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**Constraints Study for Flood Relief Scheme at
King's Island, Limerick**

February 2018



JBA Project Manager

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Revision History

| Revision Ref / Date Issued | Amendments | Issued to |
|----------------------------|------------------------|---|
| Draft V1.0 /11th Dec. 2015 | - | Limerick City & County Council |
| Final v2.0 /12th Feb 2018 | Finalisation of report | Limerick City & County Council www.kingsislandfrs.ie |
| | | |

Contract

This report describes work commissioned by Limerick City & County Council , on, November 2015. The Limerick City & County Council representative for this work is Mr. Robert Gallegher. Declan Egan, Tom Sampson, Anne Murray, Catalina Herrera, Marie Largerwall of JBA Consulting and Sinead Whyte, Niall Harte and Maeve McElligott, of Aurps who carried out this work.

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Purpose

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Acknowledgements

JBA wish to acknowledge the following who have contributed to this report:

- Moore Group Consultancy for the cultural heritage and archaeology assessment.
- Anne Murray and Niamh Sweeny from JBA Consulting for the ecology and fisheries assessment.
- Marie Largerwall from JBA Consulting for the landscape and visual assessment.
- Sinead Whyte, Arups for the noise assessment
- Niall Harte, Arups for the traffic assessment
- Maeve McElligott, Arups for the geology and hydrogeology assessment

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C.4 Ministerial Consent Application

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Appendices

A PCD Report 2015

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KING'S ISLAND
FLOOD RELIEF SCHEME

Public Consultation Workshop

Feedback Report

October 2015



Limerick
CITY & COUNTY
COUNCIL



OPW
The Office of Public Works
Oifig na nOibreacha Poiblí

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Revision History

| Revision Ref / Date Issued | Amendments | Issued to |
|----------------------------|---------------|--------------------------|
| Rev 1 / 30/10/2015 | Initial Issue | Technical Advisory Group |

Contract

This report describes work commissioned by Limerick City and County Council. LCCC's representative for the contract was Robert Gallagher. Elizabeth Russell of JBA Consulting carried out this work.

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Purpose

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Abbreviations

| | |
|-------------|--|
| CFRAM | Catchment-based Flood Risk Assessment and Management |
| FRMP | Flood Risk Management Plan |
| NPWS | National Parks and Wildlife Service |
| SAC..... | Special Area of Conservation |
| SAG | Stakeholder Advisory Group |
| RLO..... | Resident Liaison Officer |

1 Background to the Study

King's Island lies in the heart of Limerick City and is surrounded by the waters of the River Shannon and the Abbey River. Both rivers are tidal at this location and the island is susceptible to both coastal and fluvial flood risk. Very significant flooding occurred in spring 2014 when the existing defences failed locally, both overtopping and through breach, allowing flood waters onto the Island and surrounding areas.

Major improvements to the flood defences are required to try to prevent re-occurrences of such flood events. With this in mind, Limerick City and County Council appointed the Arup JBA team to assess, develop and design a viable, cost-effective and sustainable flood relief scheme which aims to minimise risk to the existing community, social amenity, environment and landscape character.

Official commencement of the project was 1st September 2015.

1.1 Importance of communication

Through the project risk register, communication with key stakeholders has been identified as a potential threat to the project success. Specific risks identified include: a lack of engagement with residents meaning they reject the scheme, or elements of the scheme; lack of engagement, or late engagement with statutory stakeholders (such as NPWS) may delay delivery, or necessitate reworking of elements of the scheme; lack of understanding of the statutory process and programme may result in poor engagement with local stakeholders.

To overcome some of these risks, a comprehensive communications and engagement plan has been developed and adopted by the project team.

Some of the key elements of this plan include establishment of a project website, Facebook and Twitter feed. Another key activity is engagement through public workshops. The first project workshop was held on Wednesday 7th October and is the focus of this summary report.

1.2 Aims and approaches of the Workshop

1.2.1 Aims

At this early stage of the project it is important that the project team has the opportunity to listen to the views of those who will be living and working near the scheme, and others who may also have an interest in the long term plans. The aim of the workshop is to elicit these views, as well as starting to build a relationship with members of the local community.

1.2.2 Target audience

Any and all interested parties, including political stakeholders. However, the focus of the workshop is Island residents and business holders. This includes those who have and have not flooded in the past. In addition, the Island, and in particular the embankment walkway is a widely used amenity, so the views of non-residents will be sought.

1.2.3 Event Format

- Drop-in format
- Information stands and posters around the room
- Registration (host role undertaken by Resident Liaison Officer)
- One-to-one or small group discussions
- Questionnaires to be completed on the day, or taken away for later submission

1.3 Event Details

The workshop was held on 7th October 2015 from 12pm-7pm. It was held in the Small Exhibition Room, Limerick City and County Council, Merchant's Quay, Limerick. After hours entry to the building was arranged by the council project team.

2 Promoting the Event

2.1 Overview

Promotion of any event is key to its success on the day. A variety of means of promoting / advertising the workshop were used to increase awareness of the day and aim to maximise attendance.

2.2 Means of Promotion

Table 2-1: Event Promotion Strategies

| Promotion means | Comment |
|---------------------------|---|
| Publicity through SAG | <p>A Stakeholder Advisory Group (SAG) meeting was held in early September. The project programme and approach was discussed, along with the details of the Consultation Workshop. Newsletters were distributed which included the event details.</p> <p>Local Councillors and members of residents associations are represented on the SAG, and were encouraged to promote the event.</p> |
| Meeting with local groups | <p>Following the SAG, meetings with the St. Mary's Park Residents Association and the Limerick Regeneration Group were requested. The JBA project manager attended both of these meetings, providing information on the project and details of the workshop for feedback to the community.</p> |
| Social Media | <p>The event was publicised through the Facebook page and on the website. Through the Twitter feed a number of local councillors and other organisations also promoted the workshop.</p> <p>Limerick City and Council publicised the event on their website and Twitter.</p> |
| Traditional media | <p>Prior to the event, The Limerick Leader ran two articles on the scheme. One, published on 22/09/2015 reporting on the SAG meeting. The second was dated 1/10/2015 and specifically gave information about the event.</p> <p>On 30/09/2015 the Limerick Post also ran an article publicising the event.</p> <p>See Appendix A for copies of the latter two articles.</p> <p>Live95 was also provided with a bulletin and asked to include it as a community news event. One attendee to the workshop reported having heard the radio publicity.</p> |
| Posters | <p>The RLO provided recommendations for outlets normally used to promote events. A number of A4 posters were distributed to shops and cafes on King's Island, as shown in the list below. A copy of the poster is provided in Appendix B.</p> <ul style="list-style-type: none"> • The St. Mary's Credit Union • The butchers opposite the credit union • MACE shop on Nicholas Street • Chip shop on Nicholas Street. • St Mary's community centre • Crèche next to the community centre. • The post office |

| Promotion means | Comment |
|-----------------|---|
| | <ul style="list-style-type: none">• City Hall |
| Leaflet drop | Up to 600 promotional leaflets (A5 versions of the poster) were distributed to individual residences and business on King's Island. These were printed by JBA, but distributed by staff of St. Mary's Aid, for which their assistance is appreciated. |
| Pavement stands | Two A1 pavement stands were used to display a poster advertising the event. These stands were displayed outside the venue whilst the event was on going. |
| Word of mouth | Prior to the event the RLO and community representatives spread details of the workshop and invited attendees. On the day a number of community representatives reported knocking on doors on their way to attend in person. |

3 On the day

3.1 Project team representation

The number of attendees likely to drop into the event was a big area of uncertainty, as was the focus of the questions that may be asked. Four members of the JBA project team and Arup's project manager were present all day. Representation covered a Project Director, two project managers, Environmental lead and hydraulic modeller. The Resident Liaison Office was also present to welcome attendees, manage signing in and to provide introductions to the project team.

Should attendee numbers have been greater than the dedicated team could provide sufficient attention to, additional staff were on stand-by from the JBA office at Grove Island.

3.2 Supporting material

In addition to a sign-in sheet, the following materials were available on the day:

- Copy of the newsletter and questionnaire - handed to each attendee on arrival
- CFRAM tidal flood extent map for the Island
- Series of posters which covered the following topics:
 - Introduction to the project, including background, programme, statutory stages and opportunities for further involvement
 - Background to the ecological, archaeological and heritage challenges specific to the scheme
 - An overview, by area, of the potential scheme along with examples of similar works and, where applicable, and indication of defence alignment and height. The areas presented were: Verdant Place, St. Mary's Park (north of the Island), Sir Harry's Mall, George's Quay and City Hall, Court House and surrounding area. Copies of the posters were subsequently uploaded to the website and are provided in Appendix C.
- Pull up banners presenting various general topics, including different flood management options
- Project team briefing pack, including prompts on the flood history and elements of the scheme, key messages and FAQs

3.3 Attendance

Attendance was lower than anticipated, with 40 people signing the attendance register through the day.

Of these 23 either lived or worked on King's Island, 11 were from the wider Limerick area, 1 was from Corbally and 5 gave only email addresses, or no contact details.

Although widely advertised, attendance was lower than anticipated. This may have been due to other commitments, unsuitable venue location or lack of interest in this stage of the project.

One person, who telephoned the office after the event, commented that the timing was not suitable for people returning from work with children to feed. A weekend was suggested instead, or to coincide the workshop with a community event.

3.4 Venue suitability

The venue, the Small Exhibition Room, was amply sized in terms of floor space, but had limited wall space for posters. It was also not an immediately obvious venue, and required additional signage to be put up as the day progressed.

Access was through the main reception only, although the room was close to the rear staff entrance.

Several attendees commented that holding the event in the Community Centre may have generated a higher level of attendance and would have been easier for older members of the community to attend.

4 Feedback Received

4.1 Questionnaire analysis

There were 17 questionnaires returned, although every attendee was given a questionnaire and they were also made available at the community centre and St. Mary's Aid following the event. Two questionnaires were returned from people who had not signed the attendance register. The questionnaire was also uploaded to the website, along with the posters, after the workshop. The questionnaires are provided in Appendix D.

The responses to the various questions are summarised below. It should be noted that in some cases more than one answer to a question was provided so percentages rather than real numbers.

1. Which area of King's Island do you have a particular interest in?

All respondents were from the Island, except one who came from Corbally, and two expressed an interest in their own area (the Lee Estate) and also the whole Island whereas most other respondents were primarily interested in their own area (See Figure 4-1).

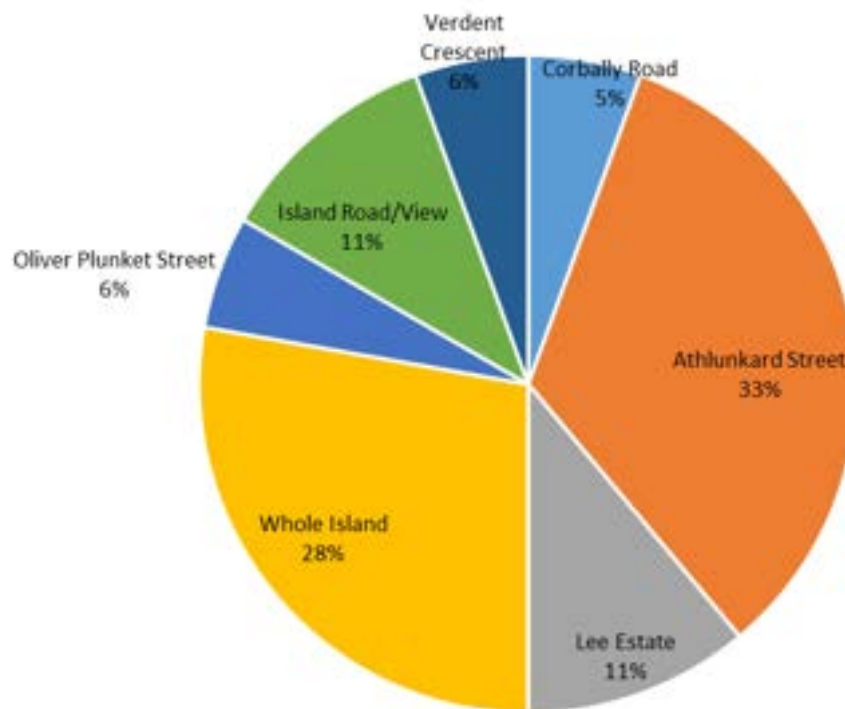


Figure 4-1: Area of particular interest to respondents.

2. How do you think the issue of flooding on King's Island can be resolved?

Nearly all respondents thought a flood barrier of some kind would be the solution. Some suggested either a wall or an embankment, or both, and some simply specified a barrier. One respondent stated 'piles and non-return valve'. Another specified either permanent or temporary defences. Two responses mentioned consultation; one with the community and one with relevant interested parties.

3. Is there anything you would like us to take into account when we design the scheme?

There were a range of views relating to important elements of the design. Rather than try and group responses, they have been listed here, in no particular order.

- Do it right, raise the wall. Visual impact important. Cut through walkways would be nice to give the option of cutting a walk short
- ESB releases

- The visual is very important to us because of the view from our windows
- Access to the view for fishing and recreational activities. Bad access at the moment
- Island bank walkway. S.A.C. Cameras and lightening to assist safety
- Retention of public right of way along the westside of Merchant's Quay. Archeologically sensitive area along St Marys Wall, Georges Quay, Merchants Quay and Verdant Place. Where possible existing masonry quay walls should be incorporated into proposed flood defence using limestone where possible to keep the visual impact minimum. Incorporate flood defences into recreational promenade encircling King's Island
- Kept informed about developments, engage with the community.
- Safety on the front of the embankments
- Incorporate social side in the embankments especially for children and seniors, seats flowers, garden could be a good selling point.
- Gully at side of the boat club
- Visual impact of the wall (wall straight outside the house) Landscaping if possible
- Visual impact very important, wall directly outside the house. Trees/landscaping to be included if possible - screening from the apart flood defences so they can sleep at night.
- Kept informed
- Height concern
- Impact on Corbally residents. Consider the residents not covered by insurance for future flooding. Keep Corbally informed. Writing letters

4. In your opinion, how important are the following in the development of a Flood Relief Scheme:

The attendant's replies for questions 1-15 have been illustrated in the figures below (Figure: 4-2; Figure 4-3; Figure 4-4).

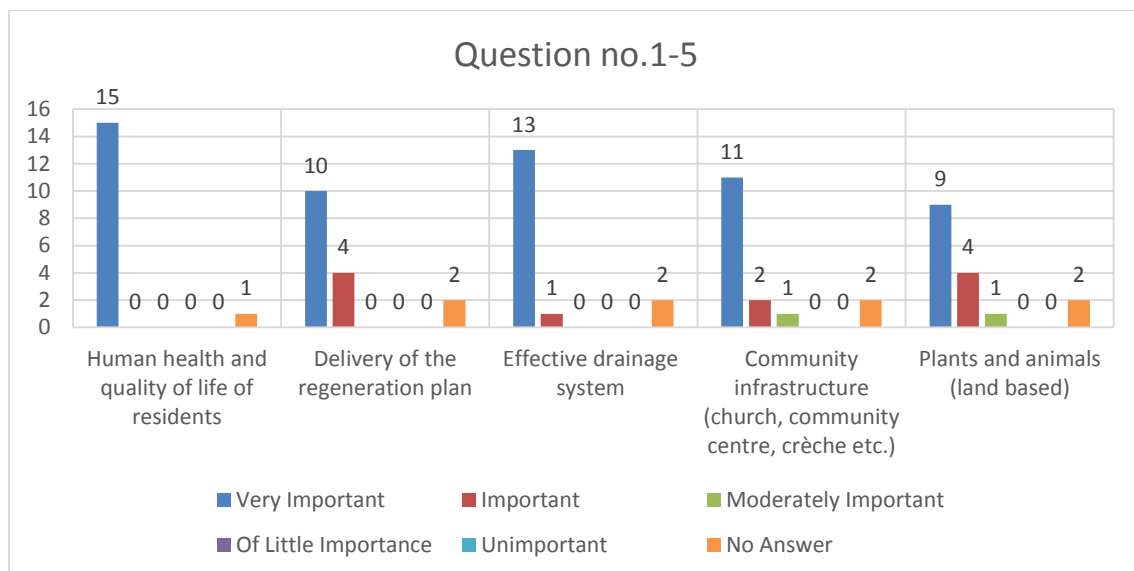


Figure4-2: Attendant priorities in the development of a Flood Relief Scheme (Questions 1-5)

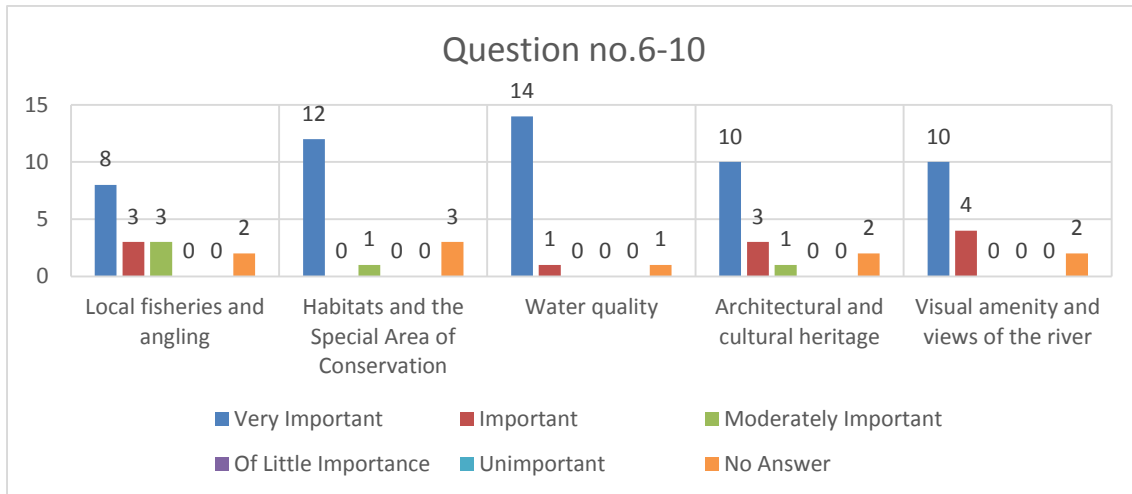


Figure 4-3: Attendant priorities in the development of a Flood Relief Scheme (Question 6-10)

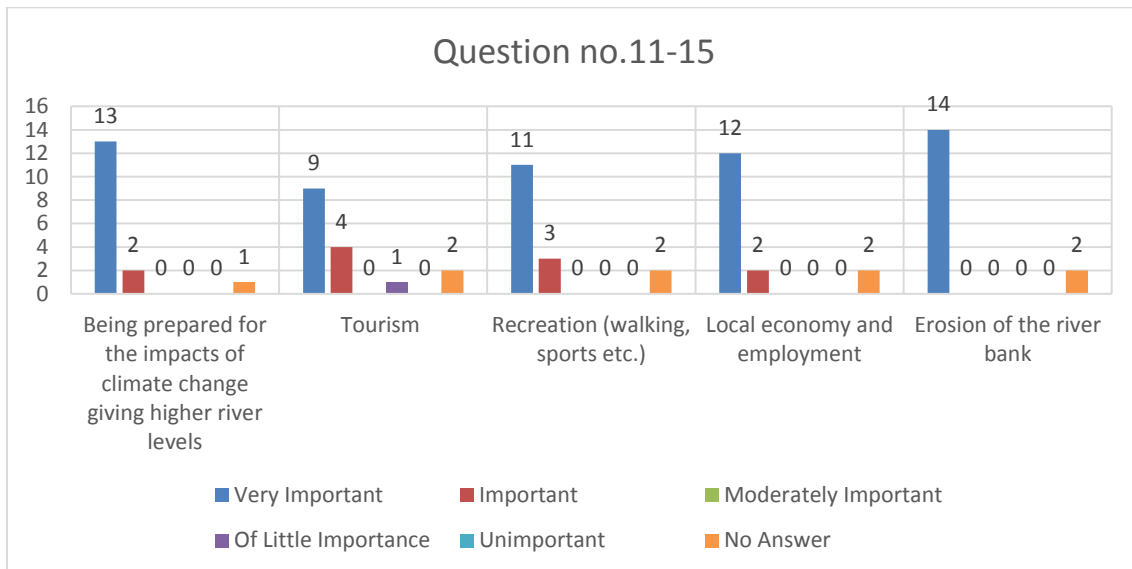


Figure 4-4: Attendant priorities in the development of a Flood Relief Scheme (Question 11-15)

5. Attendants' relation to King's Island and/or Limerick

All those who live or work on the island had flooded, and there were two non-Island residents who completed a questionnaire but had not flooded. Of those who flooded, all were flooded in 2014, some on two occasions. Other floods were experienced in 1993, 1999, 2000 (two separate events reported). Another resident reported living in King's Island for 50 years and flooding every other year. The figure below illustrates attendant's relation to King's Island and Limerick (See Figure4-5).

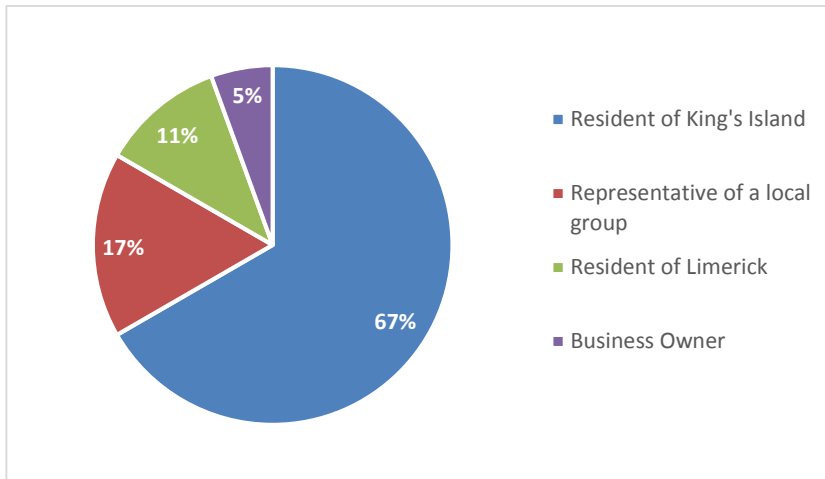


Figure 4-5: Attendants' relation to King's Island and Limerick

6. How did you hear about the PCD event?

There were various means by which the attendant's heard about the PCD event, these are illustrated in the figure below (See figure 4-6):

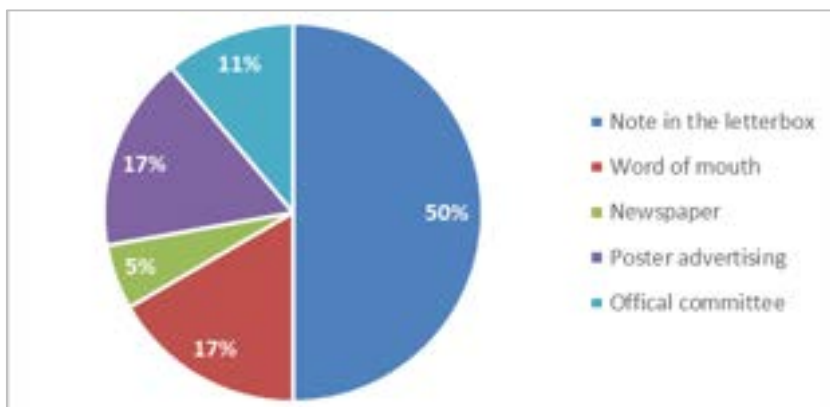


Figure 4-6: Means by which attendants became aware of PCD event

4.2 Consideration of Option A or Option B

Although not specifically addressed through the questionnaire, opinions on the potential alignment of the embankment were sought, particularly with regard to Option A (retaining the current alignment) and Option B (bringing the embankment to the landside of the SAC).

Views were slightly mixed, although there appeared to be general consensus that any option was better than none. There were also several strong opinions that Option B had to be selected as works within the SAC would prohibit, or severely delay, the scheme. The height of the embankment and proximity to housing was flagged as a potential concern, but there were no residents of Munchin Street present to question on this.

5 Summary

5.1 Practical arrangements

Although widely advertised, attendance was lower than anticipated. This may have been due to other commitments, unsuitable venue location or lack of interest in this stage of the project. It is suggested that future consultation events are held in the St. Mary's Community Centre, although this would necessitate a later (after 3pm) start time.

The advertising methods seem to have been appropriate, and the leaflet drop reached all members of the community, including a couple of individuals who had not attended the workshop but rang the office for more information.

5.2 Input to the scheme development

The feedback provided on the day, and in following conversations, will be extremely useful in developing the flood relief scheme. There was a lot of genuine interest in the works, and particularly in the timeline for construction. However, the feeling from most attendees was that a solution was needed, and whilst a particular option may not be the most appealing, for example in terms of visual impact, it is more important that flood protection is provided, and completed in a timely manner.

No new or alternative options were identified by members of the public.

Appendices

A Newspaper Articles

A.1 Limerick Leader 01/10/2015

By Anne Sheridan

A PUBLIC consultation on the King's Island flood relief scheme will be held next week, to better protect the northside after the flooding which devastated the area in early 2014.

Residents, businesses and interested parties are invited to attend the public consultation workshop on Wednesday next, October 7, which is being hosted by JBA, one of the two consultants working on the scheme, estimated to cost €10m, alongside Arup Consulting Engineers.

"At this early stage of the project it is important that we have the opportunity to listen to the views of those who will be living and working near the scheme, and others who may also have an interest in the long term plans," advised a spokesperson for JBA.

It will be held from 12pm-7pm in the offices of Limerick City and County Council at Merchants Quay.

JBA have set up a special website dedicated to the project at www.kingsislandfrs.ie

They note that as King's Island is surrounded by the tidal waters of the River Shannon and the Abbey River, "the island is susceptible to both coastal and fluvial flood risk. "Very significant flooding occurred in spring 2014 when the existing defences failed locally, both overtopping and through breach, allowing flood waters onto the island and surrounding areas," they outline.

"Major improvements to the flood defences are required to try to prevent re-occurrences of such flood events. With this in mind, Limerick City and County Council have appointed the Arup JBA team to assess, develop and design a viable, cost-effective and sustainable flood relief scheme which aims to minimise risk to the existing community, social amenity, environment and landscape character."

<http://www.limerickleader.ie/news/local-news/views-sought-on-limerick-s-10m-flood...> 22/10/2

Views sought on Limerick's €10m flood relief plans - Limerick Leader

Page 2

Mayor Jerry O'Dea said a "hugely important" step had been taken with initial designs to be presented to residents. He anticipates there will be action on the first part of the project - at Verdant Place - one of the affected areas "early in the new year."

The Office of Public Works is providing €427,000 for the initial plans for the scheme, and will fund the rest in stages, with the overall project estimated to cost over €10m, when it is fully completed by mid-2017.

A.2 Limerick Post 30/09/2015

Public meeting on Kings Island flood relief scheme

Kathy Masterson | September 30, 2015



Civil defence help evacuate residents from Saint Marys Park, Limerick after the River Shannon burst its banks in Limerick City. Pic Sean Curtin.

KING'S Island residents, business people and other interested parties are invited to attend a public consultation workshop at City Hall from 12pm to 7pm on October 7 to discuss plans for the flood relief scheme in the area.

Members of the project team will be on hand to discuss the plans and those attending are invited to submit their ideas and thoughts on the works.

Members of the public can drop in to the Limerick City and County Council offices in Merchants Quay at any time from 12pm to 7pm on the day

To find out more about the project, go to www.kingsislandfrs.ie or follow Kings Island Flood Relief Scheme on Facebook.

B Advertising Poster

 **KING'S ISLAND**
FLOOD RELIEF SCHEME

Public Consultation Workshop
October 7th 2015, 12pm – 7pm
Limerick City & County Council, Merchants Quay,
Limerick

We invite residents, businesses and interested parties to attend the Public Consultation Workshop for the King's Island Flood Relief Scheme.

Members of the Team will be available to discuss the project with you. At this early stage we are interested in your ideas and thoughts on the flood relief scheme so we can take your views into account as we start to develop the scheme options.

You can drop in at any time from 12pm-7pm on the day to talk to a member of the team.

You can find out more about the project at www.kingsislandfrs.ie or follow us on Facebook.

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C Information Posters



Introduction

- Limerick City and County Council has appointed the Arup JBA team to assess, develop and design a sustainable flood relief scheme for King's Island.
- This is our first public consultation event.
- The aim of the scheme is to reduce flood risk to the community and the Island's social amenity, environment and landscape.
- The scheme is being funded by the Office of Public Works.
- The project started in early September 2015.
- Work on site is due to be completed in 2019.



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Flood Risk Management Options

- King's Island is at risk from a combination of both fluvial (river) and tidal flooding.
- The Flood Relief Scheme will consist of one or a combination of flood risk management measures.
- Flood management measures that we are initially considering include:
 - Flood embankments
 - Flood walls
 - Temporary / demountable gates and barriers
 - Landscaped ground levels
 - Flood forecasting (for both river and sea levels)
 - Individual property protection
- Different measures will be selected for different parts of the Island.
- The preferred scheme will be identified by balancing the economic, social, cultural heritage and environmental aspects of each of the measures.



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What's Involved in the Scheme

- There are a number of stages involved in the completion of any construction project, and a flood relief scheme is no different.
- There are five statutory phases of work. Progression to each stage relies on a successful outcome of the previous stage.
- The programme outlines some of the key steps involved in bringing the project from a blank page, as we started in September 2015, to having 'diggers on site'.
- However, there are always unknowns and unexpected difficulties. We will be working closely with LCCC to keep these to a minimum, and more importantly to try and limit the impact they have on the overall project. We will also keep our Stakeholder Advisory Group and this website up to date with any changes.





KING'S ISLAND

FLOOD RELIEF SCHEME

Stages of the Scheme

| Stage | Statutory Processes |
|-------------------|---|
| I | Scheme Development |
| | Constraints Study |
| | Screening for Appropriate Assessment |
| | Initial Consultation with Stakeholders |
| | Scoping for the Environmental Impact Assessment |
| | Screening for an Appropriate Assessment |
| II | Detailed Design |
| | Public Consultation |
| | Preparation of Environmental Assessment of Options Report |
| | Public Consultation on Preferred Scheme |
| | Preparation of Appropriate Assessment |
| | Environmental Impact Statement for the Preferred Option |
| III and IV | Submission of Planning Application to An Bord Pleanála |
| | Tender and construction |
| V | Handover to Client |

Specific studies


- Data gathering and review
- Site walkover
- Ecological assessments
- Archaeological investigation
- Geotechnical surveys
- Flow velocity surveys
- Topographic surveys
- Hydrological assessment and hydraulic modelling
- Development of flood management options
- Cost benefit assessment
- Multi-criteria Analysis





Your Opportunities to Take Part

- At this early stage of the project it is important that we have the opportunity to listen to the views of those who will be living and working near the scheme, and others who may also have an interest in the long term plans.
- Questionnaire forms are available and can be completed today.
- We will hold more consultation days as the project progresses and you will be given the chance to comment again as the scheme develops.
- The next of these will be at the beginning of 2015, when we will show the plans for Verdant Place.
- You can find out more about the project in the following places:
 - www.kingsislandfrs.ie

 @kingsislandfrs

 Kings Island Flood Relief Scheme

- Or talk to your Community Representative



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Cultural Heritage and Archaeology

- King's Island forms part of the 'medieval core' of Limerick City and is important for residents and tourists.
- King John's Castle and St. Mary's Cathedral survive from the 12th and 13th Century
- There are 28 structures on the Record of Protected Structures, 10 of which are in the National Inventory of Architectural Heritage (NIAH) of Limerick City on the Island
- There is a military cemetery at the southern edge of St. Mary's Park dating from the mid 19th Century
- We will be carrying out archaeological surveys as part of the flood relief scheme works.



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KING'S ISLAND

FLOOD RELIEF SCHEME

Environment and Ecology

- The Lower River Shannon Special Area of Conservation (SAC) covers part of King's Island and the River Shannon and River Fergus Estuaries Special Protection Area (SPA) is downstream of the Island.
- These areas are considered to be important on a European as well as Irish level and are protected under the EU Habitats Directive.
- Riparian woodland, wet grassland and tall-herb swamp are important habitats.
- The tall-herb swamp contains plants such as yellow flag iris, bulrush and sweet grasses.
- The riparian woodland, which is dominated by willow trees and plants such as willowherbs and brambles offers food, shelter and cover for mammals and birds including important protected species such as otter.
- In the winter a number of wetland birds also arrive to feed on the wet grassland and swamp, the Whooper Swan is one visitor to the island.
- The SAC and SPA means there are specific protocols we need to follow when developing the scheme and carrying out the construction





KING'S ISLAND

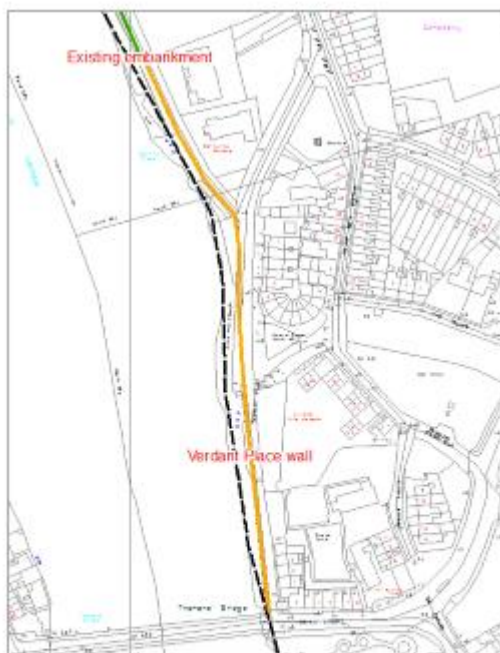
FLOOD RELIEF SCHEME

Verdant Place

- Verdant Place has been identified for fast-tracked works which will be progressed in advance of the main scheme.



- The aim of this stage of the project will be to provide a flood relief scheme for the lowest lying area of the Island.
- Particular challenges associated with this work relate to the archaeological heritage of the area and the condition of the existing quay wall.
- We will be looking at:
 - Increasing the height of the wall
 - Filling gaps or building a new wall
 - Providing flap valves to drains
 - Installing permanent pumps

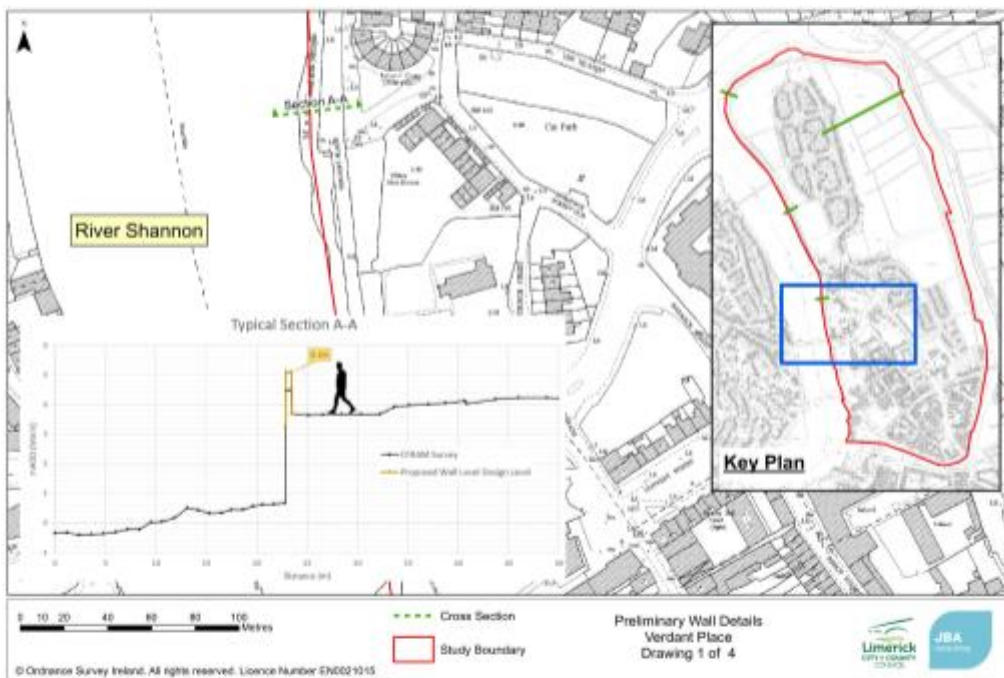




KING'S ISLAND

FLOOD RELIEF SCHEME

Potential Wall Profile – Verdant Place



- The plot above shows the Verdant Place quay wall at its current height (in black) and gives an indication of the height the flood relief wall would need to be (in orange). The proposed wall could be about 0.6m above the existing wall.



KING'S ISLAND

FLOOD RELIEF SCHEME

Examples of Flood Walls

- A wall built along a river bank to prevent floods by giving a raised, uniform crest level.



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The Office of Public Works
An Irish Government Agency

ARUP

 **JBA**
Consulting



KING'S ISLAND

FLOOD RELIEF SCHEME

St Mary's Park



- The main scheme will protect the east, north and west of the island.
- The current embankment is too low and in poor condition.
- An embankment is the most likely solution.
- The alignment of the embankment will depend on many factors and is open for discussion.



ARUP

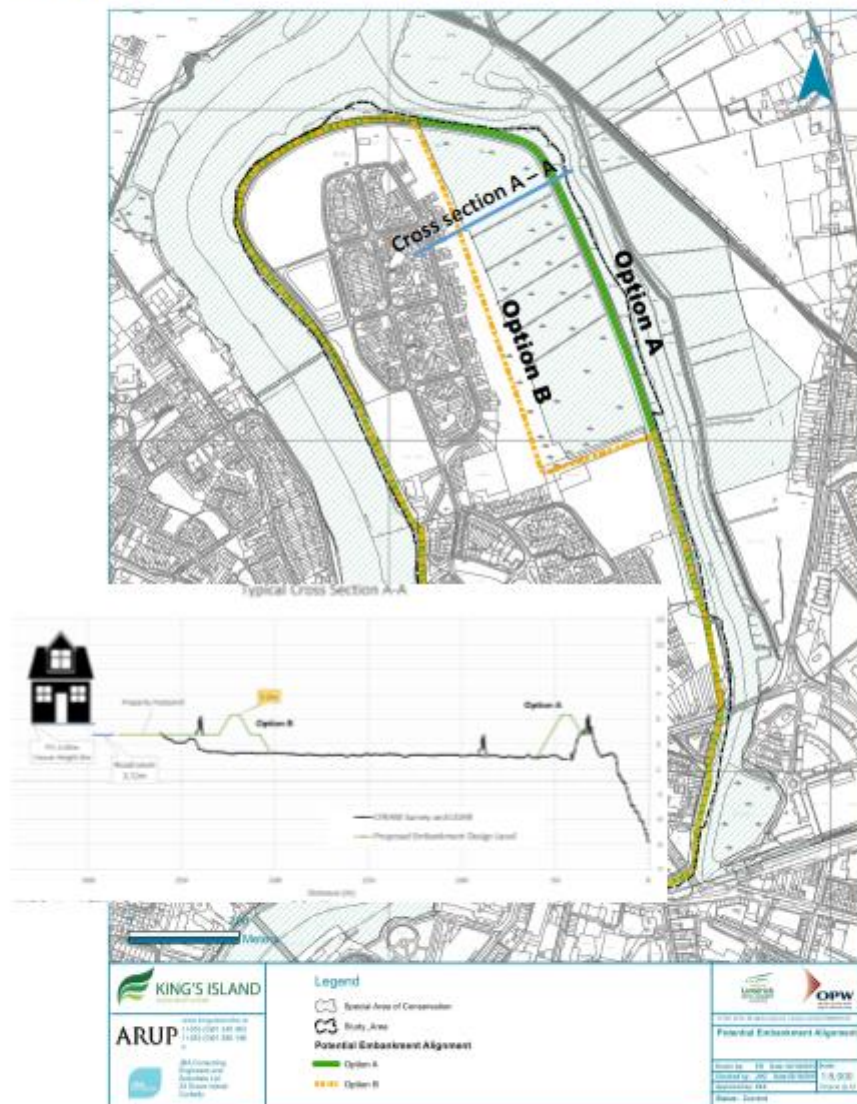




KING'S ISLAND

FLOOD RELIEF SCHEME

Potential Embankment Alignments



The map shows two potential options for the embankment alignment. An indication of the height of the flood relief embankment is also shown.





KING'S ISLAND

FLOOD RELIEF SCHEME

Potential Embankment Profiles



The plots show the embankment at its current height (in black) and gives an indication of the height the flood relief embankment would need to be (in green).



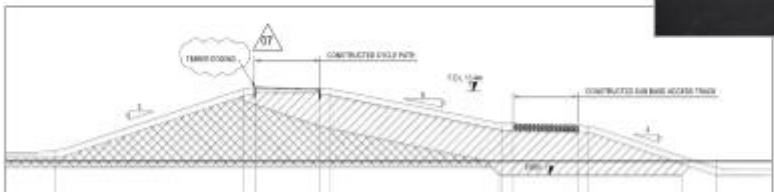


KING'S ISLAND

FLOOD RELIEF SCHEME

Examples of Flood Embankments

- Embankments are usually made of earth and have a clay core to prevent water seeping through.
- They need more space than a flood wall
- There are better opportunities to integrate them into the surrounding landscape.



Typical section through an embankment – taken from Swansea, South Wales





KING'S ISLAND

FLOOD RELIEF SCHEME

City Hall, Court House and surrounding area

- Protection to the south-west corner of the Island is also needed to ensure the whole Island is protected.
- The damage caused by the 2014 flooding was less here than on other parts of the island.
- The solution in this area will probably be a combination of walls, landscaping and demountable (temporary) defences.



Examples of walls, landscaping and temporary defences





KING'S ISLAND

FLOOD RELIEF SCHEME

Sir Harry's Mall

- Sir Harry's Mall has a flood defence wall which runs from O'Dwyer Bridge to the Absolute Hotel.
- The scheme here includes a flood wall and links to the main drainage to remove surface water from the road.
- We will check the height of the wall and make sure it meets design defence heights.



Before the flood scheme



Flood walls in place

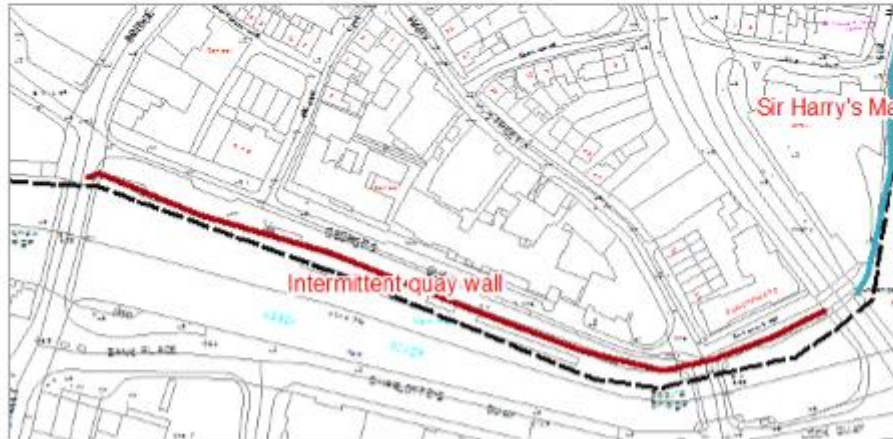




KING'S ISLAND

FLOOD RELIEF SCHEME

George's Quay



- Along George's Quay there is a stone wall but it has gaps in it.
- We will check the height of the wall and propose options for blocking the gaps.



D Questionnaire

1. Which area of King’s Island do you have a particular interest in? Please specify ‘whole Island’, or a particular area or road.
2. How do you think the issue of flooding on King’s Island can be resolved?
3. Is there anything you would like us to take into account when we design the scheme?
4. In your opinion, how important are the following in the development of a Flood Relief Scheme:
(please tick appropriate boxes)

| | Very Important | Important | Moderately Important | Of Little Importance | Unimportant |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Human health and quality of life of residents | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Delivery of the regeneration plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Effective drainage system | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Community infrastructure (church, community centre, crèche etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Plants and animals (land based) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Local fisheries and angling | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitats and the Special Area of Conservation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Water quality | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Architectural and cultural heritage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visual amenity and views of the river | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Being prepared for the impacts of climate change giving higher river levels | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tourism | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Recreation (walking, sports etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Local economy and employment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Erosion of the river bank | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Please indicate which best describes you:

- Resident of King’s Island and have been flooded (how many times and please indicate which year(s))
- Resident of King’s Island but have not been flooded
- Business owner and have been flooded (how many times and please indicate which year(s))
- Business owner but have not been flooded
- Resident of Limerick
- Representative of a local group (please specify)
- Other (please specify)

| |
|--|
| |
| |
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| |
| |
| |
| |

6. How did you hear about today?
7. Please provide your name, postal address and email address
8. Please use the space below to record your experiences of flooding and to add any other comments regarding the proposed scheme.



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Registration number 444752



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B Landscape and Visual Amenity Photographs



Illustration 1 - residential view out west from Oliver Plunkett Street, St Mary's Park



Illustration 2 - residential view out north-east off St Munchin's Street, St Mary's Park



Illustration 3 - recreational view out north from the riverside footpath along the north of King's Island, St Mary's Park



Illustration 4 - residential view out south-west from Verdant Place, St Mary's Park



Illustration 5 - civic view out south from George's Quay



Illustration 6 - recreational view in to the wetland north-east of King's Island, part of the Lower River Shannon Special Area of Conservation



Illustration 7 - residential view in to King's Island and associated landmarks, including St Munchin's Church, from Brown's Quay



Illustration 8 - civic view north-east to King's Island and associated landmarks, including King John's Castle and St Mary's Cathedral, from the waterfront off Honan's Quay and Arthur's Quay

C Cultural Heritage and Archaeology

C.1 Heritage Report

CULTURAL HERITAGE CONSTRAINTS STUDY FOR KINGS ISLAND FLOOD RELIEF SCHEME

Prepared by:

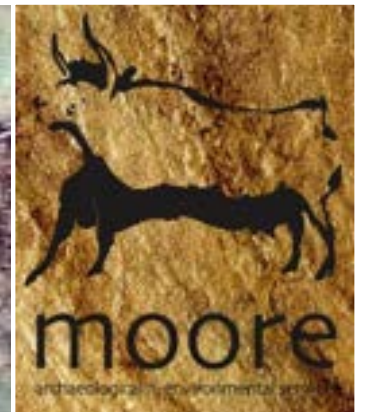
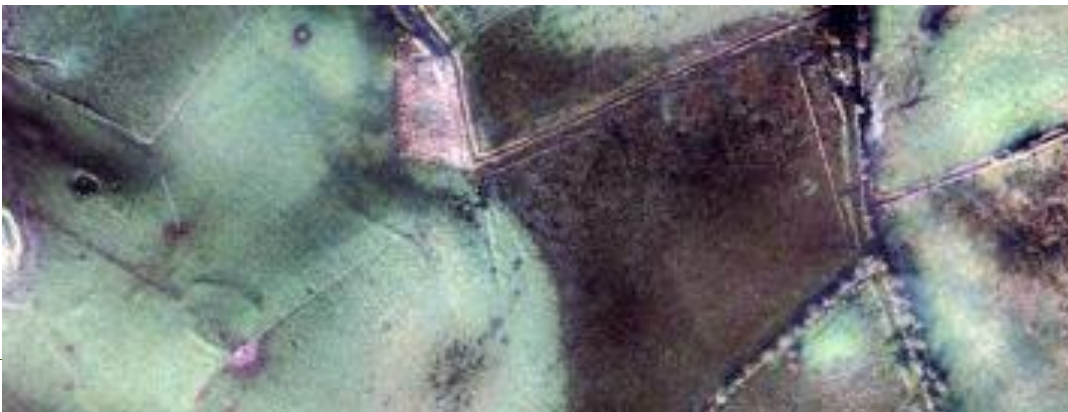
Declan Moore & Bily Quinn

Issued to:

JBA Consulting

Date:

Nov 2015



moore group – archaeological & environmental services – mooregroup.ie

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| | APPENDIX 2 – Figures | Error! Bookmark not defined. |

Abbreviations

| | |
|-------|--|
| ACA | Architectural Conservation Areas |
| DoAHG | Department of Arts Heritage & the Gaeltacht |
| EPA | Environmental Protection Agency |
| GIS | Geographical Information System (mapping software) |
| NIAH | National Inventory of Architectural Heritage |
| OSI | Ordnance Survey Ireland |
| RMP | Record of Monuments and Places |
| RPS | Record of Protected Structures |
| SMR | Sites and Monuments Record |
| DLHG | Demesne Landscapes and Historic Gardens |

1 Introduction

MOORE GROUP was commissioned by JBA Consulting to carry out a cultural heritage constraints report for the Kings Island Flood Relief Scheme. King's Island lies in the heart of Limerick City and is surrounded by the waters of the River Shannon and the Abbey River. Both Rivers are tidal and the island is susceptible to both coastal and fluvial flooding. There have been a number of flooding incidences in recent years. Limerick City and County Council have prepared the current brief to engage consultants to assess, develop and design an appropriate viable, cost-effective and sustainable flood relief scheme which aims to minimise risk to human beings, the existing community, social amenity, environment and the landscape character. This study provides an inventory of the recorded cultural heritage resource within Kings Island.

Moore Group is a multi-disciplinary environmental, planning and heritage resource management consultancy. Our work includes Environmental Impact Assessments (EIS), surveys of terrestrial, freshwater and marine environments (in conjunction with Moore Marine), conservation management planning, ecological landscape design, built heritage and archaeological consultancy and fieldwork including archaeological excavation and other specialist services.

For the purposes of this report the definition of "cultural heritage" is taken broadly from the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972, which considers the following to be "cultural heritage":

- Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- Groups of Buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- Sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

2 Methodology

A desktop study of all the available Cultural Heritage inventories and cartographic sources that are considered relevant for the overall cultural heritage constraints report was undertaken. This information is included in light of the legislative protection afforded to the archaeological resource under the various National Monuments Acts (1930-2004) and the architectural resource under the Planning and Development Act 2000. Utilising the following information sources this chapter presents an overview of all the known archaeological, architectural, cultural and historical constraints within the study area.

2.1 Information Sources

All known cultural heritage sites were mapped along with Ordnance Survey Ireland (OSI) First Edition Mapping (Circa 1830). The following information sources were used for this chapter:

- UNESCO World Heritage Sites including the tentative list of candidate sites;
- National Monuments in State Care;
- Potential National Monuments in the Ownership of a Local Authority – a list made available from the Department of Arts Heritage and the Gaeltacht (DAHG);
- Sites subject to Preservation Orders a list available from the Department of Arts Heritage Gaeltacht (DAHG);
- Walled towns, information derived from www.archaeology.ie;
- Site and Monuments Record database from www.archaeology.ie;
- Architectural Conservation Areas, information received from the City Development Plan;
- Record of Protected Structures from Limerick City Council;
- National Inventory of Architectural Heritage (NIAH) from www.buildingsofireland.ie;
- Designed Landscapes and Historic Gardens indicated on the OSI First Edition Mapping; and
- Designated Landscapes, information received from the Development Plan.

All churches and graveyards which have the potential to be in the ownership of the local authorities were highlighted as potential National Monuments.

The Limerick City Development Plan (2010-2016) and other relevant documentary sources were scoped in the compilation and preparation of this constrain study.

3 Existing Environment

The following section examines both the archaeological and architectural heritage of the study area and provides an introduction to the various information sources and inventories highlighted in the accompanying Figures.

3.1 The Study Area

Kings Island in Limerick City is strategically located in a national context, positioned near a fording point and guarding the northern approaches to the Shannon. Given its context it is likely that the island was settled from earliest times. It has been convincingly argued that 'Regia' as feature on Ptolemy's map of Ireland (150 AD) is King Island. The Annals reference Limerick (meaning the Bare marsh) as being linked to the High King Cormac mac Airt and St. Patrick. In the ninth century the site was sufficiently large enough to become a target of Viking Attacks. These raids eventually led to a permanent Norse settlement. In the early 10th century Limerick was second only to Dublin as a regional power. In the 12th century the invading Normans under Prince John battled with the O'Brien's, Kings of Thomond for control of the town. Following the death of Domnall Mór Ua Briain, the last styled King of Limerick, the Normans completed their conquest and quickly began the construction of a castle bearing the kings own name. Under Norman rule the town developed its ports and grew in prosperity, Kings Island as the strategic core became 'English town', a settlement on the south bank was known as 'Irish town'. It was around these two settlements that Limericks town walls were erected, in plan the walls formed an hour glass shape connected by the historic Balls Bridge. Some of the City's most significant buildings date to the later medieval period, including King John's Castle at Thomond Bridge and St. Mary's Cathedral.

Limerick City played a pivotal role during the civil wars of the 17th century, these conflicts led to town defences being reinforced with the addition of stone bastions, earthen ramparts and ravelins. The town was besieged by Oliver Cromwell in 1651 and twice by the Williamites in the 1690s. The Jacobite force finally capitulated to William of Orange on 3 October 1691, the terms were reputedly signed on the Treaty Stone, an irregular block of limestone which once served as a mounting block for horses now displayed on Clancy Strand. The eighteenth century saw a change in the layout of Limerick when the town defences were largely demolished and a new brick city built outside the old walls. From the 1760's onwards various undertakings financed by Government grants upgraded the quays and built the embankments still visible today.

3.2 Archaeological Heritage

3.2.1 World Heritage Sites

There are no World Heritage Sites in the study area nor are there any sites contained in the tentative list of candidate Sites.

3.2.2 National Monuments in State Care

There are two National Monuments in State Care within the subject area - King John's Castle and Fanning's Castle. It should also be noted that surviving sections of the town walls have the same statutory protection as National Monuments in state care and are thus included on the following list. Limericks town defences include walls, gates and towers both above and below ground. Thirteen extant stretches of the City Wall of Limerick, all in varying degrees of preservation have been identified. Further portions of the City Wall are known to exist below ground level, all extant (standing) stretches of the wall are Protected Structures, the non extant (underground) sections are protected under the National Monuments Acts 1930-2004 and the Planning & Development Acts.

| Nat. Mon. No | Legal Status | Name | Description | Address | SMR No. | ITM Reference (E,N) |
|--------------|--------------|--------------------|-------------|-------------------------------|---------------|---------------------|
| 288 | Guardianship | King John's Castle | Castle | Castle Street/Nicholas Street | LI005-017014- | 557691, 657821 |
| 383 | Ownership | Fanning's Castle | Castle | Mary Street, Limerick City | LI005-017004- | 557924, 657535 |
| N/A | Guardianship | Town defences | Wall | Kings Island | LI005-017010 | Various |

3.2.3 Monuments in the Ownership of a Local Authority

For the purposes of the constraint study religious sites that were contained in a dataset obtained from the Sites and Monuments Database have been extracted and highlighted as Potential National Monuments in the Ownership of a Local Authority.

Table 1 Potential Monuments in the Ownership of the Local Authority

| SMR No | Classification | Townland Name | ITM Reference (E,N) | ITM Reference (E,N) |
|---------------|--------------------------------------|---------------|---------------------|---------------------|
| LI005-017121- | Burial Ground of St. Dominic's Abbey | Limerick City | 557793 | , 657940 |

3.2.4 Sites Subject to Preservation Orders

There is one site within King's Island that is subject to a Preservation Order.

| PO No | Classification | SMR | ITM Reference (E,N) | ITM Reference (E,N) |
|------------|---------------------|-------------|---------------------|---------------------|
| 4/1993 TPO | St. Dominic's Abbey | LI005-017-- | 557845 | 657897 |

3.2.5 Record of Monuments and Places (RMP)

Sites that are not in state care are listed in the Record of Monuments and Places. This inventory consists of nationwide set of 6" maps with an accompanying index which shows all the sites, monuments and zones of archaeological potential, recorded to date. The inventory concentrates on pre 1,700 AD sites.

There are 96 sites listed in the RMP for Kings Island. These range from monumental above ground sites like King John's Castle, Fanning's Tower House and St. Mary's Cathedral to Medieval structures and excavated human remains recovered from a variety of locations.

Notable in the context of the proposed project is the frequency of monuments found around the water's edge, particularly the town defences, mills, weirs, quays, a battery and Thomond and Balls bridge.

Not listed on the standard inventories but of Cultural Heritage value are the stone retaining embankments along both the Shannon and Abbey River. These cut stone walls date to the late eighteenth –mid nineteenth century.

Table 2 Inventory of recorded monuments located within the Study Area

| SMR No | Classification | ITM Reference (E) | ITM Reference (N) |
|---------------|----------------|-------------------|-------------------|
| LI005-017---- | Historic town | 557809 | 657730 |
| LI005-017001- | Balls Bridge | 558054 | 657423 |

| SMR No | Classification | ITM Reference (E) | ITM Reference (N) |
|---------------|--|-------------------|-------------------|
| LI005-017002- | Thomond Bridge | 557575 | 657846 |
| LI005-017003- | House – medieval, Athlunkard St. | 557913 | 657634 |
| LI005-017004- | Castle – Fanning's tower house | 557924 | 657535 |
| LI005-017005- | House - medieval | 557957 | 657569 |
| LI005-017006- | House - medieval | 557854 | 657702 |
| LI005-017007- | House - medieval | 557826 | 657685 |
| LI005-017008- | House - medieval | 557871 | 657534 |
| LI005-017010- | Town defences | 557639 | 657897 |
| LI005-017014- | King John's Castle - Anglo-Norman masonry castle | 557691 | 657821 |
| LI005-017015- | St. Mary's Cathedral | 557824 | 657645 |
| LI005-017016- | St. Mary's Graveyard | 557812 | 657608 |
| LI005-017017- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017018- | Cross-slab, Cathedral Grounds | 557824 | 657645 |
| LI005-017019- | Wall monument, Cathedral Grounds | 557824 | 657645 |
| LI005-017021- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017022- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017024- | Memorial stone, Cathedral Grounds | 557824 | 657645 |
| LI005-017025- | Memorial stone, Cathedral Grounds | 557824 | 657645 |
| LI005-017026- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017027- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017028- | Armorial plaque, Cathedral Grounds | 557824 | 657645 |

| SMR No | Classification | ITM Reference (E) | ITM Reference (N) |
|---------------|---|-------------------|-------------------|
| LI005-017029- | Tomb - effigial, Cathedral Grounds | 557824 | 657645 |
| LI005-017030- | Memorial stone, Cathedral Grounds | 557824 | 657645 |
| LI005-017031- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017032- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017033- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017034- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017035- | Memorial stone, Cathedral Grounds | 557824 | 657645 |
| LI005-017036- | Graveslab, Cathedral Grounds | 557824 | 657645 |
| LI005-017037- | Memorial stone, Cathedral Grounds | 557824 | 657645 |
| LI005-017038- | Memorial stone, Cathedral Grounds | 557824 | 657645 |
| LI005-017039- | Architectural fragment, Cathedral Grounds | 557824 | 657645 |
| LI005-017040- | Architectural fragment, Cathedral Grounds | 557824 | 657645 |
| LI005-017043- | St. Munchin's Church | 557686 | 657922 |
| LI005-017044- | St. Munchin's Graveyard | 557686 | 657922 |
| LI005-017045- | Memorial stone, St. Munchin's | 557685 | 657922 |
| LI005-017046- | Religious house - Augustinian nuns, no longer extent | 557924 | 657759 |
| LI005-017047- | Religious house – Former site of St. Dominican Abbey, Island Road | 557793 | 657940 |
| LI005-017051- | Barracks, Island Road | 557860 | 657869 |
| LI005-017069- | Mill - unclassified | 557964 | 657464 |

| SMR No | Classification | ITM Reference (E) | ITM Reference (N) |
|---------------|--|-------------------|-------------------|
| LI005-017072- | Quay, present day Merchant's Quay | 557761 | 657536 |
| LI005-017073- | Battery, Present day Boat House, Merchants Quay. | 557710 | 657515 |
| LI005-017074- | Mill - unclassified | 557688 | 657681 |
| LI005-017075- | Mill - unclassified | 557699 | 657686 |
| LI005-017101- | Castle - unclassified | 557694 | 657684 |
| LI005-017103- | Castle - unclassified | 557878 | 657617 |
| LI005-017114- | Church | 557771 | 657752 |
| LI005-017115- | Religious house - Fratres Cruciferi | 558079 | 657465 |
| LI005-017120- | Architectural fragment | 557838 | 657922 |
| LI005-017121- | Burial ground | 557793 | 657940 |
| LI005-017123- | House - medieval | 557857 | 657694 |
| LI005-017124- | Castle - ringwork | 557720 | 657809 |
| LI005-017125- | House - medieval | 557719 | 657796 |
| LI005-017126- | House - 16th/17th century | 557870 | 657680 |
| LI005-017127- | Well | 557710 | 657924 |
| LI005-017128- | House - 16th/17th century | 557975 | 657549 |
| LI005-017129- | House - medieval | 557820 | 657690 |
| LI005-017130- | House - medieval | 557920 | 657566 |
| LI005-017131- | Excavation - miscellaneous | 557905 | 657584 |
| LI005-017132- | Excavation - miscellaneous | 557890 | 657534 |
| LI005-017140- | House - medieval | 557710 | 657709 |

| SMR No | Classification | ITM Reference (E) | ITM Reference (N) |
|---------------|---|-------------------|-------------------|
| LI005-017141- | Kiln | 558054 | 657574 |
| LI005-017142- | Excavation - miscellaneous | 558054 | 657574 |
| LI005-017144- | Graveyard | 557760 | 657774 |
| LI005-017145- | Burial ground | 558059 | 657612 |
| LI005-017148- | Excavation - miscellaneous | 558039 | 657498 |
| LI005-017149- | Excavation - miscellaneous | 557965 | 657588 |
| LI005-017151- | Excavation - miscellaneous | 557945 | 657485 |
| LI005-017152- | Excavation - miscellaneous | 558000 | 657580 |
| LI005-017153- | Excavation - miscellaneous | 558058 | 657453 |
| LI005-017154- | Burial ground | 558079 | 657465 |
| LI005-017155- | Cross - Market cross | 557851 | 657614 |
| LI005-017156- | Castle - unclassified | 557713 | 657873 |
| LI005-017164- | College | 557788 | 657664 |
| LI005-017165- | Religious house - Knights Hospitallers | 557825 | 657563 |
| LI005-017166- | House - medieval | 557650 | 657960 |
| LI005-017167- | House - medieval | 557736 | 657725 |
| LI005-017168- | House - medieval | 557730 | 657700 |
| LI005-017169- | House - medieval | 557760 | 657650 |
| LI005-017170- | Town hall, Tholsol junction Mary St/Gaol Lane | 557965 | 657545 |
| LI005-017171- | Armorial plaque (present location) | 557700 | 657870 |
| LI005-017172- | Excavation - miscellaneous | 557920 | 657814 |
| LI005-017173- | Excavation - miscellaneous | 557790 | 657827 |

| SMR No | Classification | ITM Reference (E) | ITM Reference (N) |
|---------------|---|-------------------|-------------------|
| LI005-017174- | Excavation - miscellaneous | 557780 | 657990 |
| LI005-017175- | Excavation - miscellaneous | 557915 | 657670 |
| LI005-017176- | Excavation - miscellaneous | 558075 | 657510 |
| LI005-017177- | Burial ground | 558090 | 657475 |
| LI005-017178- | Excavation - miscellaneous | 558090 | 657605 |
| LI005-017179- | Excavation - miscellaneous | 557740 | 657930 |
| LI005-017181- | Excavation - miscellaneous | 558090 | 657520 |
| LI005-018---- | Bastioned fort, Site of Cromwellian Fort, Present location, St. Brendan's Street. | 557570 | 658613 |
| LI005-079---- | Religious house - Franciscan friars | 558054 | 657574 |
| LI005-109---- | Burial | 557780 | 658053 |
| LI005-110---- | Weir - fish | 557623 | 657656 |

Table 3 Inventory and Count of Archaeological Sites located within the Study Area

| Archaeological Sites | Count |
|--|-------|
| World Heritage Sites | 0 |
| Candidate World Heritage Sites | 0 |
| National Monuments - In State Ownership or Guardianship | 2 |
| National Monuments - Archaeological Monuments Subject to Preservation Orders | 1 |
| Walled Towns/Town Defences | 1 |
| Sites & Monuments Record | 96 |



Plate 1 Thomond Bridge (RMP LI005-017002)



Plate 2 Plaque on Kings island Embankment 1848.



Plate 3 View along Curtain wall of King John's Castle



Plate 4 Former site of Mill (RMP LI005-017075) near Civic Buildings.



Plate 5 Former site of Gun battery LI005-017073, near boat club



Plate 6 Looking west to Matthew Bridge



Plate 7 Wall along Sir Harry's Mall

3.3 Architectural Heritage

The Architectural Heritage Protection – Guidelines for Planning Authorities was published in 2004 by the DEHLG and whilst primarily aimed at planning authorities, these guidelines are also of assistance to owners and occupiers of protected structures, proposed protected structures and buildings located in Architectural Conservation Areas Policy BHA.11 of The Limerick City Development Plan states

It is the policy of Limerick City Council to positively encourage and facilitate the careful refurbishment of the Structures of Architectural Heritage merit and Protected Structures for sustainable and economically viable uses.

3.3.1 Architectural Conservation Areas

There are no designated Architectural Conservation Areas within Kings Island.

3.3.2 Record of Protected Structures (RPS)

The Limerick City Development Plan Record of Protected Structures lists 44 Structures within the study area.

| RPS No | Name | Location |
|--------|---|---|
| RPS 1 | Villier's Alms Houses | Dominick Street & Old Verdant Place |
| RPS 2 | Walls of Limerick - St Saviour's stretch | Island Road North |
| RPS 4 | King Johns Castle | Castle Street adjoining River Shannon, Thomond Bridge |
| RPS 5 | The Widow's Alms Houses | Nicholas Street |
| RPS 5 | The Widow's Alms Houses | Nicholas Street |
| RPS 5 | The Widow's Alms Houses | Nicholas Street |
| RPS 5 | The Widow's Alms Houses | Nicholas Street |
| RPS 5 | The Widow's Alms Houses | Nicholas Street |
| RPS 6 | Dominican Priory Wall and Nuns' graveyard (site of Saint Dominick's Abbey) and Walls of Limerick: St Saviour's stretch. | Barrack Street |

| | | |
|--------|---|---|
| RPS 7 | Limerick City Walls: Peter's Cell Stretch. | Island Road & Peter's Cell |
| RPS 8 | Parochial House | Athlunkard Street |
| RPS 9 | Saint Mary's Church of Ireland Cathedral | Corner of Nicholas Street & Athlunkard Street |
| RPS 10 | The Exchange | Nicholas Street |
| RPS 11 | Bourke's Castle | Athlunkard Street |
| RPS 12 | County Courthouse | Merchant's Quay |
| RPS 15 | Fanning's Castle - Tower House | Off Mary's Street rear of St Anne's Technical Institute, backlands opposite Emily Place. |
| RPS 16 | Barrington's' Hospital | George's Quay & Mary Street Denis Cahalane |
| RPS 17 | Walls of Dominican Chapel (Fish Lane). | Northern Relief Road, adjoining Fish Lane. |
| RPS 38 | Thomond Bridge Toll House. | Verdant Place & Castle Street. |
| RPS 42 | The Bishop's Palace. | Church Street & Castle Street. |
| RPS 43 | Gerald Griffin Memorial Schools. | Bridge Street & Court House Lane. |
| RPS 47 | Saint Munchin's Church of Ireland Church & Graveyard. | Church Street |
| RPS 48 | Bannatyne Pyramidal Mausoleum c.1855 (protected under RPS052 Graveyard) | Located within the grounds of Saint Munchin's Church of Ireland churchyard, Church Street |
| RPS 49 | Jones Mausoleum c.1850 (protected under RPS052 Graveyard) | Located within the grounds of Saint Munchin's Church of Ireland churchyard, Church Street |
| RPS 50 | Remains of Medieval Mill, Undercroft Cellars and Bridge. | Within Civic Public Open space in front of City Hall. |

| | | |
|---------|---|---|
| RPS 52 | Limerick City Wall s: Peter's Cell – Projecting Corbels & wall. Medieval City wall remnant. | Island Road & Peter's Cell. |
| RPS 53 | Old Gaol – Medieval House. | 37 Mary Street, corner of Goal Lane & Mary St. |
| RPS 55 | 2 Church Street - adjoining Bishops Palace. | 2 Church Street. |
| RPS 56 | 3 Church Street. | 3 Church Street |
| RPS 57 | 4 Church Street. | 4 Church Street |
| RPS 58 | City Hall Façade of former gaol to Crosbie Row Northwest elevation c.1811-1813 | Crosbie Row |
| RPS 59 | Limerick City Walls: Verdant Place Stretch | Verdant Place, adjoining Villiers Alms Houses (see RPS001) |
| RPS 301 | Medieval Limerick City Wall – Exchange Lane Stretch (Extant) | South of St Ann's Court, Exchange Lane. Forms rear boundary of 7&8 Athlunkard Street. |
| RPS 302 | Medieval Limerick City Wall Bishop St / Sheep St Stretch – (Extant) RMP Ref: LI005-017059 | Rear of Abbey River Court Bishop St / Sheep St (Eastern side of Old Sheep Street) |
| RPS 314 | Athlunkard Boat Club | Athlunkard Street |
| RPS 320 | The Potato Market | Merchant's Quay |
| RPS 343 | Saint Mary's National School | Bishop's Street |
| RPS 347 | Former Garda Station | Corner of Mary Street and Meat Market Lane |
| RPS 410 | Saint Mary's Roman Catholic Church | Corner of Athlunkard Street, Island Road, St Mary's Place |
| RPS 413 | Boyd Mausoleum | Within the grounds Saint Mary's Cathedral, close to existing |

| | | |
|---------|------------------|---|
| | | entrance on the southeast side elevation |
| RPS 428 | Thomond Bridge | Spanning the River Shannon linking Castle Street and High Road |
| RPS 429 | O'Dwyer's Bridge | Athlunkard Street spanning the Abbey River |
| RPS 432 | Mathew Bridge | Connecting Rutland Street, Bank Place to the south with Merchant's Quay, Bridge Street and George's Quay to the north. |
| RPS 433 | Baal's Bridge | Links Mary Street to the north in English Town with Broad Street to the south within Irish Town spanning the Abbey River. |

3.3.3 National Inventory of Architectural Heritage (NIAH)

The NIAH Survey for Kings Island lists 31 sites within the subject area. Note there is a substantial degree of overlap with the Record of Protected Structures.

| Reg No | Name | Address | ITM Reference (E) | ITM Reference (N) |
|----------|------------------------|---------------|-------------------|-------------------|
| 21513031 | Baal's Bridge | Mary Street | 558054 | 657422 |
| 21508001 | Thomond Bridge | Castle Street | 557574 | 657845 |
| 21508002 | Toll House | Verdant Place | 557644 | 657862 |
| 21508003 | The Bishop's Palace | Church Street | 557710 | 657877 |
| 21508004 | former almshouse | Church Street | 557706 | 657888 |
| 21508005 | almshouse | Church Street | 557702 | 657895 |
| 21508006 | almshouse | Church Street | 557701 | 657901 |
| 21508007 | Island Theatre Company | Church Street | 557685 | 657921 |

| | | | | |
|----------|--|-----------------------------------|--------|--------|
| 21508008 | Jones Mausoleum | Saint Munchin's Church of Ireland | 557683 | 657883 |
| 21508009 | Villiers Alms Houses | Old Dominick Street | 557681 | 657977 |
| 21508010 | Nuns' graveyard | Barrack Street | 557843 | 657906 |
| 21508011 | Saint Mary's National School | Bishop Street | 557837 | 657836 |
| 21508012 | The Widow's Alms Houses | Nicholas Street | 557736 | 657763 |
| 21508013 | City Hall | Crosbie Row | 557766 | 657661 |
| 21508014 | Saint Mary's Church of Ireland Cathedral | Nicholas Street | 557829 | 657643 |
| 21508015 | Parochial House | Athlunkard Street | 558045 | 657783 |
| 21508016 | Saint Mary's Roman Catholic Church | Athlunkard Street | 558035 | 657745 |
| 21508017 | Athlunkard Boat Club | Athlunkard Street | 558162 | 657800 |
| 21508018 | O'Dwyer's Bridge | Athlunkard Street | 558205 | 657764 |
| 21508019 | Bannatyne Mausoleum | Church Street | 557675 | 657885 |
| 21508021 | Attached school building | Nicholas Street | 557834 | 657666 |
| 21513015 | Mathew Bridge | Rutland Street | 557815 | 657482 |
| 21513053 | Barringtons' Hospital | George's Quay | 557977 | 657479 |
| 21513054 | Clancy's Hut | River Lane | 558081 | 657612 |
| 21513055 | Former garda station | Mary Street | 557954 | 657578 |
| 21513056 | Gerald Griffin Memorial Schools | Bridge Street | 557859 | 657558 |
| 21513057 | The Exchange | Nicholas Street | 557867 | 657635 |

| | | | | |
|----------|--|-----------------|--------|--------|
| 21513059 | Boyd Mausoleum | Nicholas Street | 557838 | 657598 |
| 21513060 | County Courthouse | Merchant's Quay | 557725 | 657578 |
| 21513061 | The Potato Market | Merchant's Quay | 557770 | 657508 |
| 21513070 | Limerick Institute of Technology - School of Art | George's Quay | 557919 | 657502 |

Table 4 Inventory and Count of Architectural Sites located within the Study Area

| Architectural Sites | Count |
|----------------------|-------|
| ACA | 0 |
| Protected Structures | 44 |
| NIAH Site | 31 |

4 Conclusions

Based on the above research it is clear that Kings Island has a rich and varied archaeological, architectural and historical past with multi period monuments ranging from humble sites of local interest to large complexes (King John' Castle and St. Mary's Cathedral) of international significance. All of the features both above and below ground have varying degrees of statutory protection and the guiding principle should be their continued preservation in situ and to minimise any impacts on their character or setting.

The following advice notes have been compiled to inform the designers of statutory protections and sensitivities afforded to the various cultural heritage site classifications.

4.1 NOTES FOR DESIGNERS

4.1.1 Archaeological Heritage

National Monuments -In the Ownership or Guardianship of the State

The pre-eminent archaeological sites in the Republic of Ireland, which are afforded statutory protection of all their amenities, including visual, often with public access facilitated many of these sites are particularly sensitive to impacts on their setting it is therefore recommended that any impacts on the setting of these sites be avoided.

Potential National Monuments - In the Ownership of a Local Authority

Not all these sites will be National Monuments, but a significant number may be. The National Monuments Service does not recognise any difference between these sites and National Monuments in the Ownership or Guardianship of the State as they have the same level of statutory protection. Many will consist of publicly accessible churches (many ruinous) and graveyards that are particularly sensitive to impacts on setting and avoidance is recommended.

Sites Subject to Preservation Orders

The National Monuments Service does not recognise any difference between sites subject to Preservation Orders and National Monuments in the Ownership or Guardianship of the State as they have the same level of statutory protection. Preservation Orders are issued to protect sites that have been damaged or are in the process of being damaged, to prevent further harm. These sites in many instances will not be publicly accessible. Given their protected status efforts should be made to avoid impacts on the settings of these sites.

Record of Monuments and Places

Although the settings of archaeological sites are not formally protected in Irish legislation, most County Development Plans offer protection through their policies and/or objectives. At the pre-planning stage efforts should be made to avoid any direct impacts or impacts on the setting of such sites.

4.1.2 Architectural Heritage

Record of Protected Structures

Although the settings of Protected Structure are not formally protected in Irish legislation, most County Development Plans offer protection through their policies and/or objectives. As protected structures are generally upstanding features within the landscape efforts should be made to avoid impacts on these structures.

National Inventory of Architectural Heritage

Structures within the NIAH have been rated as being of local, regional, national or international importance. During the selection of preliminary route corridors the designers should use this rating information as a guide to ensure that the most important structures do not experience impacts on their setting.

Demesne Landscapes & Historic Gardens

Demesnes historically were the part of the manorial estate retained for its owner's own pleasure, use and occupation. By the 19th century they usually incorporated walled gardens, terraces, tree-lined avenues, ornamental woods and water features. Demesnes currently have no general statutory protection however many county councils have stated policy objectives requiring their preservation. The NIAH provides local authorities with information on the extant and condition of the estates in their functional area. As part of the constraint process all the demesnes within the study area were mapped. This data together with site fact sheet available on the Survey of Historic Gardens and Designed Landscapes should assist the designers in avoiding any significant features.

C.2 Legal Framework Cultural Heritage

APPENDIX 1 – LEGAL FRAMEWORK CULTURAL HERITAGE

This section summarises Ireland's obligations as a signatory to a number of International and European conventions relating to the protection and conservation of cultural heritage sites. Also included is a synopsis of existing national legislation governing the care and protection of our cultural heritage resource.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage Convention, 1972

This Convention provides for the identification, conservation and preservation of cultural and natural sites of outstanding universal value for inclusion in a world heritage list. The World Heritage status is a non-statutory designation and no additional statutory controls result from this designation. However the impact of proposed development upon a World Heritage Site will be a key material consideration in determining planning applications.

The European Convention on the Protection of the Archaeological Heritage (Valletta Convention), 1997

In 1997 the Republic of Ireland ratified the Council of Europe, European Convention on the Protection of the Archaeological Heritage (the 'Valletta Convention'). Obligations under the Convention include: provision for statutory protection measures, including the maintenance of an inventory of the archaeological heritage and the designation of protected monuments and areas.

The European Convention on the Protection of the Architectural Heritage (Granada Convention), 1997

Under this convention the Republic of Ireland is obliged to maintain inventories of architectural heritage, to protect the architectural heritage and adopt conservation policies as integrated planning objectives.

The European Landscape Convention 2000

In 2002 Ireland ratified the European Landscape Convention - also known as the Florence Convention, which promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues. It is the first international treaty to be exclusively concerned with all dimensions of European landscape.

ICOMOS Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, 2005

Ireland is a signatory to an international declaration sponsored by International Council on Monuments and Sites (ICOMOS) that endeavours to ensure the safeguard and conservation of the World's cultural heritage as part of its sustainable and human development.

EIA Directive 85/337/EEC as amended

In order to assist planning and other consent authorities in deciding if significant effects on the environment are likely to arise in the case of development below the national mandatory EIS thresholds,

the Minister for the Environment, Heritage and Local Government published a Guidance document in August 2003.

The Architectural Heritage and Historic Properties Act, 1999

This Act provides for the establishment of a national inventory of architectural heritage it is used by local authorities to inform the compilation of their Record of Protected Structures which, under the Planning and Development Act 2000, does afford legal protection.

The Planning and Development Act 2000

Under arrangements which came into operation on 1 January 2000 (The Planning and Development Act 2000), the system of listing buildings was replaced with strengthened procedures for the preservation of protected structures and structures in architectural conservation areas (ACA).

The National Monuments Act 1930 to 2004

Irish legislation for the protection of archaeological heritage is based on the National Monuments Acts 1930 and amendments of 1954, 1987, 1994 and 2004. These acts are the principal statutes governing the care of monuments in the Irish Republic. They provide for the protection of national monuments through the use of preservation orders. The overall state archaeological service is provided by the Department of Arts, Heritage and the Gaeltacht (DAHG) and delivered through the Planning and Heritage Section of the DAHG and the National Museum of Ireland (Irish Antiquities Division) on behalf of the Minister.

Monuments are protected under the National Monuments Acts in a number of ways:

- National Monuments in the ownership or guardianship of the Minister or a local authority.
- National Monuments, which are subject to a preservation order.
- Historic monuments or archaeological areas recorded in the Register of Historic Monuments.
- Monuments recorded in the Record of Monuments and Places (RMP).

The Planning and Development Act 2006-2009;

The Planning and Development (Strategic Infrastructure) Act 2006 ensures the protection of the archaeological heritage resource by requiring that all applications under this Act are accompanied by an EIS including information on material assets, including the architectural and archaeological heritage, and the cultural heritage.

Other Policy Contexts and Guidelines

The National Inventory of Architectural Heritage (NIAH)

The NIAH is a state initiative that forms the basis for recommendations by the Minister of AHG for inclusion in the Record of Protected Structures under the Planning and Development Act 2000.

The Framework and Principles for the Protection of the Archaeological Heritage guidelines, 1999

This document sets out the basic principles of national policy on the protection of the archaeological heritage. A key principle set out in these guidelines is that there should always be a presumption in favour of avoidance of developmental impacts on the archaeological heritage and preservation in-situ of archaeological sites and monuments must be presumed to be the preferred option.

Limerick City Development Plan

Policy BHA.2 Sites Within the Zone of Archaeological Potential

It is the policy of Limerick City Council to protect and enhance the archaeological value of the sites (and their settings) located within the 'Zone of Archaeology Potential' and all other features listed in the Sites and Monuments Record (SMR).

C.3 Cultural Heritage and Archaeology Figure

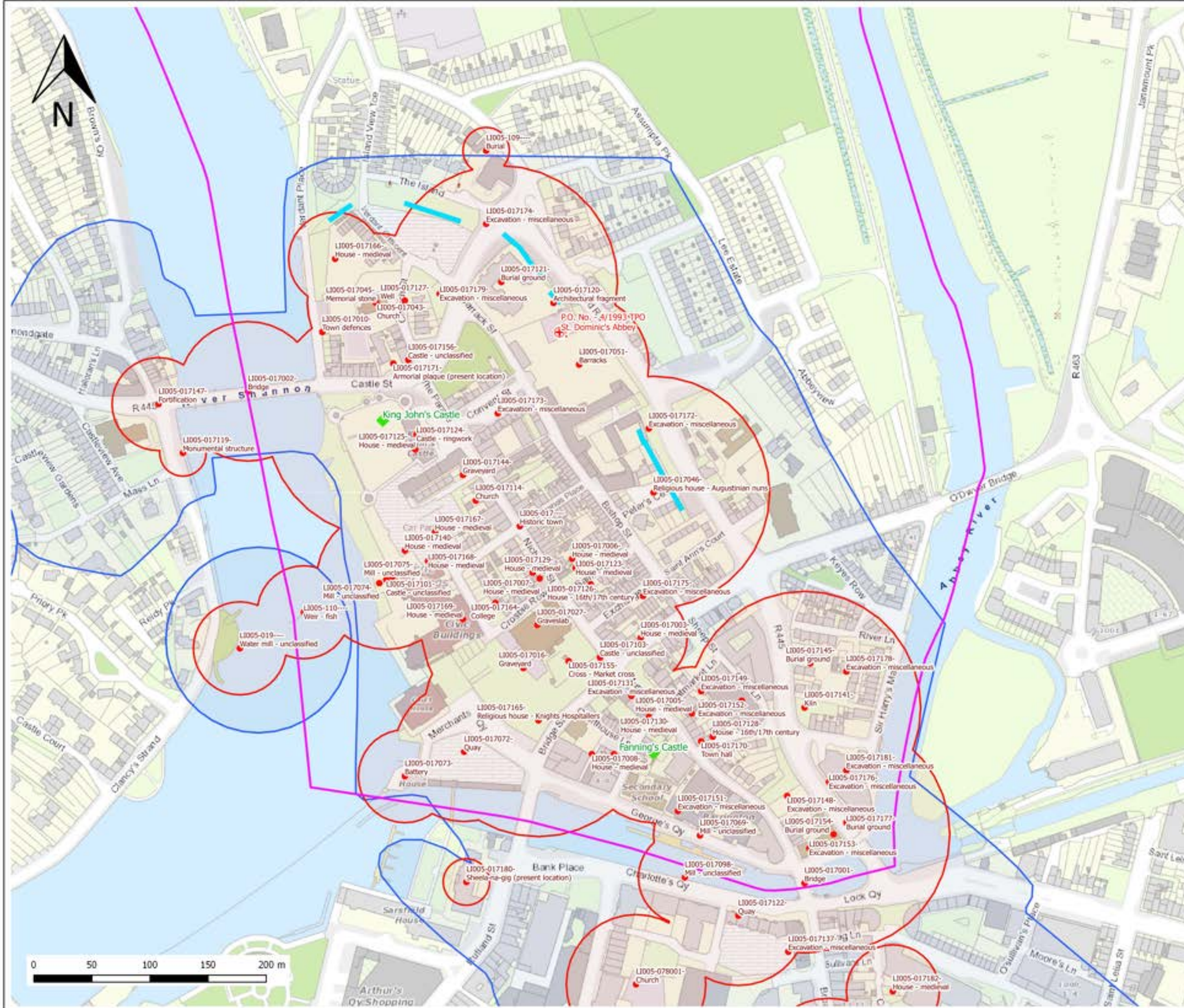
Appendix F.2 Figure 1, Archaeological Heritage Sheet 1 of 2

Appendix F.2 Figure 2, Archaeological Heritage Sheet 2 of 2

Appendix F.2 Figure 3, Architectural Heritage Sheet 1 of 2

Appendix F.2 Figure 4, Architectural Heritage Sheet 2 of 2

Appendix F. 2 Figure 5, Architectural Heritage Sheet 1 of 1

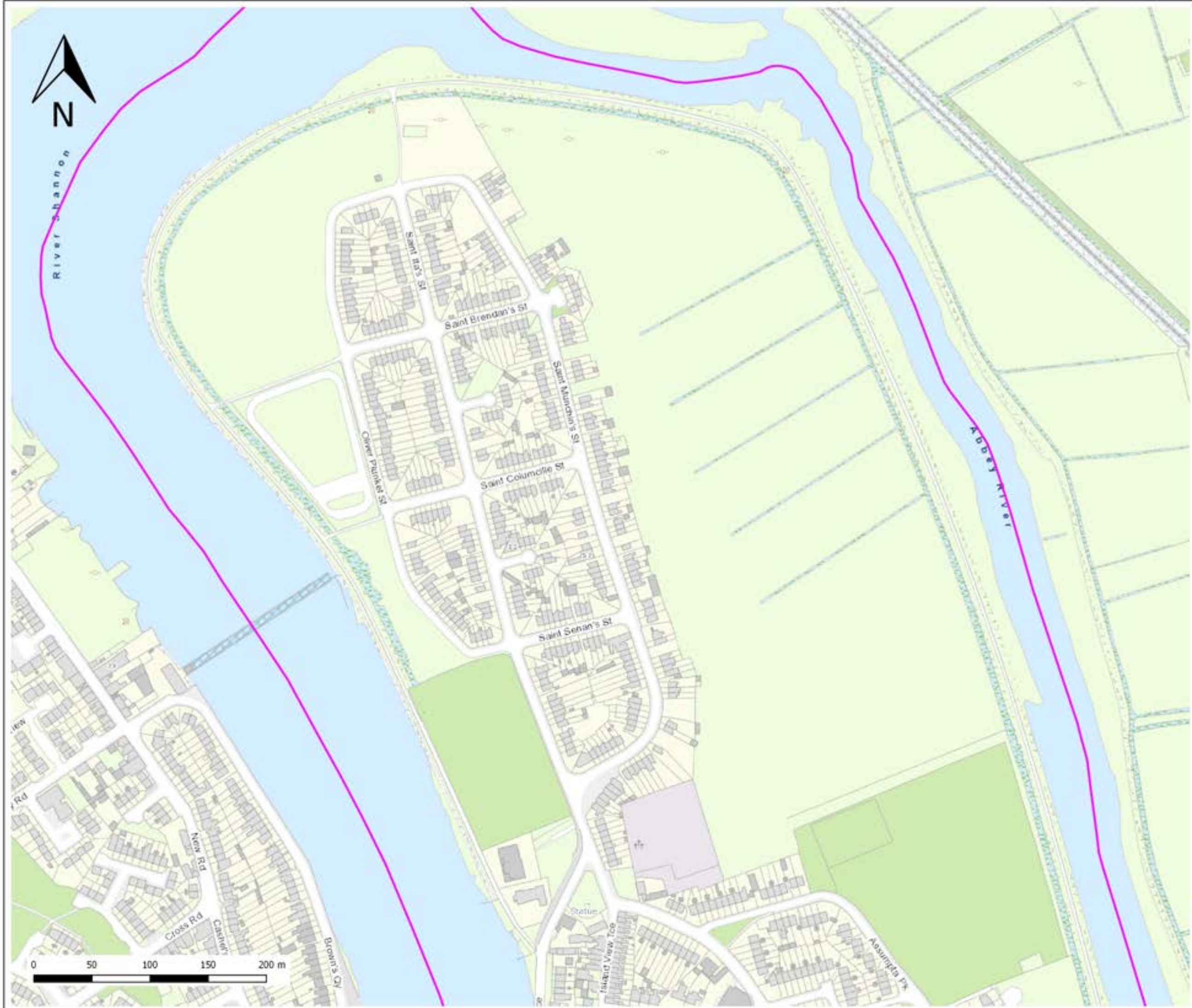


- ### Legend
- ◆ National Monument in State Care
 - Town Wall (25 inch OS1 map)
 - ⊕ Preservation Order
 - Archaeological Survey Database
 - Archaeological Survey Database Zones of Notification
 - Record of Monuments and Places Zones of Notification
 - Study Area

| Rev. | Notes / Changes | By |
|------|-----------------|----|
| | | |

Project:
15121 Kings Island FRS
 Client:
Anup
 Project Manager:
Billy Quinn
 Prepared by:
N. Malcolm Scale:
1:3,000 Date:
November 2015
 Drawing:
Appendix 2 Figure 2. Archaeological Heritage Sheet 2 of 2
 Rev: **A**

moore group
 archaeological & environmental services
 corporate house
 ballybrit business park
 galway
 phone: +353 (0) 91 765640
 email: info@mooregroup.ie
 web: www.mooregroup.ie



- ### Legend
- ◆ Protected Structures
 - National Inventory of Architectural Heritage
 - Study Area

| Rev. | Notes / Changes | By |
|------|-----------------|----|
| | | |

Project:
 15121 Kings Island FRS

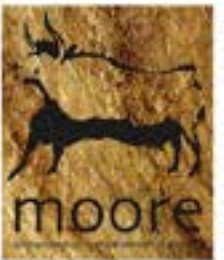
Client:
 Anup

Project Manager:
 Billy Quinn

| | | |
|----------------------------|------------------------|------------------------|
| Prepared by: N. Malcolm | Scale: 1:3,000 @ A3 | Date: November 2015 |
|----------------------------|------------------------|------------------------|

Drawing:
 Appendix 2 Figure 3. Architectural Heritage
 Sheet 1 of 2

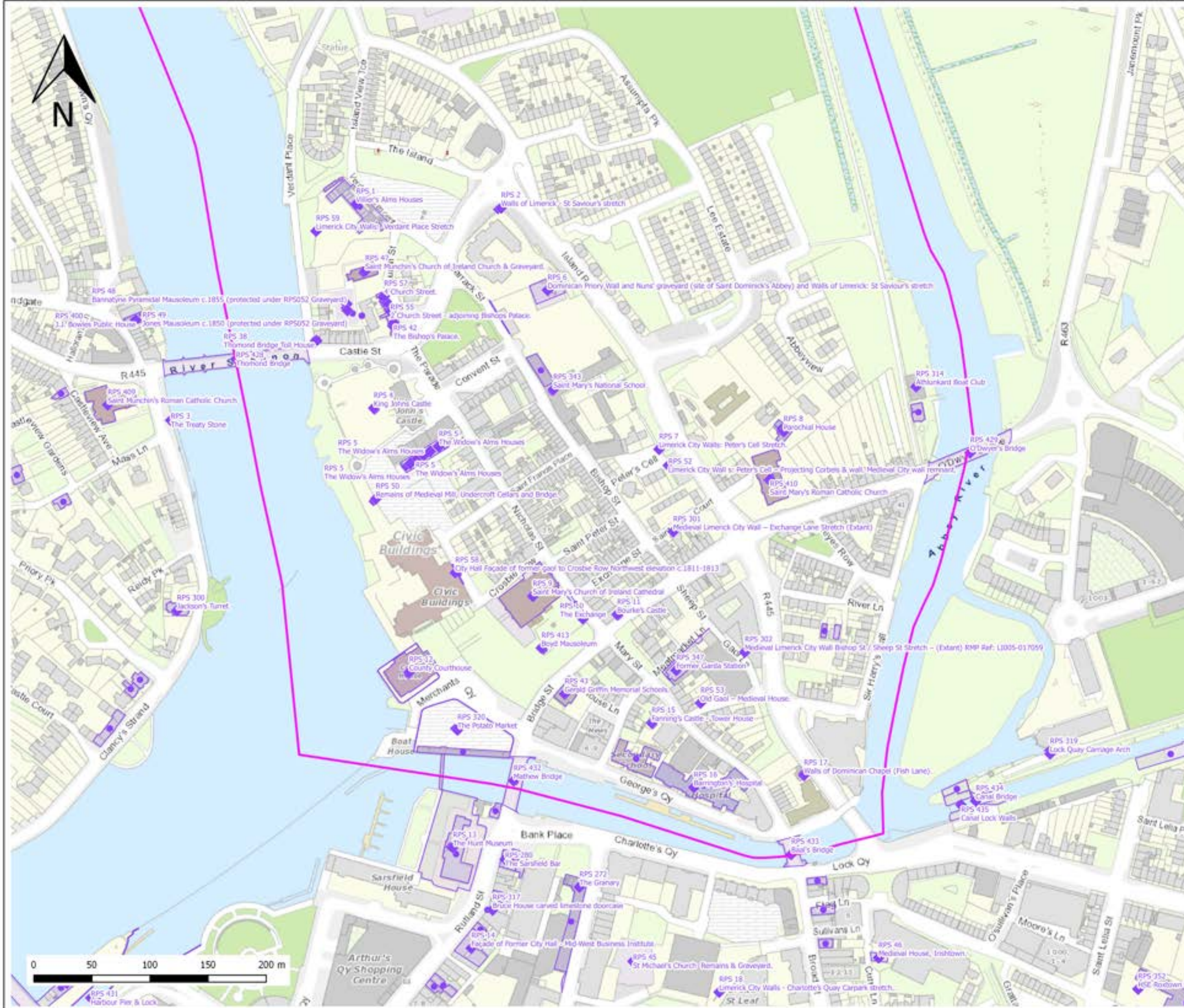
Rev: A



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- ### Legend
- ◆ Protected Structures
 - National Inventory of Architectural Heritage
 - Study Area

| Rev. | Notes / Changes | By |
|------|-----------------|----|
| | | |

Project:
15121 Kings Island FRS

Client:
Anup

Project Manager:
Billy Quinn

| | | |
|-----------------------------------|--------------------------|-------------------------------|
| Prepared by: N. Malcolm | Scale: 1:3,000 | Date: November 2015 |
|-----------------------------------|--------------------------|-------------------------------|

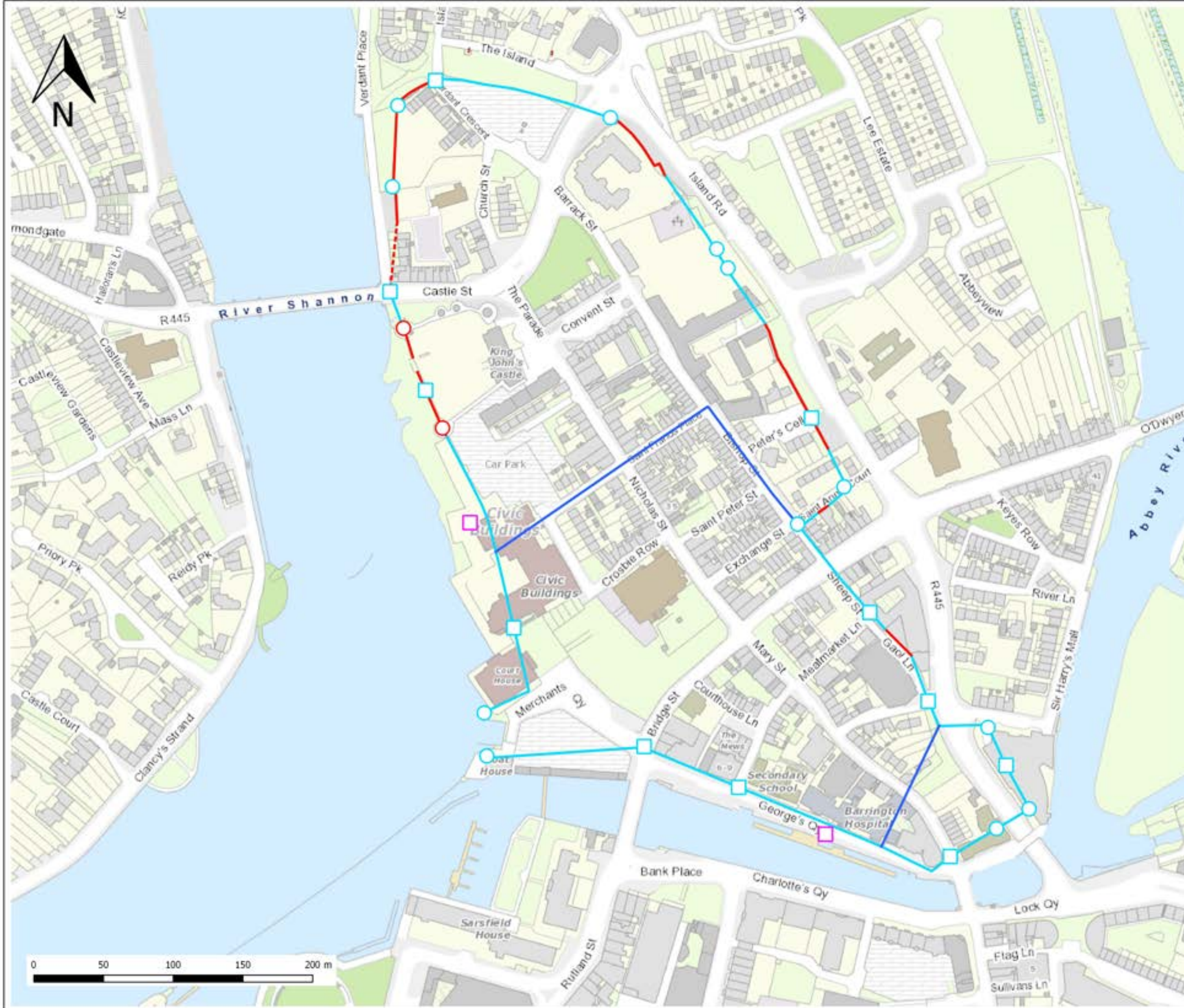
Drawing:
Appendix 2 Figure 4. Architectural Heritage Sheet 2 of 2

Rev: **A**

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 archaeological & environmental services

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 ballybrit business part
 galway

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Legend

- City Walls**
- Conjectural Line
 - Extant Wall
 - - - Query
 - Viking Wall
- Features**
- Extant Tower
 - Presumed Location of Gate
 - Presumed Location of Tower
 - Presumed Location of Mill

| Rev. | Notes / Changes | By |
|------|-----------------|----|
| | | |

Project:
15121 Kings Island FRS

Client:
Anup

Project Manager:
Billy Quinn

Prepared by:
N. Malcolm

Scale:
1:2,500 @ A3

Date:
November 2015

Drawing:
Appendix 2 Figure 5. Limerick City Walls
Conservation Management Plan (2008) Aegis & ACP
Consultants. Rev: A

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archaeological & environmental services

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web: www.mooregroup.ie

C.4 Ministerial Consent Application

Application for Ministerial Consent

under

National Monuments Act (2004 Amendment)

for

Site Investigations

at

Verdant Place, Limerick City

on behalf of

Limerick City & County Council

by

Sarah McCutcheon

Executive Archaeologist





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

FORM NMS 5 – 06

APPLICATION FOR CONSENT

Section 14 of the National Monuments Act 1930 (as amended)

Applicant

Name: Sarah McCutcheon
Address: Limerick City & County Council
Dooradoyle
Co. Limerick

Telephone: (061) 496573 (087) 2941601 Email: sarah.mccutcheon@limerick.ie

Director of Services/Authorised Officer: Kieran Lehane

National Monument

RMP No.: LI005-017 (LI005-017010 www.archaeology.ie)
Name of Monument: Town Defences
Location (Townland/County): King's Island, Limerick City
National Grid Reference: ITM 557634/657862

Owner Details

(Complete as appropriate)

Local Authority

Name: Limerick City & County Council
Address: Merchant's Quay
Limerick
Telephone: (061) 407100 Email: customerservices@limerick.ie

Director of Services/Authorised Officer: Kieran Lehane

Works

Purpose of Proposed Works:

The proposed design of flood defences at Verdant Place is the heightening of the existing quay wall. In order to establish if this is feasible site investigations are required, to determine ground conditions behind the quay wall and to establish the depth to bedrock. There is a multiplicity of services, including a gas-main, within the site therefore there are existing constraints on the location of the boreholes.

Description of Proposed Works: Location map attached

The site investigations will consist of 4 cable percussive boreholes 5-8m below ground level, at the same location 4 rotary coreholes 10-13m below ground level, 2 groundwater monitoring installations, a slit trench, surface geophysics behind the quay wall and ground penetrating radar at 50m centres down the riverside of the quay wall. Descriptions of site investigation techniques attached. The works will be archaeologically monitored.

Items to be included

Please ensure 2 copies of all documentation including the following items are enclosed with your application:

- ◆ OS Map showing location of site
Rural 1:5000/1:10000
Urban 1:1000
- ◆ Method Statement if archaeological excavation required (template attached)
- ◆ Letter from Local Authority (if applying on behalf of a Local Authority)
- ◆ Name and contact details of archaeologist/engineer preparing documents

The completed application form should be submitted to:

The Principal Officer
National Monuments Section
Department of Arts, Heritage & the Gaeltacht
Custom House
Dublin 1

Background:

Limerick City and County Council (LC&CC) have commissioned a project to develop a flood relief scheme for King's Island, Limerick City (**Figure 1**). Verdant Place has been selected as the first phase of this scheme. The Investigation is being advanced by LC&CC in accordance with their powers under Section 4 (3) of the Arterial Drainage Act, 1945 (S.I. No. 3, 1945).

The receiving environment: (Plates 1-12)

The area of the investigation is located on the west side of King's Island, in Limerick City Centre. The site comprises a 220m length of road, approximately 7 to 10 m wide, bounded on the west by the River Shannon and the east by pavement and some grass areas. The site is narrow and restricted. The site runs from the junction between Thomond Bridge, Castle Street and Verdant Place at the south to the King's Island Community Crèche at the north of Verdant Place. An aerial view of the site is shown in **Figure 2**. The existing ground level of the site area has a very gentle gradient sloping towards the north, from about +6 m O.D. at the entrance to Verdant Place in the south to about +4m O.D. in the north. The entrance to the site is at a two-way junction with Thomond Bridge and Castle Street. A low quay wall borders the site on the west.

Proposed Works

The works are intended to provide information in respect of the soil and rock ground conditions and groundwater levels for Verdant Place to inform the preliminary design of flood defence options for the proposed scheme. The geometry and inspection of the existing quay walls is also to be investigated. Works will consist of the drilling of boreholes and rotary core holes, a slit trench, in-situ testing (SPT's, Permeability Tests), soil and rock sampling, groundwater monitoring and surface geophysics. The location of the intrusive works, bore/coreholes and the slit trench are shown on **Figure 3**.

The scope of the site investigation will generally comprise the following:

- 4 No. Cable Percussive Boreholes to 5m depth
- 4 No. Rotary Coreholes to 10m depth or 5m into competent bedrock. The rotary coreholes to be undertaken in the same hole as the cable percussive borehole

- Inspection pits at each borehole location, to be excavated by hand to 1.2m below ground level prior to rig set up to check for services.
- 1 slit trench across width of the road to locate and record the exact location of services.
- Surface Geophysics (geophysical lines behind the quay wall at road level) (2D resistivity 220m and seismic refraction 220m).

The objectives of the 2-D resistivity and seismic refraction survey is to provide information on the material behind the quay wall and identify the depth to bedrock. The survey information will be used in conjunction with the invasive exploratory holes to create a model of the ground conditions adjacent to the quay wall for future quay wall design.

Historic Background: Figures: 4-9

The present city owes its origin to the Norse King Tarmac Mac Ailche, who landed on King's Island in 922 and established the city on the island (Bradley 1989, 242). A description in the Cogadh Gaedhel (963 AD) of the capture of the city by Machgamain Mac Cenntig, tells that there were streets and a fort well established even at this early date (ibid, 247). At the time of the Anglo-Norman invasion of 1175, it was described as being 'environed with a foul and deep ditch, with running water, not to be passed over without boats, but at one ford only' (Thomas 1992, Vol. II 144). The Viking fort was incorporated into the Norman castle as it held a prime location overlooking the river and surrounding countryside. The castle acted as a centre in which the Normans were able to gradually enlarge the town and extend the existing walls. Contemporary maps (1590, 1611 and 1691) show the walls with towers situated generally at the corners. There were 15 towers and 11 gates in the original city on King's Island, which became known as 'English town'. The dismantling of the walls was undertaken in the eighteenth century with a view to opening up the city for economic growth and prosperity. In 1721 an act was passed to encourage further land reclamation. Canals, roads and quays were constructed outside the city walls. Verdant Place was known as Franklin's Quay in 1799 and 1840.

Archaeological Background:

see attached extract from Limerick City Walls Conservation & Management Plan

Bibliography:

Bradley, J., Halpin, A. & King, H. A. 1989 *The urban archaeology survey: Part XVII (i-iii) County Limerick*, Office of Public Works (unpublished).

Thomas, A. 2006 *The walled towns of Ireland*, Vols. 1&2, Dublin.

King's Island, Limerick Flood Relief Scheme

Figure 1:
Outline of overall scheme



King's Island Limerick, Flood Relief Scheme

Figure 2:
Aerial view with site outlined in red
(Bing Maps © 2015 Microsoft Corporation © 2015)

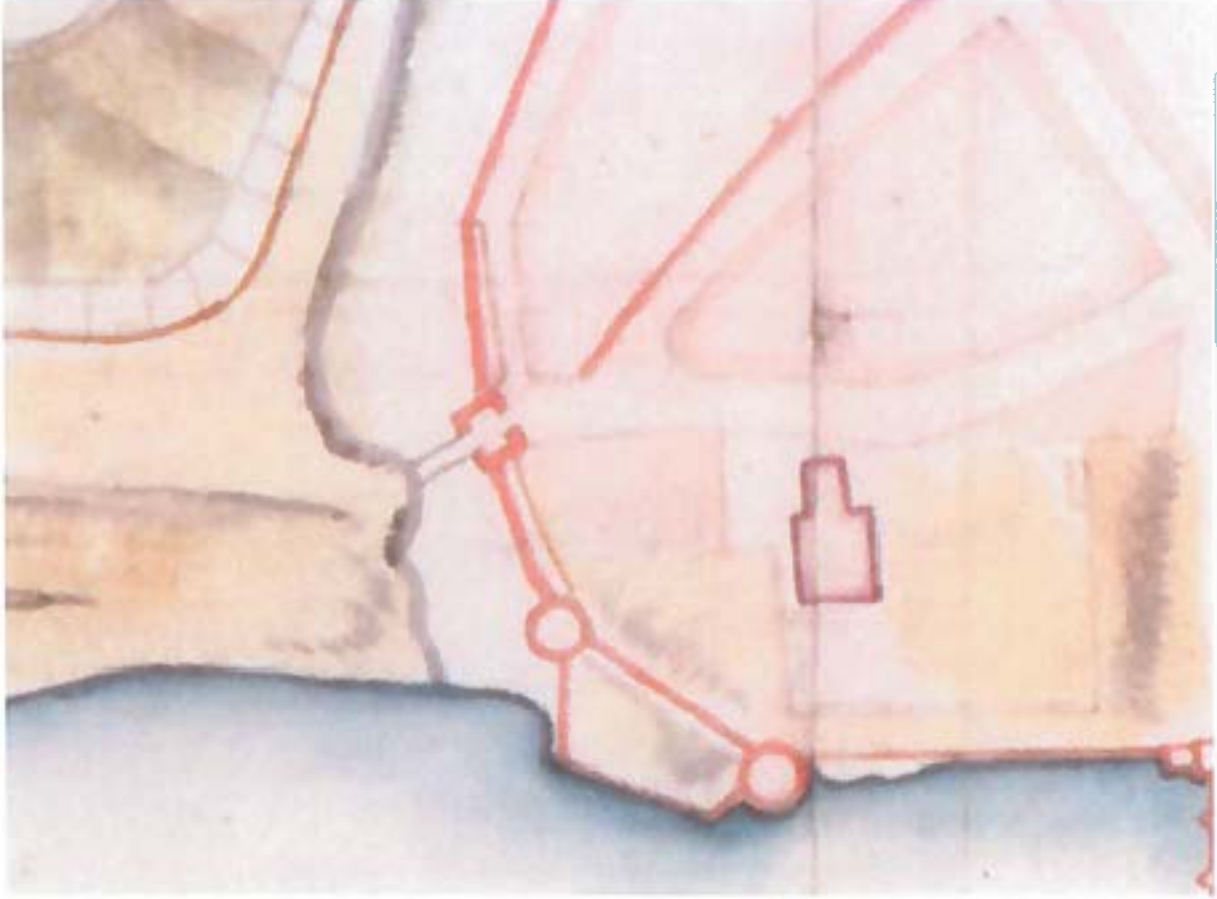




King's Island, Limerick Flood Relief Scheme

Figure 4:

Extract from c. 1590 Hardiman
O'Flaherty, E. 2010 No. 21 Limerick, *Irish
Historic Towns Atlas*, Royal Irish Academy



King's Island, Limerick Flood Relief Scheme

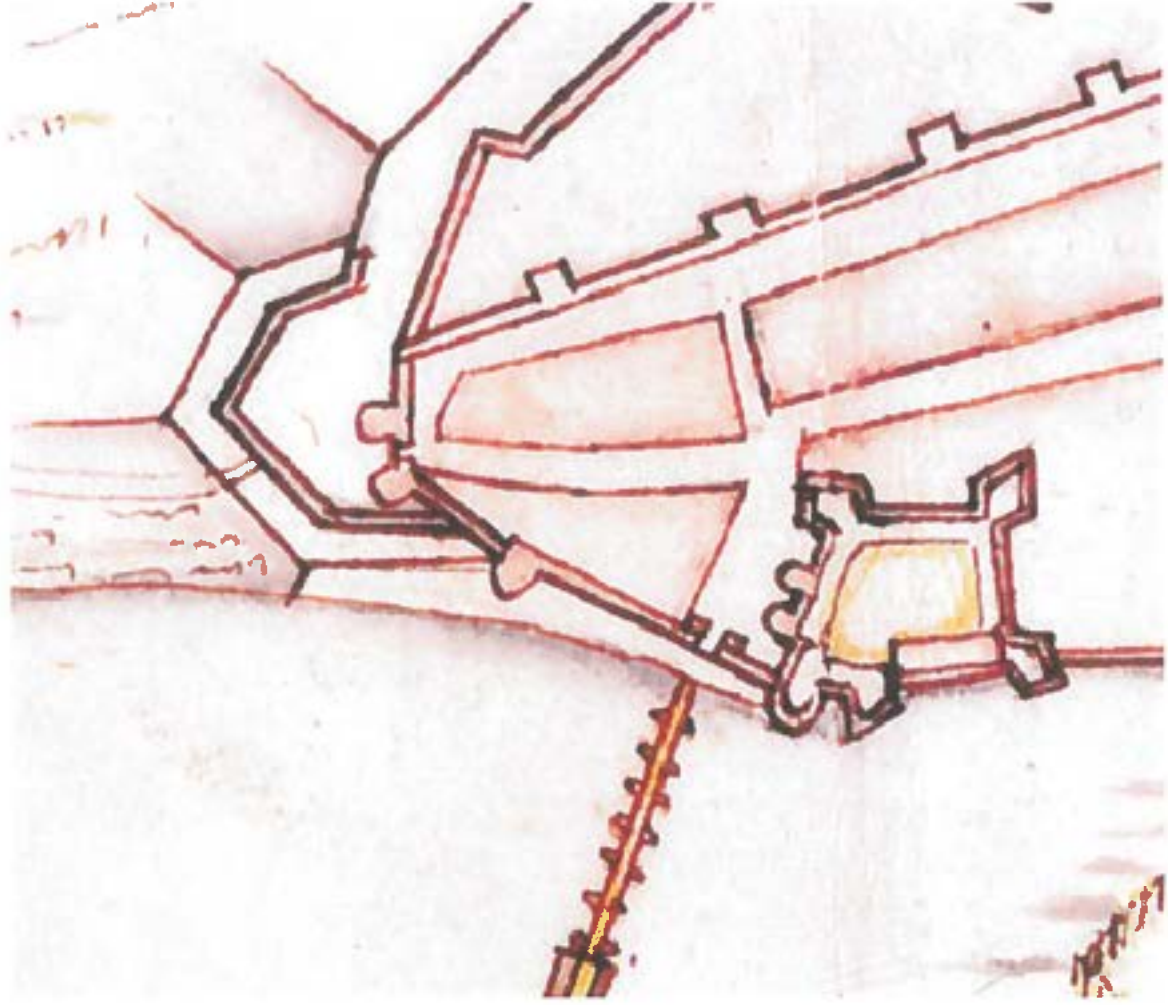
Figure 5:

Extract from 1685 Thomas Phillip's map
O'Flaherty, E. 2010 No. 21 Limerick, *Irish
Historic Towns Atlas*, Royal Irish Academy

King's Island, Limerick Flood Relief Scheme

Figure 6:

Extract from 1690 Jean Goubet
O'Flaherty, E. 2010 No. 21 Limerick, *Irish
Historic Towns Atlas*, Royal Irish Academy

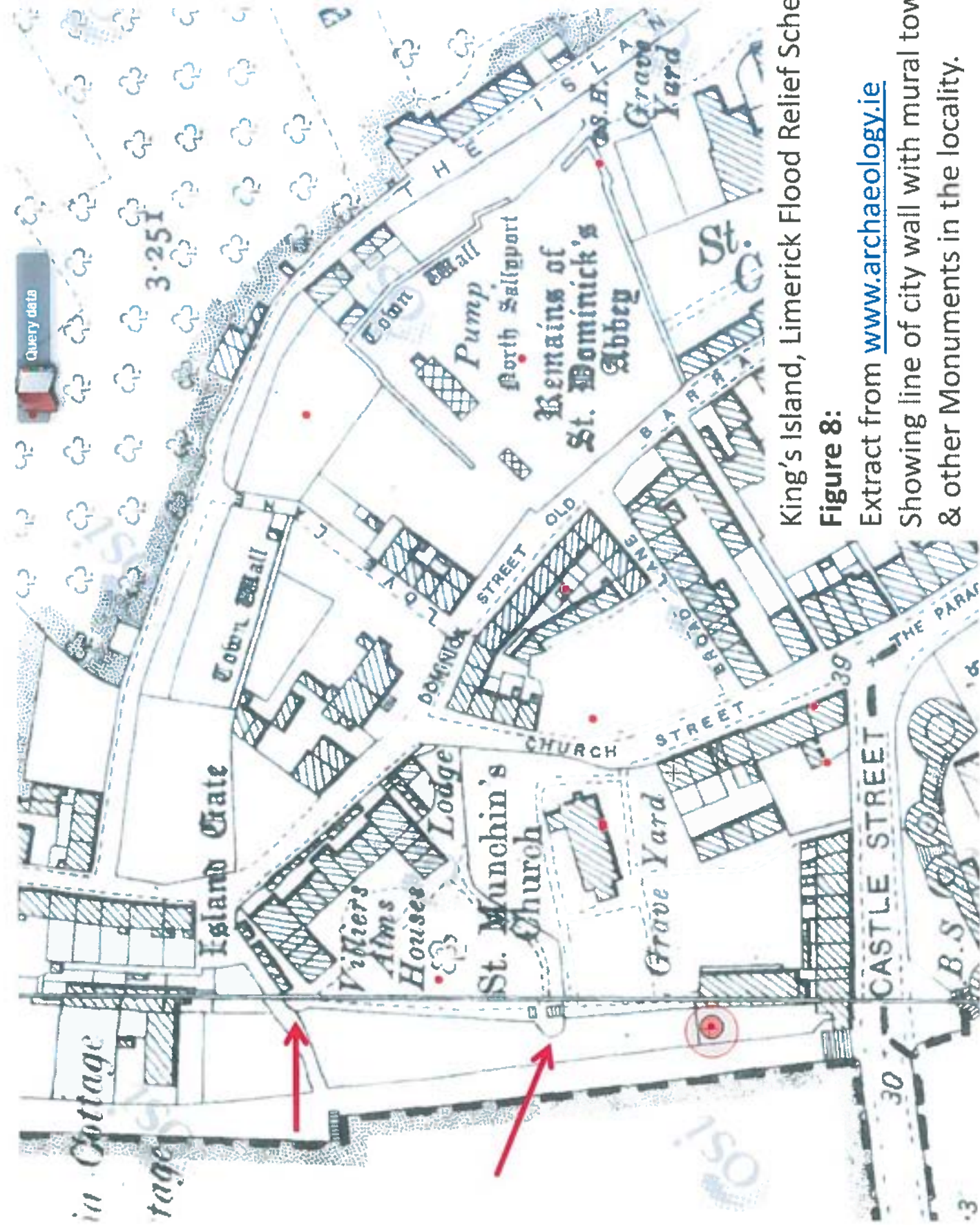




King's Island, Limerick Flood Relief Scheme

Figure 7:

Extract from 1752 William Eyres
O'Flaherty, E. 2010 No. 21 Limerick, *Irish
Historic Towns Atlas*, Royal Irish Academy



King's Island, Limerick Flood Relief Scheme
Figure 8:

Extract from www.archaeology.ie

Showing line of city wall with mural towers
& other Monuments in the locality.



King's Island, Limerick Flood Relief Scheme
Figure 9:
Extract from the 1st edition OS Prior to the
construction of the King's Island
Embankment 1848

King's Island, Limerick Flood Relief Scheme

Plate 1:

Stone to commemorate construction of the Public Walk to the King's Island Embankment 1848



King's Island, Limerick Flood Relief Scheme

Plate 2:

View from W along N line of city defences



King's Island, Limerick Flood Relief Scheme

Plates 3 & 4:

View south and view north



King's Island, Limerick Flood Relief Scheme

Plate 5:

NW return of line of City Wall



King's Island, Limerick Flood Relief Scheme

Plate 6: View N along line of City Wall
from mural tower



Plate 7: View S along line of City Wall
to N side of mural tower

King's Island, Limerick Flood Relief Scheme



Plate 9: View S along line of City Wall toward Thomond Bridge

Plate 8: View N along line of City Wall to S side of mural tower



King's Island, Limerick Flood Relief Scheme

Plate 10: View of quay wall from Thomond Bridge



King's Island, Limerick Flood Relief Scheme

Plate 11: View from N of junction with Thomond Bridge & Castle Street
Location of slit trench



King's Island, Limerick Flood Relief Scheme

Plate 12: Junction with Thomond Bridge & Castle Street from W showing relationship to King John's Castle





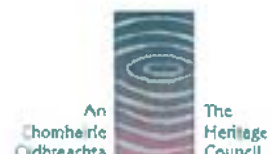
Limerick City Walls Conservation & Management Plan

By
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Report Prepared for:
Limerick City Council
and The Heritage Council

May 2008



3.1.1 Verdant Place Stretch (*extant*)

RPS Number: RPS074- City Wall



Fig 3.2. Aerial photo and maps highlighting the Verdant Place Stretch

Urban Archaeology Survey (Bradley *et al*, 1989) outlines this stretch as follows:

From the north west of tower of King John's Castle the wall ran northward to Thomond Gate, no fragment of this short section survives. Thomond and Bridge Gates: Philips' view shows a square tower while the *Pacata Hibernia* view and Speed's map (1610) show rectangular towers at either end of the bridge. The Bridge Gate, indicated on the O.S. map as "Thomond Gate" appears to have stood on the west bank of the Shannon, while Thomond Gate itself stood on the east side (Leask 1941). The wall immediately north of Castle St is missing but the section along the graveyard is intact and consists of medium sized blocks of very roughly dressed limestone roughly coursed. The wall probably also survives in the houses numbered 1-4 Verdant Place as their west walls display a definite, though slight, external batter. Five metres north of these buildings the wall is stepped back and the angle thus formed has dressed limestone quoins. About 15m north of this is a semi-circular mural tower. The wall between Castle St and this tower is c.5.10m high externally and at least 1.05m thick; internally, however, the ground is almost level with the top of the wall.

Tower 1

This has an external diameter of 6.3m (N-S). The walls are 3.8m high externally but internally the ground level is built up leaving only a wall 1m high and 55cm thick which is probably modern above ground. No internal or external features are visible. North of this tower there is a wall c.2.5m high above external ground level which retains the gardens of the Villiers Alms Houses. This wall seems to be modern but almost certainly follows the line of, and may well incorporate parts of, the

original town wall. Some 45m north of the first tower is another mural tower forming the north-west angle of the town defences.

Tower 2

This was probably semi-circular but the north end is missing. It has an external diameter of 6.5m. The walls are 4.8m high externally and 2.10m internally. A ledge (possible wall-walk) 90cm wide occurs c.1m above ground level internally and may be original. A long arrow loop (now blocked) facing north-west is visible externally; others may be obscured by ivy. The wall running north east from this tower towards Dominick St is modern.

The extant portion of the City Wall runs along this stretch at Verdant Place which is situated along the strand of the Shannon River and with the Island Gate directly to the north east of this stretch. The inspection of the City Wall at this point has been broken down into sections, A, B, C and D for ease of recording (fig.3.2; plates 3.1, 3.23).

Ecology (Ruth Minogue)

This stretch of the walls is close to the River Shannon and is adjoined by flagstones and a narrow stretch of (enclosed) grassland now overgrown with ruderals. Within the fenced section there is also a number of small pollarded trees. On the wall itself there are some dense patches of ivy (*Hedera helix*) and red valerian (*Centranthus ruber*), typical species of stone walls. Whilst the walls here may not be of high ecological value, the adjoining grassland, trees and overgrown section may be an important refuge for flora and fauna particularly as this stretch backs onto the large open grounds of Villier's.

(A). North of Verdant Place along west side of St Munchin's graveyard, running north-south, beginning at north gable of no.4 Verdant Place and terminating at south side of Tower 1

Wall exterior:

Height: 6.50m

Length: 28.37m

Thickness: 0.87m at south end tapering to 0.40m at north end adjoining Tower 1.

Wall interior:

Height: 1.10m

The houses numbered 1-4 Verdant Place, running along the southern end of this stretch could not be accessed for interior inspection at the time of study. There is a query regarding their rear and front walls, and perhaps either could be the City Wall. It is difficult to suggest whether the City Wall is the rear or front walls (or indeed neither) as the walls cannot be inspected properly. Leask (1941, 98) states that '... the existing houses (Verdant Place) at its southern end possibly incorporate older work in their front walls' and it is also suggested by the *Urban Archaeology Survey* (Bradley *et al.* 1989) as 'the wall probably also survives in the houses numbered 1-4 Verdant Place as their west walls display a definite, though slight, external batter'. Further research has shown the *Pacata Hibernia* (1590, see section 2) shows a possible structure at this site and an undated postcard (coloured photo) shows an early nineteenth century mill, which was demolished within living memory, at this location. The walls of these structures could have been used in the building of these houses.

It was not possible to inspect the façade wall as they are rendered and painted. However the rear revetment wall on west side of St Munchin's graveyard, running north-south, situated along the back of abandoned houses facing onto Verdant Place was inspected along its upper portions. The interior wall height (from graveyard) 1.15m on the front face with a second wall directly behind, is 1.80m in height; the length is 20.24m and an average thickness of 1.10m. These walls are clearly two separate walls orientated north-south and running directly parallel to each other. The walls are divided by a gap no more than 0.10m wide. The inner wall is of coursed limestone rubble with joints bound with a gitty lime mortar. The wall has been re-pointed in places with a modern cement mortar and contains frequent inclusions of re-used red brick. The inner wall appears to have been built later than the outer wall and also after than an adjacent nineteenth-century mausoleum in the graveyard. Three cottages and a two-storey house to the northern end (1-4 Verdant Place) of the terrace are located on the western face of this wall. Prior to the construction of these cottages, a mill building stood on their footprint. The double-wall arrangement noted from within St Munchin's graveyard might suggest the City Wall ran to the rear, although no medieval fabric could be positively identified. The thickness of the wall at this point (1.10m) might suggest a medieval date. Further circumstantial evidence in the form of the structures facing onto Castle Street to the west of the perceived line of the City Wall at this point differ in render and construction to those to the east of the perceived line (Hodkinson *pers comm.*). The northwest tower of the Castle does not shed any light on the line of the City wall at this point as it has been extensively cleaned and repaired over the centuries so that no building scars remain. There is no evidence of the gate on the eastern end of Thomond Bridge. The current bridge marks the location of the original medieval bridge and is nineteenth century in date (Hodkinson 2005a). Therefore one cannot be emphatic that this portion of stretch A at Verdant Place is a section of the City Wall.

The northern portion of stretch A at Verdant Place is situated to the north 1-4 Verdant Place and south of Tower 1. In the late 1980s restoration works were carried out on this stretch by Limerick Civic Trust. At the southern end of this portion of wall, the outer west face of the wall projects out 0.70m for c.5m from the northern end of Verdant Place and is dressed with stressed limestone quoins on the projecting corner. The wall fabric is made of roughly coursed limestone rubble. The joints are filled, in most places, with modern cement mortar containing grit, in imitation of the original gritty lime mortar. Some areas of the wall seem to be decaying and vegetation cover is visible in places. A portion of the wall looks like a nineteenth century addition to the original wall, perhaps associated with the mill structure, although a function for this facing could not be positively established. The interior, east face of the wall is of course rough limestone rubble and is capped with earlier limestone blocks, where it can be inspected from within the graveyard. It is suggested that this wall is of original medieval fabric for the most part.

(B). Tower 1- Situated north of Verdant Place and west of Villiers Alms House Lawn

Height: 1.15m interior, 3.50m exterior

Length: 5.10m

Thickness: 0.45-0.60m average

The tower projects west from the wall running north from Verdant Place. The tower is 'D-shaped', open on the east side and the interior of tower is a private lawn area. Some vegetation growth (not much) partially covers the top of the wall, which is capped with concrete. The interior face is of roughly uncoursed squared limestone blocks with one fragment of sandstone set into the wall on the south side. The joints are of gritty lime mortar, re-pointed in places with modern cement. There is a stress fracture (crack) visible on the exterior of the southern side of the tower. Some nineteenth century fabric (cut limestone block) is visible on the top of the southern wall, exterior only. The tower's south wall is securely tied into the adjacent wall. No features visible on the tower's walls.

The wall extending from the north side of the tower is 0.70m thick and the maximum height is 1.80m. The wall terminates c. 2.40m from the north side of the tower, where it becomes a later constructed revetment wall and retains the garden of Villiers Almshouses gardens, 52m in length, continuing to the north, where it joins the south wall of Tower 2. The *Urban Archaeology Survey* (Bradley *et al.* 1989) states that the revetment wall is a modern addition that possibly runs along the line of the original town wall. Limerick Civic Trust sponsored an archaeological investigation to locate the original connecting wall between the two towers. This work undertaken by O Rahilly (code KJ2/E433, no date) located a subsurface wall, in Villiers Almshouses garden to the east of the modern revetment wall, 4.3m in length and 2.4m thickness, which was identified at that time as the City Wall. This would suggest therefore, the two towers at Verdant Place projected much further beyond the line of the City Wall and were "D"-shaped in plan and that the revetment garden wall does not hold the line of the medieval City Wall, but is some distance to the west of it. This tower is medieval in date.

(C). Tower 2- Situated northwest of Villiers Alms House Lawn and east of Verdant Place

Height: 2.10m interior, 6m approx. exterior

Length: 4m

Thickness: Base 1.20m, Upper 0.70m approx on the interior.

The tower is D-shaped, visible as a simple curve in the City Wall from the exterior. The wall of the tower on the interior is thicker near current ground level than near its top. This may be the remains of a parapet and wall walk around the top of the tower. This portion of the tower is now concreted. The *Urban Archaeology Survey* (Bradley *et al.* 1989) also views the "ledge" as a possible walkway and may be original. The exterior face wall of the tower is of roughly coursed limestone rubble with coarse mortared joints, the majority of the wall re-pointed with modern cement. A splayed single rectangular light, seen as a gun port, height 1m and 0.10cm in width, is positioned close to exterior ground level on the south side of the tower. The light is located to the east of the joint of the north-south orientated revetment wall and the south wall of the tower. The interior of the light is blocked. A few fragments of red brick have been inserted into the exterior face of the wall on the north side, though these are clearly later additions. The tower wall is of roughly coursed limestone rubble and is pointed with modern cement throughout. The majority of this tower is original medieval fabric.

(D). Wall situated northwest of Villiers Alms Houses and east of Verdant Place

Height: 2.10m on the interior to 5m on the exterior side of wall.

Length: 27.38 m

Thickness: 2m

The Villiers Almshouses section (in particular the sheds to the rear of the houses) follows the line of the previous medieval city wall, which is visible on the cartographic detail and this wall clearly dates to a possible early nineteenth century date. This section continues in a northwest to northeast direction. The wall is of coursed square limestone rubble, bounded and capped in areas with gummy mortar and has been re-pointed with modern cement. Domestic sheds have been built against the interior of this wall and runs continuously along this section. It is likely, bearing in mind the projecting D-shaped tower that the true line of the medieval City Wall at this point is under the sheds which abut the extant wall on its interior. There is a clear "build-line" between tower 2 and this wall, showing it to be a later addition. No visible features on wall.

Apart from the archaeological works undertaken in the gardens of the almshouses, other investigations were carried on in this locality as part of the Limerick Main Drainage Scheme (*Excavations* 1998 and various).

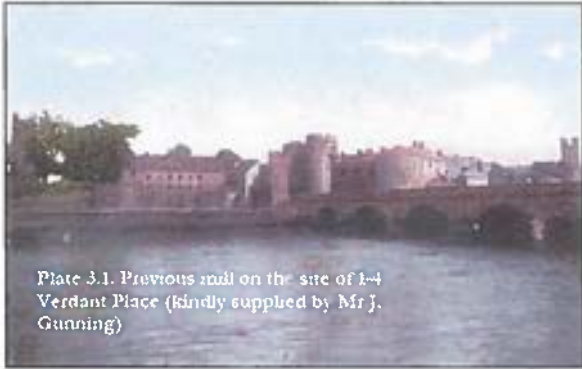


Plate 3.1. Previous mill on the site of 1-4 Verdant Place (kindly supplied by Mr J. Gunning)



Plate 3.2. Verdant Place from southwest



Plate 3.3. Verdant Place, extra facing added to City Wall, from west



Plate 3.4. Verdant Place extra facing, from northeast



Plate 3.5 "Double" Wall to rear of Verdant Place, viewed from St Munchin's graveyard



Plate 3.6. View of upper portion of City Wall from north, in St Munchin's Graveyard



Plate 3.7. Exterior of tower 1, from southwest

3.1.2 Island Gate Stretch (*not extant*)

Urban Archaeological Survey (Bradley *et al.* 1989)

This gate stood where Dominick St. met the City Wall. It was a rectangular structure with a small turret (Leask 1941, 98). It is shown on the maps of 1590 (TCD), 1690-91 (French) and 1691 (French B.M) as a square or rectangular tower. The 1590 map seems to show a projecting turret. The next section of the wall which ran parallel to Island Road from Island gate is missing. A fosse appears to be indicated on the 1590 map between Island Gate and Peter's Cell. The present Island Road presumably runs just outside the line of this fosse.

Leask records the following for this stretch, 'The wall [along Verdant stretch] turned to the east here for about a hundred feet where stood the Island Gate at the point where old Dominick Street met the city wall. The French map shows the Island Gate as a rectangular building or tower (as also does the map of 1590, but with a small turret). (Leask suggests the gate is similar to surviving gate at Kilmallock). From this point for a distance of over 400 feet the wall has disappeared.' (Leask 1941).

The Island Gate stretch is situated northeast of Verdant Place Stretch and northwest of Island Road. Leask (1941, 98) additionally notes that the maps of *Pacata Hibernia* (1590) and the French map differ in detail, the gate was a rectangular building or tower on the latter, but the map of 1590 it is shown with a small turret in place. It provided the northern access to the medieval town of Limerick from the northern portion of King's Island (plates 3.24 and 3.25). 'The map of 1590 shows a water-filled fosse or ditch outside the whole length of the walls from Island Gate to the angle tower of Peter's Cell' (Leask 1941, 100) but is described as earthworks on the French map (1691). Work by Hodgkinson for the proposed Northern Relief Road (*Excavations* 1995, No.181) had found remains of the City Wall on the south of this site and which was approximately 9m in length. A robbed north portion of the City Wall, 8m in length, joined the north and south section together. The walls turned in tight angles and are seen to be related to the tower. Archaeological work by O Rahilly discovered a ditch interpreted as being medieval in date at the "Orchard" site, (currently a surface car park), which lies southeast of Island Gate (*Excavations* 1998, No. 409). The ditch lay 3m from the City Wall and is interpreted as the ditch shown on the 1590 map. No visible extant remains are *in-situ*, although the railings surrounding the car park southeast of Island Gate may show the true line of the City Wall at this location.



Plate 3.24. Location of Island Gate, from northwest



Plate 3.25. Possible line of City Wall (railing) viewed from northwest



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