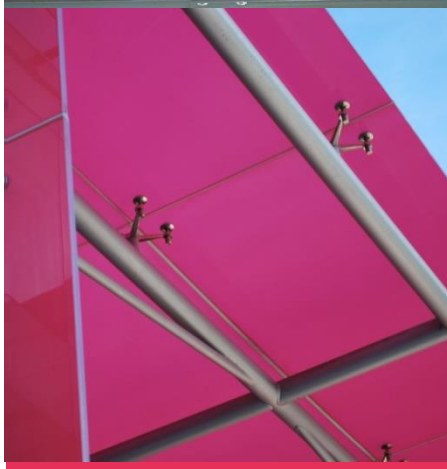








Site D (Buildings D1 and D2), Trinity Islands, Manchester

Flood Emergency Response Plan

Curtins Ref: ZD-CUR-G580-RP-XX-92001

Revision: P02

Issue Date: 08 September 2025

Client Name: Renaker

Site Address: Site D (Buildings D1 and D2), Trinity Islands, Manchester

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Control Sheet

Rev	Description	Issued by	Checked	Date
P01	First Issue	CS	CG	05/07/2022
P02	Updated to reflect current information	CS	CG	08/09/2025

This report has been prepared for the sole benefit, use, and information for the client. The liability of Curtins with respect to the information contained in the report will not extend to any third party.

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Appendix A

Flood Barrier details

1.0 Introduction

1.1 Project Background

1.1.1 Curtins was appointed by Renaker to provide a Flood Emergency Response Plan for Site D (Buildings D1 and D2) of the Trinity Islands Development at Trinity Way, Manchester

1.1.2 The developed site is classified as partially within Flood Zone 2 as a result of fluvial (river) flood risk to the site.

1.1.3 The plan is based on currently available information and preliminary discussions.

1.1.4 Proposals contained or forming part of this plan represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken and are deemed a material deviation from the intent contained in this document, prior approval shall be obtained from the relevant authority.

1.1.5 This plan is to be submitted and formally approved by Manchester City Council prior to occupation of the buildings in which it relates. Although when approved, the document should be considered live and regularly updated by all future occupants / landlords to ensure that contact numbers and procedures are up to date.

1.2 Purpose of the Plan

1.2.1 The purpose of the plan is to inform the building management team and the building occupants how to remain safe in the event of a flood emergency. The report also details how they can be aware and prepared in advance for a flood emergency. This report will:

- Inform the building management team and the building occupants how to be aware of the risks posed to the site by flooding.
- Inform the building management team and the building occupants how to be prepared for a flood emergency event.
- Inform the building management team and the building occupants what actions to take in the event of a flood emergency in order to remain safe; and
- Inform the building management team and the building occupants how to ensure the effective evacuation of the building when necessary / instructed.

1.3 Scope of the Plan

1.3.1 The plan provides information on how to prepare for a flood and what to do in the event of a flood emergency. The report is suitable for the purposes set out in the NPPF.

1.3.2 Although this flood emergency response plan is directed towards fluvial (river) flood events, occupants should be advised that flooding may occur from other sources. Occupants are advised to follow the same procedures in all cases where flood water may enter the property/site.

1.3.3 The plan details flood emergency procedures for Site D (Buildings D1 and D2) of the Trinity Islands Development only. The plan does not intend to replace any specific instructions which may be given by the emergency services in the event of a flood emergency, although the plan may help to inform building occupants and emergency responders of site-specific details which may need to be taken in to consideration. The plan will also help occupants to prepare and act whilst waiting for further instruction from the relevant authorities.

1.4 Plan Owner and Review

1.4.1 The plan is owned by the site/building owner and should be maintained and updated by the owner.

1.4.2 It is recommended that the Flood Response Plan is reviewed on a regular basis – at least ***every three years*** or when information changes which requires it to be amended – to ensure that it is consistent with good practice.

1.4.3 Details of changes should be recorded, and documentation updated. This should be completed via reissue of the plan or an amendment record within the plan.

2.0 Roles and Responsibilities

2.1 The Environment Agency

2.1.1 The Environment Agency is a Category 1 responder as identified in Schedule 1 of the Civil Contingencies Act (2004).

2.1.2 The Environment Agency has responsibilities in relation to flooding, as it is the lead agency for warning those at risk and improving flood defences.

2.1.3 The Environment Agency provide the following services and actions during a potential flood:

- Issues flood warnings for rivers and the sea,
- Monitors flood events to inform flood information service; and
- Emergency repairs and blockages on 'main' rivers.

2.2 Manchester City Council

2.2.1 Manchester City Council is a Category 1 responder as identified in Schedule 1 of the Civil Contingencies Act (2004).

2.2.2 The Civil Contingencies and Resilience Unit, which is an Association of Greater Manchester Authorities (AGMA) service conducts "emergency planning "on behalf of Manchester City Council.

2.2.3 Manchester City Council are also a partner of the Greater Manchester Resilience Forum (GMRF). This partnership of agencies from across Greater Manchester has responsibility for coordinating and overseeing emergency planning. Its overall purpose is to ensure an appropriate level of preparedness for an effective multi-agency response to emergency incidents which may have significant impact on the communities of Manchester.

2.2.4 Manchester City Council provides the following services and actions during a potential flood:

- Co-ordinates emergency arrangements,
- Maintains safe conditions on the road,
- Puts flood warning signs on the highways,
- Clears blocked ordinary watercourses,
- Clears blockages from highway drainage systems; and
- May take action to protect property from flooding if the highway drainage system fails and property could be flooded by water from the highways.

2.3 The Emergency Services

2.3.1 Greater Manchester Police, Greater Manchester Fire & Rescue Service, and the Ambulance Service, are Category 1 responders as identified in Schedule 1 of the Civil Contingencies Act (2004).

2.3.2 The Emergency Services provide the following services and actions during a potential flood:

- The Police would retain overall responsibility for Co-ordination of activities but would liaise with Senior Fire and Senior Ambulance Officers.
- Fire & Rescue will assist other agencies in the rescuing of people trapped as a result of flooding. Fire and Rescue will assist other agencies in the removal of large quantities of flood water.
- The Ambulance service will respond to medical emergencies.

2.4 United Utilities

2.4.1 United Utilities is a Category 2 responder as identified in Schedule 1 of the Civil Contingencies Act (2004).

2.4.2 United Utilities provides the following services and actions during a potential flood:

- Clearing blockages in public sewer systems; and
- May take action to protect property from flooding if the cause of the flooding is water from the public water mains or public sewage system.

2.5 Other Category 2 responders

There are a number of other Category 2 responders including those listed below. During a flood emergency the operator/authority is responsible for controlling their assets.

- Gas distributors
- Electricity distributors and transmitters
- Water and sewerage undertakers
- Telephone service providers (fixed and mobile)

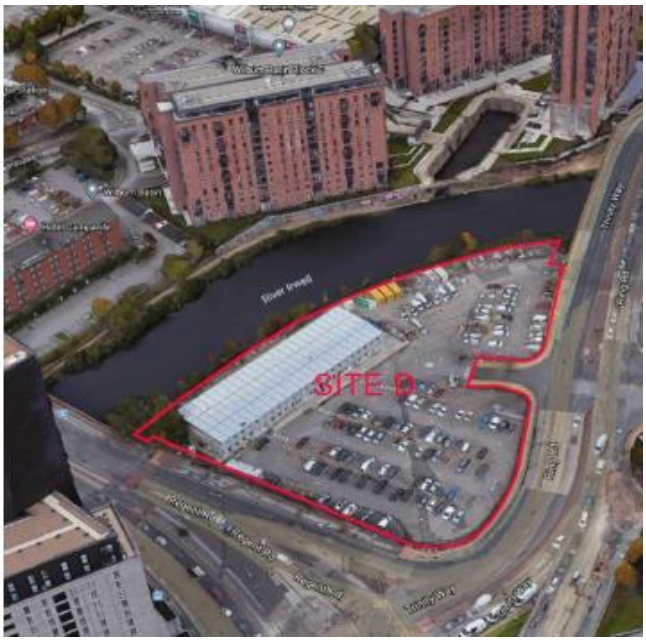
3.0 Situation and Site-Specific Considerations

3.1 The Site

3.1.1 The masterplan site is approximately 1.68 ha in size, however Site D in which this report is prepared for is approximately 0.82 ha. The site bounded by the River Irwell to the north and west, Regent Road to the south and Trinity Way to the east.

3.1.2 The Site can be accessed by vehicle or foot via Trinity Way on the eastern boundary.

Figure 1: Aerial Photograph (Site D only)



3.2 Site-Specific Considerations

3.2.1 The majority of the site can be seen to be within the medium risk Flood Zone 2 (shaded light blue) associated with the River Irwell on the north-western boundary and has a 1-3.3% chance of fluvial flooding each year with the remaining areas considered at low risk of fluvial flooding (less than 1% chance of flooding in each year).

3.2.2 The maximum flood levels from the River Irwell, which are predicted to affect the site are detailed in Table 1 and these are taken from the Environment Agency current flood data from the Manchester Ship Canal Study (2018)

***Table 1: Environment Agency Predicted flood levels at node* Ea013_0251_IRWZ01_0691**

Map Ref	Node Reference	1 in 100 Year	1 in 100 Year + 35%cc	1 in 100 Year + 70%cc	1 in 1000 Year	1 in 1000 Year Gate Closed
2	Ea013_0251_IRWZ01_0691	24.13m	24.62m	25.54m	25.79m	25.80m

3.2.3 The existing site would therefore be classified as within Flood Zones 1 and 2, with localised Flood Zone 3 along the existing river walkway, based on the flood model outputs.

3.2.4 Guidance recommends that residential areas should be set at 600mm above the 1 in 100-year flood level with an allowance for 35% climate change, however due to the increased risk with a gate closure, it has therefore been agreed to set floor levels at a minimum of 300mm above the 1 in 100 +70% climate change scenarios. This was a request from the LLFA and provides a greater level of protection to the site than the 600mm freeboard on the 1 in 100 year plus 35% climate change event. Flood Levels have been taken from the above node (Table 1) to determine minimum floor levels.

- 1 in 100 Year **=24.130m**
- 1 in 100 Year +35% **=24.620m**
- 1 in 100 Year +70% **=25.540m**
- 1 in 1000 Year **=25.790m**
- 1 in 1000 year with a gate closed **=25.820m**

3.2.5 Proposed floor levels should therefore be set a minimum of **25.840m AoD** which also provide some level of freeboard above the 1 in 1000 year and 1 in 1000 year with gate closed scenarios.

3.2.6 The building floor levels and the protection from fluvial (river) flooding are detailed in Table 2.

Table 2: Building D1/D2 Floor Levels/Protection

Level	Floor Level	In excess of	Description
Basement Level B2	20.800	Access into the basement is via ground floor staircases, which are set at 27.400m. Access into B1 basement from external areas are at 26.900m.	The basement level is set at 20.800. The area consists of plant rooms, store cupboards and cycle storerooms. The minimum access is at 26.900 from ground level therefore protected in excess of the 1 in 1000 year + gate closed scenario.

Basement Level B1	23.500	Access into the basement is via ground floor staircases, which are set at 27.400m. Access into B1 basement from external areas are at 24.560 at one location for fire emergency (one exit per building).	The basement level is set at 23.500. The area consists of plant rooms, store cupboards and cycle storerooms. The minimum access is at 24.560 from ground level therefore requires temporary flood barrier protecting ingress up to a level of 25.840m.
Ground Floor	27.400	27.400 FFL	The minimum access is at 27.400 from ground level therefore protected in excess of the 1 in 1000 year + gate closed scenario.

3.2.7 Ground floor levels are set at a level of 27.400m AOD which is far in excess of the recommended finished floor levels.

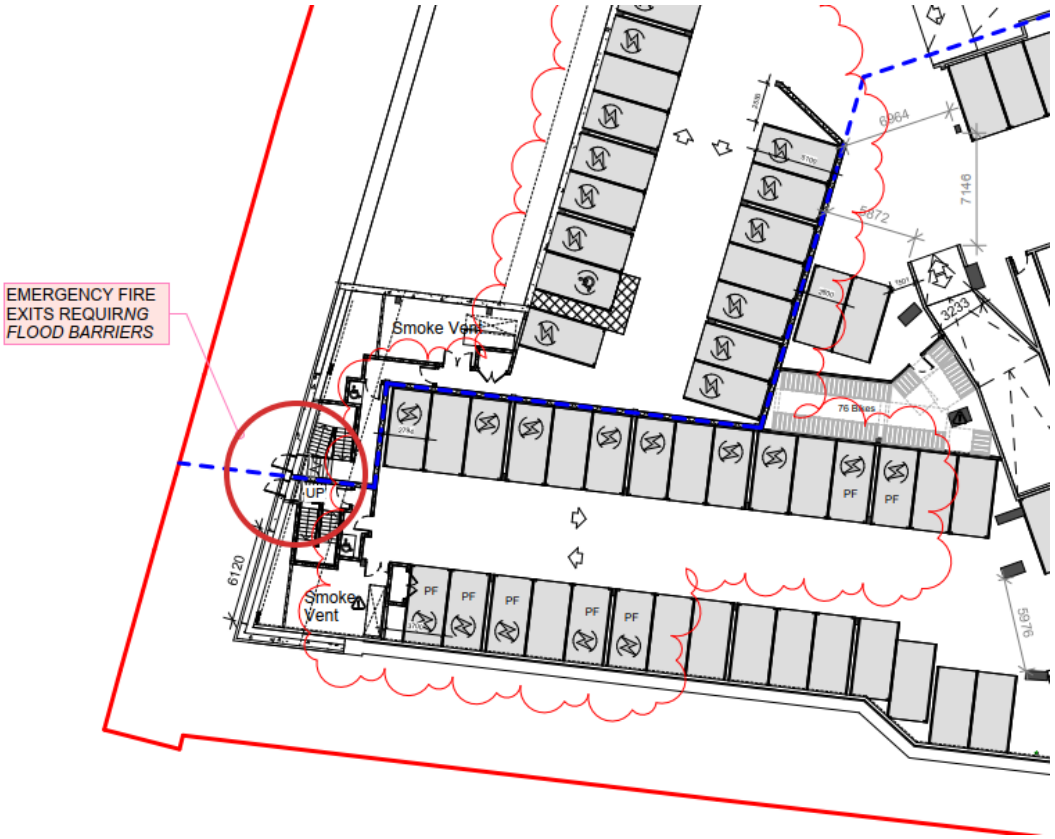
3.2.8 The proposed basement areas are sealed and waterproofed up to ground level.

3.2.9 Proposed access into the basement is currently ramped up to provide access at ground level providing the same level of protection as the ground floor levels at 27.400 which is significantly in excess of 25.840m AoD. However, there are **two fire exit doors located at basement 1** level (one emergency exit for each building), which directs occupants from Basement level to the riverside walkway to a ground level of approximately 24.56m (refer to Figure 2 for the location). The exit doors will generally be closed for use only in an emergency. However, **whenever there is a flood warning, the door areas will be closed off and emergency flood barriers installed internally within the building. The flood barriers must be installed and deployed as detailed by the manufacturer's requirements.**

3.2.10 The requirements for fire emergency and general emergency procedures should be reflected to account for the temporary exit closures with **reduced use of basement where necessary.**

3.2.11 **The building must be signed up to the Environment Agency's Floodline Warnings direct, which is updated daily.**

Figure 2: Emergency Exits at Basement 1 level requiring Flood Barrier installation during a flood warning period



3.2.12 The external ground level at the doors is approximately 24.56m, which will be required to be protected to a **minimum level of 25.840m (1.28m flood water depth)** to ensure the same level of minimum protection recommended for floor levels. The proposed temporary barriers have been specified as Flood Technologies Nautilus Barrier, which will be managed by the site management team who must be appropriately trained in how this will be installed.

3.2.13 The barrier details are included within Appendix A.

3.2.14 The management team should be fully trained in monitoring flood warnings, where the barriers are stored and how they should be stored and maintained.

3.2.15 The manufacturer requirements including how to maintain its flood defence seals of the device for warranty purposes should also be monitored.

3.3 Site-Specific Flood Protection Measures

3.3.1 Ground floor level and external podium levels are in excess of the 1 in 1000 year plus gate closed scenario.

3.3.2 The areas on site which would therefore be subjected to flooding would be limited to the Riverside Walkway, with potential ingress via the emergency exit doors. Specific measures therefore relate to how the site users avoid the riverside walkway and access and egress is maintained on site within low-risk areas only.

3.4 Site-Specific Flood Preparation Measures

3.4.1 The building management team(s) should hold a copy of the Flood Response Plan and be fully clear of the requirements during each phase of a flood event.

3.4.2 The building management team should sign up to get flood warnings by phone, email or text message, and all building residents should be made aware of the ability to sign up if they should so wish. Individuals can sign up to receive flood warnings by one of the following methods:

- By visiting https://www.fws.environment-agency.gov.uk/app/olr/home
- By calling Floodline on 0345 988 1188

3.4.3 Residents will need to provide the address they are registering; phone number they can be contacted on day or night; and an email address. More information regarding flood warnings are detailed in section 4 of this Plan.

3.4.4 Section 5 of this Plan details the requirements to be implemented prior to a flood event or flood warning.

3.4.5 Section 6 of this Plan details the requirements to be implemented during a flood event.

3.4.6 Section 7 of this Plan details the requirements to be implemented after a flood event.

4.0 Flood Awareness

4.1 Flood Warnings

4.1.1 The site is located within a flood warning area. The Environment Agency issue flood warnings if there is a possibility of a flood event. All residents and building management should sign up to receive these targeted flood warnings which can be done via the Environment Agency website https://www.fws.environment-agency.gov.uk/app/olr/register or by calling on 0345 988 1188.

4.1.2 If you are registered you can call Floodline on 0345 988 1188, select option 1 and Quick dial number 03612 for more information.

4.1.3 Table 3 shows the warning codes as issued by the Environment Agency and the responses that the occupants should take in the event of a flood warning being issued. These warnings will be received by the occupants once they have signed up to the Environment Agency flood warning service.

Warning	Message	Timing	Action
Flood Alert 	**Flooding is possible.** **Be prepared.**	2 hours to 2 days in advance of flooding.	Be prepared to act on your flood plan. Ensure Flood Barriers are available and ready for installation. Prepare a flood kit. Monitor local water levels and the flood forecast on the Environment Agency website.
Flood Warning 	**Flooding is expected.** **Immediate action required.**	Half an hour to 1 day in advance of flooding.	Act now to protect your property. Turn off gas, water, and electricity supply if safe to do so. Put flood protection equipment/barriers in place. Move family, pets and valuables to a safe refuge. Keep a flood kit ready.
Severe Flood Warning 	**Severe flooding.** **Danger to life.**	When flooding poses a significant threat to life and different actions are required.	Stay in a safe place with a means of escape. Be ready should you need to evacuate from the property. Co-operate with the emergency services and call 999 if you are in immediate danger.
Warning Removed	**No further flooding is currently expected for your area.**	Issued when a flood warning is no longer in force.	Flood water may still be around and could be contaminated. If you've been flooded, ring your insurance company as soon as possible. Deploy equipment safely and store appropriately for future use.

Table 3: Environment Agency Flood Warning Codes

4.1.4 During flood situations, the Environment Agency regularly updates its social media accounts on Facebook (https://www.facebook.com/environmentagency) and Twitter (https://twitter.com/EnvAgency)

4.1.5 Updates on Flood Warnings will be issued on;

The Radio:

- BBC Radio Manchester – 95.1 FM
- Capital FM – 102FM
- Smooth 100.4FM
- Heart – 105.4 FM
- Hits Radio (Key103) – 103FM

On Television:

- BBC North West
- ITV Granada

4.1.6 The Met Office also issue severe weather warnings for extreme weather including rain, snow, wind, fog and ice. There are three warnings;

- Be Aware (Yellow)
- Be Prepared (Orange)
- Take Action (Red)

4.1.7 The National Flood Forum; a national charity supports and represents communities at risk of flooding. They provide assistance to help communities understand flooding. This can be accessed at www.nationalfloodforum.org.uk.

4.1.8 The following social media accounts may also be useful:

- Greater Manchester Police
  Twitter: @gmpolice
  Facebook: gtrmanchesterpolice

- Manchester fire and rescue
  Twitter: @manchesterfire
  Facebook: manchesterfire

- Northwest Ambulance Service
  Twitter: @NWAmbulance
  Facebook: nwasofficial

- United Utilities
  Twitter: @UnitedUtilities
  Facebook: OfficialUnitedUtilities

- Manchester City Council
  Twitter: @ManCityCouncil
  Facebook: ManCityCouncil

- Manchester Evening News
  Twitter: @MENnewsdesk
  Facebook: ManchesterEveningNews

- BBC News
  Twitter: @BBCBreaking

- Sky News
  Twitter:@SkyNewsBreak
  Facebook: skynews

5.0 Flood Preparation

5.1 Be Prepared

5.1.1 Building D1 and D2 would essential be considered Flood Zone 1, however the riverside walkway is located with Flood Zone 2, it is recommended that building management are always prepared for a flood event in this area.

5.1.2 There is a range of guidance material from Manchester City Council, Central Government and the Commercial sector, to help you prepare for the risks you may face. No one can predict what is around the corner, but when the unexpected happens it pays to be prepared. The document https://www.gmemergencyplanning.org.uk/be-prepared/prepare-yourself/ provides basic information on simple precautions that can be taken to prepare for a range of emergency situations, along with advice on how to cope, should they occur.

5.1.3 The building management team(s) should notify the occupants of the situation.

5.2 Check Your Risk of Flooding

5.2.1 Building management should:

- Find out if the site is at immediate risk of flooding by checking current flood warnings and river and sea levels.
- Find out if the site is at risk of flooding in the next 5 days; and
- Sign up for flood warnings.

This can be done by going online at https://www.gov.uk/check-flood-risk

5.3 Stop the Block!

5.3.1 Stop the Block! is United Utilities campaign to help reduce the misery, cost, bad smells and potential flooding and pollution caused by avoidable blockages. By keeping the sewer system clear, from disposable items such as nappies and wet wipes which should not be flushed, occupants can help keep the water flowing and allow the sewer system to do the job of taking used water and sewage away from our homes and businesses, which helps to prevent flooding and aids the recovery after flooding has subsided.

5.3.2 Further information on how to help prevent blockages in the system can be found on United Utilities website https://www.unitedutilities.com/help-and-support/wastewater-services/stop-the-block/.

6.0 Flood Action

6.1 What to Do in the Event of a Flood

6.1.1 In the event of a Flood Warning being received, the actions outlined in this section should be taken.

6.1.2 If a flood warning is issued by the Environment Agency, or if a severe weather warning has been issued by the Met Office, the following action should be taken by the building management:

- All residents should be notified by the building management team of the Flood Warning and reminded to take the necessary precautions. Flood Alert Notices should be displayed by the building management team in prominent, clearly visible places on the premises (i.e. within notice boards, ground floor areas, and lift areas) to indicate to everyone the current flood alert status issued by the Environment Agency and any recommend precautions.
- Flood Barriers to be fully installed in accordance with the manufacturer's requirements.
- Prevent use of all basement areas.
- Access down to the riverside walkway should be adequately prevented from access down to the riverside walkway.

6.2 During a Flood

6.2.1 As the flood extents are predicted to flood the riverside walkway only, general use of the site should remain unchanged. Normal access into and egress from should be continued from Trinity Way as shown in Figure 3.

Figure 3: Access and Egress Routes



7.0 All Clear

7.1 What to do After a Flood

7.1.1 Once flood waters have fully receded, caution is advised when entering the riverside walkway. Occupants should not attempt to enter areas which have been flooded until advised by emergency services.

7.1.2 Only where flood warnings have been removed and flood water has fully receded is it safe to remove flood barriers.

7.1.3 Flood barriers should be removed and stored in accordance with the manufacturer's requirements.

8.0 Key Contacts

Environment Agency

Telephone - 0345 988 1188

Website - www.environment-agency.gov.uk

Government Emergency Planning

www.gov.uk/government/publications/the-national-flood-emergency-framework-for-england

BBC Website

Website - www.bbc.co.uk/news/uk-15250977

The Met Office

Telephone - 0370 900 0100

Website - www.metoffice.gov.uk

Manchester City Council

Emergency - 0161 223 7222

Telephone - 0161 234 5000

Website - www.manchester.gov.uk

Maritime & Coastguard Agency

Telephone - 0203 817 2000

Website - www.gov.uk/government/organisations/maritime-and-coastguard-agency

Greater Manchester Fire and Rescue

Telephone - 0161 736 5866

Emergency - 999

Website - http://www.manchesterfire.gov.uk

Greater Manchester Police

Emergency - 999

Telephone - 101 (non-emergency)

Website - www.gmp.police.uk

North West Ambulance Service NHS Trust

Emergency - 999

Telephone - 0845 112 0 999

Website - www.nwas.nhs.uk

United Utilities (sewer flooding, leaking water main or sewerage pollution)

Telephone - 0345 672 3723

Website - http://www.unitedutilities.com

Manchester City Council (highways flooding)

Telephone - 0161 234 5005

Website - www.manchestercitycouncil.gov.uk

Appendix A

Flood Barrier details

Our Locations

Birmingham
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Bridge Street
Birmingham
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40-58 Hotwell Road
Bristol
BS8 4UQ
T. 0117 302 7560
bristol@curtins.com

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3 Cwrt-y-Parc
Earlswood Road
Cardiff
CF14 5GH
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cardiff@curtins.com

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