

IMAGE 1



IMAGE 2



IMAGE 3



IMAGE 4

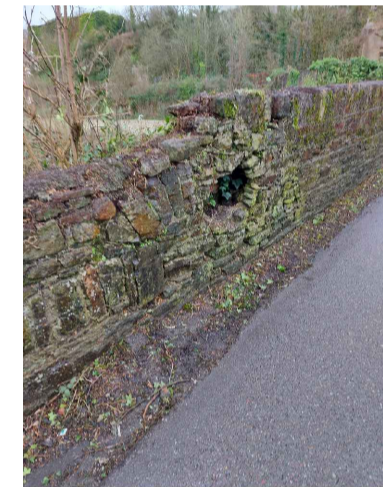


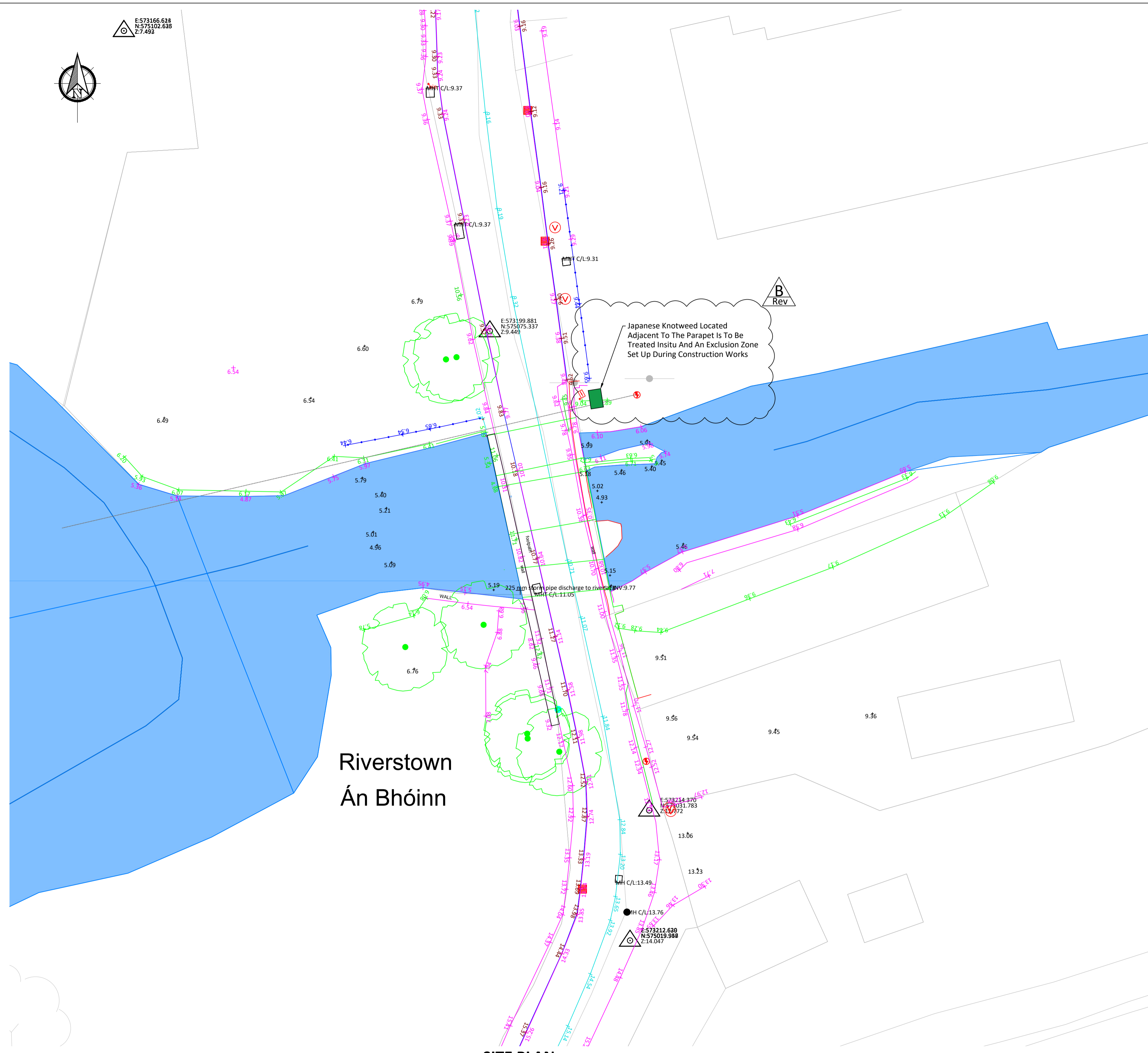
IMAGE 5



IMAGE 6

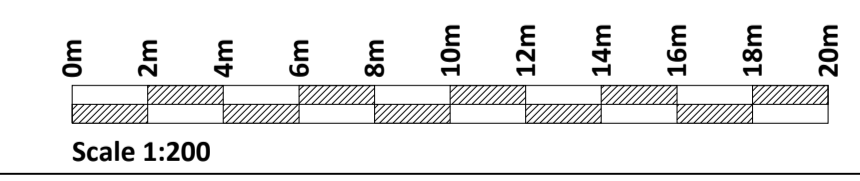


IMAGE 7



SITE PLAN
Scale 1:200

- NOTES**
1. Dimensions in meters unless otherwise noted.
 2. Levels shown relative to ordnance datum (Malin Head).
 3. Known existing service location shown in preliminary safety and health plan. Locations to be confirmed on site by contractor.
 4. Drawing to be read in conjunction with the works specification.
 5. Refer to drawing series P21-200-GT-0101 for repair details.
 6. All vegetation to be removed from structure as per works specification.
 7. Re-pointing works to be carried out in accordance with CC-SPW-02400.
 8. Areas frequently wetted to be re-pointed using a NHL5 mix, other areas to be re-pointed using NHL3.5.
 9. Area to be re-pointed to be agreed with Employers representative following vegetation clearance.
 10. Masonry repairs as per CC-SPW-02400, existing stone to be reused where possible, new stone to be matched to existing in terms of type, shape, color and size.



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Rev.	Description	App By	Date
A	ISSUE FOR INFORMATION	BDH	01.03.22
B	ISSUE FOR INFORMATION	BDH	17.10.22

PROJECT
ENGINEERING SERVICES FOR CORK CITY COUNCIL

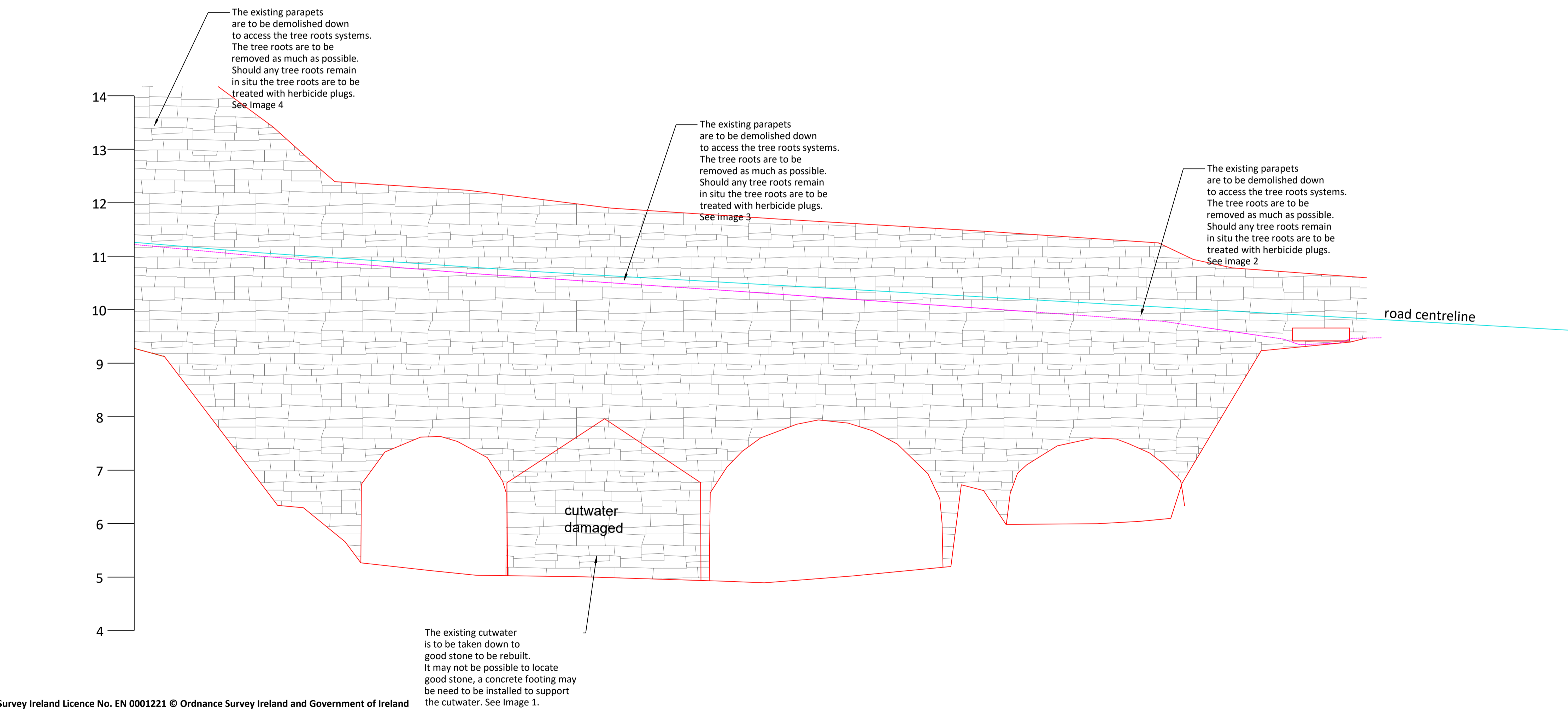
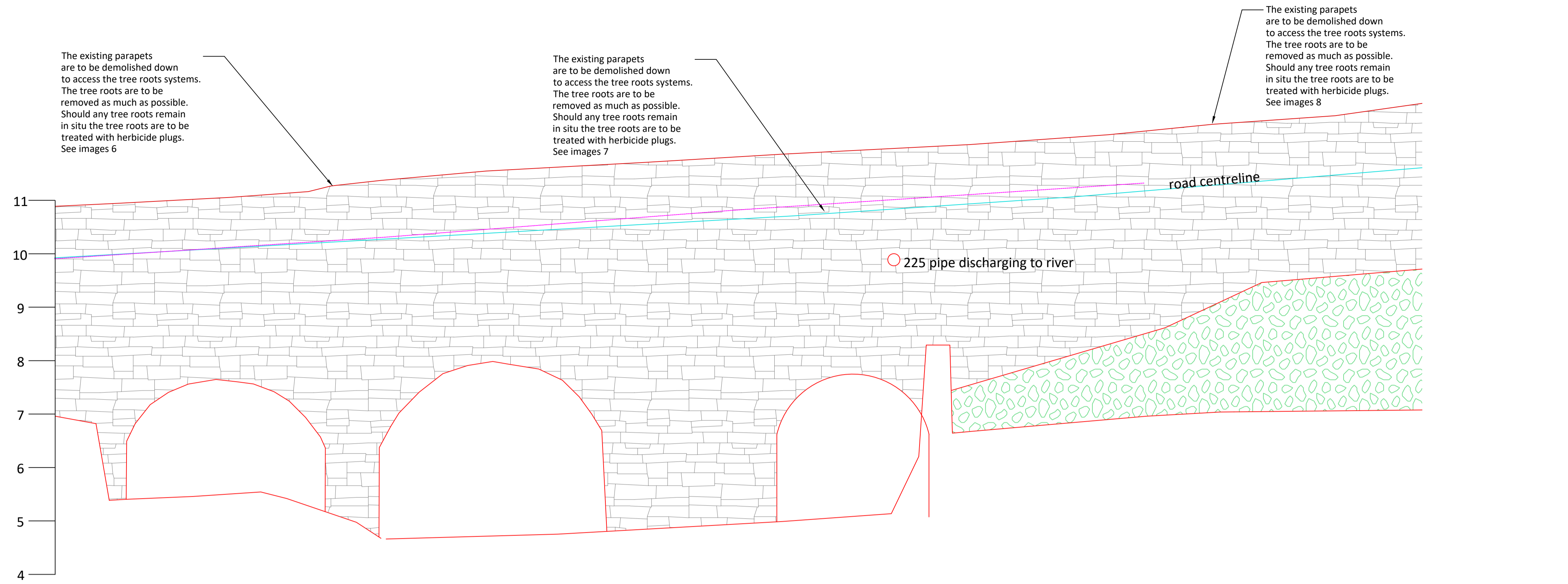
SHEET
GLYNTOWN BRIDGE
SITE PLAN

CLIENT
 Comhairle Cathrach Chorcaí
Cork City Council

Date	JUNE '22	Project number	P21-200	Scale (@ A1-)	1:200
Drawn by	SFM	Drawing Number	P21-200-GT-0101-0001		
Checked by	BB	Rev	B		

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Monday 17 October 2022



NOTES

1. Dimensions in meters unless otherwise noted.
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IMAGE 1

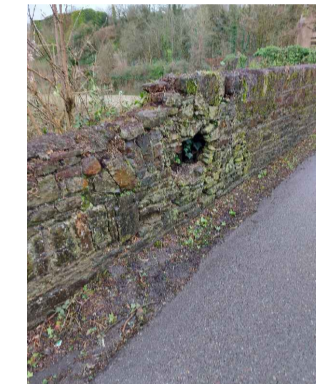


IMAGE 5



IMAGE 2



IMAGE 6



IMAGE 3



IMAGE 7




IMAGE 4



IMAGE 8

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Rev.	Description	App By	Date
A	ISSUE FOR INFORMATION	BDH	05.10.21

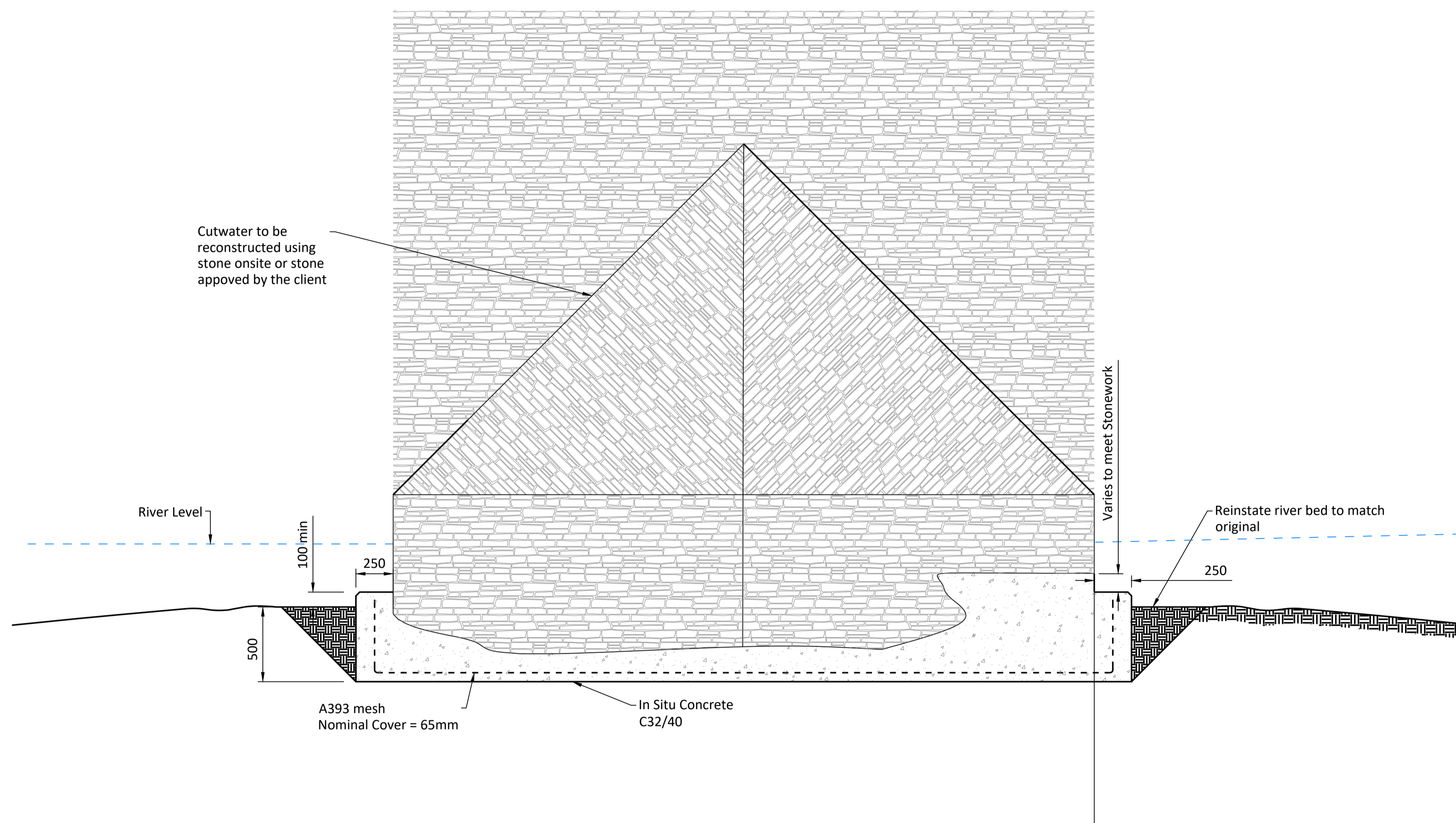
PROJECT	ENGINEERING SERVICES FOR CORK CITY COUNCIL			CLIENT	 Comhairle Cathrach Chorcaí Cork City Council			
SHEET	GLYNTOWN BRIDGE – PROPOSED ELEVATIONS			Date	JUNE '22	Project number	P21-200	
				Drawn by	SFM	Drawing Number	P21-200-GT-0101-0002	
				Checked by	BB	Scale (@ A1-)		1:50
							Rev	A

NOTES

1. Dimensions in meters unless otherwise noted.
2. Levels shown relative to ordinance datum (Malin Head).
3. Known existing service location shown in preliminary safety and health plan. Locations to be confirmed on site by contractor.
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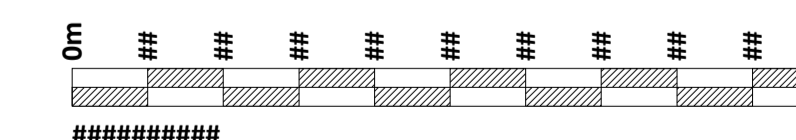


IMAGE 1



TYPICAL UNDERPINNING OF CUTWATER DETAIL

Scale 1:20

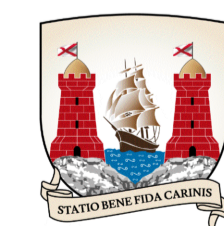


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Rev.	Description	App By	Date
A	ISSUE FOR INFORMATION	BDH	05.10.21

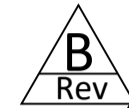
PROJECT	ENGINEERING SERVICES FOR CORK CITY COUNCIL			CLIENT	 Comhairle Cathrach Chorcaí Cork City Council						
	SHEET	GLYNTOWN BRIDGE - PROPOSED CONSTRUCTION DETAILS			Date	JUNE '22	Project number	P21-200	Scale (@ A1-)	1:20	Rev
					Drawn by	SFM	Drawing Number	P21-200-GT-0101-0003			
					Checked by	BB					

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1.1.1 Preliminaries

- a) The contractor will set up a site compound near to the site.
- b) The contractor shall verify the location of all underground and overhead services in the area of the structure before any construction works begin.
- c) A lifeline will be set up downstream of the work site to act as a barrier in the event of a person accidentally falling into the river.
- d) Water levels and the rain forecast should be monitored at all times to give sufficient warning in the event of a flood.
- e) In the event of an impending flood, all instream and near stream works should be stopped, & scaffolding or equipment removed.

1.1.2 Vegetation Removal



- a) The section of Japanese Knotweed to the Northeast of the structure is to be treated insitu and an exclusion zone set up during construction works. These works should be carried out in accordance with the Invasive Species Management Plan. Any removed material should be disposed of in a licensed facility.
- b) All areas to be repointed shall be cleared of all vegetation and algae. Invasive roots shall be removed in so far as is possible. Those not able to be fully removed shall be removed or cut back as far as possible and treated with a suitable systemic herbicide, as approved by the Employers representative.
- c) The vegetation removed should be collected and disposed of offsite. Care should be taken to prevent debris from entering the water course.
- d) A controlled localized application herbicide shall be used, spraying shall not be permitted.

1.1.3 Parapet Masonry Repair

- a) For the repair of the parapet the works can be carried out from the bridge deck. The bridge may need to be reduced to one lane during this time. The contractor should develop a traffic management plan to deal with the risk associated with working near live traffic.
- b) A section of Northeast parapet is in poor condition should be demolished down to good stone and rebuilt as per CC-SPW-02400. The existing stone should be reused where possible. Additional stone should be matched to existing.
- c) At some locations where whole root systems of trees can be removed. Parapet demolition and rebuilding will be required. The existing stone should be reused where possible. Additional stone should be matched to existing parapet masonry.
- d) Repointing should be carried out as per CC-SPW-02400 Specification for Road Works Series 2400- Brickwork, Blockworks and Stonework.
- e) The area to be repointed shall either be marked on a drawing or clearly identified by the employer's representative.
- f) For the parapet walls and other areas above the water line an NHL 3.5 mortar should be used as per CC-SPW-02400, the guidelines shown in Section 3.3.8 below should be followed for all lime mortar repointing.

1.1.4 Spandrel Wall Repair

- a) Scaffolding platforms should be erected adjacent to the spandrel wall to allow vegetation removal, tree root treatment and repointing to be carried out.
- b) The weather forecast should be carefully monitored, and the scaffold should be capable of being removed at short notice in case of risk of flooding. For these reasons it is suggested a small section of scaffold is used to repoint one section of the wall at a time.
- c) Alternately a mobile under-bridge access platform can be used. Where this is utilized a stop-go system and appropriate traffic management will be required. The contractor must ensure underbridge unit leaves sufficient clear space on the bridge to accommodate 1 lane of traffic and allow the bridge to remain open during the works.
- d) Scaffolding should be lined with an impermeable membrane, polythene or similar, to prevent falling mortar from entering the watercourse below.
- e) Re-pointing should be carried out as per CC-SPW-02400 Specification for Road Works Series 2400- Brickwork, Blockworks and Stonework.
- f) The area to be repointed shall either be marked on a drawing or clearly identified by the employer's representative.
- g) For the spandrel wall an NHL 3.5 mortar should be used as per CC-SPW-02400. Please refer to lime mortar repointing guidelines specified in Section 3.3.8 below.

1.1.5 Cutwater Repair

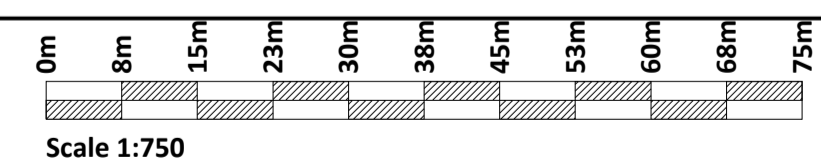
- a) The upstream cutwater is in a poor condition.
- b) The cutwater will need to be demolished down to good stone. The stone removed from the cutwater should be retained and reused where possible
- c) If it is impossible to demolish down to a suitable formation level for the cutwater an underpinning for the cutwater will need to be provided. This will comprise of structural concrete containing steel mesh.
- d) Once a suitable formation level can be established the cutwater can be rebuilt, where possible using onsite stone. New stone sourced for the rebuilding of the cutwater will need to be approved by the client.

1.1.1 Arch/Pier/Abutment Repointing

- a) The weather forecast should be carefully monitored, and any access platform should be capable of being removed at short notice in case of risk of flooding.
- b) To prevent water ingress it is preferential for these works to be carried out after certain works have been carried out. In this case the road surface and rubbing strip installation should take place ahead of the arch repointing works.
Working platforms should be lined with an impermeable membrane, polythene or similar, to prevent falling mortar from entering the watercourse below.
- d) Repointing should be carried out as per CC-SPW-02400 Specification for Road Works Series 2400- Brickwork, Blockworks and Stonework.
- e) The area to be repointed shall either be marked on a drawing or clearly identified by the employer's representative.
- f) For the Arch barrel an NHL 3.5 mortar should be used. On the piers and abutments where water contact is more frequent, to prevent washout, the more resistant NHL 5 mortar mix should be used. Both should comply with CC-SPW-02400 and be applied following the guidelines specified in Section 3.3.7 below.

1.1.2 Lime Mortar Repointing Guidelines

- a) All loose mortar, soil, deleterious material etc should be removed from the joint and the joint cleaned prior to repointing. Debris from this operation should be captured by the protecting barrier on the scaffolding and appropriately disposed of offsite in accordance with the applicable legislation.
- b) Angle grinders or other disc machinery should not be used to remove existing mortar from the joints. Mortar joint should be raked out using hand tools to a minimum depth of 50mm to allow adequate bond to form.
- c) The area raked out should be no larger than 1m x 2m before repointing is carried out.
- d) Remaining mortar should be brushed clean and washed with water before repointing. Absorbent masonry should be dampened at time of application of the fresh mortar. Non-absorbent masonry should be dry at the time of application.
- e) Often the use of rotating drum cement mixers does not sufficiently distribute the lime binder among the aggregate without the addition of excessive quantities of water. Care should be taken to thoroughly mix the mortar in small batches in accordance with CC-SPW-02400 using only the amount of water specified.
- f) Mortar shall be applied using flat steel jointing tools of varying width to suit individual joint.
- g) Joint shall be fully filled flush with the surrounding masonry, or the weathered edges. Once the surface of the mortar is firm the surface should be tamped with a stiff brush or lightly scraped to expose the aggregate and improve the appearance of the mortar.
- h) Any overspill/splashback on the face of the stone shall be cleared to remove all traces of excess mortar. Overspill should be minimized using suitably experienced masons.
- i) Suitably sized pinning stones should be used to limit the joint width to a maximum of 20mm for the full depth of joint.
- j) Pinning stones shall be supported with props or other method as agreed with the Employers representative. The use of steel tying wire shall not be allowed.
- k) Immediately after repointing for a period of at least 3-4 days or longer if conditions dictate, the mortar shall be protected against the harmful effects of weather (wind, rain, sun and frost).
- l) New mortar shall be kept in a dampened condition for 72 hours after placing.
- m) Repointing shall not take places where there is a risk the temperature will drop below 5deg C in the 2-3 weeks following the repointing. If necessary, the works should be protected from the cold weather with appropriate insulation and a heat source to ensure temperature stays above 5deg C.




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Rev.	Description	App By	Date
A	ISSUE FOR INFORMATION	BDH	28.05.22
B	ISSUE FOR INFORMATION	BDH	17.10.22

PROJECT ENGINEERING SERVICES FOR CORK CITY COUNCIL	CLIENT  Comhairle Cathrach Chorcaí Cork City Council		
	Date JUNE '22	Project number P21-200	Scale (@ A1-) 1:750
SHEET GLYNTOWN BRIDGE SCOPE OF REHABILITATION WORKS	Drawn by SFM	Drawing Number P21-200-GT-0101-0004	Rev B
	Checked by BB		

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Monday 17 October 2022