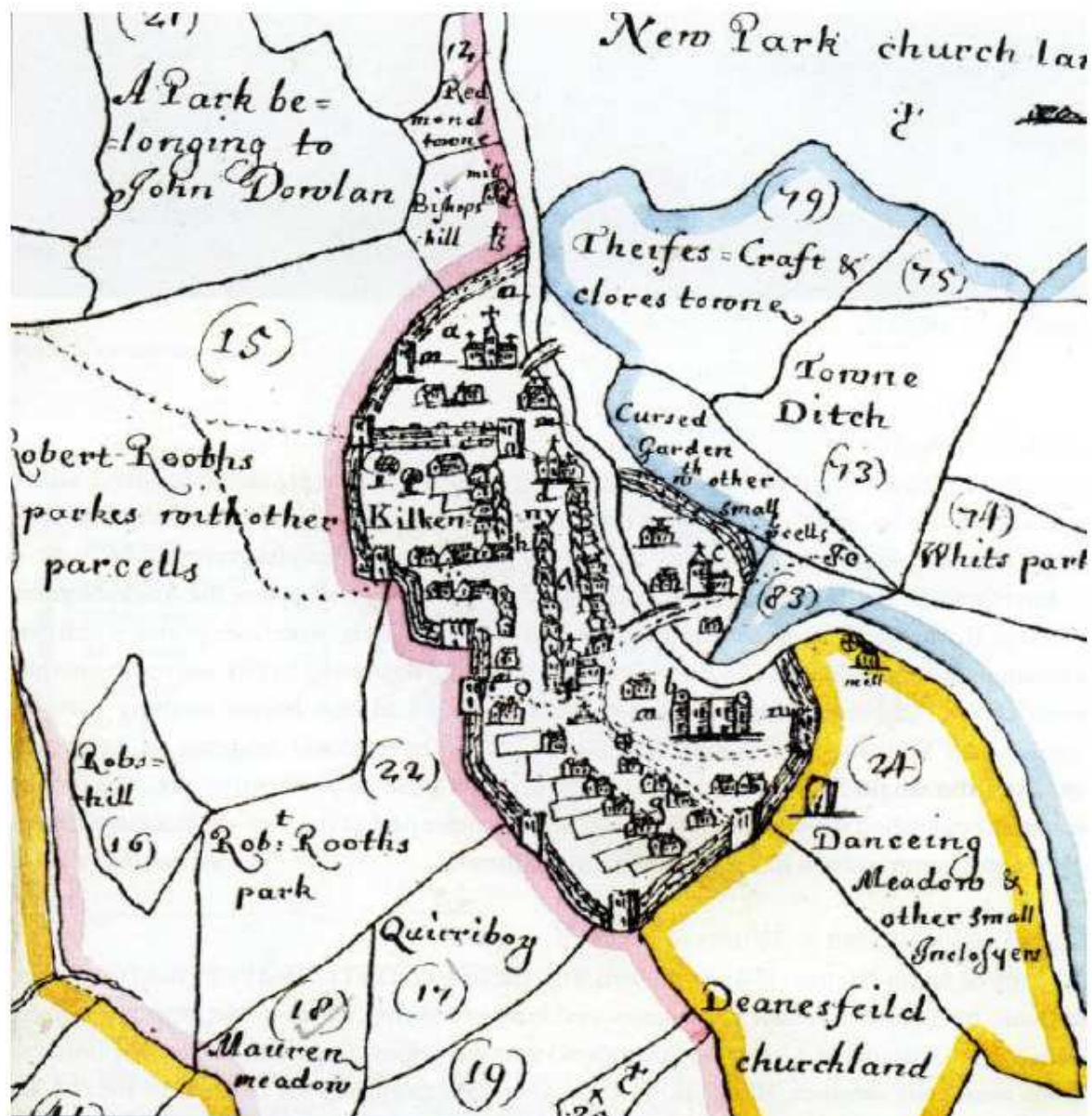


Figure 2. The Down Survey, c 1655, showing the Town Wall apparently missing on the south-western side of St. John's suburb



Figure 3. Rocque's map of Kilkenny, 1758 (detail, rotated to show north at top), with the site of the proposed development marked in red.

VALERIE J. KEELEY
CONSERVATION ASSESSMENT REPORT

**Kilkenny City & County Library Development:
Historical Architecture**

CONSERVATION ASSESSMENT REPORT

**75 & 76, John Street Lower,
Kilkenny**



Author:	Rob Goodbody
Job No:	1574-12-400
Client:	Bucholzmcevoy Architects Ltd.
Date:	May 2012

Valerie J. Keeley Ltd.

SUMMARY

This report has been produced as a historical and historic building survey of two buildings in John Street Lower, Kilkenny, as part of the Kilkenny City and County Library Project, which would incorporate these buildings.

The historical background shows that John Street Lower is an early street, serving a suburb of Kilkenny that was in existence from about the early thirteenth century. Details of the buildings along the street are not available before John Rocque's map of the city in 1758, and this shows that there were buildings on these sites at that time. Both sites were redeveloped in the 1890s, however, and the report shows that a significant amount of fabric from the earlier building survives in number 75 John Street Lower, possibly predating the eighteenth century.

The evidence is less conclusive for number 76 John Street Lower, but it appears that this building was entirely rebuilt in 1898 and that it is unlikely that any fabric from the earlier phases survives in the present building, other than in the party walls.

The assessment concludes that the proposed development of the library building would not have an adverse impact on the protected structures in the vicinity or on the John Street Architectural Conservation Area.

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1.0 INTRODUCTION

This report has been prepared for Valerie J Keeley Ltd on behalf of their clients, Bucholzmcevoy Architects for Kilkenny City Council.

The site was inspected for the purposes of preparing this report on 15th May 2012 on which occasion the photographs incorporated in the report were taken and the site examined to prepare the descriptions contained therein.

Historical research was carried out on the background history of the property and the results are set down below.

While this report contains comment on aspects of the condition of the buildings it is not a condition report or a structural report and must not be read as such.

This report has been prepared by Rob Goodbody BA(mod), DipEnvPlanning, DipABRC, MA, MUBC, MIPI, MRTPI.

2.0 HISTORICAL BACKGROUND

John Street is a medieval thoroughfare and was developed at an early stage as a transpontine suburb of Kilkenny City. John Bradley has dated the suburb to the early thirteenth century, with the name "St. John's Street" first mentioned in 1328¹. The Down Survey map of the liberties of the city of Kilkenny, surveyed in 1655, shows the suburb as a built-up area, though shown only diagrammatically, with specific development along the street not indicated.

The first map of the city of Kilkenny that was produced to a reasonable degree of detail and accuracy is John Rocque's survey of 1758.

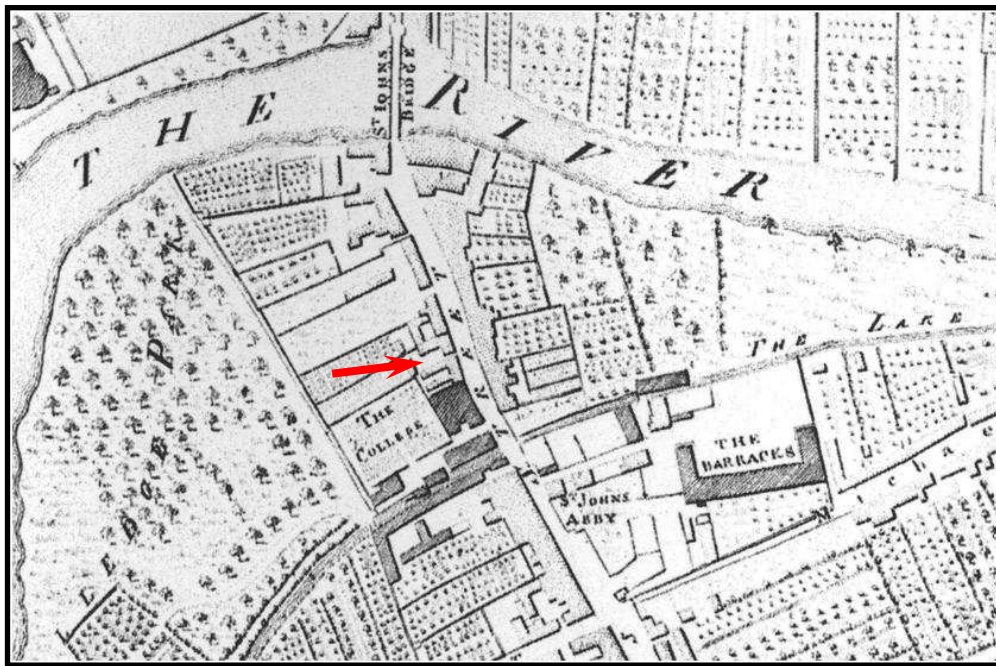


Figure 1: Detail of John Rocque's map of Kilkenny, 1758

The property is shown in context in the detail of Rocque's map above, and shown again in detail in the enlarged extract at right. West is at the top on this map. The buildings now known as 75 and 76 John Street Lower were depicted as three buildings. The archway through from John Street is plainly visible on the map.



Figure 2: Enlargement of Rocque's map

¹ Bradley, John, 2000, *Irish Historic Towns Atlas, No. 10, Kilkenny*, Royal Irish Academy, Dublin.

The college shown on the site adjacent is Kilkenny College, which had been occupying the former Seix House since 1684, facing directly on to John Street. The college subsequently built new premises on the site to the rear, in 1782, and demolished the old building. It appears that the present site does not encroach into the site of the former Seix House, judging from a close study of Rocque's map via an overlay with the Ordnance Survey.

2.1 Valuation records

A great deal of information on the buildings occupying the sites of numbers 75 and 76 may be gleaned from the valuation records, held in the Valuation Office in Lower Abbey Street, Dublin. These records span from the 1850s to the present day, and for the period up to 1969 they include the manuscript books that record the rateable valuation of the properties in John Street Lower, with any changes that occurred in that time.

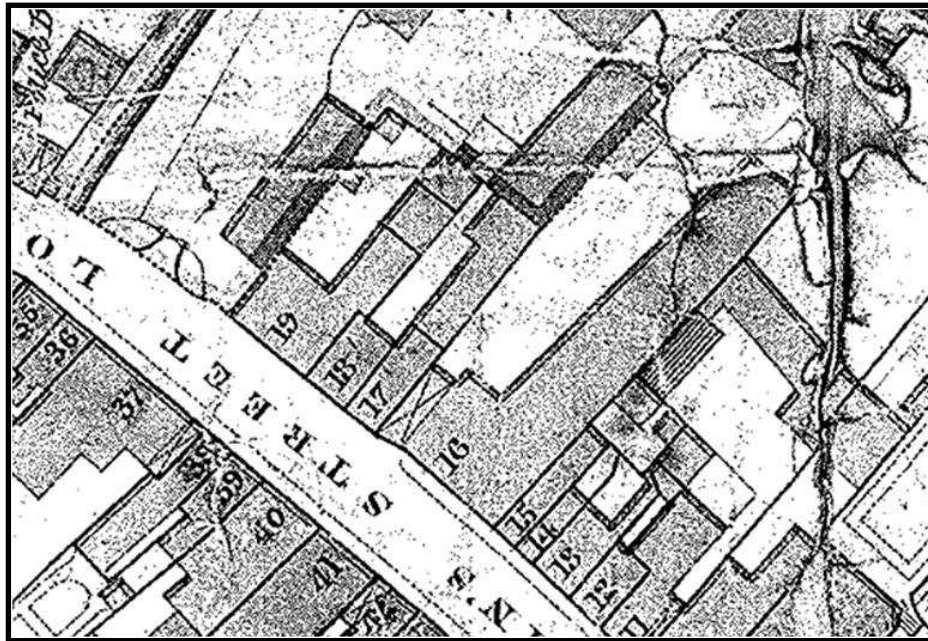


Figure 3: Detail of valuation map of circa 1850s

At the time of Griffith's Valuation of Kilkenny in the 1850s the properties now numbered 75 and 76 John Street Lower were numbered as 17-18 and 16 John's Street Lower and this is seen in the extract from the valuation map of Kilkenny that is reproduced above. The map shows a very similar position to that shown on Rocque's map. The townland boundary, seen as a dotted line, runs along the left boundary of house 19, then along the street frontage, before running back away from the street towards the left margin of the map extract. This is the townland of Collegepark, and it is possible that the boundary reflects the original location of the college building on the street frontage. If this is the case, then the buildings numbered 17, 18 and 19 represent the two buildings adjacent to the college on Rocque's map, divided by an archway to the street from number 16 with its substantial return at the rear.

2.2 Number 75 John Street Lower

Griffith's valuation recorded that numbers 17 and 18 were in separate occupation, though by the time that the valuations were being updated on a continuous basis, rather than the one-off survey by Griffith, the two were occupied as one. John Morrissey was occupying number 18 and also owned number 17, which he was subletting and by 1860 Morrissey was occupying both. The Morrisseys had a woollen mill and their premises in John Street was a wool store. Richard Morrissey died in about 1881, following which his widow could no longer run the business and opened a grocery store on the premises instead, as she explained in an advertisement in *Bassett's Directory of Kilkenny* in 1884:

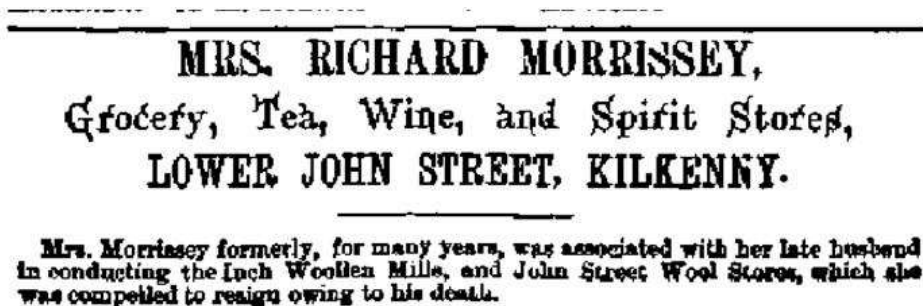


Figure 4: Advertisement from Bassett's Directory of Kilkenny, 1884, page 75

The occupation of these properties changed from the Morrissey family to the Byrne family in the mid-1880s. By 1890, however, the property was in use as a store. The combined property had a rateable valuation of £12. The occupier at this time was Michael Byrne, and the next door property at number 16, now number 76, was occupied by Michael Byrne as a bakery, and hence this property appears to have been ancillary to the use next door.

In 1893 the valuation records noted a significant change. This property and number 19 John Street Lower, deleted from the records and three new buildings were listed in their place, numbered 17, 18 and 19 John Street Lower. These were each listed as a house with out-offices and a yard, with numbers 17 and 18 valued at £10, while number 19 had larger out-offices and was valued at £10-10s.

Most significantly, a marginal note in the valuation record book, recording that the three houses cost £540 to build, also notes that "old walls (front and back) not taken down".

In the early twentieth century the numbering system was changed, and number 17 became number 29 John Street Lower. This is the numbering system used in the later entries in the valuation records. One of the books notes the number 75 alongside the number 29, but most do not, and the later valuation records continue to refer to this plot as number 29.

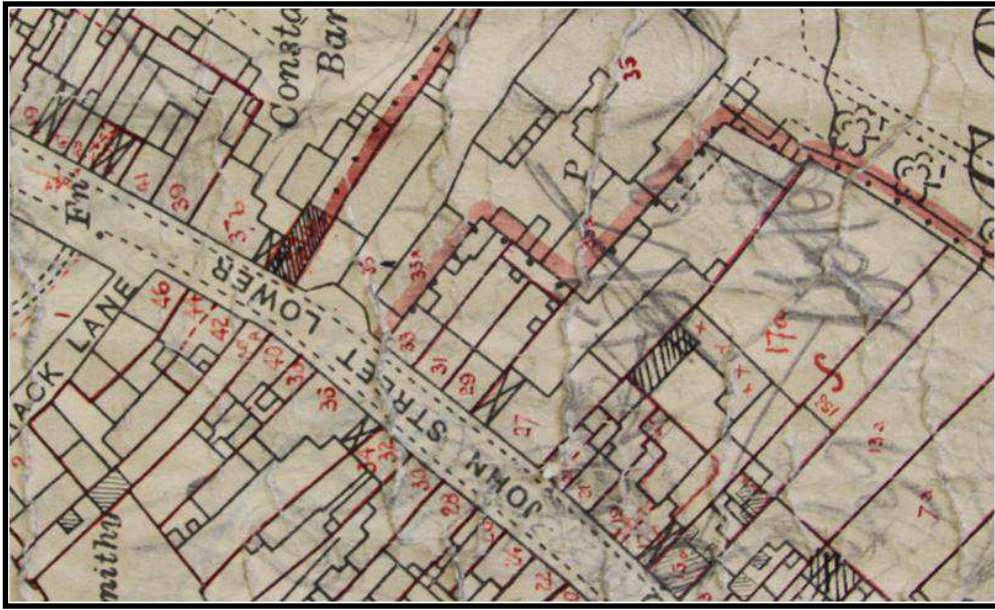


Figure 5: Twentieth century valuation map with valuation plot numbers in red

2.3 Number 76 John Street Lower

The present number 76 John Street Lower was numbered as 16 in Griffith's valuation in the 1850s and this numbering continued through to the early twentieth century. The property is seen on the extract from the valuation map in figure 4 above, and it was a substantial property, with an arch off the street and with a long return area at the rear. The access and return had also been shown on Rocque's map a century earlier, as seen in figure 2.

At the time of Griffith's valuation the property was occupied by Martin Davis, who was a blanket manufacturer. The property came into the hands of Patrick Hart in about the 1860s, and he carried on a business as grocer and spirit dealer until the mid-1870s. The occupiers over the next twenty years included members of the Kehoe family, and a James Kehoe of John Street was listed in Bassett's Directory of Kilkenny in 1884 as a grocer and spirit dealer in John Street, and as a town councillor. James Byrne of John Street was also listed in the directory as a town councillor, and it was a James Byrne who came to the property after the Kehoes. It is likely that the James Kehoe was not based at this property, as James Byrne occupied it from about 1878.

Michael Byrne succeeded James Byrne, and may have been his son. He carried on a bakery business on the premises and, as has been noted above, also used the adjacent building as a store.

It is notable that in 1884 the valuation on this property was reduced from £25 to £21, and it was further reduced in 1891 to £20. A marginal note in the valuation records reads "house very old and much dilapidated." It also notes that the rent being paid was £30, which was not a great deal for a property this size.

In 1898 a significant change took place, when the property was acquired by J and E Smithwick, of Smithwick & Son brewers. The property became used as licensed house, with out-offices and yard. At the same time the rateable valuation of the property was increased from £20 to £36, which is a very substantial increase, usually either signifying a reconstruction or a large extension. Given the statement that the property was old and much dilapidated, coupled with the increase in the valuation, it seems probable that the premises were rebuilt at this time. Whether or not any of the original fabric remained in the property is not revealed in the valuation records.

As had occurred at number 17 John Street Lower, the numbering system changed number 16 to number 27 John Street Lower, and this is the number shown on the valuation map reproduced above. The number 76 does not appear anywhere in the valuation records, though it is evident from the map that the property now numbered 76 is the same address.

3.0 CONSERVATION CONTEXT

3.1 Record of Protected Structures

Numbers 73-75 John Street Lower are protected structures, included in the Record of Protected Structures as set down in Appendix D of the Kilkenny City & Environs Development Plan 2008-2014. Number 76 is not a protected structure. It is noted that the rear boundaries of numbers 75 and 76 are shared with County Hall, which is also a protected structure. The protection in all cases extends to the structures in the curtilage of a protected structure, including the boundary walls, unless specified otherwise in the Record of Protected Structures.

3.2 Conservation areas

Numbers 75 and 76 John Street Lower lie within the John Street Architectural Conservation Area (ACA) as set down in Chapter 7 of the Kilkenny & Environs Development Plan 2008-2014. The extent of the ACA is indicated in the map below, taken from the development plan, and with the site arrowed.

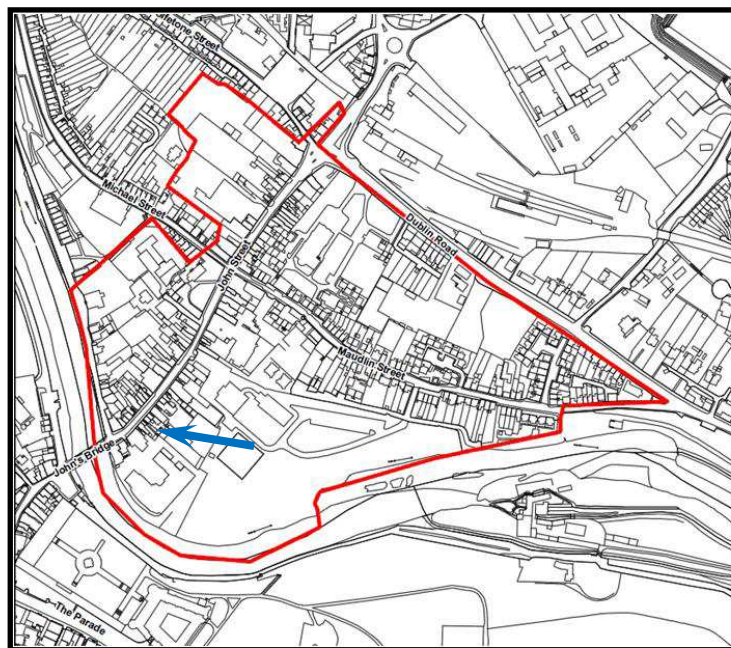


Figure 6: John Street Architectural Conservation Area, with site arrowed

The policies that relate to the John Street Architectural Conservation Area are set down in section 7.8.4 of the Kilkenny & Environs Development Plan 2008-2014.

3.3 National Inventory of Architectural Heritage

Numbers 75 and 76 John Street Lower are included in the survey of Kilkenny that was conducted by the National Inventory of Architectural Heritage in 2004-2005 (Reference numbers 12000161 and 1222160 respectively).

4.0 BUILDING SURVEY



Plate 1: Numbers 75 and 76 John Street Lower

The two buildings at 75 and 76 John Street Lower front directly on to the street and are the same height to the eaves. In all other respects they differ significantly. Number 76 is slightly higher at the eaves, and a broad frontage of just over fourteen metres, as compared with the seven metre frontage on number 75. Stylistically they also differ. Number 75 is one of a terrace of three similar houses, all built in 1893 to a unified design.



Figure 7: 73, 74 and 75 John Street Lower

Number 75 is two-storey and two-bay, with polychrome brick framing to the windows and doors, reflected in the polychrome brick corbelling at the eaves. The remainder of the facade is rendered and painted. The window and door heads are canted and the windows have been replaced with vertically-divided casements on the upper floor and a single pane on the larger window at ground floor level. The roof is slated with rendered chimney stacks at the party walls.



Plate 2: Number 76 John Street Lower

Number 76 is two-storey and four-bay, with a shopfront of relatively recent date across three bays, having paired pilasters surmounted by brackets supporting a fascia board that runs the full width of the facade. The entrance is in the centre of the shopfront. The fourth bay, on the left-hand side, is a vehicular entrance leading to the rear. The access to the rear is enclosed by a roller steel shutter that has been fitted recently.

The facade on the upper floor is rendered, ruled, lined and painted, with parallel quoins in plaster and with a projecting moulding at the eaves. The windows are one-over-one timber sliding sashes with curled horns set over sills of unpainted cut limestone. The roof is single pile with fibre cement slates. There are two rooflights of relatively late date in the front slope of the roof. There are chimney stacks at the party walls and over the divide between the access arch and the main building and these are rendered.

An ogee-profile cast iron gutter runs along the eave to a downpipe at the right-hand end of the facade.



Plate 3: Rear elevation

At the rear the greater part of the facade of number 76 is masked by a substantial return. The access through the building leads to a yard in common between the two properties.

The rear of number 75 is two-bay, with the right-hand bay serving the staircase on the upper floor. The first floor and staircase window are one-over-one timber sliding sashes, with quadrant horns, with exposed weight boxes. There is an unpainted cut limestone sill to the first floor window. The remainder of the facade is rendered and painted.

At ground floor level a small single-storey extension with a flat roof projects towards the yard. This has a parapet with precast concrete coping. Two small windows are timber casements, while a glazed door has a large glazed panel alongside. The roof has a covering of fibre-cement slates and chimneys at the party wall are rendered.

The rear of the main building at number 76 is rendered and painted with a uPVC casement window at first floor level over the access from the street. The corner of the wall to the left of the access is chamfered.

The roof slope changes towards the bottom to a gentler slope, suggesting that an extension has been added to the rear. The roof covering is fibre-cement slate. There are roof lights of comparatively recent date in the rear slope.



Plate 4: Rear of number 76

Plate 4 above shows the projecting upper floor at the rear of number 76. It also shows that there is a pier of masonry adjacent to this projection on the party wall with number 75. The chamfer in the wall at the corner of the rear access is visible in this photograph.



Plate 5: Return at rear of number 76

There is a substantial return at the rear of number 76. The roof and upper floor are clad in profiled steel and the ground floor walls are of concrete. It would appear to have been built in at least two phases, as the section close to the main building is rendered, while to the rear of this painted concrete block is visible.



Plate 6: Access from street

The access from the street runs through number 76, with the upper floor oversailing. There is a slight change in the face of the wall to the left, reflecting the position of the extension at the rear of number 76. The upper floor is supported on steel joists. On the right-hand wall, near the top, there is the base of a disused fireplace. This was plastered over at some point, but the general shape may be distinguished. On the left-hand side the plaster has detached, revealing the stonework below. This shows that the fireplace is supported on roughly shaped limestone blocks, while the supported masonry is dressed, with a plinth, above which the inner margin is chamfered. Between the fireplace and the rear wall there is a single projecting stone, roughly shaped.



Plate 7: Fireplace projecting at side of rear access



Plate 8: Rear boundary wall of number 75 John Street Lower

At the rear of number 75 there is a boundary wall with a pedestrian gate leading to the grounds of County Hall. This wall has been altered over the years, with concrete blockwork at the top and concrete over and around the gateway. There is brick to the right of the gateway. The main mass of the wall within the shed is rubble stone, with a significant amount of brick fragments, including a line of brick in one small area.



Plate 9: North-eastern side boundary wall of number 76

The boundary wall to the side of number 76 is also of limestone rubble, topped with concrete blockwork on a layer of mass concrete. The stonework of the wall has some horizontal coursing and occasional pieces of broken brick. There are signs of repair or reconstruction in places, one of which may be seen at right in the photograph where the small stonework with a horizontal emphasis gives way to larger stones with a less obvious horizontal orientation.

4.1 Interior – number 75

4.1.1 Ground floor

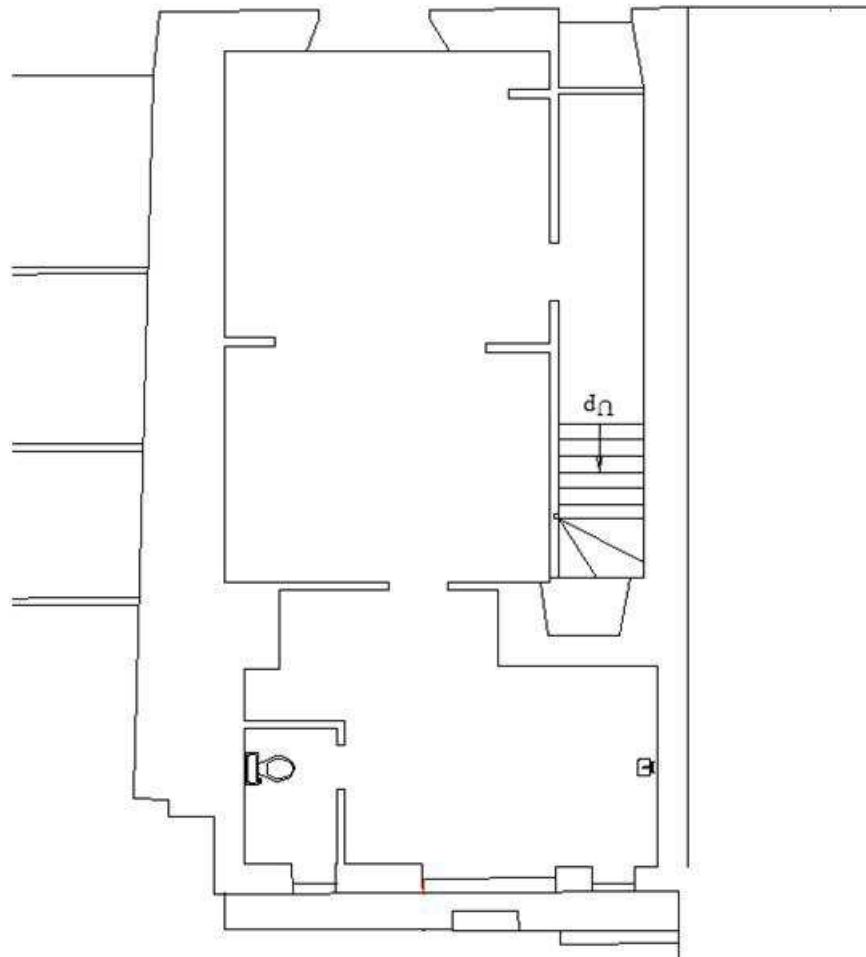


Figure 8: Ground floor plan of number 75, with street frontage at top

Number 75 has a simple plan with a corridor leading from the entrance from the street directly to a staircase at the rear. To the side a door leads to a front room, which is connected to a rear room by a broad ope. The internal walls are narrow, suggesting stud partitions. At the rear the small extension has a toilet at one side. The wall separating the main building from the extension is substantial, measuring approximately 1.2 metres in thickness. This is pierced by a window ope on the staircase and by a broad ope between the main building and the extension. The wall to the side passage is also thick, narrowing towards the street, but averaging about one metre in thickness. The floor plan above shows the substantial pier of masonry at the rear on the left and this was noted in the description of the building, referenced to plate 4 above.



Plate 10: Ground floor of number 75, rear room seen from front



Plate 11: Front room of number 75 at ground floor level

The ground floor of number 75 has been refurbished in recent years. There is no obvious sign of original features, with walls and window openings faced in recent plaster and painted. The ceiling to the front room appears to be replacement, while there is a suspended ceiling in the rear room. The doors are hollow doors of recent date, set in simple frames without architraves.

The rear extension is also of recent date with simple fittings.

4.1.2 First floor

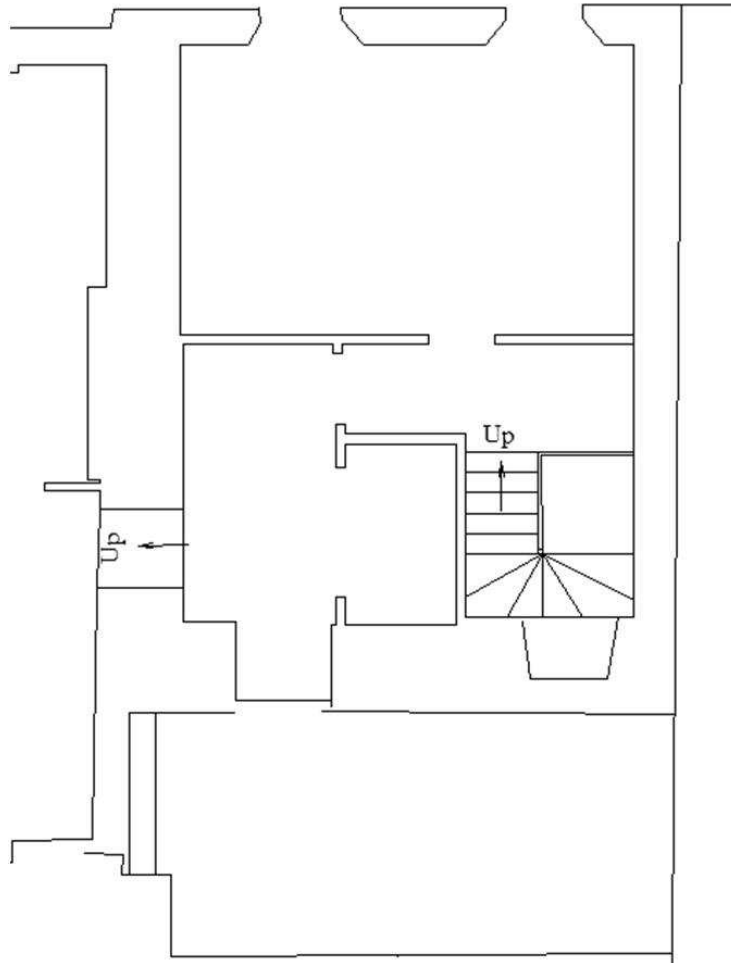


Figure 9: First floor plan of number 75, with street frontage at top

At first floor level the building is divided into front and rear. A single room runs across the front, with two windows. At the rear the space is further divided, with a staircase taking up less than half of the width, while the greater part of the rear is divided between a corridor leading to a door to the adjacent building and a large cupboard. This space was probably a single room originally.

The floor plan shows that the very thick rear wall continues to this level, as does the thick side wall, though each wall is approximately 100mm thinner than at the lower level. This probably reflects a narrowing at floor level, with the joists resting on a shelf.



Plate 12: First floor front room in number 75



Plate 13: First floor front room in number 75

The front room on the first floor has been refurbished. The walls are newly plastered and painted. The windows are casements of recent date without linings or shutters. The door is a modern hollow door.

The staircase and corridor on the first floor have also been refurbished, with modern plaster and paint. The windows are one-over-one timber sashes and have no linings or shutters.

The staircase winds through twice so as to take up minimal space. The balustrade, spindles and newels are wrought timber and appear to date from the 1893 reconstruction of the building.

Plate 14: Window in corridor, with door to number 76 at right



Plate 15 (below): Staircase



4.1.3 Roofscape

Within the attic space of number 75 the gable end walls are visible. The roof is of paired rafters and collars and would date from the 1893 reconstruction. There is slating felt, indicating that the roof has been reslated.



Plate 16: Party wall with number 74 at attic level – rear



Plate 17: Party wall with number 74 at attic level – front

The photographs above show the party wall with number 74 as seen at attic level. The upper photograph shows that the wall is stepped at the rear and stops well short of the eaves such that it would be possible to walk into the adjacent attic. In the lower photograph the same stepping is visible, but it has been evened out to a straight line with brick. A further addition to the wall in stone brings it out to another relatively straight slope, though this also does not reach the eaves, leaving a gap opening to the adjacent attic.



Plate 18: Party wall with number 76 at attic level - front



Plate 19: Party wall with number 76 at attic level – rear

The party wall with number 76 has been continued to the underside of the roof, leaving no significant gap. In the front section three phases of masonry may be seen, with two diagonal lines visible through the stonework. The location and orientation of these lines are indicated by the arrows in the upper photograph. Neither of these lines would have reached the present eaves. The vertical line at the left-hand arrow represents the line of the chimneybreast. The lines are less distinct on the rear section of the gable. They are marked by arrows in the lower photograph, the right-hand arrow showing the edge of the chimneybreast.

4.2 Interior – number 76

4.2.1 Ground floor

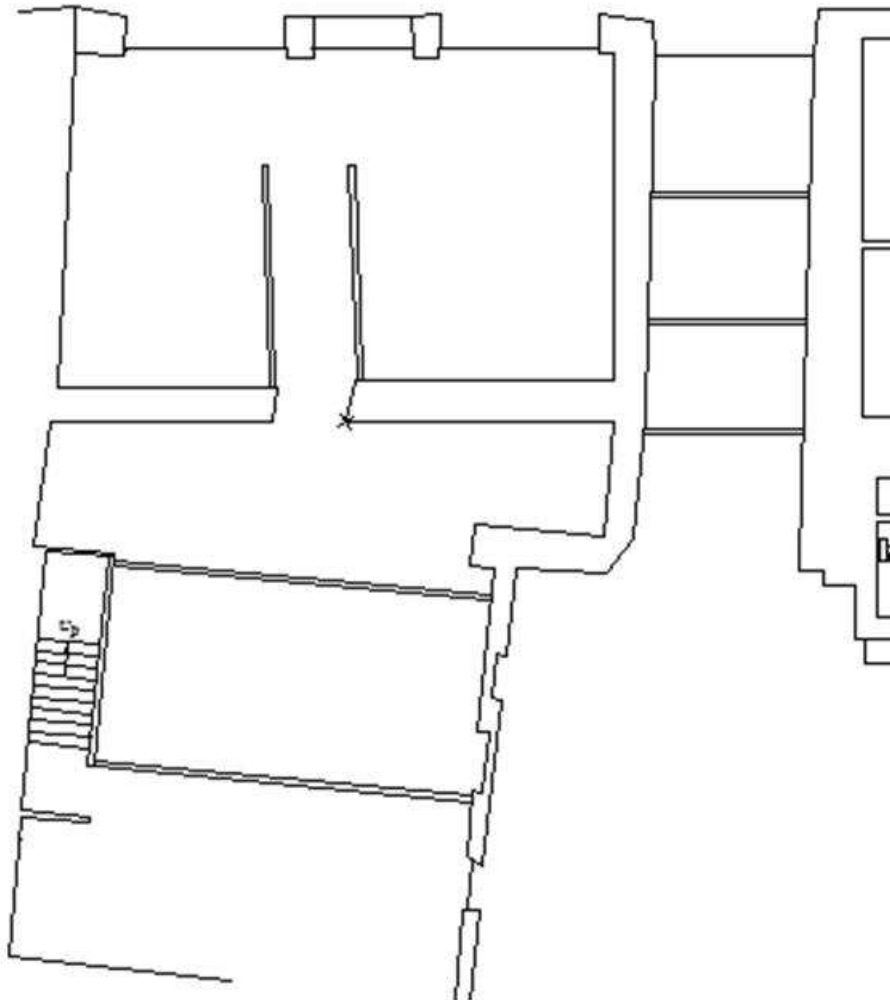


Figure 10: Ground floor plan of number 76

At ground floor level number 76 has a single, open, shop space in the front section, behind which is a narrow space that is broader at the north-eastern end than the opposite end, and to the rear of this the return opens out. To the side of the shop unit the passageway through the building to the rear is seen in the plan, with the lines across it representing the steel beams over the passage.

The external walls are around 650 to 700mm in width, which is not unduly thick for rubble stone walls, if this is the material from which they are constructed.

Within the shop area the walls, ceiling and floor have all been refurbished and no early features are visible with the possible exception of arches at the rear. A ramp climbs from the centre of the shop through an arch into the space to the rear and on either side of it are broad niches with segmental heads. These niches are infilled with stud walls of recent origin.



Plate 20: View to rear in shop unit



Plate 21: Interior at front of shop unit

The arched niches are also expressed in the space at the rear of the shop unit, with the broad segmental arches of the niches and the narrower arch of the access ope. The space at the rear of the shop has recent wall facings, ceiling and floor. The rear wall of the extension at the rear of the shop is supported at ground floor level on a beam running across the return.



Plate 22: Rear wall of shop seen from within return



Plate 23: Narrow area at rear of main building, at ground floor level

The interior of the return near to the shop is a broad area with a comparatively low ceiling supported on beams. An oriel window is of late twentieth century date, as is the door to the yard from the return. The side of the return adjacent to the property boundary is enclosed to carry the staircase to the upper floor.



Plate 24: View to side within the return



Plate 25: Interior of return seen from rear of shop

4.2.2 First floor

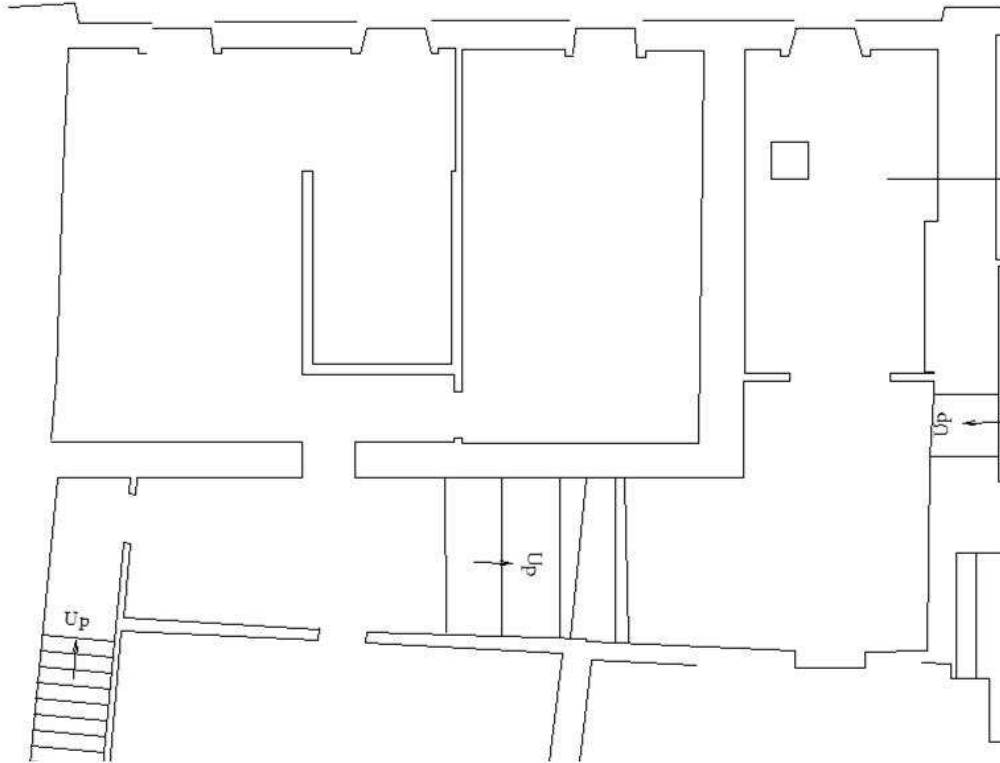


Figure 11: First floor plan of number 76 John Street Lower

At first floor level the main building is divided into three rooms, with a separate room over the passageway and with a corridor running across the rear. The staircase is a straight flight within the return and leading to the end of the corridor in the two-storey addition to the rear of the main building.

From the layout seen in the plan above it would seem likely that the original staircase in the building was in the small room in the middle of the main building. The three slightly thicker walls around this space are original, and are stud walls with a facing of lath and plaster. The wall connecting to the front elevation appears to be of more recent date.

There is a blocked doorway in the corner of the main building, connecting to the landing to the rear of the room over the passageway. Various alterations have been made to the rear wall of the main building, now facing into the corridor.

The rooms in the main building are accessed via a doorway leading off the rear corridor. One larger room connects at the front to the smaller space in the middle of the building and between them they are lit by two windows to the front elevation. The walls in this space are mostly faced with original plaster, and the ceiling is of lath and plaster.



Plate 26: View to front of room at first floor level



Plate 27: View across front of two rooms at first floor level



Plate 28: Central space at first floor level in main building



The first floor windows to the front are one-over-one sliding sashes with horns. They have linings and architraves, with panelled shutters.

Plate 29: Detail of window at first floor level to front

The room over the access passageway through the building has a window to the front with a one-over-one timber sash window with horns, set in an architrave and with panelled shutters. The room is otherwise plain. A chimneybreast in the side wall lies over the old fireplace in the passageway below. The double doors to this room are of recent date and are hollow doors.



Plate 30: View to front of room over passageway



Plate 31: View to rear of room over passageway

As noted above, there is a corridor in the addition at the rear of the original building. The photograph below shows that there are alterations to the plaster on the wall at right, which is the original rear of the building. At high level in this corridor there is a blocked window with a substantial sill. The sill is painted, but appears to be of dressed limestone. There is a suspended ceiling in this area.



Plate 32: Corridor at rear of main building



Plate 33: Blocked window in original rear wall of main building

Where the corridor moves beyond the return the floor rises up a set of shallow steps to reach the area above the passageway to the rear. The floor level in the room over the passageway is thus higher than in the rooms of the main building.

The lobby at the rear of the building over the passageway has wall coverings of later plaster. The window facing to the rear is of uPVC.

Plate 34: View along corridor
with main building at left



Plate 35: Lobby at rear of building, with doorway to number 75 at left

4.2.3 Attic floor

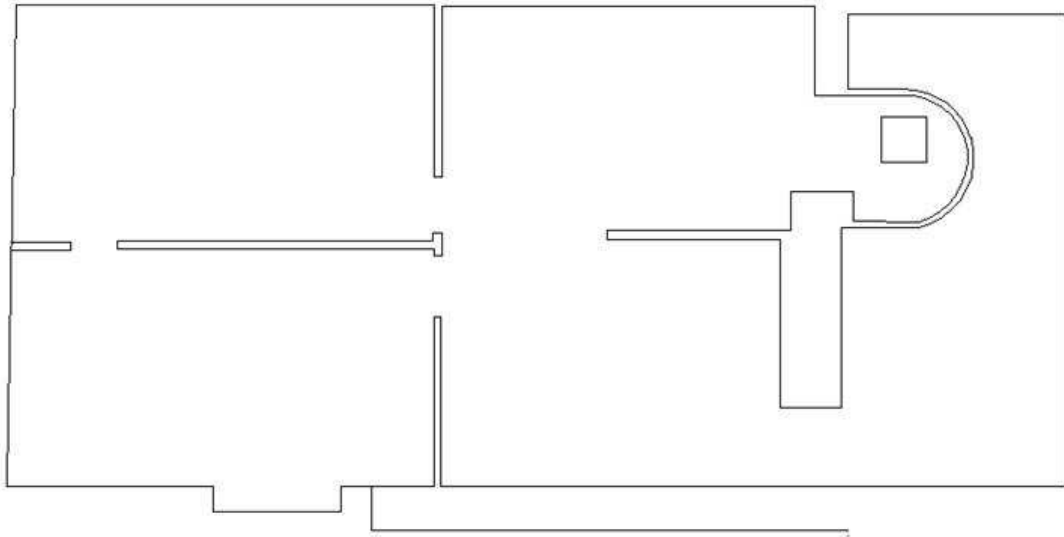


Figure 12: Floor plan at attic level in number 76

The attic space is divided by the masonry wall that rises between the passageway and the main building. The rest of the space is divided by recent stud and slab partitions. This floor is fitted out as offices, but decommissioned with the former spiral staircase removed for health and safety reasons. The partitioning of this former staircase is visible at left in the photograph below.



Plate 36: Space at attic level above passageway from street.

The divisions and doorways in the central space of the attic floor are seen in the photographs below. The upper photograph shows the doors to the two rooms at the south-western end of the building. The ceiling and walls are of plasterboard. There are late twentieth century rooflights illuminating this space.



Plate 37: Doors to adjacent rooms in attic area



Plate 38: Offices in central area of attic space



Plate 39: Front office at the south-western end of the attic floor



Plate 40: Rear office at south-western end of attic floor

In the rear office at the south-western end of the building there is a blocked window that projects partially into the roof area. This is the blocked window that was seen above the corridor and shown in plate 33 above. It would originally have been a lucarne window.

4.2.4 Roofscape

Within the small area of roof above the attic offices the party wall between number 76 and number 75 may be seen. This has a central section of brick, flanked by rubble limestone walling. The brick section has lower courses in a red brick, mainly viewed as headers, while the upper section is a yellow brick, predominantly of stretchers. The junction with the stonework is irregular.



Plate 41: Central section at top of party wall between numbers 76 and 75



Plate 42: Front section of party wall between numbers 76 and 75



Plate 43: Rear section of party wall between numbers 76 and 75

This is the same wall that was seen in the roof space of number 75, in plates 18 and 19 above, which showed that the other side of the wall had stone in the central section. The brick on this side would be consistent with a reconstruction date of the 1890s and the significance of the brick in such a location is that it was used to produce thinner walls in places where a flue passed through the thickness of the wall.

4.3 County Hall

While County Hall is not directly affected by the proposed scheme, it is an important protected structure on the adjoining site and needs to be taken into account in the architectural heritage assessment of the proposed development.



Plate 44: Entrance front of County Hall

County Hall is a substantial three-storey Georgian building standing in its own grounds to the east of John Street. The entrance front, seen above, faces north-west and has a large three-bay breakfront in the centre, flanked by single bays. The central section has dressed limestone quoins, string courses at first and second floor level and framing to the windows. The walls that flank this central section are plain. In the centre of the ground floor there is a substantial Georgian-style doorway with a large semicircular fanlight, below which the doorway is flanked by dressed limestone piers and with sidelights. The windows are timber sliding sashes, predominantly six-over-six, but with some variants. The roof is hipped and slated, without a parapet, and there is a lantern crowning the roof over the central breakfront.

The south-western elevation, seen at right in the above photograph, is three-storey, with the storeys on the first floor at a lower level to those on the entrance front. This elevation is plain, without the prominent limestone dressings that are seen on the north-western elevation. This side of the building is relatively close to the boundary of the property, which is marked with a high wall of stone and concrete, described above. The building at the rear of number 76 John Street runs back as far as County Hall, and projects to the boundary, as seen in the photograph above.



Plate 45: Garden front of County Hall

The garden front of County Hall is three-storey and seven-bay and faces south-east. The facade has dressed limestone quoins, framing to the windows and string courses at first and second floor levels. In the centre of the ground floor is a Georgian-style door that is a main feature of the facade, with a substantial decorative semicircular fanlight, a panelled door flanked by decorative sidelights and with dressed limestone piers flanking the door and sidelights. At roof level there is a stone balustrade surmounting a parapet, behind which the slated hipped roof rises.

This south-eastern facade of County Hall would have been intended from the outset to be the principal front of the building, while the present entrance front on the opposite side, as described above, is a more recent addition to the building. In its present form this feature has been enhanced by the grounds to the front of the building as a formal garden. A modern extension to the council offices overlooks the gardens from the north-east, giving a greater formality by forming a second side to a square around the gardens.

5.0 ASSESSMENT

The historical background showed that the two buildings that are examined in this report were constructed in the 1890s. It was also shown that in both cases the sites had been occupied for a considerable period before this, certainly by 1758 and probably for a great deal longer. The similarity in the way in which the buildings on these sites were shown on Rocque's map of 1758 and the valuation map of a century later suggests that the same buildings may have been present. The valuation records indicate that these buildings remained unaltered until the 1890s and hence the structures that were rebuilt at that time were at least 140 years old.

The valuation records provided two very significant notes relating to those earlier buildings. In the case of number 75, the note recorded that when the present numbers 73, 74 and 75 were built in 1893, the old walls at the front and back of the previous buildings were not taken down. The thickness of the rear wall of number 75 certainly backs up this statement, though it is less obvious at the front, where the wall is not as thick. The side wall of number 75, on the party line with number 76, is also very thick, but this is not unexpected, given the survival of part of a fireplace in the face of this wall.

The examination of the party walls in the roof space of number 75 also confirms that the old walls were not taken down. It would be usual to leave the party wall intact when rebuilding in a street such as this, but the reconstruction of numbers 73, 74 and 75 at the same time by the same developer would have permitted the removal of the party walls between these properties. As there were three original properties the new houses were able to utilise the earlier party walls as a means of economising on building costs.

The evidence from these surviving party walls is that there were at least two previous phases of building on the site of number 75, and which used the same party walls. It is very possible that there were more than this, and that the same roof profile was used more than once, with the result that there would have been no alteration in the slope of the sides of the party wall.

This evidence also shows that the previous buildings had steeper roofs and that the eaves were lower. The lower eaves could have resulted from lower ceiling heights, and also from the use of dormer or lucarne windows. It is also possible that the buildings could have had gables to the front and rear, while the party walls reflect the valley between these gables.

There is no way of dating the earlier phases of this building, except that the later of the two earlier phases would seem to predate Rocque's map of 1758, while the other was obviously significantly earlier than this. It is self-evident that the fireplace in the wall of the passageway also predates Rocque's map,

as the passageway was depicted on the map. The floor level of the room served by this fireplace was significantly lower than the floor level of the room over the passageway. However, as noted in the building survey, the floor level in the present room is higher than in the rest of the building so as to provide adequate headroom over the passage.

The second significant note on the valuation records related to the present number 76, and stated that the house was "very old and dilapidated". This was prior to the major increase in the valuation of the building in 1898 when it became licensed premises.

The survey above has shown that the walls of number 76 John Street Lower are not any thicker than would be expected for a wall of rubble stone. They are also relatively consistent in thickness and orientation. This suggests, though does not prove, that the building may have been entirely rebuilt in 1898 when the valuation records note an increase in the rateable valuation from £20 to £36. If the previous building was "very old", and this suggests that this was in comparison with other buildings in the street, it might be expected that the walls would be thicker. If it was very dilapidated the reconstruction of the building might be expected. The most likely location for any surviving fragment of the earlier building, apart from the party walls which are probably early, would be in the wall between the passageway and the main building, given that this passageway was in existence by 1758.

In essence, the walls of number 75 would seem to incorporate fabric of an early date, certainly of early eighteenth century origin, and with a very high likelihood that at least some of the wall fabric is considerably older. By contrast, the building at number 76 seems on the balance of probability to have been entirely rebuilt at the end of the nineteenth century, and it seems unlikely that it would contain any earlier fabric other than in the party walls with numbers 75 and 77.

5.1 Interior features

It was noted on the survey that very little survives of the interior features of either number 75 or number 76. In the former case the survival is limited to the staircase, and no original window linings or shutters remain. In number 76 the window linings, architraves and shutters survive at the front on the upper floor and little else remains of the interior.

The status of number 75 as a protected structure means that all interior features are covered by the protection, whatever their period. This issue is discussed below.

5.2 Curtilage

When a building is a protected structure the protection extends to any structure within its curtilage, and this would include boundary walls. As noted above, number 75 John Street Lower is a protected structure, as is County Hall at the rear. The protection would therefore extend to the boundary walls between numbers 75 and 76 and County Hall and would also include the extension at the rear of number 75 and the shed against its rear boundary. This issue is discussed below.

Rubble stone walls are difficult to date and hence it is difficult to be certain when these boundary walls were built. It seems likely that if there were no walls here by 1782 these walls were built then, at the time of the construction of Kilkenny College on the site now occupied by County Hall. It is possible that the walls predated the school building, particularly as the school grounds ran along the rear of number 75 and the side of number 76. Given the presence of brick in the walls it is clear that they cannot be medieval in date.

6.0 IMPACT OF PROPOSED DEVELOPMENT

The proposal would see the construction of a new library building to the rear of numbers 75 and 76 John Street, with some works carried out to the fabric of those two buildings. This would primarily involve the construction of a new building stretching to the rear of number 76 John Street, with the present return to the rear of that building demolished to facilitate the works. There would also be a certain amount of work carried out to the two buildings at 75 and 76 John Street. The proposed development would have a potential impact on built heritage or architectural heritage through its effects on the protected structures at 75 John Street and County Hall, and on the John Street Architectural Conservation Area. These potential impacts are discussed below.

6.1 75 John Street

The proposal would include the removal of the single-storey extension at the rear of number 75 John Street and some internal alterations consisting of the rearrangement of the ground floor layout. With the removal of the extension the exposed rear wall would be rendered and painted to match the existing wall and the opening in the rear wall would be glazed. Additional works would include the repair of the existing timber sliding sash windows at the rear of the building or, if necessary, their replacement to match the existing. The shed at the rear would be removed.

Impact

The removal of the extension would be a positive intervention. This is a later addition to the building and is not in keeping with the character of the protected structure. The refurbishment of the windows would also be positive, as it would represent essential maintenance or repairs to the protected structure. The removal of the shed would be a neutral intervention, as the shed is of recent date and neither adds to or detracts from the protected structure. The works to the interior of the building would also be neutral as the interior has been heavily altered over time and there is no remaining element of the original character that could be affected by the internal works.

6.2 County Hall

The proposed new building would run to the rear of number 76 John Street, continuing past the south-western elevation of County Hall to a point a little to the south-east of it. As noted above, County Hall is a protected structure and is a fine substantial Georgian building dating from the 1780s. It has also been noted that the south-western elevation of County Hall is not one of the major elevations of the building. This side of the building has always been close to the boundary of the property and there have been buildings against the boundary wall on the site of number 76 John Street more or less continuously. The

present building is substantial, though only single-storey where it adjoins the boundary. The new building would be higher and would project further to the south.

Impact

Given that the south-western elevation of County Hall is not a principal elevation, and that it has always faced buildings at the nearby boundary, there is precedent for development on the proposed library site. The library would be higher, however, than buildings heretofore on the site and there would be some slight diminution in the setting of County Hall on its south-western side. In the principal view of County Hall, however, as seen from the gardens, the proposed building would add a further element of formality to the arrangement, helping to close off the south-western side of the gardens, in a partial balance with the county council offices opposite. This would not bring the new library building to the full length of the gardens, however, thereby ensuring that the gardens do not become excessively enclosed, and permitting the main frontage of County Hall to retain its vista over the open parkland to the front. It is not considered that there would be a significant adverse effect on County Hall arising from the construction of the proposed library.

6.3 John Street Architectural Conservation Area

As described above, and illustrated in Figure 6, the John Street Architectural Conservation Area covers a wide extent of this part of Kilkenny city. This includes not only the streets, but the entire area, including the land to the rear of the buildings on the street frontage. In any such conservation area the street frontages would constitute one of the most sensitive elements of the character, however. In this particular case, it is not intended to carry out any significant works that would have an impact on the street. The existing roller shutters that close the passageway through number 76 John Street would be removed and would be replaced by a steel-framed timber security gate. The works would not involve any other significant interventions on the street frontage.

Some works would be carried out to the building at 76 John Street, other than the demolition of the substantial structure at the rear. This would include plastering the rear wall following the demolition and repairing the windows. Within the archway to the rear the surviving section of a fireplace from an earlier structure would be retained in place.

At the rear the proposed library building would replace an existing building, albeit on a larger scale. The principal elements that would stand to be affected by the proposal would be the protected structures, and the potential impacts on those have been addressed above. The other intervention that would have a potential impact would be the removal of the boundary wall between number 76 John Street and the grounds of County Hall. As was noted in the building survey above, this wall is a mix of stone and concrete, with some elements of brick.

Impact

It is not considered that the wall to be removed is of significance, and its removal would not adversely affect the conservation area. The other potential effects of this proposed development on the architectural conservation area have been addressed above in considering the protected structures at 75 John Street and County Hall.

6.4 Conclusion

Having examined and recorded the buildings on the site of the proposed development, and having taken into account the nature of the proposed development, it is not considered that the proposal would have a significant impact on the protected structures in the vicinity or on the John Street Architectural Conservation Area.

