

16. St Mary's Bridge

16.1 Introduction

- 16.1.1 The proposed defences at St Mary's Bridge extend between the Lower City Road development site and St Mary's Bridge along the east bank of the River Derwent.
- 16.1.2 There is an existing defence wall along the top of the river bank.
- 16.1.3 The site is split into the following sub-areas:
- St Mary's gauging Station
 - Bridge Inn Public House
 - St Mary's Bridge
- 16.1.4 The Environment Agency own the river bank where St Mary's gauging Station is situated.
- 16.1.5 The Bridge Inn is privately owned but the Applicant is the freehold landowner of the car park which is leased to the pub. The Applicant also owns the river bank that is currently used as a beer garden and again this land is leased to the pub.
- 16.1.6 St Mary's Bridge is a highway structure owned by the Applicant.

16.2 St Mary's Gauging Station

General Arrangement Drawing Number	23	Sections Drawing Number	N/A	Package	1
Type of planning application	Full				
Proposed use	Gauging Station		Works carried out by:	Applicant	

Key constraints

- 16.2.1 St Mary's Gauging Station continuously monitors river levels and is used for flood warning purposes.
- 16.2.2 The gauging station house is within the Derwent Valley Mills World Heritage Site buffer zone.

Scale

- 16.2.3 Demolition of existing gauging house and reconstruction of new gauge house with external dimensions of 3m wide by 3m depth by 3.5m high.
- 16.2.4 Extension of the existing 300mm diameter stilling tube to a height of 3m.
- 16.2.5 Provision of associated ducting, cabling and access steps over the adjacent proposed flood wall.

Layout

- 16.2.6 The proposed gauge house is to be located on the eastern side of the proposed flood wall within the Lower City road development site on land which the Council is

currently freeholder of but leases to the owners of the City Road Business Centre as shown in Figure 16.1

16.2.7 The extended stilling well will be located in its existing position.

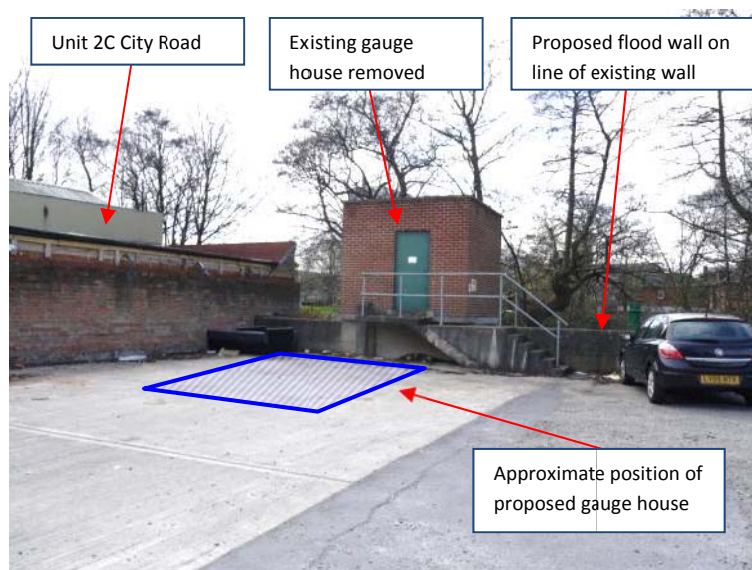


Figure 16.1: Relocation of St Mary's Gauging Station house

Access

16.2.8 Secure private access is required by the Environment Agency over the flood wall adjacent to the proposed gauge house. This will be provided in the form of steps.

Landscaping/external appearance

16.2.9 The replacement gauge house will be built of brick and be of similar appearance to the existing gauge house.

Basis of design

16.2.10 The gauge house needs to be moved out of the flood conveyance corridor. The stilling well needs extending for the continued measurement of river levels.

16.3 Bridge Inn Public House

General Arrangement Drawing Number	23	Sections Drawing Number	70 - 71	Package	1
Type of planning application	Full				
Proposed use	Flood defence	Works carried out by:		Applicant	

Key constraints

- 16.3.1 St Mary's Bridge is a Scheduled Monument, and the Bridge Inn is locally listed.
- 16.3.2 The site is on the edge of the Derwent Valley Mills World Heritage Site and its buffer zone.

Scale

- 16.3.3 Construction of an 86m long flood wall, up to 2.2m high and 0.55m wide, with a piled foundation and groundwater seepage cut-off.
- 16.3.4 Provision of a 1.5m wide by 1.9m high flood gate.

Layout

- 16.3.5 The flood wall will extend from the boundary of 2 City Road to St Mary's Bridge on the same line as the existing flood wall as shown in Figures 16.2 and 16.3.



Figure 16.2: Flood wall at Bridge Inn public house car park

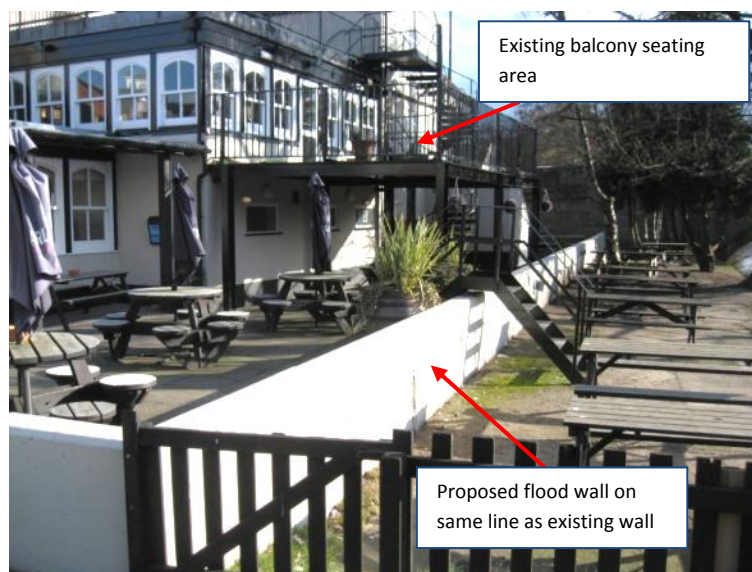


Figure 16.3: Flood wall adjacent to Bridge Inn public house

Access

Construction

- 16.3.6 There will be at least a partial closure of the Bridge Inn car park during construction to enable safe access.

Permanent

- 16.3.7 A flood gate will be provided to maintain access between the pub and the riverside edge which is currently used as a beer garden. This will be accessible to all.

Landscaping/external appearance

- 16.3.8 For a length of 70m upstream of St Mary's Bridge, the proposed flood wall will be clad in brick with the top 0.9m of the defence formed from structural glass panels. The remaining length of flood wall will be clad in brick to its full height with a reconstituted stone coping.
- 16.3.9 The flood gate will be painted black.
- 16.3.10 No trees and half a riverside tree group will require removal to undertake the works. A significant riverside sycamore tree will be retained. Reinstatement tree planting is proposed and will be undertaken on a 1:1 ratio, as close to their original positions as possible. Proposed landscaping works will be developed during detailed design.
- 16.3.11 A visualisation of the proposed flood wall is shown in Figure 16.4.



Figure 16.4: Visualisation of proposed flood wall at the Bridge Inn public house

Basis of design

- 16.3.12 The use of structural glass is principally to provide mitigation for the visual impact the proposed wall will have on the setting of St Mary's Bridge as a Scheduled Monument. At the point where the wall abuts the bridge the glass will be sympathetic and recessive, and from a distance the glass will minimise any loss of views of the bridge.
- 16.3.13 A flood gate is provided to provide access-for-all to the beer garden which is considered a key attraction of the pub. The flood gate would need to be closed during a flood event with a 3% (1 in 35) chance of happening each year.

Consultation

- 16.3.14 A meeting was held with the landowner of the Bridge Inn in July 2013. A key outcome of this was that gated access is required from the main building to the beer garden; a floodgate is therefore proposed to be incorporated. The landowners also considered that visual connectivity from the pub entrance and car park to the beer garden was an important requirement for the business; the use of structural glass panels will achieve this.
- 16.3.15 The design proposals have been discussed with English Heritage.

16.4 St Mary's Bridge

General Arrangement Drawing Number	23	Sections Drawing Number	N/A	Package	1
Type of planning application	N/A – planning permission is NOT required				
Proposed use	Scour protection	Works carried out by:	Applicant		

Key constraints

16.4.1 St Mary's Bridge is a Scheduled Monument.

Scale

16.4.2 Repairs to the existing scour protection and bridge masonry.

Basis of design

16.4.3 Our City Our River will increase flood levels and water velocities on and around the bridge. Mitigation works is required to ensure the bridge remains structurally sounds in such flood conditions.

16.4.4 A structural assessment has been undertaken of the bridge by a specialist heritage structural engineer who concluded that the effect of Our City Our River “is unlikely to be the single most critical factor in conserving the long term future of St. Mary's Bridge.”

Consultation

16.4.5 The design proposals have been discussed with English Heritage.