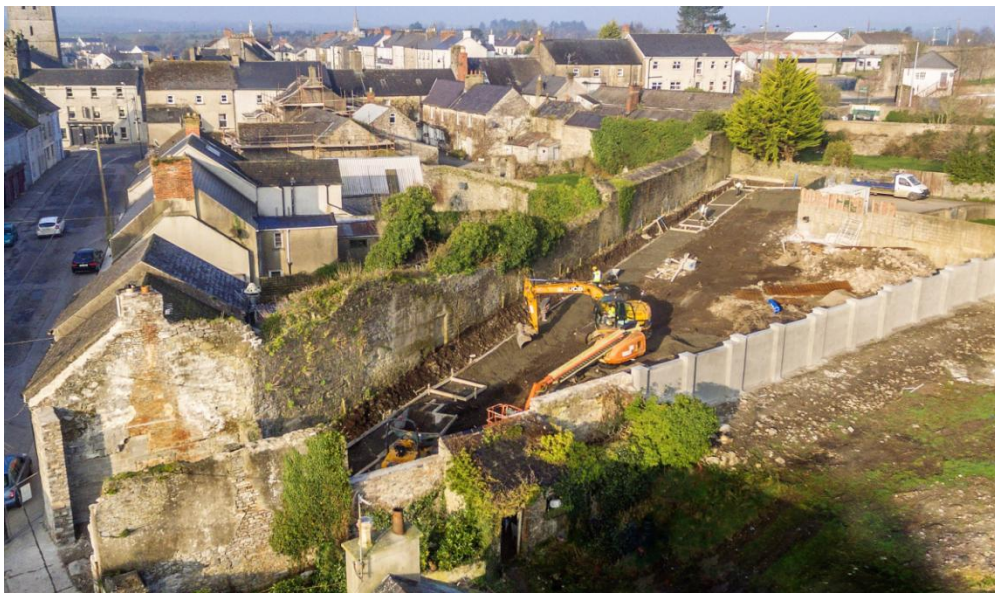




# Fethard Town Wall Capital Works 2019



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**FOR**

**TIPPERARY COUNTY COUNCIL**

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# Fethard Town Wall Capital Works 2019

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## Application for funding for Town Wall works for 2019

### 1. Introduction:

The Town Wall in Fethard survives as an almost complete circuit of the Town. Tipperary County Council is currently developing a new public park lands that adjoin the eastern part of the Town Wall at Burke St., Fethard. This park is intended to highlight and interpret a significant section of the wall that has been hitherto concealed from public view. It is anticipated that the park will be significantly completed in summer of 2019.

A section of Town Wall that adjoins the park is visibly in poor condition and in need of repair. This wall presents a risk to the general public of falling stone, in a location that will be open to public access as part of the development of the park.

The available budget for the park development is limited and will not cover the necessary repairs to the Town Wall.

Funding is sought under the **IWTN CONSERVATION/CAPITAL PROJECTS 2019** funding stream to undertake essential conservation repairs to this section of Fethard Town Wall.

### 2. Proposal in context:

Tipperary County Council is presently developing a landscaped park with public access (pedestrian only) on lands adjoining the east side of the Fethard Town Wall with main access from Burke St. Fig 1 shows the plans for the park. This new park will extend along the external face of the town wall. The park will be laid out as a landscaped amenity area with a combination of paving, gravel and raised beds.

The town wall section (45 metres long) that adjoins the park is unstable with loose stones in it's upper section that are at risk of falling. The wall is in need of repair and is visibly in poor condition. The photographs in this report show the structural and visual condition of the wall. Wall height is variable and ranges from 2.2 to 3 metres.

The works at the will involve removal of vegetation, stabilisation, raking out and re-pointing and flaunching of the wall head.

The works undertaken to date on the park has opened up views of a substantial section of Town Wall that was previously hidden from view. The development of

the park will greatly improve access to and the setting of the Town Wall. The works to date have included conservation of a section of wall at the park entrance from Burke St.



**Fig 1: Proposals for park at East Gate, Fethard**





Pic 1: Aerial view of section of wall where works are proposed (red line).



Pic 2: This photograph shows the southern part of the subject wall (northeast face), viewed from within the new park. There are areas of missing mortar, together with gaps and cavities associated with missing stones.





Pic 3: Detail of south part of subject wall (close to Burke Street). The haunching at the top of the wall has broken down with colonisation by buddleia and ivy. There are loose and unstable stones along the top of the wall.



Pic 4: Significant ivy growth and vegetation on upper part of wall. This vegetation threatens the fabric of the wall and is to be removed in tandem with the re-pointing and consolidation of the wall.





Pic 5: Location of earlier opening within the wall. The infill rubble within the wall was presented as a rougher finish than the dressed rubble of the main wall, during previous works carried out in 2009. There has been a loss of mortar and colonisation of the open joints with ivy within this infill masonry. The dressed stone, around the perimeter of the opening required consolidation.





Pic 6: General view showing the presentation of the town wall within the new park. The upper part of the wall has been colonised by heavy ivy growth, which has broken down the haunch and threatens the stability of the wall.



Pic 7: General view showing the presentation of the town wall within the new park (opposite direction to Pic. 6).





Pic 8: Section of wall at entrance to new park from Burke St. The gable wall and upper portion of the town wall have been partly conserved. There is a blockwork infill panel at the base of this wall, which will be finished with a lime harling as part of the proposed works.



Pic 9: Section of wall at entrance to new park from Burke St., with blockwork infill panel to be finished with a lime harling.



### 3. **Wall at East Gate Park – Scope of Work**

This application is for funding to carry out conservation and consolidation works to the section of Town Wall that adjoins the park that is under construction at Burke St, Fethard.

Conservation of this section of wall is urgently required, to facilitate safe public access to park and wall. This section of wall has heavy invasive vegetation growth and loose and unstable stones at high level; missing and loose stones in the face of the wall; and is visibly in much poorer condition in comparison to adjoining sections of the Town Wall in Fethard that have been previously conserved.

The development of the park has opened a previously hidden section of town wall to public view. The completion of the park will provide public access to a significant section of town wall. The Fethard Town Walls Conservation and Management Plan (CMP) (Oxford Archaeology, 2008) this section of walls as an 'important survival of a substantial and continuous part of the eastern Town Wall'.

The proposed works comprise:

- Removal and Treatment of Vegetation.
- Pointing and Raking-out
- Replacement of Missing Masonry
- Consolidation of masonry and creation of a haunch along the top of wall
- Lime harling finish to modern blockwork infill on (former) gable wall at entrance to park.

### 4. **Methodology:**

The works shall strictly follow the conservation architect's specification as noted below:

#### a) Scaffolding and access:

The contractor shall be responsible for the design and erection of scaffolding, which shall be put in place prior to the commencement of works. The scaffolding shall include designated work bays so that loose stone can be sorted and prepared prior to reinstatement, without being brought to ground.

#### b) Removal and Treatment of Vegetation:

In all cases where vegetation is to be removed, the contractor shall ensure that the visible leaves and concealed root are fully removed; and that any resulting gaps in the masonry are filled with lime mortar. Smaller leafy plants shall be treated with a biocide prior to removal. On larger more-established vegetation, the bark of the plant is to be stripped on the circumference of the plant (40mm high) at the point where the plant emerges from the wall. The exposed sapwood is to be treated with a biocide paste (e.g. 'Roundup' gel), covered with cling film and taped with duct tape. This will kill the plant from the root upwards within 4-6 weeks. Once the leaves have withered, the plant, including the root system, is to be carefully removed and the wall consolidated (see (c) below). Where it is not possible to fully remove the root system of an established plant (such as buddleia or ivy), the contractor shall review the situation with the conservation architect. The contractor is to take particular care to ensure that the biocide or contaminated run off is not allowed to enter the storm water drainage system.

c) Raking-out:

The existing pointing comprises lime mortar. The removal of mortar shall be limited to areas where the existing mortar is loose or friable. This work shall be carried out by a skilled stone mason, with previous experience of high quality conservation work, using hand tools. A trial area of mortar removal shall be carried out for review with the conservation architect at the outset. The existing mortar is to be raked out to 1.5 times the depth of the joint. Vegetation in the joints should be raked out and the joint treated with biocide.

d) Replacement of Missing Masonry

The introduction of infill stones shall be carried out using loose stones salvaged from the site, where possible. Where there is loose stone lying at the base of the walls, this stone is to be salvaged and laid-out stonework for possible reinstatement. Stones will be carefully selected to suit the size and shape of the gaps to be filled. Salvaged stone should not be cut to size, unless otherwise agreed in writing with the conservation architect. Smaller pockets and open joints should be packed-out with smaller stone gallets and pins (i.e. flat stones and long thin stones) so that the joints are tightly consolidated.

e) Re-pointing and Consolidation of Masonry

The objective is to consolidate the existing stone in-situ, not to re-build or recreate missing sections of wall. The open mortar joints are to be re-pointed using a lime-based mortar. The final mortar mix shall be informed by petrographic analysis of historic mortar from the Town Walls, to be carried out by a specialist stone and historic mortars consultant. Subject to the outcome of this analysis, the new re-pointing mortars to the rubble masonry will consist of a fine to medium-grained lime-based mortar mix, formulated for stone rubble fabric in a moderately exposed location, in a moderate to severe environment. Sands will be local, (a minimum of 5mm down) and primarily consist of local limestone. The sand used will comply with current standards including BS



1200, BS 882, BS 1200:1976, BS 4551-1:1998, BS EN 998-2:2002, and the European normative references EN 1015-1. All works will be carried out complying with BS 7913:1998 Guide to the Principles of the Conservation of Historic Buildings. The proposed lime mortar will comprise a mix of 2.5 parts aggregate to 1 part NHL2 lime. The work is to be carried out by operatives skilled in the use of lime mortars. The relevant contractor will provide details of the proposed operatives who will carry out the lime mortar repairs together with evidence of their previous experience on similar projects to the satisfaction of the conservation architect.

Prior to the application of mortar, the stone work will be wet down with a fine water mist using a hand sprayer in the first instant. The lime mortar will be trowelled into the joints. The contractor will use small stone gallets and pins (i.e. flat stones and long thin stones) to reduce the areas of mortar in large joints. These infill pieces will be tapped into place by hand. Any displaced mortar from the joints will be carefully removed using a trowel. The contractor will carry out re-pointing to a trial section of the wall at high level for agreement with the conservation architect before re-pointing elsewhere. This work will be programmed at an early stage in the contract in a location where repeat biocide treatments are not required.

The contractor will provide the conservation architect (on request) with samples of the lime mortar for testing. The purpose is to ascertain that the specified mix has been followed - the correct naturally hydraulic lime has been used; the aggregate is as specified; the proportions of the mix are correct; and no cement or other non-specified additives have been used.

The contractor will undertake grouting and deep tamping of existing open and dry joints, and voids revealed during removal of the flowering plants and failed stones. The grouting material will be lime-based with a suspension aid (such as bentonite). It is important that the final strength of the grout will not exceed that of the stone rubble masonry, that it be similar in permeability, low in shrinkage and have a good flow rate for effective penetration. The contractor is to provide details and data sheet for the proposed liquid grout (to include the lime and the suspension aid) to be reviewed by the conservation architect following petrographic analysis of a sample of the constituent stone. For pricing purposes allow for a cumulative total of 10 cubic metres of grout to be introduced in various locations as the works progress. Grouting of the core requires the incorporation of grout and bleed tubes at 1m centres, horizontally and vertically, to be carried out in tandem with the repointing. The introduction of grout may be based on the use of a hand-operated pump or under gravity; but shall not involve the use of a pressurised mechanically-pumped system.

f) Creation of a haunch along the top of wall

The top of all walls (i.e. all surfaces from 20 degrees slope to horizontal) will be finished with a “limecrete” haunch. This is a non-cementitious lime-based mix comprising 4 parts small-to-fine gravel (10mm down) to 1 part NHL 5 lime. The capping mix will be applied to create a rounded finish to the top of the wall, which will encourage water to rapidly run-off the top of the wall. The contractor is to ensure that all soil, dead vegetation and associated material is removed from the top of the wall prior to the formation of the haunch.

g) Lime render finish to modern blockwork infill on (former) gable wall at entrance to park.

The relevant sections of blockwork wall are to be replastered in a traditional lime render. All loose material is to be removed prior to plastering. The blockwork substrate is to be cleaned and dampened with a 1:20 solution of NHL 2: water; applied in two coats prior to applying the scud coat. The scud coat will comprise 9mm coat of 1 part NHL 3.5 (moderately hydraulic) lime and 1½ parts sharp sand, to be levelled out and comb scratched. When dry, apply further 9mm scratch coat of 1 part NHL 3.5 (moderately hydraulic) lime and 2 parts sharp sand, to be comb scratched. The finishing coat will comprise a 6 mm coat of 1 part NHL 3.5 (moderately hydraulic) lime and 2½ parts sharp sand. This final coat is to be worked with a trowel to provide a napped-type finish. Each plaster coat will contain fibre reinforcement to minimise the risk of shrinkage cracks opening up between the render and the surrounding stone. A neat junction is to be formed between the new lime render and the adjoining (unrendered) masonry. This detail will be reviewed and agreed with the conservation architect prior to commencement.

h) Completion

The Contractor shall leave the whole of the works clean and free from all rubbish and construction debris. In particular, the contractor shall clean down mortar staining from the masonry in preparation for a final inspection before scaffolding is removed. The Contractor shall facilitate the Conservation Architect to inspect the works as they progress and particularly on completion.

**5. Costing and Consents:**

Appendix A of this application includes a budget breakdown for the works prepared by Michael O’Boyle, Grade 1 Conservation Architect of Bluett & O’Donoghue Architects.

Ministerial consent was previously obtained for the works to repairs to the Town Walls in Fethard under Ref C443. Tipperary County Council will be applying to extend this consent to cover the proposed works.

**6. Conclusion:**

This grant application is made to the Heritage Council for funding for works under the **IWTN CONSERVATION/CAPITAL PROJECTS 2019** funding stream.

The application relates to essential conservation works required to prevent falling loose stones from the upper section of the wall and to improve the visual condition of the wall. The works will compliment the transformation of the adjoining lands into a public amenity and contribute to the conservation of a significant surviving section of the wall. This part of the wall will be open to public view and will make a significant contribution to the presentation of the near intact Fethard Town Wall Circuit.

This grant application is being made by Tipperary County Council in conjunction with the Fethard Town Wall Steering Committee.

The significant contribution made by the Heritage Council to projects in Fethard is acknowledged and appreciated.

**7. Contact Details:**

Queries may be directed to Jonathan Flood, District Planner Tel 0761065275 [jonathan.flood@tipperarycoco.ie](mailto:jonathan.flood@tipperarycoco.ie)

**Appendices:**

**Appendix A: Project Costs**

**Appendix B: Drawings of new public park (adjoining relevant section of the Town Wall)**

**Appendix C: Relevant extracts from the Fethard Town Wall Conservation & Management Plan 2008.**

**Appendix D: Relevant extracts from the Public Realm Plan for the Historic Town of Fethard, 2008.**

**Appendix E: Ministerial Consent**





## Appendix A: Project Costs

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<b>Item</b>	<b>Cost (Excluding VAT)</b>
Scaffolding	€1,850.00
Removal and Treatment of Vegetation.	€3,500.00
Raking Out of loose and friable mortar	€3,700.00
Salvage and sorting of dislodged stones on site; Replacement of Missing Masonry	€2,800.00
Re-pointing and Consolidation of Masonry	€7,200.00
Creation of a haunch along the top of wall	€3,500.00
Lime harling finish to modern blockwork infill on (former) gable wall at entrance to park.	€1,800.00
Completions/Finishing Out	€1,500.00
Contingency	€1,600.00
Professional Fees	€3,200.00
<b>Total Cost Estimate (excluding VAT)</b>	<b>€30,650.00</b>

Note:

The above budget cost plan is based on the conservation methodology outlined under Section 4 of this application submission.







## Appendix C: Relevant extracts from the Fethard Town Wall Conservation & Management Plan 2008.

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Gazetteer

2.27

*FETHARD TOWN WALLS*  
2 The Defence

*Wall to the north of Gen.  
Thomas F. Burke Street*

### **Description [Exterior Fig 22]**

This is the first length of wall running north from the lost east gate, running north for a short length and then turning towards the north-west and Barrack Street. The wall construction is of the usual Fethard town wall type and the ruins of a house, which fronted onto the Street and were built against the wall using it as the western wall of the house, still stand. The outline of the house and changes made by two fireplaces, a brick chimney, holes for floor joists and breeze block alterations as well as plastering are evident in the Town Wall.

### **Significance**

Part of a near-complete circuit of medieval town walls of Fethard. This section of wall is the only remaining standing part adjacent to the East Gate, and together with the section of wall adjoining to the north-west it forms a continuous piece of the eastern town wall.

### **Condition**

Exterior – Fair

This section of walls forms the gable wall of a ruin facing onto Burke Street and could possibly have been part of a gatehouse in the past. Much of the facing has been knocked away to form two fireplaces and a chimney which was built in red brick. Large areas of the wall are still obscured by plaster and there is a wood and plaster unit built into at the base next to the fireplace. Large cavities in the wall are visible around these fireplaces. A section of the wall at the base has been rebuilt with concrete breeze blocks. The ground in this area is very uneven and dangerous with piles of debris and an open sewer. Clearance of this area and an archaeological investigation may be necessary.

### **Issues/vulnerability**

- The alterations caused by the house which was built onto the eastern (external) side of the wall need to be rectified.
- The land on the external side of the wall is in County Council ownership and so potentially accessible by the public.
- The ground to the exterior of the wall needs to be cleared of rubbish.
- This section of wall, along with the next section (2.28), could be opened to the public so

that the full extent of the remains of the eastern wall can be viewed.

- The wall could be further revealed by removal of plaster and careful repointing.



Gazetteer 2.28

FETHARD TOWN WALLS  
2 The Defences

*East Wall, south of  
Barrack Street*

### **Description [Exterior Fig 22; Interior Fig 8]**

This section runs to the north-west towards Barrack Street continuing from the short piece of wall at Burke Street (2.27), which it joins at an angle and continuing towards the northwest (2.29).

This section of wall is mainly of the usual Fethard construction incorporating later features and in places the interior rough stone core of the wall has been exposed. The height of the section varies, partly as a result of different land ownership internally, and part of the parapet of the wall survives at the south end. Incorporated within the exterior side of the wall towards the southern end are a concrete doorway or recess and a blocked stone arch opening. A small stone lean-to building abuts the wall at the northern end. The top of the wall at the centre of this section has been concreted and slopes at a slight angle to the north-east (exterior).

The land to the south-west (interior) side of the wall is divided into several private properties with gardens leading up to the wall. The land to the north-east (exterior) of the wall is currently an open area of rough ground and the land slopes upwards to the northwest with the wall following the slope. On the interior side of the section the remains of an end wall of a building, erected against the Town Wall is visible, and midway along this side, within a private garden, a small grotto has been built into the wall.

### **Significance**

Part of a near-complete circuit of medieval town walls of Fethard, and an important survival of a substantial and continuous part of the eastern Town Wall. Together with 2.27 it forms that part of the wall which incorporated the eastern entrance into Fethard town. It is also the only part of the 14th century Town Wall not included within the recent restoration project which included the south part of the Town Wall..

### **Condition**

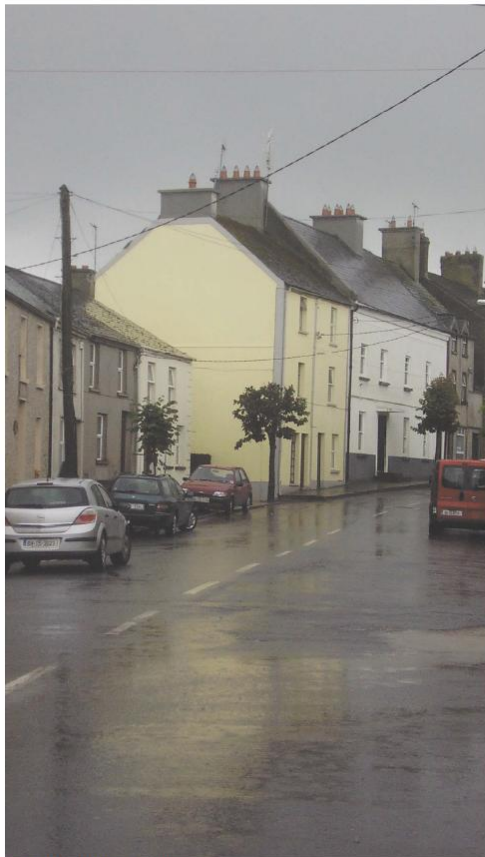
Exterior – Fair. The wall has recently been cleared of ivy and creeper, but some plant growth remains.

- Immediately north of F 2. 27, there are there is a large cavity and an area of concrete patching. Further up, a large area has been plastered with concrete (approx 6m x 3m). There is a doorway recess within this and large piles of debris (including stones) against the wall. To the right of this there is another cavity which has been partially repaired with concrete and an area of patching with stone and cement. Towards the centre of F 2.28, on what appears to be part of a parapet or a dividing wall, there is a small cavity high up in the wall which is quite deep.
- On the northern half of F 2.28, there are two large cavities running along the base of the wall where rubble and mortar interior are very loose. It is approximately 0.7m deep in places. There is extensive ivy growth over parts of these cavities which appear to be holding rubble in. It is questionable as to how stable these parts of the wall are as the cavities appear in the survey that was carried out in 1994.
- The top of the wall is covered in dense ivy roots which obscure its condition and also the construction of the wall, though it is clear that some lengths have been capped with cement. It is necessary that this is investigated further to see where ivy can be removed safely and which areas are in need of repair. It is also necessary that the area around the wall is cleared and an archaeological investigation is carried out to retrieve lost masonry. Removal of concrete and cement patching should be carried out before cavities are repaired.

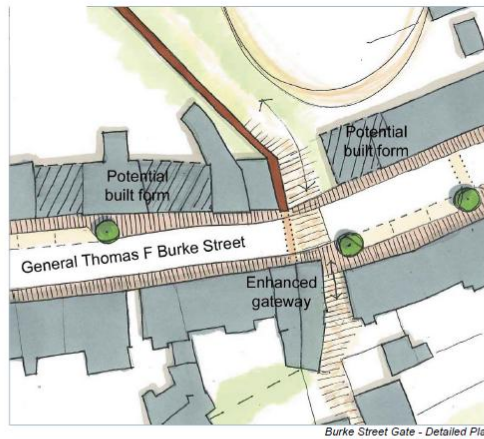


# Appendix D: Relevant extracts from the PUBLIC REALM PLAN for the Historic Walled Town of Fethard 2008.

Extract from page 40 and 47 of Public Realm Plan outlining proposals Gateway Masterplan proposals to lands adjoining the walls at Burke St.



Location of Former Gate on Burke Street

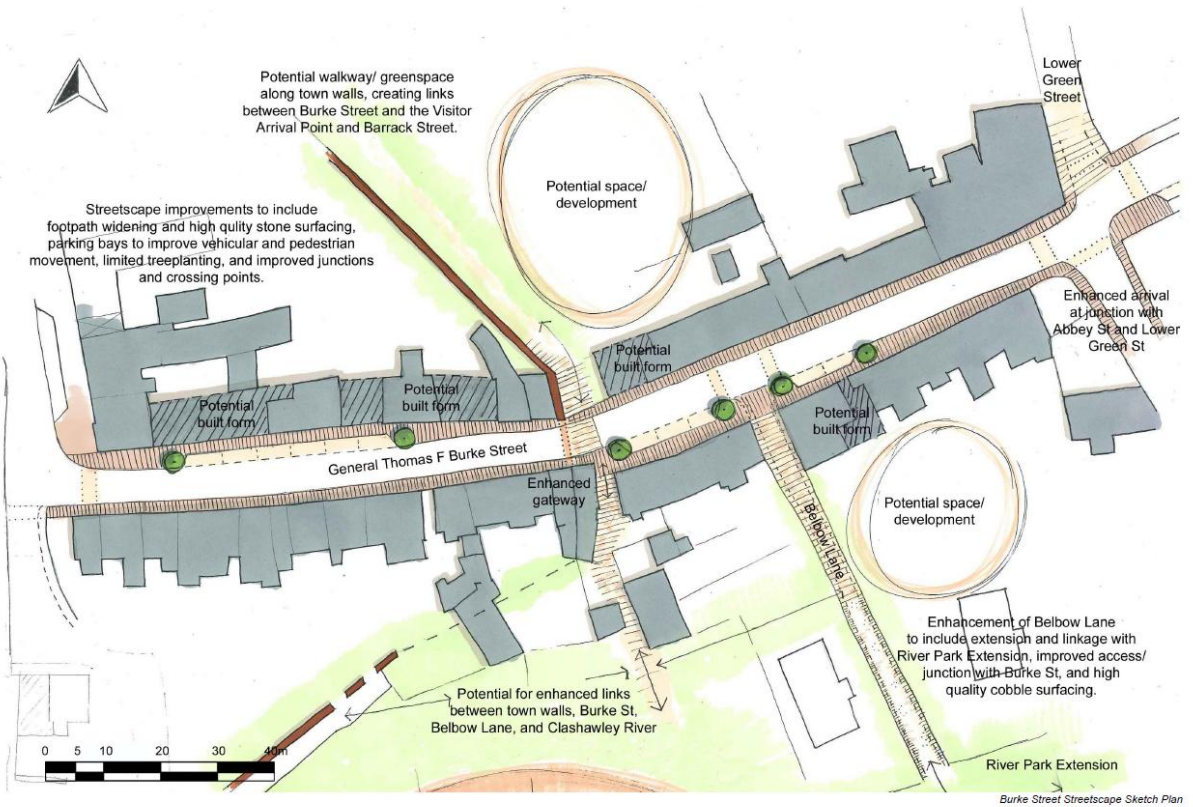


Burke Street Gate - Detailed Plan



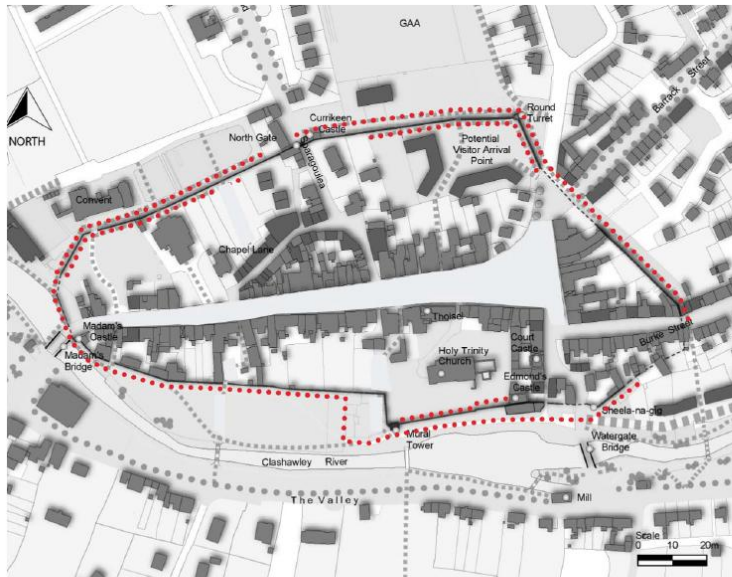
Site of Gate, Burke Street

- Appropriate demarcation/ delineation of historic gateway and town wall through surfacing, lighting and public art as appropriate. Refer to Town Walls Conservation and Management Plan
- Streetscape improvements to Burke Street in the form of improved footpaths, high quality surfacing, parking rationalisation, appropriate street tree planting will help define the transition into the historic walled town
- Interpretive and orientation signage to inform visitors of the significance of the gate site on Burke Street, and to direct visitors to other locations around town
- Potential for improved access to town walls from Burke Street via green space along walls from Burke Street to Barrack Street. This could provide pedestrian access to and from the potential visitor arrival point



47

Extract from page 34 of Public Realm Plan outlining proposals for A town Wall Walk that is relevant to lands at Burke St.



Architectural Conservation Area and Indicative Wall Walk Route

7.2 Town Wall Walk and Conservation

The Town Walls of Fethard are among the finest examples of their kind in Ireland and indeed Europe. It is rare to find such urban fortifications so intact, having withstood the pressures of town growth and redevelopment for some 800+ years. The draft Conservation and Management Plan, notes that the town is of 'outstanding significance'. It is therefore critical that these structures are first of all maintained for future generations and secondly, used to play a greater role in the town as an attraction to visitors.

The draft Conservation and Management Plan concurrent with this Plan, details the works necessary to safeguard the structure from further decay and depreciation. These measures should be viewed as urgent in a town where the walls are of such significance and potential to its future.

Public realm proposals can also make a major contribution to the enjoyment of the walls for visitors and locals alike. A key objective for Fethard should be the securing of a circular walking route around the walls town walls, either on the outside, inside or where possible upon the structures themselves. It is recognised, however, that specific areas of private ownership may result in the completion of such a route being a long term objective.

There is potential for elevated sections of walkway at Madam's Gate, the graveyard at the Convent, and the cattle mart/ GAA wall. These sections of elevated walkway could draw inspiration from the example shown in the Holy Trinity Church graveyard and potentially could provide similar excellent panoramic views across the town and out into the surrounding countryside. There is also potential for visitor access to the Mural Tower, Currikeen Castle at North Gate, and the round turret at the northeast corner of the walls. Such access would provide further view points as well as increasing the interactive attraction of the walls.



Open space should be increased around the walls, where appropriate. Increased open space will enhance the walls' setting, improve visibility of the walls, and act as a buffer to reduce impact of future development adjacent to the walls.

An important aspect of highlighting and celebrating the walls further will be the implementation of feature lighting to the walls, as discussed in the lighting strategy. Feature lighting will help increase the night time use and enjoyment of the walls and the town as a whole.

There is scope for enhancement of the walls interpretation and navigation, building on good examples of the existing annotative signage already present. The Interpretation Strategy will set out how the visitor's knowledge and enjoyment of the walls and their association with the town's history can be improved.



Wall Walk



Round Turret



Wall at GAA pitch

The enhancement and improvement of the Town Walls supports the local authority policies and objectives set out in the Local Area Plan. Specifically,

A3b: Improve access along the eastern and northern sides of the town wall;

A3f: Improve access and enhance walkway to the rear of Barrack Street and along the Town Wall.

The Public Realm Plan sets out 15no. specific initiatives of which the following 2no. are particularly relevant:

- 1 Wall Walk and Conservation- Designation of a walking route around the Town Walls, to be accompanied by conservation and interpretation of the structures themselves.
- 2 Walled Town Gateways - A series of environmental improvement projects to accentuate the location of the towns historic gateways and mark the transition into the walled town.

## Appendix E: Ministerial Consent

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Ministerial Consent no. C433 has previously been extended for Town Walls works in 2010 and 2013. Tipperary County Council will be applying to extend this consent to cover the proposed works.

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