

# Archaeological Report

## Works to St Patrick's Tower

### Thomas Street Dublin 8



GIACOMETTI

09/09/2019

RMP DU018-020323

NIAH 50080329

archaeology plan  
HERITAGE SOLUTIONS

**SITE NAME**

Windmill Exhibition Space, St Patrick's Tower, Digital Hub, Thomas Street, Dublin 8

**CLIENT**

Digital Hub, C/o Scott Tallon Walker Architects, 19 Merrion Square, Dublin D02 VR80

**RMP**

DU018-020323

**PLANNING**

N/a

**LICENCE**

N/a

**PROJECT REF**

AP1921

**REPORT AUTHORS**

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Caroline McGrath (archival research)

**DATE**

9<sup>th</sup> September 2019

**ABBREVIATIONS USED**

DoACG	Dept. of Arts, Culture and the Gaeltacht
NMI	National Museum of Ireland
NMS	National Monuments Service
OS	Ordnance Survey
RMP	Record of Monuments and Places
NIAH	National Inventory of Architectural Heritage
LAP	Local Area Plan

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# Section 1 Introduction

## Report Summary

The Digital Hub wishes to carry out works to convert St Patrick's Tower (Recorded Monument DU018-020323) into a temporary exhibition space. This windmill was originally constructed in c. 1800, probably as a tower mill, but following a fire in c. 1810 was almost completely rebuilt to its current form. It was only used as a windmill for some twenty years at most, before being converted to steam power. In the mid-20<sup>th</sup> century it became part of the Guinness complex and appears to have been converted to a store. It is currently disused. With a base diameter of 12.4m and a height of 33.5m, it is the largest surviving windmill tower in Britain and Ireland (Hamond 1995).

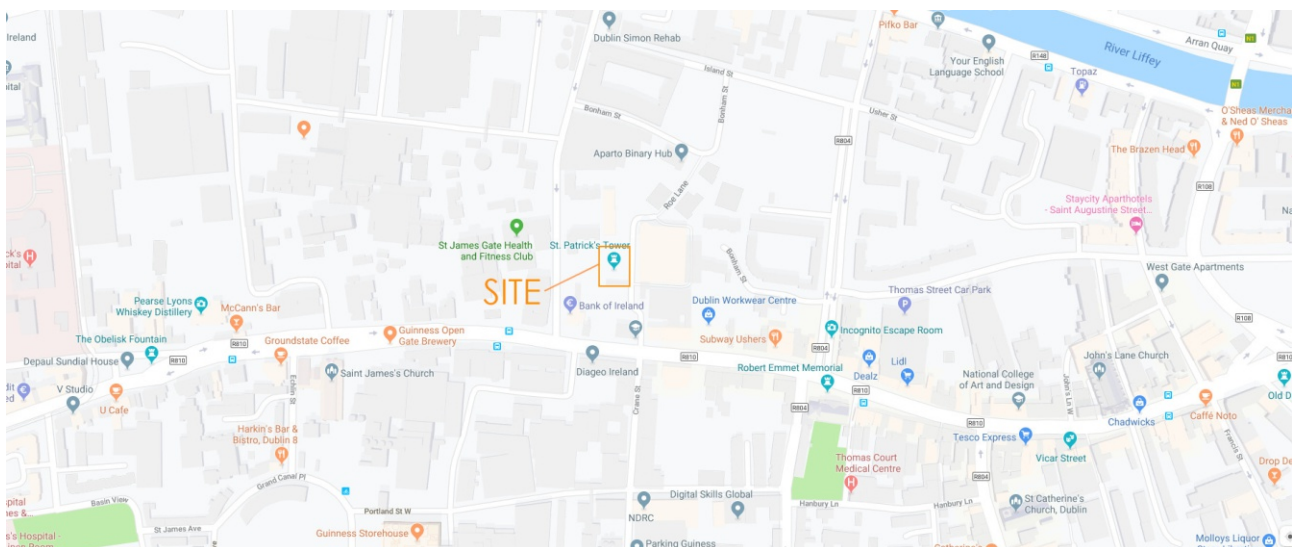
The report sets out the history of the windmill, and its archaeological potential. Fred Hamond, industrial heritage specialist, provided expert ad-

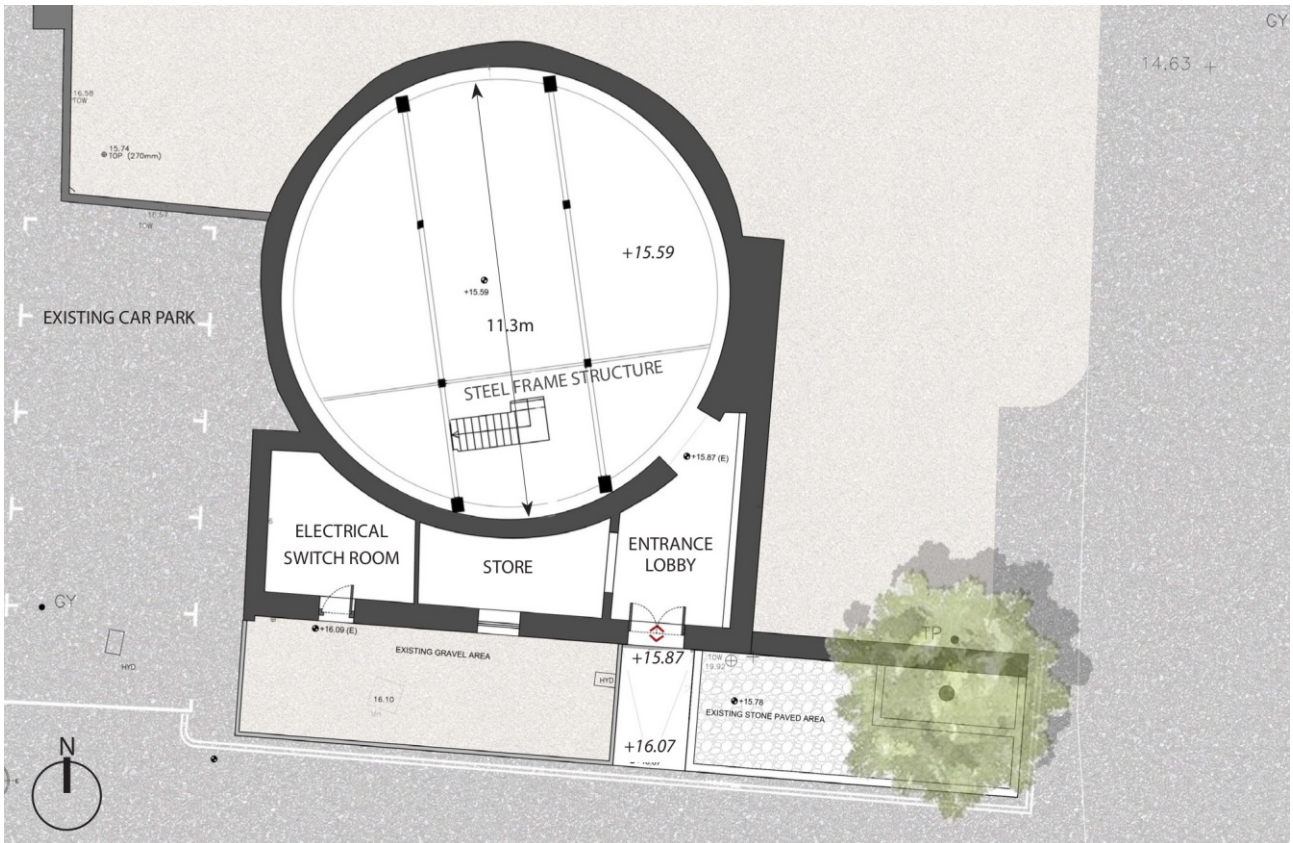
vice.

In general the works will have a low impact on archaeological material. The wooden staircase and c. 1960s goods lift should be retained in full, as these form part of the archaeological monument. Care should be taken when laying the new epoxy resin floor that these features are protected and not impacted. All of the mid-20<sup>th</sup> century electrical fittings should be photographed and retained in full after being disconnected from electricity. Two mid-20<sup>th</sup> century valves currently stored in the ground floor of the building should be photographed and placed in the upper floor of the windmill for secure storage.

Due to the fact that the former windmill is a Recorded Monument, Ministerial Consent under Section 12 (3) should be applied for at least two months prior to any proposed works.

Site location





Existing ground floor plan of St Patrick's Tower and adjacent buildings to the south

## Site location

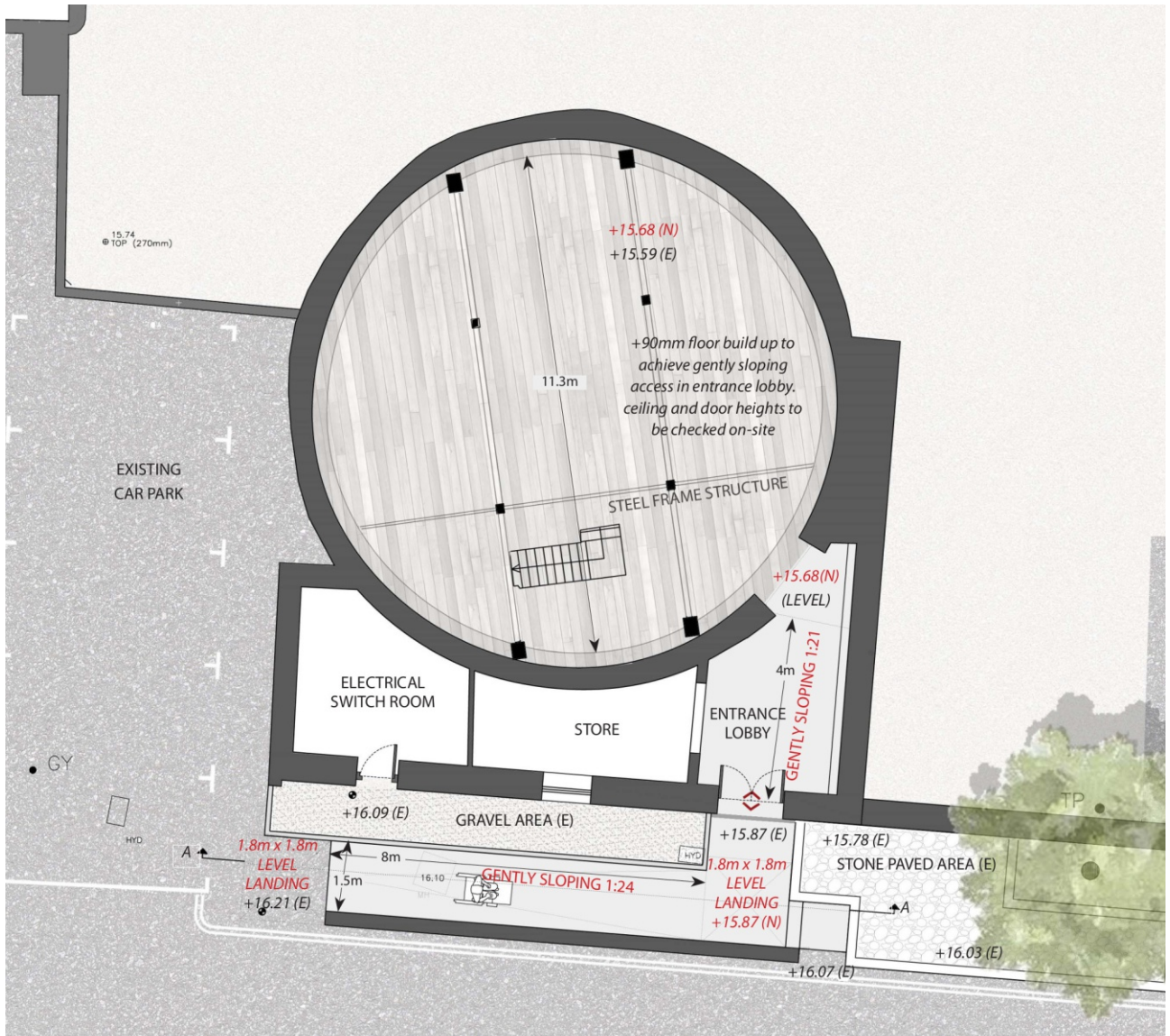
St Patrick's Tower is a disused windmill situated on the north side of Thomas Street, Dublin 8, within the Digital Hub. The Study Area includes the building abutting the south of the former windmill, a freestanding wall to the southeast, and a pear tree also to the southeast.

## Development proposals

This application relates to the adaptation of the ground floor level of St. Patrick's Tower for use as a temporary exhibition space to which members of the public are occasionally admitted, and a new gently sloping ramp to enhance accessibility.

Proposed works, which are limited to the ground floor, are:

- Gently sloping access ramp to main entrance through modern exterior surface
- Removal of existing redundant internal wiring and installation of new surface mounted services.
- Installation of new floor finish (such as a non-slip epoxy) over existing concrete slab.
- Fire protection of existing switch room involving fire rated board lining to walls.
- Replacement of existing entrance door to main access for security and fire escape purposes.
- Demountable exhibition panels are to be erected per event as required.



Development proposals

## Section 2 Archaeological Background

### Record of Monuments & Places

The files of the Record of Monuments and Places (RMP), in conjunction with the Recorded Monuments (or Constraint) maps compiled by the Archaeological Survey of Ireland, form part of the archives of the Department of the Environment, and are one of the primary repositories of information on the archaeological record.

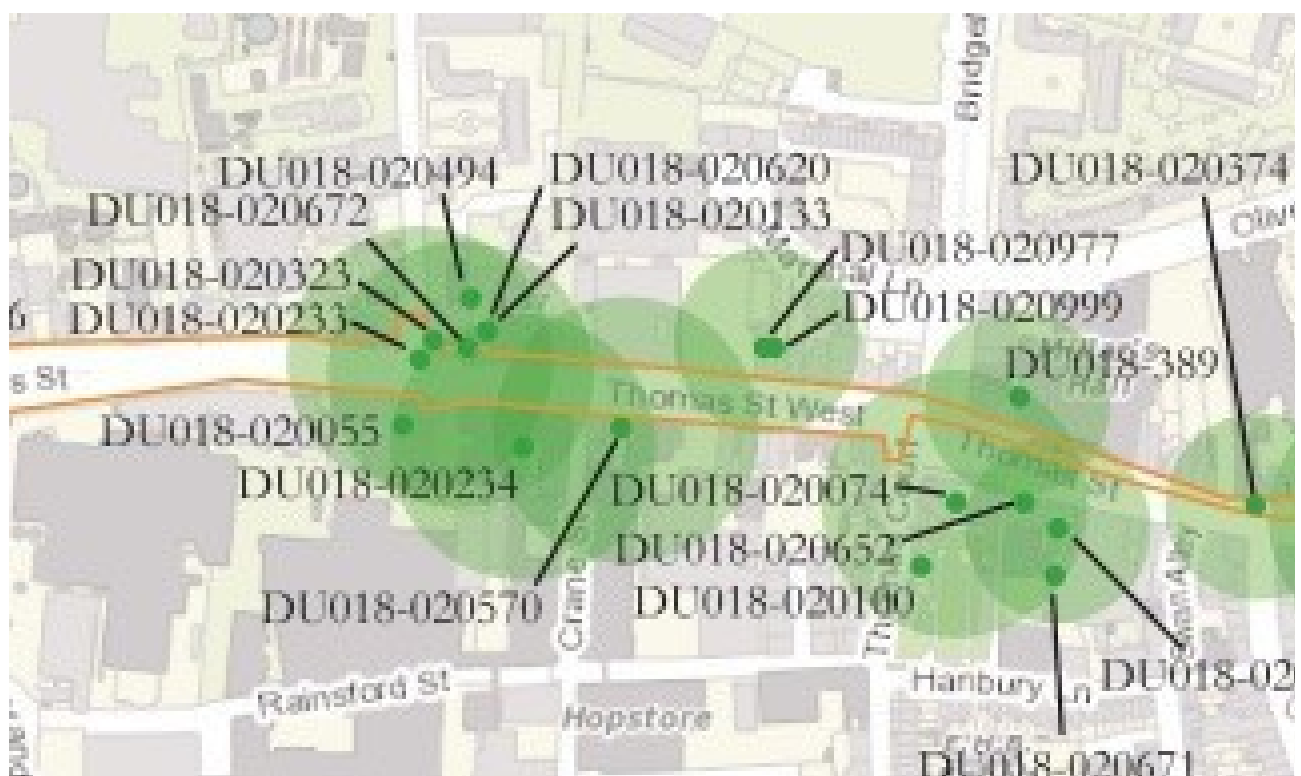
The site of the proposed development is located within the zone of archaeological potential for the Historic City of Dublin (RMP DU018-020). Furthermore, the site itself is a Recorded Monument (RMP DU018-020323). It should be noted that this Recorded Monument is located in the wrong location on the online version of

the archaeological constraint maps, however the statutory paper version is correct.

Including the windmill, there are ten Recorded Monuments situated within the immediate vicinity of the Study Area at James' Gate. One of these – the site of James' Gate itself, forms part of the City Defences and should be considered as a National Monument.

The RMP Files record St Patrick's Tower (DU018-020323) as an 18th century smock windmill, originally part of Roe's Distillery, to the north of James' Gate. The area surrounding the Liberties was a focal point for milling-related industries in the medieval and post-medieval periods. A number of watermills have been recorded around the Thomas Street

Recorded Monuments near Study Area



## Recorded Monuments in and around Study Area

DU018-020323	James' Gate	Windmill
DU018-020055	James's Gate	Well – medieval city cistern
DU018-020233	James's Gate	Bridge site
DU018-020494	James's Gate	Chapel - 18th century
DU018-020620	Thomas Street West	Watercourse site/riverine revetment
DU018-020234	Thomas Street West	Church site and graveyard site – St. Catherine's Church
DU018-020570	Thomas Street West	Habitation site (excavation)
DU018-020672	James Street West	Watercourse (city water supply)
DU018-02037	Digital Hub	Mill
DU018-020001	James's Gate	Gate (City Defences)

area, and one of these (DU018-02037) is situated just north of the windmill.

St James' Catholic Chapel (DU018-020494) on the north side of the road at James' Gate (Nos. 84-87) The chapel at James's Gate is a Post-reformation church dating to the 1740s, and appears on 18th century maps (Roque 1756). Archaeological evidence of a possibly associated cobbled yard was found in 2014 (Giacometti & McGlade 2015; 13E401).

A habitation site (DU018-020570) was identified through an excavation on the southern side of Thomas St. West (Coughlan, 2002:583, 02E0819) just east of James' Gate.

Several bridge monuments are recorded around James's and Thomas Street, crossing the Glib Water and the City Aqueduct. The westernmost of these is a bridge (DU018-020233) to the west of James's Gate, presumably crossing the watercourse running north from the medieval city cistern (DU018-020055) and later forming part of the city defences. A waterhouse (DU018-020672) is also recorded nearby on the Friends of Medieval Dublin Map (1978, O 13) on the north side of Thomas Street near Crocker's Bar (Bradley & King 1987, II, 152).

The 15th century saw a growth in the city's defences (RMP DU018020-001). Thomas St. and its western extension James's St/ were built up and an extramural street gate (James's Gate, formerly DU018-020035) protected the western entrance into the city (Clarke 1998, 50). It is mentioned in 1485 and 1555, and as a tower over a gate in 1599 (Clarke 2002, 22). The gate later formed part of the city defences erected during the Cromwellian Wars in the mid-17th

century (as shown on the Down Survey map). There is a reference in the Calendar of Rolls of the city of Dublin, dated 1733-4, which describes St James's Gate as a nuisance and requested its removal and the stones to be for the city's use (Thomas 1992, Vol. 2, 84).

## Topographical Files

The files held in the National Museum of Ireland have been consulted. Collectively known as the Topographic Files, they provide information on artefacts, their find spots and any field monuments which have been notified to the National Museum. The topographic files for Dublin City are catalogued by street name. File references are provided as they appear in the NMI files.

Sherds of medieval pottery were found during drainage works on Watling Street (NMI: 1976:534-542). They were discovered at a depth of 3m, with a number of objects including animal bones and leather.

Two medieval and two glazed earthenware post-medieval potsherds, cattle bones and part of a red deer antler, (IA/68/53; Reg. 1953:17a-b) were recovered by workmen excavating a sewer trench running from the entrance of the Guinness brewery southwards across St. James's St. during the 1950s. The feature from which these artefacts came was identified in the centre of James's St. at a depth of 7.6m. The location of this feature and the great depth is suggestive of the deep culverted watercourse running north from the entrance of the brewery, which was noted during the current works.



A group of stone and other artefacts (Reg Nos: 1988:28-32) from St. James's (CoI) Parish Church graveyard were gifted to the museum by the vicar and church wardens of the Parish of St Catherine and St James in 1988. The artefacts included two grave headstone fragments bearing the inscription 'Bus.....Fili- us.....Ipsum' (1988:28 & 29), a portion of a window mullion, octagonal in cross-section (1988:30), a fragment of a stone font (1988:31) and a fragment of a stoneware vessel with purple external glaze (1988:32), all of which are thought to date from the 15th-17th century.

A decorated bronze stick pin (IA/16/74) was recovered from an unknown graveyard on Thomas St. during the 1940s. The pin was dis-headed with two projections at the junction with the pin. Punched dots decorated the head, one central with five equally spaced near the edge, and the artefact is likely to be of early medieval date. Also on Thomas St., human remains (Regs. 1973:29-31 & 1974:93) have been recovered on a number of occasions by workers under the pavement outside St Catherine's Church. Some of these appear to have been dis-articulated, and were recorded from a 1.5m deep trench in the footpath, 5m from the Thomas St. and Thomas Court junction.

## Archaeological excavations

A large number of archaeological investigations have been undertaken in the wider area of St Patrick's Tower. Five are located very close to the site, and are described in more detail below.

A monitoring programme (13E401) along James' and Thomas Street, including the area just outside the Digital Hub and Study Area, exposed over two-hundred archaeological features

dating to between the 12th and 20th centuries.

These included very well-preserved medieval street surfaces from only 0.3m below the road surface on James's Street, medieval watercourses on James' and Thomas Street, the remains of a medieval tilery, masonry remains at James' Gate, and the 1640s defensive city ditch.

Monitoring for the Bank of Ireland on James's Street in advance of an office extension found post-medieval infill to build up the level of the street (02E118).

An assessment was carried out at the site of the proposed Digital Hub Development on Thomas Street West (02E0819) a habitation site. Testing revealed a wide variety of walls, structures, services and deposits across both sites. Potential medieval garden soils were identified in the trenches nearest to the Thomas Street frontage of both sites at 1.3m below present ground level.

The depth of post-medieval silts to the rear of the Brewery Hostel may be associated with the watercourse that flowed along the present Thomas Court, acting as a boundary for St Thomas's Abbey and St Catherine's Church to the east.

The campus of the National College of Art and Design which occupies the old premises of the Power's Distillery was tested (95E0045). This testing revealed a deposit of black silty organic material at the north-east side of the site, probably a continuation of a medieval watercourse further south. The deposit contained cockle-shell and animal bone and was possibly medieval in date.

Two walls, which were also possibly medieval in

### Archaeological excavations in and around Study Area

Excavations Ref.	Licence	Description	Address	Author
1995:092	95E0066	Medieval Urban	Statoil, Thomas St	M. Gowan
2002:584	02E0239	No arch. significance	10-13 & 156-7 Thomas St.	S. Delaney
2002:583	02E0819	Urban medieval	10-13 & 156-7 Thomas St.	T. Coughlan
2002:549	02E0118	Urban	Bank of Ireland, James's St.	H. Kehoe
2014:142	14E0401	Medieval and Post-med	James' & Thomas Street	A. Giacometti

date, were located beneath cellar walls at the northern end of the site. The walls may have formed part of a medieval mill located on the corner of Oliver Bond St. and John's St. West. The mill known as 'Mullinahack' was in the vicinity, and John Rocque's map of Dublin, dated 1756, records this section of Oliver Bond St. as Mullinahack.

## Architectural heritage

The area surrounding St Patrick's Tower has a unique architectural footprint, due to its long and varied history as a centre of crafts such as milling, brewing and tanning. Its development reflected that of a city which absorbed new influences through its growth as a medieval city, as well as through the arrival of English burghesses, and later Dutch Protestant, Flemish and French Huguenot immigrants. Much of the European character exemplified by the characteristic Dutch Billy gables was later replaced or concealed by the Georgian style which came to dominate the city.

St. Patrick's Tower is a Protected Structure and listed on the National Inventory of Architectural Heritage (NIAH Reg No: 50080329).



## Section 3 History and Cartography

### General background

The St Patrick's Tower windmill is located at the heart of an extremely rich historical location. Thomas Street is believed to be on the line of Slighe Mhór, the early historical routeway which led to the royal site at Tara (Clarke 1998). It was also a bustling site for industry and trade in the medieval and post-medieval periods. After the Anglo-Norman invasion, Thomas Street became part of the western suburb of the newly-developed city.

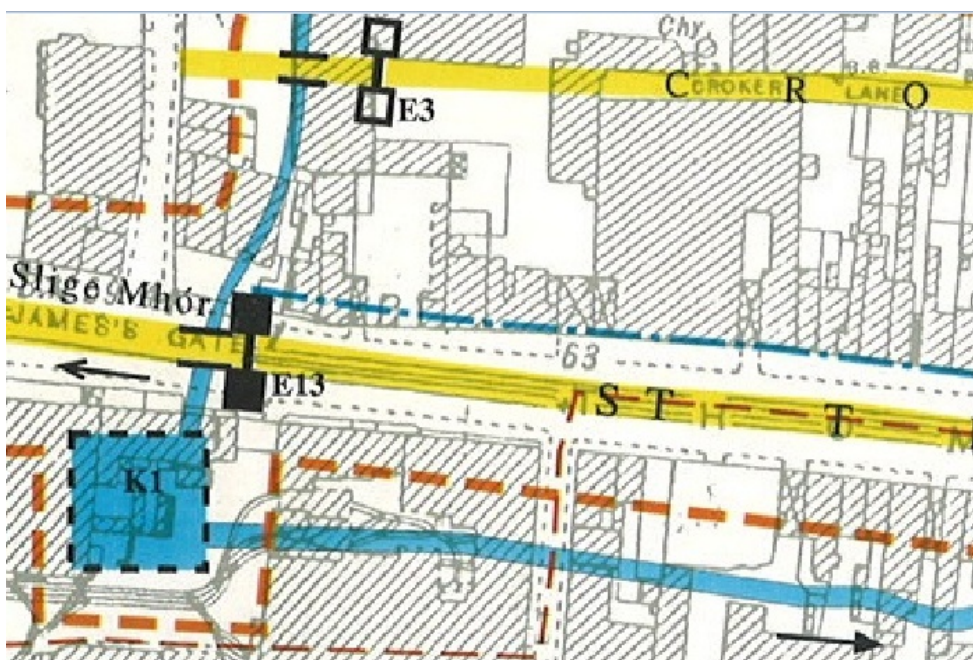
The development of Thomas Street was impacted enormously by the foundation of the Abbey of St. Thomas the Martyr in 1177 by William fitz Audelin under the command of Henry II as atonement for the murder of Thomas Becket, the archbishop of Canterbury.

A large portion of the western end of the street belonged to the abbey throughout the medieval period until its Dissolution by Henry VIII in

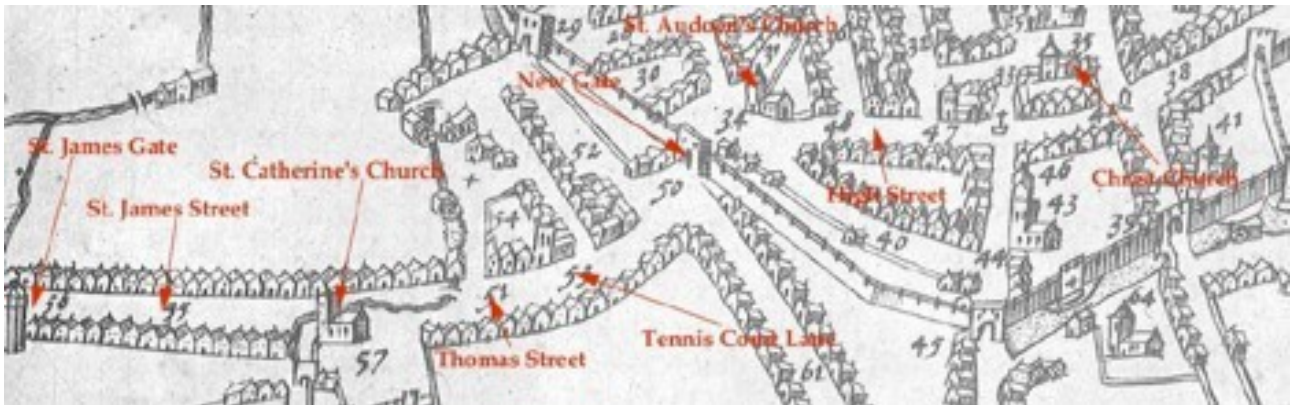
1539. The lands owned by the abbey became known as the Liberty of St Thomas – a judicial district which was independent from the mayor and administration of Dublin and free from certain taxes.

The present St Catherine's Church occupies the site of a medieval parish church, which was located next to the abbey. The earliest reference to the church derives from *Crede Mihi* (1212-25). The current structure dates to c. 1707, though was later renovated. The crypt contains a number of highly decorated coffins, including the Earl and Countess of Meath, Lord and Lady Brabazon.

St James's parish church was granted to the abbey by John Cumin, the archbishop of Dublin, between 1181 and 1212. The parish of St James encompassed the entire western suburb as far as Newgate (the western city gate). The church survived until 1530 (McNeill 1950, 275).



Clarke's map of the medieval watercourse on the western boundary of the Study Area



John Speed's Map of Dublin (1610)

As early as 1200, the first reference to *Vico Sancti Thoma* (Thomas Street) occur (Brooks 1936, No. 127, 192). In the late thirteenth century, the street was laid out in regular sized property divisions known as 'burgage' plots. These plots were fixed at a price of 36 shillings and allowed the owner certain rights and privileges, as a means of attracting settlers from England. In 1264-5, Matilda de Yuvelt is mentioned as the owner of a burgage with edifices and appurtenances (Brooks 1936, No. 6, 14). At this stage, Thomas St. was apparently occupied by dwellings, and their inhabitants held the title of burgess (an important citizen with civic privileges).

The abbey lands were developed throughout the medieval period, with watercourses rechannelled through the lands to run mills. These included the Carmac River which approached from the south-west, flowing along the north side of Oliver Bond House and entering the Liffey at Bridge Street. Another watercourse, known as 'Crocker's Barres' was oriented east-west along Crocker's Street (present day Oliver Bond Street, continuing along Marshal Lane to the Study Area). Crocker's Street was a prominent area for potters, as it was outside the walls of Dublin, where their kilns would have posed a fire hazard.

Clarke's map of medieval Dublin shows a watercourse running close to the Study Area. The watercourse runs in a northeast direction from Thomas St. along the west side of St Patrick's Tower. It joins up with Crocker's Stream and joins the Liffey at Usher's Quay. There is no

above ground evidence of the watercourse today.

Thomas St. and its environs continued to develop during the late medieval and post-medieval periods. John Speed's 1610 map shows buildings lining Thomas St. from Newgate to Thomas Court, except the land on the south side of the street surrounding St Catherine's Church. While many of the houses, taverns and merchant's shops depicted are likely to be late 16<sup>th</sup>/early 17<sup>th</sup> century in date, much of the medieval character of the street survived at that period, including the town wall, medieval religious houses such as St. Thomas' Abbey and watercourses such as Crocker's Stream.

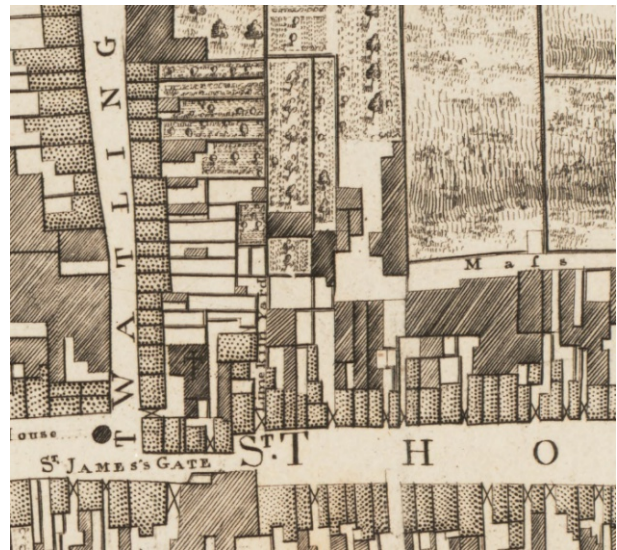
The Liberties of St Thomas and Donore became the industrial heartland of Dublin in the eighteenth century (Whelan 1992, 407). This was due in part to a continuation of the medieval milling tradition to which the area owed much of its growth and prosperity, but also to an influx of new arrivals, including French Huguenots, Protestant Dutch and Flemish settlers. This mass immigration led to the rebuilding of the area, as well as other areas of Dublin, where the earlier Tudor buildings were replaced by the gable-fronted 'Dutch Billy' buildings, which were redolent of fashionable Dublin at the time. The Abbey of St Thomas had been completely built over by the mid-eighteenth century, with no remaining evidence surviving above ground, other than street names Thomas St and Thomas Court.

Centred around Thomas St. were a panoply of

crafts and small industries such as clay pipe makers (Francis St.), weaving (The Coombe and Newmarket), brewing (Thomas St. and James's St.) and skinning and tanning (Watling St., Thomas St. and Blackpitts).

The completion of the City Basin by Dublin Corporation in 1722 essentially replaced earlier watercourses and hastened further trade and industrial development in the city. This was further facilitated by the construction of the Grand Canal Harbour, which was finished in 1785. The Grand Canal Company provided a supply of water to the City Basin from 1777 (Ryan 2000, 12), which would have been utilised to modernise and develop manufacturing and commercial ventures in the Thomas St. and James's St. area in the late 18<sup>th</sup> century.

At the time of Rocque's 1756 survey of Dublin, the site contained a mix of merchant housing lining Thomas St. and Watling St. with industrial buildings behind and accessed by a network of narrow lanes - Lime Kiln Yard and Mass Lane - the latter running along the line of Crocker's Lane, having been truncated to facilitate development.



John Rocque's 1756 An exact survey of the city and suburbs of Dublin showing Study Area. Windmill not yet built. Scale's 1773 revision shows no change.

## St Patrick's Tower

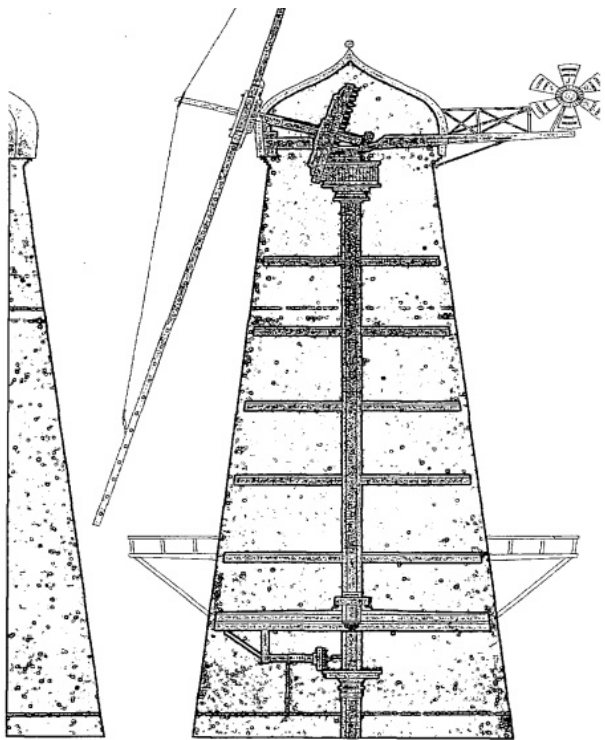
According to Byrne (nd) St Patrick's Tower was originally built as a 'smock' windmill in c. 1757. Whilst this early date is difficult to verify (Hamond 1995, 4), references in 1810 to a previously existing windmill (see below) suggest the current windmill superceded an earlier structure.

'View of Dublin from the Park', from a drawing by S. Brocas (ca 1792-1847) Engraved by A. Courcell.





'A View of Dublin from Chapelizod' by William Sadler II (1782-1839)



Sketch of smock windmill, from Guinness Archives, from Shaffrey Assocs. (2008, 12)

Hamond (ibid note 1) notes references to a date-stone (now gone) above the gate leading into the site reading 'Thomas S' Distillery; Established 1757', but he also notes (ibid, 6 note 5) that John Malton's View of Dublin from the Magazine painted in 1791 does not show the windmill, casting doubt on a pre-1791 date. Smock windmills are so-called because their

sloping, horizontally weather-boarded tower resembled a farmer's smock. This type of mill was often octagonal or hexagonal with a fixed body and had a rotating cap which held the roof, the sails, the windshaft and the brake wheel. This type of mill contrasted with tower mills, which were cylindrical and often built from brick or stone. The late 18th or early 19th century windmill formed part of Nicholas Roe and Co's distillery of Marrowbone Lane, based on the documentation of the fire in 1810 (Saunders's News-Letter Friday 12th October 1810, British Library; see below). It is therefore likely that from the beginning it was used to grind malted barley rather than flour.

Despite the references to a smock windmill in the RMP files and by Byrne (nd) in the Guinness Archives, there is no evidence that the early windmill was octagonal or hexagonal. In fact, based on Hamond's research set out below, the original windmill almost certainly had a circular base, and was probably a tower mill. Similarly, the sketch on this page reproduced from a 2008 Conservation Report (Shaffrey Assocs. 2008, 12) appears to depict a circular tower mill rather than a smock windmill (Hamond pers. com. 2019)

A fire is documented at the windmill in 1810 in Saunders's News-Letter for Friday 12th October 1810 (page 3; British Library) as follows: 'At an early hour yesterday morning, the windmill of Messrs. Nicholas Roe and Co. of Marrowbone-lane, was set on fire by a nail getting between the mill-stones, and communicating with the machinery; the building was instantly in a blaze, the fire from which was most terrific, and threw out such ignited spar[k]s, that the adjoining concerns were in imminent danger; the prompt attendance however of the different English Companies fire-engines, aided by a plentiful supply of water, succeeded in getting it under before it reached the second story....'(thanks to Fred Hamond who identified this story).

And a few week's later on Friday 30th October 1810 an advertisement for builder's in the same news-letter states: 'Messrs. Nicholas Roe and Co. will receive Estimates and Proposals for rebuilding the Windmill which was lately destroyed by fire. Proposals for completing

What is the nature of the duties of that office, executed by you in person?—I execute no duties in person.

What are the emoluments that you receive from that office?—I receive 1500l. a year, which is all to me by the person who executes the duties of the office, who acts under the appointment of the Governor, being first recommended by me.

What is the extent of his emoluments?—The average receipt, I should suppose, may be taken 2500l. out of which I receive 1500l. a year. William Mitchell, Esq. called in and examined.

You are Deputy to Mr. Germain, who holds the office of Receiver General of Jamaica? I am a Lessee.

What are the duties of the Receiver General?—The duties of the Receiver General consist in the collection of the revenue, and the collection of the taxes under the revenue laws of that country.

In what manner does Mr. Germain execute his office? He executes it through me entirely.

What sum does Mr. Germain receive from this office? He receives a clear net rent from me of 900l. sterling, paid in England, free of every expense whatever.

By the Right Hon. Charles Vereker, a Member of the House, examined.

You are Constable of the Castle of Limerick?—Yes. What are the duties of that office performed by yourself? I perform no duties.

Are there any duties belonging to the office?—I have understood that in former times the Constable of the Castle commanded the town in the absence of the Governor, but of late years there has been no duty done by the Constable.

You have no duties to perform.

...brigade of heavy dragoons, with the 6th, 16th, 17th, 52d, 42d, and some other corps are in daily expectation of orders for service.

At an early hour yesterday morning, the windmill of Messrs. Nicholas Roe and Co. of Marrow-bone-lane, was set on fire by a nail getting between the mill-stones, and communicating with the machinery; the building was instantly in a blaze, the fire from which was most terrific, and threw out such ignited spars, that the adjoining concerns were in imminent danger; the prompt attendance however of the different English Companies fire-engines, aided by a plentiful supply of water, succeeded in getting it under before it reached the second story.—We were glad to see the Agents of the Insurance Company aiding and assisting the fire men, the most conspicuous amongst them were Mr. Michael Murphy, of College-green, Agent to the Royal Exchange Assurance of London, (who is always foremost on such occasions, in endeavouring to stop the devouring element); Mr. Patterson of the Globe, and Mr. Moore of the Atlas, indeed every one present helped to work the engines and to carry water.—We understand the premises were fully covered by different Insurance Companies.

We have not heard of any accident happening to those engaged in the extinguishing the above fire, if we except a severe contusion received in the knee by Mr. Pat. Hayes, Agent to the Hope Company, whose engine attracted particular notice from its judicious distribution, and beautiful discharge of water.

In one particular this country has lost most materially by the Act of Legislative Union, and in proportion to that loss, America has gained. We

Doubly Hazardous Do. } 4 6 Ditto, Ditto.  
as Four Mills, Breweries, &c.

A discount of 5 per cent. allowed on the first year's premium of Life Insurances.

Persons insuring in this Office may entitle themselves to a share of the Profits of the Company without risk. PATRICK HAYES, Agent.

Sept. 26 1810.

N. B. Government and Corporate Securities bought and sold daily on Commission, and all manner of Notarial Business transacted, by Patrick Hayes, Public Notary and Stock Broker, at his Office as above.

17 Bills left for Protest shall be sent home to the Proprietors by ten o'clock the following morning.

FIRE INSURANCE REDUCED.  
GLOBE INSURANCE COMPANY—the largest  
Real Capital in Europe for Life and Fire Insurance,

viz. s. d.  
Common Insurance, 1 10 }  
Hazardous Ditto, 2 9 } Per Cent. per Annum.  
Double ditto - - 4 6 }

Policies expiring at Michaelmas last, on Fire Insurance, should be renewed on or before the 14th instant. Globe Office, Westmorland-st. 11th Oct. 1810. 2

S A N T R Y.  
THE ANNUAL SERMON,  
For the support of the Poor of every Denomination belonging to this Parish,

Will be Preached on SUNDAY, the 14th of October, 1810,

By the Rev. ROBERT WALSH.  
Benefactions from such as cannot attend will be thankfully received by the Rev. Dr. Smyth, Vicar; the Rev. James Moore, Curate; or by the Church-Wardens, Edward Kirby, and Michael Moncks, Esqrs.

On SUNDAY, the 28th of OCTOBER, 1810,  
A CHARITY SERMON, will be Preached in ST. JAMES'S CHURCH  
By the Rev. PETER ROE, A. M. Rector of St. Mary's,

Description of fire at windmill in Saunder's News-Letter for Friday 12th October 1810, page 3; British Library

same as soon as possible, sealed up, will be received at the distillery Marrow bone-lane.

The windmill was extensively rebuilt in the beginning of the 19th century (Rynne 2006). Hamond (1995, Fig. 2.1) has identified a quantitative survey of its brickwork carried out by Robert Magee on 10th February 1810 describing 'bricklayer's work done for Sylvester Costigan Esq. at his wind mill on Thomas Street - workmanship only' (Bryan Bolger papers, Public Record Office, Dublin Cat 2,476.15, in Hamond 1995, 4). The document notes the brickwork 'in the new built upper storeys of the mill', four courses of corbelling around the top, the pointing and plastering of forty windows and two doors, the embedding of forty-eight oak blocks around the outside of the tower to support the diagonal braces under the stage, and 'stopping 24 holes in old wall of the mill where old stage ran through'. This description of the windmill matches the existing structure at Thomas' tower, with its forty windows from first floor upwards and doors for

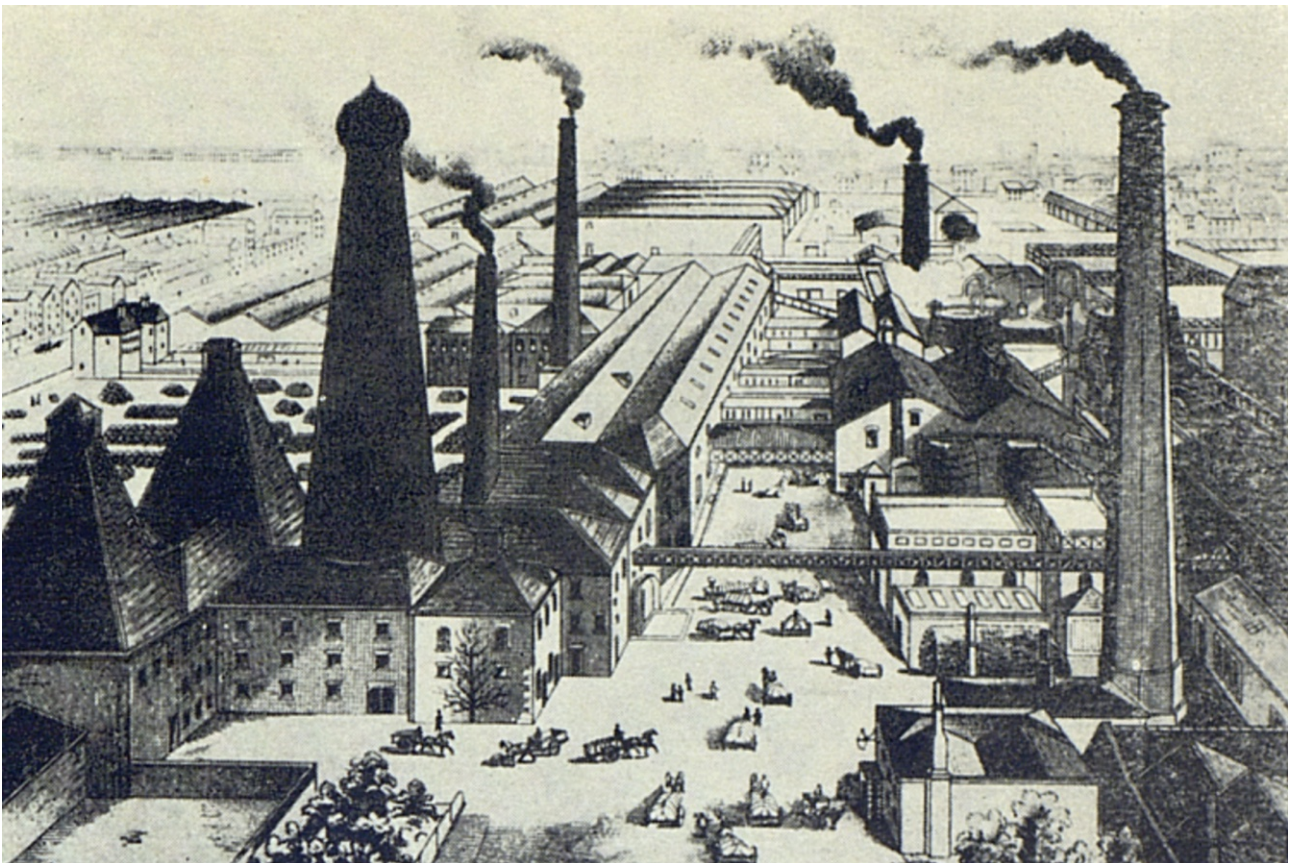
ed the Corporation, but have not yet been sworn in, are hereby informed, that the Lord Mayor and Sheriffs will attend on Thursday next, the 1st of November, at the Sessions-House, Green street, in the Large Room, at the rear of that Building, at 12 o'clock precisely, for the purpose of swearing them in. Dated this 29th of October, 1810. 10

NOTICE TO BUILDERS.  
MESSRS. NICHOLAS ROE and CO. will receive Estimates and Proposals for rebuilding the Windmill which was lately destroyed by fire. Proposals for completing same as soon as possible, sealed up, will be received at the distillery Marrow bone-lane. 26

TO MASONS AND BUILDERS.

& Fig 2.2) dated 25th February 1811 titled 'Sketch of engine house for Nicholas Roe Esq.' shows a section through the base of a windmill, abutting a proposed three-story engine house extension. Four sets of millstones are depicted rotated by the steam engine. Hamond (ibid, 9) draws attention to two annotations. One states 'Ruins of a windmill 40 feet diam at bottom and 21 at top. Wall about 90 feet high'. Another states 'the mill is taken from a drawing of his [Roe's] millwright as proposed to be executed. Only the floors and props being there at present, and the upper part has been burn some time since'. Nicholas Roe is cited in this document, however the street directories only mention Costigan as distiller for these premises, whereas Roe is cited as a distiller at Bellevue in 1823 (Pigot's directory, Hamond 1995, 8). The existing windmill measures 40 feet diameter at the base but is 101.5 feet high to the top of the wall and c. 16 feet diameter at the top, which suggests that the renovated windmill in 1810 was higher than the earlier ruined mill.

The 19th century windmill, repaired after the fire, is depicted in a number of paintings. *'View of Dublin from the Park'*, from a drawing by S. Brocas (ca 1792-1847) Engraved by A. Courcell, c. 1818-1830 (IHTA Dublin 2014, Plate 9), *'A View of Dublin from Chapelizod'* by William Sadler II (1782-1839), *'Dublin, taken near the customhouse, looking west'* by T.S Roberts 1813 (National Library Cat. 56TTB; National Gallery of Dublin, Roberts 3; IHTA Dublin 2014, Plate 7), *'Royal Canal Harbour, Dublin, looking south'* 1818, by S.F. Brocas (National Library of Ireland, Brocas 1; IHTA Dublin 2014, Plate 8) and *'View of Dublin from the Phoenix Park'* 1817, Unattributed, published by Cadwell & Davies, London (Hamond 1995, 6). These sketches depict the windmill with a timber balcony and four large sails, and demonstrate that the St Patrick's tower windmill was fitted with sails after the 1810-11 refurbishment and proposals for steam power. Hamond's research suggests that the windmill probably lost its sails by 1830, and at least by the 1840s, though it may have continued to operate purely as a steam mill.





In 1825 George Roe is listed as distiller at 161-2 Thomas Street, and presumably took over the windmill. Since Nicholas Roe was associated with the proposals to partially convert it to steam power in 1811, it is possible that Roe continued the process (or even started it a decade after the proposals) and that the windmill sails were defunct from as early as the 1820s. In 1862 his sons George and Henry Roe inherited their father's whiskey distilling company and for some years enjoyed great prosperity. At its height, the Thomas Street Distillery milled 1,500 barrels of barley a day, boasting a mile of conveyor belts, and another of elevator screws, five steam engines, seven 30ft by 7ft boilers and four factory chimneys (Townsend 1997, 95). Byrne (n.d.) states that around 1868 the windmill's sails were taken down, its rotating dome was fixed, and a steam engine was installed. Based on the evidence set out above and assembled by Hamond, however, it appears the sails were removed in the 1830s or 40s and that proposals were drawn up (albeit not necessarily carried out) to convert part of the mill to steam power in 1811.

In 1889 Roe amalgamated with William Jameson of Marrowbone Lane and the Dublin Whiskey Distillery of James Road. The new firm traded under the name of Dublin Whiskey Distillers (DWD). In 1890 the works covered seventeen acres and extended from Thomas Street crossing two streets to Usher's Quay (Byrne nd). In its heyday, the distillery had an output of two million gallons per year, the highest in Britain or Ireland. As most of their profits came from exports, they began to face competition from Scottish whiskies and in the 1920s, prohibition closed the US market, devastating Dublin's whiskey industry (ibid, 95.). Roe Brother's Distillery on Thomas Street eventually ceased trading in the 1930s or 1940s.

When Guinness Co. purchased St Patrick's Tower in 1948, the former windmill was in a poor state of repair and a programme of repair was undertaken by the company, costing £5,000 ('Our Windmill Will Remain, *The Harp*, April 1958, 3).

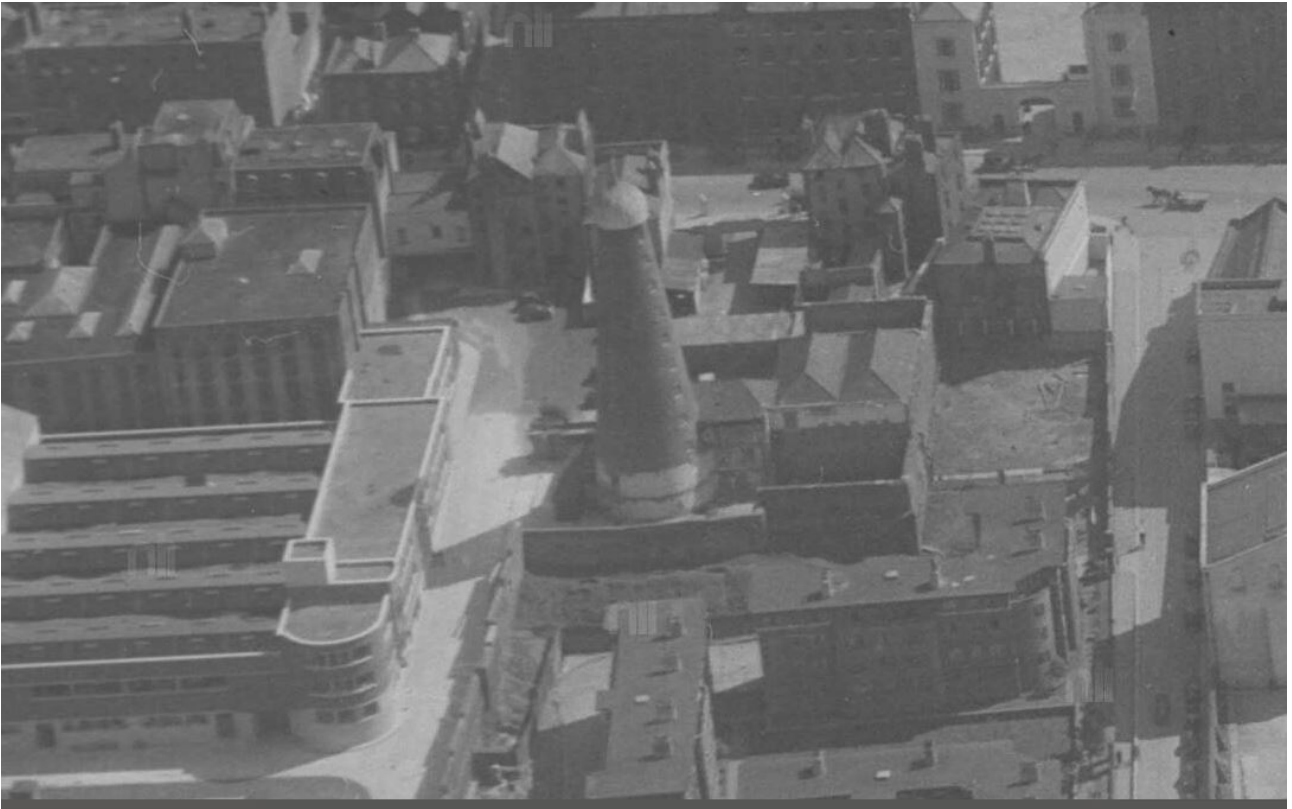
Guinness Archive files from 1949-1953 detail the programme of renovations. 'Project No.



Repairs to the copper roof by Tony Cousins and his uncle Patrick Dorrington in 1958 (Guinness Archives ref GDB.EN02.0003.01 mas)

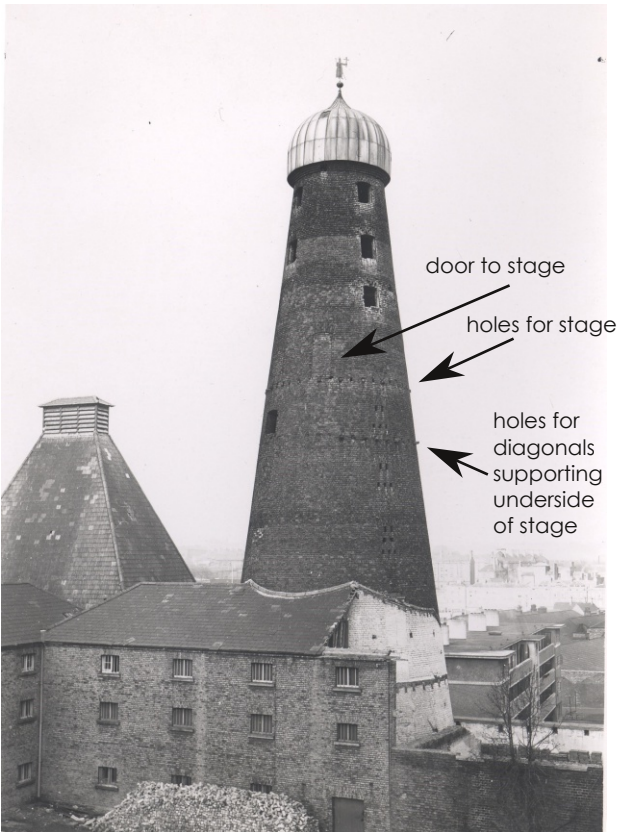
Photograph of tower with external buildings from mid-20th century (Guinness Archives ref GDB.EN02.0001.02 mas). Arrow points to infilled doorway to earlier platform.





South-facing aerial photograph of St. James's Gate facility showing tower with three-storey buildings to south face, Alexander Campbell Morgan 1955

Photograph of tower with external buildings from mid-20th century (Guinness Archives ref GDB.EN02.0001.01 mas)



1933: The repair and renovation of St. Patrick's Tower in the old D.W.D. premises including the formation of two reinforced concrete floors, and relaying of ground floor concrete, for storage purposes' is a report by W.D. Robertson's (Chief Engineer) dated 5 August 1949 (P/1933 R/1497A).

'The Engineer reported that the condition of the Old Windmill Tower was such as to raise the question as to whether it should be renovated and retained, or pulled down. It was considered that the Ground Floor and the two floors immediately above could be made suitable for storage purposes giving a total area of, approximately, 3,000 square feet. The Engineer was asked to prepare an estimate for the cost of renovation.'

The Engineer's Department reported to the board that on 1 May 1950, scaffolding was installed, and work commenced. On 1 October 1950 the pointing of the exterior of the tower was almost complete. The dome, including the

weathervane had been overhauled, four windows for the top of the tower had been ordered and work on the interior walls had commenced.

On 1 May 1951 work of removing the old

floors was in progress. The contract for the reinforced concrete floors had been placed and work is about to commence. Enquiries were being made for a circular stair. On 1 August 1951 the ground and first floors were completed, and

Photograph of tower with external buildings from mid-20th century (Guinness Archives ref GDB.EN02.0001.03 mas)







Ordnance Survey Map 1847, five foot to a mile

work was proceeding on the piers and shuttering of the second floor. On 3 October 1951 work was completed with the exception of a staircase.

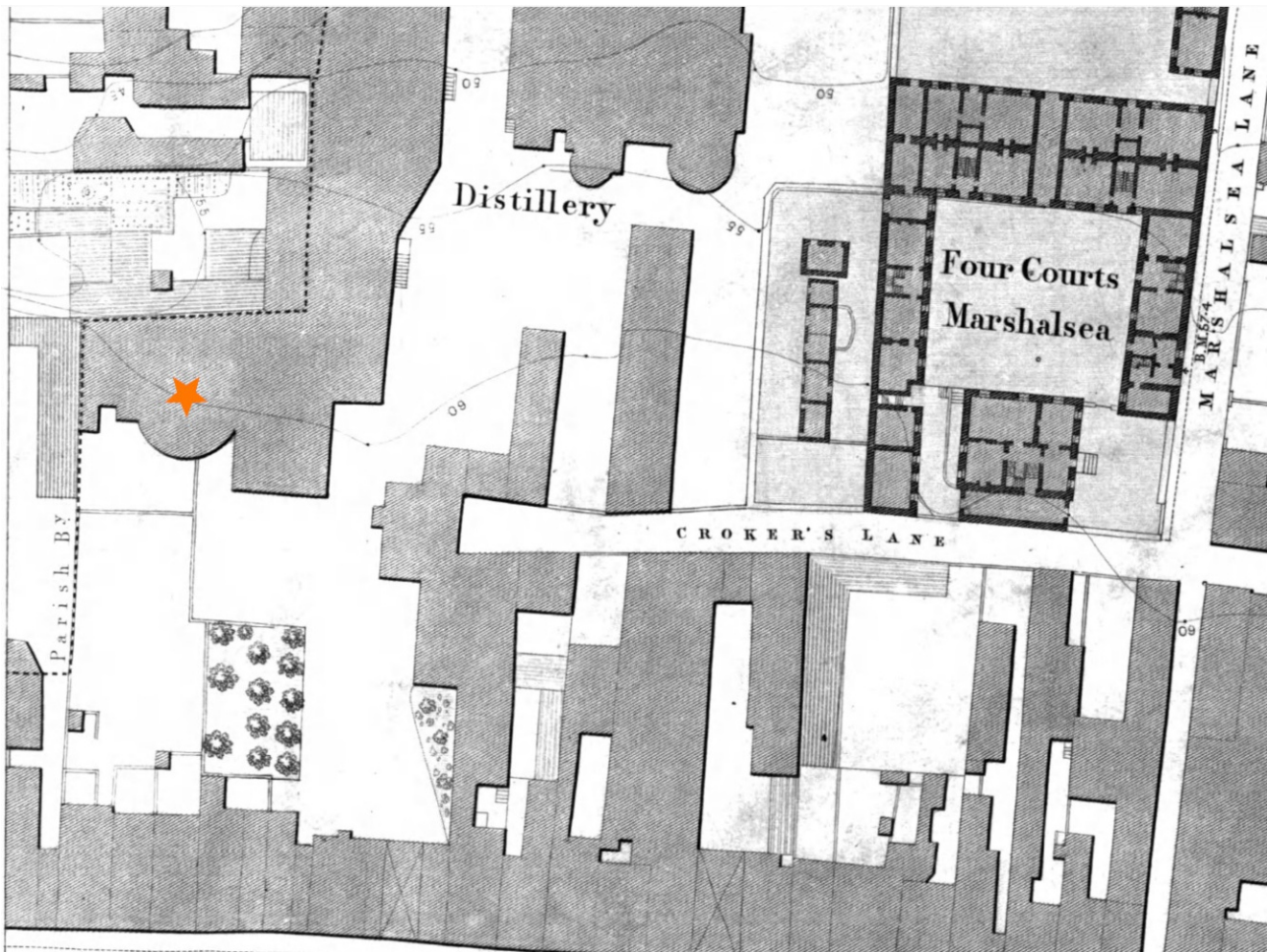
As part of these works, the brickwork was re-pointed internally and externally, four windows were inserted at the top level in place of former louvred openings and electric lighting was installed. Although the renovations had been intended to prepare the windmill for storage use, it was apparently never used for grain storage (pers. comm. Eibhlín Colgan, Guinness Archives, 2019). A water tower was also installed during this period. On the 15 January

1953, the Engineers' Department reported that the total project had cost £5,505.00.

The copper dome was partly replaced as a result of high winds in late 1957, by Tony Cousins and his uncle Patrick Dorrington in 1958.

### Building to the south

A single-storey building abuts the tower at the south face. This was originally a three-storey building constructed between 1864 and 1886, which was reduced in height subsequent to Guinness' purchase of the buildings in the



Ordnance Survey Map 1864, five foot to a mile

1950s. Byrne's (n.d.) suggestion that a steam engine was installed at the windmill in 1868 might suggest that this extension was related to steam power, however the photographs of the extant building show no chimneys, so that is unlikely unless the chimney was later removed (Hamond pers. com. 2019)

The free-standing wall to the southwest of the tower next to the old pear tree, planted in 1850, appears to predate 1847 (from cartographic sources). This may be the three-story steam power extension depicted in 1811, if it was built.

Both of these buildings can be seen in a 1888 sketch of the distillery complex, in which an adjacent building appears to correspond to the position of the modern wall, with the pear tree growing in front.

A 1955 aerial photograph of the Guinness facility shows that these three-storey buildings were still intact by this time, before being reduced to their current one-storey appearance.

Photographs from the Guinness Archives show the original character of the external buildings on the south face of the tower. By the mid-twentieth century, when the photographs were taken, the building behind the famous pear tree had been mostly demolished, leaving the brick wall which is visible today. The first photo appears to portray the process of renovations to the tower itself, as the original windows are being filled in.

The east wing and lower floor of the existing building are all that remains of the former structure. A sign above a now-demolished door reads 'Cherry Cairnes Distributors Ltd'. Cairnes Brewery Ltd. was a prominent brewing com-

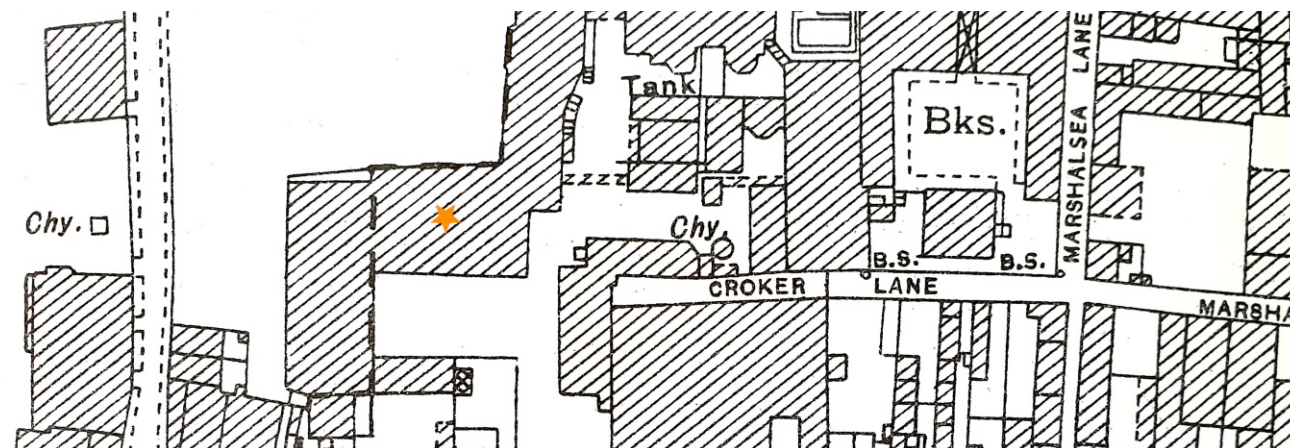
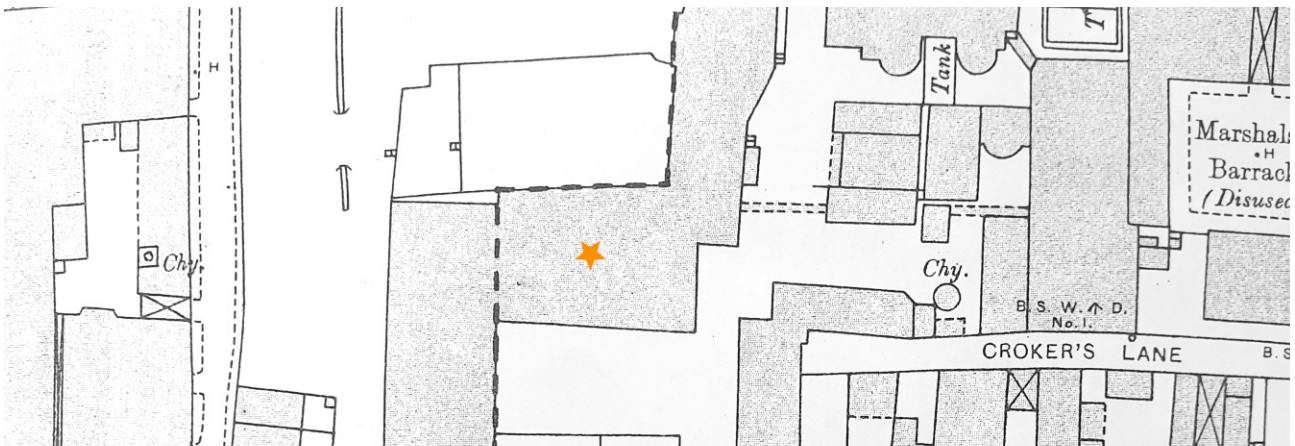
pany in Drogheda until its closure in the late 1950s. The presence of the former Guinness printing works (now Digital Depot/NCAD Graduate Studios, built 1955) to the right suggests that these photographs were taken in the late 50s or 60s.

Below, from top to bottom, courtesy of Trinity College Map Library. Orange star shows location of windmill.

Ordnance Survey Map sheet 18-56 Revised 1886-7, 1:1056

Ordnance Survey Map sheet 18-56 Revised 1907-8, 1:1056

Ordnance Survey Map sheet 18-11a Revised 1935-6, 1:1250



## Section 4 Site inspection



The windmill comprises a tapered circular brick tower surmounted by an ogee cap and ball finial. It is 33.5m in height (to top of copper cap) and contains eleven floors (Hamond 1995, 5), although the original floors are now missing. It measures 12.4m in diameter at the base tapering to 4.8m diameter at the top. Except for the ground floor, there are four opposite windows on each of the ten floors, all infilled except for air vents. A window on the ground floor is blocked. A doorway is located on the ground floor to the southeast. There are two opposite doors, now infilled, on the seventh floor, from which the wooden stage (now gone) was accessed in order to reach the sails, and there are holes for the stage and diagonal supports (refer image on page 14). The copper cap was reclad in recent times but may retain much of its original framework (Hammond *ibid*).



The red bricks are hand-made and well-fired, and of standard measure (c. 230mm x 100mm x 70mm). Construction is of irregular stretcher and header courses bonded in lime mortar (re-pointed in modern cement) with a wall thickness of c. 460mm. In 1995 Hamond (1995, 5) identified foundations on the north side of the tower, and recorded these as rubble-lime-stone with slate damp course over. All the



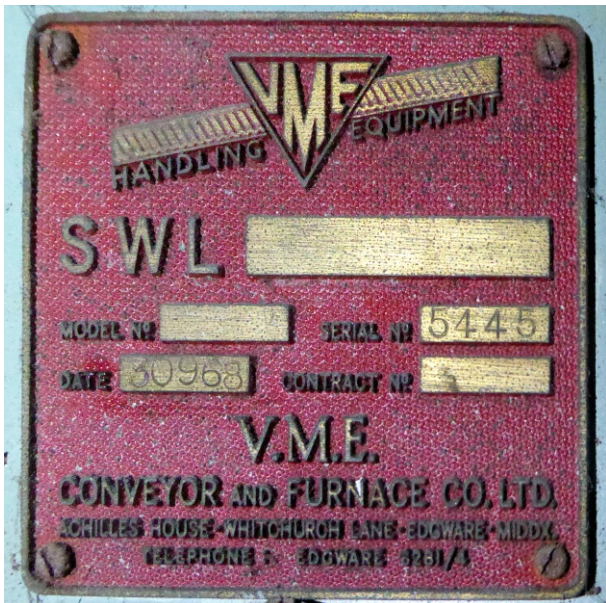




original wooden floors have been removed.

A mid-20th century concrete floor supported by steel is present on the ground, first and second floors. This was installed by Guinness in 1951 (see above from Guinness Archives). A steel water tower sits on the second floor. A wooden staircase connects these three 20th century floors. A gap in the floors for the staircase demonstrates that it was envisaged in 1951, and probably installed shortly thereafter.

A metal goods lift runs alongside the wooden staircase. Irregular cuts in the concrete floor suggest the lift was installed after 1951. A label on the lift reads: *'VME Handling Equipment, ... Conveyor and Furnace Co. Ltd, Achilles House,*



*Whitchurch Lane, Edgware, Middx.; Date 30968.'*  
The date may refer to the 30<sup>th</sup> September 1968.  
The lift may have been utilised to hoist crates of bottled stout or kegs that could have been stored on the upper floors of the tower (Hamond pers. com. 2019).

Two pieces of valve machinery (see two images lower right on previous page), which are on-off valves for waterpipes, lie loose within the ground floor of the complex: one in the building to the south of the windmill, and one inside the windmill itself, on the ground floor.

# Section 5 Impact Assessment

## Archaeological potential

St Patrick's Tower is a unique industrial building. It is listed as a Recorded Monument by the National Monument Service. This listing protects all the physical remains of the site.

Situated in the centre of Dublin, it is the largest surviving windmill in Britain or Ireland. It retains many features from its 1810 construction including its windows and doors, evidence for its former to external wooden platform, and internal cap framework, although very little if any remains appears to survive from the earlier 18th century smock windmill phase.

The interior of the windmill retains fittings and machinery from its mid-20<sup>th</sup> century function as a Guinness-owned building used for the storage of stout. It also includes a watertower and two loose pieces of associated valve machinery stored on the ground floor, a wooden staircase, a goods lift, and numerous electrical fittings. All of these are integral parts of the industrial monument, as they are the physical, and thus archaeological, remains of the 20<sup>th</sup> century phase of the former windmill. These 20<sup>th</sup> century material remains are of additional significance due to their relationship with the Guinness brewery, and serve to link the historic monument with its modern setting and the popular perception of the St James' Gate area and history. This view is supported by Fred Hamond, industrial heritage specialist, who inspected the site in August 2019.

The 20<sup>th</sup> century electrical (and other) fittings will not be a fire hazard if they are disconnected from the electrical supply. They contribute to the overall industrial building, and they aid interpretation of the archaeological monument.

The development proposals are set out in Section 1 of this report.

In advance of the formation of a long-term conservation plan for St Patrick's Tower, any intervention in the building should be designed to have no negative impact to the archaeological heritage of the monument. The removal of any of the mid-20<sup>th</sup> century physical remains from the monument may compromise any future re-use of the building and the formulation of a conservation plan.

Due to the fact that the former windmill is a Recorded Monument, Ministerial Consent under Section 12 (3) should be applied for at least two months prior to any proposed works.

## Recommendations

1. Retain the goods lift and stairs in situ.
2. Photograph the two valves and the 20th century electrical equipment. Ideally NCAD art students would be involved in this photographic documentation, and it may even form part of the opening exhibition at St Patrick's tower.
3. Move the two loose valves into safe storage in the upper floor of the windmill.
4. Cut off the supply from the redundant electrical switchgear and retain all 20th century electrical (and other) fittings in situ.
5. Ensure to protect base of goods lift and wooden stairs during laying of new resin floor (new floor should not touch either feature). New resin floor should be easily reversible.
6. Archaeological monitoring of all sub-surface excavation to the front of the building for the new ramp, and of all structural intervention in building to south where earlier fabric may be encountered.

# References

- Bradley, J. & King, H. 1987. *Urban Archaeological Survey: Dublin City, Vol I*.
- Brooks, E. St. J. 1936. *The Register of the Hospital of St. John without the Negate*, Dublin.
- Byne, M. n.d. 'History of St James's Gate Brewery', Unpublished manuscript from Guinness Archives.
- Clarke, H.B. (ed.) 1998. 'Beyond the Walls of Medieval Dublin', C. Manning (ed.) *Dublin and beyond the Pale*. Dublin.
- Clarke, H.B. (ed.) 2002. *Irish Historic Towns Atlas, Dublin Part I, to 1610*. Royal Irish Academy, Dublin.
- Duddy, C. 2003. The role of St Thomas's abbey in the early development of Dublin's western suburb. In S. Duffy (ed.), *Medieval Dublin IV*, Dublin: Four Courts Press.
- Gilbert, J.T. 1854-9. *History of the City of Dublin*. Dublin.
- Gwynn, A., and Neville Hadcock R. 1970. *Medieval religious houses*. Ireland, London.
- Hamond, F. 1995. *Reuses for Thomas St. Windmill, Dublin: A Pre-Feasibility Study*. Unpublished report dated March 1995.
- Mc'Neill, C. 1950. *Calendar of Archbishop Alen's Register*. Dublin.
- Ryan, P. 2002. *Grand Canal Harbour, James's Street and the old City Basin at Basin Lane*, unpublished report prepared on behalf of Dublin City Council.
- Rynne, C. 2006. *Industrial Ireland 1750-1930: An Archaeology*. The Collins Press, Cork.
- Shaffrey Associates Architects 2008. 'Digital Hub, Windmill Site, Thomas Street, Dublin 8 - lands generally bounded by Thomas Street, Watling Street, Bonham Street, the boundary walls to the former Four Courts Marshalsea, the former Guinness Print Works and the Incorporated Agricultural Wholesale Society.' Conservation Report submitted to Dublin City Council as part of Planning Application for Mixed Use Development.
- Simpson, L. 2006. *Dublin City Walls and Defences*. Dublin City Council.
- Thomas, A. 1992. *The Walled Towns of Ireland (Vol. 2)*, Dublin.
- Townsend, B. 1997. *The Lost Distilleries of Ireland*, Glasgow.
- Whelan, K. 1992. 'Beyond a Paper Landscape- John Andrews and Irish Historical Geography' in F.H.A. Aalen and K. Whelan (eds) *Dublin City and County: from Prehistory to Present*. Dublin.

