



Flood Risk Assessment and Drainage Strategy for HMG Paint Ltd.

HMG Paint Ltd.

29/9/2020

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Document Origin

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Executive Summary

Introduction	Clancy Consulting Ltd has been commissioned by HMG Paint Ltd. to undertake a Flood Risk Assessment and Drainage Strategy for the proposed works at HMG Paints Ltd located on Collyhurst Road, Cheetham Hill, Manchester. This Flood Risk Assessment has been prepared in accordance with the Technical Guidance to the National Planning Policy Framework.
Existing Site Conditions	The site currently comprises a mixture of a warehouse buildings, outer buildings, temporary storage containers, concrete courtyard hardstanding areas and small grassed areas. The site is bound by the River Irk to the north, south and west with Collyhurst Road to the east. Moston Brook also joins the River Irk just north of the development area. From the topographical survey the site levels range from 31.860 m to 32.840 m AOD where the proposed extension works are.
Development Description and Planning Context	The proposals are to extend the existing warehouse building and provide a new storage facility for the open storage areas currently being used in the courtyard area.
Definition of Flood Hazard	The River Irk located adjacent to the site is a non-tidal Main River which is a tributary of the River Irwell in the centre of Manchester and is the prime source of flood risk to the site.
Probability (Rivers/fluvial)	The EA Risk of Flooding from Rivers and Sea mapping indicates that the proposed development site has between a 1 in 100 and 1 in 1,000 annual probability of flooding from the River Irk. This map shows the indicative extent of the natural floodplain if there were no flood defences or certain other manmade structures.
Climate Change	As the EA modelling data is from 2011, only the implications of climate change up to 20% are available. Therefore, the effects of climate change of up to 20% have been considered in this assessment and mitigation measures have been determined using the 1 in 1000-year (0.01% AEP) flood event to compensate for this.
Development Proposals	The technical guidance to the NPPF states that developments of a less vulnerable category such as the proposed pedestrian route upgrades use are appropriate within Flood Zone 3a.

Flood Risk Management Measures	Due to potential flood risk from the River Irk flood risk management measures will be required as outlined in the recommendations section below.
Off Site Impacts	The proposed development surface water will discharge at reduced rates via the provision of attenuation. Therefore, the development will not increase flooding adjacent to or downstream of the site for the lifetime of the development.
Residual Risks	A residual risk of flooding from the River Irk are low due to the levels of the development compared with the flood modelling levels provided by the EA. The investigations carried out as part of this flood risk assessment and flood risk management measures proposed have demonstrated that the development will be safe, without increasing flood risk elsewhere.
Recommendations	The following recommendations are made to reduce flood risk and promote a sustainable and practicable drainage strategy for the proposed development: • Ground finished floor levels of the extension storage facility should be set at 32.650m AOD to match existing warehouse FFL. The site will then be elevated 740mm above the 1 in 1000-year (0.11% AEP) modelled flood level to give more than adequate freeboard above the potential flood water. • A survey of the existing drainage regime should be completed to determine the diameter of the surface and foul sewer network within the site. • The proposed surface water drainage system should be designed to accommodate the 1 in 30-year rainfall event without any surface water flooding and should be capable of retaining the 1 in 100-year plus climate change (40%) storm event on site without flooding any buildings. • The proposed surface water runoff should be limited to 13.4l/s for all storms up to and including the 100-year return period with a 40% allowance for climate change, attenuation is required which provides in the order of 98m³ of surface water storage. • The proposed development will be subject to a build over agreement over the existing culvert present on site. • The prospective site management should register to receive flood warnings. • The Flood Warning & Evacuation Plan for the site should be brought into place prior to occupation of the development with this information being made available to any subsequent users.

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1.0 Introduction

1.1 Terms of Reference

- 1.1.1 Clancy Consulting Ltd has been commissioned by HMG Paint Ltd to undertake a Flood Risk Assessment and Drainage Strategy for the proposed HMG Paints Ltd storage facility works in Cheetham Hill, Manchester.
- 1.1.2 This Flood Risk Assessment has been prepared in accordance with the Department for Communities and Local Government (DCLG) Planning Practice Guidance website section on 'Flood Risk and Coastal Change' and the Site-Specific Flood Risk Assessment Checklist.
- 1.1.3 This report has been produced on behalf of the Client, HMG Paint Ltd, and no responsibility is accepted to any third party for all or any part. This report should not be relied upon or transferred to any other parties without the express written authorisation of Clancy Consulting Ltd. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the authors owe them no duty of care or skill.

1.2 National Planning Policy Framework

- 1.2.1 The National Planning Policy Framework (NPPF) was published on 27 March 2012, with the latest update published in July 2021. This replaces Planning Policy Statement 25: Development and Flood Risk.
- 1.2.2 Planning Practice Guidance to the NPPF regarding Flood Risk and Coastal Change has been published and this site-specific FRA is written in compliance with this guidance.
- 1.2.3 The NPPF, and supporting technical guidance, can be downloaded free of charge from the internet at the following link:

<http://www.communities.gov.uk/publications/planningandbuilding/nppf>

2.0 Background Information

2.1 Site Details

- 2.1.1 Figure 2.1 below indicates the location of the site with a more detailed site plan in **Appendix A**. A number of sources have been used to assess the local topography and current site use.

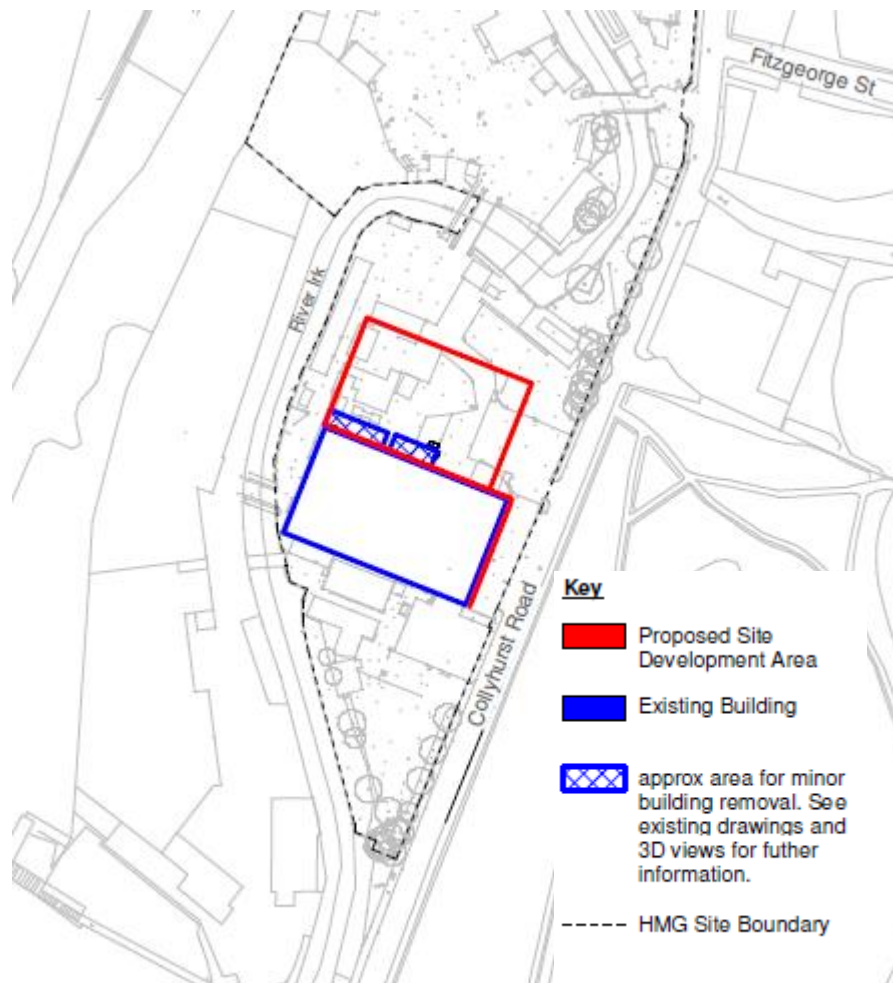


*Figure 2.1 HMG Paints Ltd Storage Facility Works
– Site Location Plan*

- 2.1.2 The approximate site boundary is outlined on Fig 2.1 above. The overall site has an area of approximately 3.8 hectares with the proposed site development area approximately 0.17 hectares and is located just northern of the city of Manchester centred on OSGR 384926E 399921N.
- 2.1.3 The development area is bound by the River Irk along the northern, southern and western boundary with Collyhurst Road to the eastern boundary.
- 2.1.4 The site is an active paint manufacturing plant with a number of warehouse / office buildings, hardstanding courtyard areas and some small grassed landscaped areas.

- 2.1.5 A topographical survey of the site has been included in **Appendix B**. The site levels within the development area ranging from 31.990m AOD to 32.840m AOD to the west.
- 2.1.6 There is a large culvert which runs through the site. The Culvert enters the site from to the north from the River Irk and continues south crossing the path of the proposed extension development area and the existing warehouse building before entering back to the main river. This culvert acts as a flood relief system for the River Irk during storm events. Figure 2.2 below shows the approximate location of the culvert running through the site in relation to the proposed storage facility extension. There has also been a detailed survey of the culvert which can be found in **Appendix C**.

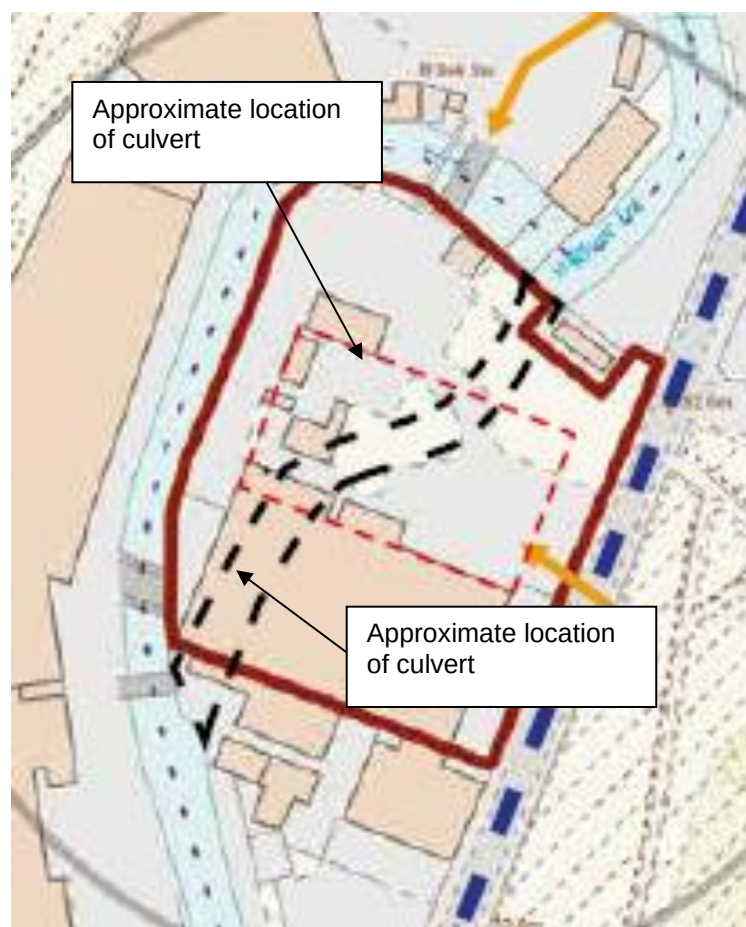


Figure 2.2 – Culvert Location

- 2.1.7 As the proposed site development area overlaps the location of the existing culvert, the Client will need to seek permission for a build over agreement prior to any works starting on site to ensure the do not affect the culvert structure and its function.
- 2.1.8 The watercourses are indicated on Figure 2.2 below.

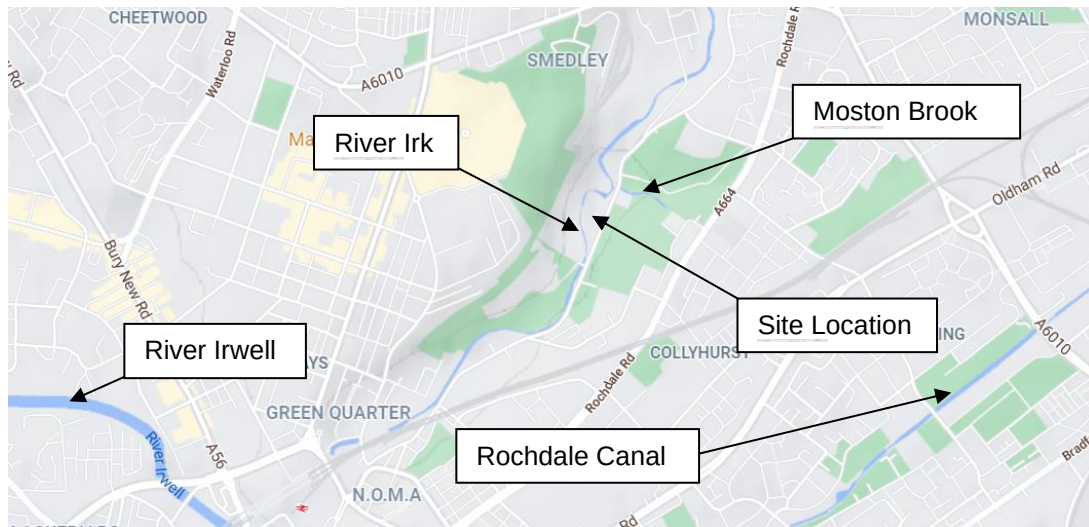


Figure 2.2 – Watercourse Location Plan

Table 2.1: Overall Catchment Context and Local Watercourse Classifications

Classification	Name	Description
Main Rivers	River Irk and Moston Brook	The Moston Brook connects to the River Irk approximately 100 meters north of the development site. River Irk bounds the site from Northern, Western and Southern boundary. Both watercourses is a non-tidal. The Main River Irk which flows from north to south heading towards Manchester City Centre connecting to the River Irwell
Ordinary Watercourses	Culvert	There is a large flood relief culvert which runs through the site.
Canals	Rochdale Canal	The closest canal is the Rochdale Canal which is located approximately 1.25km east of the site.

2.2 Approach to the Assessment

- 2.2.1 The Environment Agency (EA) has been contacted regarding predicted floodplain flood levels and flood extent data. They have provided a comprehensive response containing modelled flood data and defence levels.
- 2.2.2 This study has been supplemented by additional information from the Environment Agency (EA) and the Local Water Authority United Utilities.
- 2.2.3 This assessment seeks to draw together the relevant data information from these sources and to collate this with the findings of our investigations and discussions to assess the flood risk and drainage strategy for this site.

3.0 Flood Risk Assessment

3.1 Development Description and Planning Context

3.1.1 The development proposals are to demolish two small lean to buildings that are connected to the north warehouse facade and construct a new storage facility extension (Approximately 33.5m x 53.3m) in its place. The proposed site plans are included in **Appendix D**.

3.1.2 From the EA data for the area shows the site falls within a medium / high probability of flooding (flood zone 2 and 3).

3.1.3 In accordance with the NPPF, the proposed storage facility development falls under the **Less Vulnerable** category in terms of flood risk.

3.2 Sequential and Exception Tests

3.2.1 The Sequential Test is designed to steer development towards areas of lower flood risk and is required to be completed for development within Flood Zone 2 and 3. As the site falls within the less vulnerable category within Flood Zone 2 and 3A, the development can be seen as sequentially preferable and deemed to pass the Sequential Test.

3.2.2 The NPPF states that developments of the less vulnerable category are suitable within Flood Zone 2 and 3a without the requirement of an Exception Test.

Table 3.1: Flood Risk Vulnerability and Flood Zone Compatibility (Source: NPPF)

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test Required	✓	✓
	Zone 3a	Exception Test Required	✓	X	Exception Test Required	✓
	Zone 3b Functional Floodplain	Exception Test Required	✓	X	X	X

3.3 Definition of Flood Hazard

Historic Flooding

3.3.1 Figure 3.1 below shows the Environment Agency's Historic Flood Map, which indicates that the development site has no record of flooding from the main river. There has been one recorded flood event dated the 16th March 2019 which runs along Collyhurst Road to the south of the site and lie outside the site boundary. The dataset

shows the maximum extent of the flood record that has occurred as a result of flooding from rivers, the sea and groundwater sources since records began. The dataset does not account for flooding from other sources, such as sewer flooding or surface water flooding, nor is it exhaustive as it may not include all previous flooding incidents and does not provide information regarding event dates. However, the dataset does provide an insight into the potential for flooding from nearby sources.

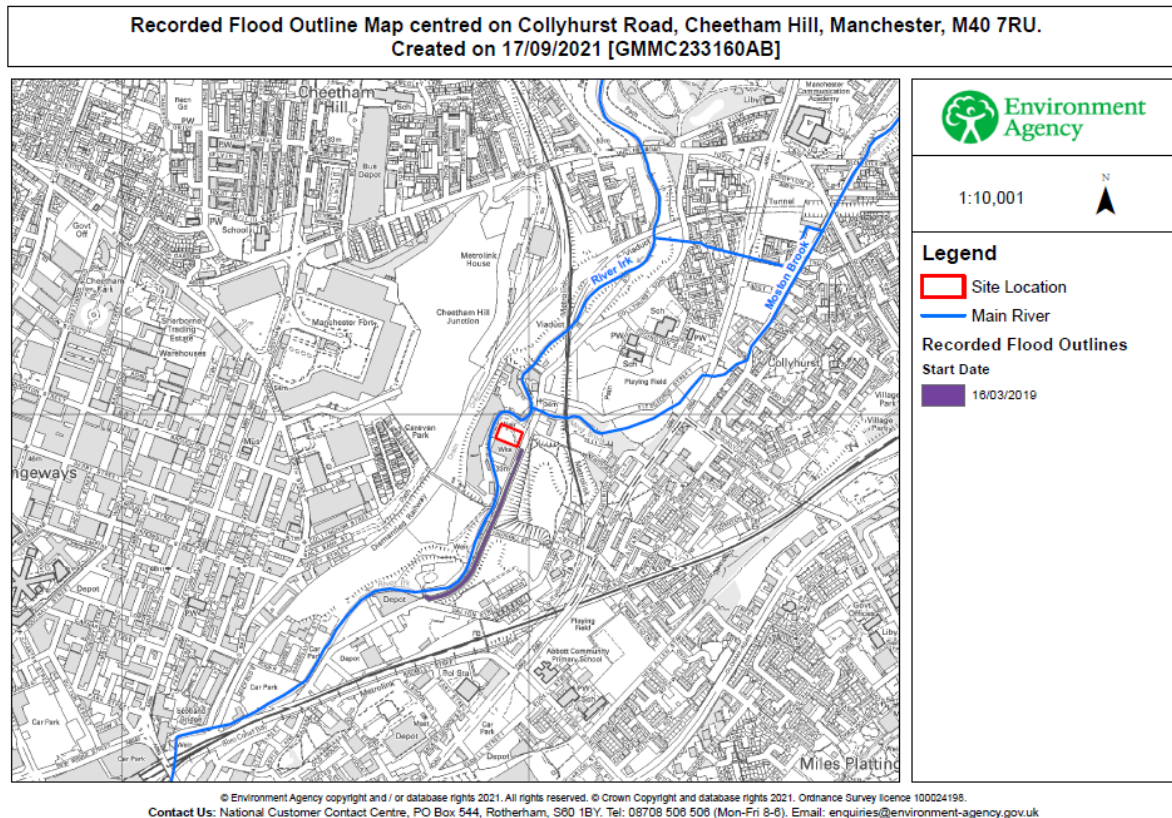


*Figure 3.1 Flood Event Outlines, Cheetham Hill, Manchester.
– Historic Flood Map (Source: EA)*

The potential sources of flooding in the vicinity of the site are as detailed below:

Fluvial Flood Risk

- 3.3.2 The River Irk is the primary source of flood risk to the site. The site is bound by the river as it meanders around the site to the west from the north to south. Flood risk associated with the River Irk is covered in Section 3.4 - Probability. Detailed flood modelling and defence information along with associated mapping provided by the EA is included at **Appendix E**.
- 3.3.3 The EA Risk of Flooding from Rivers and Sea mapping, shown below in Figure 3.2, indicates that the proposed development site has between a 1 in 100 and or greater annual probability of flooding from the River Irk. This map shows the indicative extent of the natural floodplain, if there were no flood defences or certain other manmade structures, such as surface water sewers, and channel improvements.

3.3.4 Figure 3.2 shows the approximate location of the model measurements. Number 3 is located adjacent to the site and this data will be used as part of this assessment.

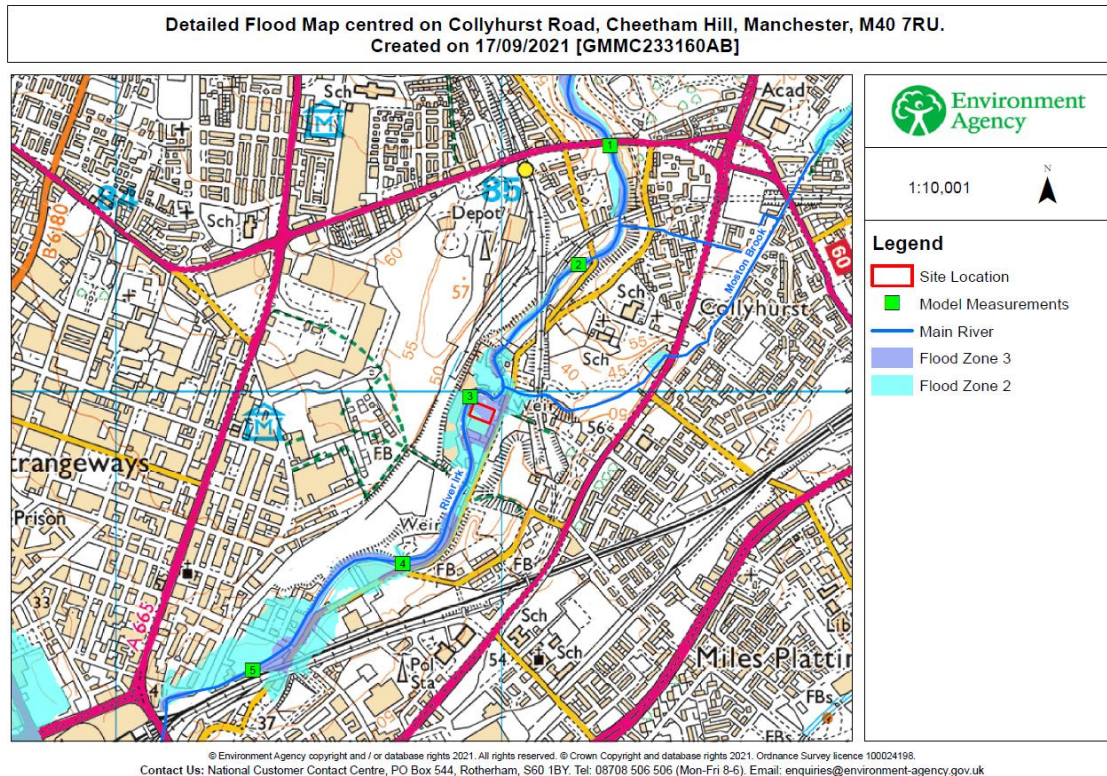


*Figure 3.2 HMG Paints Ltd. Development
- Risk of Flood from Rivers and Sea (Source: EA)*

Tidal Flood Risk

3.3.5 The River Irk is a non-tidal river. Therefore, the site is not at risk of flooding from tidal sources.

Surface Water Flood Risk

3.3.6 The site area is predominantly hard standing with some small areas of soft landscaping.

3.3.7 The topography of the site generally is generally flat which is elevated approximately 2m above the River Irk water level. Normally flat areas do not tend to generate any significant amount of sheet runoff and any surface flooding from pluvial sources tends to pond in localised depressions.

3.3.8 Figure 3.3 below shows the Risk of Flooding from Surface Water mapping and indicates areas of the site development area is at medium to high risk of flooding from surface water. These areas of risk are likely associated with low spots in the existing ground. The surface levels and drainage infrastructure will be improved as part of the proposed development which should improve its current situation.

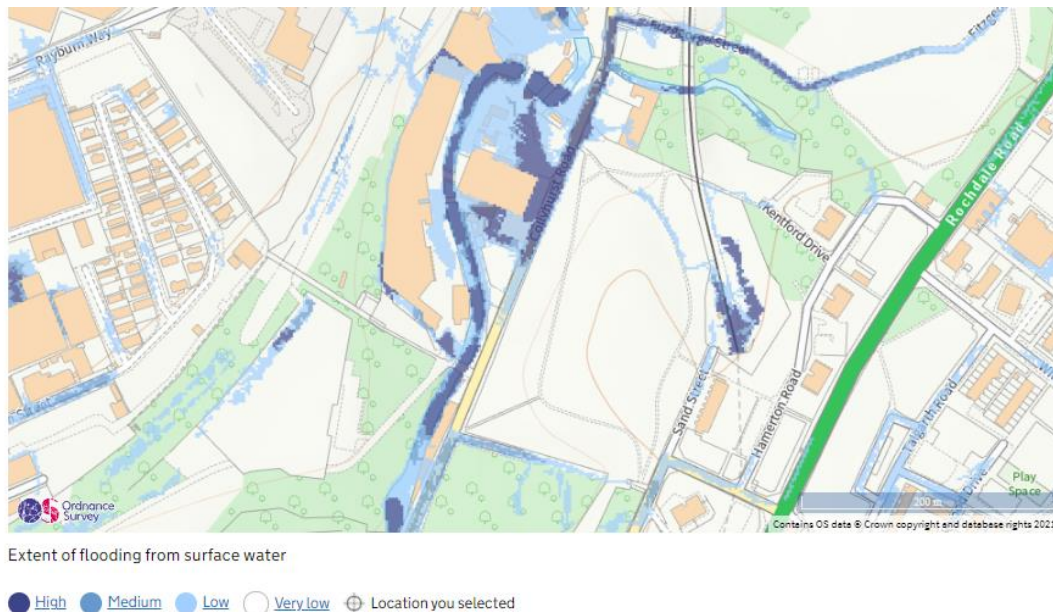


*Figure 3.3 HMG Paint Ltd Development
– Risk of Flooding from Surface Water (Source: EA)*

Flood Risk from Ground Water

- 3.3.9 There has been no site investigation carried out at this early stage for the project, but it is assumed that the water table will be approximately 2 meters below the existing surface due to the adjacent river water levels.
- 3.3.10 The proposed storage facility building extension will be raised to match the existing Finish Floor Level (FFL) of the existing warehouse building of 32.650 m AOD approximately 200mm to 700mm above external levels around the perimeter of the development area. As a result, it is not considered that the ground water poses a risk to the development.

Flood Risk from Water Bodies (Reservoirs)

- 3.3.11 There are no water bodies within 3km of the site. Therefore, there is no risk from flooding from Water Bodies.

Flood Risk from Sewers and Infrastructure

- 3.3.12 The local sewers are operated and maintained by United Utilities (UU). UU sewer records indicate the Public Surface Water Sewer connects to a private 900 mm x 600mm private drain which runs south and appears to follow the alignment of the existing culvert found on site. There is also a Combined 225mm Public Sewer sunning south within Collyhurst Road east of the site. A copy of the sewer record plan is included within **Appendix F**
- 3.3.13 As the site is within close proximity of the River Irk with the culvert / private drain running through the site, it is likely that the existing surface water runoff from the site connects to the private drainage which then discharges into the River. Further investigations are required to locate and confirm the existing surface water infrastructure and the discharge connections from the site.

3.3.14 The proposed development will provide improvements to the existing drainage system which includes provide attenuation with restricted runoff rate which will provide a betterment to its current position. The building is also to be raised to match the existing adjoining building which is approximately 740mm above the 1:1000 yr flood event level provided by the EA. Therefore, as long as the current drainage systems are efficiently maintained, it is not considered to be a flood risk.

3.4 Probability of Flood Risk

3.4.1 The EA Risk of Flooding from Rivers and Sea mapping, shown below in Figure 3.2, indicates that the proposed development site has between a 1 in 100 and or greater annual probability of flooding from the River Irk. This map shows the indicative extent of the natural floodplain, if there were no flood defences or certain other manmade structures, such as surface water sewers, and channel improvements.

3.4.2 The EA have provided the product 4 data which shows the model data taken from the River Irk SSFRA 2011 study, refer to figure 3.4 below. Full copies of the modelled and hazard mapping data are included in **Appendix E**.

3.4.3 Due to the site area having no historical flooding records, the flood levels provided by the EA have been compared with the Topographical surface levels for the site to confirm whether the site may be affected by flooding from the main river. It appears that the 1:1000 yr storm event level at Node 3 (adjacent to the site) of 31.91 m AOD is unable to breach the site boundary affecting the developer area as the majority of the site levels along the river wall boundary are above 32.000 m AOD. Also, as the finish floor level of the storage facility building is to be 740mm above the 1:1000 yr storm event flood level at 32.650 m AOD, the development is not considered to be a flood risk.

Map Reference	Model Node Reference	Easting	Northing	Data	Undefended			
					4 % AEP (1 in 25 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 20% increase in flow	0.1 % AEP (1 in 1000 year)
1	ea013_Model_Irk_00001	385282	400538	Modelled Water Level (m aodN)	36.91	37.20	37.44	38.82
				Modelled Flow (cumecs)	47.30	58.08	65.78	105.48
2	ea013_Model_Irk_00019	384919	399987	Modelled Water Level (m aodN)	31.88	32.21	32.77	33.96
				Modelled Flow (cumecs)	47.38	56.85	58.55	53.09
3	ea013_Model_Irk_00027	384745	399555	Modelled Water Level (m aodN)	30.47	30.95	31.22	31.91
				Modelled Flow (cumecs)	55.25	54.94	71.89	95.19
4	ea013_Model_Irk_00033	384358	399278	Modelled Water Level (m aodN)	29.79	29.10	29.32	30.21
				Modelled Flow (cumecs)	55.63	65.43	72.49	101.64
5	ea013_Model_Irk_00010	385200	400330	Modelled Water Level (m aodN)	34.67	35.04	35.28	36.40
				Modelled Flow (cumecs)	47.35	58.02	65.80	104.48

Model data taken from River Irk SFRA 2011 Study

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes: Climate Change Scenario - We only hold climate change measurements based on the previous climate change guidance (20% increase in flow). The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

Flood Event Code	Name	Start Date	End Date	Source of Flooding	Cause of Flooding
66510	Collyhurst Road	16/03/2019	16/03/2019	Main River	channel capacity exceeded (no raised defences)

Figure 3.4 HMG Paint Ltd. Storage Facility
- Modelled Node Information Undefended (Source: EA)

3.5 **Climate Change**

- 3.5.1 Climate change is recognised as a factor for consideration in terms of its effects on flood risk. This issue affects the local catchment from fluvial sources in as much as fluvial flood flows are estimated to increase by 30% to 50% for longer lifetime developments.
- 3.5.2 The implications of climate change should be taken into account in relation to surface water drainage. Peak rainfall intensity for longer lifetime for developments is estimated to increase between 20% and 40% as a result of climate change. In this instance site is within a developed area and there is potential for surface water runoff affecting adjacent development. Therefore, it is recommended that the allowance of 40% is applied to design rainfall intensity to allow for the potential implications of climate change.

3.6 **Detailed Development Proposals**

- 3.6.1 The proposed development and vulnerability classification are discussed in Section 3.1 above.
- 3.6.2 The technical guidance to the NPPF states that developments of a less vulnerable category such as the proposed storage facility use are appropriate within Flood Zone 3, subject to the application of the Sequential Test. As the site is located on brownfield land and doesn't appear to be affected by the flood levels, the development can be seen as sequentially preferable and deemed to pass the Sequential Test.

4.0 Flood Risk Management & Drainage Strategy

4.1 Fluvial and Surface Water Flood Risk Mitigation - Finished Surface Levels

4.1.1 The development proposals are to demolish two lean to buildings and construct a new storage facility with offices for HMG Paint Ltd. to improve their efficiency and working environment.

4.1.2 Although the proposed development does not include habitable accommodation, it is best practice to raise the ground finished flood levels above the peak level of the 1 in 100-year (1% AEP) plus climate change flood event on-site. The proposed storage facility finished floor levels are proposed to match the existing FFL of the main warehouse which is set at approximately **32.650m AOD**, this will provide sufficient freeboard above the flood level as the 1 in 100-year (1%) plus 20% climate change on-site peak flood level is 31.22m AOD (FFL 1.433m higher). It is also worth noting that the 1 in 1000-year (0.1%) on-site peak flood level is 31.91m AOD therefore the proposed FFL is 740mm above this critical flood level.

4.2 Surface Water Drainage

Sustainable Drainage Systems

4.2.1 Part H of the Building Regulations 2010 recommends that surface water run-off shall discharge to one of the following, listed in order of priority:

- a) an adequate soakaway or some other adequate infiltration system, or where that is not reasonably practicable.
- b) a watercourse, or, where that is not reasonably practicable.
- c) a sewer.

4.2.2 It is necessary to identify the most appropriate method of controlling and discharging surface water. The design should seek to improve the local run-off profile by using systems that can either attenuate run-off and reduce peak flow rates or positively impact on the existing flood profile.

Infiltration Based Systems

4.2.3 There has been no site investigation works confirming the suitability of permeable ground conditions. Due to the site's proximity to the River Irk any permeable strata are likely to be accompanied by a shallow water table. As a result, the discharge of surface water runoff by infiltration-based systems has been ruled out.

Open Watercourses

4.2.4 The site is adjacent to the River Irk with a culvert running underneath the development. Further investigations are required to confirm the existing surface water network arrangement as it is most likely that the existing surface

water discharges into one if these water courses due to its proximity. Any connection to water courses are subject to approval from the EA.

Sewers

- 4.2.5 There is a 225mm combined sewer runs in a southerly direction within Collyhurst Road to the east of the development. All welfare facilities within the proposed storage facility and offices are to utilise existing foul drainage connections where feasible.
- 4.2.6 There are no public surface water sewers in proximity to the site.
- 4.2.7 It is recommended that further investigations are undertaken during the detailed design process to confirm the existing drainage arrangement. Any new public sewer connections will be subject to a Section 106 (Water Industry Act 1991) application.

SuDS Option Feasibility

- 4.2.8 Sustainable Urban Drainage Systems (SuDS) are designed to reduce the risk of surface water runoff in an effective manner while offering cost-benefits, reduced maintenance and increased amenity value.
- 4.2.9 A landscaping proposal for the external areas has yet to be developed. The development proposals could include small amount of landscaped areas within the commercial courtyard. These areas could act to harvest rainwater. These landscaped areas could potentially be further developed into rain gardens receiving some of the surface water runoff from the courtyards areas which are also maintenance free.
- 4.2.10 Attenuation storage will also be used to restrict the surface water flows before entering the water course.

Runoff Assessment

- 4.2.11 The development area including the external landscaped areas equate to 0.29 hectares in total the existing impermeable area equates to 0.1643 hectares which is approximately 57% of the total site.
- 4.2.12 The proposed development increase the impermeable are by 0.097 hectares which are classed as greenfield. The greenfield runoff rate (QBAR) associated with this new impermeable area is 0.65 litres per second. It is recommended that these areas are restricted to 2 litres per second due to available flow control devices and maintenance requirements.
- 4.2.13 Figure 4.1 indicates the existing impermeable arrangement and Figure 4.2 shows the proposed impermeable arrangement.



Figure 4.1 HMG Paint Ltd. Storage Facility - Existing Impermeable Area (Source: EA)



Figure 4.2 HMG Paint Ltd. Storage Facility - Proposed Impermeable Area (Source: EA)

- 4.2.14 The pre-development runoff from the site for a 1 in 1 year peak runoff event has been calculated using the Lloyd-Davies method below:

$$Q = 2.78.A.i.CvCr$$

Where

A =	Area (ha)
i =	Design rainfall intensity (mm/hr)
CvCr =	Run off and routing coefficients ≈ 1.0

- 4.2.15 Using Flood Studies Report values M5-60 = 20mm/hr and $r = 0.400$ and 50 mm/hr rainfall intensity, this results in a runoff of:

$$Q = \frac{2.78.A.i.CvCr}{2.78 \times 0.1643 \times 50 \times 1.0} \approx 22.8 \text{ l/s (1-year Return Period)}$$

- 4.2.16 In order to provide a betterment for the site, it is proposed that the surface water discharge for the site is limited to 50% of the pre development 1-year peak runoff plus the 2 l/s for the existing permeable area therefore the proposed runoff equates to **13.4 l/s**.

Discharge Rate

- 4.2.17 In accordance with DEFRA guidance, the peak surface water runoff rate for brownfield developments should be restricted to the pre-development discharge rate where reasonably practicable. In addition, we have proposed a offer a 50% reduction to the pre-development rate where surface water runoff is discharged to the water . Therefore, the surface water discharge from the site will be restricted to **13.4l/s**. which is subject to agreement from the relevant authorities.

Drainage Proposals – Main Strategy & Attenuation Volume

- 4.2.18 Surface water drainage storage calculations are provided at **Appendix G**.
- 4.2.19 The proposed development will comprise on an impermeable footprint of approximately 0.29ha. In order to maintain the discharge rate of **13.4l/s** for all storms up to and including the 100-year return period with a 40% allowance for climate change, attenuation is required which provides in the order of **98m³** of surface water storage.
- 4.2.20 The surface water discharge rate will be subject to agreement with the EA and Lead Local Flood Authority new public sewer connections will be subject to a Section 106 (Water Industry Act 1991) application to UU.

4.3 Foul Water Drainage

- 4.3.1 A foul sewer connection will need to be sought for the proposed development, possibly utilising existing connection points. Combined sewers are suitably located in Collyhurst Road to receive foul flows from the development via gravity.
- 4.3.2 New foul public sewer connections will be subject to agreement with UU via a Section 106 (Water Industry Act 1991) application.

5.0 Access, Egress & Evacuation

5.1 Safe Access & Egress

- 5.1.1 The site is fully accessible with level pedestrian and vehicular access routes throughout the site and the main point of access to the storage facility will utilise the existing access off Collyhurst Road.

5.2 Flood Warning & Evacuation

- 5.2.1 Flood risk within the site is in Flood Zone 3 and there was evidence of flooding it is recommended that the prospective site management should contact the Flood Warning Service at <https://flood-warning-information.service.gov.uk/>. The postcode of M40 7RU should be entered. This will confirm any current flood warnings. Additionally, it is possible to register to receive flood warnings at <https://www.gov.uk/sign-up-for-flood-warnings> or by calling Floodline on 0345 988 1188.
- 5.2.2 The site management should also provide warning signs and provide appropriate traffic management to protect all employees from the River Irk.

6.0 Off-Site Impacts

- 6.1.1 The proposed development surface water will discharge at reduced rates via the provision of attenuation. Therefore, the development will bring about improvements to the surface water regime in the area, and hence will not increase flooding adjacent to or downstream of the site for the lifetime of the development.

7.0 Overland Flow & Flood Routing Considerations

- 7.1.1 The routing of potential surface water runoff, should the capacity of the proposed drainage system be exceeded, needs to be built into the layout of the site such that the residual risk of flooding from this element can be easily mitigated.
- 7.1.2 Careful attention will need to be paid to the proposed site levels to ensure that overland flow routes are maintained and localised low spots are not created.

8.0 Residual Flood Risk

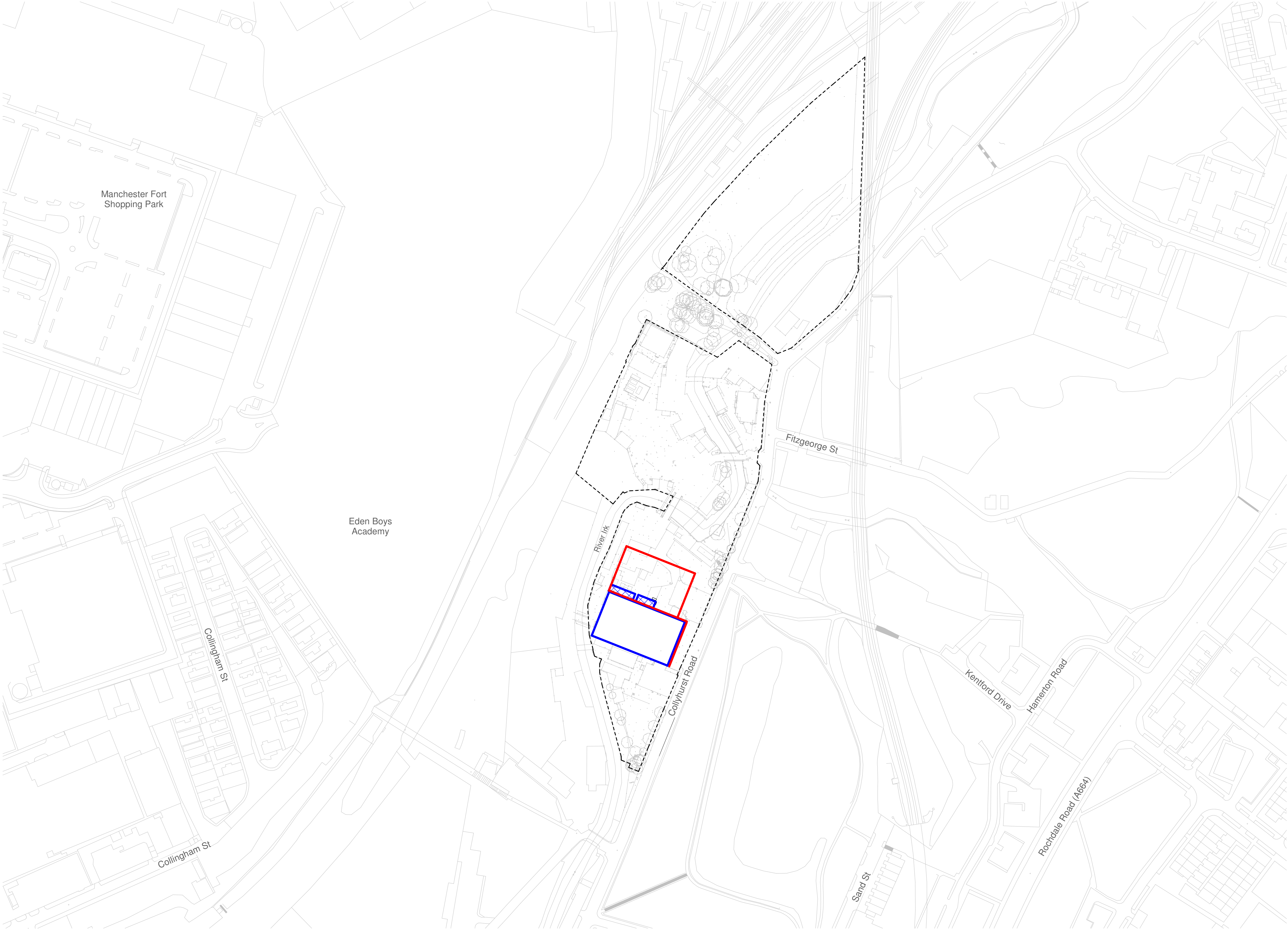
- 8.1.1 A residual risk of flooding from the River Irk will remain low due to the existing and proposed levels for the site.

9.0 Recommendations

The following recommendations are made to ensure flood risk at this site is minimised:

- Ground finished floor levels of the extension storage facility should be set at **32.650m AOD** to match existing warehouse FFL. The site will then be elevated 740mm above the 1 in 1000-year (0.11% AEP) modelled flood level to give more than adequate freeboard above the potential flood water.
- A survey of the existing drainage regime should be completed to determine the diameter of the surface and foul sewer network within the site.
- The proposed surface water drainage system should be designed to accommodate the 1 in 30-year rainfall event without any surface water flooding and should be capable of retaining the 1 in 100-year plus climate change (40%) storm event on site without flooding any buildings.
- The proposed surface water runoff should be limited to **13.4l/s** for all storms up to and including the 100-year return period with a 40% allowance for climate change, attenuation is required which provides in the order of **98m³** of surface water storage.
- The proposed development will be subject to a build over agreement over the existing culvert present on site.
- The prospective site management should register to receive flood warnings.
- The Flood Warning & Evacuation Plan for the site should be brought into place prior to occupation of the development with this information being made available to any subsequent users.

Appendix A - Site Location Plan



1 11-100 - Site Location Plan
1 : 1250

Notes

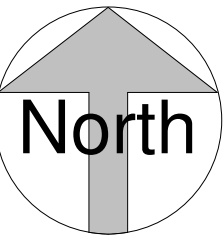
The Contractor is to check all dimensions and conditions on site before commencing. Do not scale from this drawing.

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Scale Bars TO BE USED ONLY AS GUIDANCE

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1:200	mm	0	500	1000	1500	2000
1:500	M	0	5	10	15	20
1:1250	M	0	10	20	30	40

KEYPLAN



North

Key

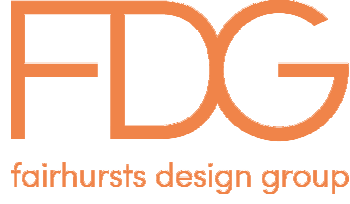
 Proposed Site Development Area

 Existing Building

 approx area for minor building removal. See existing drawings and 3D views for further information.

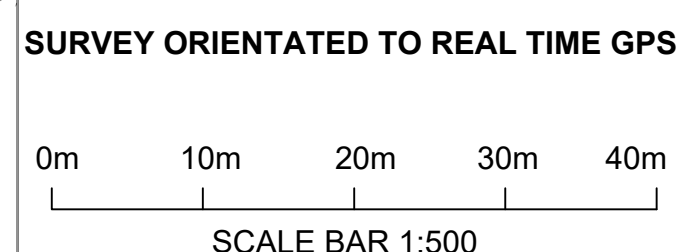
 HMG Site Boundary

Rev	Description	By	Date
Project Status		Drawing Status	
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Client / Project			
HMG Paints			
HMG			
Drawing			
Site Location Plan			
Date	05/21/21	Scale	As indicated
Drawn By	MCA	Author	Checker
Manchester: 55 King Street Manchester M2 4LQ +44 (0)161 831 7300 Southampton: Minor Park Minstead Southampton SO43 7FY +44 (0)23 8081 7900 Cambridge: CB1 Business Centre 20 Station Road Cambridge CB1 2JD +44 (0)1223 863 868 www.fairhursts.com			
FDG Ref	E21-015-11100	Rev	



FDG
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Appendix B – Topographical Survey



ONLY MANHOLES AND SERVICES VISIBLE AT
TIME OF SURVEY SHOWN

ONLY MANHOLES AND SERVICES VISIBLE AT TIME OF SURVEY SHOWN

DRAINAGE INFORMATION MUST BE CHECKED AND VERIFIED WITH LOCAL AUTHORITY RECORDS PRIOR TO WORK COMMENCING

Levels defining edge of carriageway are observed at channel (bottom of kerb). Unless otherwise stated.

TREE SPREADS ARE SYMBOLIC ONLY AND ARE REPRESENTATIVE OF THE THE AVERAGE SPREAD.

THE DRIP LINE LAYER DENOTES THE TREES EXTREMITY

REVISIONS

REV.	DESCRIPTION	SURVEYED	DRAWN	DATE

[illegible]

All levels relate to OSBM Newryin
Datum Generated by VRS GPS

SURVEY STATISTICS				
STN1	3849606.014	398857.672	32.420	
STN1A	384932.816	398871.123	31.928	
STN1B	384932.816	398871.123	31.928	
STN2	384932.816	398871.123	31.928	
STN2A	384975.700	400131.682	34.438	
STN2B	384975.700	400131.682	34.438	
STN3	384932.816	398871.123	31.928	
STN3A	384943.851	400124.814	33.047	
STN3B	384943.851	400124.814	33.047	
STN4	384932.816	398871.123	31.928	
STN4A	384932.816	398871.123	31.928	
STN4B	384932.816	398871.123	31.928	
STN5	384932.816	398871.123	31.928	
STN5A	384932.816	398871.123	31.928	
STN5B	384932.816	398871.123	31.928	
STN6	384932.816	398871.123	31.928	
STN6A	384932.816	398871.123	31.928	
STN6B	384932.816	398871.123	31.928	
STN7	384932.816	398871.123	31.928	
STN7A	384932.816	398871.123	31.928	
STN7B	384932.816	398871.123	31.928	
STN8	384932.816	398871.123	31.928	
STN8A	384932.816	398871.123	31.928	
STN8B	384932.816	398871.123	31.928	
STN9	384932.816	398871.123	31.928	
STN9A	384932.816	398871.123	31.928	
STN9B	384932.816	398871.123	31.928	
STN10	384932.816	398871.123	31.928	
STN10A	384932.816	398871.123	31.928	
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STN11B	384932.816	398871.123	31.928	
STN12	384932.816	398871.123	31.928	
STN12A	384932.816	398871.123	31.928	
STN12B	384932.816	398871.123	31.928	
STN13	384932.816	398871.123	31.928	
STN13A	384932.816	398871.123	31.928	
STN13B	384932.816	398871.123	31.928	
STN14	384932.816	398871.123	31.928	
STN14A	384932.816	398871.123	31.928	
STN14B	384932.816	398871.123	31.928	
STN15	384932.816	398871.123	31.928	
STN15A	384932.816	398871.123	31.928	
STN15B	384932.816	398871.123	31.928	
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STN16B	384932.816	398871.123	31.928	
STN17	384932.816	398871.123	31.928	
STN17A	384932.816	398871.123	31.928	
STN17B	384932.816	398871.123	31.928	
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STN19A	384932.816	398871.123	31.928	
STN19B	384932.816	398871.123	31.928	
STN20	384932.816	398871.123	31.928	
STN20A	384932.816	398871.123	31.928	
STN20B	384932.816	398871.123	31.928	

..\\..\\Marketing\\Logos and font\\Title block.jpg

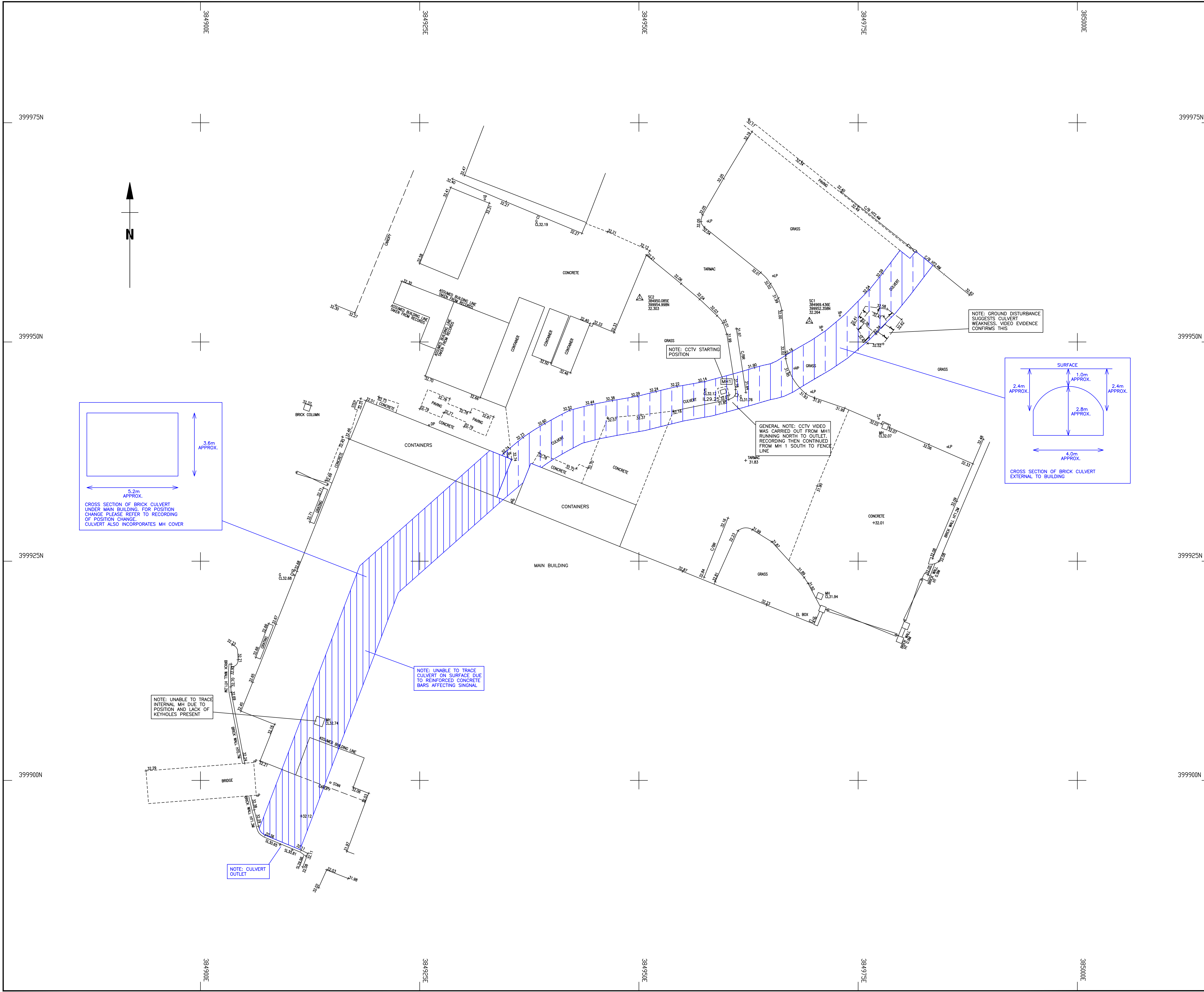
PROJECT
HMG Paints
Collyhurst Road
Manchester

Topographical Land Survey

SCALE	SHEET SIZE	No. of SHEETS	DATE	REVISION
1:500	A0	1	25.02.2020	

DRAWING NUMBER
PCS.19-019 (TOP)44

Appendix C – Culvert Survey



Survey Notes

Grid: Local, Plane, Metric, Related to National Grid at SC1.

Levels: OS Datum from GNSS positioning converted using the National Geoid Model OSGM15

Notes

Topographical Survey Legend

BUILDINGS AND WALLS	GENERAL INFORMATION
Building	Petrol Pump
Open Road	Basement Light
Rail	Footbridge
Passage	Dish Type Channel
Wall with Height	Slit Type Channel
Retaining Wall	Grate Type Channel
	Tactile Paving
	Crown Barrier
	Column
	Stanchion
	Car Vacuum
	Office Fit
	Air Valve
	Trough
	Chimney
	Telephone Call Box

FENCE STYLES AND DESCRIPTIONS
Close Boarded
Corrugated Iron
Chainlink
Handrail
Interwoven
Iron Rollings
Lattice
Miscellaneous
Post & Chain
Post & Rail
Post & Wire
Post & Barbed Wire
Wire mesh
Gate
Fence Inset

ROADS
Kerbs
Edge of Surfacing
Pedestrian Crossing
Track
Footpath

STREET FURNITURE
Beltline Beacon
Bus Stop
Bus Stop
Car Eye
Cool Chute
Closed Circuit TV
Drain
Electricity Pole
Flood Light
Flag Staff
Lamp Post
Letter Box
Name Plate (street)
Measuring Ring
Mail Post or Mooring Post
Service Marker
Mail Stone
Post
Parking Meter
Reflector Post
Reading Eye
Road Sign
Speed Camera
Information Sign
Stop
Traffic Light
Telegraph Pole
Traffic Light Push Button Post
Traffic Light Control
Control Box
British Telecom Box
Electricity Box
Gas Box

INSPECTION CHAMBERS AND PIPES
Inspection Cover (Flat)
Inspection Cover (Dome)
Manhole
British Telecom Cover
Inspection Cover (Comms)
Cable TV
Inspection Cover Traffic Signals
Gully
Kerbs Outlet
Vent Pipe
Down Pipe
Rain Water Pipe
Soil Pipe
Gas Pipe
Unable to lift cover
Stop Top
Stop Valve
Lamphole
Hydrant
Earth Pit
Gas Valve
Water Meter
Washout
Reading Eye

LEVEL AND HEIGHT INFORMATION
Standard Spot Height
Precision Spot Height
Bed Level
Water Level
Soft Level
Threshold Level
Cover Level
Invert Level
Pipe Soft Level
Top of Tank Level
Finished Floor Level
Top of Wall Level
Eave Level
Ridge Level
Roof Hip Level
Flat Roof Level
Top of Canopy Level
Underneath of Canopy Level
Window Sill Level
Window Head Level
Springing Level
Arch Level
Cable Level
Top of Wall Level
Underneath of Beam Level
General Height

SURVEY INFORMATION SIGNS
Permanent Ground Marker
O.S. Trig Station
O.S. Bench Mark

GEOTECHNICAL INFORMATION
Borehole
Test Pit
Monitor Pin
Probe Hole
Window Sample

Rev. Date Description

Accreditations

MALCOLM HUGHES 65 Cross Street, Sale Manchester M33 7HF Tel: 0161 905 1265 www.malcolmhughes.co.uk survey@mhls.co.uk

CHARTERED LAND SURVEYORS

HEAD OFFICE Peel House, 8th Floor, Peel Road, Pimbo, Skelmersdale, Wigan L35 9PP 01695 768 714 01695 768 714

RICS **THE SURVEY ASSOCIATION** **ICES**

DRAINAGE **CONCRETE** **PEEL HOUSE**

Client

TEAM DRAINAGE UK

2nd FLOOR, PEEL HOUSE, PEEL ROAD

PIMBO IND. ESTATE, SKELMERSDALE WN8 9PT

Project

HMG PAINTS LTD RIVERSIDE WORKS

COLLYHURST ROAD, COLLYHURST

MANCHESTER M40 7RU

Drawing Title

TOPOGRAPHICAL SURVEY

Drawn By: IC 26/04/2021

Checked by: ED 27/04/2021

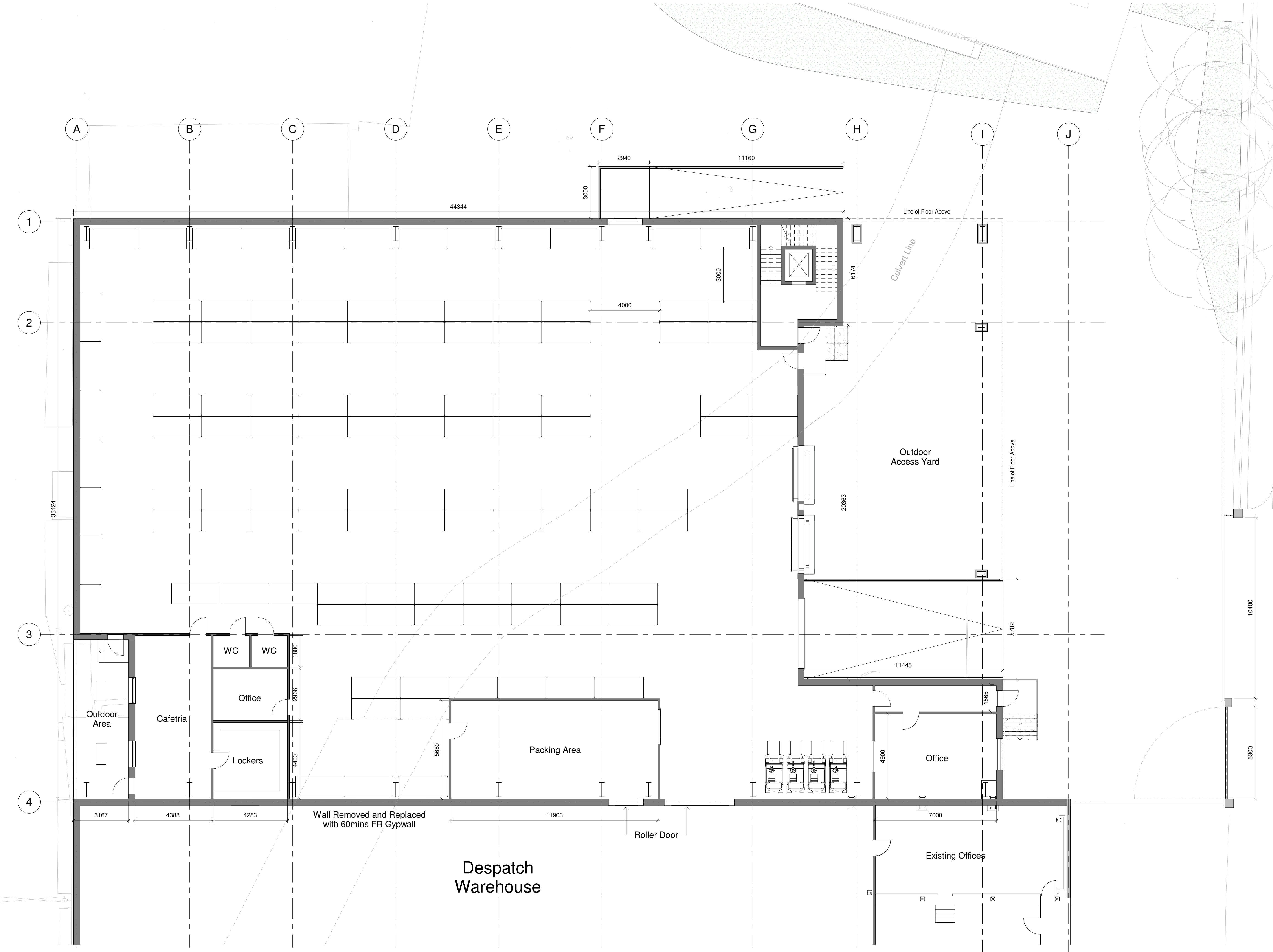
Drawing No: 57100/1

Survey Date: April 2021

Scale: A1@1:200

Revision

Appendix D – Proposed Site Plans



Notes

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1:100	mm	1000	2000	3000	4000	5000
1:200	mm	1000	2000	3000	4000	5000
1:500	M	5	10	15	20	25
1:1250	M	10	20	30	40	50

KEYPLAN

North

Note:

- Number of Racks - 113
- GF Area : 1424 m²
Excluding External Walls and Existing Building.
- GEA Area : 1789 m²

Rev	Description	By	Date
Project Status	Drawing Status		

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HMG

Drawing

GA Ground Floor Plan

Date	11/05/2021	Scale	1 : 100	@ A1
Drawn By	MCA	Author	Checked	Checker

Manchester:
55 King Street
Manchester M2 4LQ
+44 (0)161 851 7300

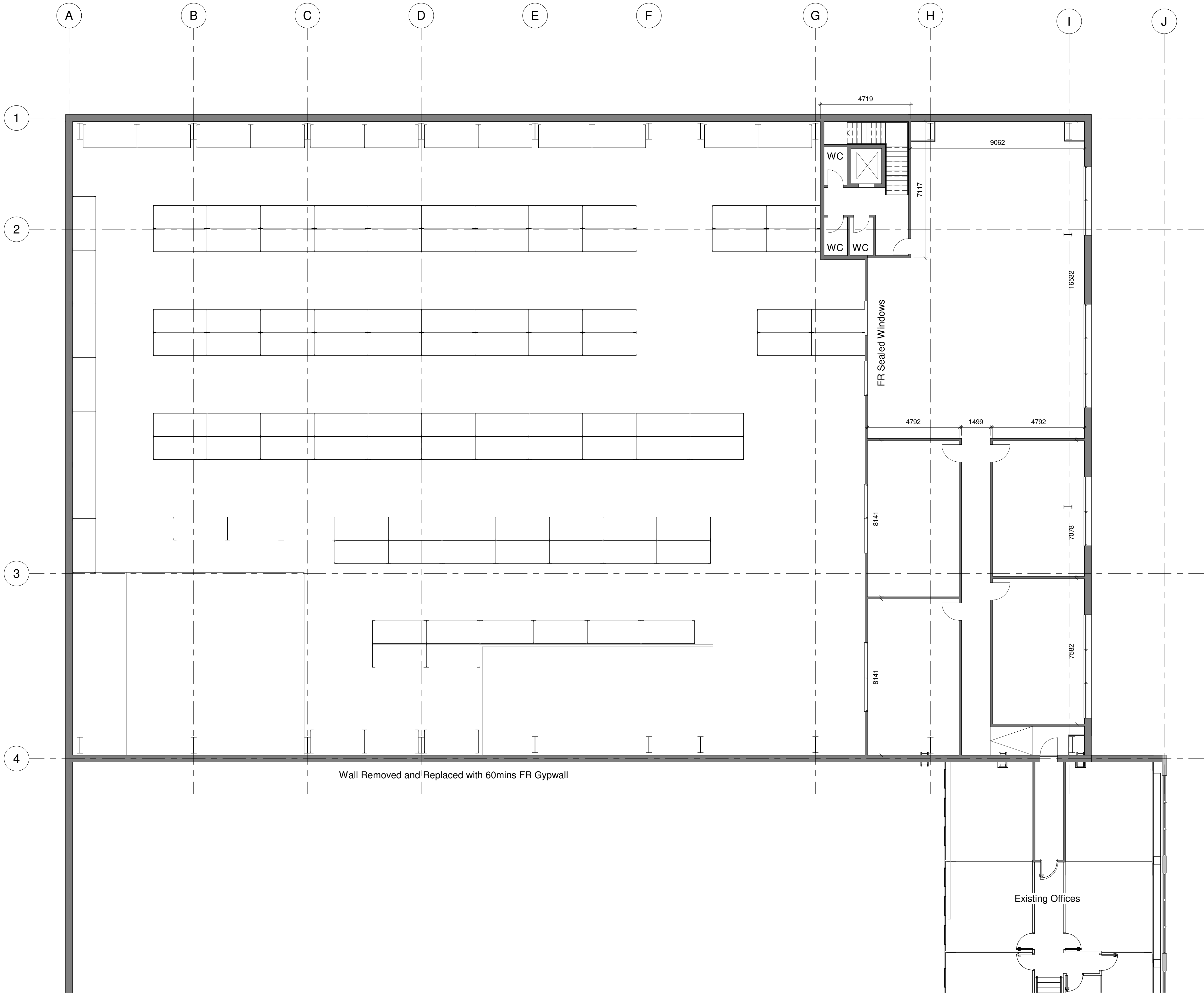
Southampton:
Minor Park
Minstead
Southampton SO43 7FY
+44 (0)23 8081 7900

Cambridge:
CB1 Business Centre
20 Station Road
Cambridge CB1 2JD
+44 (0)1223 863 868
www.fairhursts.com

FDG
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11-101 - GA - Ground Floor Plan
1 : 100

E21-015-SBC-11101



1 11-102 - GA - First Floor Plan
1 : 100

Notes

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1:200	mm	0	500	1000	1500	2000	2500
1:500	M	0	5	10	15	20	25
1:1250	M	0	10	20	30	40	50

KEYPLAN

Note:

- Number of Racks - 113
- FF Area : 395 m²
Excluding External Walls and Existing Building.
- GEA Area : 1789 m²

Rev	Description	By	Date
Project Status	Drawing Status		

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Client / Project

HMG Paints

HMG

Drawing

GA First Floor Plan

Date	Scale	@ A1
06/11/21	1 : 100	@ A1

Drawn By	Author	Checked	Checker
MCA	Author	Checked	Checker

Manchester:
55 King Street
Manchester M2 4LQ
+44 (0)161 831 7300

Southampton:
Minor Park
Minstead
Southampton SO43 7FY
+44 (0)23 8081 7900

Cambridge:
CB1 Business Centre
20 Station Road
Cambridge CB1 2JD
+44 (0)1223 863 868
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Rev	Description
E21-015-11102	

KINGSPAN KS1000RW
TRAPEZOIDAL INSULATED ROOF
PANEL CLADDING
Grey Colour

53528

33424

1 Metre Wide Gutter

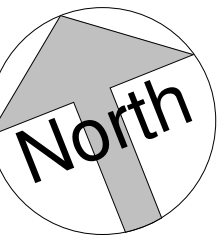
Despatch
Warehouse

Notes
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Scale Bars		TO BE USED ONLY AS GUIDANCE			
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1:500	M	0	5	0	25
1:1250	M	0	10	0	70

KEYPLAN



Weir Overflows placed at
Key Drainage Locations

Rev	Description	By	Date
-----	-------------	----	------

Project Status	Drawing Status
----------------	----------------

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Drawing
GA Roof Plan

Date	05/21/21	Scale	1 : 100	@ A1
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Drawn By	MCA	Author	Checked	Checker
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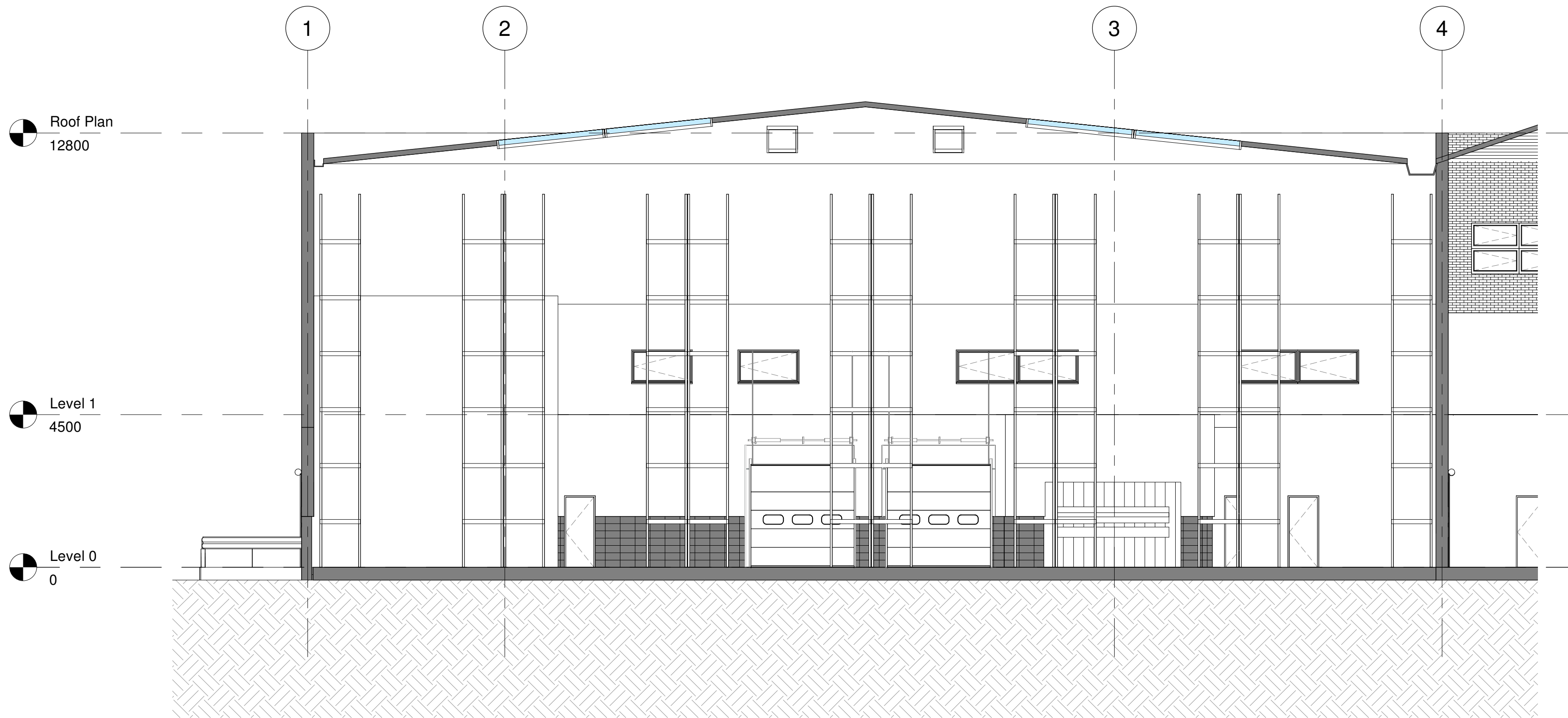
Manchester:
55 King Street
+44 (0)161 851 7300
Southampton:
Minor Park
Minstead
Southampton SO43 7FY
+44 (0)23 8081 7900
Cambridge:
CB1 Business Centre
20 Station Road
Cambridge CB1 2JD
+44 (0)1223 803 868
www.fairhursts.com



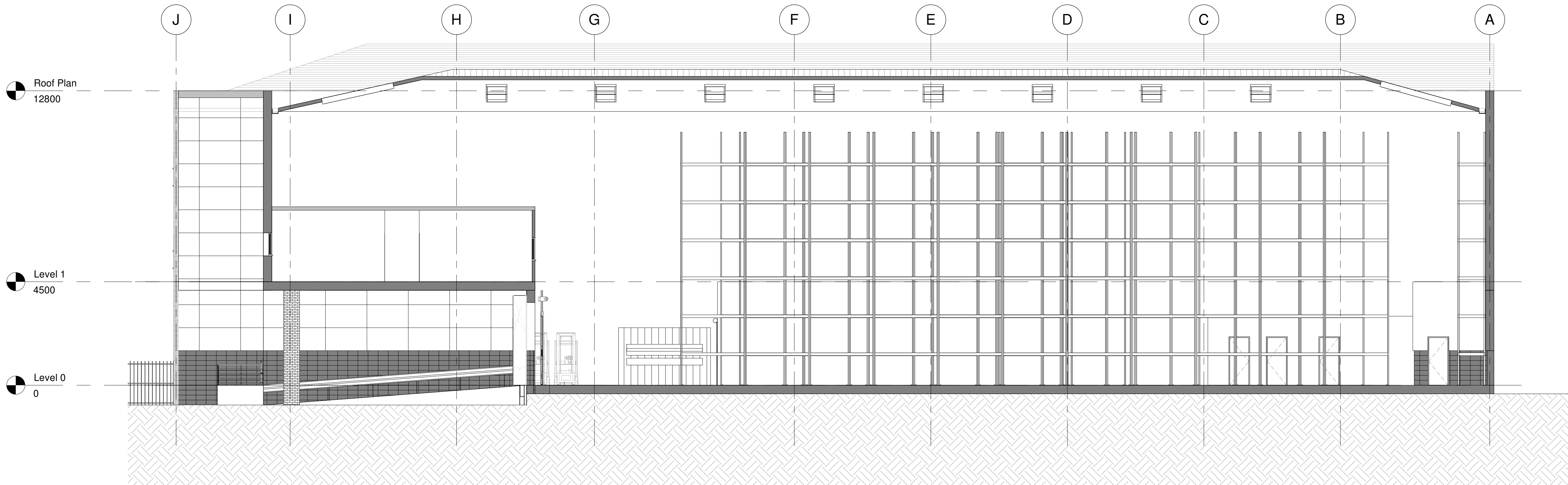
FDG Ref	E21-015-11103	Rev
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11-102 - GA - Roof Plan

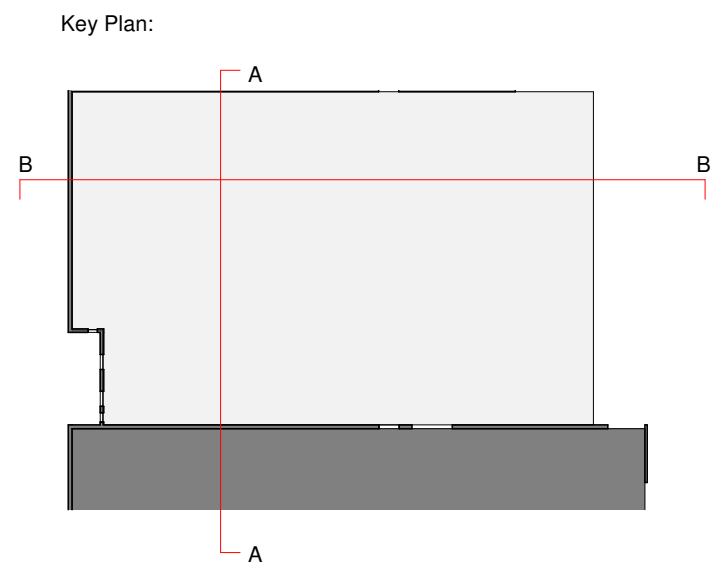
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2 Section A
1 : 100



3 Section B
1 : 100



Notes

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Scale Bars		TO BE USED ONLY AS GUIDANCE	
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Rev	Description	By	Date
Project Status	Drawing Status		

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HMG Paints

HMG

Drawing

GA Sections

Date	DD/MM/16	As indicated	@ A1
Drawn By	MCA	Author	Checker

Manchester:
55 King Street
+44 (0)161 851 7300

Southampton:
Minor Park
Minstead
Southampton SO43 7FY
+44 (0)23 8081 7900

Cambridge:
CB1 Business Centre
20 Station Road
Cambridge CB1 2JD
+44 (0)1223 863 868
www.fairhursts.com

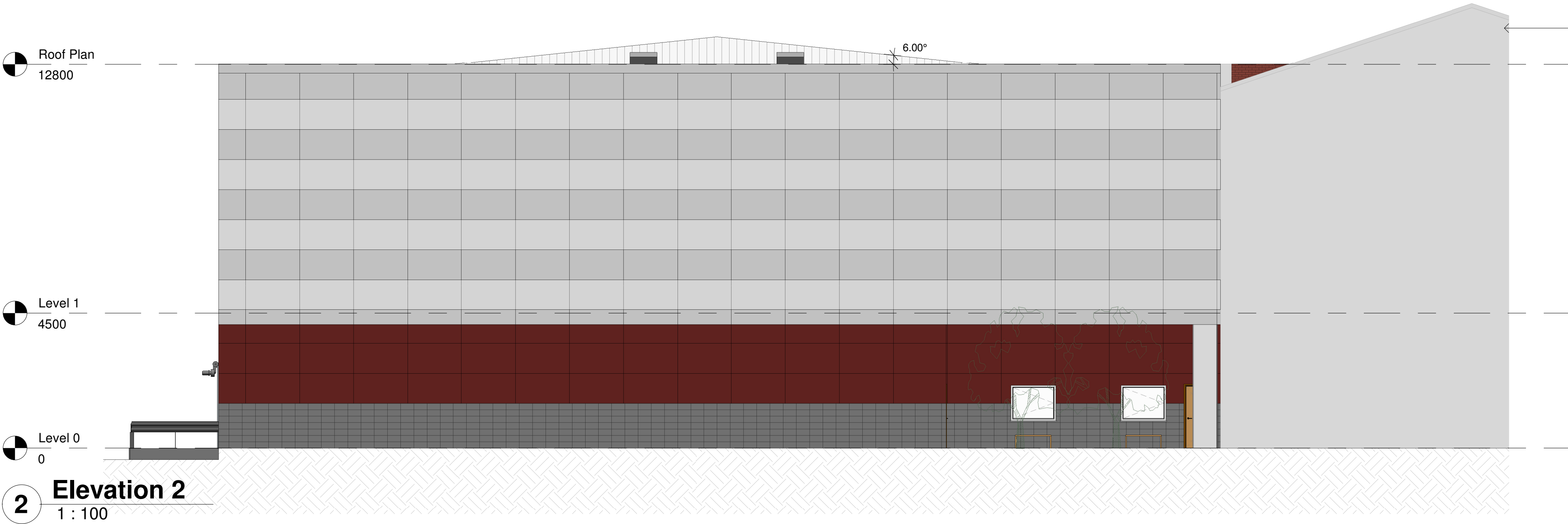
FDG
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FDG Ref: E21-015-12100

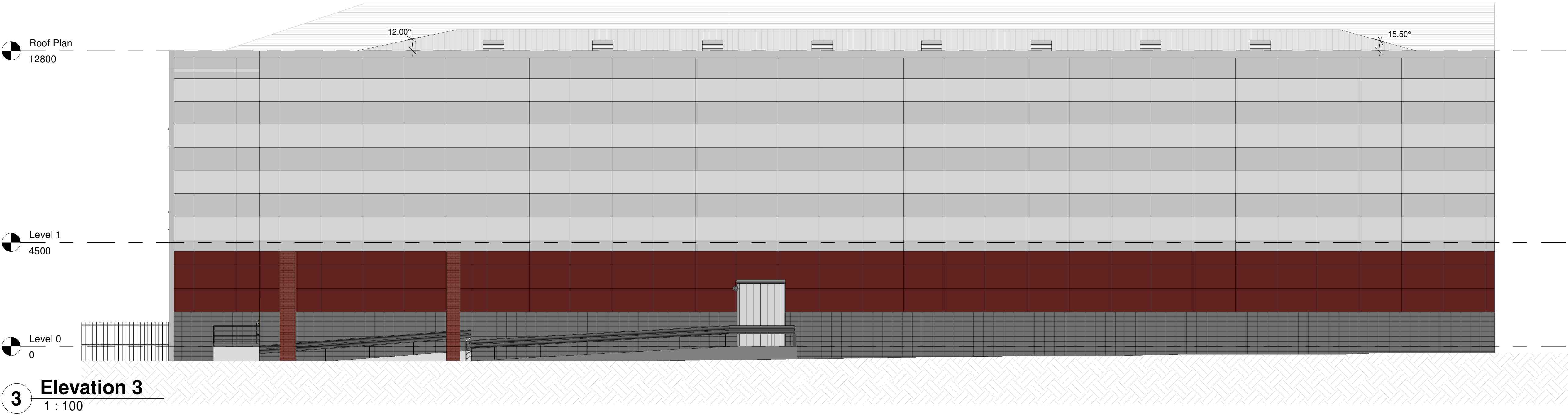
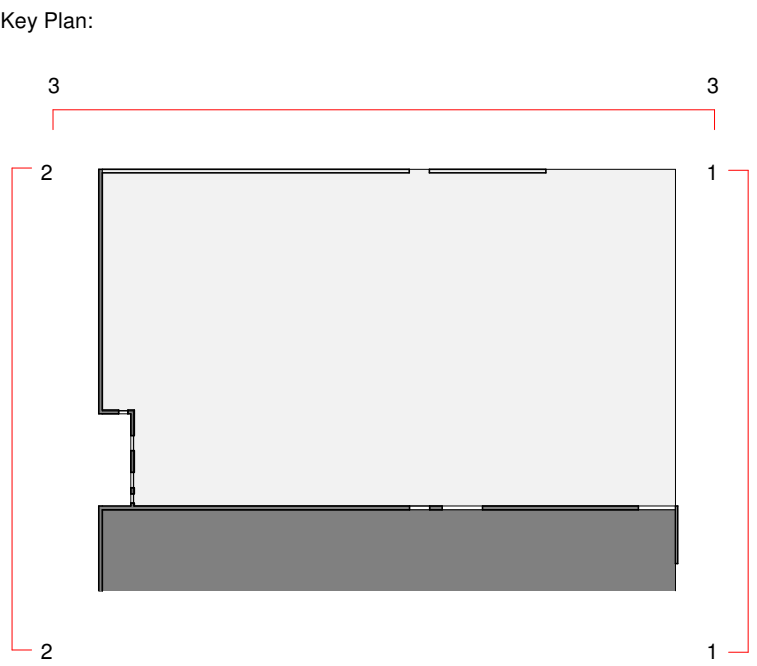
Rev



- Brickwork to existing building to be cleaned and joints re-pointed. Windows to be replaced with ppc finished aluminium frames and double glazed window units.
- Parapet Heights to match existing Building Height.
- Kingspan Quad Core Wall Panel
Micro Rib Profile
Grey Colour to match the existing warehouse cladding colour on north, west and south side
- Kingspan Quad Core Wall Panel
Micro Rib Profile - Colour Red Brown to match surrounding brick with similarity to HMG Branding.
- Columns Cladded in Brick to match existing brick wall.
- Lignacite Concrete Blocks
Fibo 850/950
Dark Grey



- Roof Repair and maintenance to be carried out during works to existing despatch warehouse.



Notes

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Scale Bars

TO BE USED ONLY AS GUIDANCE

1:100

mm

1000

5000

5000

1:200

mm

1000

5000

8000

1:500

M

5

15

25

1:1250

M

10

30

50

70

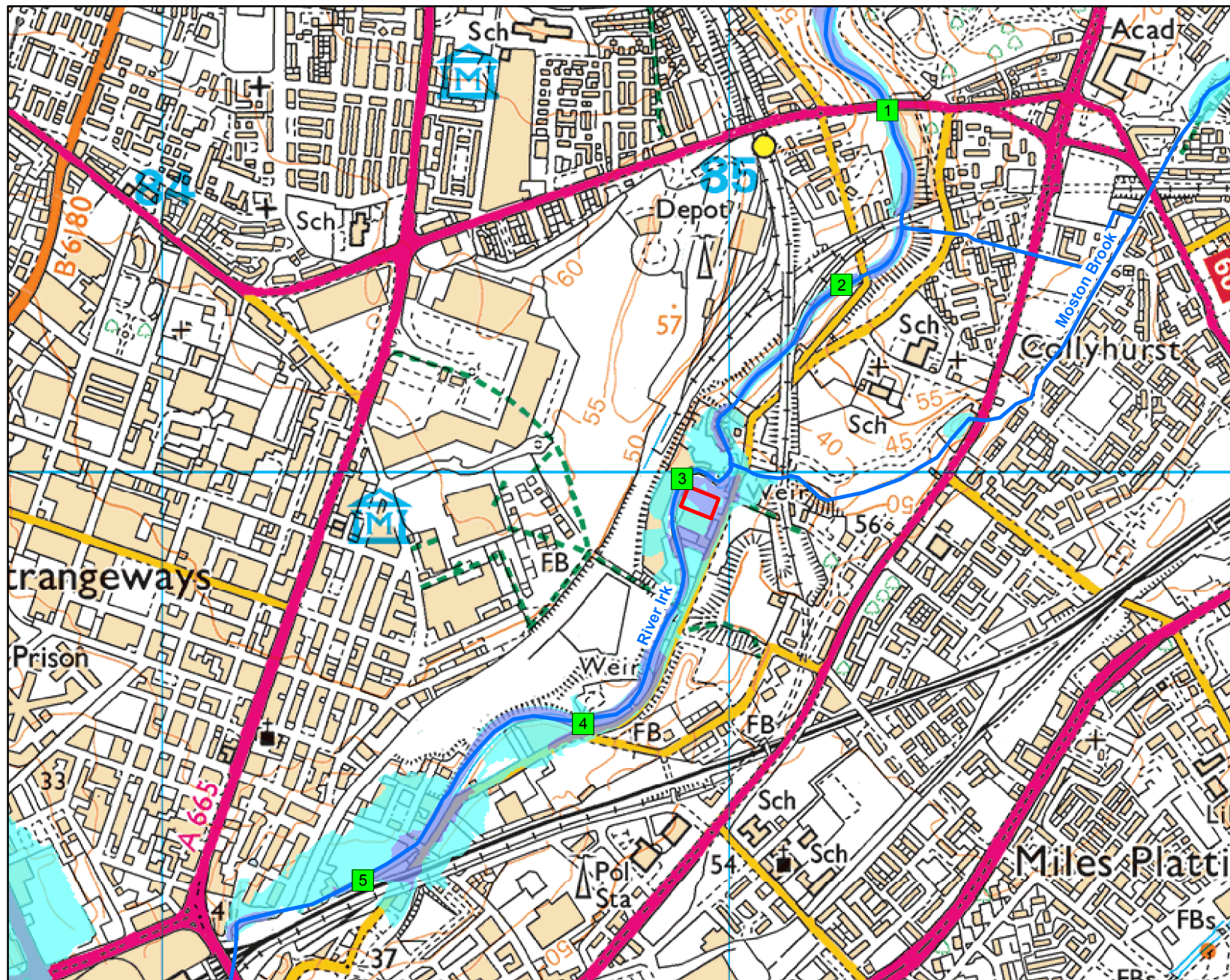
Rev	Description	By	Date
Project Status	Drawing Status		
This information, whether drawn or as a data file, is copyright and issued strictly for use on the project for which it is provided			
Client / Project			
HMG Paints			
HMG			
Drawing			
GA Elevations			
Date	DD/MM/16	As indicated	@ A1
Drawn By	MCA	Author	Checker
Manchester: 55 King Street Manchester M2 4LQ +44 (0)161 851 7500 Southampton: Menor Park Minstead Southampton SO43 7FY +44 (0)23 8081 7900 Cambridge: CB1 Business Centre 20 Station Road Cambridge CB1 2JD +44 (0)1223 863 868 www.fairhursts.com			
FDG Ref	E21-015-13100	Rev	

03/08/2021 09:26:13

A1L

Appendix E – Environment Agency Flood Data

Detailed Flood Map centred on Collyhurst Road, Cheetham Hill, Manchester, M40 7RU.
Created on 17/09/2021 [GMMC233160AB]



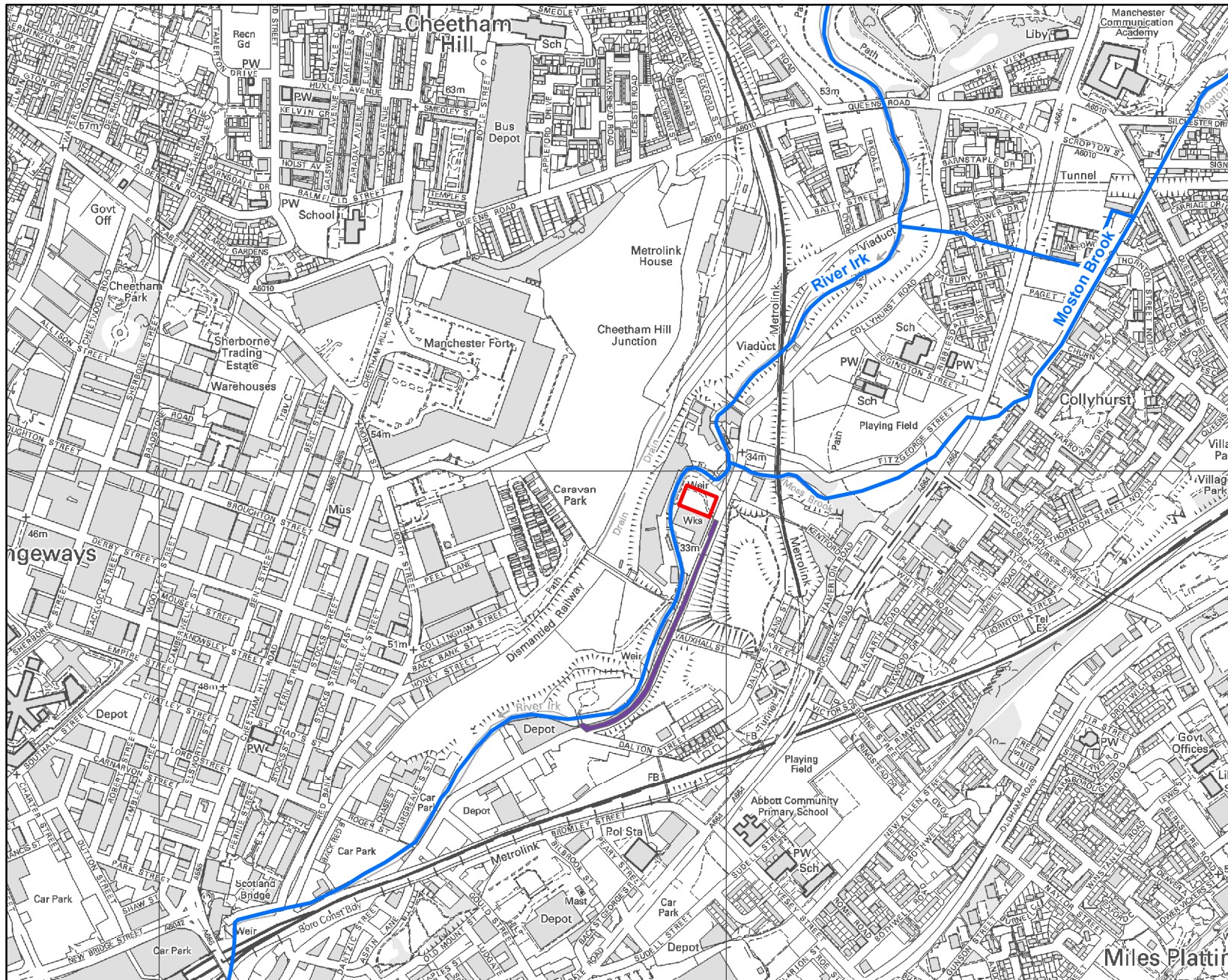
1:10,001



Legend

- Site Location
- Model Measurements
- Main River
- Flood Zone 3
- Flood Zone 2

Recorded Flood Outline Map centred on Collyhurst Road, Cheetham Hill, Manchester, M40 7RU. Created on 17/09/2021 [GMMC233160AB]



1:10,001



Legend

Site Location

Main River

Recorded Flood Outlines

Start Date

16/03/2019

					Undefended			
Map Reference	Model Node Reference	Easting	Northing	Data	4 % AEP (1 in 25 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 20% increase in flow	0.1 % AEP (1 in 1000 year)
1	ea013_Model_Irk_00001	385282	400638	Modelled Water Level (m aodN)	36.91	37.20	37.44	38.82
				Modelled Flow (cumecs)	47.30	58.06	65.76	105.48
2	ea013_Model_Irk_00019	384919	399987	Modelled Water Level (m aodN)	31.88	32.21	32.77	33.96
				Modelled Flow (cumecs)	47.36	56.85	58.55	53.09
3	ea013_Model_Irk_00027	384745	399555	Modelled Water Level (m aodN)	30.47	30.95	31.22	31.91
				Modelled Flow (cumecs)	55.25	64.94	71.86	90.18
4	ea013_Model_Irk_00033	384356	399278	Modelled Water Level (m aodN)	28.79	29.10	29.32	30.21
				Modelled Flow (cumecs)	55.63	65.43	72.49	101.64
5	ea013_Model_Irk_00010	385200	400330	Modelled Water Level (m aodN)	34.67	35.04	35.28	36.40
				Modelled Flow (cumecs)	47.35	58.02	65.80	104.48

Model data taken from River Irk SFRA 2011 Study

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes:

Climate Change Scenario - We only hold climate change measurements based on the previous climate change guidance (20% increase in flow). The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

Flood Event Code	Name	Start Date	End Date	Source of Flooding	Cause of Flooding
69510	Collyhurst Road	16/03/2019	16/03/2019	Main River	channel capacity exceeded (no raised defences)

Appendix F – UU Sewer Records

Commercial drainage and water enquiry

Responses to a drainage and water enquiry for commercial premises or development sites.

Client:**Client ref:** ECB 20-0021**ECB Design Group Ltd****10
Griffin Road, ECB Design Group Ltd
Newark, Nottinghamshire
NG22 9WJ****Order number:** UUPS-ORD-324786**Received date:** 09/09/2021**Response date:** 14/09/2021**FAO:**

The following records were searched in compiling this report:

The map of public sewers
The map of waterworks
Water and sewerage billing records
Adoption of public sewers records
Building over public sewer records
Adoption of public water mains records
Water supply clarification

Property address: HMG Paint Ltd

Please Note - We must make you aware that due to the introduction of the open market with effect from 1st April 2017 for commercial customers, Property Searches will no longer be able to resolve issues regarding some discrepancies within the report. Due to the change in the structure of the market the retailer is now responsible for taking ownership of certain issues, particularly relating to billing/tariff charges as well as, but not limited to change of usage of a property.

Enquiries and Responses

The records were searched by Emma Race for United Utilities who does not have, nor is likely to have, any personal or business relationship with any person involved in the sale of the property.

This search report was prepared by Emma Race for United Utilities who does not have, nor is likely to have, any personal or business relationship with any person involved in the sale of the property.

How to contact us:

United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP

Telephone: 0370 7510101

E-mail: propertysearches@uuplc.co.uk

What is included:

1. Summary of findings and key
2. Detailed findings of the CON29DW
3. Guidance for interpretation
4. Terms and conditions
5. Complaints policy

If you are planning works anywhere in the North West, please read our access statement before you start work to check how it will affect our network. <http://www.unitedutilities.com/work-near-asset.aspx>.

To help understand the implications of the drainage and water enquiries report a summary guide to the content of the full report is provided below.

✓ This response represents the typical situation for a property.

⚠ The attention of the purchaser is drawn to this response. The purchaser may wish to make further investigations into this situation.

✗ This response represents an uncommon situation for a property and the purchaser should carefully consider its implications.

Question	Report Schedule	Answer	
1.1	Where relevant, please include a copy of an extract from the public sewer map.	Yes & in vicinity	✓
1.2	Where relevant, please include a copy of an extract from the map of waterworks.	Yes & in vicinity	✓
2.1	Does foul water from the property drain to a public sewer?	Connected	✓
2.2	Does surface water from the property drain to a public sewer?	Connected	✓
2.3	Is a surface water drainage charge payable?	Yes	✓
2.4	Does the public sewer map indicate any public sewer, disposal main or lateral drain within the boundaries of the property?	None	✓
2.4.1	Does the public sewer map indicate any pumping station or any other ancillary apparatus within the boundaries of the property?	None	✓
2.5	Does the public sewer map indicate any public sewer within 30.48 metres (100 feet) of any buildings within the property?	Public	✓
2.5.1	Does the public sewer map indicate any public pumping station or any other ancillary apparatus within 50 metres of any buildings within the property?	None	✓
2.6	Are any foul sewers or lateral drains serving or which are proposed to serve the property the subject of an existing adoption agreement or an application for such an agreement?	Not applicable (established)	✓
2.6.1	Are any surface water pipes or lateral drains serving, or which are proposed to serve the property, the subject of an existing adoption agreement or an application for such an agreement?	Not applicable (established)	✓
2.7	Has a sewerage undertaker approved or been consulted about any plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain?	None	✓
2.8	Is the building which is or forms part of the property at risk of internal flooding due to overloaded public sewers?	No	✓
2.9	Please state the distance from the property to the nearest boundary of the nearest sewage treatment works.	Yes	✓
3.1	Is the property connected to mains water supply?	Connected	✓
3.2	Are there any water mains, resource mains or discharge pipes	No	✓

Question	Report Schedule	Answer	
3.3	Is any water main or service pipe serving or which is proposed to serve the property the subject of an existing adoption agreement or an application for such an agreement?	No	✓
3.4	Is the building at risk of receiving low water pressure or flow?	No	✓
3.5	What is the clarification of the water supply for the property?	Very soft	✓
3.6	Is there a meter installed at the property?	Yes	✓
3.7	Please include details of the location of any water meter serving the property.	External	✓
4.1.1	Who is responsible for providing the sewerage services for the property?	United Utilities	✓
4.1.2	Who is responsible for providing the water services for the property?	United Utilities	✓
4.2	Who bills the property for sewerage services?	Retailer Sewer	✓
4.3	Who bills the property for water services ?	Retailer Water	✓
5.1	Is there Consent, on this property, to discharge Trade Effluent under S118 of the Water Industry Act (1991) into the public sewerage system?	Yes	✗
6.1	Is there a wayleave/easement agreement giving the Water and/or Sewerage Undertaker the right to lay or maintain assets or right of access to pass through private land in order to reach the Company's assets?	No	✓
6.2	On the copy extract from the public sewer map, please show manhole cover, depth and invert levels where the information is available.	Included	✓

Question 1.1 **Where relevant, please include a copy of an extract from the public sewer map.**

Answer **A copy of an extract of the public sewer map within the vicinity of the property is included.**

Guidance

1. The Water Industry Act 1991 defines Public Sewers as those which (United Utilities) have responsibility for. Other assets and rivers, water courses, ponds, culverts or highway drains may be shown for information purposes only.
2. Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.
3. The Sewerage Undertaker has a statutory right of access to carry out work on its assets, subject to notice. This may result in employees of the Sewerage Undertaker or its contractors needing to enter the property to carry out work.

Question 1.2 **Where relevant, please include a copy of an extract from the map of waterworks.**

Answer **A copy of an extract of the map of waterworks is included, showing water mains, resource mains or discharge pipes in the vicinity of the property.**

Guidance

The "water mains" in this context are those which are vested in and maintainable by the Water Undertaker under statute.

Assets other than public water mains may be shown on the plan, for information only. Water Undertakers are not responsible for private supply pipes connecting the property to the public water main and do not hold details of these. These may pass through land outside of the control of the seller, or may be shared with adjacent properties. The buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.

If an extract of the public water main record is enclosed, it will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

The presence of a public water main running within the boundary of the property may restrict further development within it. Water Undertakers have a statutory right of access to carry out work on their assets, subject to notice. This may result in employees of the Water Undertaker or its contractors needing to enter the property to carry out work.

Question 2.1 **Does foul water from the property drain to a public sewer?**

Answer **Records indicate that foul water from the property drains to a public sewer.**

Guidance

Sewerage Undertakers are not responsible for any private drains or sewers that connect the property to the public sewerage system, and do not hold details of these.

The property owner will normally have sole responsibility for private drains serving the property and may have shared responsibility, with other users, if the property is served by a private sewer which also serves other properties. These may pass through land outside of the control of the seller and the buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.

If foul water does not drain to the public sewerage system the property may have private facilities in the form of a cesspit, septic tank or other type of treatment plant.

If an extract from the public sewer map is enclosed, this will show known public sewers in the vicinity of the property and it should be possible to estimate the likely length and route of any private drains and/or sewers connecting the property to the public sewerage system.

Question 2.2 **Does surface water from the property drain to a public sewer?**

Answer **Records indicate that surface water from the property does drain to a public sewer.**

Guidance Sewerage Undertakers are not responsible for any private drains or sewers that connect the property to the public sewerage system and do not hold details of these.

The property owner will normally have sole responsibility for private drains serving the property and may have shared responsibility with other users, if the property is served by a private sewer which also serves other properties. These may pass through land outside of the control of the seller and the buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.

In some cases, Sewerage Undertakers' records do not distinguish between foul and surface water connections to the public sewerage system. If on inspection the buyer finds that the property is not connected for surface water drainage, the property may be eligible for a rebate of the surface water drainage charge. Details can be obtained from the Sewerage Undertaker.

If surface water does not drain to the public sewerage system the property may have private facilities in the form of a soakaway or private connection to a watercourse. If an extract from the public sewer map is enclosed, this will show known public sewers in the vicinity of the property and it should be possible to estimate the likely length and route of any private drains and/or sewers connecting the property to the public sewerage system.

Question 2.3 **Is a surface water drainage charge payable?**

Answer **Records indicate that a surface water drainage charge is applicable for the property.**

Guidance Since 1st April 2017 commercial customers can choose their retailer for clean, waste or both services. For more information on any applicable surface water charges you will need to contact the current owner of the property to find out who the current retailer is. Details of the retailer for a property can be found on the current occupiers bill. For a list of all potential retailers of water and waste water services for the property please visit www.open-water.org.uk.

Please note if the property was constructed after 6th April 2015 the Surface Water drainage may be served by a Sustainable Drainage System. Further information may be available from the Developer.

Question 2.4 **Does the public sewer map indicate any public sewer, disposal main or lateral drain within the boundaries of the property?**

Answer **The public sewer map included indicates that there are no public sewers, disposal mains or lateral drains within the boundary of the property. However from the 1st October 2011 there may be additional public sewers, disposal mains or lateral drains which are not recorded on the public sewer map which may further prevent or restrict development of the property. If you are considering any future development at this property which may require build over consent, please complete the enquiry form by accessing the following link <http://www.unitedutilities.com/planning-wastewater-guidance.aspx>.**

Guidance The approximate boundary of the property has been determined by reference to the Ordnance Survey record. A property of this type will normally be served by a shared sewer passing through the boundaries of several properties. It is therefore likely that a public sewer or lateral drain is present within the property boundary.

Please note that from 1st October 2011 the majority of private sewers and lateral drains connected to the public network as of 1st July 2011 transferred into public ownership and therefore it is possible there may be additional public assets which may not be shown on the public sewer plan.

The presence of public assets running within the boundary of the property may restrict further development. If there are any plans to develop the property further enquiries should be made to United Utilities Build Over department.

United Utilities Water has a legal right of access to carry out work on its assets, subject to notice. This may result in employees of the Company or its contractors needing to enter the property to carry out work.

Question 2.4.1 Does the public sewer map indicate any pumping station or any other ancillary apparatus within the boundaries of the property?

Answer The public sewer map included indicates that there is no public pumping station or other ancillary apparatus within 50 metres of any buildings within the property. However, from 1st October 2016 private pumping stations which serve more than one property will be transferred into public ownership but may not be recorded on the public sewer map until that time.

Guidance From 1 October 2016 United Utilities will be responsible for private pumping stations (though we may take ownership of some stations before this date) that either:

* serve a single property, and are outside the property boundary or

* serves two or more properties

Only private pumping stations installed before 1st July 2011 will be transferred into our ownership. United Utilities will be responsible for all associated costs, maintenance, repairs and any necessary upgrade work.

Where the property is part of a very recent or ongoing development and the sewers/pumping station are not the subject of an adoption application, buyers should consult with the developer to ascertain the extent of private drains, sewers and pumping stations for which they will hold maintenance and renewal liabilities.

Question 2.5 Does the public sewer map indicate any public sewer within 30.48 metres (100 feet) of any buildings within the property?

Answer The public sewer map included indicates that there are public sewers within 30.48 metres (100 feet) of a building within the boundary of the property. However from the 1st October 2011 there may be additional public sewers, disposal mains or lateral drains which are not recorded on the public sewer map which may further prevent or restrict development of the property. Please refer to Q2.4 sewer in boundary for further details.

Guidance From 1st October 2011 there may be additional lateral drains and/or public sewers which are not recorded on the public sewer map but are also within 30.48 metres (100 feet) of a building within the property.

The presence of a public sewer within 30.48 metres (100 feet) of the building(s) within the property can result in the Local Authority requiring a property to be connected to the public sewer.

The measure is estimated from the Ordnance Survey record, between the building(s) within the boundary of the property and the nearest public sewer.

Sewers indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended that these details are checked with the developer, if any.

Assets other than public sewers may be shown on the copy extract for information only.

Question 2.5.1 Does the public sewer map indicate any public pumping station or any other ancillary apparatus within 50 metres of any buildings within the property?

Answer The public sewer map included indicates that there is no public pumping station or other ancillary apparatus within 50 metres of any buildings within the property. However, from 1st October 2016 private pumping stations which serve more than one property will be transferred into public ownership but may not be recorded on the public sewer map until that time.

Guidance From 1 October 2016 United Utilities will be responsible for private pumping stations (though we may take ownership of some stations before this date) that either:

* serve a single property, and are outside the property boundary or

* serves two or more properties.

Only private pumping stations installed before 1st July 2011 will be transferred into our ownership. United Utilities will be responsible for all associated costs, maintenance, repairs and any necessary upgrade work.

If you think there might be a private pumping station on your land or near your business property, please let us know by completing this questionnaire with as much information as possible, please visit our website <http://www.unitedutilities.com/ppstransfer.aspx>.

Where the property is part of a very recent or ongoing development and the sewers/pumping station are not the subject of an adoption application, buyers should consult with the developer to ascertain the extent of private drains, sewers and pumping stations for which they will hold maintenance and renewal liabilities.

Question 2.6 **Are any foul sewers or lateral drains serving or which are proposed to serve the property the subject of an existing adoption agreement or an application for such an agreement?**

Answer **The property is part of an established development and is not subject to an adoption agreement**

Guidance This enquiry is of interest to purchasers of new property who will want to know whether or not the property will be linked to a public sewer.

Where the property is part of a very recent or ongoing development and the sewers are not the subject of an adoption application, buyers should consult with the developer to ascertain the extent of private drains and sewers for which they will hold maintenance and renewal liabilities.

Final adoption is subject to the developer complying with the terms of the adoption agreement under Section 104 of the Water Industry Act 1991.

Question 2.6.1 **Are any surface water pipes or lateral drains serving, or which are proposed to serve the property, the subject of an existing adoption agreement or an application for such an agreement?**

Answer **The property is part of an established development and is not subject to an adoption agreement**

Guidance This enquiry is of interest to purchasers of new property who will want to know whether or not the property will be linked to a public sewer.

Where the property is part of a very recent or ongoing development and the sewers are not the subject of an adoption application, buyers should consult with the developer to ascertain the extent of private drains and sewers for which they will hold maintenance and renewal liabilities.

Final adoption is subject to the developer complying with the terms of the adoption agreement under Section 104 of the Water Industry Act 1991.

Question 2.7 **Has a sewerage undertaker approved or been consulted about any plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain?**

Answer **There are no records in relation to any approval or consultation about plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain. However, the sewerage undertaker might not be aware of a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain.**

Guidance From the 1st October 2011 private sewers, disposal mains and lateral drains were transferred into public ownership and the sewerage undertaker may not have granted approval or been consulted about any plans to erect a building or extension on the property over or in the vicinity of these assets.

Prior to 2003 United Utilities Water Limited had sewerage agency agreements with the local authorities therefore details of any agreements/consents or rejections may not have been forwarded on to our offices before this date.

Buildings or extensions erected over a sewer in contravention of building controls may have to be removed or altered.

Question 2.8

Is the building which is or forms part of the property at risk of internal flooding due to overloaded public sewers?

Answer

The building is not recorded as being at risk of internal flooding due to overloaded public sewers. From the 1st October 2011 private sewers, disposal mains and lateral drains were transferred into public ownership it is therefore possible that a property may be at risk of internal flooding due to an overloaded public sewer which the sewerage undertaker is not aware of. For further information it is recommended that enquiries are made of the vendor.

Guidance

1. A sewer is "overloaded" when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
2. "Internal flooding" from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
3. These are defined as properties that have suffered or are likely to suffer internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Sewerage Undertaker's reporting procedure.
4. Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included.
5. Properties may be at risk of flooding but not included where flooding incidents have not been reported to the Sewerage Undertaker.
6. Public sewers are defined as those for which the Sewerage Undertaker holds statutory responsibility under the Water Industry Act 1991.
7. It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Sewerage Undertaker.
8. This report excludes flooding from private sewers and drains and the Sewerage Undertaker makes no comment upon this matter. For reporting purposes buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.

Question 2.9

Please state the distance from the property to the nearest boundary of the nearest sewage treatment works.

Answer

The nearest Sewage Treatment Works is 2.78 miles (4.48 km), South East of the property. The name of the Sewage treatment works is Failsworth WwTW. The owner is United Utilities

Guidance

The nearest sewage treatment works will not always be the sewage treatment works serving the catchment within which the property is situated i.e. the property may not necessarily drain to this works.

The Sewerage Undertaker's records were inspected to determine the nearest sewage treatment works.

It should be noted therefore that there may be a private sewage treatment works closer than the one detailed above that has not been identified. As a responsible utility operator, United Utilities Water Limited seeks to manage the impact of odour from operational sewage works on the surrounding area.

This is done in accordance with the "Code of Practice on Odour Nuisance from Sewage Treatment Works" issued via the Department of Environment, Food and Rural Affairs (DEFRA).

This Code recognises that odour from sewage treatment works can have a detrimental impact on the quality of the local environment for those living close to works.

However DEFRA also recognises that sewage treatment works provide important services to communities and are essential for maintaining standards in water quality and protecting aquatic based environments. For more information visit www.unitedutilities.com.

Question 3.1 **Is the property connected to mains water supply?**

Answer **Records indicate that the property is connected to mains water supply.**

Guidance If the property is supplied by private water mains please note that details of private supplies are not kept by the Water Undertaker. The situation should be checked with the current owner of the property.

Question 3.2 **Are there any water mains, resource mains or discharge pipes**

Answer **The map of waterworks does not indicate any water mains, resource mains or discharge pipes within the boundaries of the property.**

Guidance The boundary of the property has been determined by reference to the Ordnance Survey record.

The presence of a public water main within the boundary of the property may restrict further development within it. Water Undertakers have a statutory right of access to carry out work on their assets, subject to notice.

This may result in employees of the Water Undertaker or its contractors needing to enter the property to carry out work.

Question 3.3 **Is any water main or service pipe serving or which is proposed to serve the property the subject of an existing adoption agreement or an application for such an agreement?**

Answer **Records confirm that water mains or service pipes serving the property are not the subject of an existing adoption agreement or an application for such an agreement.**

Guidance This enquiry is of interest to purchasers of new premises who will want to know whether or not the property will be linked to the mains water supply.

Question 3.4 **Is the building at risk of receiving low water pressure or flow?**

Answer **Records confirm that the building is not recorded by the water undertaker as being at risk of receiving low water pressure or flow.**

Guidance The boundary of the property has been determined by reference to the Ordnance Survey record. "Low water pressure" means water pressure below the regulatory reference level which is the minimum pressure when demand on the system is not abnormal. Water undertakers report properties receiving pressure below the reference level, provided that allowable exclusions do not apply (i.e. events which can cause pressure to temporarily fall below the reference level). Reference level: The reference level of service is a flow of 9l/min at a pressure of 10m head on the customer's side of the main stop tap (mst). The reference level applies to a single property. The reference level of service must be applied on the customer's side of a meter or any other company fittings that are on the customer's side of the main stop tap. Where a common service pipe serves more than one property, the flow assumed in the reference level must be appropriately increased to take account of the total number of properties served. Surrogate for the reference level: Because of the difficulty in measuring pressure and flow at the mst, companies may measure against a surrogate reference level. Companies should use a surrogate of 15m head in the adjacent distribution main unless a different level can be shown to be suitable. In some circumstances companies may need to use a surrogate pressure greater than 15m to ensure that the reference level is supplied at the customer's side of the mst (for example in areas with small diameter or shared communication pipes).

There are a number of circumstances under which properties identified as receiving low pressure should be excluded from the reported figure. The aim of these exclusions is to exclude properties which receive a low pressure as a result

of a one-off event and which, under normal circumstances (including normal peaks in demand), will not receive pressure or flow below the reference level. Companies must maintain verifiable, auditable records of all the exclusions that they apply in order to confirm the accuracy and validity of their information. Allowable exclusions includes Abnormal demand, Planned maintenance, One off incidents, Low pressure incidents of short duration and common supply.

Abnormal demand:

This exclusion is intended to cover abnormal peaks in demand and not the daily, weekly or monthly peaks in demand, which are normally expected. Water undertakers exclude figures from properties which are affected by low pressure only on those days with the highest peak demands. During the yearly report water undertakers may exclude, for each property, up to five days of low pressure caused by peak demand.

Planned maintenance:

Water undertakers will not report low pressures caused by planned maintenance. It is not intended that water undertakers identify the number of properties affected in each instance. However, water undertakers must maintain sufficiently accurate records to verify that low-pressure incidents that are excluded because of planned maintenance, are actually caused by maintenance.

One-off incidents:

This exclusion covers a number of causes of low pressure; mains bursts; failures of company equipment (such as pressure reducing valves or booster pumps); fire fighting and action by a third party. However, if problems of this type affect a property frequently, they cannot be classed as one-off events and further investigation will be required before they can be excluded.

Low pressure incidents of short duration:

Properties affected by low pressures that only occur for a short period, and for which there is evidence that incidents of a longer duration would not occur during the course of the year, may be excluded.

A company must maintain a minimum pressure in the communication pipe of seven metres static head (0.7 bar). If pressure falls below this on two occasions, each occasion lasting more than one hour, within a 28-day period, the company must automatically make a GSS payment to the customer. There are exceptions to the requirement to make a GSS payment if the pressure standard is not met. These are: a payment has already been made to the same customer in respect of the same financial year; it is impractical for the company to have identified the particular customer as being affected, and the customer has not made a claim within three months of the date of the latter occasion; industrial action by the company's employees makes it not feasible to maintain the pressure standard; the act or default of a person other than the company's representative make it not feasible to maintain the pressure standard; or the pressure falls below the minimum standard due to necessary works taking place or due to a drought.

It should be noted that low water pressure can occur from private water mains, private supply pipes (the pipework from the external stop cock to the property) or internal plumbing which are not the responsibility of the Water Undertaker. This report excludes low water pressure from private water mains, supply pipes and internal plumbing and the Water Undertaker makes no comment upon this matter. For reporting purposes buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.

Question 3.5

What is the clarification of the water supply for the property?

Answer

The water supplied to the property has an average water hardness of 30mg/l calcium carbonate, which is defined as very soft by United Utilities

Guidance

The hardness of water is due to the presence of calcium and magnesium minerals that are naturally present in the water. The usual signs of a hard water supply are scaling inside kettles, poor lathering of soaps and scum.

What is water hardness?

Hard water is formed when water passes through or over limestone or chalk areas and calcium and magnesium ions dissolve into the water. The hardness is made up of two parts: temporary (carbonate) and permanent (non-carbonate) hardness. When water is boiled, calcium carbonate scale can form, which can deposit on things like kettle elements. The scale will not stick to kettles that have a plastic polypropylene lining but will float on the surface. The permanent hardness that comprises calcium and magnesium sulphate does not go on to form scale when heated or boiled.

How is water hardness measured?

Hardness is usually expressed in terms of the equivalent quantity of calcium carbonate (CaCO₃) in milligrams per litre or parts per million. You may also see hardness expressed as degrees of hardness in Clark (English) degrees, French or German degrees. Interconversion between the different measurements can be made by using the appropriate conversion factors below. There are no standard levels as to what constitutes a hard or a soft water. Table 1 gives an indication of the equivalents of calcium and calcium carbonate and the relative degree of hardness.

Water quality standards

There are no regulatory standards for water hardness in drinking water.

Water hardness in the North West

The majority of raw water in the United Utilities region comes from upland surface water reservoirs. The water in the reservoirs has little chance of passing through rocks and to dissolve the minerals that make water hard. Therefore, the majority of water in this region is soft or very soft. We supply water from a number of boreholes in the south of the region that are reasonably hard, but these tend to be blended with softer sources to meet demand. No water supply in the North West is artificially softened.

Can hard water be softened?

Yes, water can be softened artificially by the installation of a water softener or the use of 'jug type' filters. Medical experts recommend that a non-softened supply is maintained for drinking purposes because softened water may contain high levels of sodium. Softeners should be fitted after the drinking water tap and comply with the requirements of the Water Supply (Water Fittings) Regulations 1999. They should be maintained in accordance with manufacturers' instructions.

If you're interested in finding out more about the quality of your drinking water, please visit www.unitedutilities.com/waterquality and enter your postcode.

The Drinking Water Inspectorate is responsible for ensuring the quality of public water supplies. Visit their website at: www.dwi.defra.gov.uk.

Question 3.6

Is there a meter installed at the property?

Answer

Records indicate that the property is served by a water meter

Guidance

Not applicable

Question 3.7

Please include details of the location of any water meter serving the property.

Answer

Records indicate that the property is served by a water meter, which is located externally to the building within the property boundary. We have the location as the footpath on the right of gate 5.

Guidance

Where the property is not served by a meter the current occupier can contact the retailer directly to advise on the current charging method, details of the retailer can also be found on the current occupiers bill.

Question 4.1.1

Who is responsible for providing the sewerage services for the property?

Answer **United Utilities Water Limited, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP**

Guidance Not Applicable

Question 4.1.2 **Who is responsible for providing the water services for the property?**

Answer **United Utilities Water Limited, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP.**

Guidance Not Applicable

Question 4.2 **Who bills the property for sewerage services?**

Answer **Since 1st April 2017 commercial customers can choose their retailer. If you wish to know who currently bills the property for sewerage services you will need to contact the current owner of the property to find out who the current retailer is.**

Guidance Details of the retailer for a property can be found on the current occupiers bill. For a list of all potential retailers of waste water services for the property please visit www.open-water.org.uk

Question 4.3 **Who bills the property for water services ?**

Answer **Since 1st April 2017 commercial customers can choose their retailer. If you wish to know who currently bills the property for water services you will need to contact the owner of the property to find out who the retailer is.**

Guidance Details of the retailer for a property can be found on the current occupiers bill. For a list of all potential retailers of water services for the property please visit www.open-water.org.uk

Question 5.1 **Is there Consent, on this property, to discharge Trade Effluent under S118 of the Water Industry Act (1991) into the public sewerage system?**

Answer **There is a current Trade Effluent consent at this property. Any queries relating to Trade Effluent consents should be submitted via your retailer for info please visit <https://www.unitedutilities.com/services/wholesale-services/trade-effluent/>**

Guidance The owner/occupiers of Trade Premises do not have the right to discharge Trade Effluent to the public wastewater network. Any Trade Effluent Discharge Consent will be issued under Section 118 of the Water Industry Act 1991 and will be subject to conditions set by the Sewerage Undertaker.

Generally these conditions are to ensure:

- a) The Health and Safety of staff working within the wastewater network and at wastewater treatment plants.
- b) The apparatus of the wastewater network is not damaged.
- c) The flow of the contents of the wastewater network is not restricted.
- d) Equipment, plant, and processes at treatment works are not disrupted or damaged.
- e) Treatment of sewage sludge is not impeded and sludges are disposed of in an environmentally friendly manner.
- f) Final effluent discharge from wastewater treatment plants has no impact on the environment or prevents the receiving waters from complying with EU Directives.

g) Potential damage to the environment via storm water overflows is minimised.

Disputes between an occupier of a Trade Premise and the Sewerage Undertaker can be referred to the Director General of Water Services (OFWAT).

Protecting Public Sewers - Discharges Section 111 of the Water Industry Act 1991, places prohibition on the discharge of the following into a public sewer, drain or a sewer that communicates with a public sewer.

i) Any matter likely to injure the sewer or drain, to interfere with the free flow of its contents or to affect prejudicially the treatment or disposal of its contents.

ii) Any chemical refuse or waste steam or any liquid of temperature higher than 43.3 degrees Celsius (110 degrees Fahrenheit).

iii) Any petroleum spirit or carbide of calcium. On summary conviction offences under this Section carry a fine not exceeding the statutory maximum or a term of imprisonment not exceeding two years, or both.

Please note any existing consent is dependant on the business being carried out at the property and will not transfer automatically upon change of ownership.

Question 6.1	Is there a wayleave/easement agreement giving the Water and/or Sewerage Undertaker the right to lay or maintain assets or right of access to pass through private land in order to reach the Company's assets?
Answer	There is no record of a formal easement affecting this property.
Guidance	Not Applicable.
Question 6.2	On the copy extract from the public sewer map, please show manhole cover, depth and invert levels where the information is available.
Answer	A copy of an extract from the public sewer map, showing manhole cover, depth and invert levels where the information is available, is included.
Guidance	Not applicable

Appendix 1- General interpretation

1. (1) In this Schedule-

"the 1991 Act" means the Water Industry Act 1991(a);

"the 2000 Regulations" means the Water Supply (Water Quality) Regulations 2000(b);

"the 2001 Regulations" means the Water Supply (Water Quality) Regulations 2001(c);

"adoption agreement" means an agreement made or to be made under Section 51A(1) or 104(1) of the 1991 Act (d);

"bond" means a surety granted by a developer who is a party to an adoption agreement;

"bond waiver" means an agreement with a developer for the provision of a form of financial security as a substitute for a bond;

"calendar year" means the twelve months ending with 31st December;

"discharge pipe" means a pipe from which discharges are made or are to be made under Section 165(1) of the 1991 Act;

"disposal main" means (subject to Section 219(2) of the 1991 Act) any outfall pipe or other pipe which-

- (a) is a pipe for the conveyance of effluent to or from any sewage disposal works, whether of a sewerage undertaker or of any other person; and
- (b) is not a public sewer;

"drain" means (subject to Section 219(2) of the 1991 Act) a drain used for the drainage of one building or any buildings or yards appurtenant to buildings within the same curtilage;

"effluent" means any liquid, including particles of matter and other substances in suspension in the liquid;

"financial year" means the twelve months ending with 31st March;

"lateral drain" means-

- (a) that part of a drain which runs from the curtilage of a building (or buildings or yards within the same curtilage) to the sewer with which the drain communicates or is to communicate; or
- (b) (if different and the context so requires) the part of a drain identified in a declaration of vesting made under Section 102 of the 1991 Act or in an agreement made under Section 104 of that Act (e);

"licensed water supplier" means a company which is the holder for the time being of a water supply licence under Section 17A(1) of the 1991 Act(f);

"maintenance period" means the period so specified in an adoption agreement as a period of time-

- (a) from the date of issue of a certificate by a Sewerage Undertaker to the effect that a developer has built (or substantially built) a private sewer or lateral drain to that undertaker's satisfaction; and
- (b) until the date that private sewer or lateral drain is vested in the Sewerage Undertaker;

"map of waterworks" means the map made available under Section 198(3) of the 1991 Act (g) in relation to the information specified in subsection (1A);

"private sewer" means a pipe or pipes which drain foul or surface water, or both, from premises, and are not vested in a Sewerage Undertaker;

"public sewer" means, subject to Section 106(1A) of the 1991 Act(h), a sewer for the time being vested in a Sewerage Undertaker in its capacity as such, whether vested in that undertaker-

- (a) by virtue of a scheme under Schedule 2 to the Water Act 1989(i);
- (b) by virtue of a scheme under Schedule 2 to the 1991 Act (j);

(c) under Section 179 of the 1991 Act (k); or

(d) otherwise;

"public sewer map" means the map made available under Section 199(5) of the 1991 Act (l);

"resource main" means (subject to Section 219(2) of the 1991 Act) any pipe, not being a trunk main, which is or is to be used for the purpose of-

- (a) conveying water from one source of supply to another, from a source of supply to a regulating reservoir or from a regulating reservoir to a source of supply; or
- (b) giving or taking a supply of water in bulk;

"sewerage services" includes the collection and disposal of foul and surface water and any other services which are required to be provided by a Sewerage Undertaker for the purpose of carrying out its functions;

"Sewerage Undertaker" means the company appointed to be the Sewerage Undertaker under Section 6(1) of the 1991 Act for the area in which the property is or will be situated;

"surface water" includes water from roofs and other impermeable surfaces within the curtilage of the property;

"water main" means (subject to Section 219(2) of the 1991 Act) any pipe, not being a pipe for the time being vested in a person other than the water Undertaker, which is used or to be used by a Water Undertaker or licensed water supplier for the purpose of making a general supply of water available to customers or potential customers of the undertaker or supplier, as distinct from for the purpose of providing a supply to particular customers;

"water meter" means any apparatus for measuring or showing the volume of water supplied to, or of effluent discharged from any premises;

"water supplier" means the company supplying water in the water supply zone, whether a water undertaker or licensed water supplier;

"water supply zone" means the names and areas designated by a Water Undertaker within its area of supply that are to be its water supply zones for that year; and

"Water Undertaker" means the company appointed to be the Water Undertaker under Section 6(1) of the 1991 Act for the area in which the property is or will be situated.

(2) In this Schedule, references to a pipe, including references to a main, a drain or a sewer, shall include references to a tunnel or conduit which serves or is to serve as the pipe in question and to any accessories for the pipe.

(a) 1991 c. 56.

(b) S.I. 2000/3184. These Regulations apply in relation to England.

(c) S.I. 2001/3911. These Regulations apply in relation to Wales.

(d) Section 51A was inserted by Section 92(2) of the Water Act 2003 (c. 37). Section 104(1) was amended by Section 96(4) of that Act.

(e) Various amendments have been made to Sections 102 and 104 by Section 96 of the Water Act 2003.

(f) Inserted by Section 56 of and Schedule 4 to the Water Act 2003.

(g) Subsection (1A) was inserted by Section 92(5) of the Water Act 2003.

(h) Section 106(1A) was inserted by Section 99 of the Water Act 2003.

(i) 1989 c. 15.

(j) To which there are various amendments made by Section 101(1) of and Schedule 8 to the Water Act 2003.

(k) To which there are various amendments made by Section 101(1) of and Schedule 8 to the Water Act 2003.

(l) Section 199 was amended by Section 97(1) and (8) of the Water Act 2003.

Appendix 2 - DRAINAGE AND WATER ENQUIRY (COMMERCIAL) AGREEMENT

The Customer, the Client and the Purchaser are asked to note this Agreement which govern the basis on which this drainage and water report is supplied

Definitions

'Company' means United Utilities Water Limited who produce the Report; its registered office being at Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington WA5 3LP, company number 2366678.

'Order' means any request completed by the Customer requesting the Report.

'Report' means the drainage and water report prepared by the Company in respect of the Property.

'Property' means the address or location supplied by the Customer in the Order.

'Customer' means the person, company, firm or other legal body placing the Order, either on their own behalf as Client, or, as an agent for a Client.

'Client' means the person, company or body who is the intended recipient of the Report with an actual or potential interest in the Property.

'Purchaser' means the actual or potential purchaser of the Property including their mortgage lender.

Agreement

1.1 The Company agrees to supply the Report to the Customer and the Client subject to this Agreement. The scope and limitations of the Report are described in clause 2 of this Agreement.

Where the Customer is acting as an agent for the Client then the Customer shall be responsible for bringing this Agreement to the attention of the Client and the Purchaser.

1.2 The Customer, the Client and the Purchaser agree that the placing of an Order for a Report and the subsequent provision of a copy of the Report to the Client and/ or the Purchaser indicates their acceptance of this Agreement.

The Report

Whilst the Company will use reasonable care and skill in producing the Report, it is provided to the Customer, the Client and the Purchaser on the basis that they acknowledge and agree to the following:

2.1 The information contained in the Report can change on a regular basis so the Company cannot be responsible to the Customer, the Client and the Purchaser for any change in the information contained in the Report after the date on which the Report was produced and sent to the Client.

2.2 The Report does not give details about the actual state or condition of the Property nor should it be used or taken to indicate or exclude actual suitability or unsuitability of the Property for any particular purpose, or relied upon for determining saleability or value, or used as a substitute for any physical investigation or inspection. Further advice and information from appropriate experts and professionals should always be obtained.

2.3 The information contained in the Report is based upon the accuracy, completeness and legibility of the address and/or plans supplied by the Customer or Client or Purchaser.

2.4 The Report provides information as to the location and connection status of existing services and other information in relation to drainage and water enquiries and should not be relied on for any other purpose. The Report may contain opinions or general advice to the Customer, the Client and the Purchaser. The Company cannot ensure that any such opinion or general advice is accurate, complete or valid and therefore accepts no liability in relation thereto.

2.5 The position and depth of apparatus shown on any maps attached to the Report are approximate and are furnished as a general guide only, and no warranty as to its correctness is given or implied. The exact positions and depths should be obtained by excavation trial holes and the maps must not be relied on in the event of excavation or other works made in the vicinity of the Company's apparatus.

Liability

3.1 The Company shall not be liable to the Client or the Purchaser for any failure defect or non-performance of its obligations arising from any failure to provide or delay in providing the Report to the extent that such failure or delay is due to an event or circumstance beyond the reasonable

control of the Company including but not limited to any delay, failure of or defect in any machine, processing system or transmission link or any failure or default of a supplier or sub-contractor of the Company or any provider of any third party Information except to the extent that such failure or delay is caused by the negligence of the Company.

3.2 Where a Report is requested for an address falling within a geographical area where two different companies separately provide Water and Sewerage Services, then it shall be deemed that liability for the information given by either company will remain with that company in respect of the accuracy of the information supplied.

A company supplying information which has been provided to it by another company for the purposes outlined in this agreement will therefore not be liable in any way for the accuracy of that information and will supply that information as an agent for the company from which the information was obtained.

3.3 The Report is produced for use in relation to individual commercial property transactions where the property is used solely for carrying on a trade or business, the property is intended to be developed for commercial gain or the property is not a single residential, domestic property. The Company's entire liability (except to the extent provided by clause 3.5) in respect of all causes of action arising by reason of or in connection with the Report (whether for breach of contract, negligence or any other tort, under statute or statutory duty or otherwise at all) shall be limited to £2,000,000

In any event, the Company shall not have any liability in contract, negligence or any other tort or for breach of statutory duty or otherwise in respect of any loss of profit, loss of revenue, loss of opportunity or anticipated savings, or any indirect or consequential loss or damage that may be suffered by the Customer, the Client or the Purchaser howsoever arising. The plans attached to the report are provided pursuant to the Company's statutory duty to make such plans available for inspection (notwithstanding the provisions of this clause) and attention is drawn to the notice on the plan(s) attached to the report which applies to the plan and its contents.

3.4 Where the Customer sells this Report to a Client or Purchaser under its own name or as a reseller of the Company (other than in the case of a bona fide legal adviser recharging the cost of the Report as a disbursement) the Company shall not in any circumstances (whether for breach of contract, negligence or any other tort, under statute or statutory duty, restitution or otherwise at all) be liable to the Customer for any loss (whether direct, indirect or consequential loss (all three of which terms include without limitation, pure economic loss, loss of profit, loss of business, depletion of goodwill and like loss)) or damage whatsoever caused in respect of the Report or any use of the Report or reliance placed upon it and the Customer shall indemnify and keep indemnified the Company in respect of any claim by the Client or the Purchaser that the Company may incur or suffer.

3.5 Nothing in this Agreement shall exclude the Company's liability for death or personal injury arising from its negligence or for fraud.

Copyright and Confidentiality

4.1 The Customer, the Client and the Purchaser acknowledge that the Report is confidential and is intended for the personal use of the Client and the Purchaser. The copyright and any other intellectual property rights in the Report shall remain the property of the

Company. No intellectual or other property rights are transferred or licensed to the Customer, the Client or the Purchaser except to the extent expressly provided herein.

4.2 The Customer or the Client or the Purchaser is entitled to make copies of the Report but may only copy Ordnance Survey mapping or data contained in or attached to the Report if they have an appropriate licence from the originating source of that mapping or data.

4.3 The Customer, The Client and the Purchaser agree (in respect of both the original and any copies made) to respect and not to alter any part of the Report including but not limited to the trademark, copyright notice or other property marking which appears on the Report.

4.4 The maps contained in the Report are protected by Crown Copyright and must not be used for any purpose outside the context of the Report.

4.5 The enquiries in the Report are protected by copyright by the Law Society of 113 Chancery Lane, London WC2A 1PL and must not be used for any purpose outside the context of the Report.

4.6 The Customer, the Client and the Purchaser agree to indemnify the Company against any losses, costs, claims and damage suffered by the Company as a result of any breach by either of them of the provisions of clauses 4.1 to 4.4 inclusive.

Payment

5.1 Unless otherwise stated all prices are inclusive of VAT. The Customer shall pay the price of the Report specified by the Company, without any set off, deduction or counterclaim.

5.2 Payment must be received in advance unless an account has been set up with the Company. In these cases, payment terms will be as agreed with the Company, but in any event any invoice must be paid within 30 days.

5.3 The Company reserves the right to increase fees on reasonable prior written notice at any time.

Data Protection

6.1 We will process any personal data you provide to us in accordance with applicable data protection laws and our Data Protection and Privacy Notice (<https://www.unitedutilities.com/privacy/>). In addition we will use your personal data to manage and administer the provision of the Report under this Agreement and to develop and improve the business and services we provide to our customers. We may also disclose it to other companies in the United Utilities group (being United Utilities Water Limited, its holding companies (and their subsidiary companies) and its subsidiary companies) and their sub-contractors in connection with those purposes, but it will not be processed for other purposes or disclosed to other third parties without your express permission or without lawful purpose under data protection law.

General

7.1 If any provision of this Agreement is or becomes invalid or unenforceable, it will be taken to be removed from the rest of this Agreement to the extent that it is invalid or unenforceable. No other provision of this Agreement shall be affected.

7.2 This Agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts.

7.3 Nothing in this Agreement and conditions shall in any way restrict the Customer's the Client's or the Purchaser's statutory or any other rights of access to the information contained in the Report.

7.4 This Agreement and conditions may be enforced by the Customer, the Client and the Purchaser.

7.5 Before you agree to this Agreement, please note it is your responsibility to ensure your client/customer is aware of them and that any objections are raised accordingly.

Property Searches complaints procedure

In the event of any queries relating to this Report please e-mail, write or phone our customer team quoting the United Utilities reference detailed on the Report, We will endeavor to resolve any telephone contact or complaint at the time of the call.

Whilst we always try to resolve all complaints straight away, if this is not possible and you are not happy with the course of action taken by us you can ask us to escalate the issues internally via the complaints process detailed below.

We will listen to your complaint and do our best to deal with it immediately.

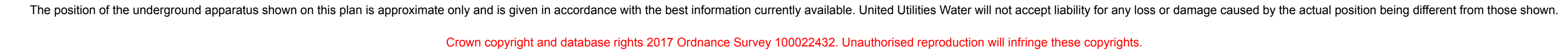
If we fail to give you a written substantive response within 5 working days the Company will compensate the Customer or the Client (as applicable) the amount of the original fee paid to the Company for the Report, regardless of the outcome of your complaint.

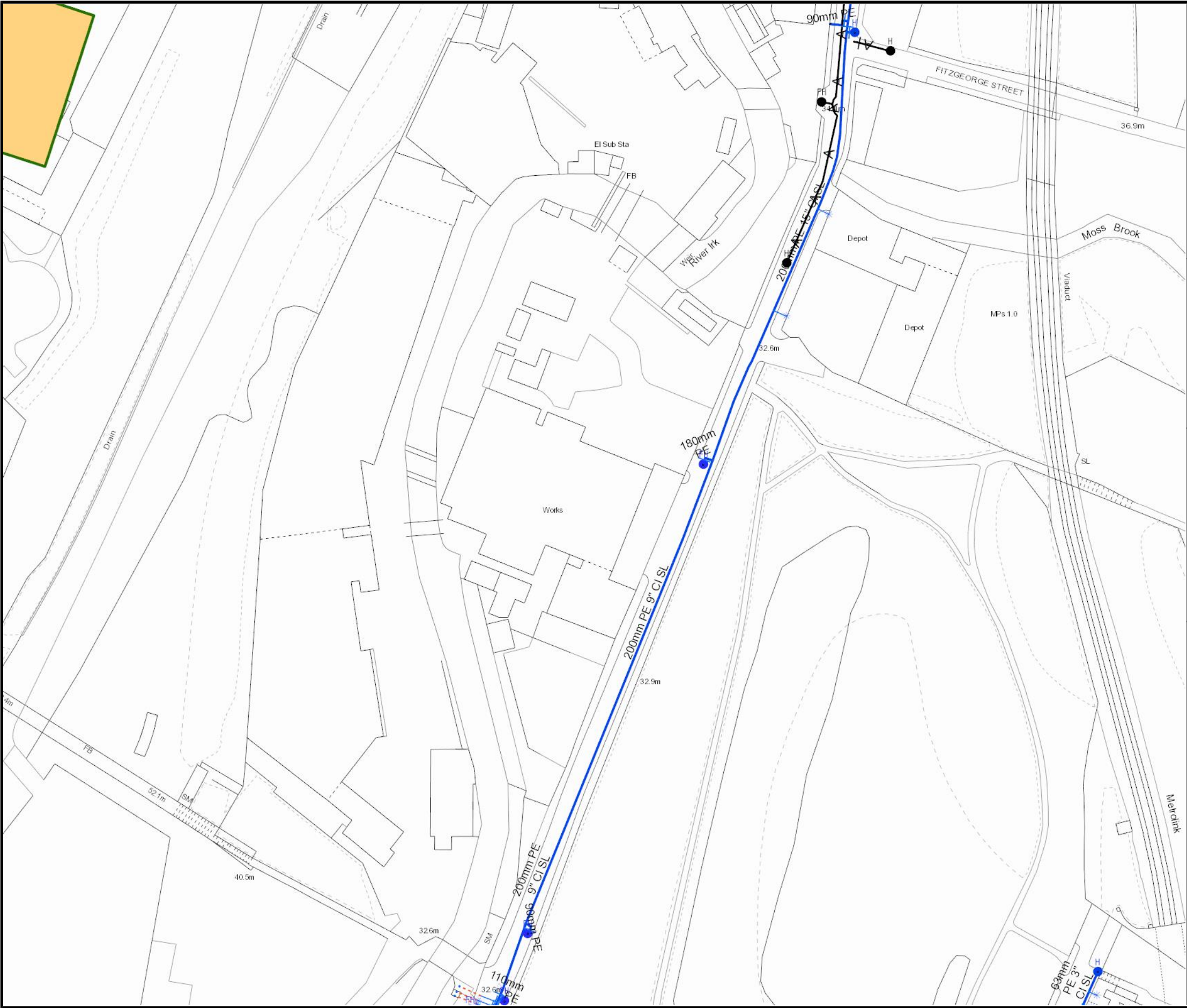
If it is a complex issue requiring more time, we will still get back to you within 5 working days and notify you of progress and update you with the new timescales.

If we consider your complaint to be justified or we have made any errors that substantially change the outcome of the search we will:

- Refund your Report fee
- Provide you with a revised Report (if requested)
- Take the necessary action within our power to put things right which may (where appropriate) include, at our complete discretion, financial compensation or the relocation/removal/installation of our affected water or sewerage assets.
- Keep you informed of any action required

If your complaint has gone through our full internal complaints procedure and you are not satisfied with the response or you believe that we have failed to comply with our internal complaints procedure you may be able to refer your complaint for consideration under The Property Ombudsman Scheme (TPOs). You can obtain further information by visiting www.tpos.co.uk or email admin@tpos.co.uk





Water for the North West

WATER MAIN
RECORDS

Address or Site Reference

HMG Paint Ltd,

Scale: 1:1250
Date: 14/09/2021

Printed by: Property Searches

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Appendix G – Surface Water Storage Estimate

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Attenuation	0.290	5.00	32.000	1500	100.000	100.000	2.100

Simulation Settings

Rainfall Methodology	FSR	Drain Down Time (mins)	240
FSR Region	England and Wales	Additional Storage (m³/ha)	20.0
M5-60 (mm)	20.000	Check Discharge Rate(s)	✓
Ratio-R	0.400	1 year (l/s)	0.0
Summer CV	0.750	30 year (l/s)	0.0
Winter CV	0.840	100 year (l/s)	0.0
Analysis Speed	Normal	Check Discharge Volume	x
Skip Steady State	x		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.99
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)		Betterment (%)	0
SAAR (mm)		QBar	
Soil Index	1	Q 1 year (l/s)	
SPR	0.10	Q 30 year (l/s)	
Region	1	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Node Attenuation Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	29.900	Product Number	CTL-SHE-0163-1340-1200-1340
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	13.4	Min Node Diameter (mm)	1500

Node Attenuation Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.900
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	72

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	81.0	0.0	1.200	81.0	0.0	1.201	0.0	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	Attenuation	24	30.080	0.180	31.5	15.3931	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)
30 minute winter	Attenuation	Hydro-Brake®	12.3	24.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	Attenuation	48	30.432	0.532	51.2	45.5355	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)
60 minute winter	Attenuation	Hydro-Brake®	13.3	74.3

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	Attenuation	59	31.091	1.191	94.2	101.8519	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)
60 minute winter	Attenuation	Hydro-Brake®	13.4	136.8