Shepherd Gilmour Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

BODDINGTONS
PLANNING RESPONSE REPORT

Shepherd Gilmour Infrastructure Ltd.
3rd Floor Phoenix House,
45 Cross Street,
Manchester,
M2 4JF

C1467/EAJ/jt/20240182
October 2024

Shepherd Gilmour Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

Report Title: *Planning Response Report – Boddingtons*

Prepared For: *Latimer Developments Ltd*

Report Status: *Version: Rev - 1*

Date of First Issue: *October 2024*

Date of Last Issue: *-*

Prepared by: *Emyr Jones*
B.Eng (Hons)

Checked & Approved: _____
Full Name *Qualifications*

Version	Date	Initials	Comments
1	October 2024	EAJ	First Draft

Limitations

All findings, recommendations and conclusions contained in this report are based on information provided to us during investigations. Shepherd Gilmour Infrastructure Ltd. (SGi) has created the report based on the assumption that all the information is accurate and accepts no liability should additional information exist or become available.

Unless otherwise requested by the client, Shepherd Gilmour Infrastructure Ltd. is not obliged to and disclaims any obligation to update the report for events taking place after the date noted on the report.

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This report has been prepared for the sole use of the client. No other third parties may rely upon or reproduce the contents of this report without the written permission of Shepherd Gilmour Infrastructure Ltd.

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1.0 INTRODUCTION

1.0 Shepherd Gilmour Infrastructure Ltd. (**SGi**) have been commissioned by Latimer Developments Ltd to prepare a detailed response to Planning Condition number 8. Of Application Number 132416/FO/2021 Date of Application 13th December 2021.

1.2 The Condition is worded as follows;

8) Notwithstanding the details submitted on the Flood Risk and Drainage Strategy prepared by SGI Engineers stamped as received by the City Council, as Local Planning Authority, on the 16 December 2021, (a) prior to the installation of the scheme for the drainage of surface water from the new development, a scheme shall be submitted for approval in writing by the City Council as the Local Planning Authority. This shall include: - Identification of flood resilient construction techniques which will be implemented for buildings levels below the 1 in 1000 year flood event. - Confirmation that the 300mm surface water sewer within the site can be abandoned following further investigation - ensuring that no offsite areas are compromised. - Consideration of alternative green SuDS solution within the public realm areas and assessment of the potential for green roof implementation if practicable; 132416/FO/2021 Page 6 of 23 - Evidence that the drainage system has been designed (unless an area is designated to hold and/or convey water as part of the design) so that flooding does not occur during a 1 in 100 year rainfall event with allowance for 40% climate change in any part of a building; - Assessment of overland flow routes for extreme events that is diverted away from buildings (including basements). Overland flow routes need to be designed to convey the flood water in a safe manner in the event of a blockage or exceedance of the proposed drainage system capacity including inlet structures. A layout with overland flow routes needs to be presented with appreciation of these overland flow routes with regards to the properties on site and adjacent properties off site. - Hydraulic calculation of the proposed drainage system; - Construction details of flow control and SuDS elements

2.0 RESPONSE

2.1 Response to the above condition is provided as follows.

- *Identification of flood resilient construction techniques which will be implemented for buildings levels below the 1 in 1000 year flood event.*

The following flood resilient construction techniques have been implemented for Buildings below 1 in 1000 year flood event.

- **Omitted Stud Framing System (SFS) To Perimeter In Lieu Of Blockwork**

The external perimeter of building to Ground floor was originally designed to be a Secondary Steel Framing system with cavity fill insulation and plasterboard finish. This was considered a weak detail in case of flood therefore has now been replaced with Blockwork walls. The blockwork walls will encapsulate and protect the cavity fill insulation (maintaining thermal performance) and would not require replacement due to flood damage (the walls can be left to dry instead).

Note: The internal walls systems remain in plasterboard as need to be tested systems to achieve required fire and acoustic performance requirements in line with Building Regulations and client requirements. The systems are easily replaceable if damaged in a flood.

- **Raising Services to Level Required**

Small power and data services to GF have been raised above the 1 in 1000 yr flood level. They are also wired from above to reduce damage to electrical installation below flood level.

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- **Raising Life Safety Plant**

All life safety plant has been raised above the 1 in 1000 yr flood level using robust concrete bases/plinths.

- **Low Impact Interior Design**

The interior designer has omitted specialist finishes such as artisan plastering/wall coverings/timber panelling in lieu of a simple paint finish throughout. This is to reduce impact if flooded as well as future general maintenance. All other finishes are easily replaceable if damaged.

- *Confirmation that the 300mm surface water sewer within the site can be abandoned following further investigation - ensuring that no offsite areas are compromised.*

In Appendix A of this report, we have included report ref C1467/EAJ/jt/20220011 July 2024 Version P03. This report sets out all the detailed investigation which have been undertaken to investigate the existence of the 300 mm diameter surface water sewer. Its existence has been discounted.

- *Consideration of alternative green SuDS solution within the public realm areas and assessment of the potential for green roof implementation if practicable.*

As noted in the approved Flood Risk assessment the historic brownfield nature of the site and the clay-based nature of the underlying ground, precludes the use of infiltration-based surface water discharge. The External works of the courtyard have been designed as Impermeable, with falls directed towards the planting beds, but with sufficient surface drainage to ensure that standing water does not occur. The use of green and blue roofs was not promoted as part of the development as noted in the approved Flood Risk Assessment. Section 7 of the Approved FRA assessed the Pollution Hazard Indices and the Runoff treatment for both the roof and the Public reals was mitigated via the installation of a suitably maintained Downstream Defender.

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- *Evidence that the drainage system has been designed (unless an area is designated to hold and/or convey water as part of the design) so that flooding does not occur during a 1 in 100 year rainfall event with allowance for 40% climate change in any part of a building;*

In Appendix B of this report, we include the detailed design drawings of the proposed drainage system, and the detailed MicroDrainage analysis of the system. This analysis demonstrates that no flooding occurs during the 1 in 100 rainfall event including an allowance for 40% climate change in any part of the buildings

- *Assessment of overland flow routes for extreme events that is diverted away from buildings (including basements).*

Drawing DN0107-SGI-ZZ-00-DR-C-00400 Overland Flow Route, in Appendix C indicates the flow routes for extreme events. This demonstrates that all extreme flows are directed away from the buildings.

- *Overland flow routes need to be designed to convey the flood water in a safe manner in the event of a blockage or exceedance of the proposed drainage system capacity including inlet structures. A layout with overland flow routes needs to be presented with appreciation of these overland flow routes with regards to the Construction details of flow control and SuDS elements*

Drawing DN0107-SGI-ZZ-00-DR-C-00400 in Appendix C indicates the Flow routes which convey the flood water in a safe manner in the event of a blockage or exceedance of the proposed drainage system.

- Hydraulic calculation of the proposed drainage system

In Appendix B of this report, we include the detailed design drawings of the proposed drainage system, and the detailed MicroDrainage analysis of the system.

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- Construction details of flow control and SuDS elements.

In Appendix D we have included the construction details of the attenuation feature, the flow control details and the downstream defender.

3.0 CONCLUSION

- This content of this report responds to each aspect of the Planning Condition.
- The detailed construction drawings are provided to support the responses.
- The appropriate modelling data is provided to support the detailed construction drawings.

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APPENDIX A

Consulting Engineers

Shepherd Gilmour Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

CULVERT REPORT
BODDINGTONS

Shepherd Gilmour Infrastructure Ltd
3rd Floor, Phoenix House
45 Cross Street
Manchester
M2 4JF

C1467/EAJ/jt/20220011
July 2024

Report Title: *Culvert Report*

Client: ……..

Report Status: *Version: Rev – P03*

Date of First Issue: *January 2022*

Date of Last Issue: *July 2024*

Prepared by:

Emyr Jones B.Eng (Hons)

Checked & Approved:

Emyr Jones B.Eng (Hons)

Version	Date	Initials	Comments
-	12.01.2022	EAJ	First Issue
A	20.01.2022	EAJ	Minor Updates
B	19.07.2024	EAJ	Updated to incorporate additional survey data

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Limitations

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Consulting Engineers

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Appendix E GPR Survey

Appendix F Enabling Works Excavation Depths

Appendix G Enabling Works GPR Survey Results

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1. INTRODUCTION

Shepherd Gilmour Infrastructure (SGi) have been commissioned to respond to a Planning objection/Request for further information received from Manchester City Councils LLFA. A copy of the Objection received is included in Appendix A.

The LLFA have kindly supplied their records which suggest that there is a historic underground culvert which runs beneath the proposed development site. In Fig 1 below we have overlaid the LLFA records onto our proposed development plans.



Fig 1 Proposed Development Site

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2. SITE REVIEW OF RIVER IRWELL

SGi have carried out a detailed onsite survey of the eastern bank of the River Irwell. The investigation centred around the predicted location of the outfall from the unnamed tributary of the River Irwell.

A detailed photographic survey was taken initially from the Eastern bank and then across onto the Eastern bank from the Western bank. All photographs and a record of the location of the Photographs are provided in Appendix B.

Despite a detailed review of the bank, only one headwall could be identified which corresponds in location to that indicated on United Utilities records in Fig 2



Fig 2 – United Utilities Records

3. ENVIRONMENT AGENCY RECORDS

SGi have consulted the Environment Agency and requested all available information in relation to flood risk and water features on this site. It is accepted that all E.A. records do not have ordinary watercourses recorded but there is usually a record of their existence on their plans.

The E.A. records (Fig 3 below) provided, do not indicate any watercourse beneath the site and similarly, the extract from the E.A. historic development advice maps. (Fig 4 below) gives no indication of an underground water feature. The layer taken indicates surface water run off risk. In areas of watercourse and underground culverts these are usually highlighted on the plan.

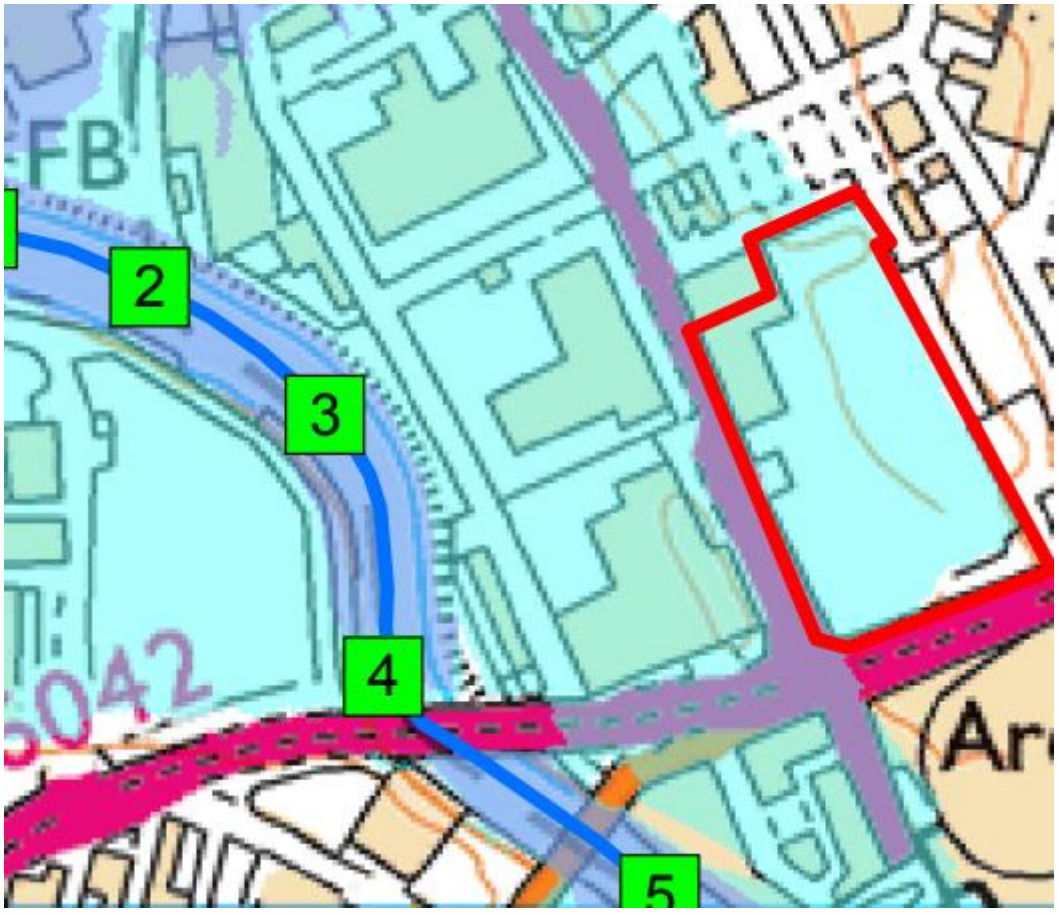


Fig 3 Environment Flood Data

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Fig 4 Environment Agency Map for Surface Water Flooding Risk

4. HISTORIC DATA

A Phase 1 Desk Study has been prepared by e3p to support the Planning Application. As part of the desk study a review of the historic maps of the site was undertaken. For completeness the Historic maps provided are included in Appendix C.

These maps show that there have been buildings covering the majority of the site since prior to the 1848 map and that the configuration of buildings has changed on several occasions. There are no culverts marked on any of these maps and there are no signs that building positions have been determined by any need to avoid a culvert (for instance in the form of gaps between buildings) A further plan from 1771 (Included in Appendix C) has also been reviewed which again does not indicate and signs of an underground culvert of open watercourse.

A review of historic maps prior to developments can usually give a clear indication of historic watercourses. There is no evidence to be found on these maps.

5. ONSITE INVESTIGATION

The client instructed a GPR survey of the site to identify any underground culverts, pipes and services. The results of the underground GPR survey are provided in Appendix C.

Whilst some near surface pipes have been located throughout the site, they appear to be associated with the historic Boddington brewery development. The GPR survey did not locate any linear culvert running from East to West.

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It should be noted that GPR surveys especially in sites with a concrete covering do not have the ability to extend more than 2m deep.

The Culvert if it connects to the Irwell could be as deep as 5m.

6. ADDITIONAL ONSITE INVESTIGATION

As part of the overall development, Civil and Remediation Ltd (C&R) were commissioned to undertake the enabling works to clear the site of historic foundations and any identified contamination by excavating the site down to circa 2m below existing ground level and undertaking a further subscan GPR survey and auger pile probing to prove each pile location down to bedrock to identify and remove any hotspots/relict structures encountered.

As the enabling works GPR would be undertaken circa 2m below original ground level (bOGL) on an unbound substrate should provide accurate survey data to a depth in excess of 5m bOGL. This would be sufficient to comprehensively confirm the presence of anything resembling and east-west linear culvert discharging to the Irwell passing within the site boundary.

This regime was agreed and completed, (results and as built drawings included in Appendix F&G). During the works C&R identified a number of contamination hotspots and relict structures which were over-excavated and removed from site. Amongst them was a relict well extending to an undetermined depth in which hydrocarbon impacted materials and groundwater contamination was encountered. This was captured and disposed off site as hazardous waste by means of further excavation down to circa -9m below original ground level before excavation was terminated. Due to the depth of the encountered structure it would not be possible for it to be associated with a culvert discharging to the Irwell.

Alongside this the subscan surveys identified various independent non-linear anomalous areas of varying depth. A number of these were investigated using slit trenches and no buried structures were identified.

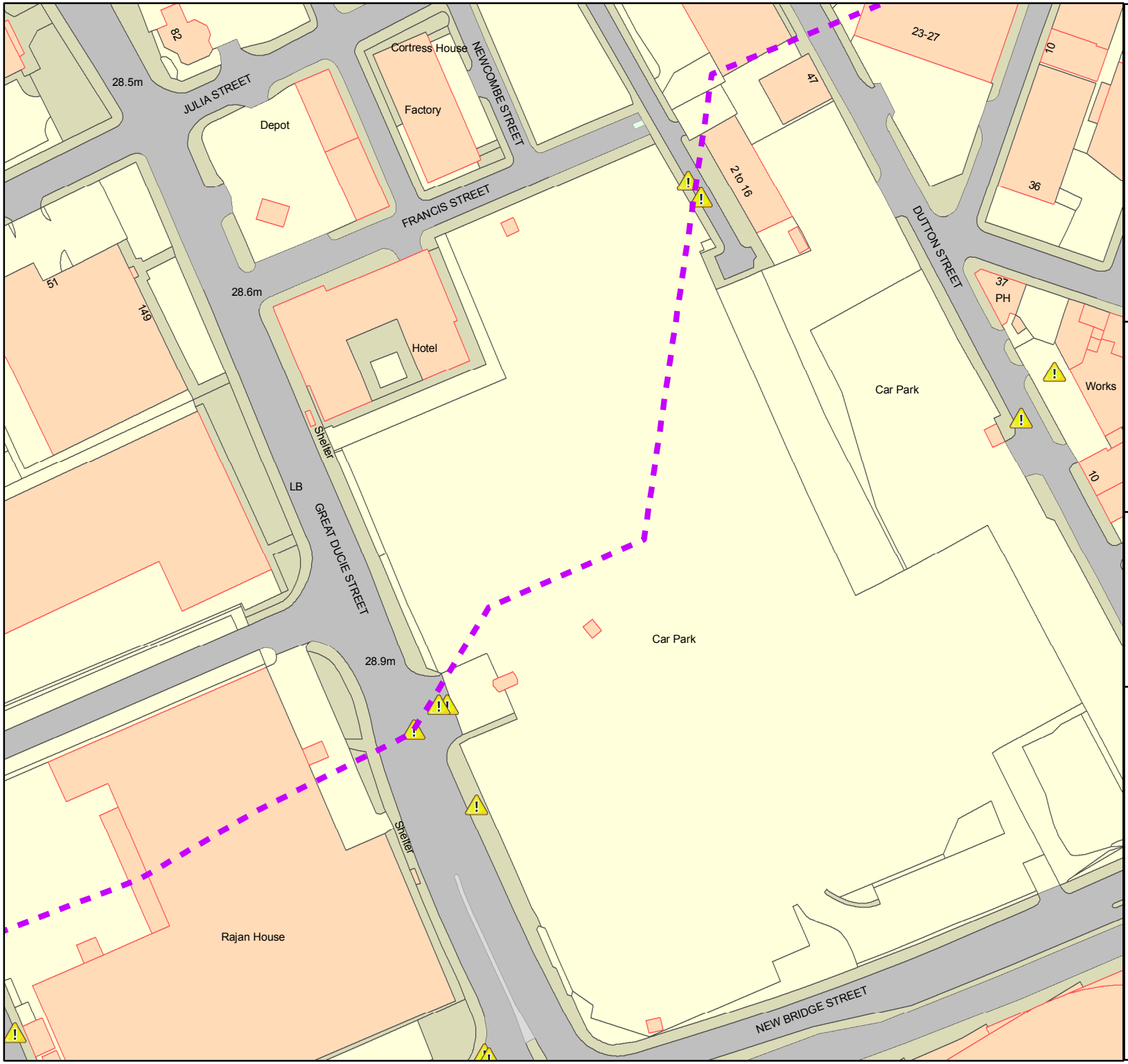
During the course of the works no sign of any linear structure travelling east to west was identified on either the subscan surveys or with the intrusive auger pile probing.

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7. CONCLUSION

Based on the work undertaken onsite SGi cannot find any evidence of an underground culvert crossing the site from East to West and discharging into the Irwell. This has now been comprehensively verified by use of GPR surveys undertaken at original ground level and -2m below original ground level to provide accurate survey data in excess of -5m bOGL. Alongside this Auger pile probing was also utilised and found no evidence of a culvert's presence either. SGi recommend that MCC LLFA take this as proof that the potential culvert does not in fact exist and withdraw the RFI/Objection on this matter.

APPENDIX A



MANCHESTER CITY COUNCIL

LLFA DATA SCREEN

Address/Site Ref:
132416/FO/2021

Our Ref: **MCC005/01/2022**

Author: Manchester City Council LLFA
Date: 06/01/2022
Scale: 1:1,261

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

N

0 5 10 20
Meters

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MANCHESTER
CITY COUNCIL

Lead Local Flood Authority
Highways Service
Growth and Neighbourhoods Directorate
Manchester City Council
PO Box 532
Town Hall
Manchester
M60 2LA
Email: floodriskmanagement@manchester.gov.uk

DATE:06/01/2022

Dear Sir or Madam,

RE: Our Ref: MCC005/01/2022

We acknowledge with thanks your payment for our LLFA data screen service.

Please find enclosed plan showing the results of the data screen. The position of features shown on this plan is approximate only and is given in accordance with the best information currently available.

The enclosed plan cannot be used to substitute a competent site investigation.

The enclosed plan is being provided to you subject to Manchester City Council's terms and conditions which are shown attached.

I trust the above meets your requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter, please do not hesitate to contact us.

Yours Faithfully,

Neil Bayliss-Rowe, Highways Development Control & Flood Risk Manager, Lead Local Flood Authority

MANCHESTER
CITY COUNCIL

TERMS AND CONDITIONS – LLFA DATA SCREEN

These provisions apply to LLFA data supplied by Manchester City Council ("MCC").

TERMS AND CONDITIONS:

- This data Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
- MCC has taken all reasonable care to compile this data Map. This data Map and any information supplied with it is provided for general guidance only and MCC makes no representation, undertaking or warranty of any kind as to its accuracy, completeness or being up to date is given or implied.
- In particular, the position of any culverted assets shown on the data Map are approximate only. MCC strongly recommends that a comprehensive site investigation is undertaken in addition to reviewing this data Map to determine and ensure the precise location of any assets. The exact location, positions and depths should be obtained by an appropriate survey which may include but shall not be limited to GPR and CCTV.
- The data screened may be modified over time without notice and therefore this data Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the data Map have been made subsequent to issue and prior to any works being carried out.
- This data Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) or for the purpose of determining the suitability of a point of connection to discharge.
- No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising from damages of any kind caused to assets by reason of the actual position and/or existence of assets being different from those shown on the data Map and any information supplied with it.
- If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
- This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent MCC from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

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DATA SCREEN SYMBOLOGY

Bridge

- Good
- Fair
- Poor
- Very Poor
- Unknown

Trash Screen

- Good
- Fair
- Poor
- Very Poor
- Unknown

Culvert Orifice

- Very Good
- Good
- Fair
- Poor
- Very Poor
- Unknown

Culvert Conduit

- CCTV surveyed
- Not CCTV surveyed
- Ordinary Watercourse Conduit
- MCC SuDS
- MCC Flood Incident Points
- MCC Section 19 Report
- MCC Flood Incident Polygons
- MCC Local Authority Boundary

MANCHESTER
CITY COUNCIL

Supplementary Information where available:

Critical Drainage Area – The site is within the Conurbation Core (CDA)

Flood Incidents –

MCC Flood Incident Polygon:

-MCC records highlight that there are no flood incident polygons located within close proximity to the site.

MCC Flood Incident Points (within close proximity to the site):

-All nearby incident points located on Great Ducie Street are from blocked highway gullies. The dates of these incidents range from August 2019 to June 2021.

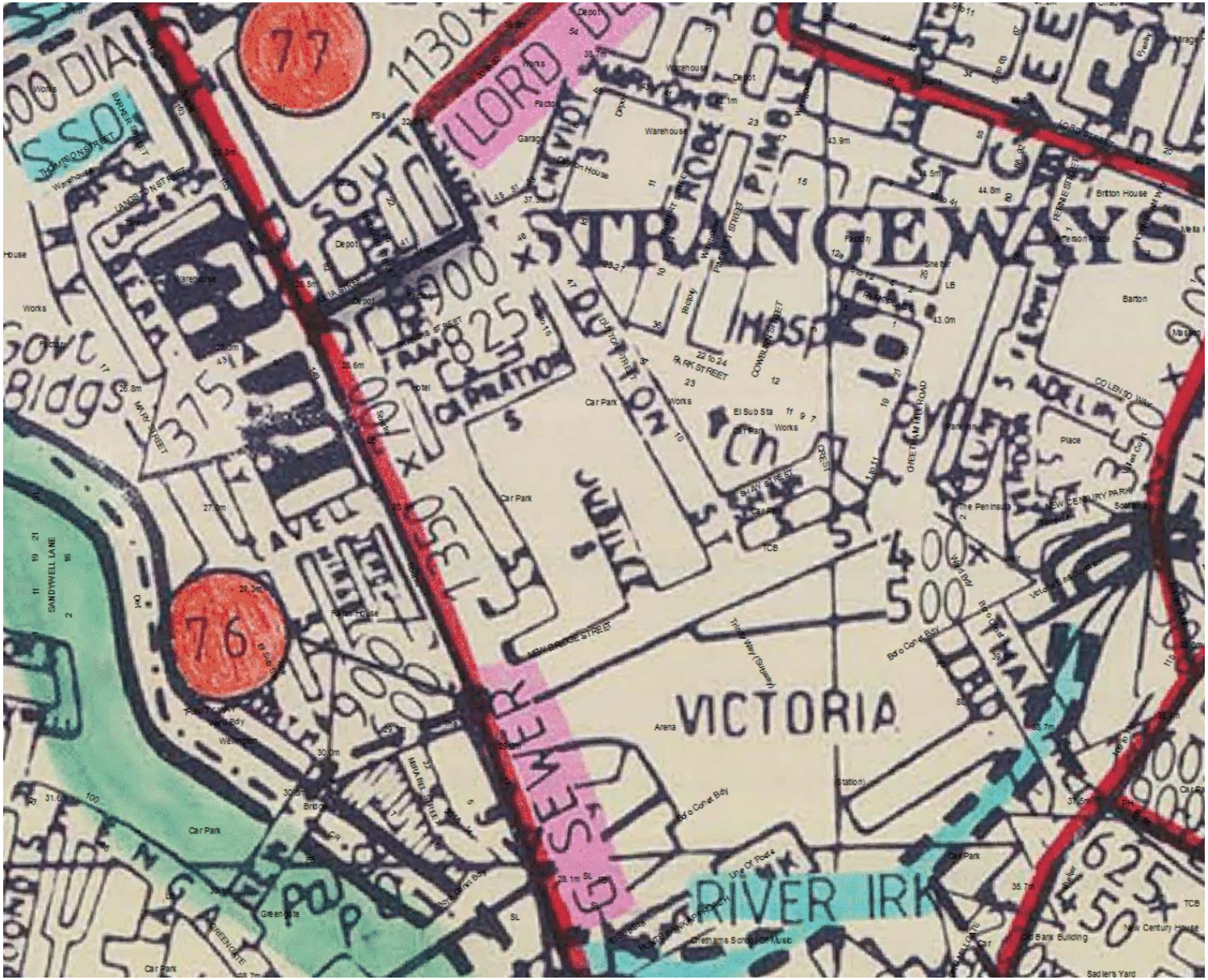
-The two incidents located on Charter Street are from blocked gullies. The dates of these incidents range from February 2021 to March 2021.

-The incident on Dutton Street is from a blocked gully. Dated June 2021.

Culvert Conduits – The River Irwell Tributary is located running through the site, flowing from East to West with an outfall into the River Irwell. This culvert is highlighted as 'unverified' on MCC records therefore no further information is currently available.

Survey and Design Archive – Extract from the 1984 survey of major drainage is included.

Historic 1984 Mapping:



APPENDIX B

KEY

- EXISTING CULVERT
- PROPOSED INDICATIVE DIVERSION
- PHOTO POSITION REFERENCE
- PHOTO TAKING DIRECTION

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Rev.	Description	Rev. by	Date

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
CLARION HOUSING

Architect

Project
BODDINGTONS BREWERY

Title
SITE VISIT PHOTO LOCATIONS

Date	14.01.2022	Drawn By	WC
Size	A0	Checked By	EAJ
Scale	1:500	Approved By	EAJ

Dwg No. **C1467-SK104** Rev **-**



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14

APPENDIX C

MEDIA INFORMATION

COLLECTION NAME:

Maps Collection

Record

Image Number:

1772 Tinker

Reference Number:

GB127.Local Studies Street Map Collection/1772 Tinker

Parent Work Title:

A Plan of Manchester and Salford in the County Palatine of Lancaster

Creator:

Fothergill, J.

Creator Role:

Engraver

Creator:

Tinker, T.

Creator Role:

Publisher

Date Created:

1772

Description:

Plan of Manchester and Salford. Illustrations: Christ's Church, The Exchange and St Ann's Church. On the left hand side there is a reference key to the map.

Language Code:

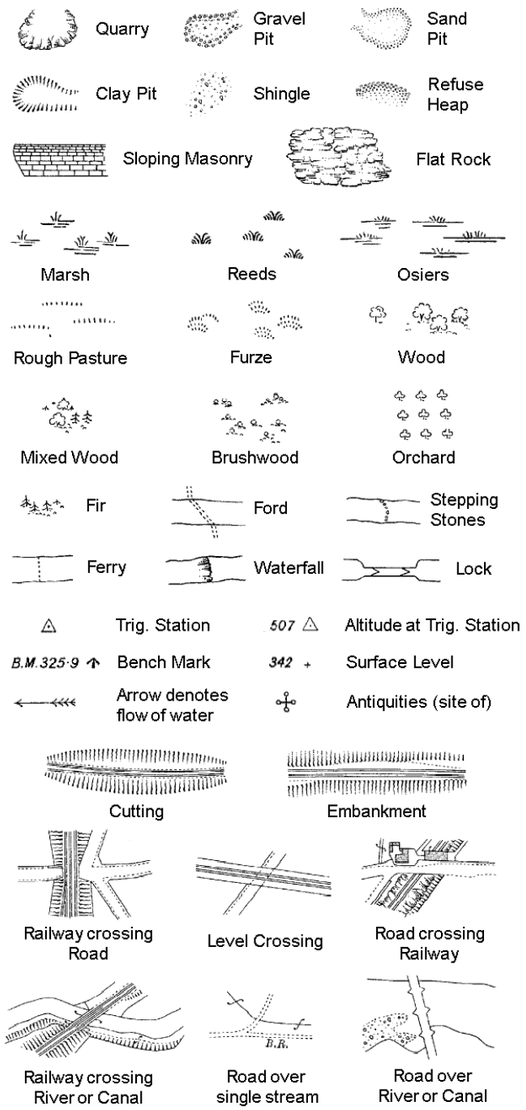
eng-GB



1772 MAP

Historical Mapping Legends

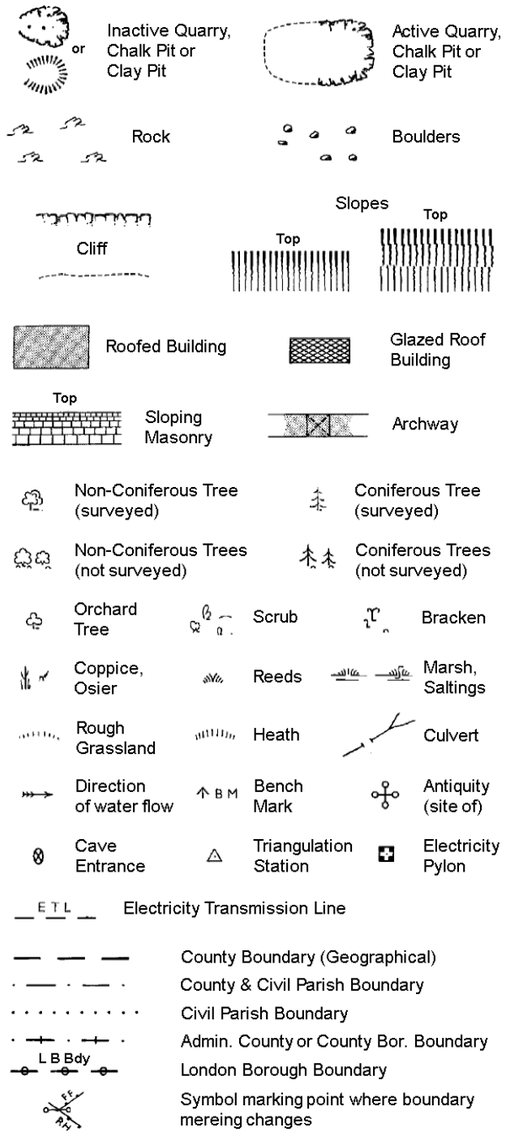
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy.
County Borough Boundary (England)
Co. Burgh Bdy.
County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

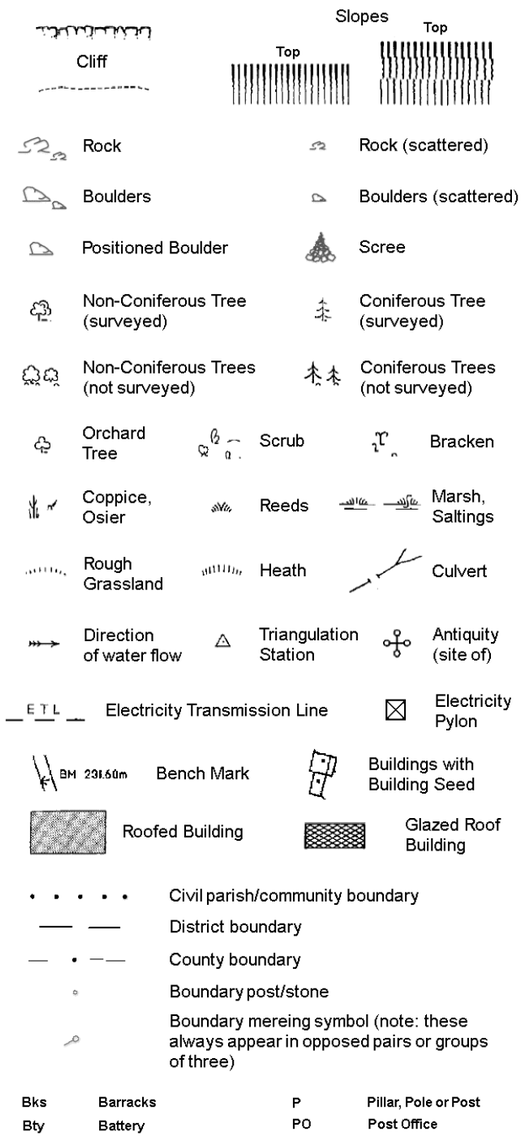
Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
L B Bdy
London Borough Boundary
Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250



Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

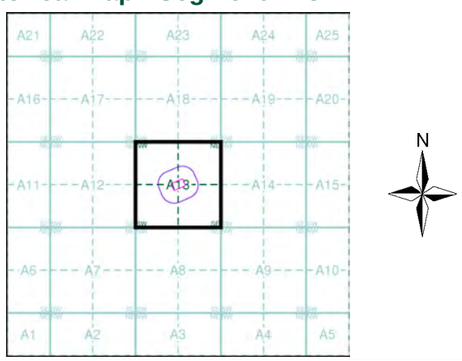
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1892	2
Lancashire And Furness	1:2,500	1908	3
Lancashire And Furness	1:2,500	1933	4
Ordnance Survey Plan	1:1,250	1949 - 1951	5
Ordnance Survey Plan	1:2,500	1951 - 1952	6
Ordnance Survey Plan	1:1,250	1952 - 1961	7
Ordnance Survey Plan	1:2,500	1953 - 1958	8
Ordnance Survey Plan	1:1,250	1958 - 1984	9
Ordnance Survey Plan	1:2,500	1959 - 1965	10
Ordnance Survey Plan	1:2,500	1966 - 1971	11
Ordnance Survey Plan	1:1,250	1968 - 1990	12
Supply of Unpublished Survey Information	1:1,250	1977	13
Additional SIMs	1:1,250	1978 - 1989	14
Additional SIMs	1:1,250	1981 - 1987	15
Ordnance Survey Plan	1:1,250	1986 - 1989	16
Additional SIMs	1:1,250	1986 - 1988	17
Additional SIMs	1:1,250	1986 - 1990	18
Additional SIMs	1:1,250	1991	19
Large-Scale National Grid Data	1:1,250	1992	20
Large-Scale National Grid Data	1:1,250	1993 - 1995	21
Large-Scale National Grid Data	1:1,250	1994 - 1995	22
Large-Scale National Grid Data	1:1,250	1995	23
Large-Scale National Grid Data	1:1,250	1996	24
Large-Scale National Grid Data	1:1,250	1996	25
Large-Scale National Grid Data	1:1,250	1996	26
Historical Aerial Photography	1:2,500	2000	27

Historical Map - Segment A13



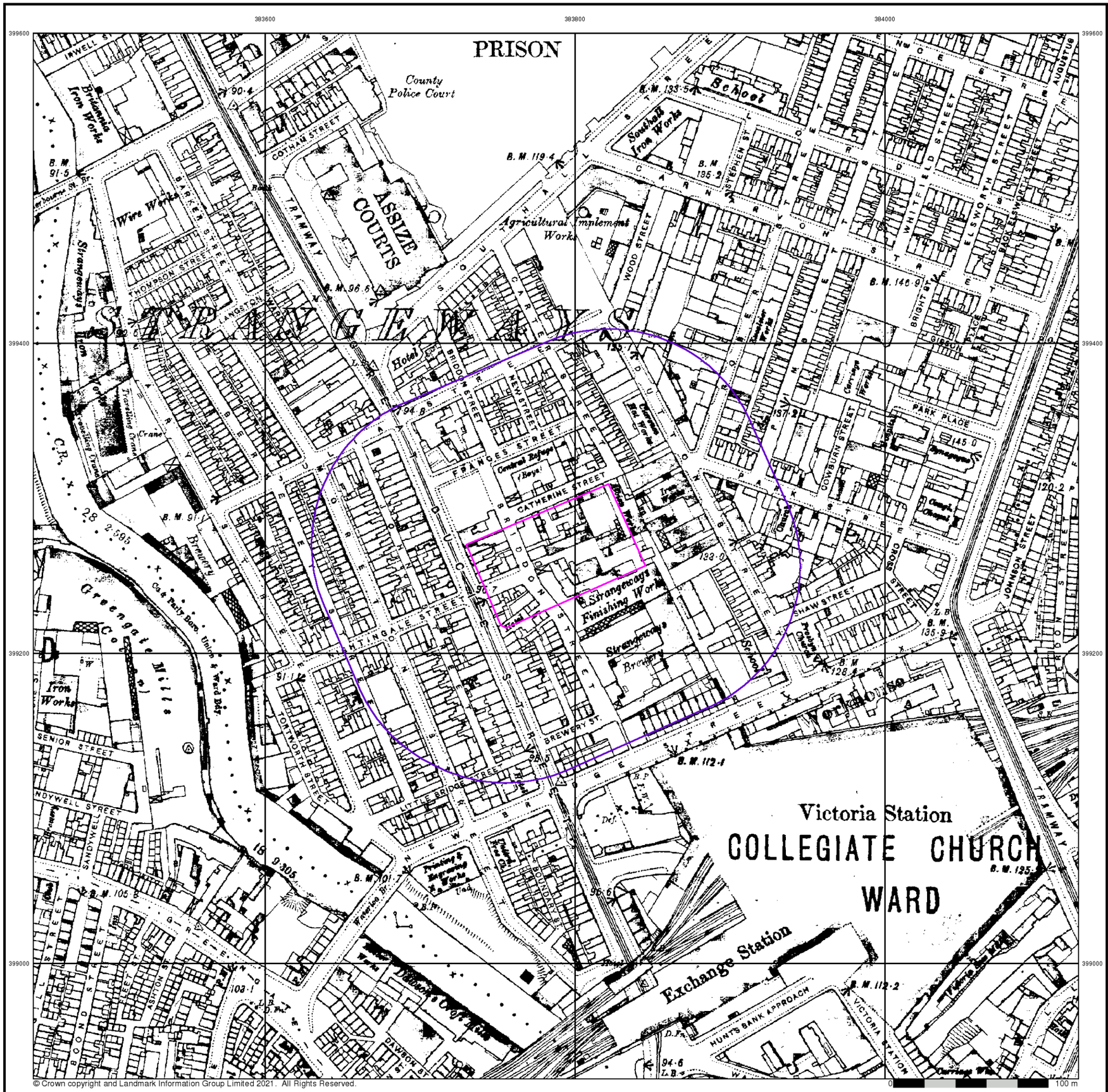
Order Details

Order Number: 286062703_1_1
Customer Ref: 15175
National Grid Reference: 383790, 399260
Slice: A
Site Area (Ha): 0.59
Search Buffer (m): 100

Site Details

Great Ducie Street, MANCHESTER

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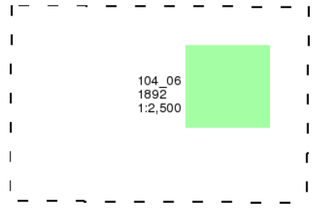
Lancashire And Furness

Published 1892

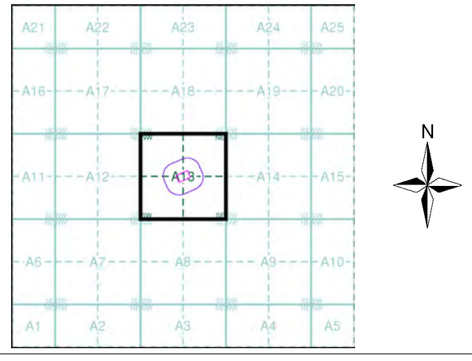
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



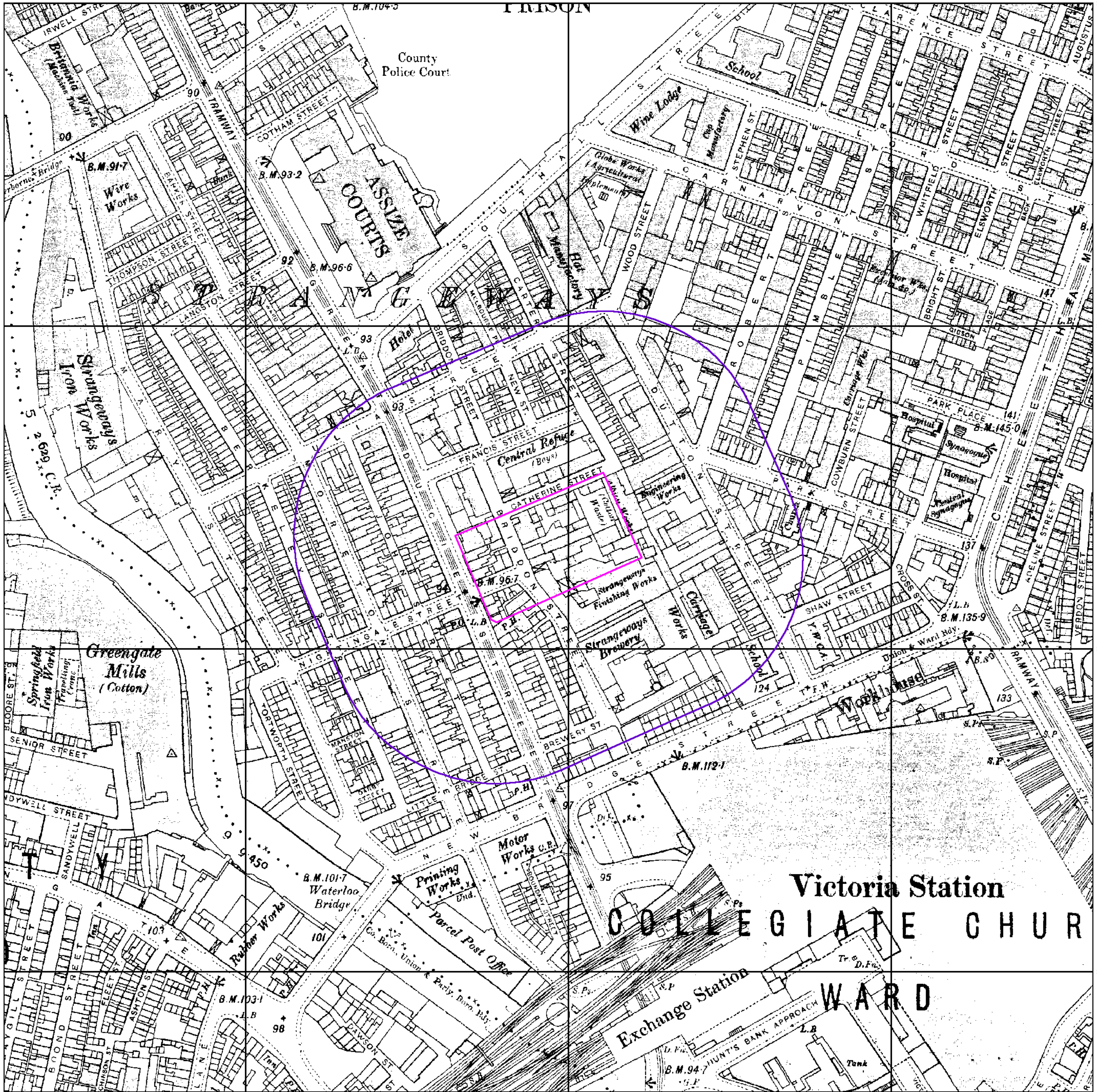
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Lancashire And Furness

Published 1908

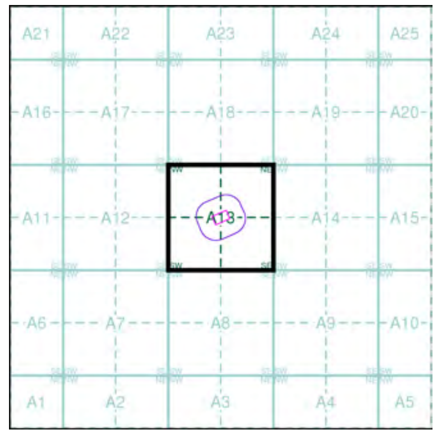
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

104_06
1908
1:2,500

Historical Map - Segment A13

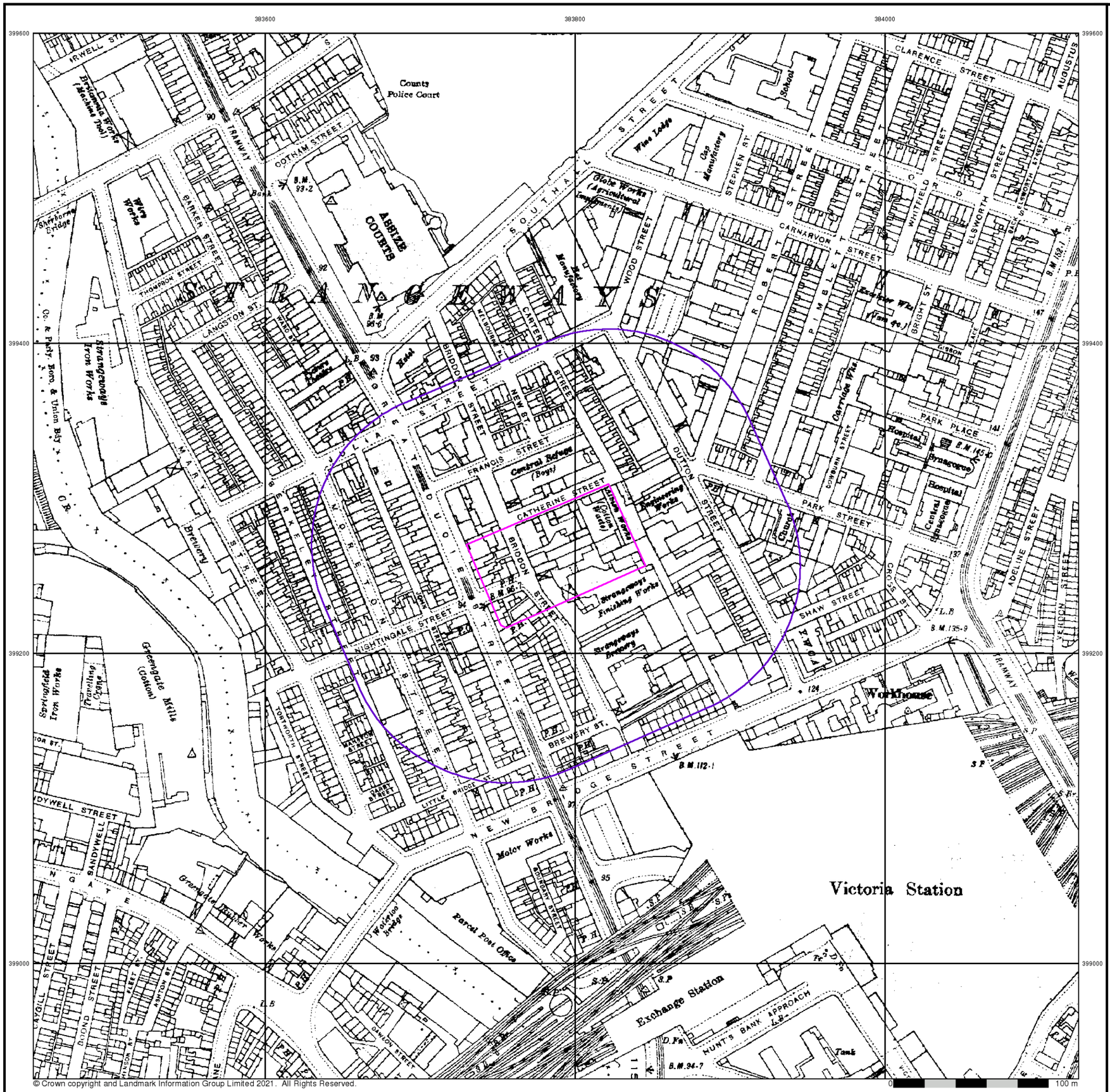


Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
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Site Area (Ha):	0.59
Search Buffer (m):	100

Site Details

Great Ducie Street, MANCHESTER



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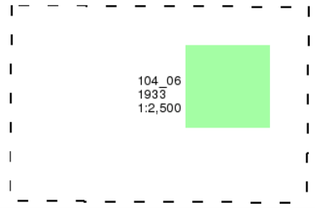
Lancashire And Furness

Published 1933

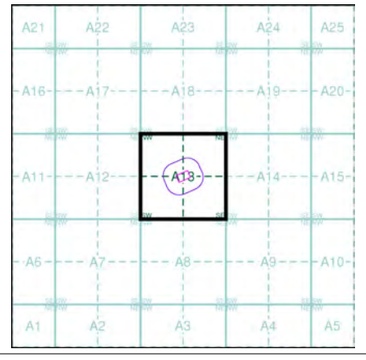
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

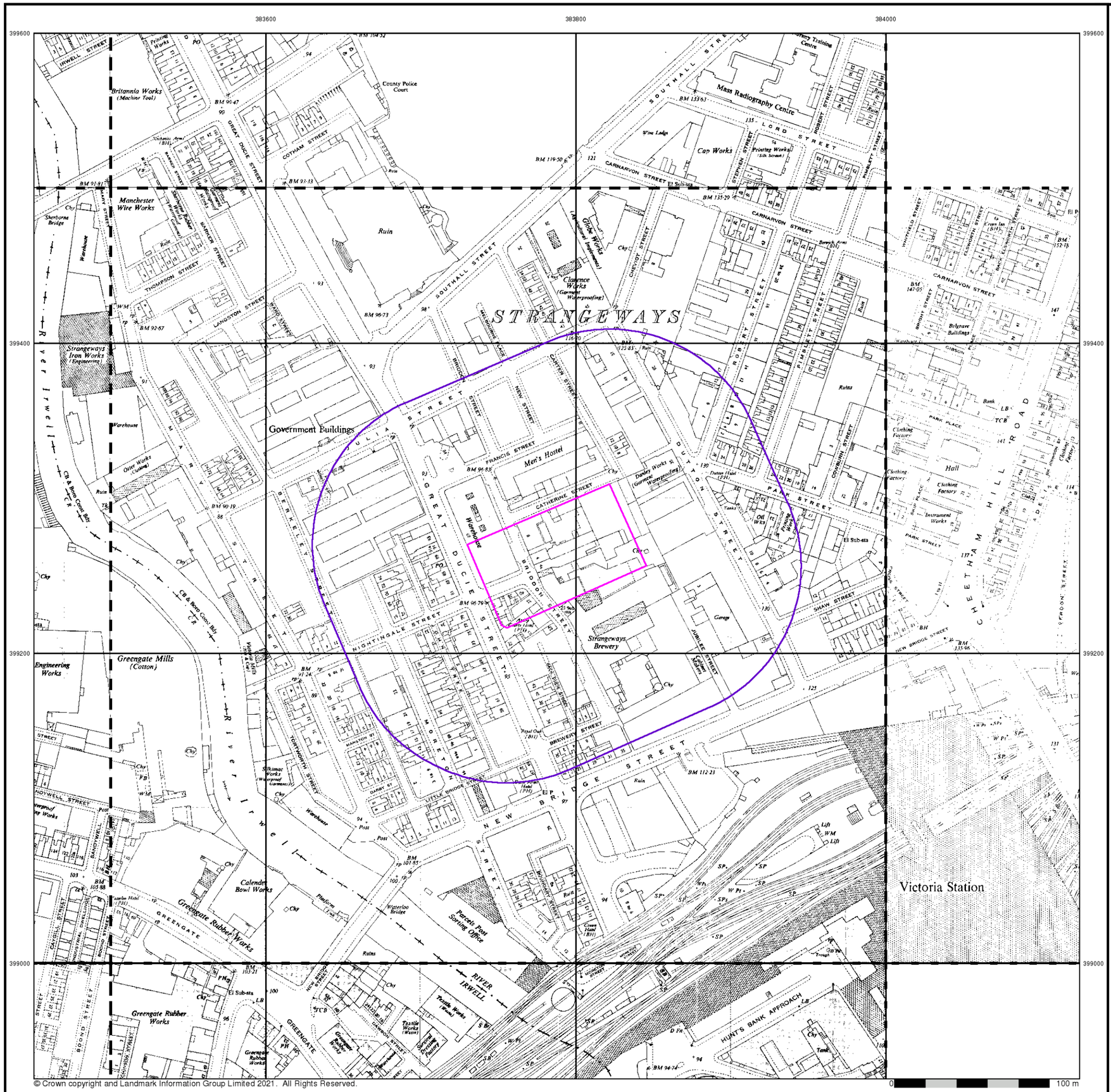
Order Number:	286062703_1_1
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National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	100

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Ordnance Survey Plan

Published 1949 - 1951

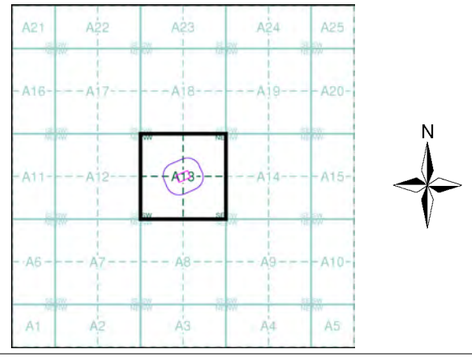
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SJ8399NW 1951 1:1,250	SJ8399NE 1951 1:1,250	
SJ8399SW 1951 1:1,250	SJ8399SE 1951 1:1,250	SJ8499SW 1949 1:1,250
SJ8398NW 1949 1:1,250	SJ8398NE 1949 1:1,250	

Historical Map - Segment A13



Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

Published 1951 - 1952

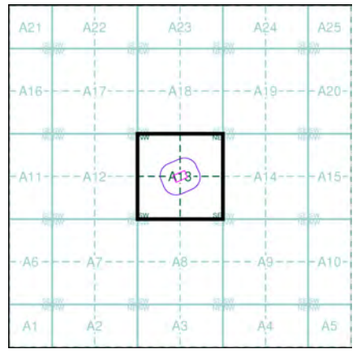
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SJ8399 1952 1:2,500	SJ8499 1951 1:2,500
SJ8398 1951 1:2,500	SJ8498 1951 1:2,500

Historical Map - Segment A13



Order Details

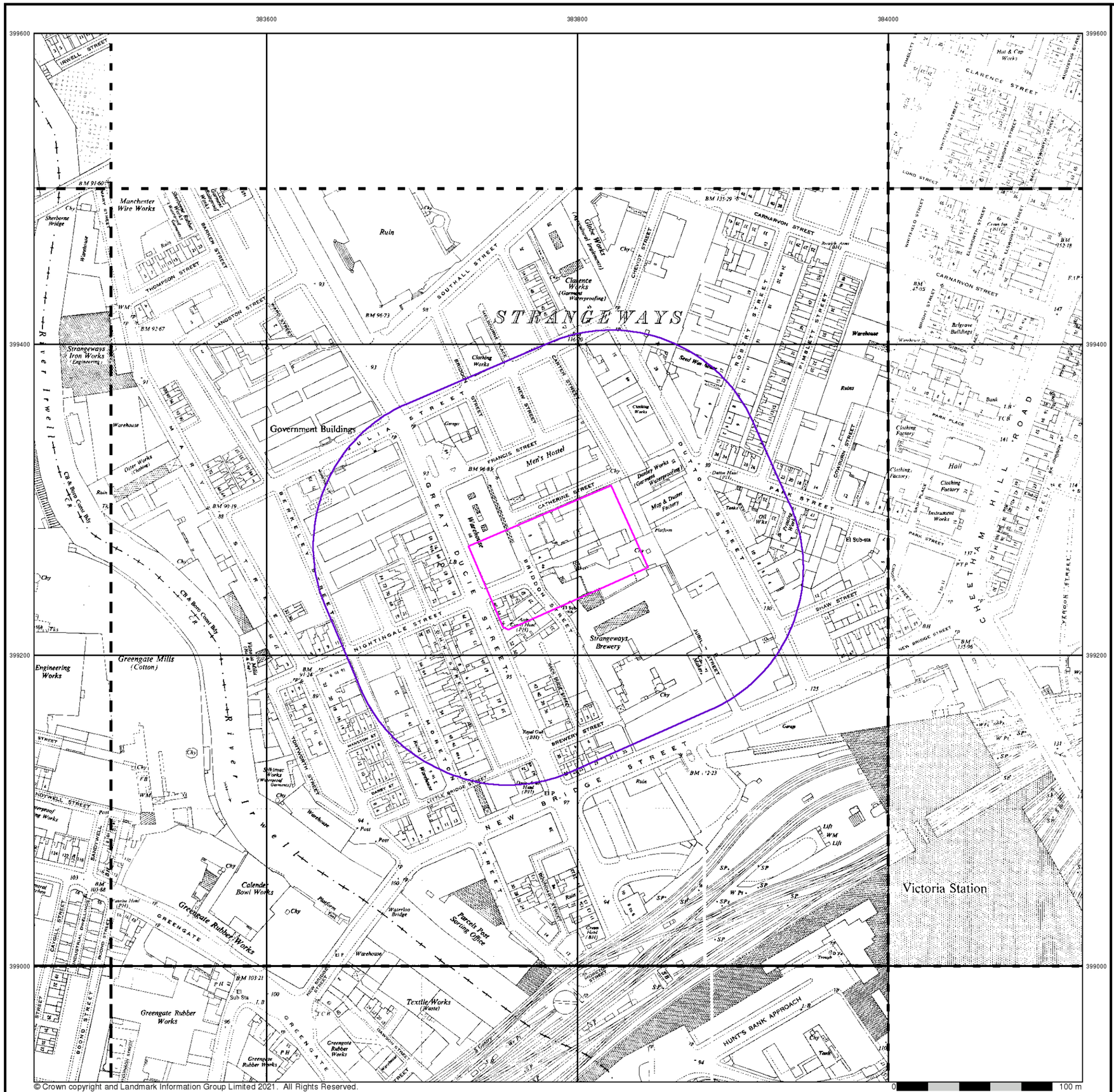
Order Number:	286062703_1_1
Customer Ref:	15175
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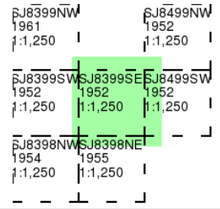
Ordnance Survey Plan

Published 1952 - 1961

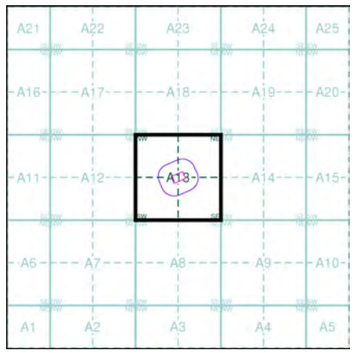
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



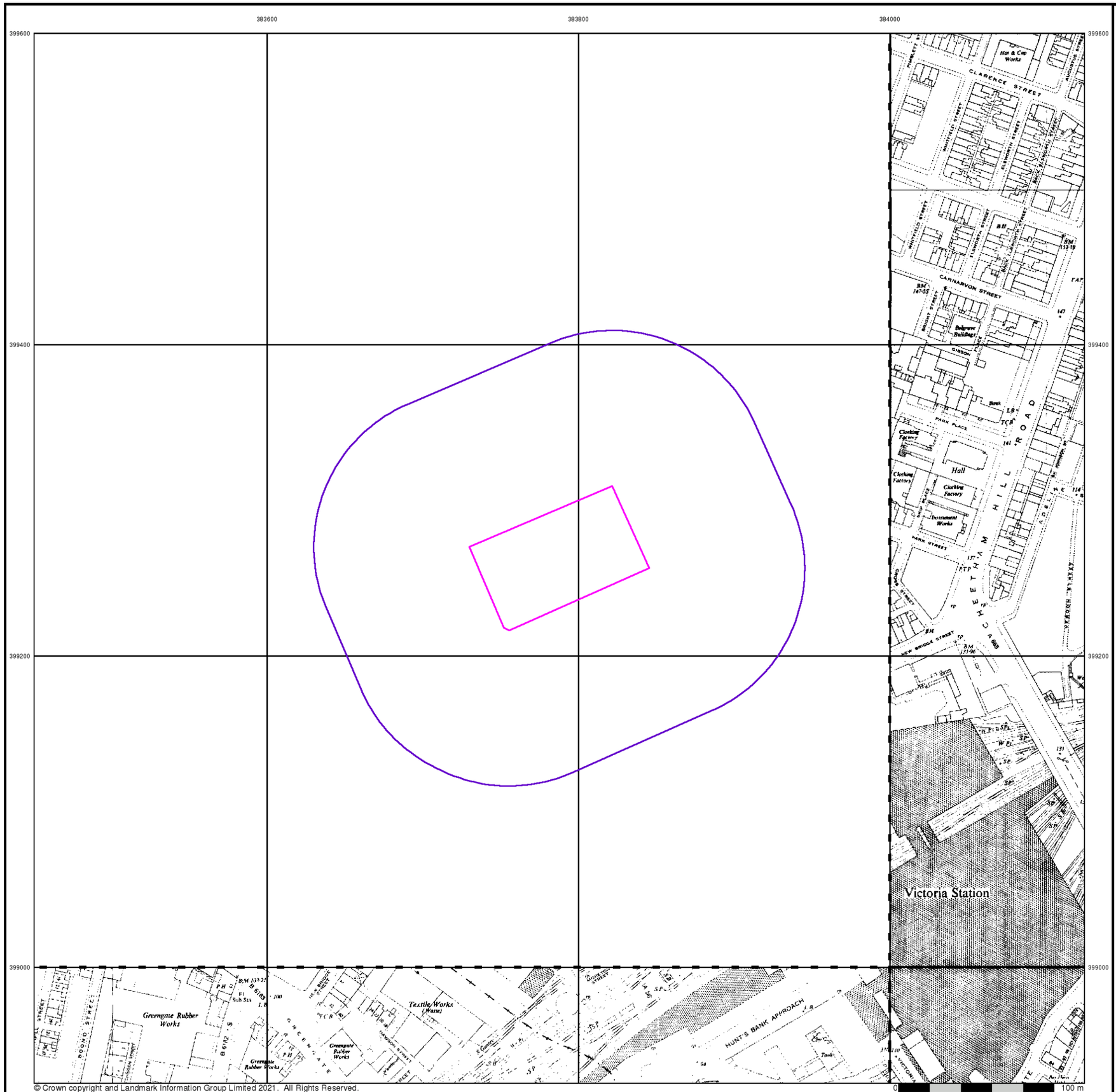
Order Details

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National Grid Reference:	383790, 399260
Slice:	A
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Search Buffer (m):	100

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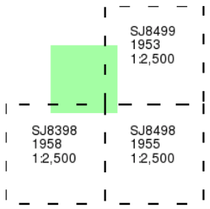
Ordnance Survey Plan

Published 1953 - 1958

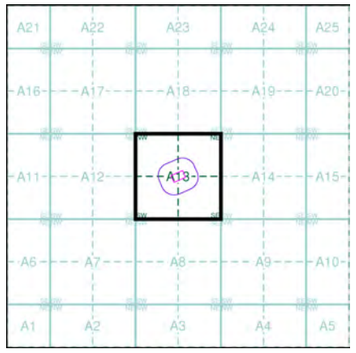
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

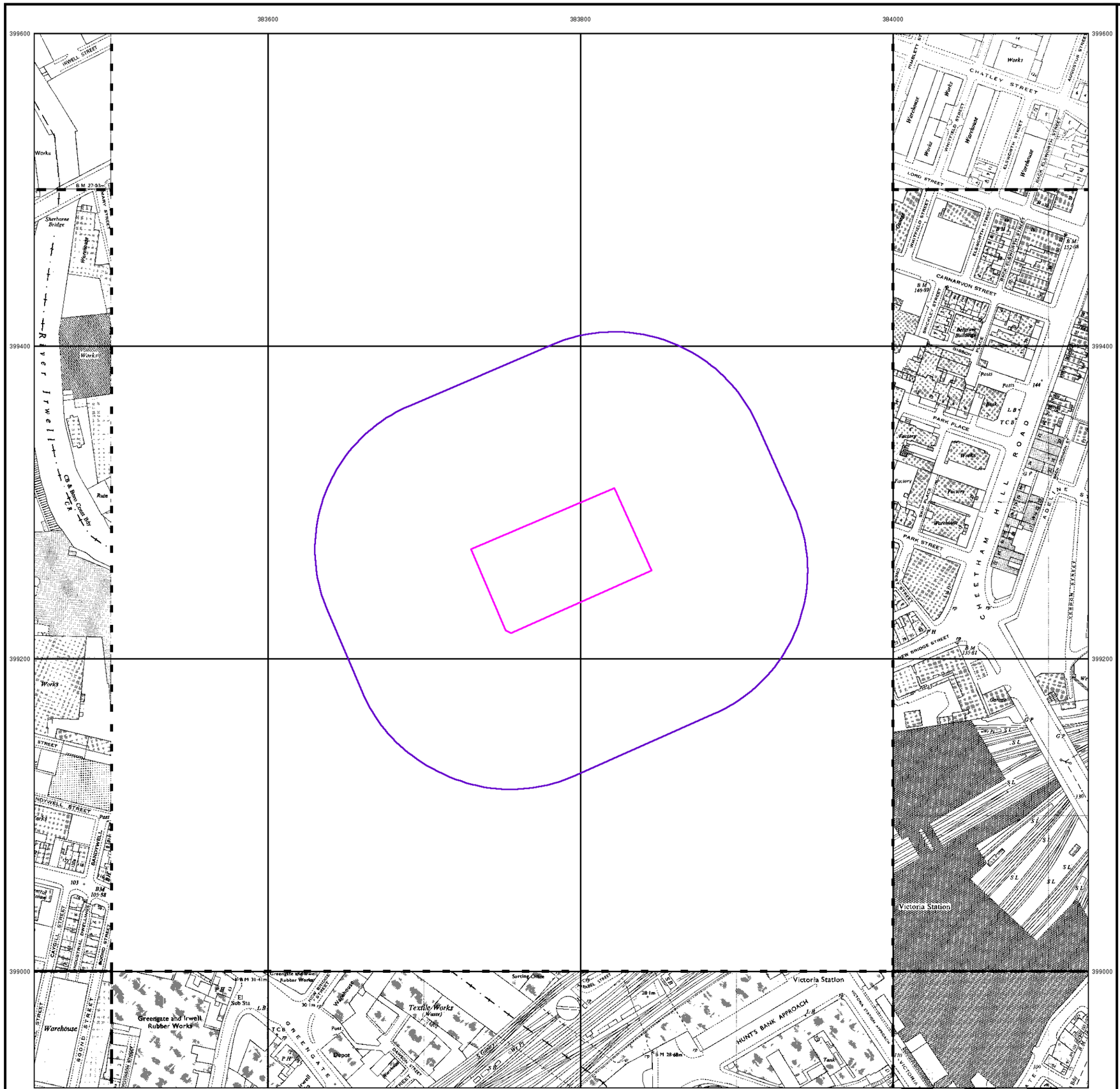
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Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	100

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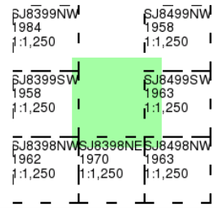
Ordnance Survey Plan

Published 1958 - 1984

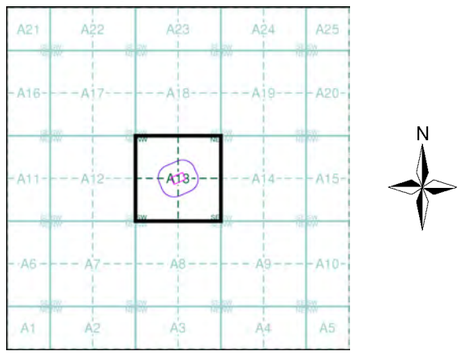
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

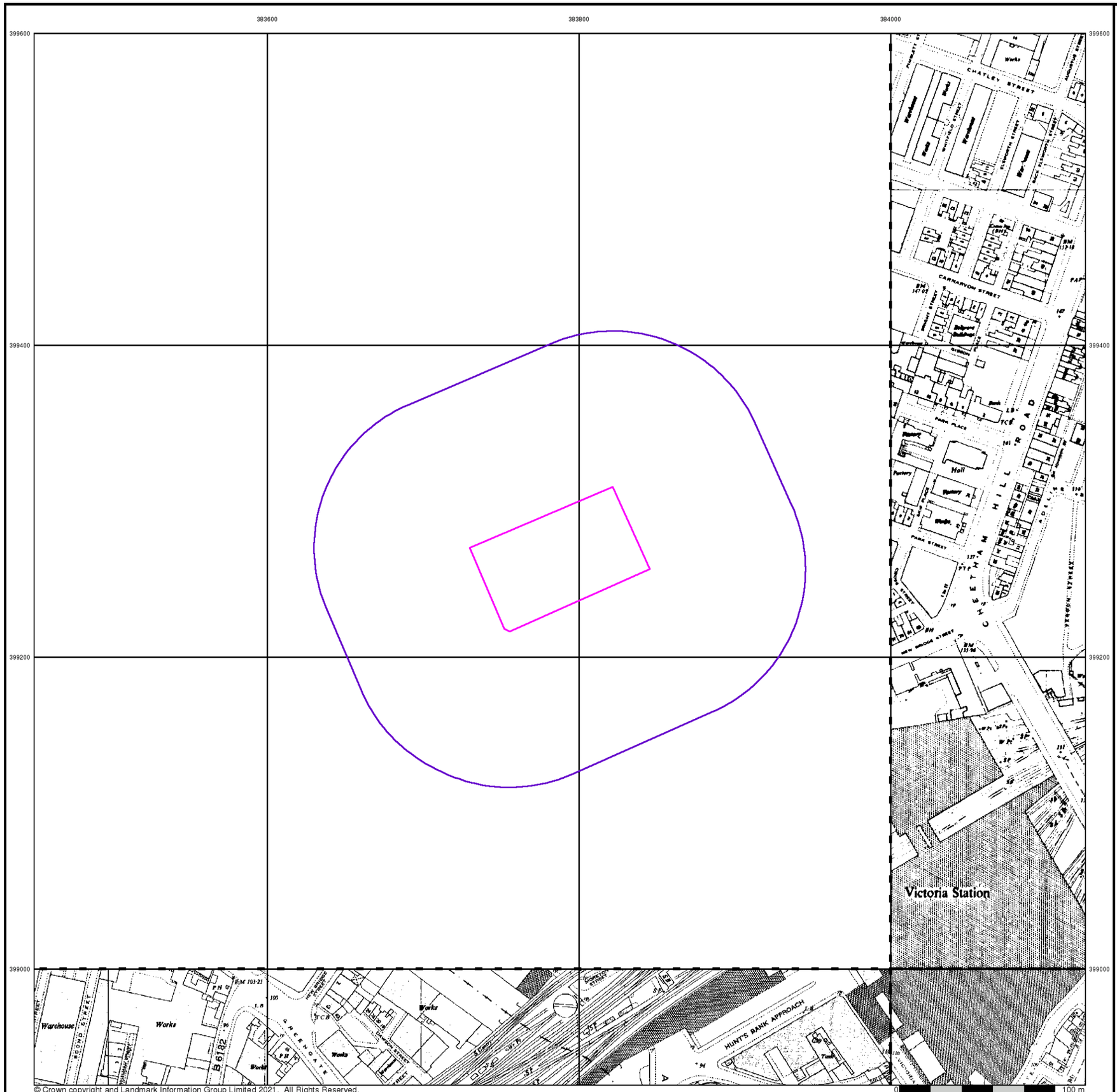
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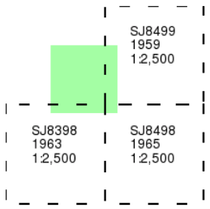
Ordnance Survey Plan

Published 1959 - 1965

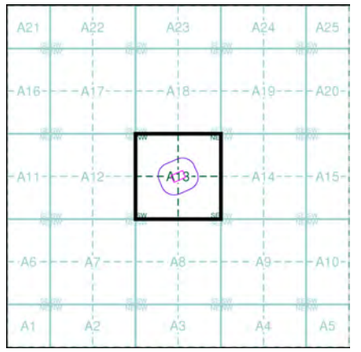
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



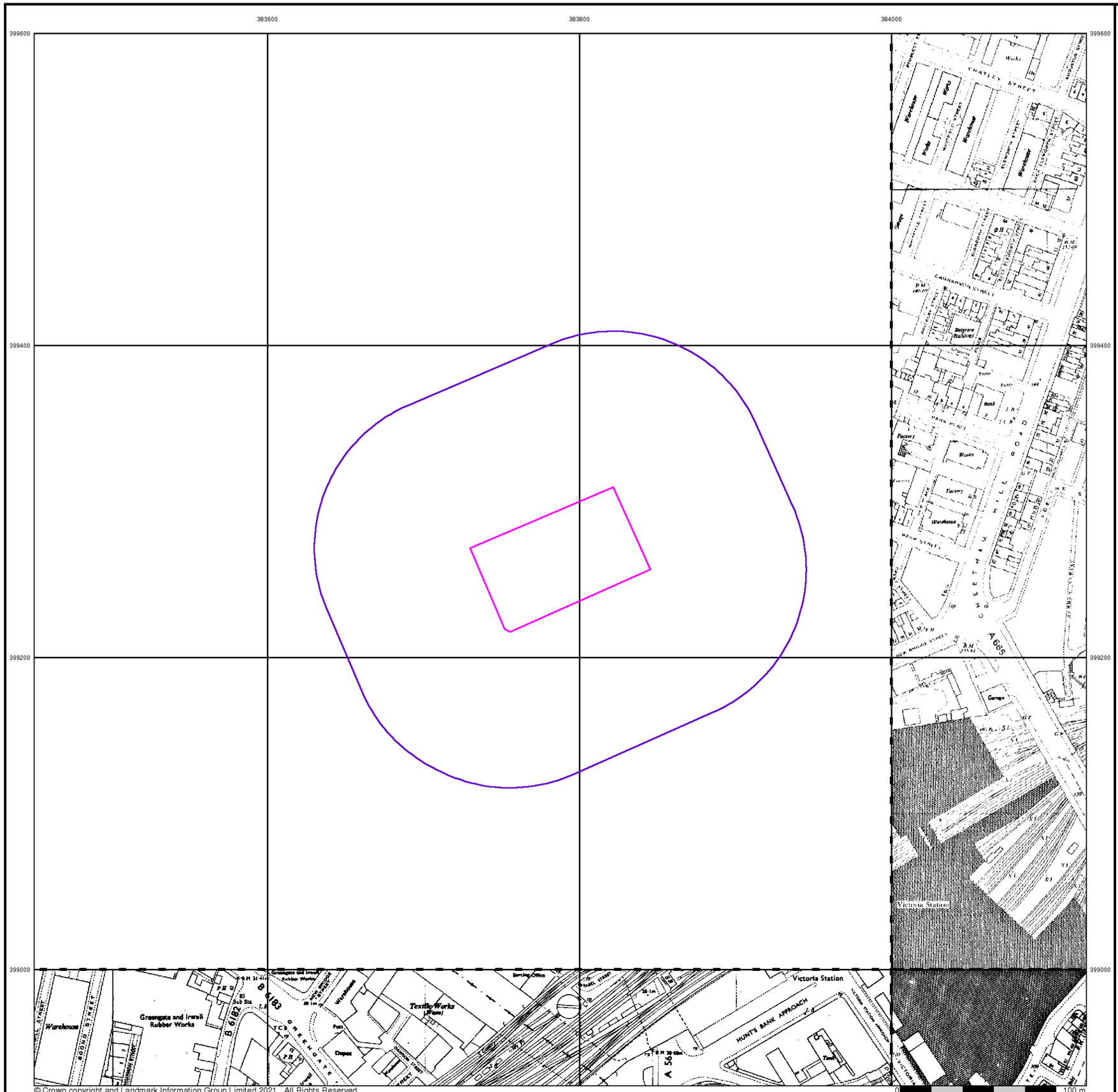
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Slice:	A
Site Area (Ha):	0.59
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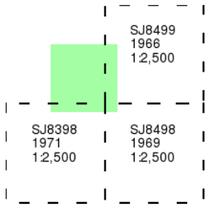
Ordnance Survey Plan

Published 1966 - 1971

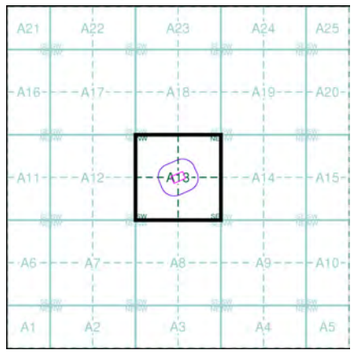
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	100

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Ordnance Survey Plan

Published 1968 - 1990

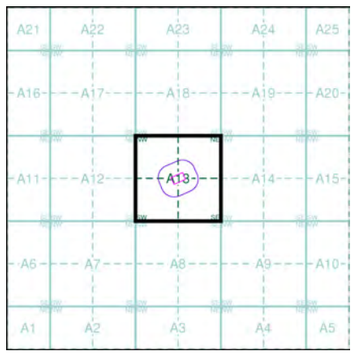
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SJ8399NE 1975 1:1,250
SJ8499NW 1968 1:1,250
SJ8399SW 1984 1:1,250
SJ8399SE 1975 1:1,250
SJ8499SW 1990 1:1,250
SJ8398NW 1988 1:1,250
SJ8398NE 1989 1:1,250
SJ8498NW 1986 1:1,250

Historical Map - Segment A13



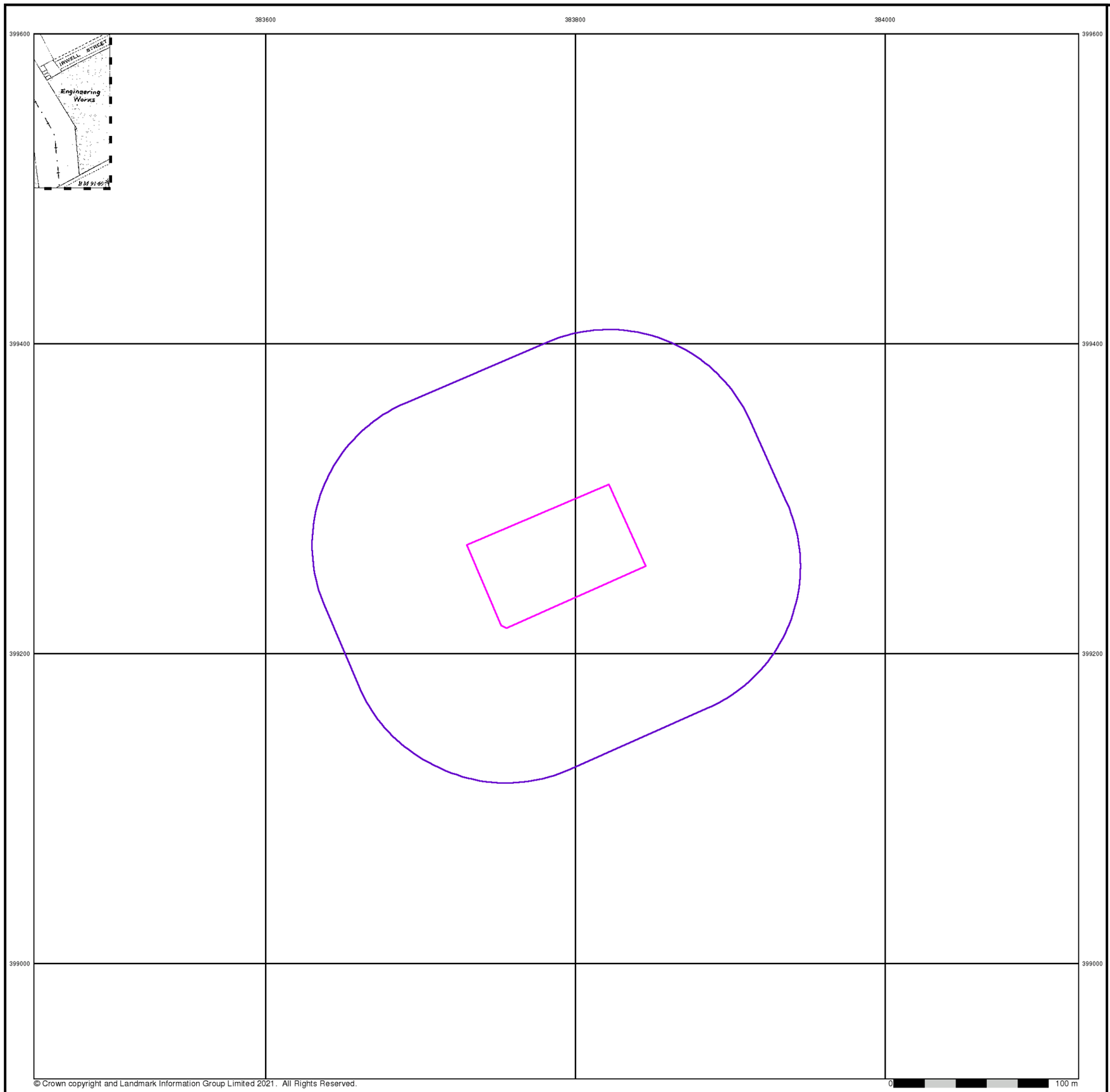
Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	100

Site Details

Great Ducie Street, MANCHESTER

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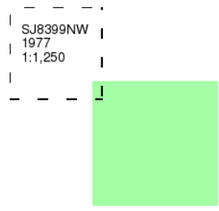
Supply of Unpublished Survey Information

Published 1977

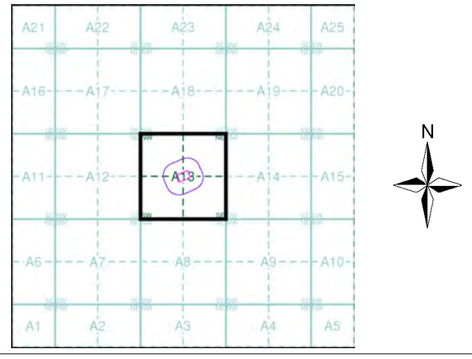
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a `work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



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Additional SIMs

Published 1978 - 1989

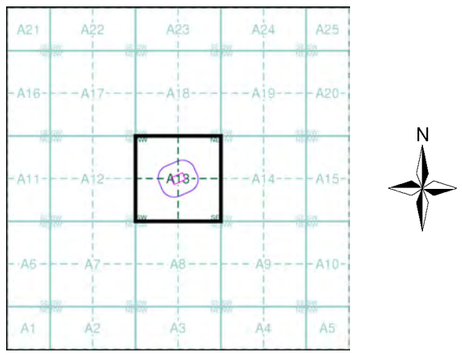
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SJ8399NW 1978 1:1,250	SJ8399NE 1989 1:1,250	SJ8499NW 1978 1:1,250
SJ8399SW 1978 1:1,250	SJ8399SE 1987 1:1,250	SJ8499SW 1984 1:1,250
SJ8398NW 1980 1:1,250	SJ8398NE 1979 1:1,250	SJ8498NW 1980 1:1,250

Historical Map - Segment A13



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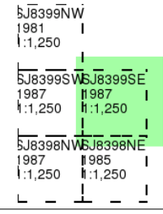
Additional SIMs

Published 1981 - 1987

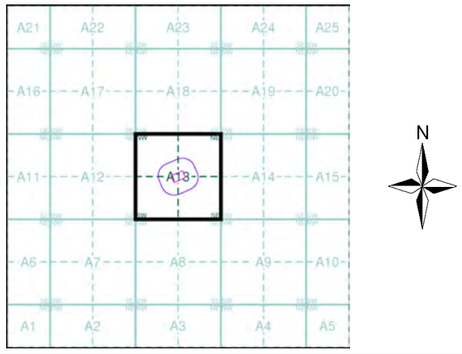
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



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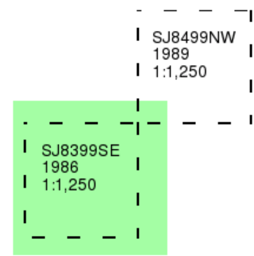
Ordnance Survey Plan

Published 1986 - 1989

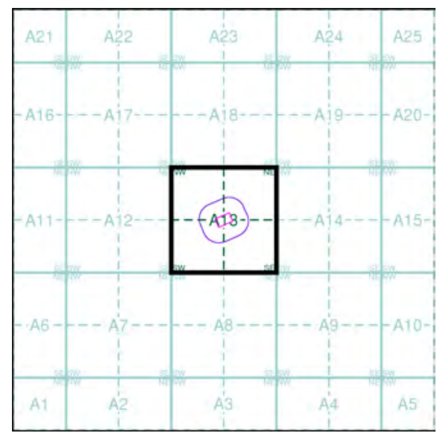
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



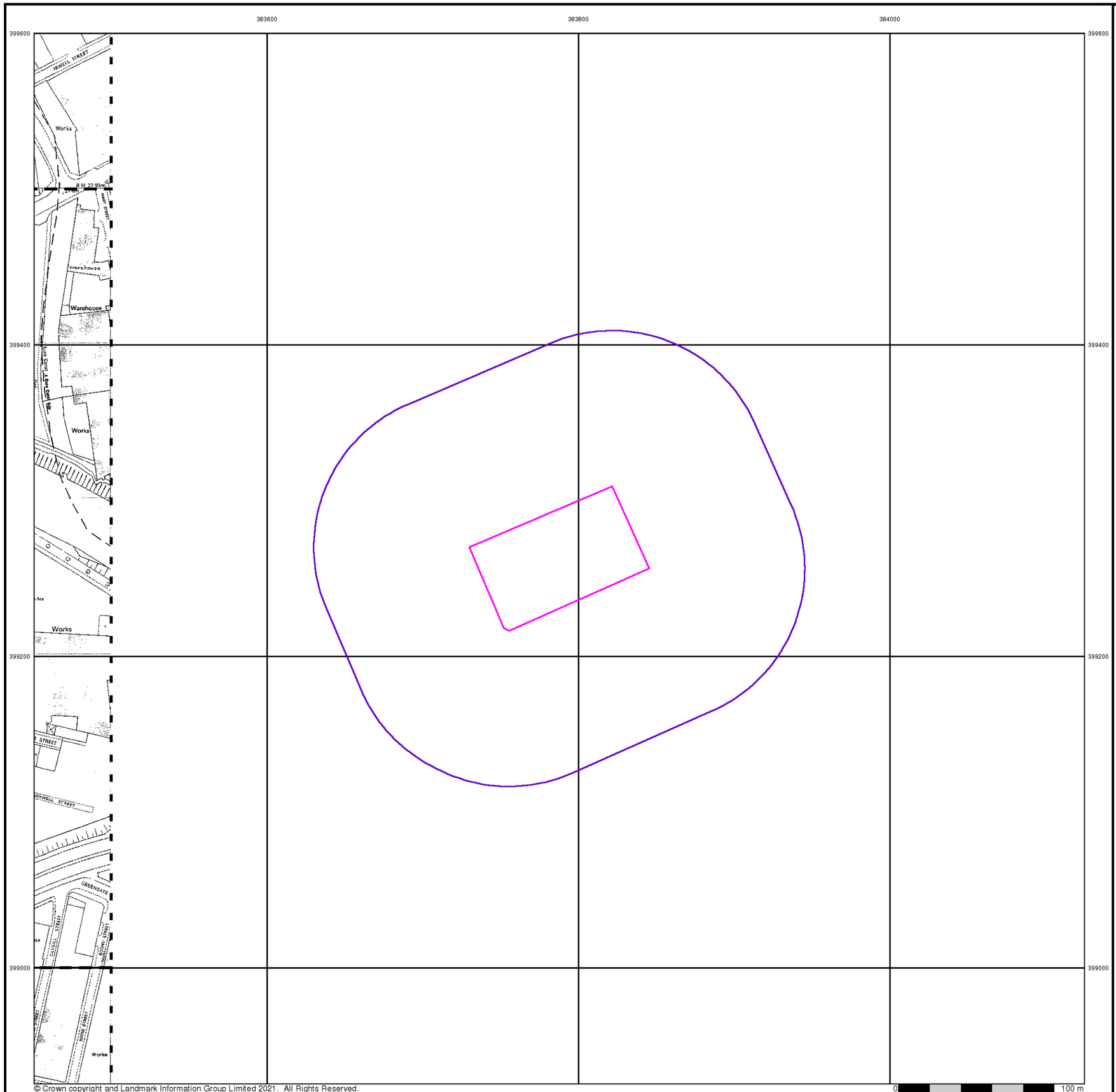
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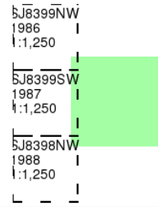
Additional SIMs

Published 1986 - 1988

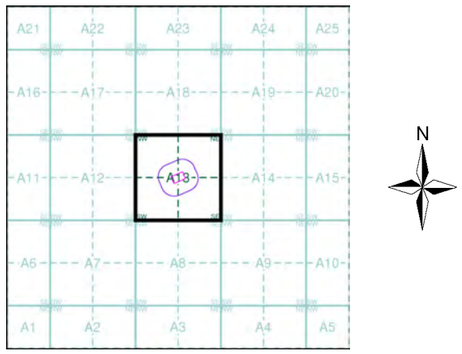
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

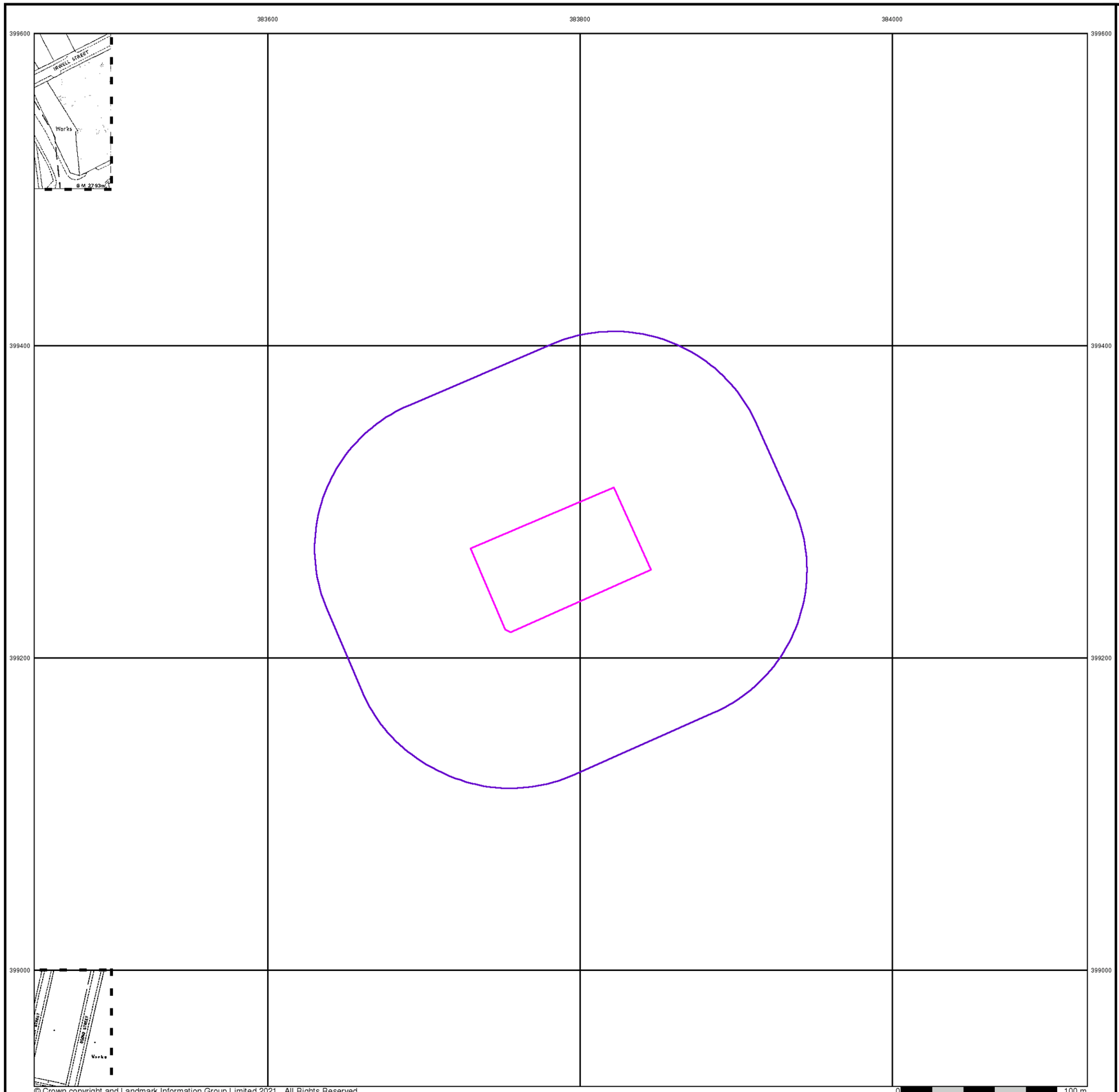
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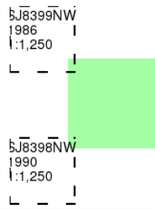
Additional SIMs

Published 1986 - 1990

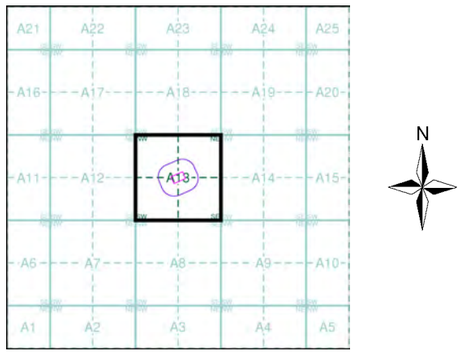
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



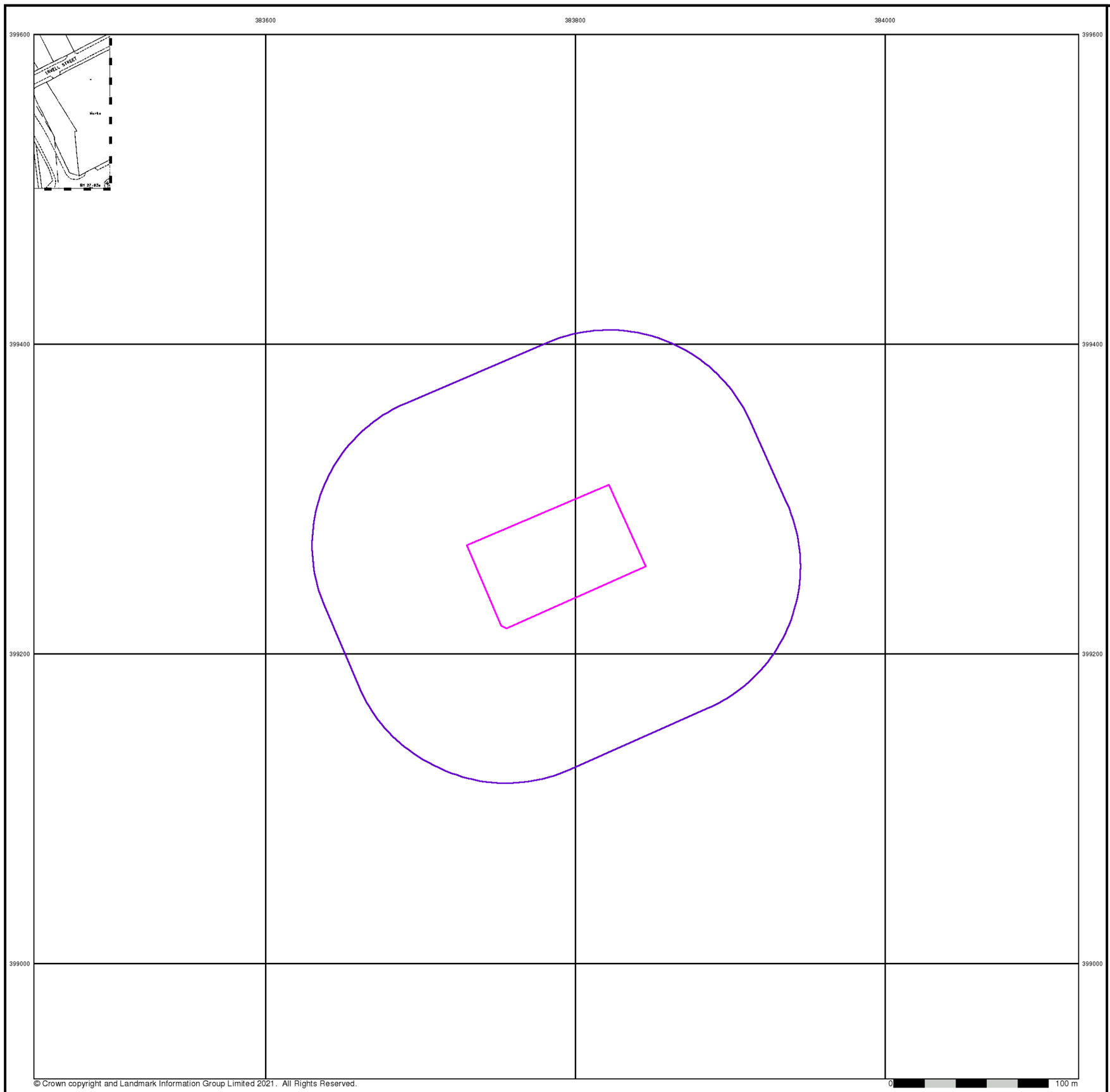
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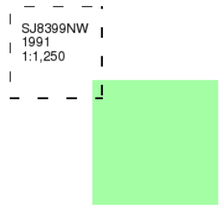
Additional SIMs

Published 1991

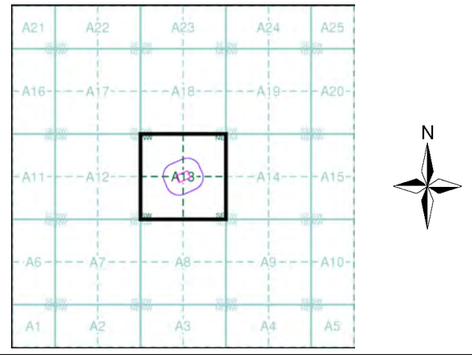
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



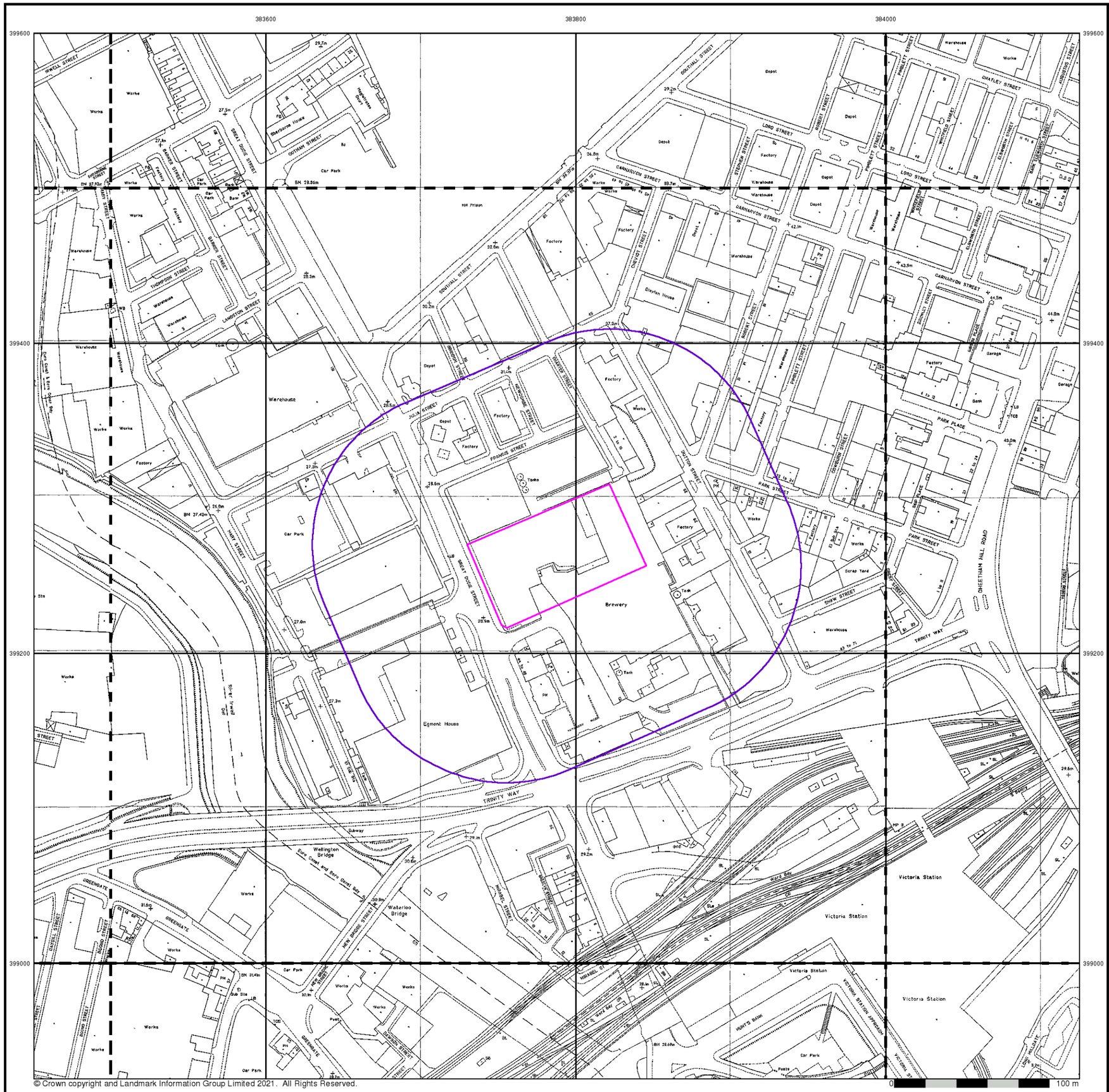
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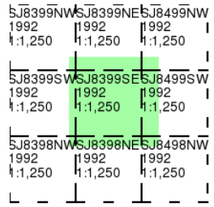
Large-Scale National Grid Data

Published 1992

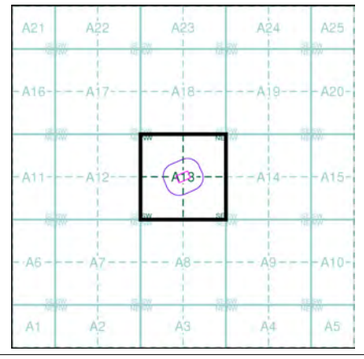
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



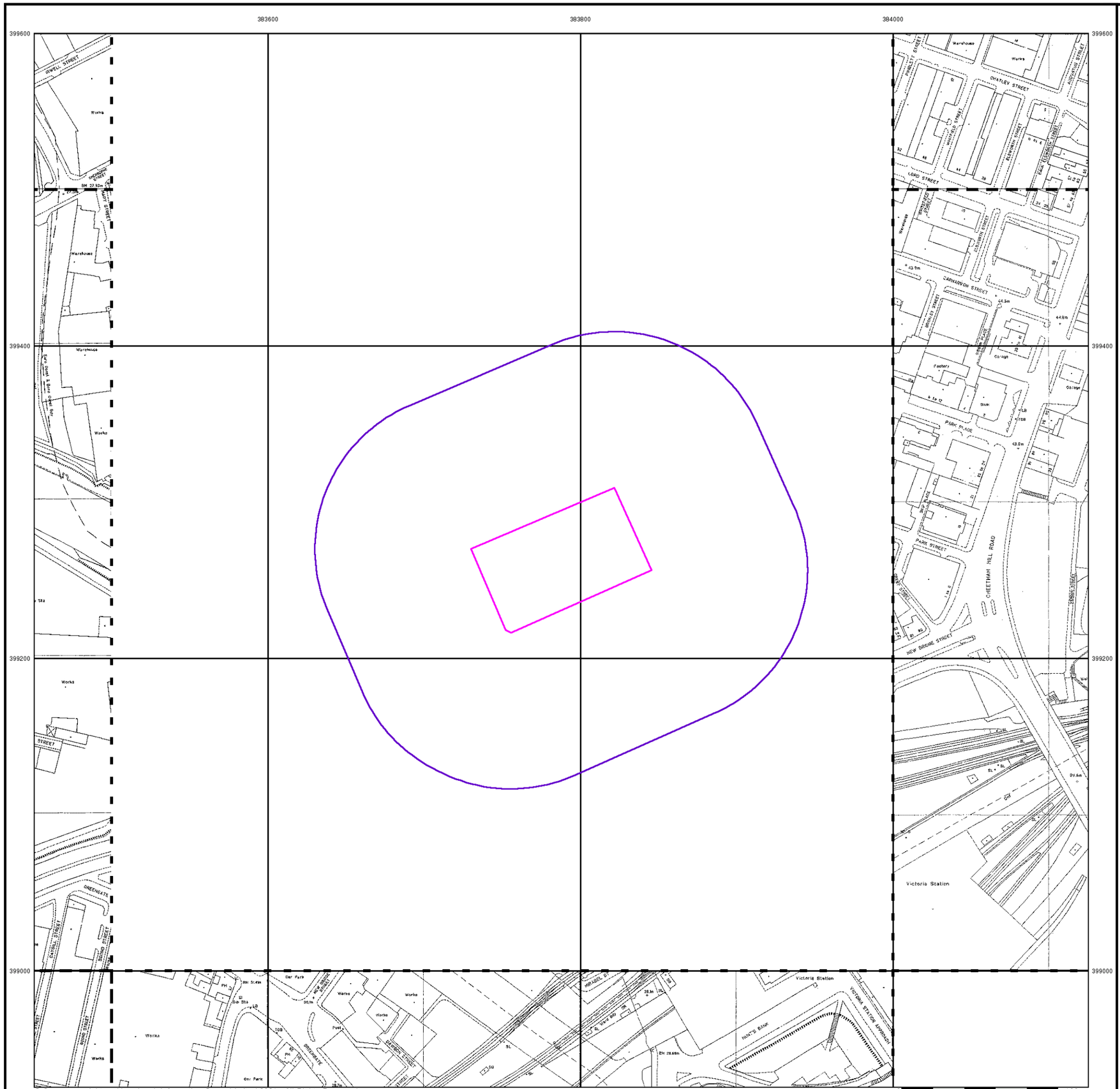
Order Details

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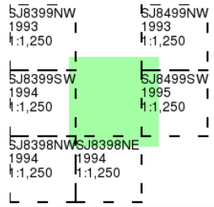
Large-Scale National Grid Data

Published 1993 - 1995

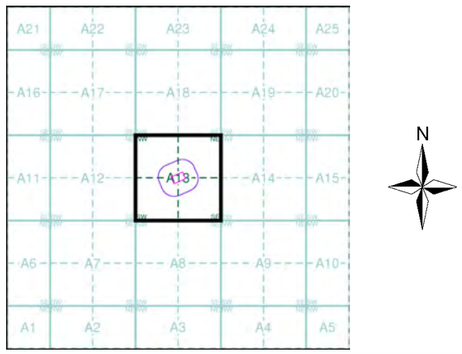
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



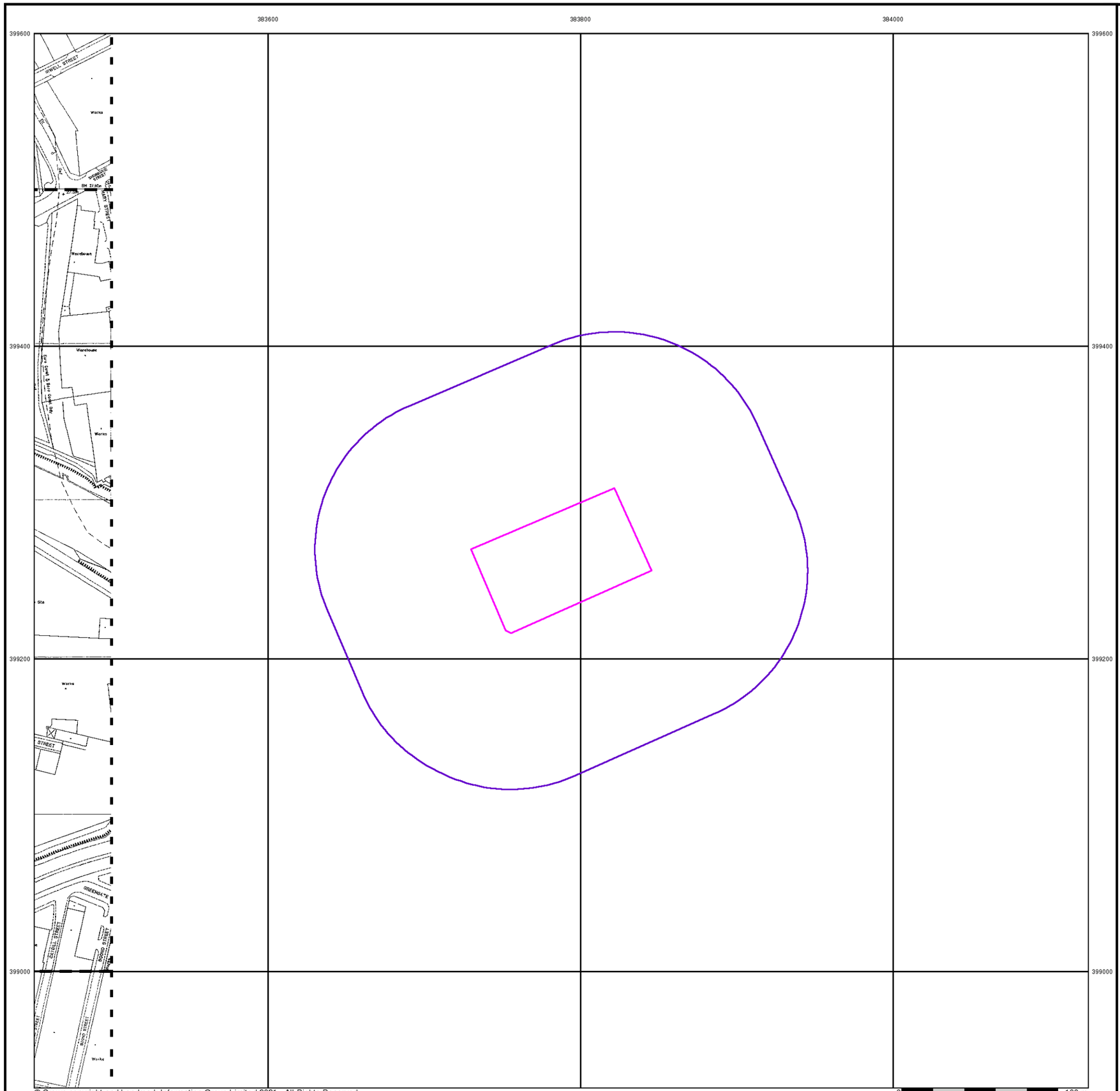
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Large-Scale National Grid Data

Published 1994 - 1995

Source map scale - 1:1,250

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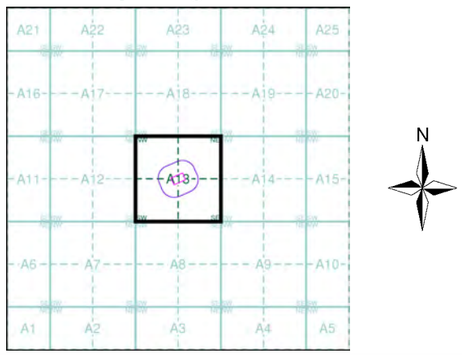
Map Name(s) and Date(s)

SJ8399NW
1995
1:1,250

SJ8399SW
1994
1:1,250

SJ8398NW
1995
1:1,250

Historical Map - Segment A13



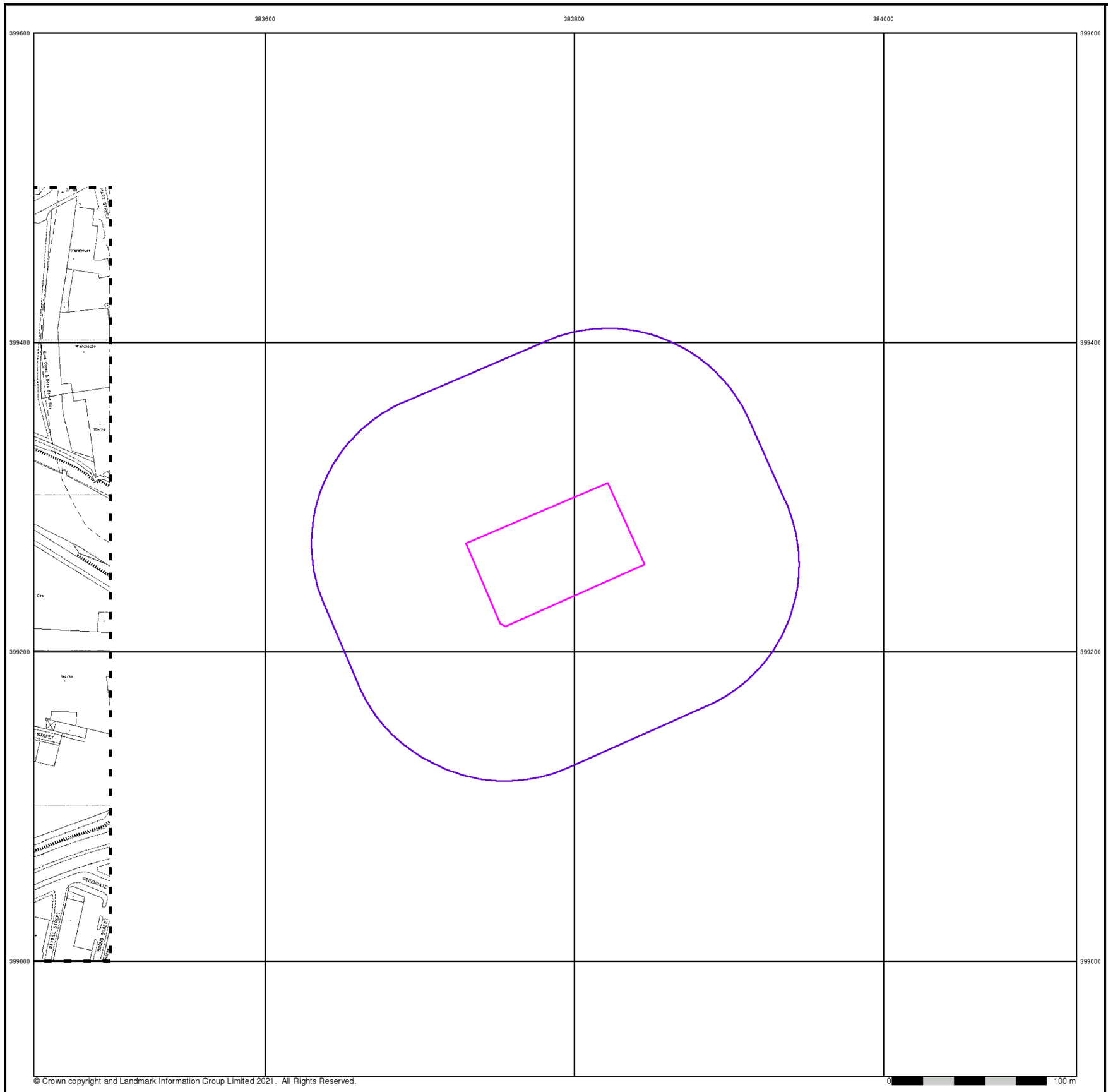
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0 100 m

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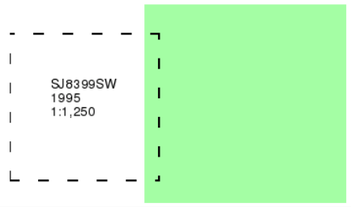
Large-Scale National Grid Data

Published 1995

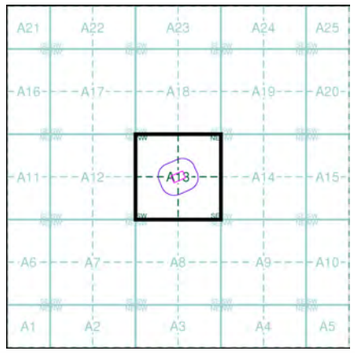
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



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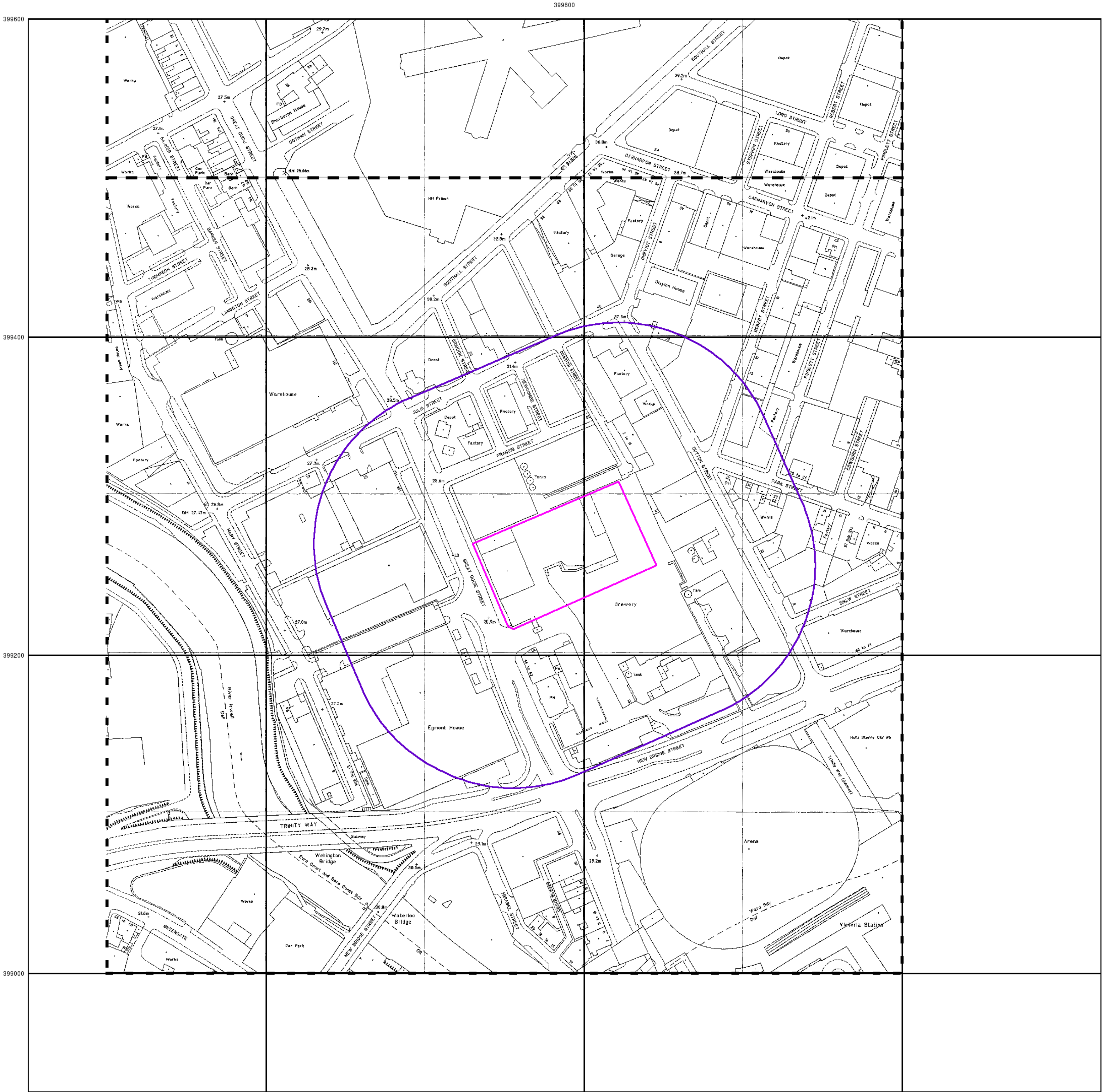
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0 100 m

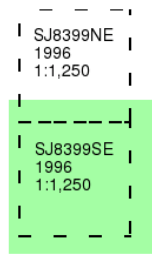
Large-Scale National Grid Data

Published 1996

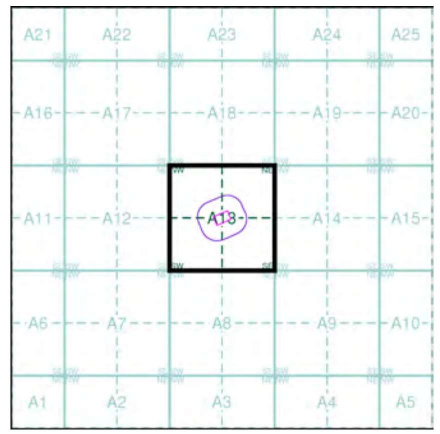
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Map Name(s) and Date(s)



Historical Map - Segment A13



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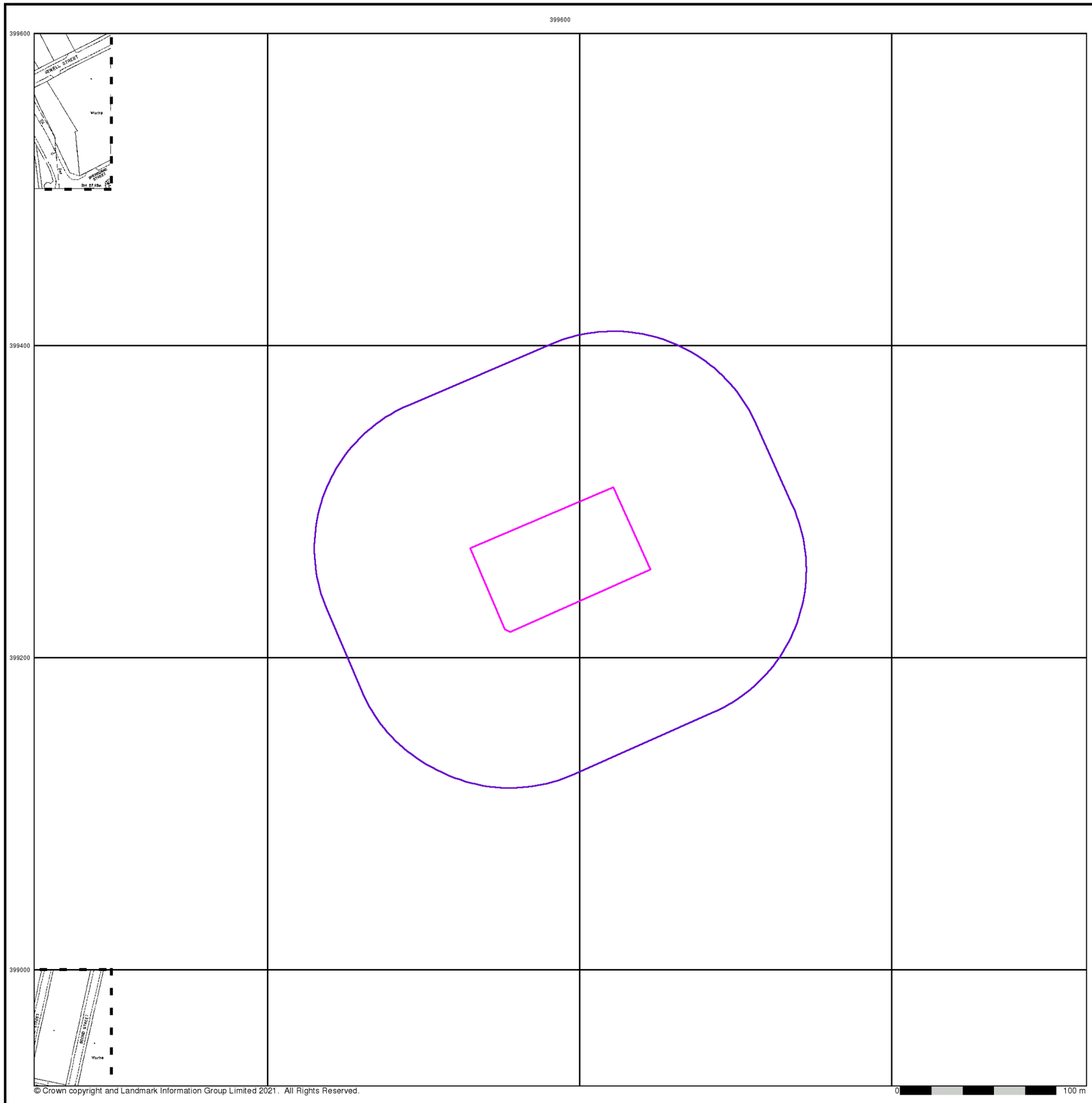
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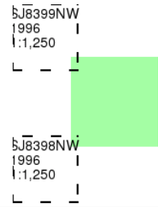
Large-Scale National Grid Data

Published 1996

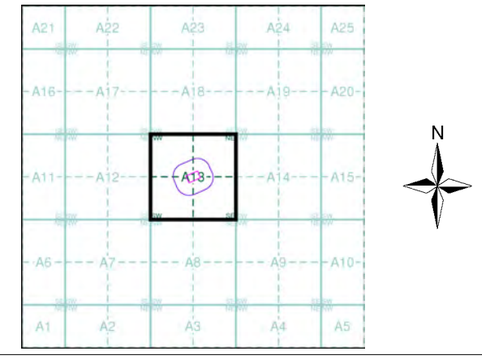
Source map scale - 1:1,250

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Historical Map - Segment A13



Order Details

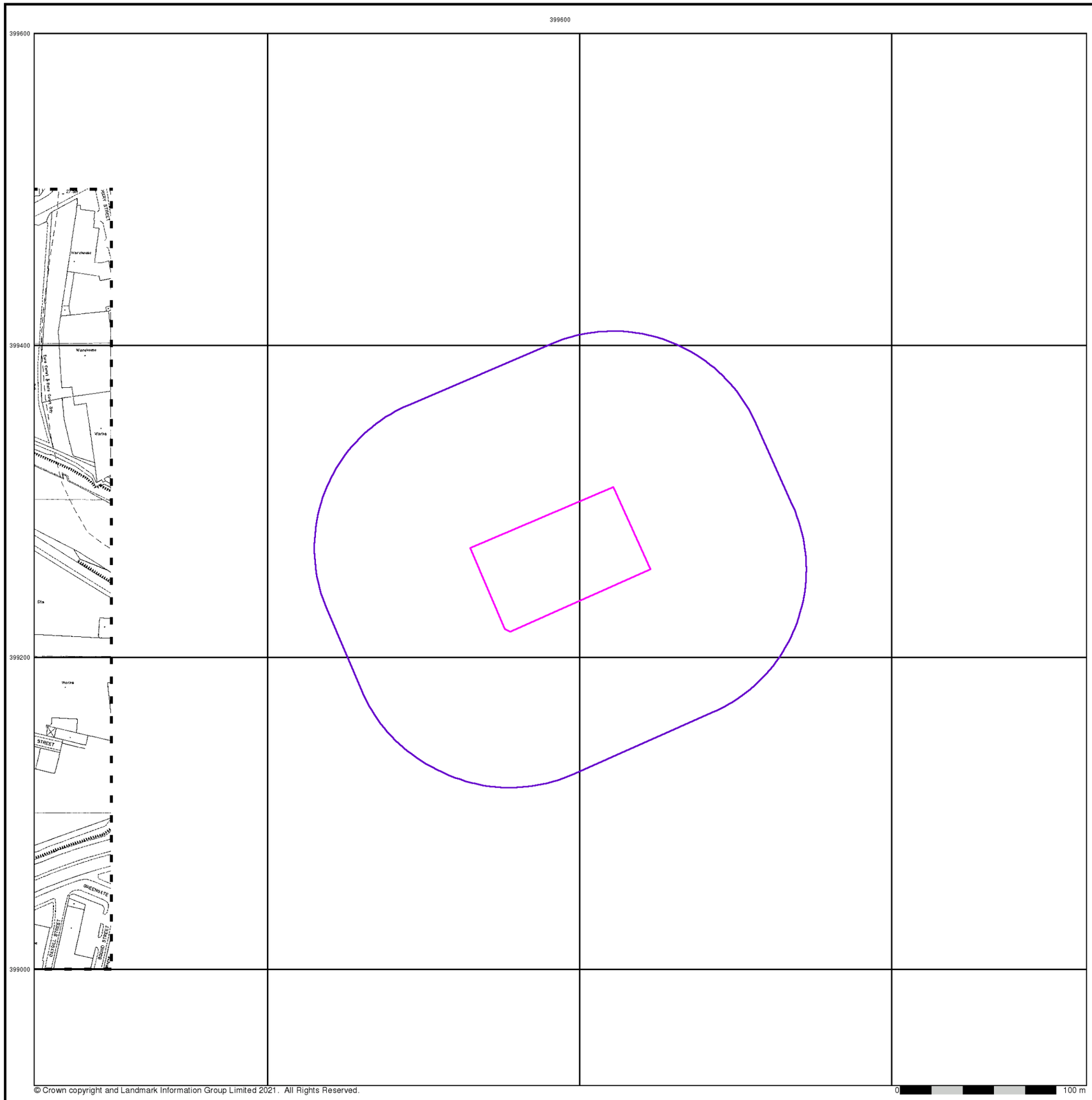
Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	100

Site Details

Great Ducie Street, MANCHESTER

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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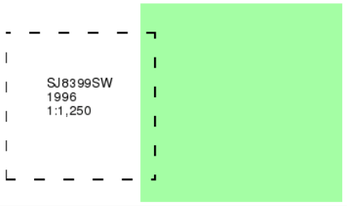
Large-Scale National Grid Data

Published 1996

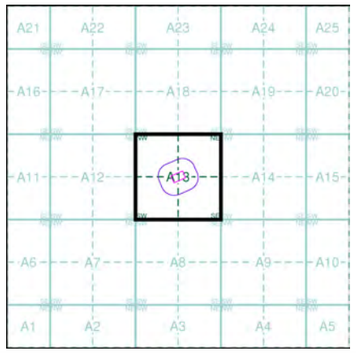
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



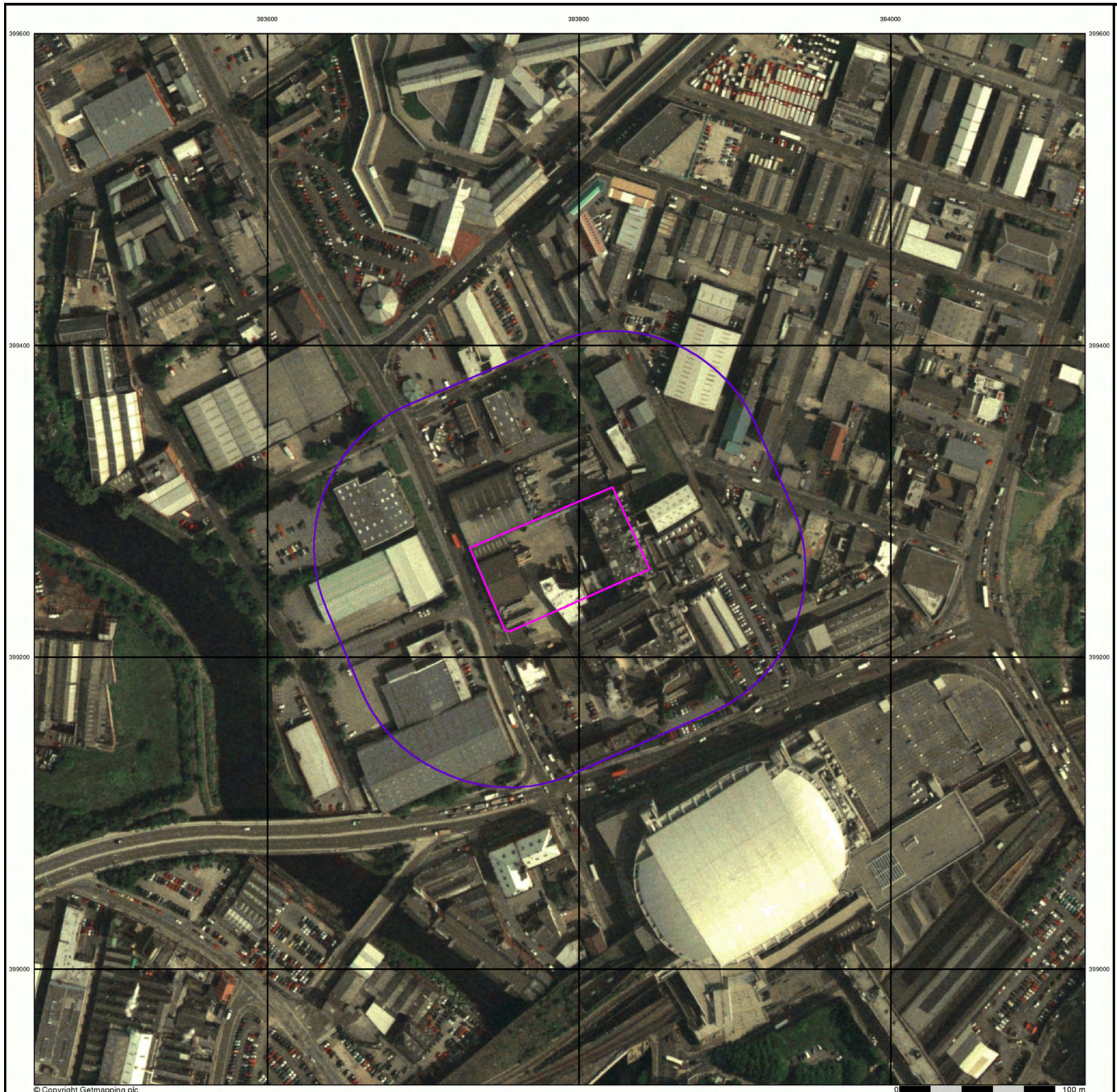
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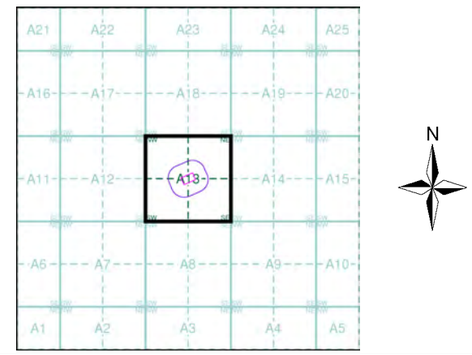
e3p

Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

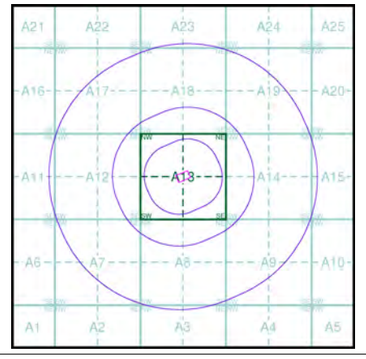
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1848	3
Cheshire	1:10,560	1882	4
Lancashire And Furness	1:10,560	1894 - 1896	5
Lancashire And Furness	1:10,560	1909	6
Lancashire And Furness	1:10,560	1923	7
Lancashire And Furness	1:10,560	1931 - 1933	8
Lancashire And Furness	1:10,560	1938	9
Ordnance Survey Plan	1:10,000	1956	10
Ordnance Survey Plan	1:10,000	1966 - 1968	11
Ordnance Survey Plan	1:10,000	1972 - 1979	12
Manchester	1:25,000	1975	13
Ordnance Survey Plan	1:10,000	1980 - 1986	14
Ordnance Survey Plan	1:10,000	1985 - 1987	15
Ordnance Survey Plan	1:10,000	1989	16
Ordnance Survey Plan	1:10,000	1990 - 1994	17
10K Raster Mapping	1:10,000	1999	18
10K Raster Mapping	1:10,000	2006	19
VectorMap Local	1:10,000	2021	20

Historical Map - Slice A



Order Details

Order Number:	286062703_1_1
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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Fireproof Building
- Prominent Fireproof Building
- Non-fireproof Building
- Non-fireproof Building (non-dwelling)
- Factory, mill, and flour mill, with chimneys
- Factory, mill, and flour mill, without chimneys
- Power Station, drawn to scale
- Hydroelectric Power Station
- Radio Station, drawn to scale
- Telephone Station, drawn to scale
- Abandoned Open-pit Mine or Quarry
- Open-pit Salt Mine
- Pit
- Oil Deposit or Well
- Oil Seepage
- Tailings Pile
- Fuel Storage Tanks
- Natural Gas Tank
- Bench Mark
- Drill Hole
- Burial Mound
- Triangulation Point on Burial Mound
- Single-track Railroad
- Double-track Railroad and Station Building
- Coniferous Forest
- Deciduous Forest
- Mixed Forest
- Lawns
- Citrus Orchard
- Wet Ground
- Scattered Vegetation

243,8 — Values for prominent elevations

186.0 — Numbers for spot elevations, depth soundings, contour lines, etc.

0,2 — Velocity of the current, width of river bed, depth of river

Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	ъ (–)
Д д (D)	Л л (L)	У у (U)	ы (Y)
Е е (E)	М м (M)	Ф ф (F)	ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Partly Demolished Buildings
- Demolished Buildings
- Built-Up Area with Fireproof Buildings Predominant
- Built-Up Area with Non-Fireproof Buildings Predominant
- Individual Fireproof Building
- Prominent Industrial Building
- Individual Dwelling, Fireproof
- Ruins of an Individual Dwelling
- Factory or Mill Chimney
- Factory or Mill with Chimney
- Factory or Mill without Chimney
- Mine or Open Pit Mine
- Operating Shaft or Mine
- Non-Operating Shaft or Mine
- Salt Mine
- Tailings Pile
- Pit
- Stone Quarry
- Gas Pump or Service Station
- Fuel Storage or Natural Gas Tank
- Oil or Natural Gas Derrick
- Small Hydroelectric Power Station
- Power Station
- Transformer Station
- Cemetery
- Burial Mound (height in metres)
- Triangulation Point on Burial Mound
- Triangulation Point
- Bench Mark
- Bench Mark (monumented)
- Telegraph Office
- Telephone Station
- Radio Station
- Radio Tower
- Airfield or Seaplane Base
- Landing Strip
- Main Highway
- Highway under Construction
- Improved Dirt Road (former truck road)
- Double-track Railroad with First Class Station
- Dismantled Railroad
- Railroad Under Construction
- Shore Embankment
- River or Ditch with Embankment
- Direction and velocity of current
- Well
- Water Reservoir or Rain Water Pit
- Spring
- Isobath with value
- Heavy (Index) Contour Line
- Contour Line and Value
- Half Contour Line
- Spot Elevation Value
- Coniferous
- Deciduous
- Mixed
- Scrub

Key to Numbers on Mapping

SJ89_Manchester

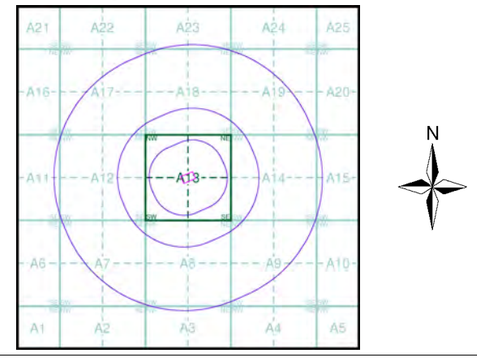
No.	Description
62	Factory (Gas)
63	Factory (Gas)
93	Factory (Metal Works)
157	Police Station/Headquarters
168	Post Office
211	Council/Government Buildings/Courts
216	Prison
248	Power Station (Electric)

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1848	3
Cheshire	1:10,560	1882	4
Lancashire And Furness	1:10,560	1894 - 1896	5
Lancashire And Furness	1:10,560	1909	6
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Ordnance Survey Plan	1:10,000	1990 - 1994	17
10K Raster Mapping	1:10,000	1999	18
10K Raster Mapping	1:10,000	2006	19
VectorMap Local	1:10,000	2021	20

Russian Map - Slice A



Order Details

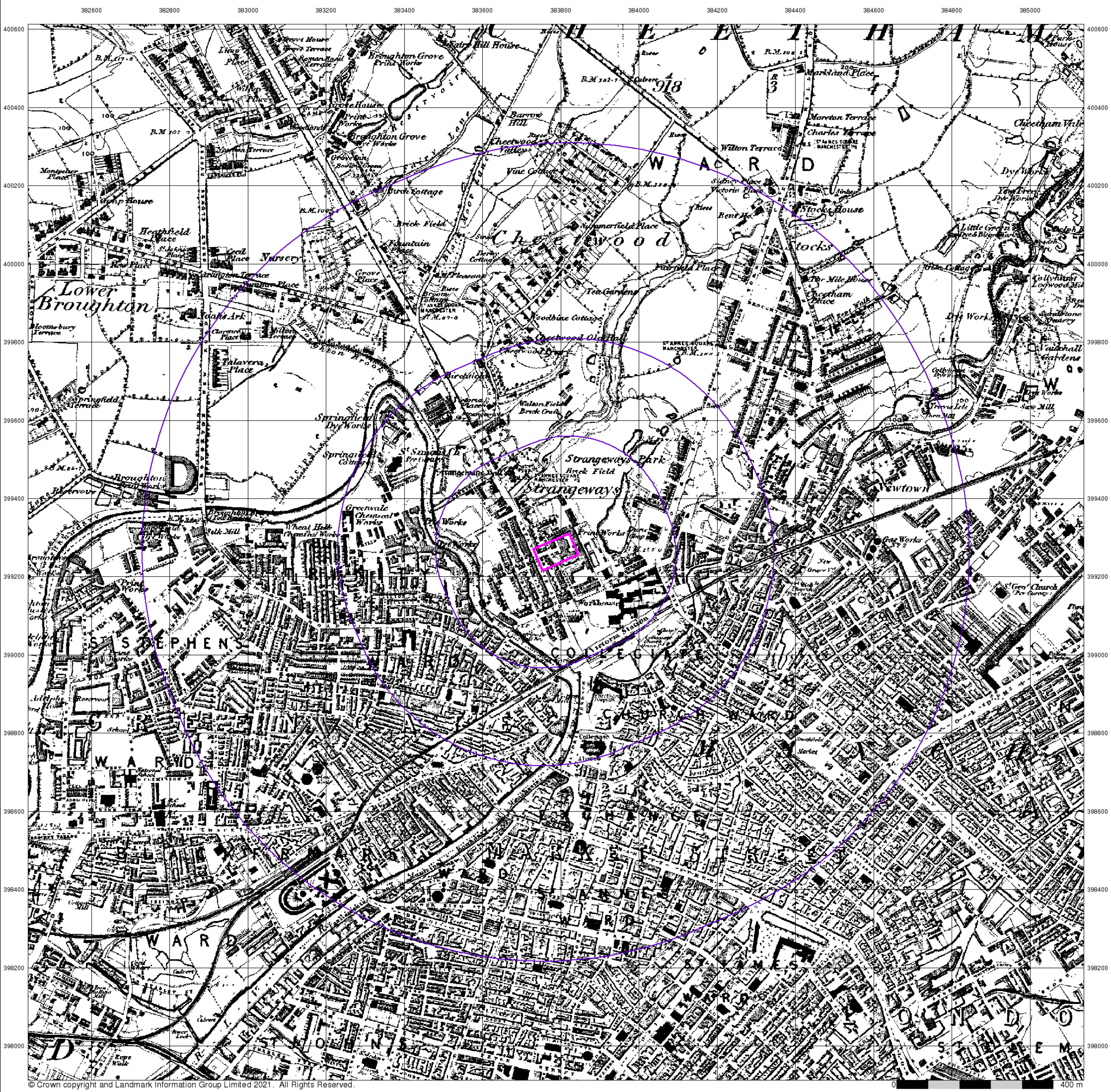
Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	1000

Site Details

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Lancashire And Furness

Published 1848

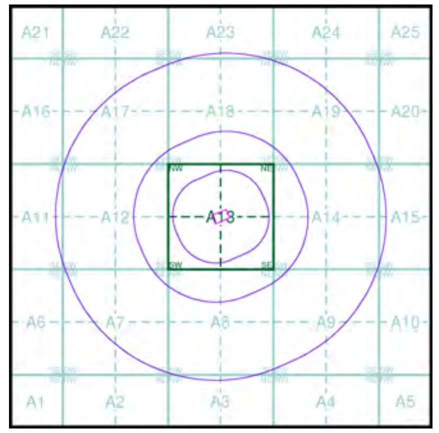
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

10400
1848
1:10,560

Historical Map - Slice A



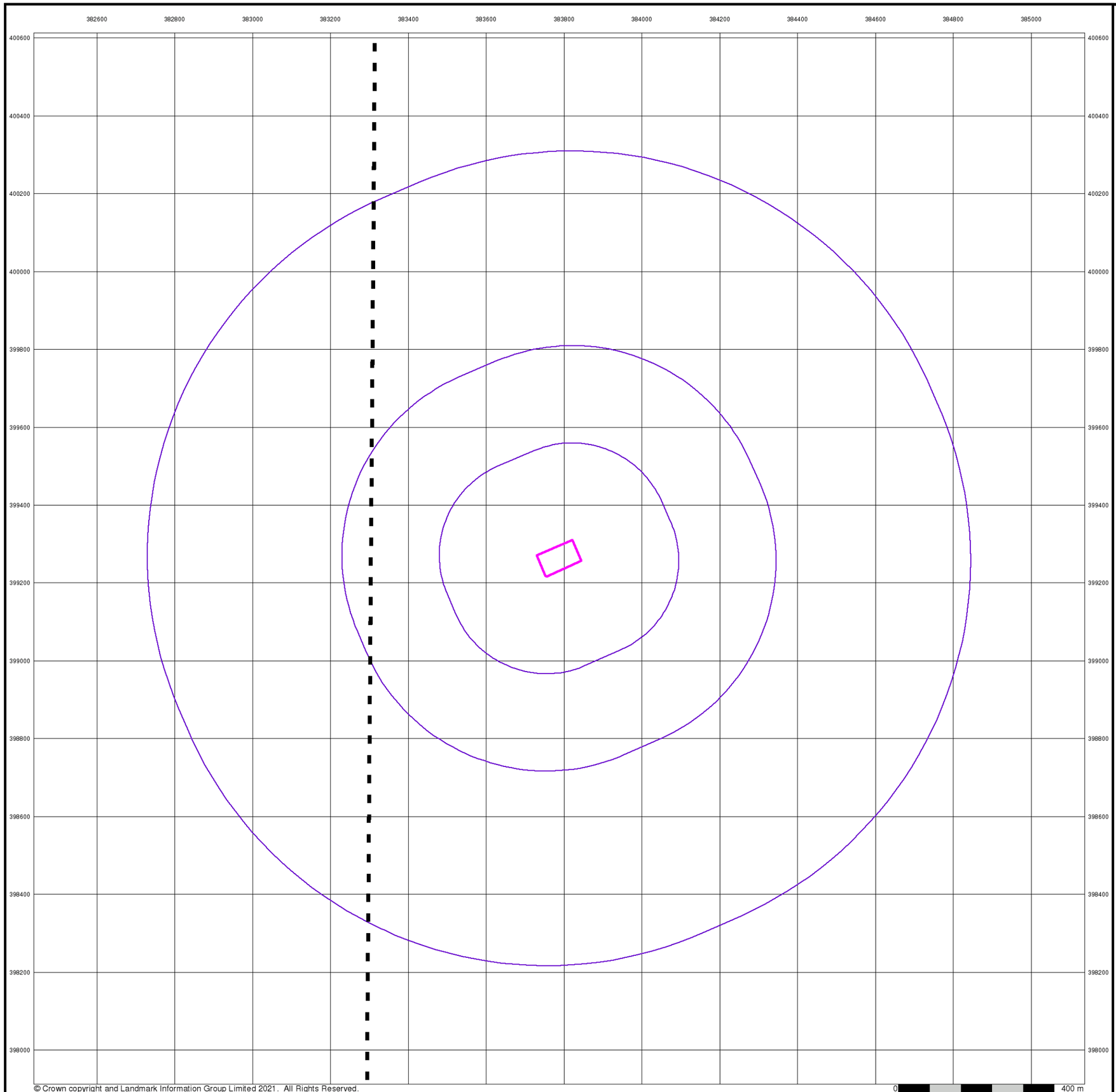
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Site Details

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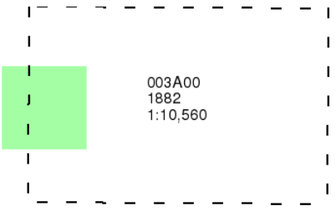
Cheshire

Published 1882

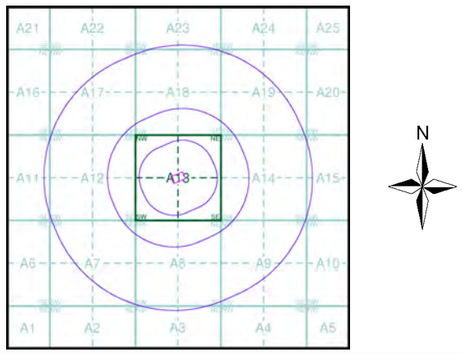
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A



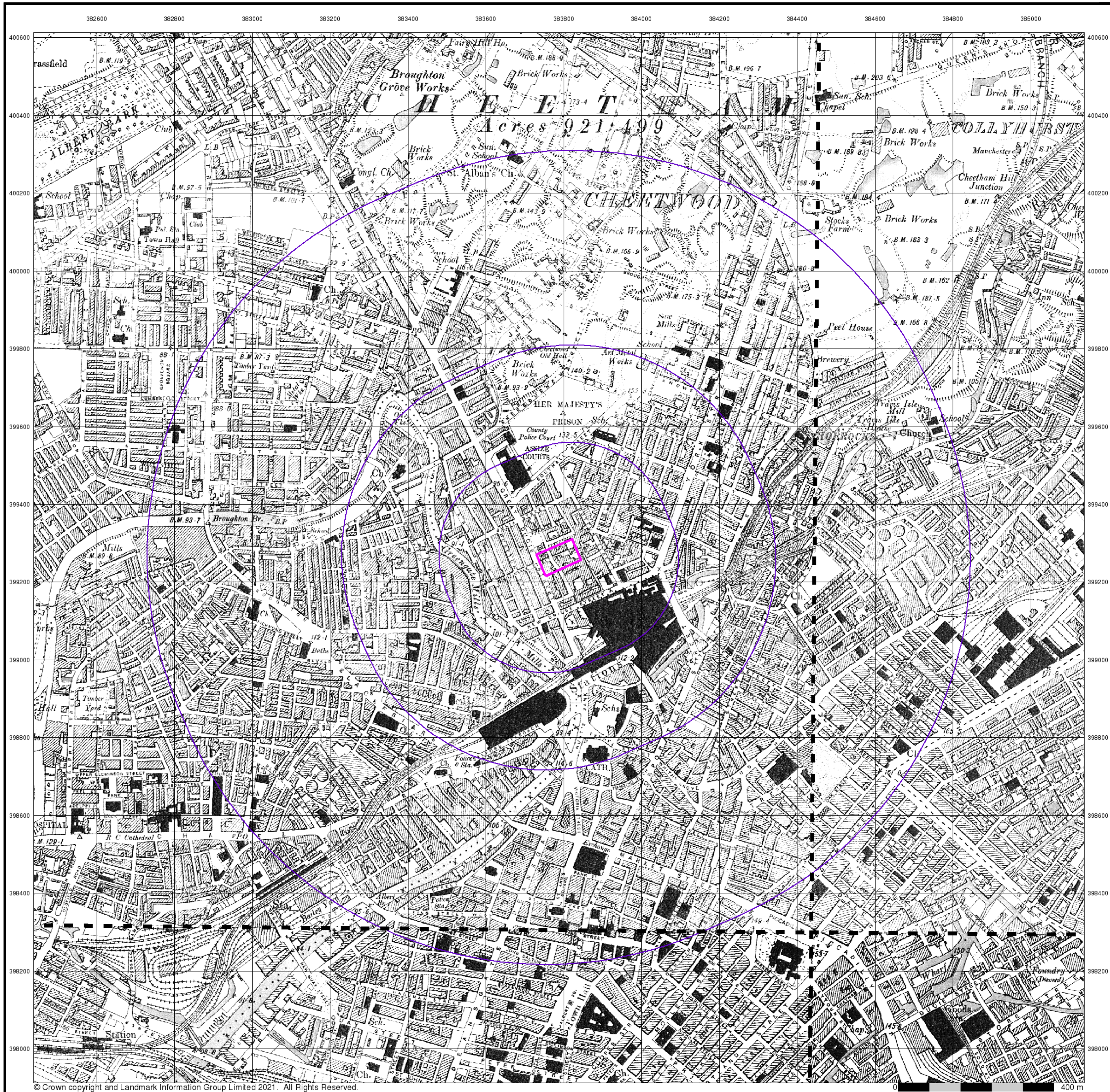
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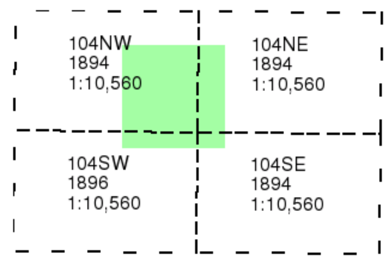
Lancashire And Furness

Published 1894 - 1896

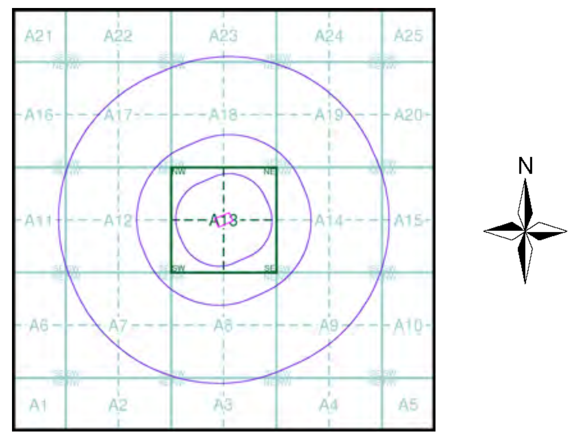
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



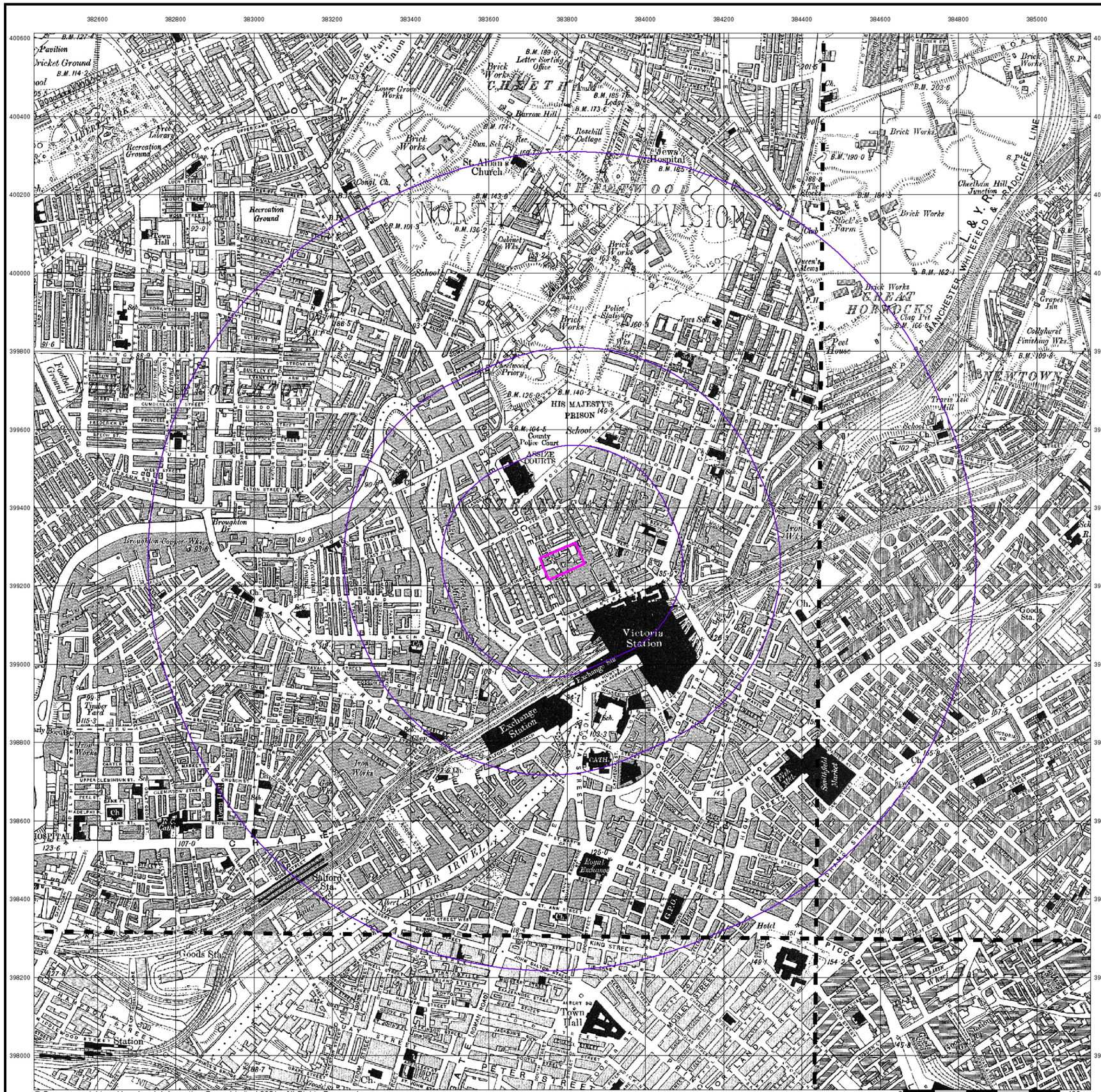
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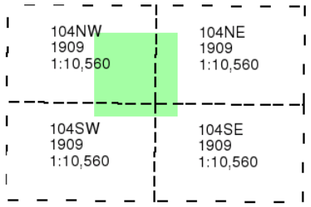
Lancashire And Furness

Published 1909

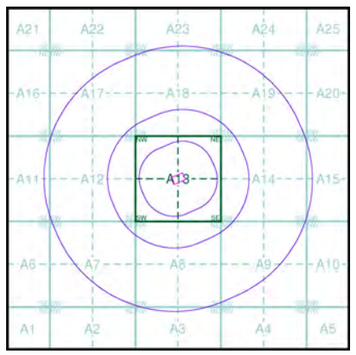
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



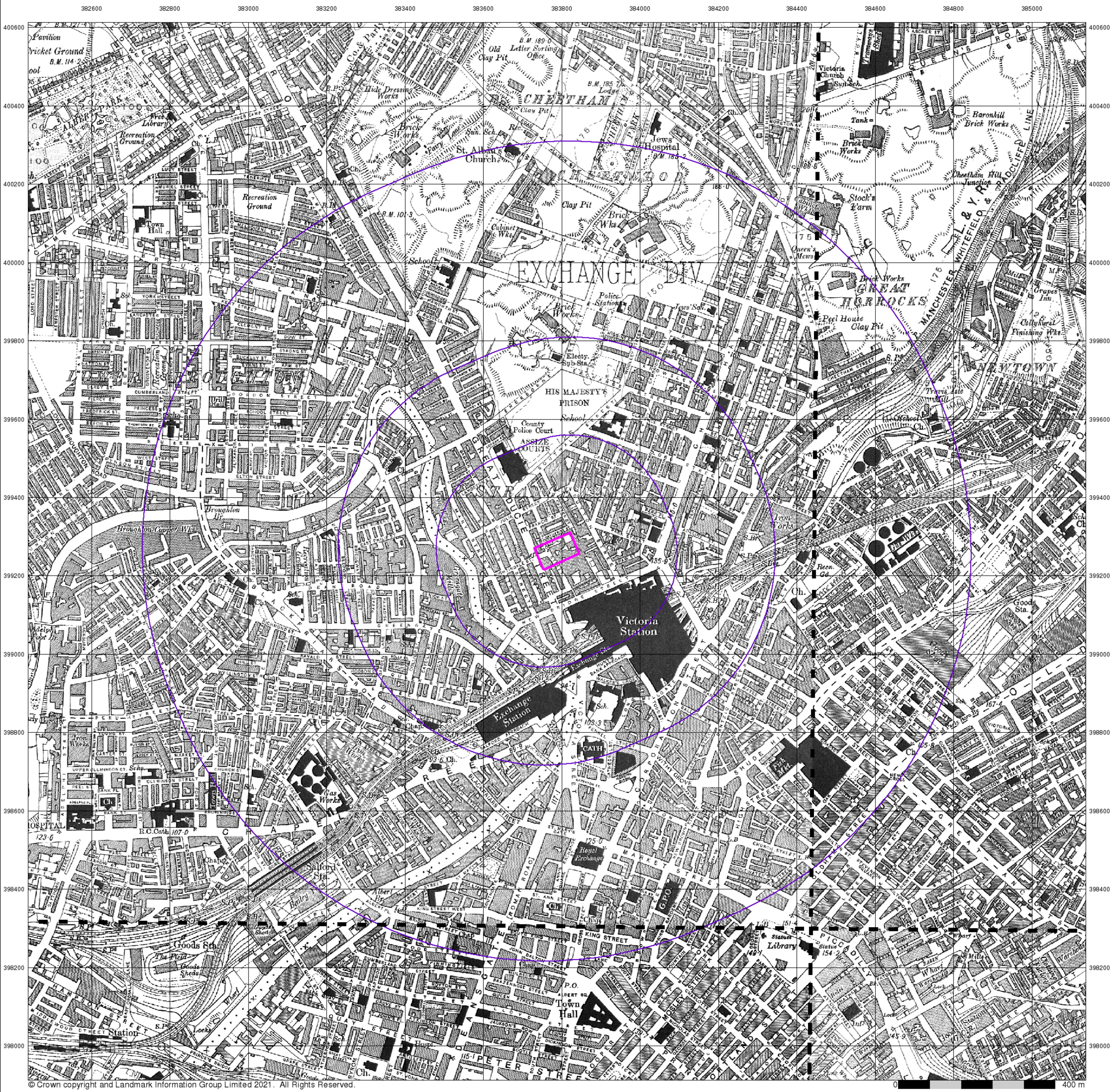
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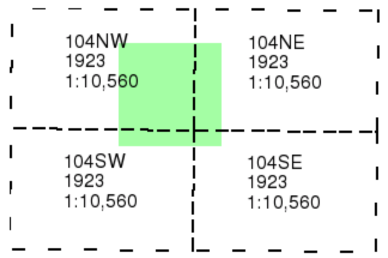
Lancashire And Furness

Published 1923

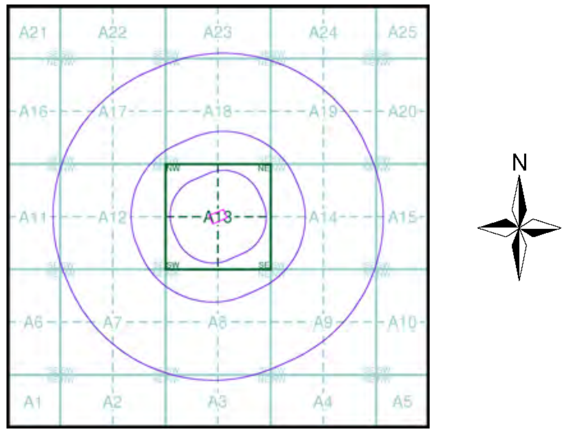
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



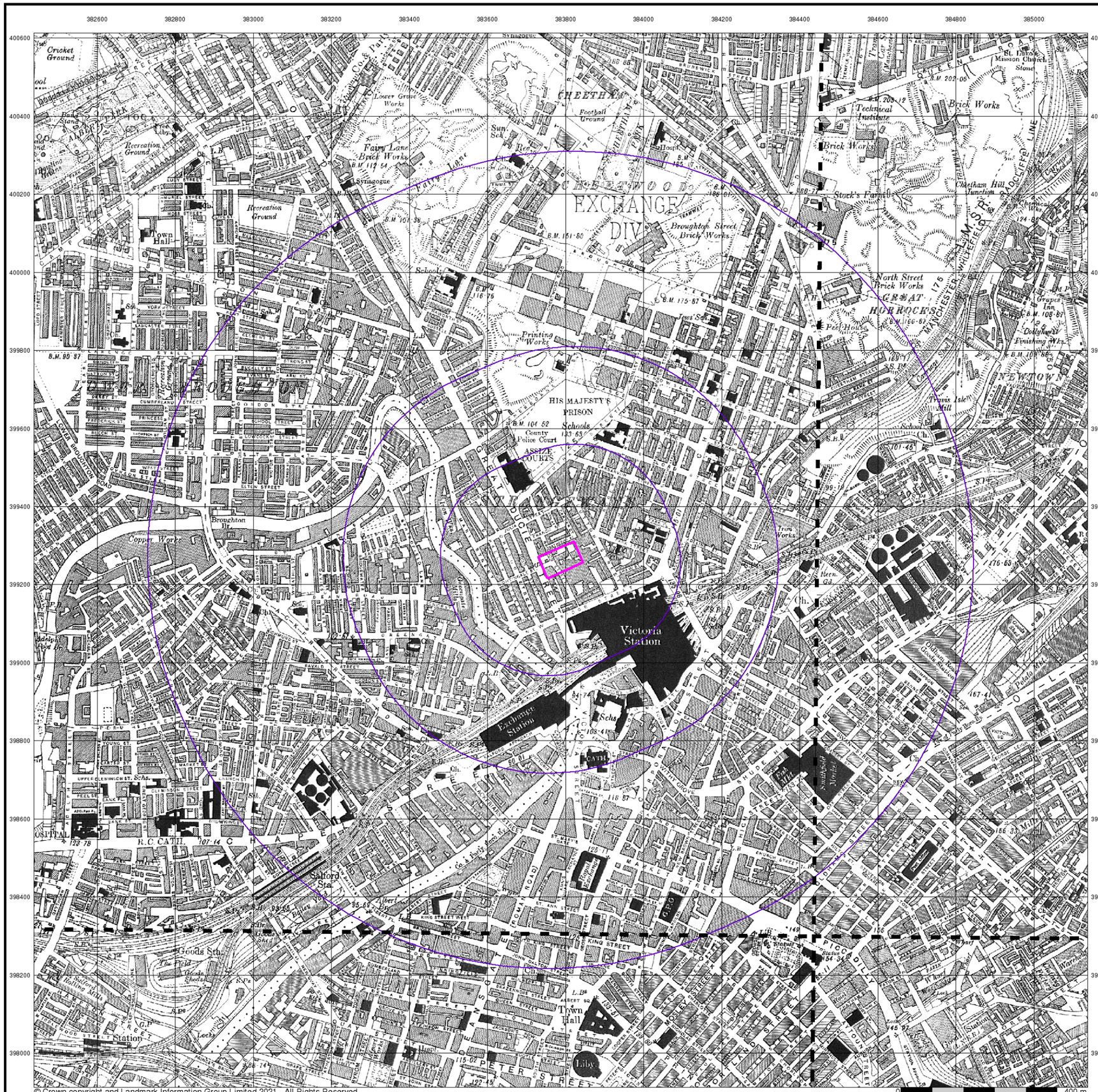
Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	1000

Site Details

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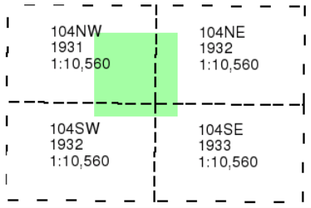
Lancashire And Furness

Published 1931 - 1933

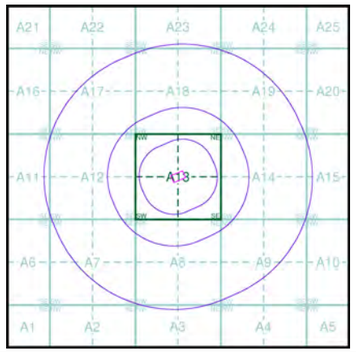
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

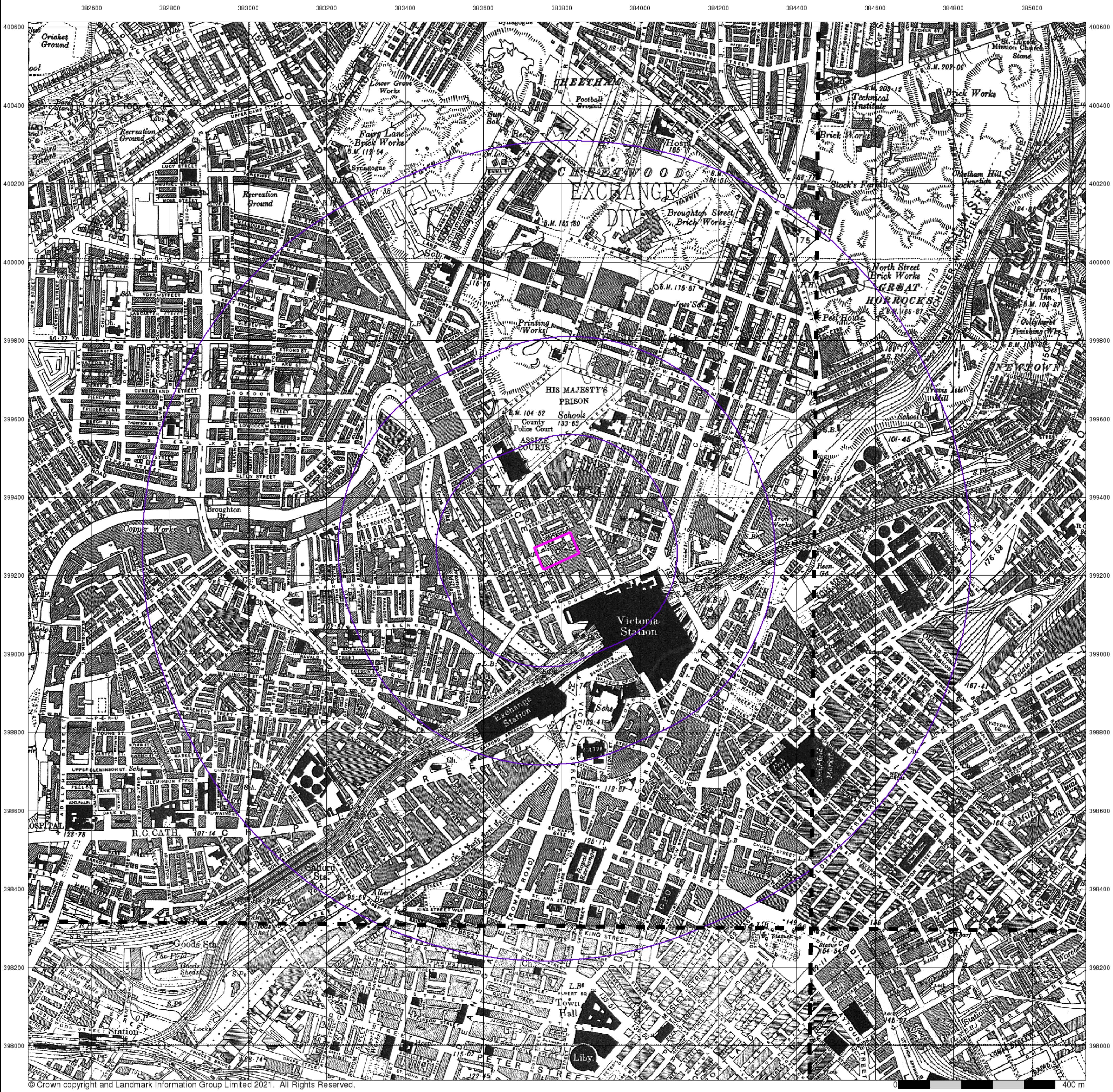
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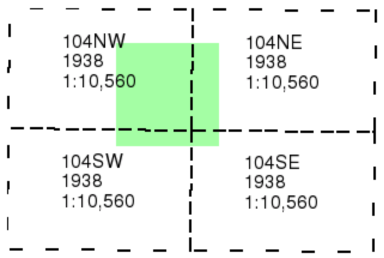
Lancashire And Furness

Published 1938

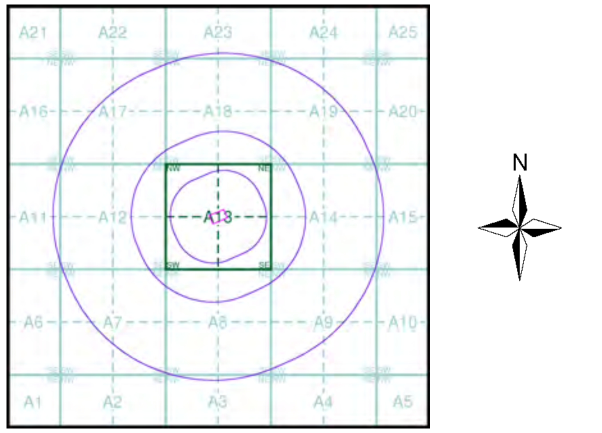
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A



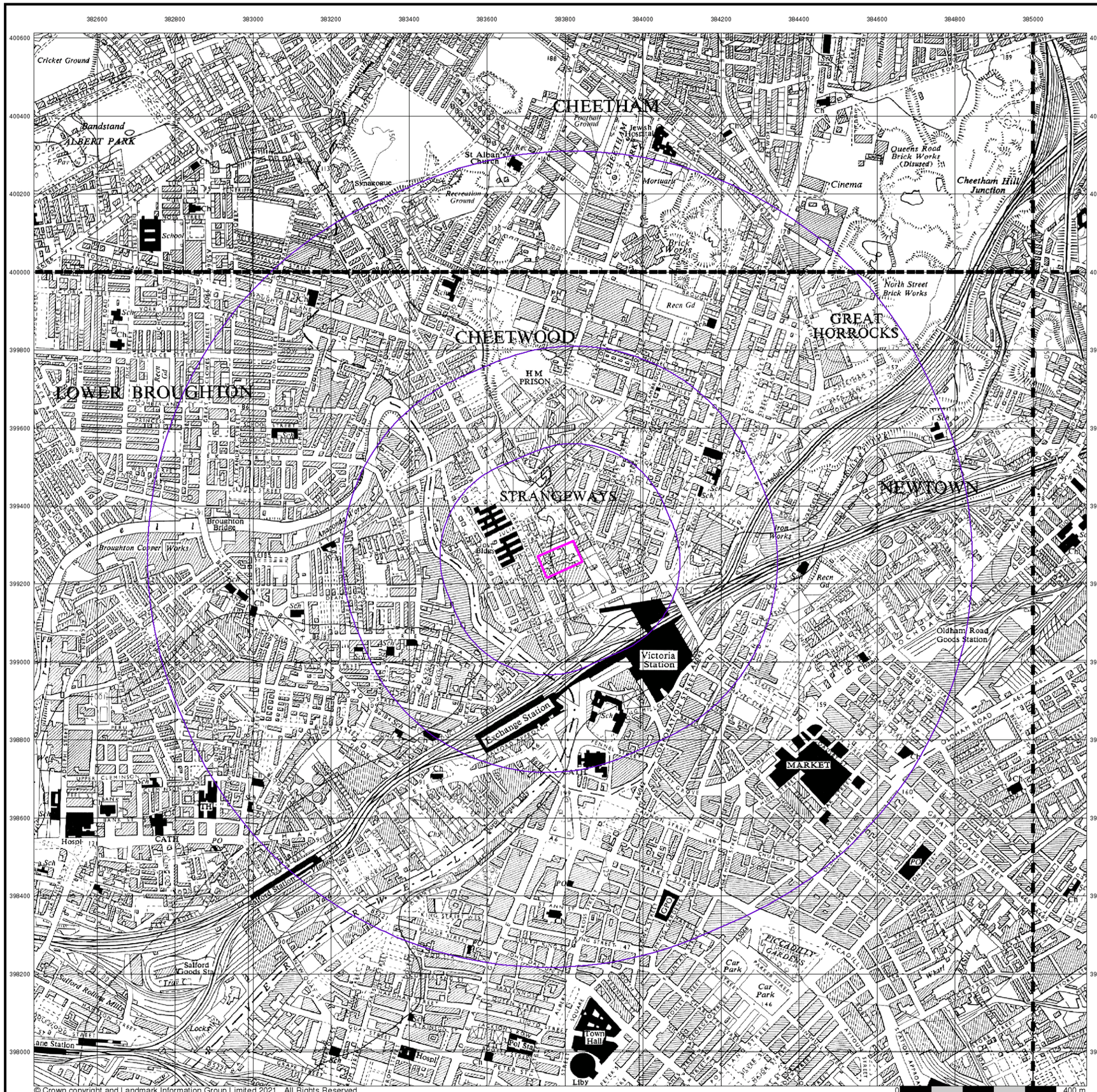
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Ordnance Survey Plan

Published 1956

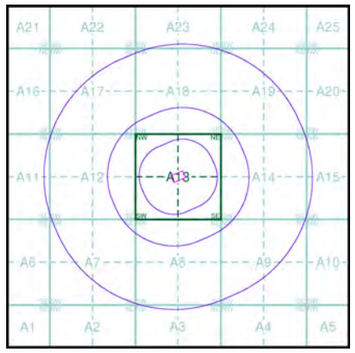
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD80SW 1956 1:10,560	SD80SE 1956 1:10,560
SJ89NW 1956 1:10,560	SJ89NE 1956 1:10,560

Historical Map - Slice A



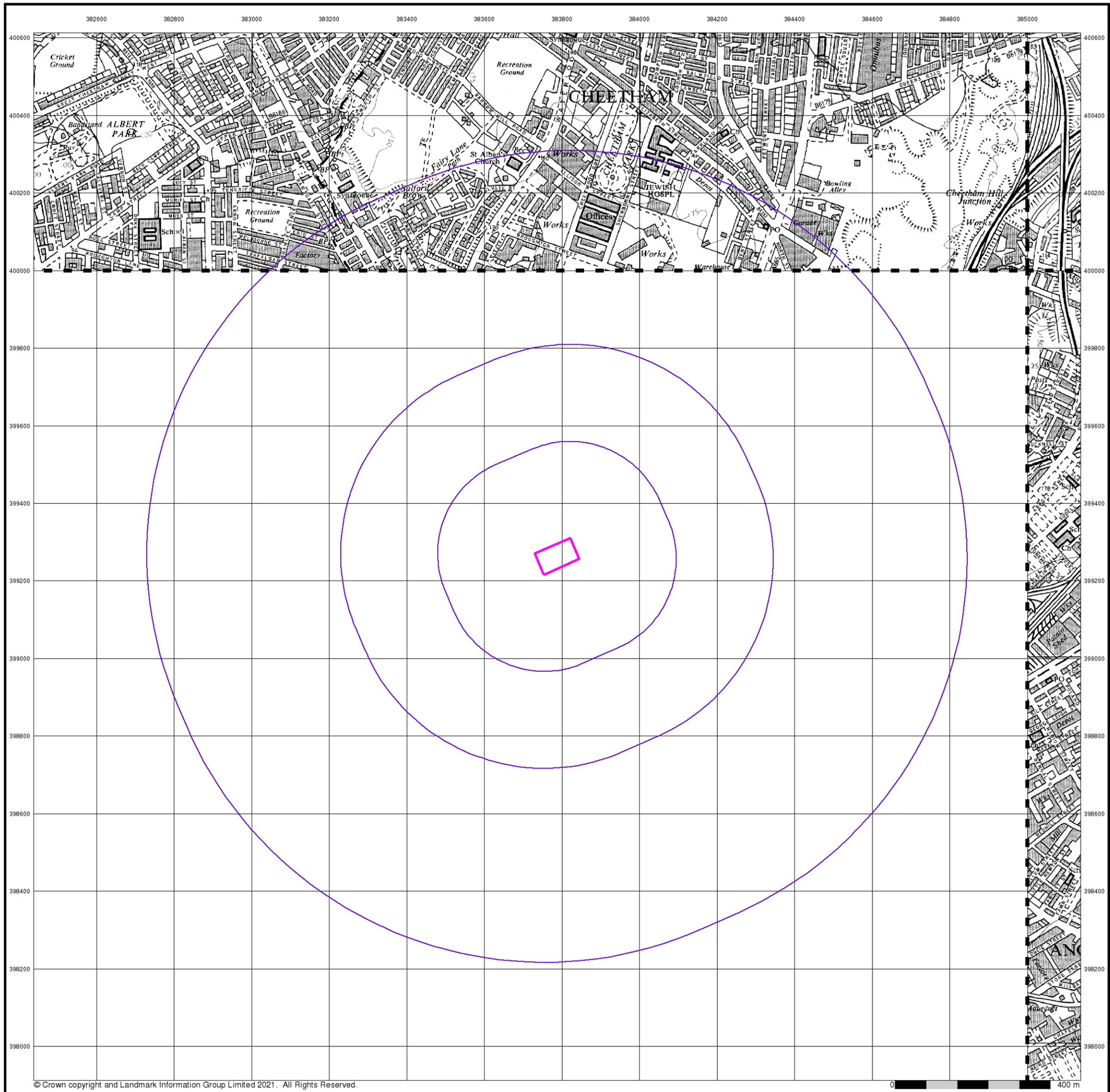
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Search Buffer (m):	1000

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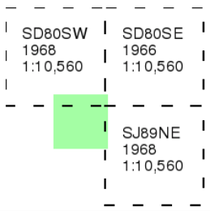
Ordnance Survey Plan

Published 1966 - 1968

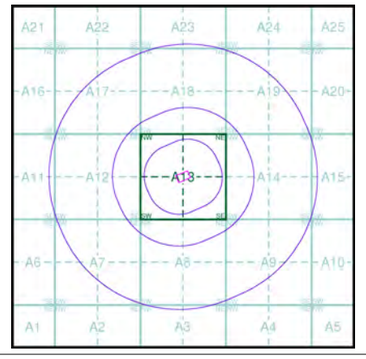
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

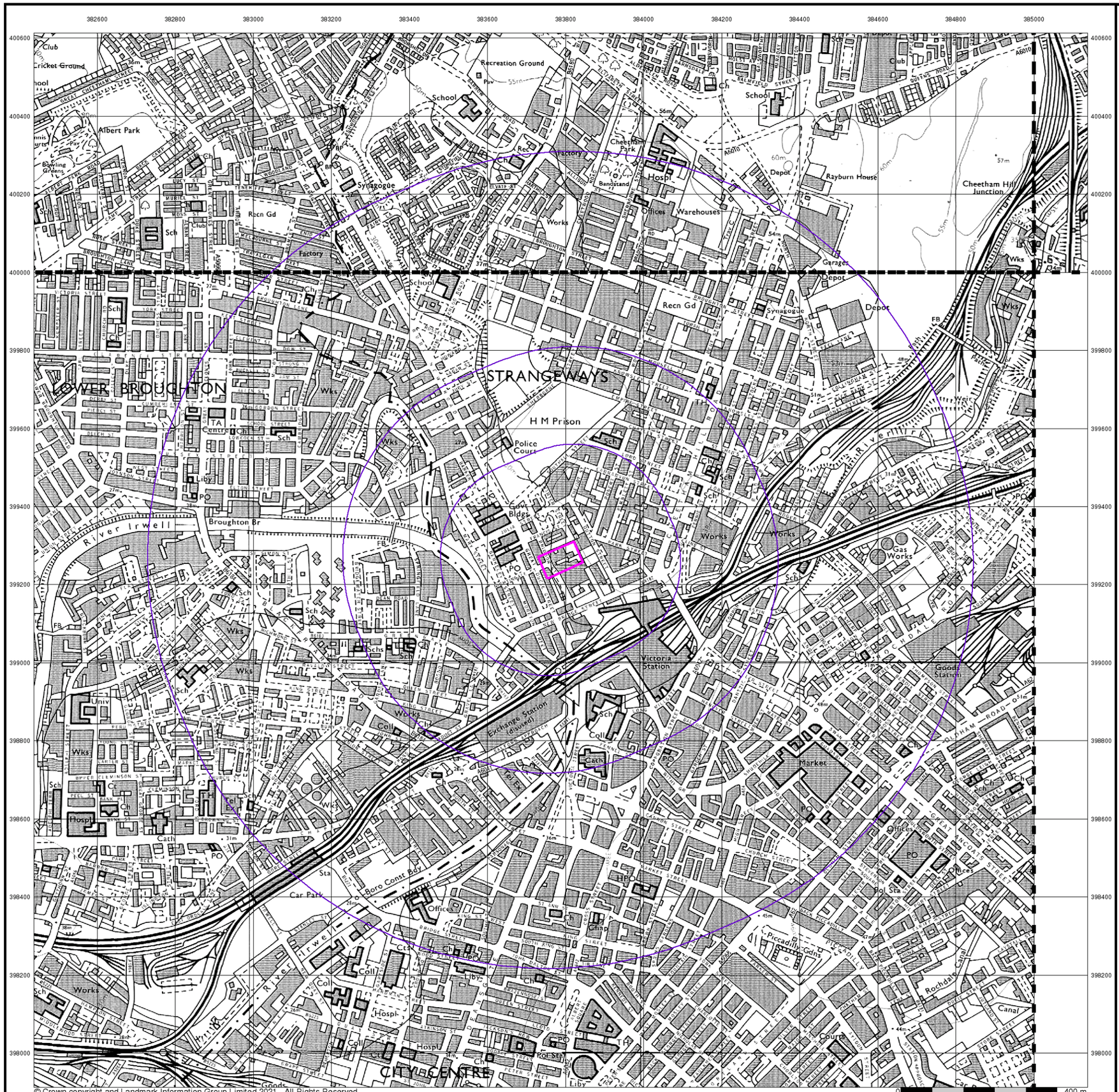
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Ordnance Survey Plan

Published 1972 - 1979

Source map scale - 1:10,000

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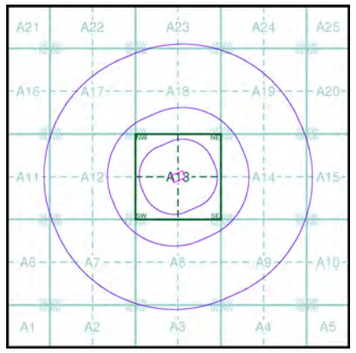
Map Name(s) and Date(s)

SD80SW 1979 1:10,000

SD80SE 1978 1:10,000

SJ89NW 1972 1:10,000

Historical Map - Slice A



Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
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Manchester

Published 1975

Source map scale - 1:25,000

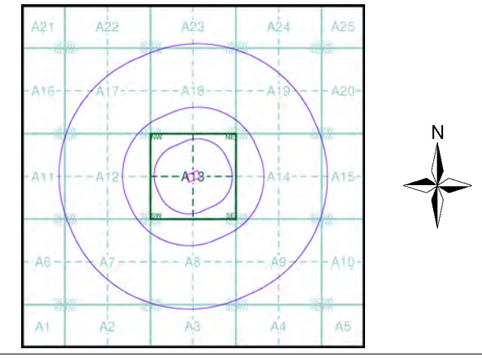
These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use.
They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)

SD80
1975
1:25,000

SJ89
1975
1:25,000

Russian Map - Slice A



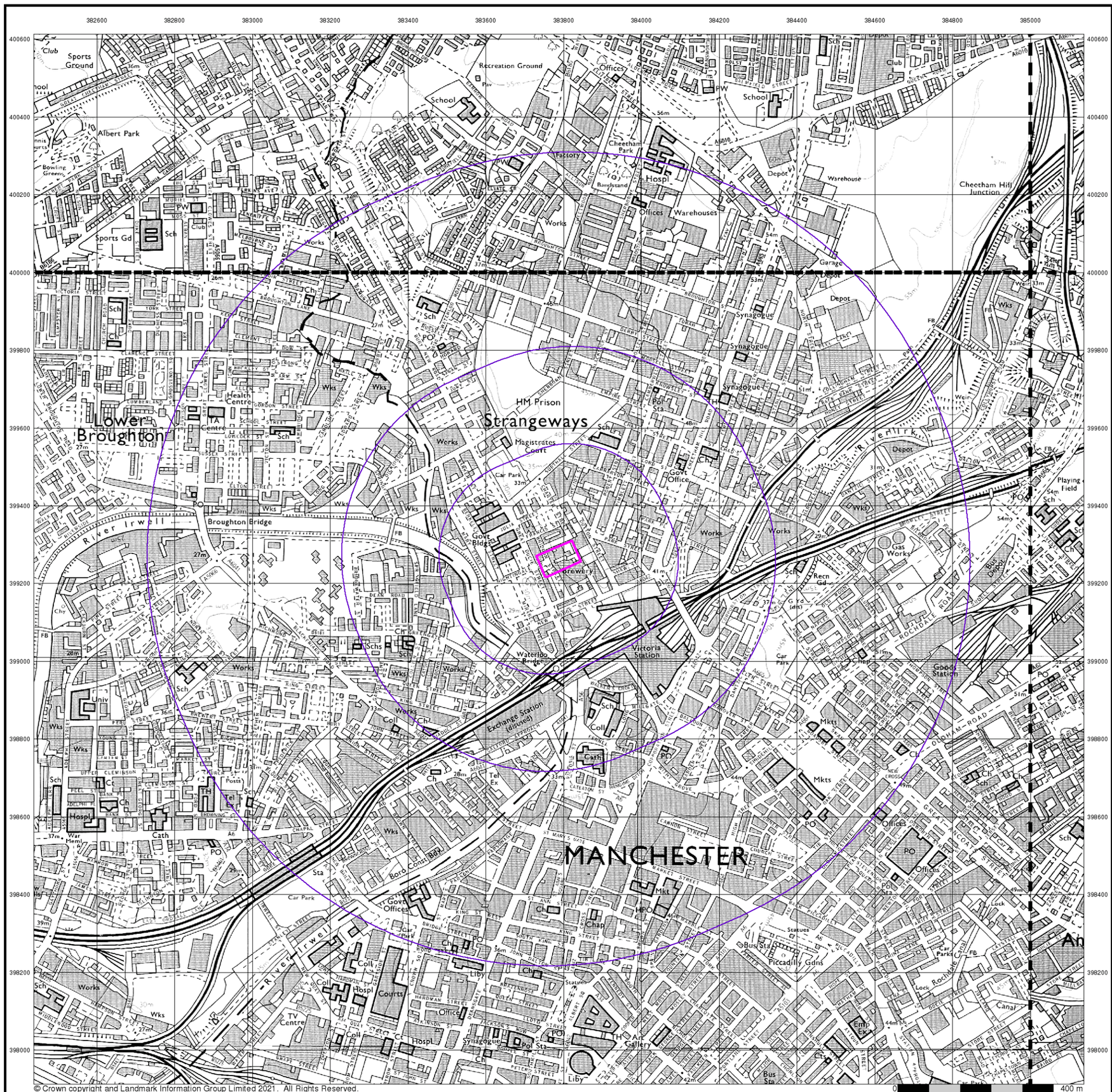
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Ordnance Survey Plan

Published 1980 - 1986

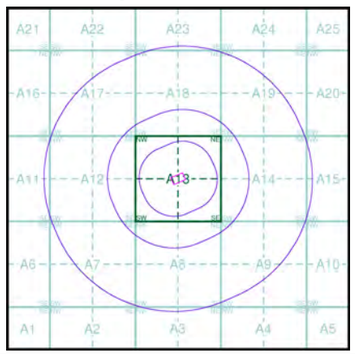
Source map scale - 1:10,000

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Map Name(s) and Date(s)

SD80SW 1986 1:10,000	SD80SE 1982 1:10,000
SJ89NW 1980 1:10,000	SJ89NE 1981 1:10,000

Historical Map - Slice A



Order Details

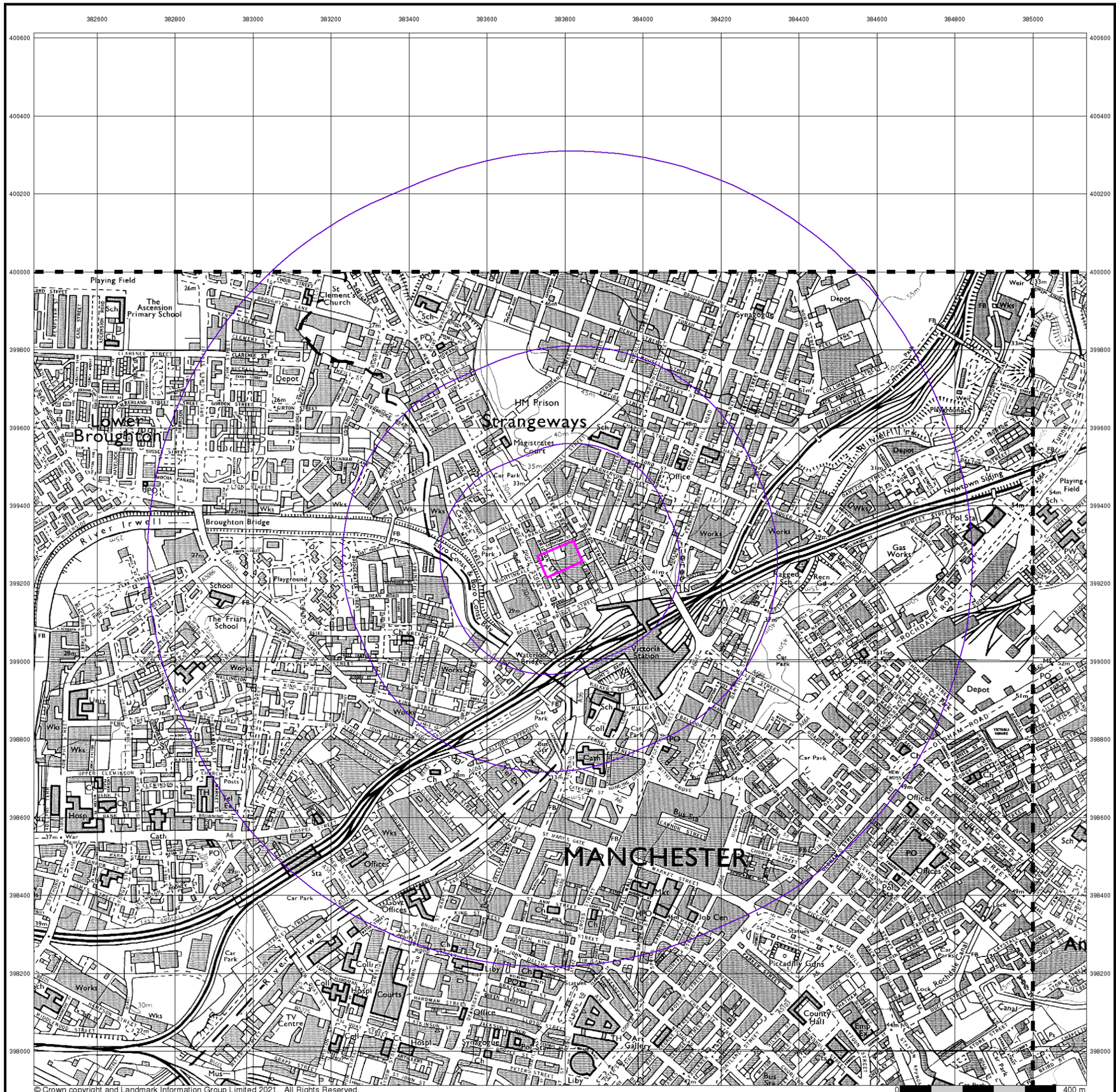
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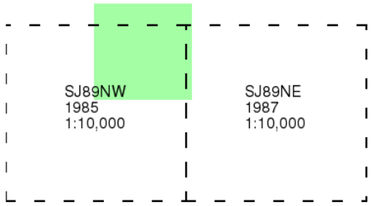
Ordnance Survey Plan

Published 1985 - 1987

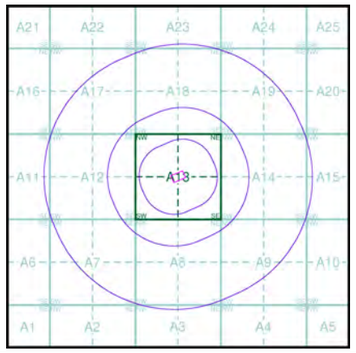
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



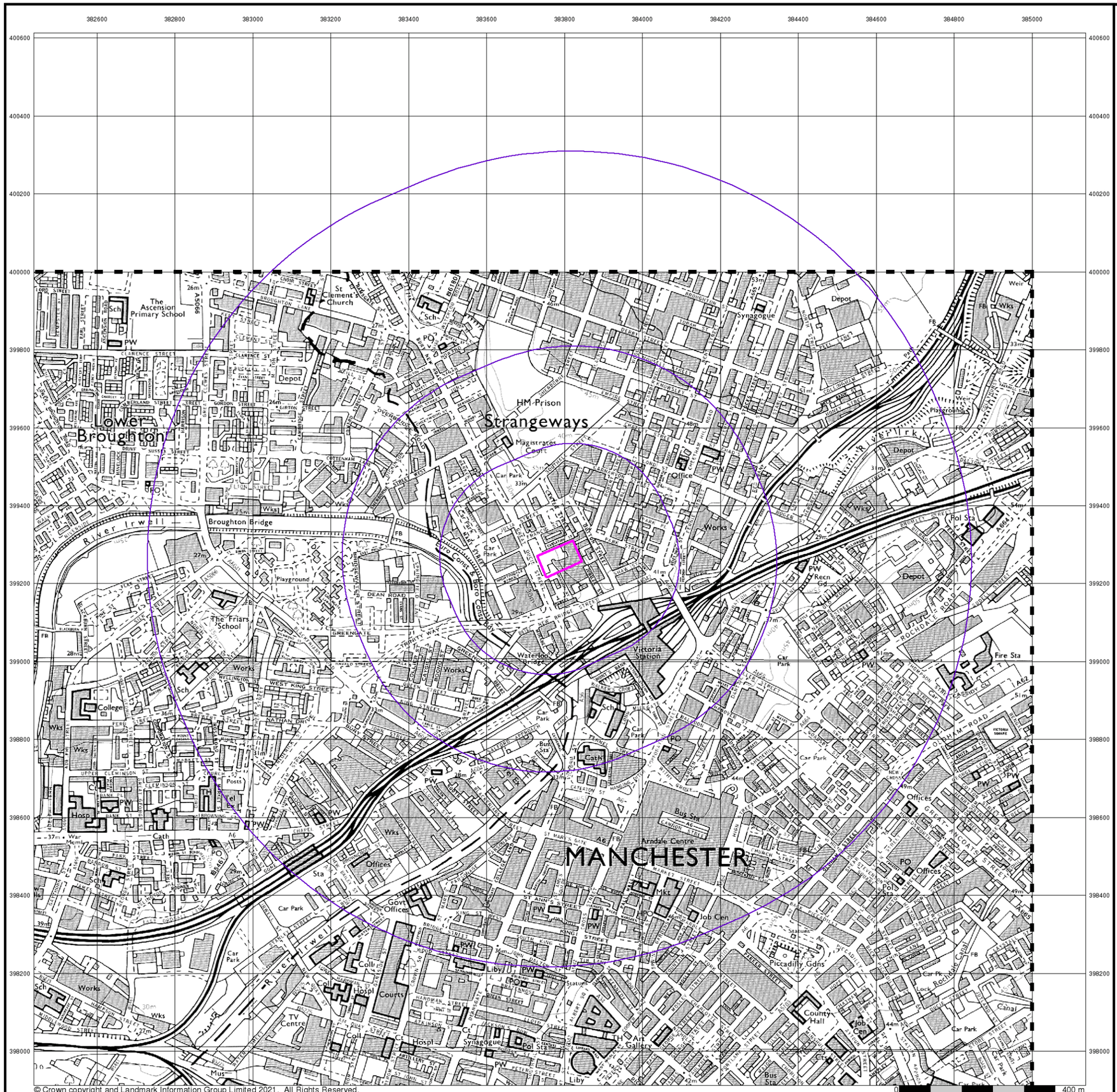
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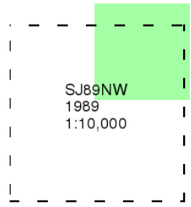
Ordnance Survey Plan

Published 1989

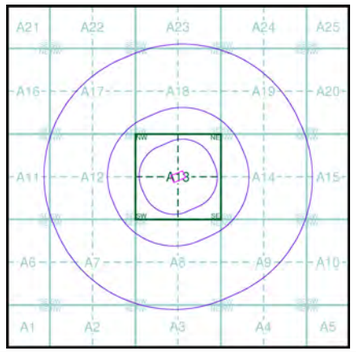
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	286062703_1_1
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Slice:	A
Site Area (Ha):	0.59
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Ordnance Survey Plan

Published 1990 - 1994

Source map scale - 1:10,000

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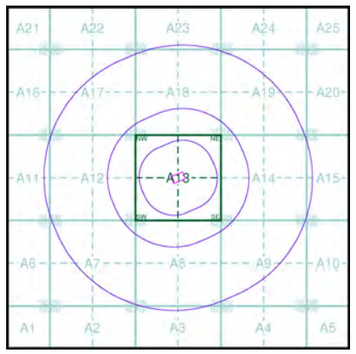
Map Name(s) and Date(s)

SD80SE
1990
1:10,000

SJ89NW
1994
1:10,000

SJ89NE
1993
1:10,000

Historical Map - Slice A



Order Details

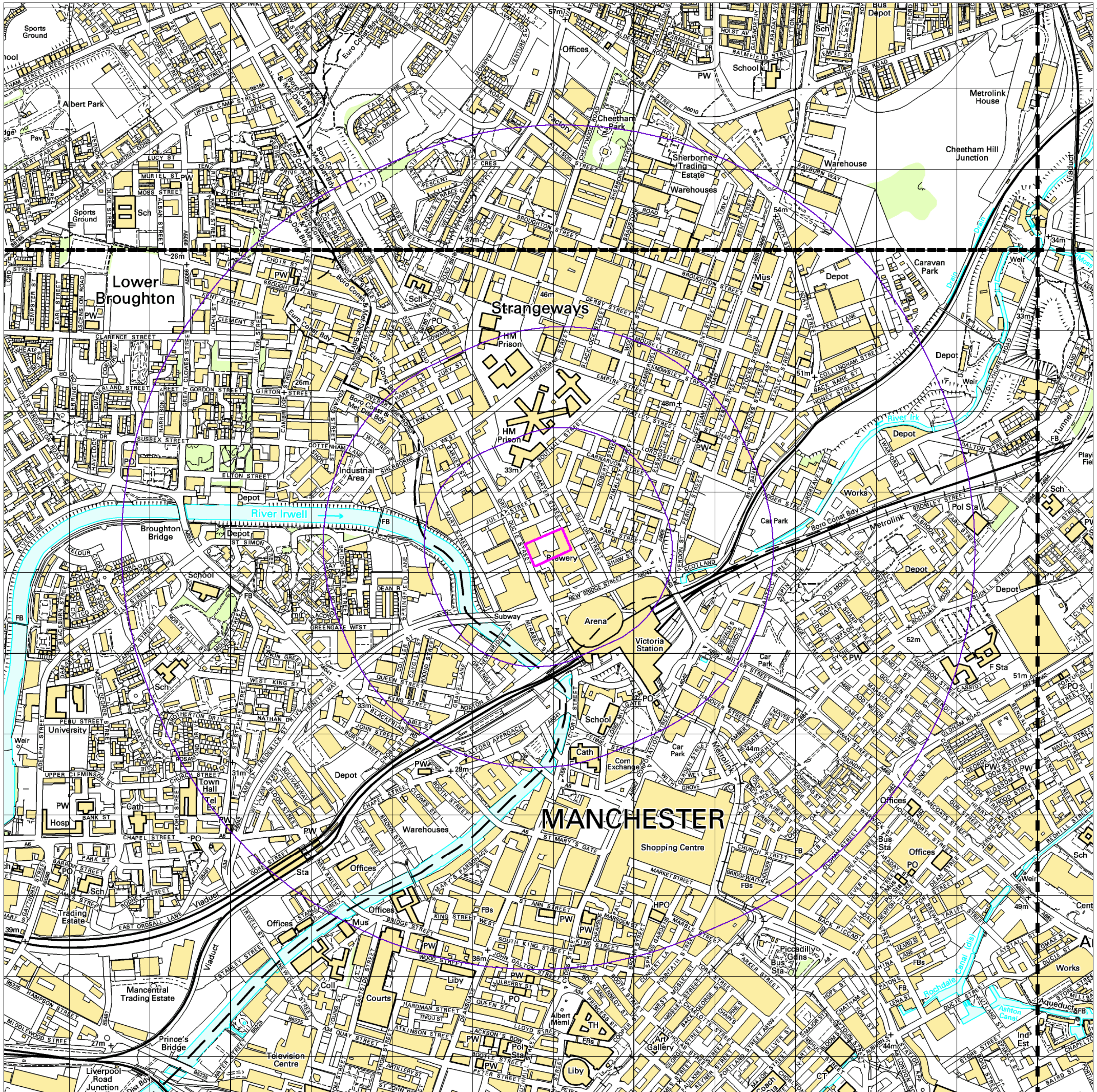
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10k Raster Mapping

Published 1999

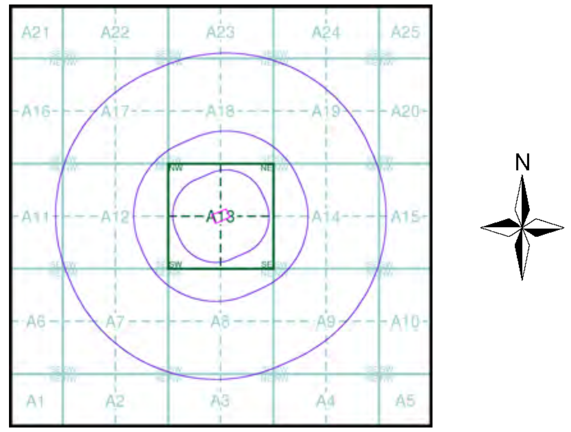
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SD80SW 1999 1:10,000	SD80SE 1999 1:10,000
SJ89NW 1999 1:10,000	SJ89NE 1999 1:10,000

Historical Map - Slice A



Order Details

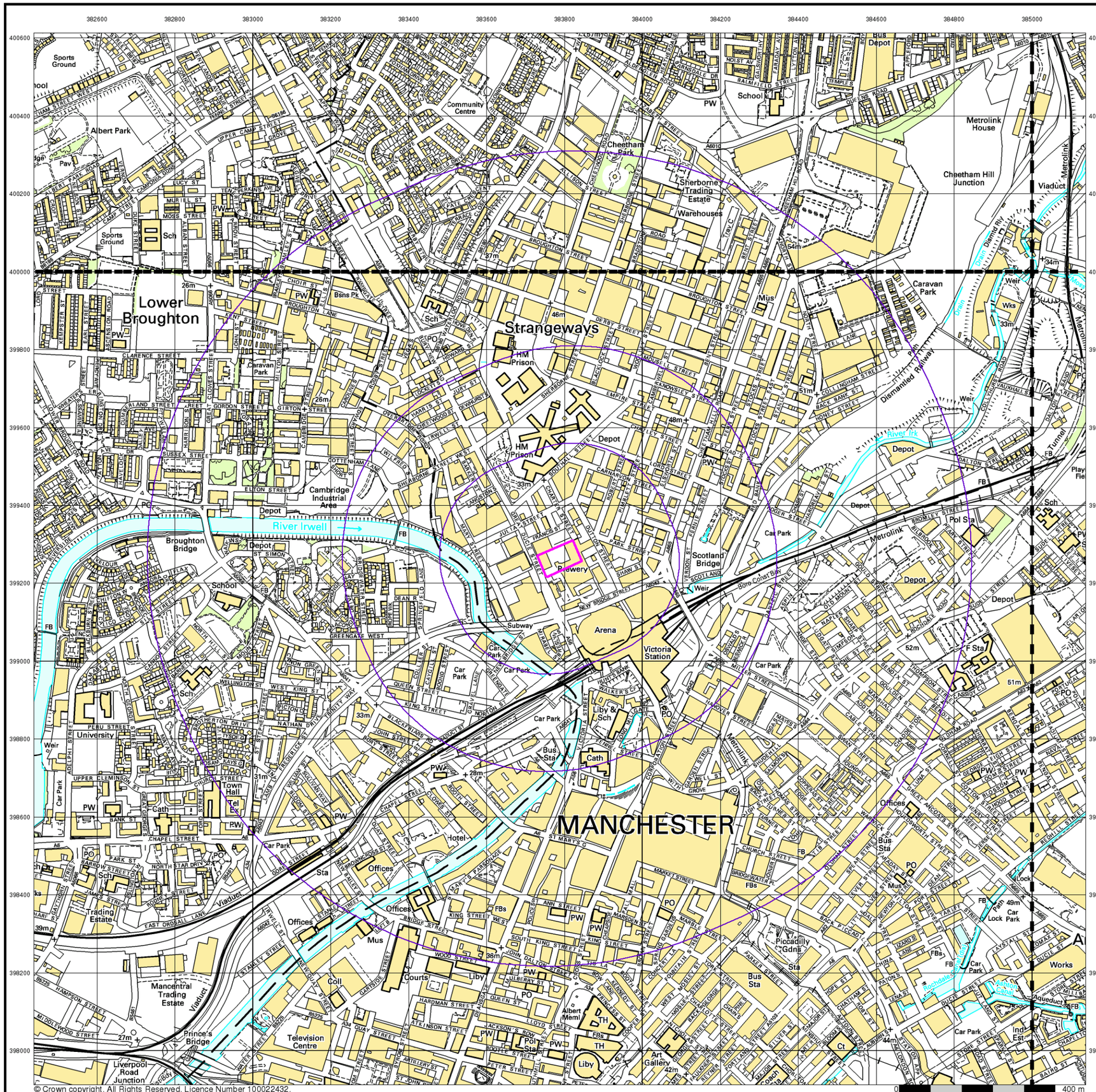
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e3p

10k Raster Mapping

Published 2006

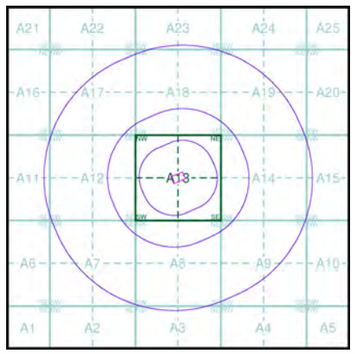
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SD80SW 2006 1:10,000	SD80SE 2006 1:10,000
SJ89NW 2006 1:10,000	SJ89NE 2006 1:10,000

Historical Map - Slice A



Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	1000

Site Details

Great Ducie Street, MANCHESTER

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VectorMap Local

Published 2021

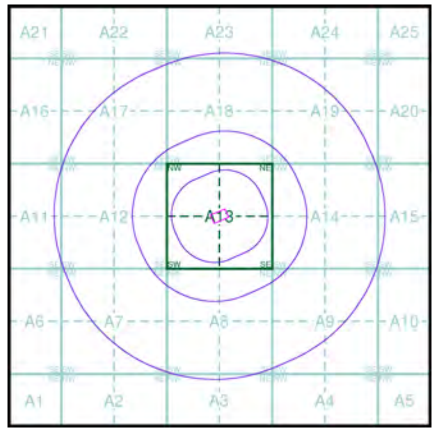
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SD80SW 2021 Variable	SD80SE 2021 Variable
SJ89NW 2021 Variable	SJ89NE 2021 Variable

Historical Map - Slice A



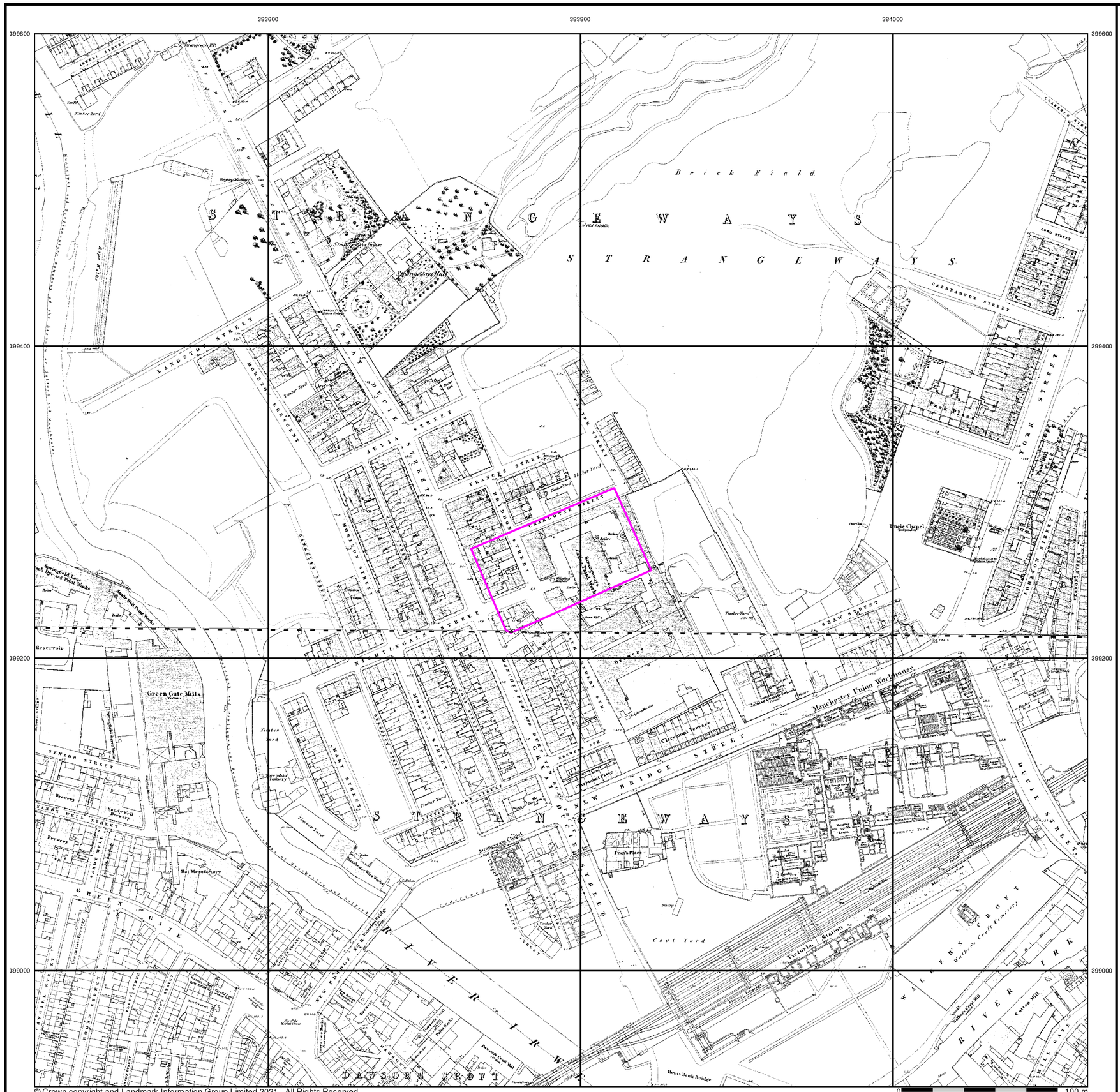
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Order Details

Order Number: 286062703_1_1
Customer Ref: 15175
National Grid Reference: 383790, 399260
Slice: A
Site Area (Ha): 0.59
Search Buffer (m): 1000

Site Details

Great Ducie Street, MANCHESTER



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0 100 m

e3p

Lancashire And Furness

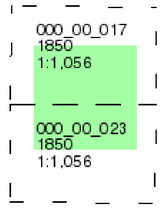
Published 1850

Source map scale - 1:1,056

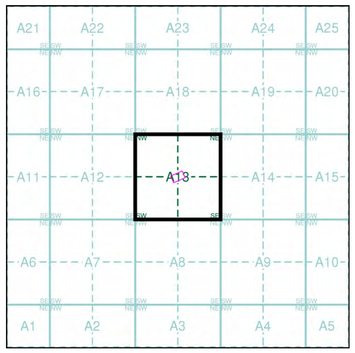
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



Order Details

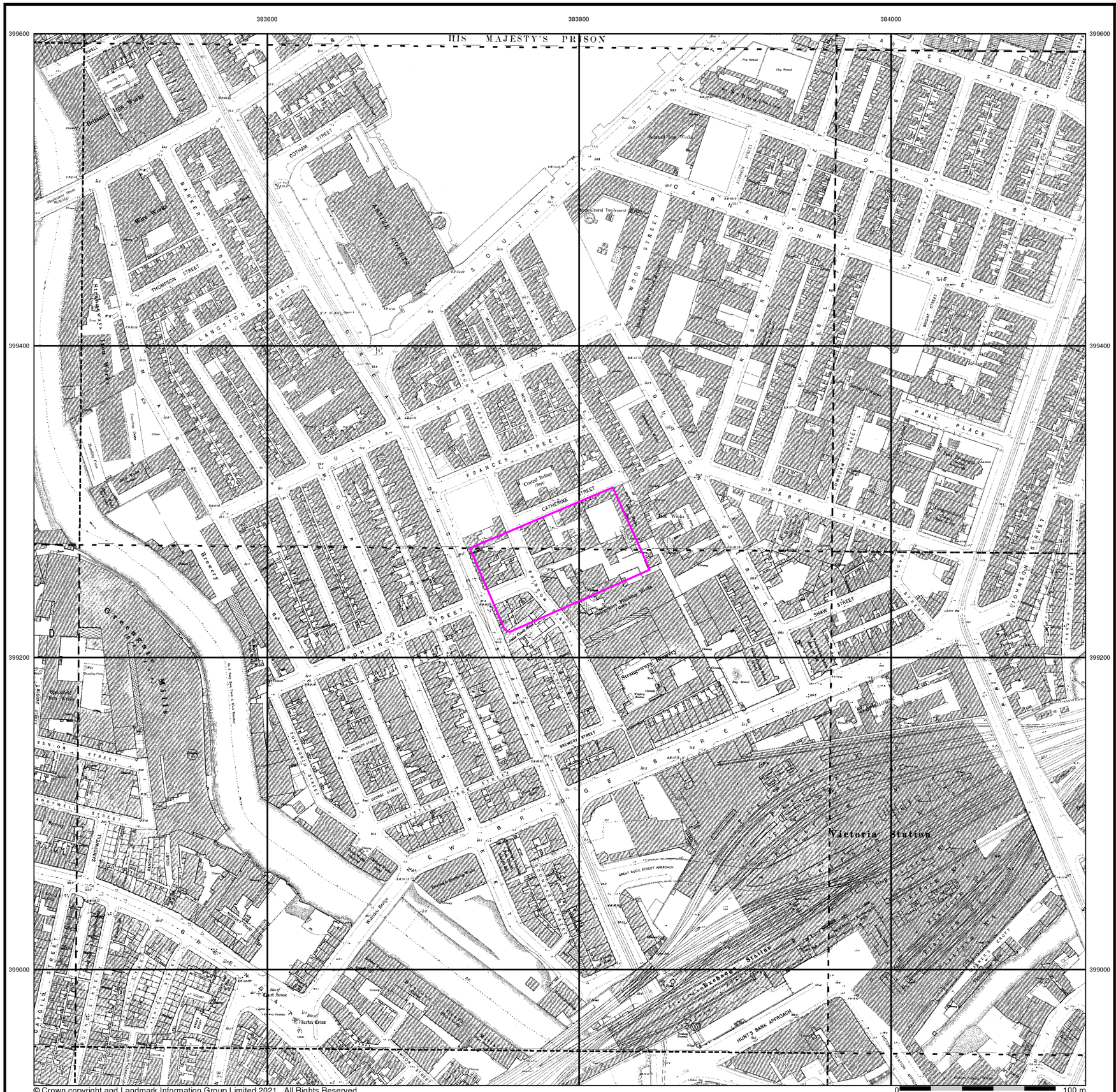
Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	0

Site Details

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Lancashire And Furness

Published 1890 - 1891

Source map scale - 1:500

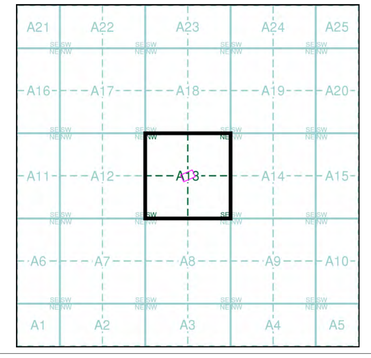
The 1:500 scale Ordnance Survey mapping was introduced in 1855 as a replacement for the 1:528 scale and to compliment the 1:2500 scale that had been implemented in 1853. By 1895, the 1:500 scale covered most towns over a population of about 4000 at the time of survey, although very few towns were mapped more than once at this scale, and none have been since 1910. The 1:500 scale gives particular emphasis to such features as lamp posts, man holes, arched passages and minor building projections. Also often featured are divisions between tenements, interior ground floor layouts of public buildings, and on earlier plans, the functions of the various parts of larger industrial premises are also indicated. Content of the plans does vary however, from one town to the next in terms of, for example, the completeness of railway tracks and the coverage of public buildings.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)

1891	1890	1891
1:500	1:500	1:500

Historical Town Plan - Segment A13



Order Details

Order Number:	286062703_1_1
Customer Ref:	15175
National Grid Reference:	383790, 399260
Slice:	A
Site Area (Ha):	0.59
Search Buffer (m):	0

Site Details

Great Ducie Street, MANCHESTER

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EXPLANATION OF SIGNS
USED ON
INSURANCE PLANS OF TOWNS & CITIES

CHAS. E. GOAD, LTD. CIVIL ENGINEERS — 56 CROUCH HILL LONDON N.4.

ABBREVIATIONS

ASB.	ASBESTOS
CORR	CORRUGATED IRON
D.I.D.	DOUBLE IRON DOORS
DRA.	DRAPERY
D	DWELLING
ELECT.	ELECTRICIAN
(E.M.)	ELECTRIC MOTORS
(ENG.)	STEAM ENGINE
FURNE.	FURNITURE
GAR.	GARAGE
(G.E.)	GAS ENGINE
H.W.	HARDWARE
I.COLS.	IRON COLUMNS OR STEEL STANCHIONS
JWLY.	JEWELLERY
M.CL.	METAL CLAD
M.W.	MANCHESTER WAREHOUSE
m.l.	MATCH (OR WOOD) LINED
OIL	OIL & COLOR
(O.E.)	OIL ENGINE
P.H.	PUBLIC HOUSE
S.	SHOP
S.I.D.	SINGLE IRON DOORS
S.I.S.	SINGLE IRON SHUTTERS
TAI.	TAILORS
TENS.	TENEMENTS
W.G.	WIRED GLASS
W.N.	WIRE NETTING OVER GLASS.

COLORS

- BRICK, STONE OR CONCRETE
- WOOD
- AREAS CLEARED DUE TO ENEMY ACTION
- SKYLIGHTS ON 1 & 2 STORY BUILDINGS
- SKYLIGHTS ON HIGHER BUILDINGS
- METAL BUILDINGS.
- TIMBER PILED OR STACKED

WALLS

- PARTY WALL 2 STORIES OR OVER, A PROBABLE FIRE CUT OFF
- ENTIRE WALL, BUT DOUBTFUL AS FIRE CUT OFF
- DEFECTIVE WALL – IMPERFECT
- WALL ABOVE, IRON COLS: UNDER
- WALL SOME FLOORS ONLY (OR WOOD OR PLASTER PARTITION)
- ABOVE ROOF 6' TO 1'-6'
- —Dº— 1'-6' TO 2'-6'.
- MATCH OR WOOD LINED
- WOOD CLAD WITH CORRUGATED IRON

OPENINGS

- PASSAGE UNDER
- ON ALL FLOORS
- SOME FLOORS ONLY } UNPROTECTED
- ALL FLOORS (PROTECTED)
- ALL FLOORS (SOME PROTECTED) } SINGLE IRON DOORS
- SOME FLOORS ONLY (PROTECTED)
- ALL FLOORS (SOME PROTECTED)
- ALL FLOORS (PROTECTED) } DOUBLE IRON DOORS
- SOME FLOORS ONLY (PROTECTED)
- WOOD LOADING DOOR
- IRON LOADING DOOR

WINDOWS

- ON ALL OR MOST FLOORS
- MORE THAN USUAL
- OVERLOOKING } UNPROTECTED
- NEARLY ALL GLASS
- OPENINGS THRO' & WINDOWS OVER
- ON SOME FLOORS ONLY
- PROTECTED BY WIRED GLASS
- PROTECTED BY SINGLE IRON SHUTTERS
- PROTECTED BY DOUBLE IRON SHUTTERS.

WINDOWS IN FRONT & REAR OF BUILDINGS UNDERSTOOD UNLESS OTHERWISE SHOWN

FLOORS

1.2.3.3½ &ᶜ ON BUILDINGS ARE NUMBER OF STORIES ABOVE GROUND (3½=3 FLOORS & ATTIC)

2&2B MEANS 2 STORIES & 2 BASEMENTS BAST & SUB-BASEMENT.

SKYLIGHTS

- Λ LESS THAN 50 SQUARE FEET (SAY 10'x5', OR 7'x7')
- Λ̲ OPENINGS THROUGH 2 FLOORS UNDER (EACH STROKE DENOTES AN OPENING.)
- WITH WELL HOLE THROUGH 3 FLOORS } OVER 50 SQ: FT. TO SCALE
- LANT. LANTERN LIGHT, SIDES ONLY GLASS. OR VENT. OR RAISED VENTILATOR

HOISTS & LIFTS

- H OPEN
- H OPEN TO STREET
- H OPEN (WOOD FLAPS TO FLOORS)
- H ENCLOSED BRICK OR FIRE RESISTING WIRED GLASS DOORS
- H ENCLOSED WOOD OR PLASTER

IRON DOORS SHOWN AS EXPLAINED UNDER "OPENINGS"

ROOFS

ASB	ASBESTOS
C	CONCRETE
CORR:	CORRUGATED IRON
⌐	METAL
P	PATENT (FELT &ᶜ)
O	SLATE
T	TILE

PROFILES

WITH NORTH LIGHTS

SUNDRIES

- STEAM BOILERS
- —"— BOILER SET IN BRICK
- FACTORY CHIMNEYS
- (ENG.) STEAM ENGINE
- OVERHANGING WOOD CORNICE
- FIRE ALARM BOX
- —Dº— ON KEY PLAN
- HYDRANT
- HH HYDRAULIC HYDRANT
- PRIVATE HYDRANT OR STAND PIPE
- D DOUBLE HYDRANT
- S SALT WATER HYDRANT
- SPRINKLER OR AUTO ALARM BELL

REFERENCE NUMBERS

NUMBERS PARALLEL WITH STREET ARE EXISTING STREET Nºs

WHERE TWO SETS OF STREET Nºs IN SAME BLOCK COINCIDE, ADDITIONAL ARBITRARY Nºs ARE GIVEN TO ONE SET (500 & UPWARDS.)

WHERE BUILDINGS TO WHICH THEY APPLIED ARE DEMOLISHED, STREET & ARBITRARY Nºs ARE SHOWN & CROSSED THROUGH ON REVISION

—48'— ARE STREET WIDTHS.

(37') ARE HEIGHTS OF GROUND ABOVE ORDNANCE DATUM

HEIGHT IN FEET OF ADJOINING BUILDINGS WHERE STORIES DIFFER IN HEIGHT

10" 6" 8" SIZES OF WATER MAINS SUPPLYING HYDRANTS

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647
SEE SHEET Nº 646
SEE SHEET Nº 646
SEE SHEET Nº 634
FRANCIS ST.
CARTER ST.
CATHERINE ST.
BRIDDON ST.
DUCIE ST.
DUTTON ST.
JUBILEE ST.
NEW BRIDGE ST.
BREWERY ST.
NIGHTINGALE ST.
PARK ST.
ROBERT ST.
LITTLE BRIDGE ST.
BACK DUCIE ST.
STRAWBERRY FIELDS
SALVATION ARMY WOMENS HOSTEL
D. LEVY
WATERPROOF CLO. FAC.
J.W. LOWTHER & CO. OIL STORE
BAILEY OLIVER & CO. COTTON YARN FACTORS
SHOPFITTER
BOOTH'S BREWERY
WATERPROOF FAC.
2 STORY BR. SHOPS
569
567
570
568
571
SCALE - 40 FEET = 1 INCH.
VICTORIA STATION
Published Date : 1933
© Landmark Information Group Limited 2021.
0
50m



e3p

Published Date : 1962
© Landmark Information Group Limited 2021.

0 50m


647
SEE SHEET Nº 646
FRANCIS ST.
CHARTER ST.
SALVATION ARMY MENS HOSTEL
566
CARNATION (LATE CATHERINE) ST.
W. TIMPSON
569
569a
E. NIGHTINGALE ST.
NIGHTINGALE ST.
DUCIE ST.
570
570a
BACK DUCIE ST.
STRETFORD WAY
BREWERY ST.
571
567
567a
568
PARK ST.
HULTON ST.
SEE SHEET Nº 634
VICTORIA STATION GARAGE
NEW BRIDGE ST
VICTORIA STATION
SCALE - 40 FEET = 1 INCH.
2 STORY BK SHOPS
Published Date : 1962
© Landmark Information Group Limited 2021.
0
50m

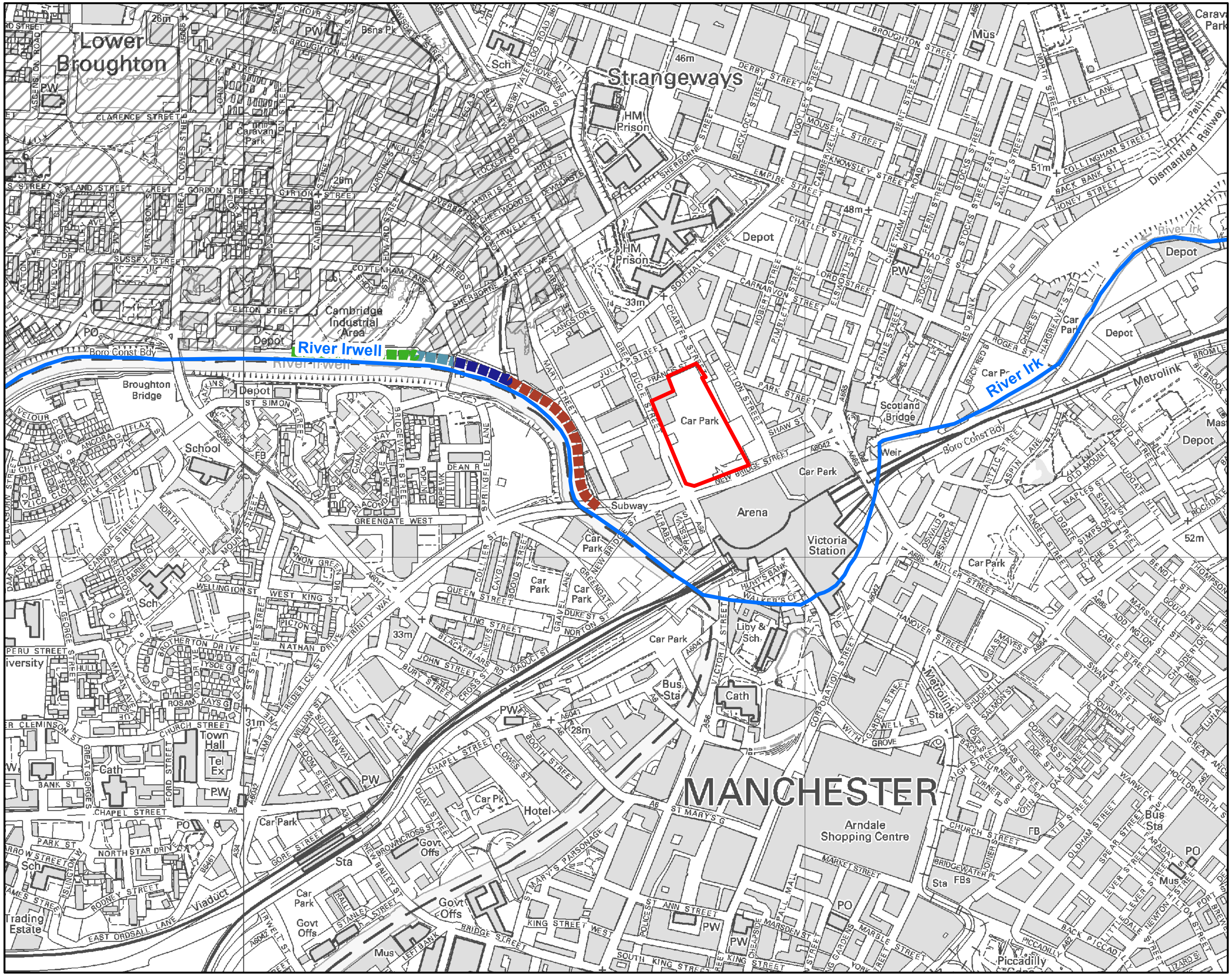


Published Date : 1948
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0 50m

APPENDIX D

Flood Defence Map centred on Great Ducie St, Cheetham Hill, Manchester M3 1PT.
Created on 13/07/2021 [GMMC224504AB]



Environment Agency

1:10,001

N

Legend

Site Location

Main River

Defences

ASSET_ID

- 88831
- 88893
- 181081
- 452758

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					Defended											Undefended										
Map Reference	Model Node Reference	Easting	Northing	Data	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	4 % AEP (1 in 25 year)	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 30% increase in flows	1 % AEP (1 in 100 year) + 35% increase in flows	1 % AEP (1 in 100 year) + 70% increase in flows	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	4 % AEP (1 in 25 year)	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 30% increase in flows	1 % AEP (1 in 100 year) + 35% increase in flows	1 % AEP (1 in 100 year) + 70% increase in flows	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)
1	ea013_0208_IRW13692	383422	399255	Modelled Water Level (m aodN)	25.54	25.92	26.26	26.48	26.61	26.68	27.52	27.69	29.53	26.98	30.24	25.32	25.64	26.18	26.48	26.61	26.83	28.18	28.44	29.95	27.35	30.60
				Modelled Flow (cumecs)	318.42	356.75	387.29	406.85	417.61	425.33	516.71	518.61	509.23	472.52	474.40	294.54	333.01	388.01	416.70	433.33	457.32	508.89	506.19	480.96	498.71	466.21
2	ea013_0208_IRW13665	383485	399266	Modelled Water Level (m aodN)	25.52	25.90	26.24	26.47	26.59	26.66	27.50	27.66	29.52	26.96	30.24	25.30	25.62	26.15	26.46	26.59	26.80	28.16	28.42	29.95	27.32	30.59
				Modelled Flow (cumecs)	318.43	356.77	387.32	406.88	417.65	425.36	526.40	532.84	523.37	472.53	494.47	294.55	333.02	388.03	416.72	434.26	460.26	525.61	522.09	502.07	507.94	489.16
3	ea013_0208_IRW13571	383575	399205	Modelled Water Level (m aodN)	25.39	25.77	26.11	26.34	26.47	26.55	27.36	27.53	29.45	26.83	30.19	25.17	25.48	26.02	26.33	26.46	26.67	28.02	28.30	29.89	27.18	30.55
				Modelled Flow (cumecs)	318.47	356.83	387.40	406.98	417.76	425.47	528.87	539.41	541.44	472.59	519.73	294.60	333.04	388.06	416.74	434.28	460.28	548.53	545.82	530.36	509.27	517.98
4	ea013_0208_IRW13363	383608	399068	Modelled Water Level (m aodN)	25.27	25.66	26.02	26.25	26.38	26.46	27.26	27.42	29.27	26.74	30.07	25.05	25.37	25.91	26.23	26.37	26.57	27.90	28.16	29.76	27.09	30.46
				Modelled Flow (cumecs)	318.61	357.00	387.63	407.25	418.05	425.74	533.13	547.56	634.40	472.74	622.17	294.75	333.13	388.16	416.86	434.36	460.29	583.44	592.73	606.14	511.82	595.14
5	ea013_0208_IRW1_3304	383749	398955	Modelled Water Level (m aodN)	25.21	25.59	25.94	26.17	26.30	26.37	27.13	27.28	28.75	26.63	29.45	25.00	25.30	25.83	26.14	26.28	26.46	27.71	27.92	29.14	26.96	29.84
				Modelled Flow (cumecs)	318.65	357.04	387.68	407.31	418.12	425.81	533.15	547.37	678.74	472.77	674.11	294.78	333.15	388.19	416.90	434.38	460.37	587.64	606.72	685.05	511.67	672.60

Model data taken from Lower Irwell 2017 Study

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes:

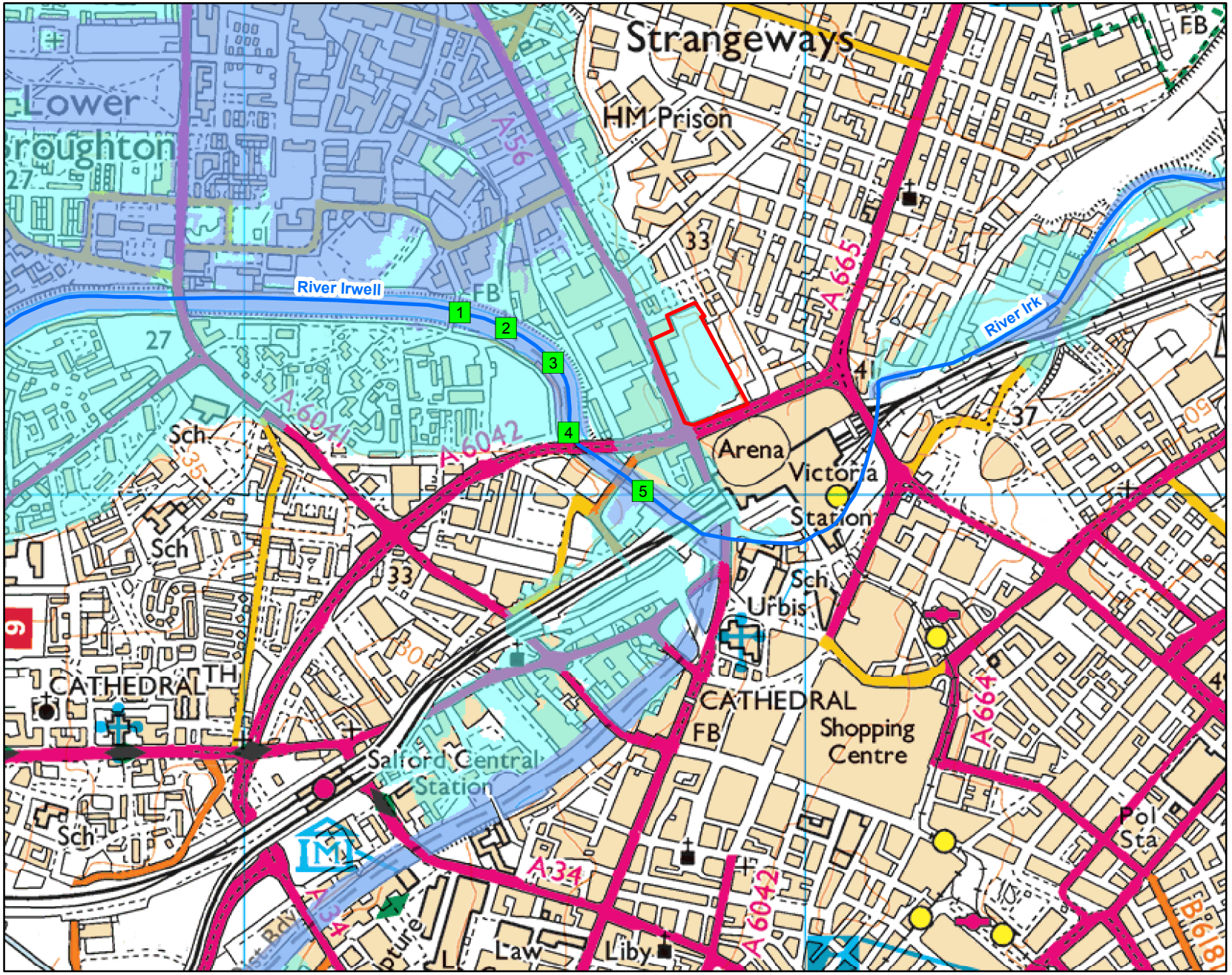
*Climate Change Scenario - 30%, 35% and 70% increases in flow calculated for the 2080's (2070 - 2115). Please see https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances for more information regarding the new climate change guidance. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

Flood Defences

Start Date	Asset Type	Asset ID	Standard of Protection	†Overall Condition Grade	Upstream Actual Crest Level (m aod)	Downstream Actual Crest Level (m aod)
14/12/2018	high Ground	88831	75	3	27.66	27.44
14/12/2018	high Ground	88893	75	2	27.44	27.20
14/12/2018	Wall	181081	75	3	27.10	27.07
14/12/2018	Embankment	452758	75	3	27.10	27.10

† Overall condition of the asset based on the (weighted) condition of each element of the latest inspection of the asset. See the attached document 'Visual Condition Grading of FCRM Assets' for interpretation of score given.

Detailed Flood Map centred on Great Ducie St, Cheetham Hill, Manchester M3 1PT.
Created on 13/07/2021 [GMMC224504AB]



Environment Agency

1:10,001

N

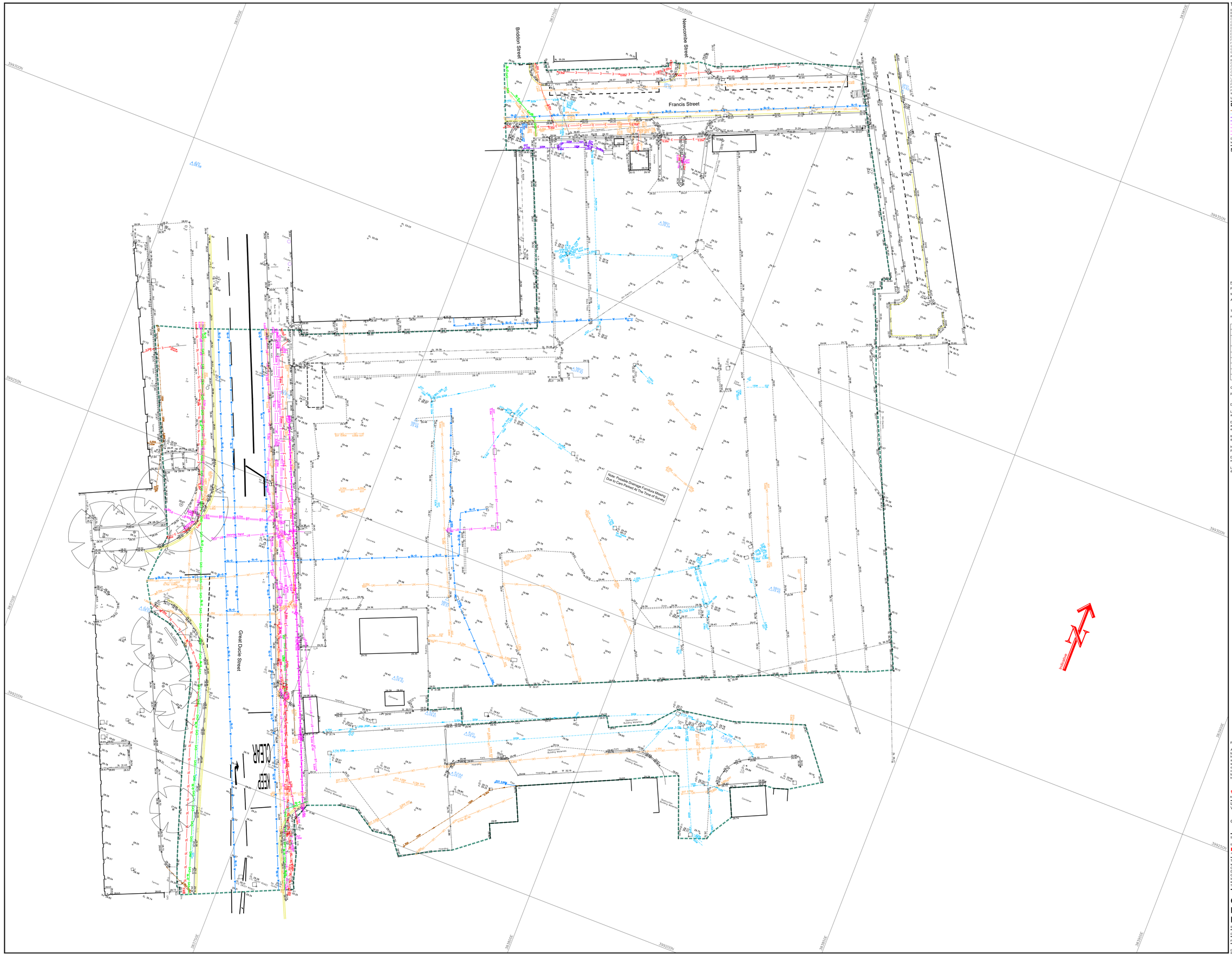
Legend

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

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APPENDIX E



Topographical Survey Legend

B	Bollard	h	Height	SP	Soil pipe	Level prefix descriptions	
BS	Bus stop	Hyd	Hydrant	ST	Stop tap	AL	Arch level
BT	British telecom ic	IC	Inspection cover	Sky	Cable stay	BL	Bed level
CTV	Cable television chamber	K	Kerb height	TC	Traffic control	CL	Cover level
CTV	Cable television cover	KO	Kerb outlet	TCP	Telephone call box	CL	Caves level
DP	Downpipe	LB	Letter box	TL	Traffic light	FL	Floor level
DR	Drain	LP	Lamp post	TP	Telegraph pole	IL	Invert level
Elec	Electrical ic	MV	Utility marker	TPS	Tactile paving slabs	PL	Parapet level
EP	Earth pit	NP	Name plate	V	Valve	SL	Soffit level
ER	Earth rod	NP	Name plate	WM	Water meter	SL	Soffit level
FP	Flagpole	P	Post	WO	Water outlet	Spr	Arch springing level
FT	Floodlight	PM	Parking meter	UTL	Unable to lift	TF	Top of fence level
G	Gully	RE	Rodding eye			TW	Top of wall level
GP	Guard post	RP	Rain water pipe			WL	Water level
GV	Gas valve	rwp	Rain water pipe			Wm	Watermain

Fence annotation:

B/W Barbed wire
C/B Closed boarded
C/I Corrugated iron
C/L Chain link
H/R Hoop & barrel
H/W Hand rail
I/R Iron railings
O/B Open boarded
P/C Post & chain
P/R Post & rail
P/W Post & wire
W/M Wire mesh

Drainage/Services Legend

Foul	CCTV	CCTV	Ducting
Surface	E	Electric	
Combined	SL	Street lighting	d Service depth (m)
Drainage (unspecified)	TM	Traffic management	# Pipe diameter (mm)
BT British telecom	GAS	Gas	EOT End of trace
T Telecom	W	Water	UTT Unable to trace
FO Fibre optics	F	Fuel	Utility Survey Boundary
CATV CATV	UK	Unknown / misc	

Drainage pipe size data has been determined from the surface, in order to comply with confined spaces health and safety legislation. Please request this data as appropriate.

Survey Station Coordinates

Stn	Easting	Northing	Level
GPS2	383771.15	399338.08	29.74
GPS1	383809.78	399350.92	33.63
JL01	383701.25	399295.78	28.58
JL02	383731.03	399264.66	28.87
NB01	383779.42	399315.06	29.24
NB02	383774.56	399286.50	29.42
NB03	383752.70	399268.80	29.48
NB04	383768.69	399242.23	29.57
NB05	383819.47	399263.73	29.45
JL2A	383720.53	399221.88	28.55
JL2B	383756.39	399199.01	29.10

PAS128 Quality Levels

Please refer to PAS128:2014 Table 1 - 'Quality level of survey outputs (normative)' for in anticipated accuracy of quality levels.

All utilities are located to PAS128 QL-B2 unless otherwise stated.

The following table identifies the PAS128 quality level based on the text notes shown on the drawing:

Annotation found on drawing	PAS128 Quality Level
Added from records	PAS128 QL-D
Trench scar, street furniture, visual note/reference to utility	PAS128 QL-C
Assumed route	PAS128 QL-B4
Unable to obtain depth	PAS128 QL-B3
QL-B1	PAS128 QL-B1
QL-B3P	PAS128 QL-B3P
QL-B2P	PAS128 QL-B2P
QL-B1P	PAS128 QL-B1P

Quality levels ending with a 'P' refer to a utility that has been located with post processed Ground Penetrating Radar (GPR).

Drawing caveats, please note:

Locate Surveys carry out surveys in accordance with site procedures using approved detectors.

Depth data is limited by the accuracy of the detection equipment. Average accuracy is +/- 10% of depth with GPR and +/- 5% of the depth with electromagnetic technologies.

It is Locate's procedure to use statutory undertakers plans prior to and during the survey as a guide for the survey team.

In accordance with British Telecom's national policy survey companies are not permitted to raise BT inspection chamber covers.

Drainage routes between manholes, if not able to be traced by Locate's survey methodologies, are assumed to be direct lines between manholes.

Locate advise that excavations in the vicinity of services are carried out with due diligence, please refer to HSG47.

Please note:

Any discrepancy found between an Ordnance Survey benchmark and an OSGB15 computed orthometric height is likely to be due to bench mark subsidence or uplift and, assuming precise GPS survey has been carefully carried out, the orthometric height given by OSGB15 should be considered correct in preference to archive benchmark heights. OSGB15 converts GPS ellipsoid heights to orthometric heights above mean sea level.

Head and Registered Office
Survey Systems Ltd
Willow Bank House
Old Road
Handforth - Wilmslow
Cheshire SK9 3AZ
Tel. 01625 533444
Fax 01625 526815
mail@surveys.co.uk
www.surveys.co.uk

Rev No.	Details	Date
1	Survey extended into adjacent site (southern boundary).	05/10/21

Levels are related to **OSGB15**
Value **n/a**

Coordinates are related to **National Grid** (GPS)

Scale **1:200**

0 2 4 6 8 10 12 14 16 18 metres

The accuracy of this survey is commensurate with the drawing scale specified within the title block.
Copyright in this drawing remains with Survey Systems Ltd.
Do not scale from this drawing, work to figured dimensions.
Check all dimensions on-site.
In the event of any discrepancy, please refer query to Survey Systems Ltd

Title

Topographical & Utility Survey
Great Ducie Street
Manchester
M3 1FF

Surveyed	NB CM RL JL	Drawn	GAT AG
Date	September 2021	Checked	AG RL
File name	20838-TOPO-UTIL-2D-Rev1	Revision No.	1
Drawing No.	SSL:20838:200:1:1:TOPO:UTIL:Rev1	Sheet size	A0

SURVEYsystems

© Registered in England No.1576974

APPENDIX F

Rev A

Drawing Number C305.2/F/ASB/001



C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

Key

- Top of batter
- Bottom of batter
- Spot Level
- Major contour (0.75m)
- Minor contour (0.25m)
- Site boundary as per drawing C1467-252-P1 (still current)
- New - unconfirmed site boundary as per drawing CC-BBA-ZZ-DR-A-1201
- Extent of plateau level & remediation as per drawing C1467-252-P1 (still current)
- Extent of plateau level & remediation amended as per SGI drawings issued as part of change request no2

Please refer to drawing "C305.2/F/ASB/002" for details on areas of additional dig depth beyond contracted depth

Rev	Date	Description
A	17/01/24	As-Built

Drawing Status: As-Built

Drawing Title: Base of Dig As-Built

C&R Project Code C305.2

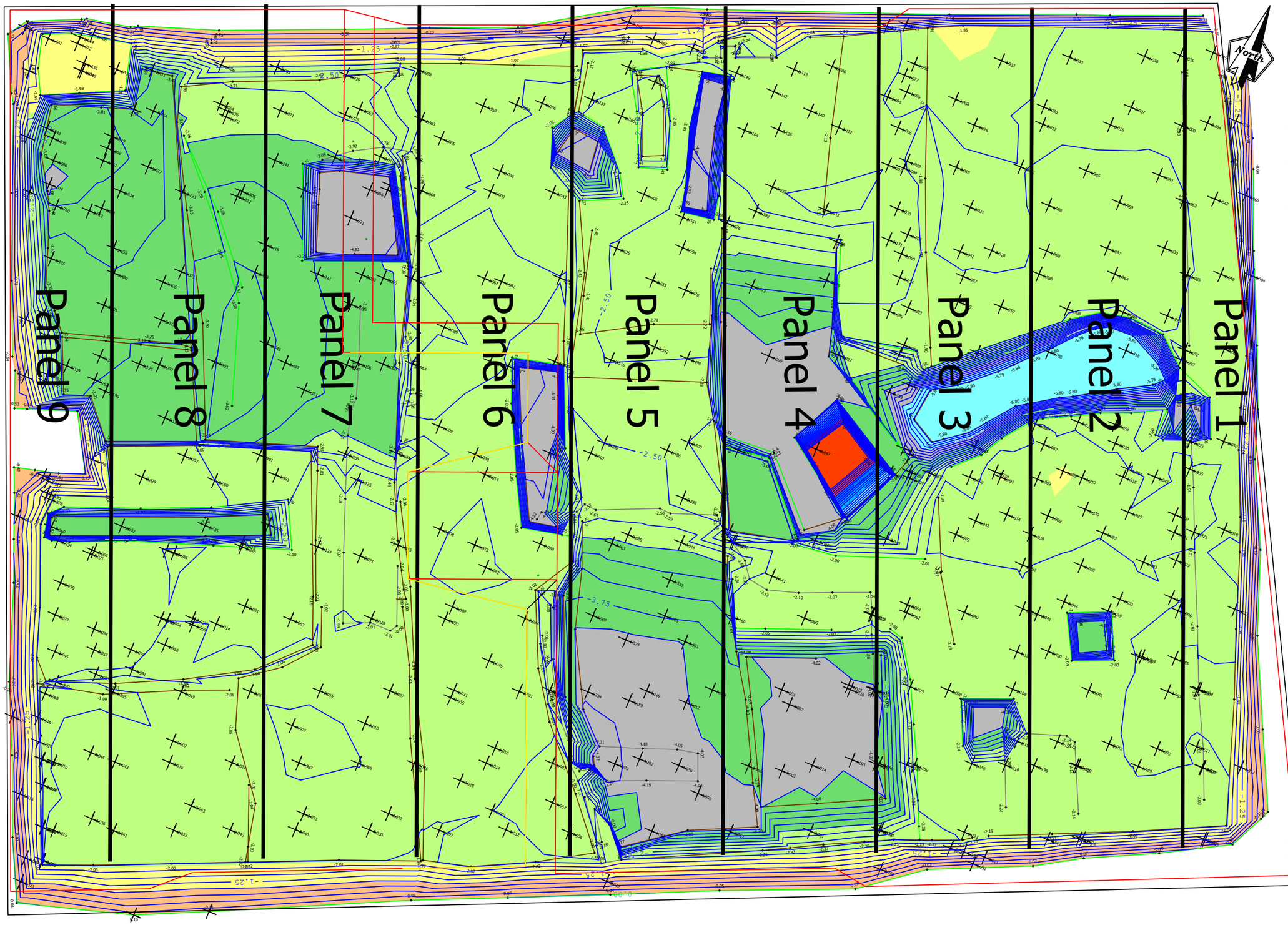
Scale	1:250@A3
Date Drawn	17/01/24
Drawn By	AR
Reviewed By	TM
Original Size	A3

Drawing Number: C305.2/F/ASB/001

Rev: A

Rev A

Drawing Number C305.2/F/ASB/002



Total cut = 11328m3

Total additional cut from original contract measure = 3837m3 (51% increase)

C&R

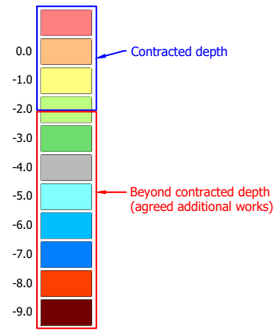
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

Height Ranges



Rev	Date	Description
A	17/01/24	As-Built

Drawing Status: As-Built

Drawing Title
Isopacyte Analysis Between Original Ground Level & Base of Dig

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	17/01/24
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number: C305.2/F/ASB/002 Rev: A

APPENDIX G

Underground Utilities Survey Report

Survey Date: 24/08/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Sean Lawson

Site Work Undertaken by:

Sean Lawson / Steven Severns– Ground Penetrating Radar Survey

Please find attached photographs and images for the area scanned at ‘Panels 1,2,3 and half of Panel 4’ as requested by client.



Panel 1,2 and 3 shown above. Part of Panel 4 shown below.



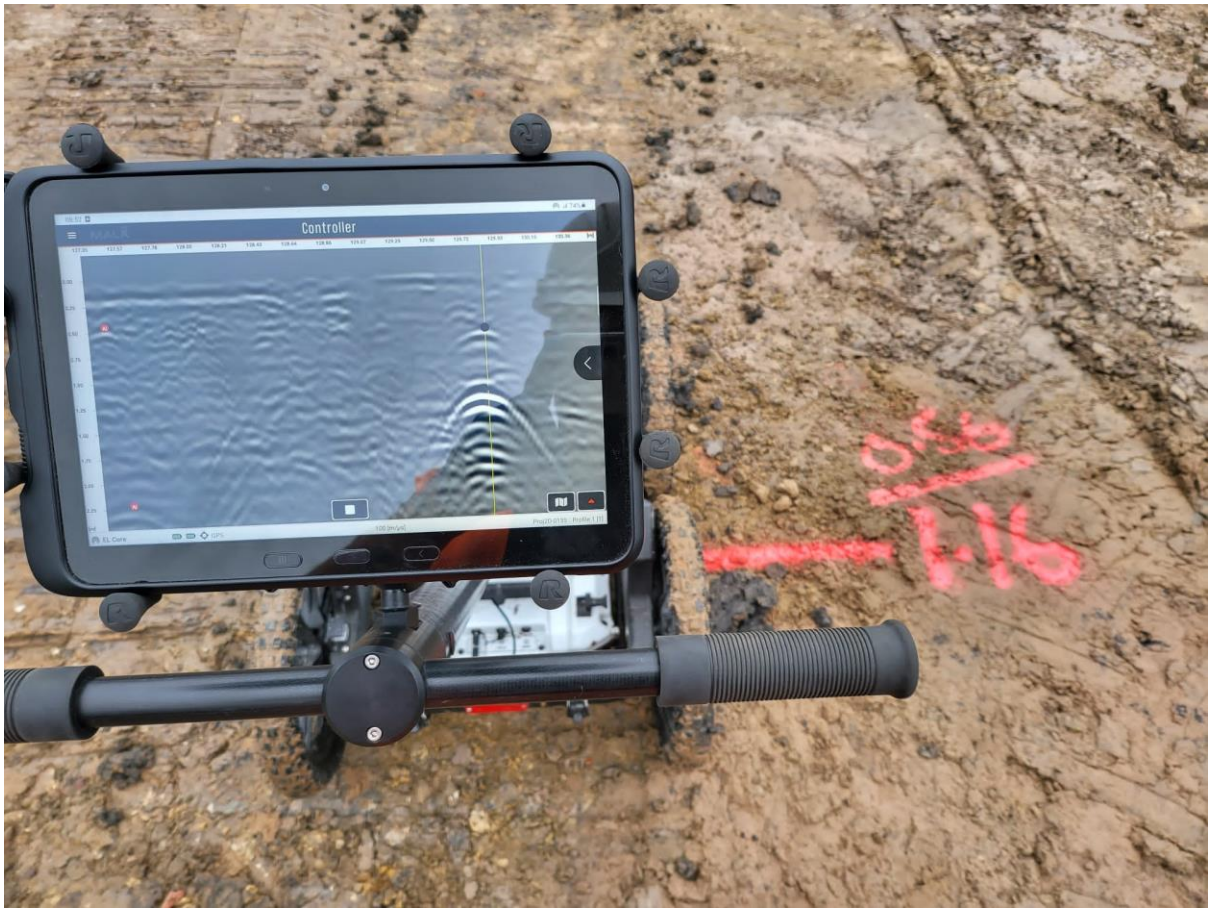
The required survey area was scanned thoroughly with ground penetrating radar (Mala HDR) equipment. An area containing a GPR anomaly was located within Panels 1, 2 and 3. Due to the inconsistencies in depths and the non-linear pattern of the detection this is unlikely to be a service but could potentially be a void or a change in the underground geo-technical conditions in this area.



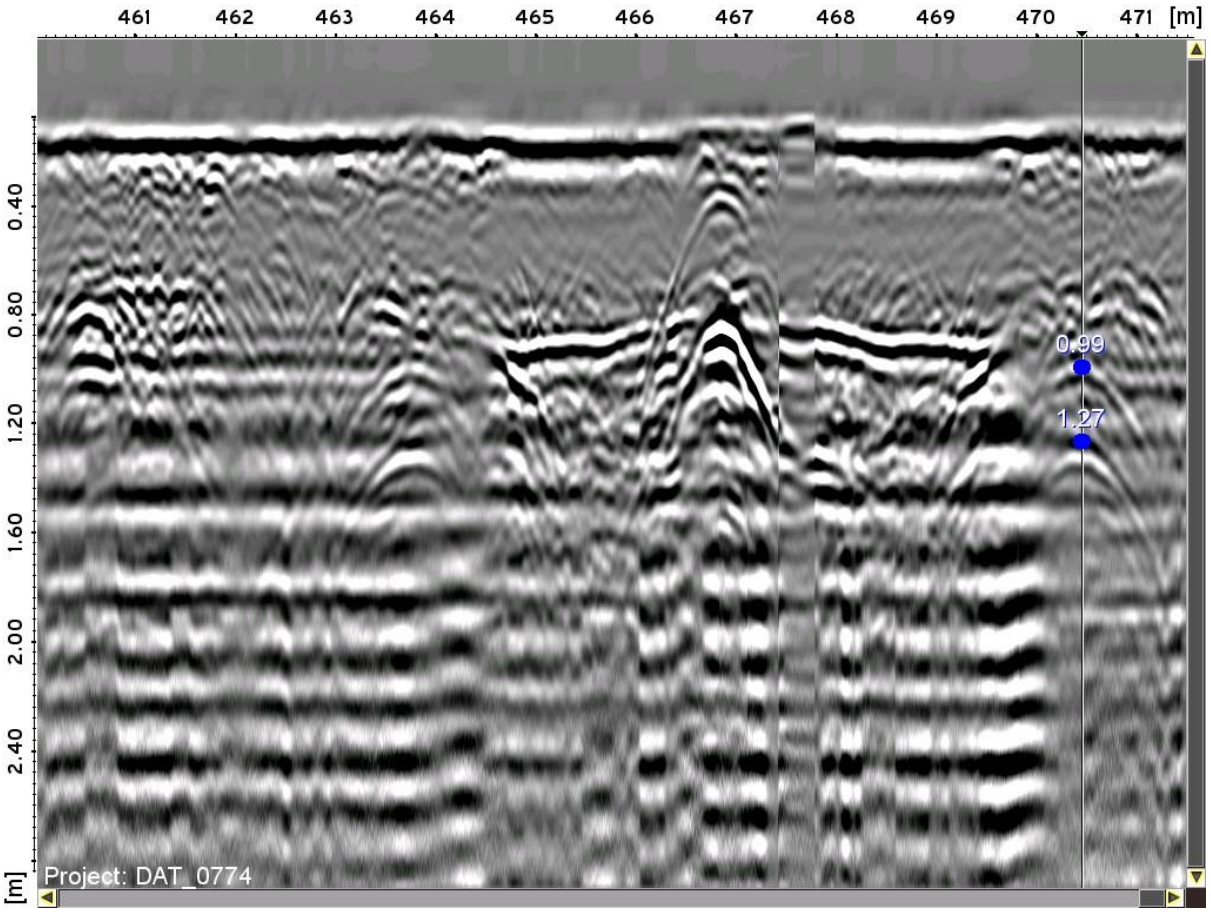
The area shown above is the location of the GPR anomaly, the extents of which are marked with orange and red paint. GPS co-ordinates have been gathered for this area and will be made available.

GPR Data

Below is an example of the GPR data collected at the location of the GPR anomaly with the depths sprayed on the ground.



Below is another image from the GPR data with depths highlighted.



Equipment Examples





Leica TS15, GS08



Vivax Locating Equipment



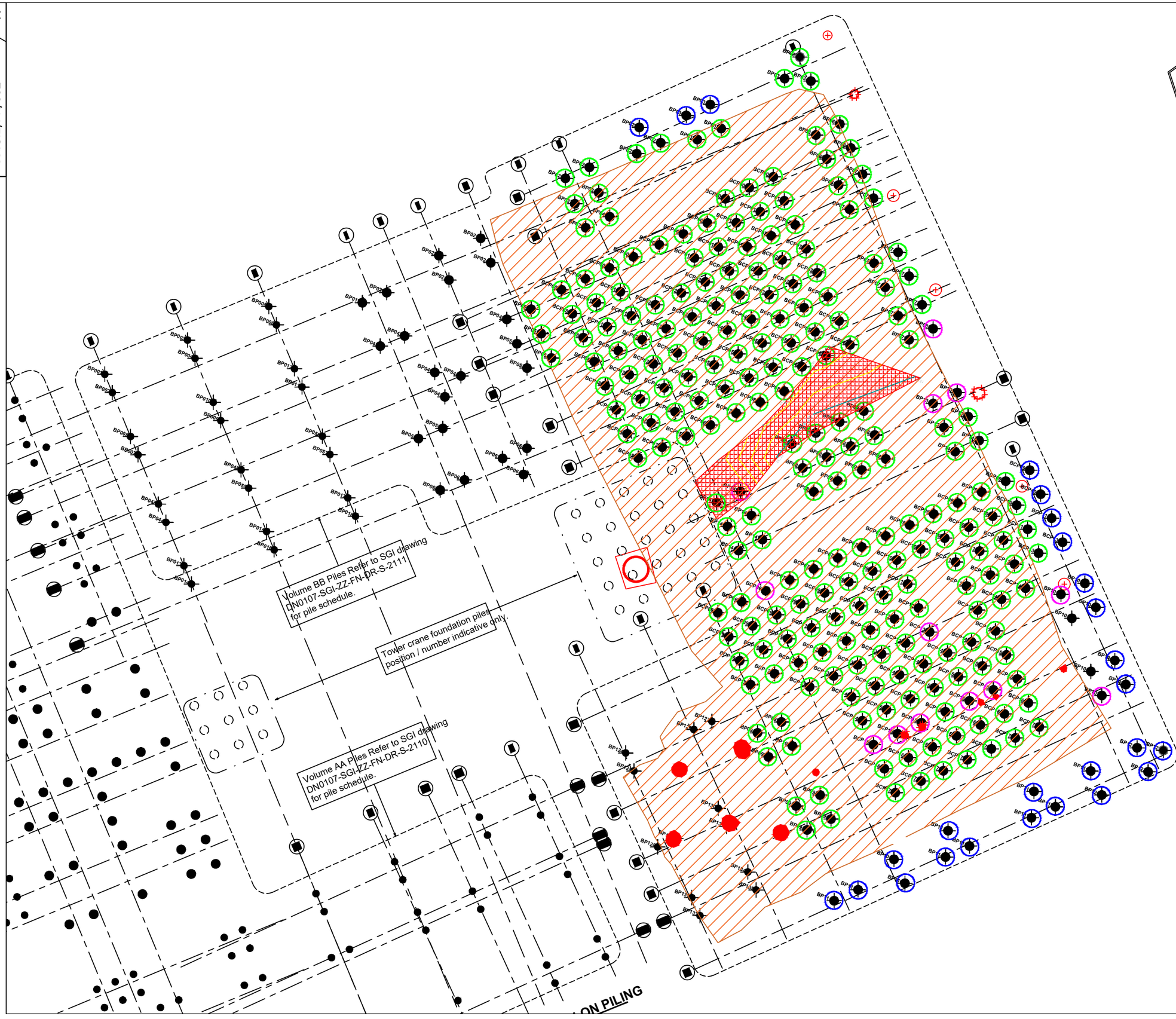
Mala HDR GPR



Cobra Flexi-Trace Reel

Rev A

Drawing Number C305.2/PR/002



C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 1 for detail on geotechnical anomaly

Rev	Date	Description
A	24/08/23	As-Built

Drawing Status: As-Built

Drawing Title: Probing As-Built as of 24/08/23

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	23/08/23
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number: C305.2/PR/002 Rev: A

Underground Utilities Survey Report

Survey Date: 08/09/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Zaid Patel

Site Work Undertaken by:

Zaid Patel / Michael Ashworth– Ground Penetrating Radar Survey

Please find attached photographs and images for the area scanned as requested by client.



Survey area shown below.



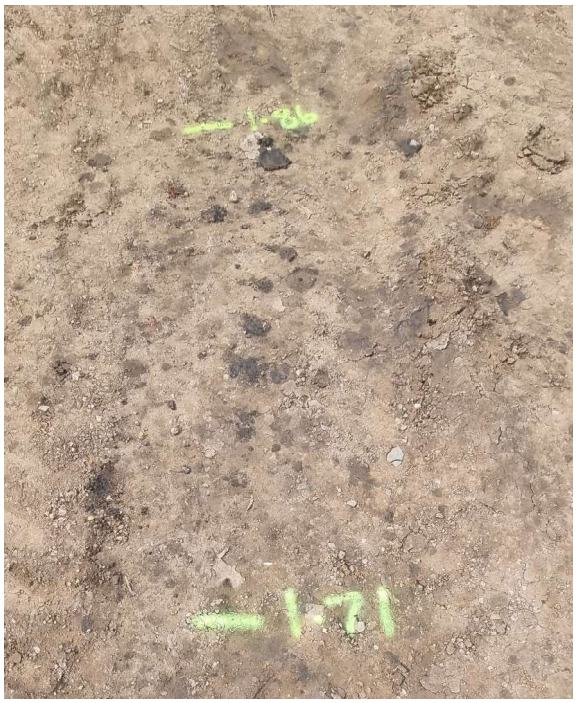
Survey area shown below.



Scan of area shown was also requested by the client, however due to inconsistent & unstable ground surface, scanning was unable to take place. Client agreed to level out the surface and arrange for further scanning to take place in future.



The required survey area was scanned thoroughly with Deep Penetrating Radar (Mala HDR) equipment. An area containing a GPR anomaly was located within survey area. Due to the inconsistencies in depths and the non-linear pattern of the detection this is unlikely to be a service but could potentially be a void or a change in the underground geo-technical conditions in this area.

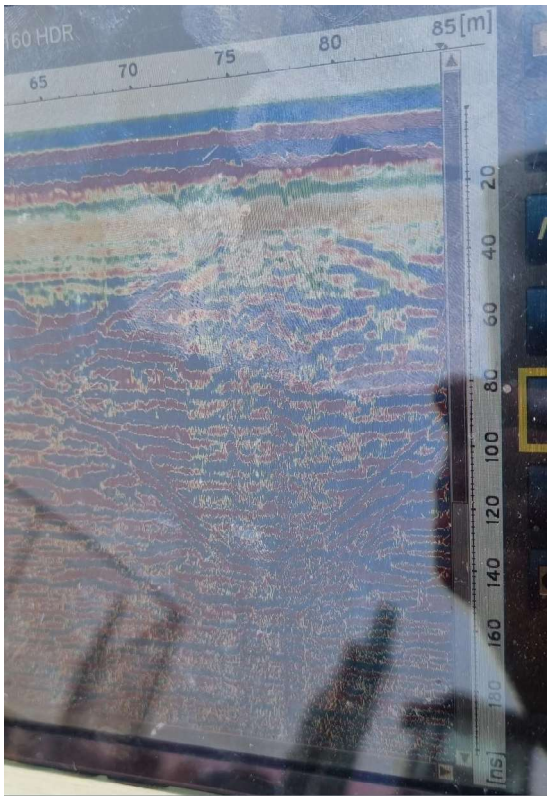




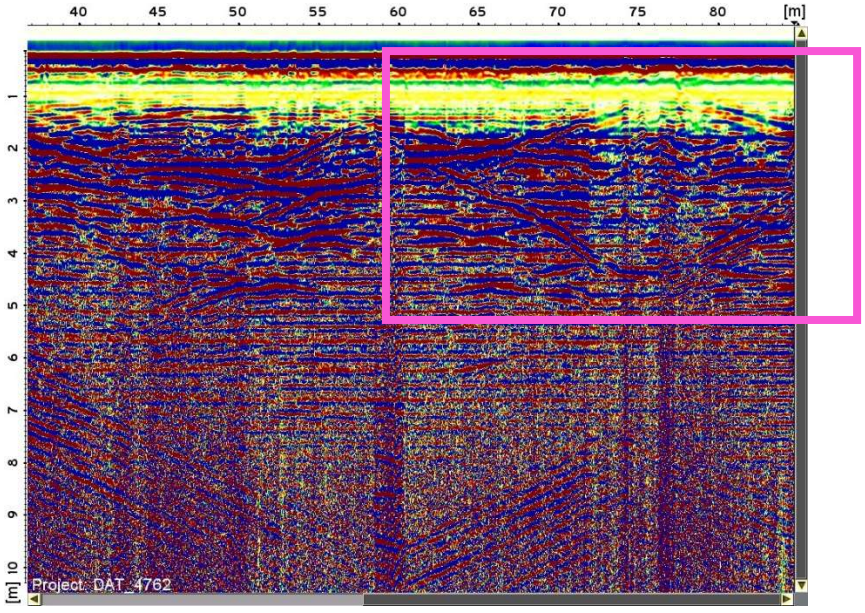
The areas shown above is the location of the first GPR anomaly, marked in yellow spray paint showing the beginning, peak, and end of the anomaly. GPS co-ordinates have been gathered for this area and will be made available.

GPR Data

Below is an example of the GPR data collected at the location of the GPR anomaly.



Below is a screenshotted image from the GPR data with the possible anomaly shown within the rectangle, and a change in ground surface above the hyperbola.





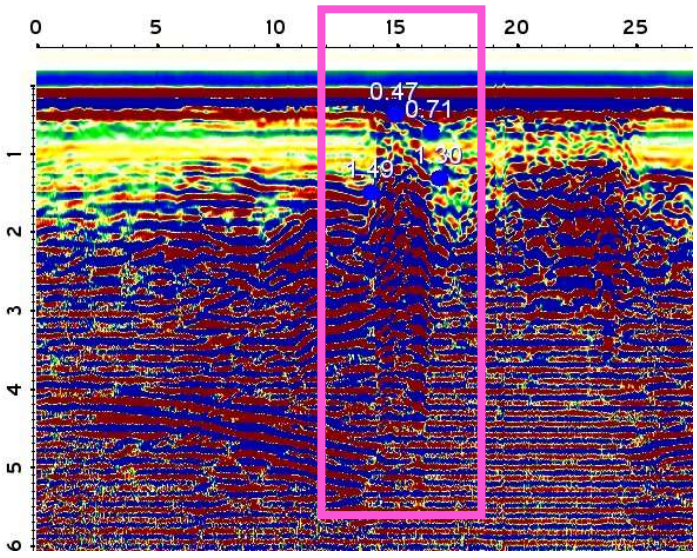








The areas shown above are the location of the second and third GPR anomalies, marked in yellow spray paint showing the beginning, peak, and end of both anomalies. GPS co-ordinates have been gathered for this area and will be made available.



Above is a screenshotted image from the GPR data with the possible anomaly shown within the rectangle.

Equipment Examples





Leica TS15, GS08



Vivax Locating Equipment



Mala HDR GPR



Cobra Flexi-Trace Reel

Rev A

Drawing Number C305.2/PR/003

Anomaly is within previous sub scan area & is shallower than base of excavation / additional excavation depth around well (change in geotechnical conditions)

Anomaly is within panel 5 which has not yet been excavated

Panel 1 - 338m2

Panel 2 - 548m2

Panel 3 - 559m2

Panel 4 - 562m2

Panel 5 - 554m2

Panel 6 - 555m2

Panel 7 - 556m2

Panel 8 - 558m2

Panel 9 - 394m2

Volume AA Piles Refer to SGI drawing DN0107-SGI-VOL-EN-DR-S-2110 for pile schedule.

Anomoly is shallower than base of excavation (change in geotechnical conditions)

PLAN ON PILING

Scale1 : 125

North

C&R

civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 1 for detail on geotechnical anomaly

Rev	Date	Description
A	14/09/23	As-Built

Drawing Status: As-Built

Drawing Title: Probing As-Built as of 14/09/23

C&R Project Code C305.2

Scale	1:250@A3
Date Drawn	14/09/23
Drawn By	AR
Reviewed By	TM
Original Size	A3

Drawing Number C305.2/PR/003 Rev A

Underground Utilities Survey Report

Survey Date: 15/09/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Zaid Patel

Site Work Undertaken by:

Zaid Patel / Alexander Chung– Ground Penetrating Radar Survey

Please find attached photographs and images for the area scanned at Panel 5 North as requested by client.



Panel 5 North shown above and below.



The required survey area was scanned thoroughly with Ground Penetrating Radar (Mala HDR) equipment. A GPR anomaly was located within the survey extents as shown below. Due to the inconsistencies in depths and the non-linear pattern of the detection this is unlikely to be a service but could potentially be a void or a change in the underground geo-technical conditions in this area.



GPR Data

Above and below are examples of the GPR data collected at the location of the GPR anomaly, with signs of change in surface shown above the anomaly.



Equipment Examples

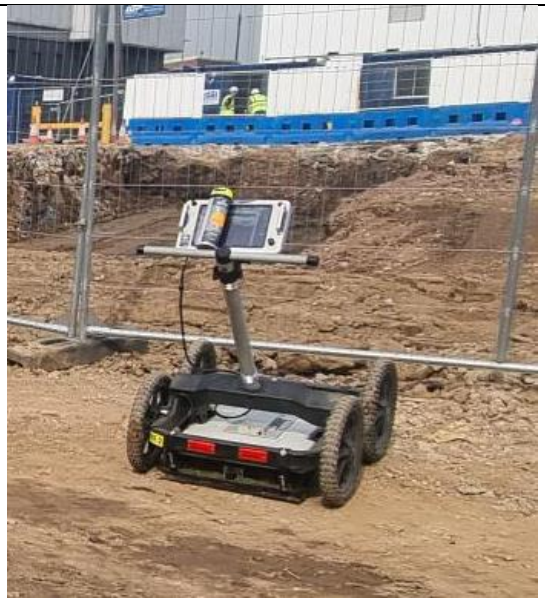




Leica TS15, GS08



Vivax Locating Equipment



Mala HDR DPR



Cobra Flexi-Trace Reel

Rev A

Drawing Number C305.2/PR/004

Small anomaly shown on sub scan as it was only an additional 70mm deep,we excavated down found a small sheet of metal which has been removed.

Panel 1 - 338m2

Panel 2 - 548m2

Panel 3 - 550m2

Panel 4 - 552m2

Panel 5 - 554m2

Panel 6 - 556m2

Panel 7 - 556m2

Panel 8 - 558m2

Panel 9 - 394m2

Volume AA Piles Refer to SGI drawing DN0107-SGI-XX-EN-DR-S-2110 for pile schedule

PLAN ON PILING
Scale 1 : 125

North

C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 3 for detail on geotechnical anomaly

Rev	Date	Description
A	15/09/23	As-Built

Drawing Status: As-Built

Drawing Title: Probing As-Built as of 15/09/23

C&R Project Code C305.2

Scale	1:250@A3
Date Drawn	15/09/23
Drawn By	AR
Reviewed By	TM
Original Size	A3

Drawing Number C305.2/PR/004 Rev A

Underground Utilities Survey Report

Survey Date: 27/09/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Zaid Patel

Site Work Undertaken by:

Zaid Patel / Marek Piotrkowski – Ground Penetrating Radar Survey

Please find attached photographs and images for the area scanned at Panel 5/6 as requested by the client.



Panel 5/6 North shown above and below.



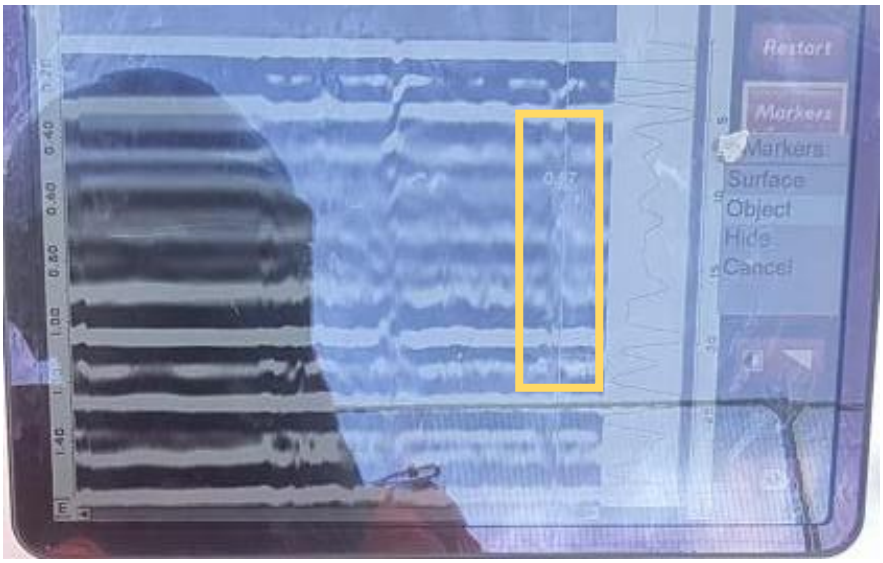
The requested survey area was scanned thoroughly with Ground Penetrating Radar (Mala HDR) equipment. A GPR anomaly was located within the survey extents as shown below.



Due to the inconsistencies in depths, this is unlikely to be a potential utility service, but could potentially indicate a small void or a shift in the area's below ground geotechnical conditions. Poor ground conditions resulted in poor results - this may be due to the ground previously being disturbed. No further voids or changes in ground condition were shown visibly enough to be marked out within the requested survey area.

GPR Data

Below is an example of the GPR data collected at the location of the GPR anomaly found, with slight signs surface change visible above the anomaly.





Equipment Examples

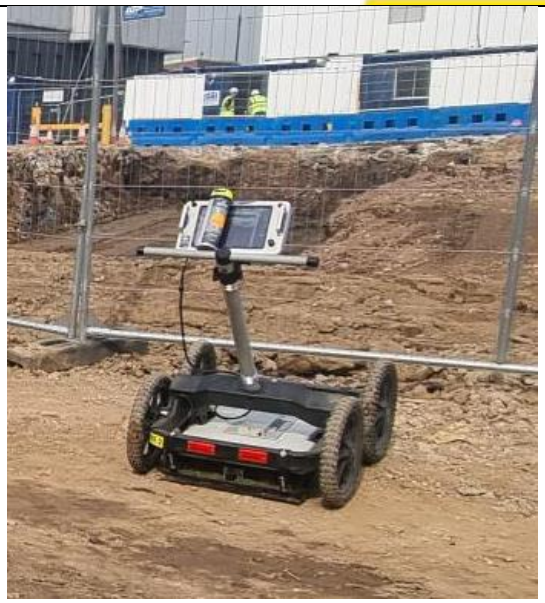




Leica TS15, GS08



Vivax Locating Equipment

 Mala HDR GPR	 Cobra Flexi-Trace Reel

Rev A

Drawing Number C305.2/PR/005



North

C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 4 for detail on anomalies

Note: Due to additional depth of excavation due to basement floor removal (refer to RFI 18 response from SGI), probing was carried out in this area from a starting depth of OGL-3.6

Rev	Date	Description
A	28/09/23	As-Built

Drawing Status: As-Built

Drawing Title: Probing As-Built as of 28/09/23

C&R Project Code C305.2

Scale	1:250@A3
Date Drawn	28/09/23
Drawn By	AR
Reviewed By	TM
Original Size	A3

Drawing Number C305.2/PR/005 Rev A

Underground Utilities Survey Report

Survey Date: 03/10/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Zaid Patel

Site Work Undertaken by:

Zaid Patel / Mike Ashworth – Ground Penetrating Radar Survey

Please find attached photographs and images for the area scanned at Panel 5 as requested by the client.



Panel 5 shown above and below.



The requested survey area was scanned thoroughly with Ground Penetrating Radar (Mala HDR) equipment. GPR anomalies were located within the survey extents as shown below.



Given the inconsistencies in both depths, this is unlikely to represent a potential utility service, but could indicate a small void or a change in the area's underground geo-technical conditions. No further voids or changes in ground condition were shown visibly enough to be marked out within the requested survey area.

GPR Data

Below is an example of the GPR data collected at the location of the GPR anomaly found, which could indicate a change in surface.



Equipment Examples





Leica TS15, GS08



Vivax Locating Equipment



Mala HDR GPR



Cobra Flexi-Trace Reel

Rev A

Drawing Number C305.2/PR/006



C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 5 for detail on anomalies

Note: Due to additional depth of excavation due to basement floor removal (refer to RFI 18 response from SGI), probing was carried out in this area from a starting depth of OGL-3.6

Rev	Date	Description
A	28/09/23	As-Built

Drawing Status: As-Built

Drawing Title: Probing As-Built as of 10/10/23

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	10/10/23
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number: C305.2/PR/006 Rev: A

Underground Utilities Survey Report

Survey Date: 19/10/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Zaid Patel

Report Date: 26/10/2023

Site Work Undertaken by:

Andy Cowan / Jakub Vanicek – Ground Penetrating Radar Survey

The client commissioned a sub- surface scan of Panel 6, and northern half of panels 7 and 8 within the construction site at Cheetham Hill, Manchester.

The requested survey area was scanned thoroughly with Ground Penetrating Radar (Mala HDR) equipment. Ground conditions were poor, containing debris from previous demolished structures. No potential services or voids were located within the survey area; however possible change in ground conditions were noted.

Site limitations: Waterlogged ground, sub surface debris.

These are all governing factors that can affect the (GPR) Ground penetrating radar levels of penetration.

Equipment Examples





Leica TS15, GS08

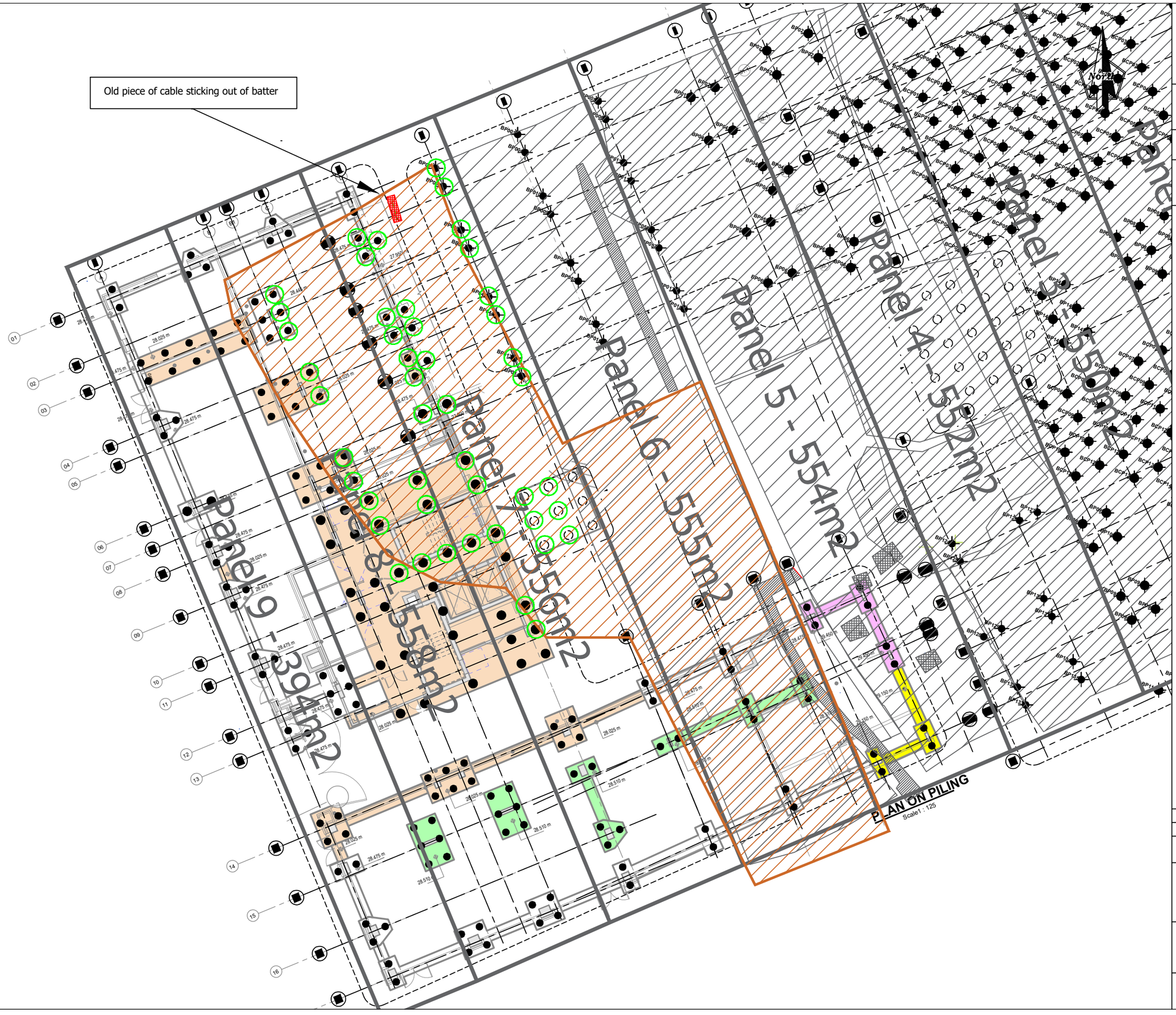


Vivax Locating Equipment

	
Mala HDR GPR	Cobra Flexi-Trace Reel

Rev A

Drawing Number C305.2/PR/007



C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 6 for detail on anomaly

Rev	Date	Description
A	22/11/23	As-Built

Drawing Status: As-Built

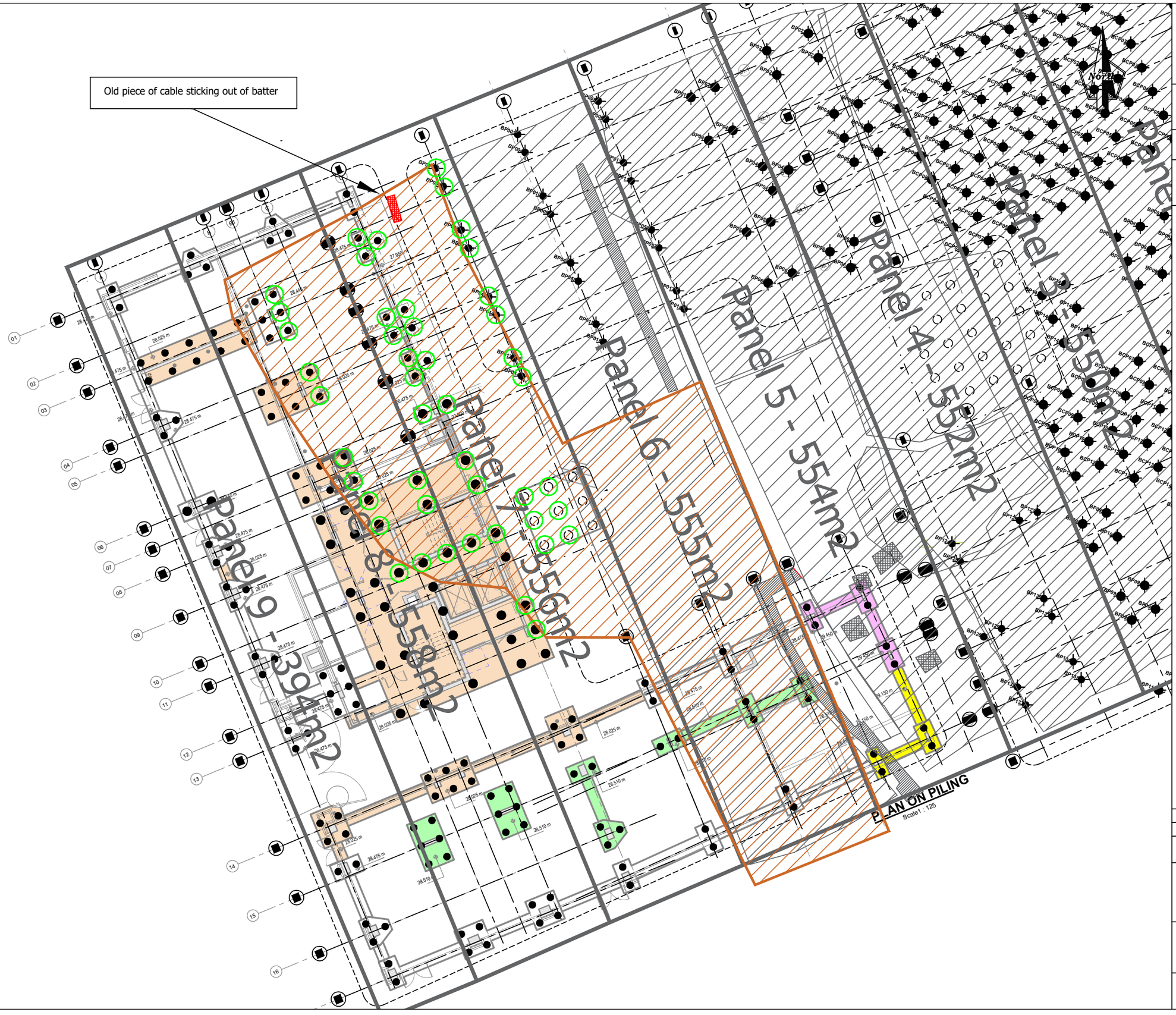
Drawing Title
Probing As-Built as of 22/11/23
Sub Scan Area From Report 6 (19/10/23)

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	22/11/23
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number: C305.2/PR/007 Rev: A

Rev A

Drawing Number C305.2/PR/007



C&R
civil-remediation.com

Job Title
Former Boddingtons Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 6 for detail on anomaly

Rev	Date	Description
A	22/11/23	As-Built

Drawing Status: As-Built

Drawing Title
Probing As-Built as of 22/11/23
Sub Scan Area From Report 6 (19/10/23)

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	22/11/23
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number: C305.2/PR/007 Rev: A

Underground Utilities Survey Report

Survey Date: 26/10/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Zaid Patel

Site Work Undertaken by:

Zaid Patel / Devon Stead – Ground Penetrating Radar Survey

Please find attached photographs and images for the survey area as requested by the client.



Requested survey area shown above and below.

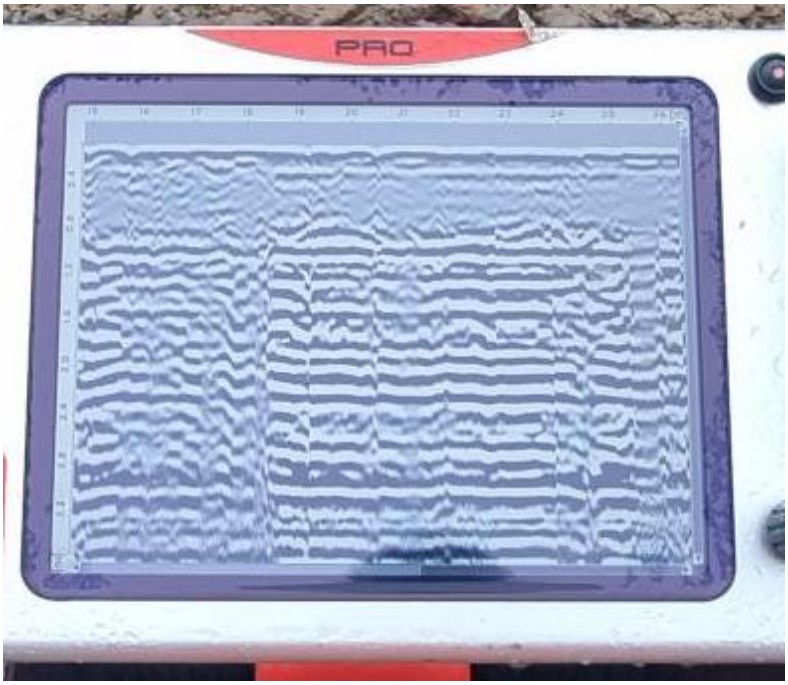


The requested survey area was scanned thoroughly with Ground Penetrating Radar (Mala HDR) equipment. No potential services or voids were located within the survey area; however possible change in ground conditions were noted.

GPR Data

Below is an example of the GPR data collected at the requested survey area, showing change in ground conditions.





Equipment Examples





Leica TS15, GS08



Vivax Locating Equipment

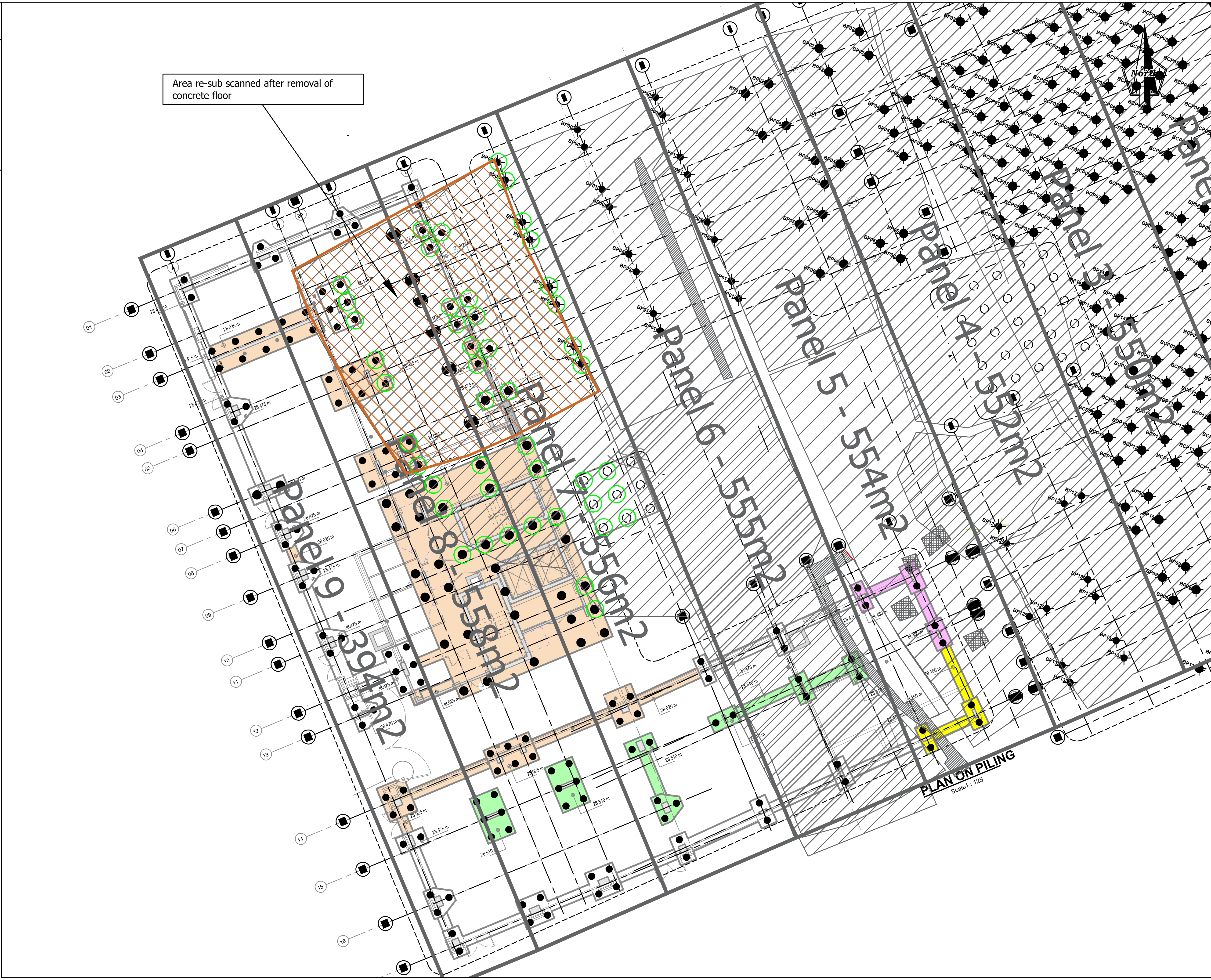


Mala HDR GPR



Cobra Flexi-Trace Reel

Drawing Number C305.2/PR/007A Rev A



C&R

civil-remediation.com

Job Title

Former Boddingtons Enabling Works

Location

Manchester

Client

Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 6 for detail on anomaly

Rev	Date	Description
A	22/11/23	As-Built

Drawing Status: As-Built

Drawing Title

Probing As-Built as of 22/11/23
Sub Scan Area From Report 7 (26/10/23)

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	22/11/23
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number: C305.2/PR/007A Rev: A

Underground Utilities Survey Report

Survey Date: 05/12/2023

Project Ref: C&R- Cheetham Hill

Site: C&R- Cheetham Hill

Manchester

M3 1PT

Report Prepared by: Alexander Chung

Site Work Undertaken by:

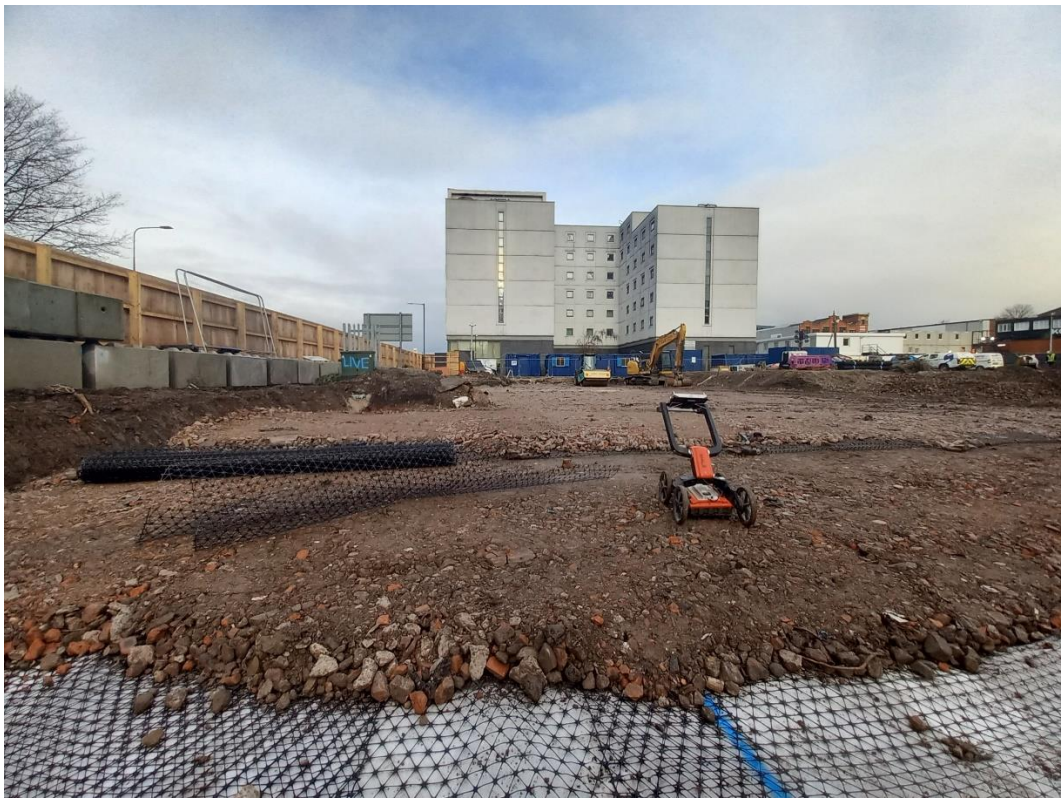
Alexander Chung, Oliver Smith – Ground Penetrating Radar Survey

Please find attached photographs and images for the survey area as requested by the client.



Requested survey area shown above and below.





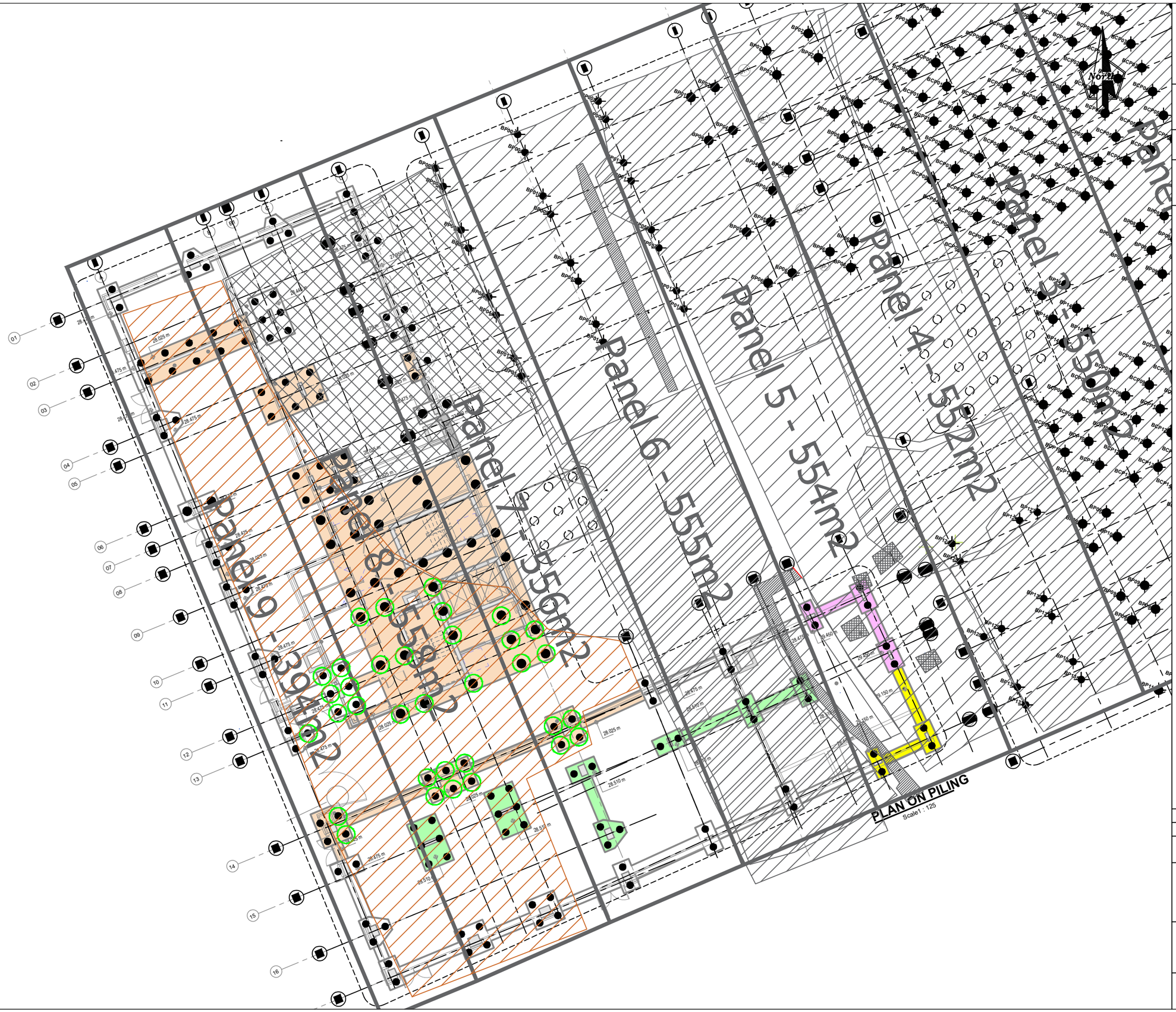

SCOTT'S

The requested survey area was scanned thoroughly with Ground Penetrating Radar (Mala HDR) equipment. No potential services or voids were located within the survey area; however possible change in ground conditions were noted.

Equipment Examples

<table>
<tr>
<td> 
 
Leica TS15, GS08</td>
<td> 
Vivax Locating Equipment</td>
</tr>
<tr>
<td> 
Mala HDR GPR</td>
<td> 
Cobra Flexi-Trace Reel</td>
</tr>
</table>

Drawing Number C305.2/PR/008 Rev A



C&R
civil-remediation.com

Job Title
Former Boddingtons
Enabling Works

Location
Manchester

Client
Clarion / Graham

- No obstructions encountered during probing
- Obstruction encountered between 2 & 4m via probing
- Unable to probe due to batter/boundary issue
- Obstruction encountered during excavation and removed to 2m
- Extent of previous Sub Scan
- Extent of Sub Scan
- Extent of Sub Scan anomaly

Please refer to Sub Scan report 6 for detail on anomaly

Rev	Date	Description
A	05/12/23	As-Built

Drawing Status
As-Built

Drawing Title
Probing As-Built as of 05/12/23
Sub Scan Area From Report 8 (05/12/23)

C&R Project Code	C305.2	Scale	1:250@A3
		Date Drawn	05/12/23
		Drawn By	AR
		Reviewed By	TM
		Original Size	A3

Drawing Number
C305.2/PR/008

Rev
A

APPENDIX B

Filename: K:\projects\BDNw\Cmdc\SWD\C4867\Forms Bodddingtons Brewery CONDENTNL\0200
Plot Date/Time: 10/7/2024 9:00 AM
Plotted By: Will Carey

COMBINED MH07
1800Ø TYPE 2
CL 29.000m
BD 27.000m (225) FROM FW MH106
IL 25.500m (225)

OUT GOING PIPE TO BE FITTED WITH NON-RETURN VALVE.

200mm (DN) MISSION RUBBER SINGLE FLAP NON-RETURN VALVE OR SIMILAR APPROVED TO BE USED

225m CONNECTION TO UNITED UTILITIES FORMED AS PART OF THE ENABLING WORKS CONTRACT

MH REF 7201
CL28.78

MH REF 7103
CL:29.15m
IL:23.25m

MH REF 7104
CL:29.11m
IL:23.37m

1000Ø EX COMBINED

750mm EX COMBINED

PAVING OUTSIDE OF BOUNDARY TO BE COMPLETED AS PART OF S278 WORKS

DEEP REST BEND INVERT LEVELS = 27.400m TO GET UNDER GROUND BEAMS

GEOCELLULAR TANK POLYSTORM - R
BASE OF TANK = 25.900m
AREA = 174sq.m
DEPTH OF TANK = 2.0m

PLEASE REFER TO DRAWINGS DN0107-SGI-ZZ-00-DR-C-0207 & 208 FOR CONSTRUCTION DETAILS

GATES TO ARCHITECTS DETAILS

SITE BOUNDARY EXTENT & PERIMETER CHANNEL DRAIN LOCATION TBC

TO BE CONFIRMED POST CIVIL & STRUCTURAL FOUNDATION LEVEL REVIEW

KEY

- SITE BOUNDARY
- SURVEYED SITE BOUNDARY
- EXISTING COMBINED SEWERS
- PROPOSED SURFACE WATER SEWER
- PROPOSED FLOW CONTROL CHAMBER
- PROPOSED CATCHPIT CHAMBER
- PROPOSED FOUL SEWER
- PROPOSED GEOCELLULAR TANKS
- PROPOSED DOWNSTREAM DEFENDER
- PROPOSED LINEAR CHANNEL (ACO M100DS 0.0)
- PROPOSED LINEAR CHANNEL (ACO M100DS 10.0)
- PERFORATED/SOLID 80Ø TREE PIT DRAIN
- PIPE SLEEVE THROUGH FOUNDATION
- PIPE GOING OVER FOUNDATION
- PIPE GOING UNDER FOUNDATION
- LINEAR CHANNEL ACCESS CHAMBER
- LINEAR CHANNEL SUMP OUTLET
- FG TRAPPED FLOOR GULLY

Drainage notes

1. This drainage drawing is to be read in conjunction with all relevant Architect's, Engineer's drawings and specifications.
2. Do not scale this drawing. Any ambiguities, omissions and errors on the drawings shall be brought to the Engineer's attention immediately. All dimensions must be checked and verified on-site before construction commences.
3. All external underground drainage works are to be constructed in accordance with the Civil Engineering Specification for the Water Industry 7th Edition (CESWI), Sewers for Adoption 7th Edition (SFA) and any site-specific details provided on the contract drawings.
4. All internal underground drainage works are to be constructed in accordance with the Building Regulations Approved Document H (2015 Edition) and any site-specific details provided on the contract drawings.
5. The contractor must survey any retained drainage on-site and report the line, level and condition of the existing drainage to the engineer. We would recommend that the existing drainage is cleansed before any surveying and that these works are undertaken before the contractor commences on-site.
6. Any redundant manholes are to be broken out to at least 600mm below formation level and backfilled with an approved compacted granular material.
7. Any redundant pipes up to and including 300mm diameter are to be filled with a 10:1 PFA/cement mix or broken out and backfilled with an approved compacted granular material. Any redundant pipes over 300mm diameter are to be broken out and backfilled with an approved compacted granular material.
8. Adoptable Drainage Pipes:- All foul and surface water pipes up to and including 300mm diameter are to be Vitrified Clay in accordance with BS EN 295-1. All pipes greater than 300mm diameter to be Concrete Class 120 in accordance with BS EN 1916:2002.
9. Private Drainage Pipes:- All foul and surface water pipes up to and including 100mm diameter are to be Vitrified Clay in accordance with BS EN 295-1 or Solid Walled PVC-U in accordance with BS EN 1401. All foul and surface water pipes greater than 100mm diameter are to be Vitrified Clay in accordance with BS EN 295-1, Concrete Class 120 in accordance with BS EN 1916:2002 or Structural Walled PVC-U in accordance with WIS 4-35-01 and BS EN 13476.
10. All concrete manholes are to be in accordance with BS EN 1917. All plastic inspection chambers are to be in accordance with BS EN 13598.
11. All pipes laid within vehicle trafficked areas with less than 900mm of cover shall be surrounded in Class Z bedding. All pipes less than 300mm below the underside of a ground floor slab shall be surrounded in Class Z bedding. Where Class Z bedding is used as a surround a compressible material must be placed at every pipe joint to provide flexibility. All other pipes are to be laid in a Class S bedding.
12. All underground drainage must be protected during the construction phase where intermediate cover is less than 900mm.
13. Where foul and surface drains and/or sewers cross within 100mm of each other then concrete protection (Class Z bedding) may be required to prevent any potential cross-contamination.
14. All cover levels shown are approximate only. All manhole covers are to be set at the proposed finished pavement or floor level provided by the Architect.
15. For typical manhole construction details, pipe bedding/trench details and typical drainage details refer to SGI typical details drawing.
16. The internal foul and surface water pop-up positions and sizes shown are indicative only. The internal pop-up positions, pop-up end use and the pop-up size must be confirmed by the architect/M&E consultant. The drawings must be cross referenced by the contractor before the works commence and any errors reported to the Engineer as soon as possible.
17. The external gully connections and channel drain connections are to be 150mm diameter unless otherwise stated. All gully and channel drain outlets to be trapped and roddable. All internal gully types and channel drains to be specified by others.
18. Channel drains to have a 200mm minimum concrete bed and haunch and be fitted with a heel guard cast iron grating. Gratings to be to load Class D400 specification unless otherwise agreed.
19. All foul water stacks and RWP's to have low level rodding access plates unless an alternative means of access or maintenance is agreed. The access plate size must be in accordance with Document H and sited above any connected ground floor appliance spill level.
20. All drainage connections passing through foundation bases and/or edge beams to be located within sealed sleeves. With the approval of the Engineer, drainage connections may be cast-in with flexible joints either side. Flexible joints to be no greater than 150mm from face of the concrete.
21. All manhole covers located within the road and car parking areas shall be Class D400. Covers within hard and soft landscaped areas with pedestrian traffic only shall be Class B125. Covers located within block/slab paving areas are to be recessed to suit the proposed paving and of the appropriate grade. All internal covers are to be recessed, double sealed bolt down type such as howe green 5000 series or similar approved.
22. Channels within Type 1 & 2 manholes must use pre-formed using clayware sections for pipes up to and including 300mm diameter. All manhole channels to be set at the appropriate level for the incoming and outgoing pipe gradients.
23. All manholes connections to be formed at soffit to soffit unless otherwise stated. All internal branch connections to be made with swept bends in the direction of flow in the main pipe.
24. The type and size of the separator is specified on this drawing and shall be a class 1 type. It shall be installed in complete accordance with the manufacturers instructions and vented via 75mmØ pipe work. the interceptor requires power for the high level oil alarm and the arrangement shall be intrinsically safe and explosion proof. the contractor shall provide the required ducting & cabling to internal monitoring position together with audio and visual monitoring unit all in accordance with bs7671:2008 +a1:2011

COVER LEVELS SHOWN INDICATIVE ONLY. TO BE CONFIRMED BY LANDSCAPE ARCHITECT LEVELS DESIGN

Rev.	Description	Rev. by	Date
P06	Attenuation tank and drainage updated to suit updated foundation plan	PMB	09.10.2024
P05	Stage 4 Issue	NU	06.09.2024
P04	ISSUED FOR REVIEW AND COMMENT DRAWING NUMBER UPDATED FROM DN0107-SGI-ZZ-00-DR-C-0200	AS	25.07.2024
T01	Drainage updated to suit latest foundation & landscaping plan	WC	23.01.2023
P03	Drawing scale added	WC	08.03.2022
P02	Clouded drainage updated to suit architect's comments	WC	17.02.2022

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
Clarion Housing

Architect

Project
Boddingtons Brewery

Title
Proposed Drainage Layout

Date	27.01.2022	Drawn By	WC
Size	A1	Checked By	EAJ
Scale	1:200	Approved By	EAJ

Dwg. No **DN0107-SGI-ZZ-UG-DR-C-00200** Rev **P06**

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	100	PIMP (%)	100
M5-60 (mm)	18.100	Add Flow / Climate Change (%)	0
Ratio R	0.359	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	1.000	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.334	4-8	0.144

Total Area Contributing (ha) = 0.478

Total Pipe Volume (m³) = 349.002

Network Design Table for Storm

« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	20.826	1.100	18.9	0.004	5.00	0.0	0.600		o	150	Pipe/Conduit	
1.001	20.298	0.880	23.1	0.035	0.00	0.0	0.600		o	300	Pipe/Conduit	
2.000	9.742	1.740	5.6	0.012	5.00	0.0	0.600		o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.15	29.300	0.004	0.0	0.0	0.0	2.33	41.1	0.7
1.001	50.00	5.25	28.050	0.039	0.0	0.0	0.0	3.29	232.4	7.0
2.000	50.00	5.04	29.060	0.012	0.0	0.0	0.0	4.29	75.8	2.2

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
1.002	12.497	0.540	23.1	0.030	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.003	9.876	0.430	23.0	0.022	0.00	0.0	0.600		o	300	Pipe/Conduit	
3.000	11.290	0.150	75.3	0.023	5.00	0.0	0.600		o	150	Pipe/Conduit	
3.001	26.520	0.110	241.1	0.025	0.00	0.0	0.600		o	300	Pipe/Conduit	
3.002	12.633	1.110	11.4	0.019	0.00	0.0	0.600		o	300	Pipe/Conduit	
4.000	38.224	0.375	101.9	0.048	5.00	0.0	0.600		o	300	Pipe/Conduit	
3.003	20.245	1.230	16.5	0.017	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.004	9.886	0.300	33.0	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
5.000	14.821	0.180	82.3	0.004	5.00	0.0	0.600		o	100	Pipe/Conduit	
5.001	14.974	0.895	16.7	0.010	0.00	0.0	0.600		o	150	Pipe/Conduit	
5.002	11.349	0.545	20.8	0.007	0.00	0.0	0.600		o	225	Pipe/Conduit	
6.000	10.521	0.175	60.1	0.013	5.00	0.0	0.600		o	150	Pipe/Conduit	
6.001	31.899	0.215	148.4	0.010	0.00	0.0	0.600		o	150	Pipe/Conduit	
6.002	16.847	0.115	146.5	0.005	0.00	0.0	0.600		o	225	Pipe/Conduit	
6.003	16.055	0.110	146.0	0.041	0.00	0.0	0.600		o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.002	50.00	5.32	27.170	0.081	0.0	0.0	0.0	3.28	232.0	14.6
1.003	50.00	5.37	26.630	0.103	0.0	0.0	0.0	3.29	232.9	18.6
3.000	50.00	5.16	28.950	0.023	0.0	0.0	0.0	1.16	20.5	4.2
3.001	50.00	5.60	28.650	0.048	0.0	0.0	0.0	1.01	71.3	8.7
3.002	50.00	5.65	28.540	0.067	0.0	0.0	0.0	4.69	331.2	12.1
4.000	50.00	5.41	27.805	0.048	0.0	0.0	0.0	1.56	110.1	8.7
3.003	50.00	5.73	27.430	0.132	0.0	0.0	0.0	3.89	275.3	23.8
1.004	50.00	5.79	26.200	0.235	0.0	0.0	0.0	2.75	194.3	42.4
5.000	50.00	5.29	29.050	0.004	0.0	0.0	0.0	0.85	6.7	0.7
5.001	50.00	5.39	28.820	0.014	0.0	0.0	0.0	2.47	43.7	2.5
5.002	50.00	5.46	27.850	0.021	0.0	0.0	0.0	2.88	114.5	3.8
6.000	50.00	5.13	27.990	0.013	0.0	0.0	0.0	1.30	23.0	2.3
6.001	50.00	5.78	27.815	0.023	0.0	0.0	0.0	0.82	14.5	4.2
6.002	50.00	6.04	27.530	0.028	0.0	0.0	0.0	1.08	42.9	5.1
6.003	50.00	6.29	27.415	0.069	0.0	0.0	0.0	1.08	42.9	12.5

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
5.003	19.672	1.140	17.3	0.025	0.00	0.0	0.600		o	300	Pipe/Conduit	
7.000	10.512	1.050	10.0	0.037	5.00	0.0	0.600		o	225	Pipe/Conduit	
7.001	8.716	0.870	10.0	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	
5.004	15.616	0.190	82.2	0.037	0.00	0.0		0.050	→[↓]		Cellular Storage	
1.005	23.990	0.040	599.8	0.054	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.006	2.747	0.020	137.4	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	
1.007	2.862	0.280	10.2	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
5.003	50.00	6.38	27.230	0.115	0.0	0.0	0.0	3.80	268.8	20.8
7.000	50.00	5.04	28.085	0.037	0.0	0.0	0.0	4.16	165.4	6.7
7.001	50.00	5.08	27.035	0.037	0.0	0.0	0.0	4.16	165.3	6.7
5.004	50.00	6.51	26.090	0.189	0.0	0.0	0.0	1.91	40447.1	34.1
1.005	50.00	7.14	25.900	0.478	0.0	0.0	0.0	0.63	44.9«	86.3
1.006	50.00	7.18	25.800	0.478	0.0	0.0	0.0	1.11	44.3«	86.3
1.007	50.00	7.19	25.780	0.478	0.0	0.0	0.0	4.12	163.7	86.3

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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
100	29.900	0.600	Open Manhole	1	1.000	29.300	150				
101	29.850	1.800	Open Manhole	1200	1.001	28.050	300	1.000	28.200	150	
600	29.900	0.840	Open Manhole	450	2.000	29.060	150				
102	29.875	2.705	Open Manhole	1200	1.002	27.170	300	1.001	27.170	300	
								2.000	27.320	150	
104	29.825	3.195	Open Manhole	1200	1.003	26.630	300	1.002	26.630	300	
200	29.850	0.900	Open Manhole	450	3.000	28.950	150				
201	29.850	1.200	Open Manhole	1200	3.001	28.650	300	3.000	28.800	150	
202	29.835	1.295	Open Manhole	1200	3.002	28.540	300	3.001	28.540	300	
300	28.930	1.125	Open Manhole	1200	4.000	27.805	300				
203	29.850	2.420	Open Manhole	1200	3.003	27.430	300	3.002	27.430	300	
								4.000	27.430	300	
105	29.630	3.430	Open Manhole	1200	1.004	26.200	300	1.003	26.200	300	
								3.003	26.200	300	
400	29.650	0.600	Open Manhole	1	5.000	29.050	100				
401	29.550	0.730	Open Manhole	450	5.001	28.820	150	5.000	28.870	100	
402	29.300	1.450	Open Manhole	600	5.002	27.850	225	5.001	27.925	150	
500	28.990	1.000	Open Manhole	1	6.000	27.990	150				
501	28.960	1.145	Open Manhole	450	6.001	27.815	150	6.000	27.815	150	
502	28.810	1.280	Open Manhole	600	6.002	27.530	225	6.001	27.600	150	
503	29.000	1.585	Open Manhole	600	6.003	27.415	225	6.002	27.415	225	
403	29.250	2.020	Open Manhole	1200	5.003	27.230	300	5.002	27.305	225	
								6.003	27.305	225	
700	29.860	1.775	Open Manhole	600	7.000	28.085	225				
701	29.800	2.765	Open Manhole	600	7.001	27.035	225	7.000	27.035	225	
404	29.300	3.210	Open Manhole	1200	5.004	26.090		5.003	26.090	300	
								7.001	26.165	225	
405	29.350	3.450	Open Manhole	1200	1.005	25.900	300	1.004	25.900	300	
								5.004	25.900		
107	29.000	3.200	Open Manhole	1500	1.006	25.800	225	1.005	25.860	300	135
108	29.000	3.220	Open Manhole	1000	1.007	25.780	225	1.006	25.780	225	
MH07	29.000	3.500	Open Manhole	0		OUTFALL		1.007	25.500	225	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
100	383803.796	399297.845	383803.796	399297.845	Required	
101	383812.952	399279.140	383812.952	399279.140	Required	
600	383790.664	399279.072	383790.664	399279.072	Required	
102	383794.722	399270.216	383794.722	399270.216	Required	
104	383792.772	399257.872	383792.772	399257.872	Required	
200	383823.928	399260.213	383823.928	399260.213	Required	
201	383828.902	399250.078	383828.902	399250.078	Required	
202	383804.688	399239.262	383804.688	399239.262	Required	
300	383757.840	399219.646	383757.840	399219.646	Required	
203	383792.643	399235.453	383792.643	399235.453	Required	
105	383783.830	399253.680	383783.830	399253.680	Required	
400	383798.892	399298.224	383798.892	399298.224	Required	
401	383785.458	399291.962	383785.458	399291.962	Required	
402	383771.607	399286.275	383771.607	399286.275	Required	
500	383746.900	399229.987	383746.900	399229.987	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
501	383742.899	399239.718	383742.899	399239.718	Required	
502	383730.776	399269.223	383730.776	399269.223	Required	
503	383746.276	399275.822	383746.276	399275.822	Required	
403	383761.152	399281.861	383761.152	399281.861	Required	
700	383786.682	399270.322	383786.682	399270.322	Required	
701	383776.652	399267.177	383776.652	399267.177	Required	
404	383768.667	399263.681	383768.667	399263.681	Required	
405	383774.930	399249.376	383774.930	399249.376	Required	
107	383753.863	399237.899	383753.863	399237.899	Required	
108	383751.352	399236.786	383751.352	399236.786	Required	
MH07	383748.540	399237.320			No Entry	

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	100	29.900	29.300	0.450	Open Manhole	1
1.001	o	300	101	29.850	28.050	1.500	Open Manhole	1200
2.000	o	150	600	29.900	29.060	0.690	Open Manhole	450
1.002	o	300	102	29.875	27.170	2.405	Open Manhole	1200
1.003	o	300	104	29.825	26.630	2.895	Open Manhole	1200
3.000	o	150	200	29.850	28.950	0.750	Open Manhole	450
3.001	o	300	201	29.850	28.650	0.900	Open Manhole	1200
3.002	o	300	202	29.835	28.540	0.995	Open Manhole	1200
4.000	o	300	300	28.930	27.805	0.825	Open Manhole	1200
3.003	o	300	203	29.850	27.430	2.120	Open Manhole	1200
1.004	o	300	105	29.630	26.200	3.130	Open Manhole	1200
5.000	o	100	400	29.650	29.050	0.500	Open Manhole	1
5.001	o	150	401	29.550	28.820	0.580	Open Manhole	450
5.002	o	225	402	29.300	27.850	1.225	Open Manhole	600

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	20.826	18.9	101	29.850	28.200	1.500	Open Manhole	1200
1.001	20.298	23.1	102	29.875	27.170	2.405	Open Manhole	1200
2.000	9.742	5.6	102	29.875	27.320	2.405	Open Manhole	1200
1.002	12.497	23.1	104	29.825	26.630	2.895	Open Manhole	1200
1.003	9.876	23.0	105	29.630	26.200	3.130	Open Manhole	1200
3.000	11.290	75.3	201	29.850	28.800	0.900	Open Manhole	1200
3.001	26.520	241.1	202	29.835	28.540	0.995	Open Manhole	1200
3.002	12.633	11.4	203	29.850	27.430	2.120	Open Manhole	1200
4.000	38.224	101.9	203	29.850	27.430	2.120	Open Manhole	1200
3.003	20.245	16.5	105	29.630	26.200	3.130	Open Manhole	1200
1.004	9.886	33.0	405	29.350	25.900	3.150	Open Manhole	1200
5.000	14.821	82.3	401	29.550	28.870	0.580	Open Manhole	450
5.001	14.974	16.7	402	29.300	27.925	1.225	Open Manhole	600
5.002	11.349	20.8	403	29.250	27.305	1.720	Open Manhole	1200

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.000	o	150	500	28.990	27.990	0.850	Open Manhole	1
6.001	o	150	501	28.960	27.815	0.995	Open Manhole	450
6.002	o		502	28.810	27.530	1.055	Open Manhole	600
6.003	o	225	503	29.000	27.415	1.360	Open Manhole	600
5.003	o	300	403	29.250	27.230	1.720	Open Manhole	1200
7.000	o	225	700	29.860	28.085	1.550	Open Manhole	600
7.001	o	225	701	29.800	27.035	2.540	Open Manhole	600
5.004	→[↓]		404	29.300	26.090	1.209	Open Manhole	1200
1.005	o	300	405	29.350	25.900	3.150	Open Manhole	1200
1.006	o	225	107	29.000	25.800	2.975	Open Manhole	1500
1.007	o	225	108	29.000	25.780	2.995	Open Manhole	1000

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.000	10.521	60.1	501	28.960	27.815	0.995	Open Manhole	450
6.001	31.899	148.4	502	28.810	27.600	1.060	Open Manhole	600
6.002	16.847	146.5	503	29.000	27.415	1.360	Open Manhole	600
6.003	16.055	146.0	403	29.250	27.305	1.720	Open Manhole	1200
5.003	19.672	17.3	404	29.300	26.090	2.910	Open Manhole	1200
7.000	10.512	10.0	701	29.800	27.035	2.540	Open Manhole	600
7.001	8.716	10.0	404	29.300	26.165	2.910	Open Manhole	1200
5.004	15.616	82.2	405	29.350	25.900	1.449	Open Manhole	1200
1.005	23.990	599.8	107	29.000	25.860	2.840	Open Manhole	1500
1.006	2.747	137.4	108	29.000	25.780	2.995	Open Manhole	1000
1.007	2.862	10.2	MH07	29.000	25.500	3.275	Open Manhole	0

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.004	0.004	0.004
1.001	-	-	100	0.035	0.035	0.035
2.000	-	-	100	0.012	0.012	0.012
1.002	-	-	100	0.030	0.030	0.030
1.003	-	-	100	0.022	0.022	0.022
3.000	-	-	100	0.023	0.023	0.023
3.001	-	-	100	0.025	0.025	0.025
3.002	-	-	100	0.019	0.019	0.019
4.000	-	-	100	0.048	0.048	0.048
3.003	-	-	100	0.017	0.017	0.017
1.004	-	-	100	0.000	0.000	0.000
5.000	-	-	100	0.004	0.004	0.004
5.001	-	-	100	0.010	0.010	0.010
5.002	-	-	100	0.007	0.007	0.007
6.000	-	-	100	0.013	0.013	0.013
6.001	-	-	100	0.010	0.010	0.010
6.002	-	-	100	0.005	0.005	0.005
6.003	-	-	100	0.041	0.041	0.041
5.003	-	-	100	0.025	0.025	0.025
7.000	-	-	100	0.037	0.037	0.037
7.001	-	-	100	0.000	0.000	0.000
5.004	-	-	100	0.037	0.037	0.037
1.005	-	-	100	0.054	0.054	0.054
1.006	-	-	100	0.000	0.000	0.000
1.007	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.478	0.478	0.478

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
1.000	100	150	0.450	1.500	Unclassified	1	0	0.450	Unclassified
1.001	101	300	1.500	2.405	Unclassified	1200	0	1.500	Unclassified
2.000	600	150	0.690	2.405	Unclassified	450	0	0.690	Unclassified
1.002	102	300	2.405	2.895	Unclassified	1200	0	2.405	Unclassified
1.003	104	300	2.895	3.130	Unclassified	1200	0	2.895	Unclassified
3.000	200	150	0.750	0.900	Unclassified	450	0	0.750	Unclassified
3.001	201	300	0.900	0.995	Unclassified	1200	0	0.900	Unclassified
3.002	202	300	0.995	2.120	Unclassified	1200	0	0.995	Unclassified
4.000	300	300	0.825	2.120	Unclassified	1200	0	0.825	Unclassified
3.003	203	300	2.120	3.130	Unclassified	1200	0	2.120	Unclassified
1.004	105	300	3.130	3.150	Unclassified	1200	0	3.130	Unclassified
5.000	400	100	0.500	0.580	Unclassified	1	0	0.500	Unclassified
5.001	401	150	0.580	1.225	Unclassified	450	0	0.580	Unclassified
5.002	402	225	1.225	1.720	Unclassified	600	0	1.225	Unclassified
6.000	500	150	0.850	0.995	Unclassified	1	0	0.850	Unclassified
6.001	501	150	0.995	1.060	Unclassified	450	0	0.995	Unclassified
6.002	502	225	1.055	1.360	Unclassified	600	0	1.055	Unclassified
6.003	503	225	1.360	1.720	Unclassified	600	0	1.360	Unclassified
5.003	403	300	1.720	2.910	Unclassified	1200	0	1.720	Unclassified
7.000	700	225	1.550	2.540	Unclassified	600	0	1.550	Unclassified
7.001	701	225	2.540	2.910	Unclassified	600	0	2.540	Unclassified
5.004	404				Cellular Storage	1200	0	1.209	Unclassified
1.005	405	300	2.840	3.150	Unclassified	1200	0	3.150	Unclassified
1.006	107	225	2.975	2.995	Unclassified	1500	0	2.975	Unclassified
1.007	108	225	2.995	3.275	Unclassified	1000	0	2.995	Unclassified

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.007	MH07	29.000	25.500	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

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Simulation Criteria for Storm

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.100	Storm Duration (mins)	30
Ratio R	0.359		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: 107, DS/PN: 1.006, Volume (m³): 7.3

Unit Reference	MD-SCU-0052-5000-3200-5000
Design Head (m)	3.200
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Linear discharge profile
Application	Surface
Sump Available	Yes
Diameter (mm)	52
Invert Level (m)	25.800
Minimum Outlet Pipe Diameter (mm)	75
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	3.200	5.0
Flush-Flo™	0.073	1.0
Kick-Flo®	0.079	0.9
Mean Flow over Head Range	-	3.4

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.0	1.200	3.2	3.000	4.8	7.000	7.2
0.200	1.4	1.400	3.4	3.500	5.2	7.500	7.5
0.300	1.7	1.600	3.6	4.000	5.6	8.000	7.7
0.400	1.9	1.800	3.8	4.500	5.9	8.500	7.9
0.500	2.1	2.000	4.0	5.000	6.2	9.000	8.2
0.600	2.3	2.200	4.2	5.500	6.5	9.500	8.4
0.800	2.6	2.400	4.4	6.000	6.7		
1.000	2.9	2.600	4.5	6.500	7.0		

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Storage Structures for Storm

Cellular Storage Pipe: 5.004

Manning's N	0.050	Infiltration Coefficient Side (m/hr)	0.00000
Invert Level (m)	26.090	Safety Factor	1.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	174.0	0.0	2.001	0.0	0.0
2.000	174.0	0.0			

Volume Summary (Static)

Length Calculations based on Centre-Centre

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	100	0.000	0.368	0.000	0.368
1.001	101	2.036	1.435	0.000	3.471
2.000	600	0.134	0.172	0.000	0.306
1.002	102	3.059	0.883	0.000	3.943
1.003	104	3.613	0.698	0.000	4.312
3.000	200	0.143	0.200	0.000	0.343
3.001	201	1.357	1.875	0.000	3.232
3.002	202	1.465	0.893	0.000	2.358
4.000	300	1.272	2.702	0.000	3.974
3.003	203	2.737	1.431	0.000	4.168
1.004	105	3.879	0.699	0.000	4.578
5.000	400	0.000	0.116	0.000	0.116
5.001	401	0.116	0.265	0.000	0.381
5.002	402	0.410	0.451	0.000	0.861
6.000	500	0.000	0.186	0.000	0.186
6.001	501	0.182	0.564	0.000	0.746
6.002	502	0.362	0.670	0.000	1.032
6.003	503	0.448	0.638	0.000	1.087
5.003	403	2.285	1.391	0.000	3.675
7.000	700	0.502	0.418	0.000	0.920
7.001	701	0.782	0.347	0.000	1.128
5.004	404	3.630	330.683	0.000	334.313
1.005	405	3.902	1.696	0.000	5.598
1.006	107	5.655	0.109	0.000	5.764
1.007	108	2.529	0.114	0.000	2.643
Total		40.498	349.002	0.000	389.500

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Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	100	0.000	0.357	0.000	0.357
1.001	101	2.036	1.350	0.000	3.386
2.000	600	0.134	0.158	0.000	0.291
1.002	102	3.059	0.799	0.000	3.858
1.003	104	3.613	0.613	0.000	4.227
3.000	200	0.143	0.185	0.000	0.328
3.001	201	1.357	1.790	0.000	3.147
3.002	202	1.465	0.808	0.000	2.273
4.000	300	1.272	2.617	0.000	3.889
3.003	203	2.737	1.346	0.000	4.083
1.004	105	3.879	0.614	0.000	4.493
5.000	400	0.000	0.115	0.000	0.115
5.001	401	0.116	0.255	0.000	0.371
5.002	402	0.410	0.415	0.000	0.825
6.000	500	0.000	0.182	0.000	0.182
6.001	501	0.182	0.554	0.000	0.737
6.002	502	0.362	0.646	0.000	1.008
6.003	503	0.448	0.603	0.000	1.051
5.003	403	2.285	1.306	0.000	3.590
7.000	700	0.502	0.394	0.000	0.896
7.001	701	0.782	0.311	0.000	1.093
5.004	404	3.630	305.272	0.000	308.902
1.005	405	3.902	1.600	0.000	5.502
1.006	107	5.655	0.060	0.000	5.714
1.007	108	2.529	0.094	0.000	2.623
Total		40.498	322.443	0.000	362.941

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Summary Wizard of 15 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	27		29.311	-0.139	0.000	0.02			0.6	OK
1.001	101	39		28.082	-0.268	0.000	0.03			5.2	OK
2.000	600	27		29.076	-0.134	0.000	0.03			1.9	OK
1.002	102	42		27.217	-0.253	0.000	0.06			10.9	OK
1.003	104	58		26.688	-0.242	0.000	0.08			13.7	OK
3.000	200	27		28.995	-0.105	0.000	0.19			3.5	OK
3.001	201	28		28.715	-0.235	0.000	0.10			6.7	OK
3.002	202	30		28.576	-0.264	0.000	0.03			9.1	OK
4.000	300	40		27.858	-0.247	0.000	0.07			7.3	OK
3.003	203	40		27.486	-0.244	0.000	0.08			18.6	OK
1.004	105	115		26.299	-0.201	0.000	0.24			32.4	OK
5.000	400	27		29.071	-0.079	0.000	0.10			0.6	OK
5.001	401	29		28.841	-0.129	0.000	0.05			1.9	OK
5.002	402	42		27.875	-0.200	0.000	0.03			2.8	OK
6.000	500	38		28.021	-0.119	0.000	0.10			2.0	OK
6.001	501	40		27.864	-0.101	0.000	0.24			3.3	OK

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Summary Wizard of 15 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	40		27.578	-0.177	0.000	0.10			3.9	OK
6.003	503	42		27.490	-0.150	0.000	0.24			9.1	OK
5.003	403	42		27.280	-0.250	0.000	0.06			15.0	OK
7.000	700	36		28.114	-0.196	0.000	0.04			5.7	OK
7.001	701	40		27.065	-0.195	0.000	0.04			5.7	OK
5.004	404	120		26.181	-1.910	0.000	0.00			25.3	OK
1.005	405	120		26.181	-0.019	0.000	0.24			8.6	OK
1.006	107	119		26.180	0.155	0.000	0.07			1.8	SURCHARGED
1.007	108	119		25.804	-0.201	0.000	0.02			1.8	OK

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Summary Wizard of 30 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	31		29.310	-0.140	0.000	0.01			0.6	OK
1.001	101	43		28.081	-0.269	0.000	0.02			4.9	OK
2.000	600	31		29.076	-0.134	0.000	0.03			1.7	OK
1.002	102	45		27.215	-0.255	0.000	0.06			10.2	OK
1.003	104	61		26.686	-0.244	0.000	0.08			12.9	OK
3.000	200	31		28.992	-0.108	0.000	0.18			3.2	OK
3.001	201	34		28.713	-0.237	0.000	0.10			6.3	OK
3.002	202	35		28.575	-0.265	0.000	0.03			8.6	OK
4.000	300	43		27.855	-0.250	0.000	0.07			6.7	OK
3.003	203	45		27.483	-0.247	0.000	0.07			17.3	OK
1.004	105	119		26.295	-0.205	0.000	0.22			30.1	OK
5.000	400	31		29.070	-0.080	0.000	0.09			0.6	OK
5.001	401	34		28.840	-0.130	0.000	0.04			1.8	OK
5.002	402	45		27.875	-0.200	0.000	0.03			2.7	OK
6.000	500	41		28.020	-0.120	0.000	0.09			1.8	OK
6.001	501	45		27.862	-0.103	0.000	0.22			3.1	OK

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Summary Wizard of 30 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	45	27.577	-0.178	0.000	0.10			3.7	OK
6.003	503	44	27.488	-0.152	0.000	0.23			8.6	OK
5.003	403	44	27.278	-0.252	0.000	0.06			14.3	OK
7.000	700	40	28.113	-0.197	0.000	0.04			5.2	OK
7.001	701	43	27.064	-0.196	0.000	0.04			5.2	OK
5.004	404	117	26.239	-1.852	0.000	0.00			23.6	OK
1.005	405	117	26.239	0.039	0.000	0.15			5.3	SURCHARGED
1.006	107	118	26.306	0.281	0.000	0.07			2.0	SURCHARGED
1.007	108	116	25.805	-0.200	0.000	0.03			2.0	OK

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Summary Wizard of 60 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	41		29.308	-0.142	0.000	0.01			0.4	OK
1.001	101	49		28.078	-0.272	0.000	0.02			3.9	OK
2.000	600	41		29.074	-0.136	0.000	0.02			1.3	OK
1.002	102	51		27.211	-0.259	0.000	0.04			8.2	OK
1.003	104	65		26.679	-0.251	0.000	0.06			10.4	OK
3.000	200	41		28.986	-0.114	0.000	0.13			2.5	OK
3.001	201	41		28.705	-0.245	0.000	0.08			5.0	OK
3.002	202	42		28.572	-0.268	0.000	0.03			6.8	OK
4.000	300	51		27.848	-0.257	0.000	0.05			5.2	OK
3.003	203	51		27.476	-0.254	0.000	0.06			13.7	OK
1.004	105	117		26.297	-0.203	0.000	0.18			24.1	OK
5.000	400	41		29.067	-0.083	0.000	0.07			0.4	OK
5.001	401	42		28.838	-0.132	0.000	0.04			1.4	OK
5.002	402	51		27.873	-0.202	0.000	0.02			2.1	OK
6.000	500	50		28.016	-0.124	0.000	0.07			1.4	OK
6.001	501	51		27.857	-0.108	0.000	0.17			2.4	OK

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Summary Wizard of 60 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	51	27.571	-0.184	0.000	0.08			2.9	OK
6.003	503	51	27.480	-0.160	0.000	0.18			6.9	OK
5.003	403	51	27.273	-0.257	0.000	0.05			11.5	OK
7.000	700	49	28.110	-0.200	0.000	0.03			4.0	OK
7.001	701	51	27.061	-0.199	0.000	0.03			4.0	OK
5.004	404	114	26.296	-1.795	0.000	0.00			18.8	OK
1.005	405	114	26.296	0.096	0.000	0.15			5.4	SURCHARGED
1.006	107	113	26.376	0.351	0.000	0.08			2.1	SURCHARGED
1.007	108	113	25.805	-0.200	0.000	0.03			2.1	OK

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Summary Wizard of 120 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	54		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	59		28.070	-0.280	0.000	0.01			2.8	OK
2.000	600	54		29.069	-0.141	0.000	0.01			0.9	OK
1.002	102	61		27.205	-0.265	0.000	0.03			5.9	OK
1.003	104	72		26.671	-0.259	0.000	0.05			7.4	OK
3.000	200	54		28.981	-0.119	0.000	0.09			1.7	OK
3.001	201	54		28.695	-0.255	0.000	0.05			3.5	OK
3.002	202	56		28.566	-0.274	0.000	0.02			4.9	OK
4.000	300	60		27.841	-0.264	0.000	0.04			3.6	OK
3.003	203	60		27.469	-0.261	0.000	0.04			9.6	OK
1.004	105	106		26.350	-0.150	0.000	0.12			17.1	OK
5.000	400	54		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	55		28.836	-0.134	0.000	0.03			1.0	OK
5.002	402	61		27.867	-0.208	0.000	0.02			1.5	OK
6.000	500	59		28.011	-0.129	0.000	0.05			1.0	OK
6.001	501	60		27.849	-0.116	0.000	0.12			1.7	OK

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Summary Wizard of 120 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	60	27.563	-0.192	0.000	0.05			2.0	OK
6.003	503	61	27.469	-0.171	0.000	0.13			5.0	OK
5.003	403	61	27.266	-0.264	0.000	0.04			8.3	OK
7.000	700	58	28.106	-0.204	0.000	0.02			2.8	OK
7.001	701	60	27.057	-0.203	0.000	0.02			2.8	OK
5.004	404	106	26.348	-1.743	0.000	0.00			13.4	OK
1.005	405	106	26.348	0.148	0.000	0.15			5.5	SURCHARGED
1.006	107	104	26.437	0.412	0.000	0.08			2.2	SURCHARGED
1.007	108	104	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 180 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	63	29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	65	28.066	-0.284	0.000	0.01			2.2	OK
2.000	600	63	29.067	-0.143	0.000	0.01			0.7	OK
1.002	102	67	27.202	-0.268	0.000	0.03			4.6	OK
1.003	104	77	26.667	-0.263	0.000	0.04			5.9	OK
3.000	200	63	28.977	-0.123	0.000	0.07			1.3	OK
3.001	201	63	28.690	-0.260	0.000	0.04			2.8	OK
3.002	202	64	28.561	-0.279	0.000	0.01			3.9	OK
4.000	300	67	27.838	-0.267	0.000	0.03			2.8	OK
3.003	203	67	27.465	-0.265	0.000	0.03			7.6	OK
1.004	105	101	26.374	-0.126	0.000	0.10			13.5	OK
5.000	400	63	29.062	-0.088	0.000	0.04			0.2	OK
5.001	401	64	28.834	-0.136	0.000	0.02			0.8	OK
5.002	402	67	27.863	-0.212	0.000	0.01			1.2	OK
6.000	500	66	28.009	-0.131	0.000	0.04			0.8	OK
6.001	501	67	27.846	-0.119	0.000	0.10			1.3	OK
6.002	502	67	27.560	-0.195	0.000	0.04			1.6	OK
6.003	503	67	27.463	-0.177	0.000	0.10			3.9	OK
5.003	403	67	27.263	-0.267	0.000	0.03			6.6	OK

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Summary Wizard of 180 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	65	28.102	-0.208	0.000	0.02			2.2	OK
7.001	701	67	27.053	-0.207	0.000	0.02			2.2	OK
5.004	404	101	26.372	-1.719	0.000	0.00		146	10.6	OK
1.005	405	101	26.372	0.172	0.000	0.16			5.8	SURCHARGED
1.006	107	101	26.455	0.430	0.000	0.08			2.2	SURCHARGED
1.007	108	98	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 240 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	71	29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	73	28.063	-0.287	0.000	0.01			1.9	OK
2.000	600	71	29.066	-0.144	0.000	0.01			0.6	OK
1.002	102	74	27.200	-0.270	0.000	0.02			3.9	OK
1.003	104	81	26.664	-0.266	0.000	0.03			5.0	OK
3.000	200	71	28.974	-0.126	0.000	0.06			1.1	OK
3.001	201	72	28.687	-0.263	0.000	0.04			2.3	OK
3.002	202	72	28.557	-0.283	0.000	0.01			3.2	OK
4.000	300	73	27.836	-0.269	0.000	0.02			2.3	OK
3.003	203	74	27.462	-0.268	0.000	0.03			6.4	OK
1.004	105	99	26.381	-0.119	0.000	0.08			11.3	OK
5.000	400	71	29.061	-0.089	0.000	0.03			0.2	OK
5.001	401	72	28.832	-0.138	0.000	0.02			0.7	OK
5.002	402	74	27.861	-0.214	0.000	0.01			1.0	OK
6.000	500	73	28.007	-0.133	0.000	0.03			0.6	OK
6.001	501	74	27.843	-0.122	0.000	0.08			1.1	OK
6.002	502	74	27.557	-0.198	0.000	0.04			1.4	OK
6.003	503	74	27.460	-0.180	0.000	0.09			3.3	OK
5.003	403	74	27.261	-0.269	0.000	0.02			5.5	OK

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Summary Wizard of 240 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	72	28.099	-0.211	0.000	0.01			1.8	OK
7.001	701	74	27.050	-0.210	0.000	0.01			1.8	OK
5.004	404	99	26.380	-1.711	0.000	0.00		166	8.9	OK
1.005	405	99	26.380	0.180	0.000	0.16			5.6	SURCHARGED
1.006	107	95	26.470	0.445	0.000	0.08			2.2	SURCHARGED
1.007	108	95	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 360 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		82	29.303	-0.147	0.000	0.00			0.2	OK
1.001	101		83	28.060	-0.290	0.000	0.01			1.5	OK
2.000	600		82	29.065	-0.145	0.000	0.01			0.5	OK
1.002	102		84	27.193	-0.277	0.000	0.02			3.0	OK
1.003	104		89	26.661	-0.269	0.000	0.02			3.8	OK
3.000	200		82	28.971	-0.129	0.000	0.05			0.9	OK
3.001	201		82	28.683	-0.267	0.000	0.03			1.8	OK
3.002	202		82	28.553	-0.287	0.000	0.01			2.5	OK
4.000	300		83	27.830	-0.275	0.000	0.02			1.8	OK
3.003	203		83	27.459	-0.271	0.000	0.02			4.9	OK
1.004	105		90	26.392	-0.108	0.000	0.06			8.8	OK
5.000	400		82	29.060	-0.090	0.000	0.02			0.2	OK
5.001	401		83	28.829	-0.141	0.000	0.01			0.5	OK
5.002	402		84	27.859	-0.216	0.000	0.01			0.8	OK
6.000	500		83	28.006	-0.134	0.000	0.02			0.5	OK
6.001	501		83	27.839	-0.126	0.000	0.06			0.9	OK
6.002	502		83	27.555	-0.200	0.000	0.03			1.0	OK
6.003	503		84	27.453	-0.187	0.000	0.07			2.6	OK
5.003	403		84	27.256	-0.274	0.000	0.02			4.3	OK

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Summary Wizard of 360 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	82	28.096	-0.214	0.000	0.01			1.4	OK
7.001	701	83	27.046	-0.214	0.000	0.01			1.4	OK
5.004	404	90	26.390	-1.701	0.000	0.00		211	6.9	OK
1.005	405	90	26.390	0.190	0.000	0.16			5.6	SURCHARGED
1.006	107	89	26.480	0.455	0.000	0.08			2.3	SURCHARGED
1.007	108	90	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 480 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	91		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	91		28.058	-0.292	0.000	0.01			1.2	OK
2.000	600	91		29.064	-0.146	0.000	0.01			0.4	OK
1.002	102	91		27.189	-0.281	0.000	0.01			2.5	OK
1.003	104	94		26.657	-0.273	0.000	0.02			3.2	OK
3.000	200	91		28.969	-0.131	0.000	0.04			0.7	OK
3.001	201	91		28.681	-0.269	0.000	0.02			1.5	OK
3.002	202	91		28.551	-0.289	0.000	0.01			2.1	OK
4.000	300	91		27.826	-0.279	0.000	0.01			1.5	OK
3.003	203	91		27.454	-0.276	0.000	0.02			4.1	OK
1.004	105	92		26.390	-0.110	0.000	0.05			7.2	OK
5.000	400	91		29.059	-0.091	0.000	0.02			0.1	OK
5.001	401	91		28.828	-0.142	0.000	0.01			0.4	OK
5.002	402	91		27.857	-0.218	0.000	0.01			0.6	OK
6.000	500	91		28.004	-0.136	0.000	0.02			0.4	OK
6.001	501	91		27.837	-0.128	0.000	0.05			0.7	OK
6.002	502	91		27.553	-0.202	0.000	0.02			0.9	OK
6.003	503	91		27.449	-0.191	0.000	0.06			2.1	OK
5.003	403	91		27.251	-0.279	0.000	0.02			3.5	OK

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Summary Wizard of 480 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	91	28.094	-0.216	0.000	0.01			1.1	OK
7.001	701	91	27.044	-0.216	0.000	0.01			1.1	OK
5.004	404	92	26.389	-1.702	0.000	0.00		241	5.7	OK
1.005	405	92	26.389	0.189	0.000	0.16			5.6	SURCHARGED
1.006	107	90	26.480	0.455	0.000	0.08			2.3	SURCHARGED
1.007	108	92	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 600 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	97		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	97		28.057	-0.293	0.000	0.01			1.0	OK
2.000	600	97		29.063	-0.147	0.000	0.00			0.3	OK
1.002	102	97		27.186	-0.284	0.000	0.01			2.1	OK
1.003	104	99		26.653	-0.277	0.000	0.02			2.7	OK
3.000	200	97		28.968	-0.132	0.000	0.03			0.6	OK
3.001	201	97		28.678	-0.272	0.000	0.02			1.3	OK
3.002	202	97		28.549	-0.291	0.000	0.01			1.8	OK
4.000	300	97		27.823	-0.282	0.000	0.01			1.3	OK
3.003	203	97		27.451	-0.279	0.000	0.01			3.5	OK
1.004	105	95		26.386	-0.114	0.000	0.04			6.1	OK
5.000	400	97		29.058	-0.092	0.000	0.02			0.1	OK
5.001	401	97		28.826	-0.144	0.000	0.01			0.4	OK
5.002	402	97		27.856	-0.219	0.000	0.01			0.6	OK
6.000	500	97		28.002	-0.138	0.000	0.02			0.3	OK
6.001	501	97		27.835	-0.130	0.000	0.04			0.6	OK
6.002	502	97		27.551	-0.204	0.000	0.02			0.7	OK
6.003	503	97		27.446	-0.194	0.000	0.05			1.8	OK
5.003	403	97		27.248	-0.282	0.000	0.01			3.0	OK

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Summary Wizard of 600 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	97	28.092	-0.218	0.000	0.01			1.0	OK
7.001	701	97	27.043	-0.217	0.000	0.01			1.0	OK
5.004	404	95	26.385	-1.706	0.000	0.00		266	4.8	OK
1.005	405	95	26.386	0.186	0.000	0.16			5.6	SURCHARGED
1.006	107	92	26.476	0.451	0.000	0.08			2.2	SURCHARGED
1.007	108	94	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 720 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		102	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		102	28.056	-0.294	0.000	0.00			0.9	OK
2.000	600		102	29.063	-0.147	0.000	0.00			0.3	OK
1.002	102		102	27.184	-0.286	0.000	0.01			1.9	OK
1.003	104		103	26.651	-0.279	0.000	0.01			2.4	OK
3.000	200		102	28.967	-0.133	0.000	0.03			0.5	OK
3.001	201		102	28.675	-0.275	0.000	0.02			1.1	OK
3.002	202		102	28.548	-0.292	0.000	0.01			1.5	OK
4.000	300		102	27.820	-0.285	0.000	0.01			1.1	OK
3.003	203		102	27.448	-0.282	0.000	0.01			3.1	OK
1.004	105		98	26.382	-0.118	0.000	0.04			5.4	OK
5.000	400		102	29.057	-0.093	0.000	0.01			0.1	OK
5.001	401		102	28.826	-0.144	0.000	0.01			0.3	OK
5.002	402		102	27.855	-0.220	0.000	0.01			0.5	OK
6.000	500		102	28.000	-0.140	0.000	0.01			0.3	OK
6.001	501		102	27.834	-0.131	0.000	0.04			0.5	OK
6.002	502		102	27.548	-0.207	0.000	0.02			0.6	OK
6.003	503		102	27.444	-0.196	0.000	0.04			1.6	OK
5.003	403		102	27.246	-0.284	0.000	0.01			2.7	OK

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Summary Wizard of 720 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	102	28.092	-0.218	0.000	0.01			0.9	OK
7.001	701	102	27.042	-0.218	0.000	0.01			0.9	OK
5.004	404	97	26.381	-1.710	0.000	0.00		281	4.3	OK
1.005	405	97	26.381	0.181	0.000	0.16			5.6	SURCHARGED
1.006	107	98	26.459	0.434	0.000	0.08			2.2	SURCHARGED
1.007	108	102	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 960 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	109	29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	109	28.055	-0.295	0.000	0.00			0.7	OK
2.000	600	109	29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	109	27.182	-0.288	0.000	0.01			1.5	OK
1.003	104	109	26.647	-0.283	0.000	0.01			1.9	OK
3.000	200	109	28.966	-0.134	0.000	0.02			0.4	OK
3.001	201	109	28.670	-0.280	0.000	0.01			0.9	OK
3.002	202	109	28.547	-0.293	0.000	0.00			1.3	OK
4.000	300	109	27.818	-0.287	0.000	0.01			0.9	OK
3.003	203	109	27.445	-0.285	0.000	0.01			2.5	OK
1.004	105	103	26.370	-0.130	0.000	0.03			4.4	OK
5.000	400	109	29.056	-0.094	0.000	0.01			0.1	OK
5.001	401	109	28.825	-0.145	0.000	0.01			0.3	OK
5.002	402	109	27.854	-0.221	0.000	0.00			0.4	OK
6.000	500	109	27.998	-0.142	0.000	0.01			0.2	OK
6.001	501	109	27.832	-0.133	0.000	0.03			0.4	OK
6.002	502	109	27.545	-0.210	0.000	0.01			0.5	OK
6.003	503	109	27.442	-0.198	0.000	0.03			1.3	OK
5.003	403	109	27.243	-0.287	0.000	0.01			2.2	OK

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Summary Wizard of 960 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	109	28.090	-0.220	0.000	0.01			0.7	OK
7.001	701	109	27.041	-0.219	0.000	0.01			0.7	OK
5.004	404	103	26.369	-1.722	0.000	0.00		304	3.5	OK
1.005	405	103	26.369	0.169	0.000	0.16			5.6	SURCHARGED
1.006	107	99	26.459	0.434	0.000	0.08			2.2	SURCHARGED
1.007	108	101	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 1440 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	116		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	116		28.054	-0.296	0.000	0.00			0.6	OK
2.000	600	116		29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	116		27.179	-0.291	0.000	0.01			1.2	OK
1.003	104	116		26.643	-0.287	0.000	0.01			1.5	OK
3.000	200	116		28.963	-0.137	0.000	0.02			0.3	OK
3.001	201	116		28.665	-0.285	0.000	0.01			0.7	OK
3.002	202	116		28.545	-0.295	0.000	0.00			1.0	OK
4.000	300	116		27.815	-0.290	0.000	0.01			0.7	OK
3.003	203	116		27.441	-0.289	0.000	0.01			1.9	OK
1.004	105	107		26.345	-0.155	0.000	0.02			3.4	OK
5.000	400	116		29.054	-0.096	0.000	0.01			0.1	OK
5.001	401	116		28.824	-0.146	0.000	0.00			0.2	OK
5.002	402	116		27.853	-0.222	0.000	0.00			0.3	OK
6.000	500	116		27.996	-0.144	0.000	0.01			0.2	OK
6.001	501	116		27.831	-0.134	0.000	0.02			0.3	OK
6.002	502	116		27.541	-0.214	0.000	0.01			0.4	OK
6.003	503	116		27.439	-0.201	0.000	0.03			1.0	OK
5.003	403	116		27.240	-0.290	0.000	0.01			1.6	OK

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Summary Wizard of 1440 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	116	28.089	-0.221	0.000	0.00			0.5	OK
7.001	701	116	27.039	-0.221	0.000	0.00			0.5	OK
5.004	404	107	26.344	-1.747	0.000	0.00		290	2.7	OK
1.005	405	107	26.344	0.144	0.000	0.16			5.7	SURCHARGED
1.006	107	107	26.415	0.390	0.000	0.08			2.2	SURCHARGED
1.007	108	107	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 15 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	19		29.315	-0.135	0.000	0.02			0.8	OK
1.001	101	32		28.085	-0.265	0.000	0.03			6.7	OK
2.000	600	19		29.078	-0.132	0.000	0.04			2.4	OK
1.002	102	36		27.225	-0.245	0.000	0.08			14.1	OK
1.003	104	53		26.696	-0.234	0.000	0.11			17.7	OK
3.000	200	19		29.001	-0.099	0.000	0.25			4.6	OK
3.001	201	20		28.724	-0.226	0.000	0.14			8.6	OK
3.002	202	21		28.581	-0.259	0.000	0.04			11.8	OK
4.000	300	32		27.867	-0.238	0.000	0.09			9.4	OK
3.003	203	34		27.494	-0.236	0.000	0.10			24.1	OK
1.004	105	112		26.314	-0.186	0.000	0.31			41.9	OK
5.000	400	19		29.074	-0.076	0.000	0.13			0.8	OK
5.001	401	21		28.844	-0.126	0.000	0.06			2.5	OK
5.002	402	35		27.878	-0.197	0.000	0.04			3.6	OK
6.000	500	30		28.025	-0.115	0.000	0.13			2.6	OK
6.001	501	33		27.872	-0.093	0.000	0.31			4.3	OK

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Summary Wizard of 15 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	34		27.585	-0.170	0.000	0.13			5.1	OK
6.003	503	36		27.501	-0.139	0.000	0.31			11.7	OK
5.003	403	36		27.289	-0.241	0.000	0.08			19.4	OK
7.000	700	28		28.118	-0.192	0.000	0.05			7.4	OK
7.001	701	33		27.069	-0.191	0.000	0.06			7.3	OK
5.004	404	116		26.240	-1.851	0.000	0.00			32.5	OK
1.005	405	116		26.241	0.041	0.000	0.24			8.5	SURCHARGED
1.006	107	117		26.307	0.282	0.000	0.07			2.0	SURCHARGED
1.007	108	115		25.805	-0.200	0.000	0.03			2.0	OK

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Summary Wizard of 30 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	23		29.313	-0.137	0.000	0.02			0.7	OK
1.001	101	36		28.084	-0.266	0.000	0.03			6.3	OK
2.000	600	23		29.078	-0.132	0.000	0.03			2.2	OK
1.002	102	39		27.223	-0.247	0.000	0.07			13.2	OK
1.003	104	56		26.694	-0.236	0.000	0.10			16.7	OK
3.000	200	23		28.998	-0.102	0.000	0.23			4.2	OK
3.001	201	24		28.721	-0.229	0.000	0.13			8.1	OK
3.002	202	25		28.579	-0.261	0.000	0.04			11.1	OK
4.000	300	36		27.864	-0.241	0.000	0.09			8.7	OK
3.003	203	38		27.492	-0.238	0.000	0.09			22.4	OK
1.004	105	111		26.315	-0.185	0.000	0.28			38.8	OK
5.000	400	23		29.072	-0.078	0.000	0.11			0.7	OK
5.001	401	25		28.843	-0.127	0.000	0.06			2.3	OK
5.002	402	39		27.877	-0.198	0.000	0.04			3.4	OK
6.000	500	34		28.024	-0.116	0.000	0.12			2.4	OK
6.001	501	37		27.869	-0.096	0.000	0.28			3.9	OK

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Summary Wizard of 30 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	38	27.583	-0.172	0.000	0.12			4.7	OK
6.003	503	38	27.498	-0.142	0.000	0.29			11.1	OK
5.003	403	39	27.286	-0.244	0.000	0.08			18.4	OK
7.000	700	32	28.117	-0.193	0.000	0.05			6.7	OK
7.001	701	37	27.068	-0.192	0.000	0.05			6.7	OK
5.004	404	111	26.314	-1.777	0.000	0.00			30.3	OK
1.005	405	111	26.314	0.114	0.000	0.16			5.6	SURCHARGED
1.006	107	110	26.397	0.372	0.000	0.08			2.1	SURCHARGED
1.007	108	110	25.806	-0.199	0.000	0.03			2.1	OK

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Summary Wizard of 60 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	32		29.310	-0.140	0.000	0.01			0.6	OK
1.001	101	41		28.082	-0.268	0.000	0.02			5.0	OK
2.000	600	32		29.076	-0.134	0.000	0.02			1.7	OK
1.002	102	43		27.216	-0.254	0.000	0.06			10.5	OK
1.003	104	59		26.687	-0.243	0.000	0.08			13.3	OK
3.000	200	32		28.991	-0.109	0.000	0.17			3.2	OK
3.001	201	33		28.713	-0.237	0.000	0.10			6.3	OK
3.002	202	33		28.575	-0.265	0.000	0.03			8.7	OK
4.000	300	44		27.854	-0.251	0.000	0.06			6.6	OK
3.003	203	44		27.483	-0.247	0.000	0.07			17.4	OK
1.004	105	94		26.388	-0.112	0.000	0.22			30.7	OK
5.000	400	32		29.070	-0.080	0.000	0.09			0.6	OK
5.001	401	32		28.840	-0.130	0.000	0.05			1.8	OK
5.002	402	43		27.875	-0.200	0.000	0.03			2.7	OK
6.000	500	42		28.020	-0.120	0.000	0.09			1.8	OK
6.001	501	44		27.862	-0.103	0.000	0.22			3.1	OK

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Summary Wizard of 60 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	44	27.577	-0.178	0.000	0.10			3.7	OK
6.003	503	43	27.489	-0.151	0.000	0.23			8.9	OK
5.003	403	43	27.279	-0.251	0.000	0.06			14.7	OK
7.000	700	41	28.113	-0.197	0.000	0.04			5.1	OK
7.001	701	44	27.063	-0.197	0.000	0.04			5.1	OK
5.004	404	94	26.387	-1.704	0.000	0.00			24.0	OK
1.005	405	94	26.387	0.187	0.000	0.16			5.5	SURCHARGED
1.006	107	91	26.478	0.453	0.000	0.08			2.3	SURCHARGED
1.007	108	93	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 120 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	45		29.307	-0.143	0.000	0.01			0.4	OK
1.001	101	51		28.075	-0.275	0.000	0.02			3.5	OK
2.000	600	45		29.072	-0.138	0.000	0.02			1.1	OK
1.002	102	53		27.208	-0.262	0.000	0.04			7.3	OK
1.003	104	67		26.676	-0.254	0.000	0.06			9.3	OK
3.000	200	45		28.984	-0.116	0.000	0.12			2.2	OK
3.001	201	45		28.701	-0.249	0.000	0.07			4.4	OK
3.002	202	46		28.571	-0.269	0.000	0.02			6.1	OK
4.000	300	53		27.845	-0.260	0.000	0.04			4.5	OK
3.003	203	53		27.473	-0.257	0.000	0.05			12.1	OK
1.004	105	84		26.454	-0.046	0.000	0.16			21.4	OK
5.000	400	45		29.066	-0.084	0.000	0.06			0.4	OK
5.001	401	45		28.837	-0.133	0.000	0.03			1.3	OK
5.002	402	53		27.871	-0.204	0.000	0.02			1.9	OK
6.000	500	52		28.013	-0.127	0.000	0.06			1.2	OK
6.001	501	53		27.854	-0.111	0.000	0.15			2.1	OK

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Summary Wizard of 120 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	53	27.568	-0.187	0.000	0.07			2.6	OK
6.003	503	53	27.476	-0.164	0.000	0.16			6.2	OK
5.003	403	53	27.270	-0.260	0.000	0.04			10.4	OK
7.000	700	51	28.109	-0.201	0.000	0.02			3.5	OK
7.001	701	53	27.059	-0.201	0.000	0.03			3.5	OK
5.004	404	84	26.452	-1.639	0.000	0.00			16.6	OK
1.005	405	84	26.452	0.252	0.000	0.18			6.6	SURCHARGED
1.006	107	84	26.535	0.510	0.000	0.09			2.4	SURCHARGED
1.007	108	84	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 180 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	56		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	60		28.069	-0.281	0.000	0.01			2.8	OK
2.000	600	56		29.069	-0.141	0.000	0.01			0.9	OK
1.002	102	62		27.205	-0.265	0.000	0.03			5.8	OK
1.003	104	73		26.670	-0.260	0.000	0.04			7.3	OK
3.000	200	56		28.980	-0.120	0.000	0.09			1.7	OK
3.001	201	56		28.695	-0.255	0.000	0.05			3.4	OK
3.002	202	58		28.566	-0.274	0.000	0.02			4.8	OK
4.000	300	62		27.841	-0.264	0.000	0.03			3.5	OK
3.003	203	62		27.468	-0.262	0.000	0.04			9.5	OK
1.004	105	80		26.482	-0.018	0.000	0.12			16.7	OK
5.000	400	56		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	57		28.836	-0.134	0.000	0.02			1.0	OK
5.002	402	62		27.866	-0.209	0.000	0.02			1.5	OK
6.000	500	61		28.011	-0.129	0.000	0.05			0.9	OK
6.001	501	62		27.849	-0.116	0.000	0.12			1.7	OK

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Summary Wizard of 180 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	62	27.563	-0.192	0.000	0.05			2.0	OK
6.003	503	62	27.468	-0.172	0.000	0.13			4.9	OK
5.003	403	62	27.266	-0.264	0.000	0.03			8.2	OK
7.000	700	60	28.106	-0.204	0.000	0.02			2.7	OK
7.001	701	62	27.057	-0.203	0.000	0.02			2.7	OK
5.004	404	78	26.480	-1.611	0.000	0.00			13.1	OK
1.005	405	78	26.480	0.280	0.000	0.20			7.1	SURCHARGED
1.006	107	79	26.569	0.544	0.000	0.09			2.4	SURCHARGED
1.007	108	76	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 240 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	61	29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	64	28.066	-0.284	0.000	0.01			2.3	OK
2.000	600	61	29.068	-0.142	0.000	0.01			0.7	OK
1.002	102	66	27.202	-0.268	0.000	0.03			4.8	OK
1.003	104	76	26.667	-0.263	0.000	0.04			6.1	OK
3.000	200	61	28.977	-0.123	0.000	0.08			1.4	OK
3.001	201	62	28.691	-0.259	0.000	0.04			2.9	OK
3.002	202	62	28.561	-0.279	0.000	0.02			4.0	OK
4.000	300	65	27.838	-0.267	0.000	0.03			2.9	OK
3.003	203	65	27.465	-0.265	0.000	0.03			7.9	OK
1.004	105	75	26.497	-0.003	0.000	0.10			13.9	OK
5.000	400	61	29.063	-0.087	0.000	0.04			0.2	OK
5.001	401	62	28.835	-0.135	0.000	0.02			0.8	OK
5.002	402	66	27.864	-0.211	0.000	0.01			1.2	OK
6.000	500	64	28.009	-0.131	0.000	0.04			0.8	OK
6.001	501	65	27.846	-0.119	0.000	0.10			1.4	OK
6.002	502	66	27.560	-0.195	0.000	0.04			1.7	OK
6.003	503	66	27.464	-0.176	0.000	0.11			4.1	OK
5.003	403	66	27.264	-0.266	0.000	0.03			6.8	OK

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Summary Wizard of 240 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	63	28.102	-0.208	0.000	0.02			2.2	OK
7.001	701	65	27.053	-0.207	0.000	0.02			2.2	OK
5.004	404	73	26.495	-1.596	0.000	0.00		202	10.9	OK
1.005	405	73	26.495	0.295	0.000	0.18			6.5	SURCHARGED
1.006	107	73	26.577	0.552	0.000	0.09			2.4	SURCHARGED
1.007	108	71	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 360 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	76		29.303	-0.147	0.000	0.00			0.2	OK
1.001	101	76		28.062	-0.288	0.000	0.01			1.8	OK
2.000	600	76		29.066	-0.144	0.000	0.01			0.5	OK
1.002	102	77		27.198	-0.272	0.000	0.02			3.7	OK
1.003	104	84		26.663	-0.267	0.000	0.03			4.7	OK
3.000	200	76		28.973	-0.127	0.000	0.06			1.1	OK
3.001	201	76		28.686	-0.264	0.000	0.03			2.2	OK
3.002	202	76		28.556	-0.284	0.000	0.01			3.0	OK
4.000	300	77		27.835	-0.270	0.000	0.02			2.2	OK
3.003	203	77		27.462	-0.268	0.000	0.03			6.0	OK
1.004	105	68		26.504	0.004	0.000	0.08			10.5	SURCHARGED
5.000	400	76		29.061	-0.089	0.000	0.03			0.2	OK
5.001	401	76		28.831	-0.139	0.000	0.02			0.6	OK
5.002	402	77		27.860	-0.215	0.000	0.01			1.0	OK
6.000	500	77		28.007	-0.133	0.000	0.03			0.6	OK
6.001	501	77		27.842	-0.123	0.000	0.08			1.0	OK
6.002	502	77		27.557	-0.198	0.000	0.03			1.3	OK
6.003	503	77		27.458	-0.182	0.000	0.08			3.1	OK
5.003	403	77		27.261	-0.269	0.000	0.02			5.2	OK

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Summary Wizard of 360 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	76	28.098	-0.212	0.000	0.01			1.7	OK
7.001	701	78	27.049	-0.211	0.000	0.01			1.7	OK
5.004	404	67	26.502	-1.589	0.000	0.00		247	8.4	OK
1.005	405	67	26.502	0.302	0.000	0.17			5.9	SURCHARGED
1.006	107	67	26.591	0.566	0.000	0.09			2.4	SURCHARGED
1.007	108	68	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 480 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	83		29.303	-0.147	0.000	0.00			0.1	OK
1.001	101	82		28.060	-0.290	0.000	0.01			1.5	OK
2.000	600	83		29.065	-0.145	0.000	0.01			0.4	OK
1.002	102	83		27.193	-0.277	0.000	0.02			3.0	OK
1.003	104	88		26.661	-0.269	0.000	0.02			3.8	OK
3.000	200	83		28.971	-0.129	0.000	0.05			0.9	OK
3.001	201	83		28.683	-0.267	0.000	0.03			1.8	OK
3.002	202	83		28.553	-0.287	0.000	0.01			2.5	OK
4.000	300	84		27.830	-0.275	0.000	0.02			1.8	OK
3.003	203	84		27.459	-0.271	0.000	0.02			4.9	OK
1.004	105	71		26.502	0.002	0.000	0.06			8.7	SURCHARGED
5.000	400	83		29.060	-0.090	0.000	0.02			0.1	OK
5.001	401	82		28.829	-0.141	0.000	0.01			0.5	OK
5.002	402	83		27.859	-0.216	0.000	0.01			0.8	OK
6.000	500	84		28.006	-0.134	0.000	0.02			0.5	OK
6.001	501	84		27.839	-0.126	0.000	0.06			0.9	OK
6.002	502	84		27.555	-0.200	0.000	0.03			1.0	OK
6.003	503	83		27.453	-0.187	0.000	0.07			2.6	OK
5.003	403	83		27.256	-0.274	0.000	0.02			4.3	OK

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Summary Wizard of 480 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	83	28.096	-0.214	0.000	0.01			1.4	OK
7.001	701	84	27.046	-0.214	0.000	0.01			1.4	OK
5.004	404	69	26.501	-1.590	0.000	0.00		278	6.9	OK
1.005	405	69	26.501	0.301	0.000	0.16			5.8	SURCHARGED
1.006	107	72	26.578	0.553	0.000	0.09			2.4	SURCHARGED
1.007	108	74	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 600 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	90	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	89	28.059	-0.291	0.000	0.01			1.2	OK
2.000	600	90	29.064	-0.146	0.000	0.01			0.4	OK
1.002	102	89	27.190	-0.280	0.000	0.01			2.6	OK
1.003	104	92	26.658	-0.272	0.000	0.02			3.3	OK
3.000	200	90	28.969	-0.131	0.000	0.04			0.7	OK
3.001	201	90	28.681	-0.269	0.000	0.02			1.5	OK
3.002	202	89	28.551	-0.289	0.000	0.01			2.1	OK
4.000	300	90	27.826	-0.279	0.000	0.01			1.5	OK
3.003	203	90	27.455	-0.275	0.000	0.02			4.2	OK
1.004	105	74	26.498	-0.002	0.000	0.05			7.4	OK
5.000	400	90	29.059	-0.091	0.000	0.02			0.1	OK
5.001	401	89	28.828	-0.142	0.000	0.01			0.4	OK
5.002	402	89	27.857	-0.218	0.000	0.01			0.7	OK
6.000	500	90	28.004	-0.136	0.000	0.02			0.4	OK
6.001	501	90	27.837	-0.128	0.000	0.05			0.7	OK
6.002	502	90	27.553	-0.202	0.000	0.02			0.9	OK
6.003	503	89	27.450	-0.190	0.000	0.06			2.2	OK
5.003	403	89	27.252	-0.278	0.000	0.02			3.7	OK

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Summary Wizard of 600 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	90	28.094	-0.216	0.000	0.01			1.2	OK
7.001	701	90	27.045	-0.215	0.000	0.01			1.2	OK
5.004	404	72	26.497	-1.594	0.000	0.00		307	5.9	OK
1.005	405	72	26.497	0.297	0.000	0.16			5.6	SURCHARGED
1.006	107	68	26.587	0.562	0.000	0.09			2.4	SURCHARGED
1.007	108	69	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 720 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	95		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	95		28.058	-0.292	0.000	0.01			1.1	OK
2.000	600	95		29.064	-0.146	0.000	0.00			0.3	OK
1.002	102	95		27.187	-0.283	0.000	0.01			2.3	OK
1.003	104	97		26.655	-0.275	0.000	0.02			2.9	OK
3.000	200	95		28.968	-0.132	0.000	0.03			0.6	OK
3.001	201	95		28.680	-0.270	0.000	0.02			1.3	OK
3.002	202	95		28.550	-0.290	0.000	0.01			1.9	OK
4.000	300	95		27.824	-0.281	0.000	0.01			1.3	OK
3.003	203	95		27.452	-0.278	0.000	0.02			3.7	OK
1.004	105	77		26.493	-0.007	0.000	0.05			6.5	OK
5.000	400	95		29.058	-0.092	0.000	0.02			0.1	OK
5.001	401	95		28.827	-0.143	0.000	0.01			0.4	OK
5.002	402	95		27.856	-0.219	0.000	0.01			0.6	OK
6.000	500	95		28.003	-0.137	0.000	0.02			0.4	OK
6.001	501	95		27.836	-0.129	0.000	0.05			0.6	OK
6.002	502	95		27.552	-0.203	0.000	0.02			0.8	OK
6.003	503	95		27.447	-0.193	0.000	0.05			1.9	OK
5.003	403	95		27.250	-0.280	0.000	0.01			3.2	OK

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Summary Wizard of 720 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	95	28.093	-0.217	0.000	0.01			1.0	OK
7.001	701	95	27.043	-0.217	0.000	0.01			1.0	OK
5.004	404	75	26.492	-1.599	0.000	0.00		327	5.2	OK
1.005	405	75	26.492	0.292	0.000	0.16			5.8	SURCHARGED
1.006	107	78	26.569	0.544	0.000	0.09			2.4	SURCHARGED
1.007	108	80	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 960 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	103		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	103		28.056	-0.294	0.000	0.00			0.9	OK
2.000	600	103		29.063	-0.147	0.000	0.00			0.3	OK
1.002	102	103		27.184	-0.286	0.000	0.01			1.8	OK
1.003	104	104		26.650	-0.280	0.000	0.01			2.3	OK
3.000	200	103		28.967	-0.133	0.000	0.03			0.5	OK
3.001	201	103		28.674	-0.276	0.000	0.02			1.1	OK
3.002	202	103		28.548	-0.292	0.000	0.01			1.5	OK
4.000	300	103		27.820	-0.285	0.000	0.01			1.1	OK
3.003	203	103		27.448	-0.282	0.000	0.01			3.0	OK
1.004	105	81		26.479	-0.021	0.000	0.04			5.3	OK
5.000	400	103		29.057	-0.093	0.000	0.01			0.1	OK
5.001	401	103		28.826	-0.144	0.000	0.01			0.3	OK
5.002	402	103		27.855	-0.220	0.000	0.00			0.5	OK
6.000	500	103		28.000	-0.140	0.000	0.01			0.3	OK
6.001	501	103		27.834	-0.131	0.000	0.04			0.5	OK
6.002	502	103		27.548	-0.207	0.000	0.02			0.6	OK
6.003	503	103		27.444	-0.196	0.000	0.04			1.6	OK
5.003	403	103		27.246	-0.284	0.000	0.01			2.6	OK

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Summary Wizard of 960 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	103	28.091	-0.219	0.000	0.01			0.8	OK
7.001	701	103	27.042	-0.218	0.000	0.01			0.8	OK
5.004	404	79	26.478	-1.613	0.000	0.00		358	4.3	OK
1.005	405	79	26.478	0.278	0.000	0.16			5.8	SURCHARGED
1.006	107	81	26.555	0.530	0.000	0.09			2.4	SURCHARGED
1.007	108	81	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 1440 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	112	29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	112	28.055	-0.295	0.000	0.00			0.7	OK
2.000	600	112	29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	112	27.181	-0.289	0.000	0.01			1.4	OK
1.003	104	112	26.645	-0.285	0.000	0.01			1.7	OK
3.000	200	112	28.965	-0.135	0.000	0.02			0.4	OK
3.001	201	112	28.668	-0.282	0.000	0.01			0.8	OK
3.002	202	112	28.546	-0.294	0.000	0.00			1.1	OK
4.000	300	112	27.816	-0.289	0.000	0.01			0.8	OK
3.003	203	112	27.443	-0.287	0.000	0.01			2.2	OK
1.004	105	85	26.448	-0.052	0.000	0.03			4.0	OK
5.000	400	112	29.055	-0.095	0.000	0.01			0.1	OK
5.001	401	112	28.824	-0.146	0.000	0.01			0.2	OK
5.002	402	112	27.854	-0.221	0.000	0.00			0.4	OK
6.000	500	112	27.998	-0.142	0.000	0.01			0.2	OK
6.001	501	112	27.832	-0.133	0.000	0.03			0.4	OK
6.002	502	112	27.543	-0.212	0.000	0.01			0.5	OK
6.003	503	112	27.441	-0.199	0.000	0.03			1.2	OK
5.003	403	112	27.242	-0.288	0.000	0.01			2.0	OK

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Summary Wizard of 1440 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	112	28.090	-0.220	0.000	0.00			0.6	OK
7.001	701	112	27.040	-0.220	0.000	0.00			0.6	OK
5.004	404	85	26.447	-1.644	0.000	0.00		357	3.2	OK
1.005	405	85	26.447	0.247	0.000	0.16			5.8	SURCHARGED
1.006	107	85	26.525	0.500	0.000	0.09			2.4	SURCHARGED
1.007	108	85	25.806	-0.199	0.000	0.03			2.4	OK

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Summary Wizard of 15 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	13		29.316	-0.134	0.000	0.03			1.0	OK
1.001	101	24		28.090	-0.260	0.000	0.04			8.7	OK
2.000	600	13		29.081	-0.129	0.000	0.05			3.1	OK
1.002	102	30		27.233	-0.237	0.000	0.10			18.2	OK
1.003	104	49		26.705	-0.225	0.000	0.14			22.9	OK
3.000	200	13		29.009	-0.091	0.000	0.32			5.9	OK
3.001	201	14		28.735	-0.215	0.000	0.17			11.2	OK
3.002	202	15		28.587	-0.253	0.000	0.06			15.3	OK
4.000	300	27		27.874	-0.231	0.000	0.12			12.1	OK
3.003	203	30		27.502	-0.228	0.000	0.13			31.1	OK
1.004	105	108		26.332	-0.168	0.000	0.39			54.1	OK
5.000	400	13		29.077	-0.073	0.000	0.16			1.0	OK
5.001	401	14		28.848	-0.122	0.000	0.08			3.2	OK
5.002	402	28		27.882	-0.193	0.000	0.05			4.7	OK
6.000	500	24		28.031	-0.109	0.000	0.16			3.4	OK
6.001	501	28		27.881	-0.084	0.000	0.39			5.5	OK

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Summary Wizard of 15 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	30		27.593	-0.162	0.000	0.17			6.6	OK
6.003	503	30		27.515	-0.125	0.000	0.40			15.2	OK
5.003	403	30		27.296	-0.234	0.000	0.11			25.1	OK
7.000	700	22		28.124	-0.186	0.000	0.07			9.6	OK
7.001	701	30		27.075	-0.185	0.000	0.07			9.5	OK
5.004	404	108		26.316	-1.775	0.000	0.00			41.6	OK
1.005	405	108		26.316	0.116	0.000	0.24			8.5	SURCHARGED
1.006	107	108		26.403	0.378	0.000	0.08			2.1	SURCHARGED
1.007	108	109		25.806	-0.199	0.000	0.03			2.1	OK

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Summary Wizard of 30 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	16		29.316	-0.134	0.000	0.02			0.9	OK
1.001	101	27		28.088	-0.262	0.000	0.04			8.1	OK
2.000	600	16		29.080	-0.130	0.000	0.04			2.8	OK
1.002	102	32		27.231	-0.239	0.000	0.09			17.0	OK
1.003	104	51		26.702	-0.228	0.000	0.13			21.4	OK
3.000	200	16		29.005	-0.095	0.000	0.29			5.4	OK
3.001	201	17		28.731	-0.219	0.000	0.16			10.4	OK
3.002	202	18		28.585	-0.255	0.000	0.05			14.2	OK
4.000	300	30		27.871	-0.234	0.000	0.11			11.2	OK
3.003	203	32		27.499	-0.231	0.000	0.12			28.7	OK
1.004	105	88		26.410	-0.090	0.000	0.36			49.8	OK
5.000	400	16		29.075	-0.075	0.000	0.15			0.9	OK
5.001	401	17		28.847	-0.123	0.000	0.07			3.0	OK
5.002	402	31		27.881	-0.194	0.000	0.05			4.4	OK
6.000	500	27		28.028	-0.112	0.000	0.15			3.0	OK
6.001	501	30		27.877	-0.088	0.000	0.36			5.1	OK

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Summary Wizard of 30 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	32	27.590	-0.165	0.000	0.16			6.0	OK
6.003	503	32	27.511	-0.129	0.000	0.37			14.2	OK
5.003	403	32	27.294	-0.236	0.000	0.10			23.6	OK
7.000	700	25	28.121	-0.189	0.000	0.06			8.6	OK
7.001	701	32	27.072	-0.188	0.000	0.07			8.6	OK
5.004	404	88	26.409	-1.682	0.000	0.00			38.9	OK
1.005	405	88	26.409	0.209	0.000	0.21			7.3	SURCHARGED
1.006	107	88	26.494	0.469	0.000	0.08			2.3	SURCHARGED
1.007	108	88	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 60 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	25		29.313	-0.137	0.000	0.02			0.7	OK
1.001	101	34		28.085	-0.265	0.000	0.03			6.4	OK
2.000	600	25		29.077	-0.133	0.000	0.03			2.1	OK
1.002	102	38		27.223	-0.247	0.000	0.07			13.3	OK
1.003	104	55		26.694	-0.236	0.000	0.10			16.9	OK
3.000	200	25		28.997	-0.103	0.000	0.22			4.0	OK
3.001	201	25		28.721	-0.229	0.000	0.13			8.0	OK
3.002	202	26		28.579	-0.261	0.000	0.04			11.1	OK
4.000	300	38		27.862	-0.243	0.000	0.08			8.4	OK
3.003	203	39		27.491	-0.239	0.000	0.09			22.2	OK
1.004	105	72		26.501	0.001	0.000	0.28			39.0	SURCHARGED
5.000	400	25		29.072	-0.078	0.000	0.11			0.7	OK
5.001	401	24		28.843	-0.127	0.000	0.06			2.3	OK
5.002	402	38		27.877	-0.198	0.000	0.04			3.5	OK
6.000	500	36		28.023	-0.117	0.000	0.11			2.3	OK
6.001	501	38		27.869	-0.096	0.000	0.28			3.9	OK

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Summary Wizard of 60 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	39	27.582	-0.173	0.000	0.12			4.7	OK
6.003	503	37	27.499	-0.141	0.000	0.30			11.3	OK
5.003	403	37	27.287	-0.243	0.000	0.08			18.7	OK
7.000	700	34	28.116	-0.194	0.000	0.05			6.5	OK
7.001	701	39	27.067	-0.193	0.000	0.05			6.5	OK
5.004	404	70	26.500	-1.591	0.000	0.00			30.2	OK
1.005	405	70	26.501	0.301	0.000	0.31			11.2	SURCHARGED
1.006	107	69	26.586	0.561	0.000	0.09			2.4	SURCHARGED
1.007	108	72	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 120 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	38		29.309	-0.141	0.000	0.01			0.5	OK
1.001	101	46		28.080	-0.270	0.000	0.02			4.4	OK
2.000	600	38		29.075	-0.135	0.000	0.02			1.4	OK
1.002	102	48		27.213	-0.257	0.000	0.05			9.2	OK
1.003	104	63		26.682	-0.248	0.000	0.07			11.7	OK
3.000	200	38		28.988	-0.112	0.000	0.15			2.7	OK
3.001	201	38		28.709	-0.241	0.000	0.09			5.5	OK
3.002	202	39		28.574	-0.266	0.000	0.03			7.7	OK
4.000	300	48		27.850	-0.255	0.000	0.06			5.6	OK
3.003	203	48		27.479	-0.251	0.000	0.06			15.2	OK
1.004	105	63		26.585	0.085	0.000	0.19			26.5	SURCHARGED
5.000	400	38		29.068	-0.082	0.000	0.07			0.5	OK
5.001	401	38		28.839	-0.131	0.000	0.04			1.6	OK
5.002	402	48		27.874	-0.201	0.000	0.02			2.4	OK
6.000	500	47		28.017	-0.123	0.000	0.07			1.5	OK
6.001	501	48		27.859	-0.106	0.000	0.19			2.7	OK

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Summary Wizard of 120 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	48	27.574	-0.181	0.000	0.08			3.2	OK
6.003	503	48	27.484	-0.156	0.000	0.21			7.8	OK
5.003	403	48	27.276	-0.254	0.000	0.06			13.0	OK
7.000	700	46	28.111	-0.199	0.000	0.03			4.4	OK
7.001	701	48	27.062	-0.198	0.000	0.03			4.4	OK
5.004	404	63	26.584	-1.507	0.000	0.00			20.9	OK
1.005	405	63	26.584	0.384	0.000	0.30			10.8	SURCHARGED
1.006	107	61	26.672	0.647	0.000	0.09			2.6	SURCHARGED
1.007	108	61	25.807	-0.198	0.000	0.03			2.6	OK

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Summary Wizard of 180 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	46		29.307	-0.143	0.000	0.01			0.4	OK
1.001	101	53		28.074	-0.276	0.000	0.02			3.5	OK
2.000	600	46		29.072	-0.138	0.000	0.02			1.1	OK
1.002	102	55		27.208	-0.262	0.000	0.04			7.2	OK
1.003	104	68		26.675	-0.255	0.000	0.06			9.1	OK
3.000	200	46		28.983	-0.117	0.000	0.11			2.1	OK
3.001	201	47		28.701	-0.249	0.000	0.07			4.3	OK
3.002	202	49		28.571	-0.269	0.000	0.02			6.0	OK
4.000	300	54		27.845	-0.260	0.000	0.04			4.4	OK
3.003	203	55		27.473	-0.257	0.000	0.05			11.8	OK
1.004	105	57		26.624	0.124	0.000	0.15			20.4	SURCHARGED
5.000	400	46		29.065	-0.085	0.000	0.06			0.4	OK
5.001	401	48		28.837	-0.133	0.000	0.03			1.2	OK
5.002	402	55		27.870	-0.205	0.000	0.02			1.9	OK
6.000	500	53		28.013	-0.127	0.000	0.06			1.2	OK
6.001	501	55		27.853	-0.112	0.000	0.15			2.1	OK

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Summary Wizard of 180 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	55	27.567	-0.188	0.000	0.07			2.5	OK
6.003	503	55	27.475	-0.165	0.000	0.16			6.1	OK
5.003	403	55	27.270	-0.260	0.000	0.04			10.2	OK
7.000	700	52	28.109	-0.201	0.000	0.02			3.4	OK
7.001	701	54	27.059	-0.201	0.000	0.03			3.4	OK
5.004	404	57	26.622	-1.469	0.000	0.00			16.1	OK
1.005	405	57	26.622	0.422	0.000	0.31			11.0	SURCHARGED
1.006	107	58	26.710	0.685	0.000	0.10			2.6	SURCHARGED
1.007	108	59	25.808	-0.197	0.000	0.04			2.6	OK

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Summary Wizard of 240 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	53		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	57		28.070	-0.280	0.000	0.01			2.9	OK
2.000	600	53		29.070	-0.140	0.000	0.01			0.9	OK
1.002	102	59		27.205	-0.265	0.000	0.03			6.0	OK
1.003	104	71		26.671	-0.259	0.000	0.05			7.6	OK
3.000	200	53		28.981	-0.119	0.000	0.09			1.7	OK
3.001	201	53		28.695	-0.255	0.000	0.06			3.6	OK
3.002	202	54		28.567	-0.273	0.000	0.02			5.0	OK
4.000	300	59		27.841	-0.264	0.000	0.04			3.6	OK
3.003	203	59		27.469	-0.261	0.000	0.04			9.8	OK
1.004	105	53		26.642	0.142	0.000	0.12			16.9	SURCHARGED
5.000	400	53		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	53		28.836	-0.134	0.000	0.03			1.0	OK
5.002	402	59		27.867	-0.208	0.000	0.02			1.5	OK
6.000	500	58		28.011	-0.129	0.000	0.05			1.0	OK
6.001	501	59		27.850	-0.115	0.000	0.12			1.7	OK

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Summary Wizard of 240 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	59	27.564	-0.191	0.000	0.05			2.1	OK
6.003	503	59	27.469	-0.171	0.000	0.13			5.1	OK
5.003	403	59	27.267	-0.263	0.000	0.04			8.5	OK
7.000	700	57	28.106	-0.204	0.000	0.02			2.8	OK
7.001	701	59	27.057	-0.203	0.000	0.02			2.8	OK
5.004	404	53	26.640	-1.451	0.000	0.00			13.4	OK
1.005	405	53	26.640	0.440	0.000	0.30			10.9	SURCHARGED
1.006	107	50	26.728	0.703	0.000	0.10			2.7	SURCHARGED
1.007	108	51	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 360 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		66	29.304	-0.146	0.000	0.01			0.2	OK
1.001	101		67	28.065	-0.285	0.000	0.01			2.2	OK
2.000	600		66	29.067	-0.143	0.000	0.01			0.7	OK
1.002	102		69	27.202	-0.268	0.000	0.02			4.5	OK
1.003	104		78	26.666	-0.264	0.000	0.04			5.8	OK
3.000	200		66	28.976	-0.124	0.000	0.07			1.3	OK
3.001	201		66	28.689	-0.261	0.000	0.04			2.7	OK
3.002	202		66	28.560	-0.280	0.000	0.01			3.8	OK
4.000	300		69	27.837	-0.268	0.000	0.03			2.7	OK
3.003	203		69	27.464	-0.266	0.000	0.03			7.4	OK
1.004	105		48	26.651	0.151	0.000	0.09			13.0	SURCHARGED
5.000	400		66	29.062	-0.088	0.000	0.04			0.2	OK
5.001	401		66	28.834	-0.136	0.000	0.02			0.8	OK
5.002	402		69	27.863	-0.212	0.000	0.01			1.2	OK
6.000	500		69	28.008	-0.132	0.000	0.04			0.7	OK
6.001	501		69	27.846	-0.119	0.000	0.09			1.3	OK
6.002	502		69	27.559	-0.196	0.000	0.04			1.6	OK
6.003	503		69	27.463	-0.177	0.000	0.10			3.9	OK
5.003	403		69	27.263	-0.267	0.000	0.03			6.4	OK

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Summary Wizard of 360 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	67	28.101	-0.209	0.000	0.02			2.1	OK
7.001	701	69	27.052	-0.208	0.000	0.02			2.1	OK
5.004	404	48	26.650	-1.441	0.000	0.00		293	10.3	OK
1.005	405	48	26.650	0.450	0.000	0.21			7.4	SURCHARGED
1.006	107	53	26.720	0.695	0.000	0.10			2.7	SURCHARGED
1.007	108	50	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 480 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	75		29.303	-0.147	0.000	0.00			0.2	OK
1.001	101	75		28.063	-0.287	0.000	0.01			1.8	OK
2.000	600	75		29.066	-0.144	0.000	0.01			0.6	OK
1.002	102	76		27.199	-0.271	0.000	0.02			3.7	OK
1.003	104	83		26.663	-0.267	0.000	0.03			4.7	OK
3.000	200	75		28.973	-0.127	0.000	0.06			1.1	OK
3.001	201	75		28.686	-0.264	0.000	0.03			2.2	OK
3.002	202	75		28.557	-0.283	0.000	0.01			3.1	OK
4.000	300	76		27.835	-0.270	0.000	0.02			2.2	OK
3.003	203	76		27.462	-0.268	0.000	0.03			6.0	OK
1.004	105	47		26.652	0.152	0.000	0.08			10.6	SURCHARGED
5.000	400	75		29.061	-0.089	0.000	0.03			0.2	OK
5.001	401	75		28.831	-0.139	0.000	0.02			0.6	OK
5.002	402	76		27.861	-0.214	0.000	0.01			1.0	OK
6.000	500	76		28.007	-0.133	0.000	0.03			0.6	OK
6.001	501	76		27.842	-0.123	0.000	0.08			1.1	OK
6.002	502	76		27.557	-0.198	0.000	0.03			1.3	OK
6.003	503	76		27.458	-0.182	0.000	0.08			3.2	OK
5.003	403	76		27.261	-0.269	0.000	0.02			5.3	OK

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Summary Wizard of 480 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	75	28.098	-0.212	0.000	0.01			1.7	OK
7.001	701	77	27.049	-0.211	0.000	0.01			1.7	OK
5.004	404	47	26.651	-1.440	0.000	0.00		338	8.4	OK
1.005	405	47	26.651	0.451	0.000	0.19			6.6	SURCHARGED
1.006	107	52	26.721	0.696	0.000	0.10			2.7	SURCHARGED
1.007	108	49	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 600 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	80		29.303	-0.147	0.000	0.00			0.2	OK
1.001	101	80		28.061	-0.289	0.000	0.01			1.5	OK
2.000	600	80		29.065	-0.145	0.000	0.01			0.5	OK
1.002	102	81		27.194	-0.276	0.000	0.02			3.2	OK
1.003	104	86		26.661	-0.269	0.000	0.02			4.0	OK
3.000	200	80		28.971	-0.129	0.000	0.05			0.9	OK
3.001	201	80		28.684	-0.266	0.000	0.03			1.9	OK
3.002	202	80		28.554	-0.286	0.000	0.01			2.6	OK
4.000	300	81		27.831	-0.274	0.000	0.02			1.9	OK
3.003	203	81		27.460	-0.270	0.000	0.02			5.1	OK
1.004	105	49		26.649	0.149	0.000	0.07			9.0	SURCHARGED
5.000	400	80		29.061	-0.089	0.000	0.02			0.2	OK
5.001	401	80		28.830	-0.140	0.000	0.01			0.5	OK
5.002	402	81		27.859	-0.216	0.000	0.01			0.8	OK
6.000	500	81		28.006	-0.134	0.000	0.02			0.5	OK
6.001	501	81		27.840	-0.125	0.000	0.06			0.9	OK
6.002	502	81		27.555	-0.200	0.000	0.03			1.1	OK
6.003	503	81		27.454	-0.186	0.000	0.07			2.7	OK
5.003	403	81		27.257	-0.273	0.000	0.02			4.5	OK

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Summary Wizard of 600 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	80	28.096	-0.214	0.000	0.01			1.4	OK
7.001	701	81	27.047	-0.213	0.000	0.01			1.4	OK
5.004	404	49	26.648	-1.443	0.000	0.00		373	7.2	OK
1.005	405	49	26.648	0.448	0.000	0.17			6.2	SURCHARGED
1.006	107	54	26.718	0.693	0.000	0.10			2.7	SURCHARGED
1.007	108	52	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 720 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	86		29.303	-0.147	0.000	0.00			0.1	OK
1.001	101	86		28.059	-0.291	0.000	0.01			1.3	OK
2.000	600	86		29.064	-0.146	0.000	0.01			0.4	OK
1.002	102	87		27.191	-0.279	0.000	0.02			2.8	OK
1.003	104	91		26.660	-0.270	0.000	0.02			3.5	OK
3.000	200	86		28.970	-0.130	0.000	0.04			0.8	OK
3.001	201	86		28.682	-0.268	0.000	0.03			1.6	OK
3.002	202	86		28.552	-0.288	0.000	0.01			2.3	OK
4.000	300	87		27.828	-0.277	0.000	0.02			1.6	OK
3.003	203	87		27.457	-0.273	0.000	0.02			4.5	OK
1.004	105	52		26.644	0.144	0.000	0.06			8.0	SURCHARGED
5.000	400	86		29.060	-0.090	0.000	0.02			0.1	OK
5.001	401	86		28.828	-0.142	0.000	0.01			0.5	OK
5.002	402	87		27.858	-0.217	0.000	0.01			0.7	OK
6.000	500	87		28.005	-0.135	0.000	0.02			0.4	OK
6.001	501	87		27.838	-0.127	0.000	0.06			0.8	OK
6.002	502	87		27.554	-0.201	0.000	0.03			1.0	OK
6.003	503	87		27.451	-0.189	0.000	0.06			2.4	OK
5.003	403	87		27.254	-0.276	0.000	0.02			3.9	OK

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Summary Wizard of 720 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	86	28.095	-0.215	0.000	0.01			1.3	OK
7.001	701	87	27.045	-0.215	0.000	0.01			1.3	OK
5.004	404	52	26.642	-1.449	0.000	0.00		392	6.3	OK
1.005	405	52	26.642	0.442	0.000	0.17			6.2	SURCHARGED
1.006	107	56	26.712	0.687	0.000	0.10			2.7	SURCHARGED
1.007	108	54	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 960 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	96		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	96		28.058	-0.292	0.000	0.01			1.1	OK
2.000	600	96		29.064	-0.146	0.000	0.00			0.3	OK
1.002	102	96		27.187	-0.283	0.000	0.01			2.2	OK
1.003	104	98		26.655	-0.275	0.000	0.02			2.8	OK
3.000	200	96		28.968	-0.132	0.000	0.03			0.6	OK
3.001	201	96		28.679	-0.271	0.000	0.02			1.3	OK
3.002	202	96		28.550	-0.290	0.000	0.01			1.9	OK
4.000	300	96		27.823	-0.282	0.000	0.01			1.3	OK
3.003	203	96		27.452	-0.278	0.000	0.02			3.7	OK
1.004	105	55		26.632	0.132	0.000	0.05			6.5	SURCHARGED
5.000	400	96		29.058	-0.092	0.000	0.02			0.1	OK
5.001	401	96		28.827	-0.143	0.000	0.01			0.4	OK
5.002	402	96		27.856	-0.219	0.000	0.01			0.6	OK
6.000	500	96		28.002	-0.138	0.000	0.02			0.4	OK
6.001	501	96		27.835	-0.130	0.000	0.05			0.6	OK
6.002	502	96		27.552	-0.203	0.000	0.02			0.8	OK
6.003	503	96		27.447	-0.193	0.000	0.05			1.9	OK
5.003	403	96		27.249	-0.281	0.000	0.01			3.2	OK

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Summary Wizard of 960 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	96	28.093	-0.217	0.000	0.01			1.0	OK
7.001	701	96	27.043	-0.217	0.000	0.01			1.0	OK
5.004	404	55	26.630	-1.461	0.000	0.00		433	5.2	OK
1.005	405	55	26.630	0.430	0.000	0.17			6.2	SURCHARGED
1.006	107	57	26.711	0.686	0.000	0.10			2.6	SURCHARGED
1.007	108	57	25.808	-0.197	0.000	0.04			2.6	OK

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Summary Wizard of 1440 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	105		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	105		28.056	-0.294	0.000	0.00			0.8	OK
2.000	600	105		29.063	-0.147	0.000	0.00			0.2	OK
1.002	102	105		27.183	-0.287	0.000	0.01			1.7	OK
1.003	104	106		26.648	-0.282	0.000	0.01			2.1	OK
3.000	200	105		28.966	-0.134	0.000	0.03			0.5	OK
3.001	201	105		28.672	-0.278	0.000	0.02			1.0	OK
3.002	202	105		28.547	-0.293	0.000	0.01			1.4	OK
4.000	300	105		27.819	-0.286	0.000	0.01			1.0	OK
3.003	203	105		27.446	-0.284	0.000	0.01			2.7	OK
1.004	105	61		26.591	0.091	0.000	0.04			4.9	SURCHARGED
5.000	400	105		29.056	-0.094	0.000	0.01			0.1	OK
5.001	401	105		28.825	-0.145	0.000	0.01			0.3	OK
5.002	402	105		27.855	-0.220	0.000	0.00			0.4	OK
6.000	500	105		27.999	-0.141	0.000	0.01			0.3	OK
6.001	501	105		27.833	-0.132	0.000	0.03			0.5	OK
6.002	502	105		27.546	-0.209	0.000	0.02			0.6	OK
6.003	503	105		27.443	-0.197	0.000	0.04			1.4	OK
5.003	403	105		27.244	-0.286	0.000	0.01			2.4	OK

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Summary Wizard of 1440 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	105	28.091	-0.219	0.000	0.01			0.8	OK
7.001	701	105	27.041	-0.219	0.000	0.01			0.8	OK
5.004	404	61	26.589	-1.502	0.000	0.00		472	3.9	OK
1.005	405	61	26.589	0.389	0.000	0.17			6.1	SURCHARGED
1.006	107	63	26.659	0.634	0.000	0.09			2.6	SURCHARGED
1.007	108	62	25.807	-0.198	0.000	0.03			2.6	OK

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Summary Wizard of 15 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	6		29.319	-0.131	0.000	0.04			1.5	OK
1.001	101	16		28.106	-0.244	0.000	0.08			16.3	OK
2.000	600	6		29.085	-0.125	0.000	0.07			4.5	OK
1.002	102	25		27.256	-0.214	0.000	0.18			33.5	OK
1.003	104	45		26.734	-0.196	0.000	0.26			42.8	OK
3.000	200	6		29.023	-0.077	0.000	0.47			8.7	OK
3.001	201	6		28.762	-0.188	0.000	0.30			18.9	OK
3.002	202	6		28.604	-0.236	0.000	0.10			26.7	OK
4.000	300	20		27.890	-0.215	0.000	0.17			17.8	OK
3.003	203	24		27.525	-0.205	0.000	0.21			51.2	OK
1.004	105	66		26.510	0.010	0.000	0.68			93.3	SURCHARGED
5.000	400	6		29.083	-0.067	0.000	0.24			1.5	OK
5.001	401	6		28.857	-0.113	0.000	0.14			5.7	OK
5.002	402	20		27.895	-0.180	0.000	0.09			8.7	OK
6.000	500	16		28.040	-0.100	0.000	0.24			4.9	OK
6.001	501	20		27.904	-0.061	0.000	0.64			9.0	OK

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Summary Wizard of 15 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	24	27.613	-0.142	0.000	0.29			10.9	OK
6.003	503	24	27.561	-0.079	0.000	0.73			27.7	OK
5.003	403	25	27.322	-0.208	0.000	0.20			46.7	OK
7.000	700	15	28.133	-0.177	0.000	0.10			14.0	OK
7.001	701	25	27.084	-0.176	0.000	0.11			13.9	OK
5.004	404	80	26.472	-1.619	0.000	0.00			73.8	OK
1.005	405	80	26.472	0.272	0.000	0.35			12.4	SURCHARGED
1.006	107	65	26.625	0.600	0.000	0.09			2.4	SURCHARGED
1.007	108	67	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 30 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	9		29.318	-0.132	0.000	0.04			1.4	OK
1.001	101	18		28.102	-0.248	0.000	0.07			14.3	OK
2.000	600	9		29.084	-0.126	0.000	0.06			4.2	OK
1.002	102	27		27.250	-0.220	0.000	0.16			29.3	OK
1.003	104	47		26.728	-0.202	0.000	0.23			37.1	OK
3.000	200	9		29.019	-0.081	0.000	0.43			8.0	OK
3.001	201	8		28.756	-0.194	0.000	0.26			17.0	OK
3.002	202	8		28.601	-0.239	0.000	0.09			23.8	OK
4.000	300	23		27.886	-0.219	0.000	0.16			16.6	OK
3.003	203	26		27.520	-0.210	0.000	0.19			46.4	OK
1.004	105	60		26.619	0.119	0.000	0.59			80.4	SURCHARGED
5.000	400	9		29.082	-0.068	0.000	0.22			1.4	OK
5.001	401	8		28.855	-0.115	0.000	0.12			5.0	OK
5.002	402	22		27.892	-0.183	0.000	0.08			7.6	OK
6.000	500	20		28.037	-0.103	0.000	0.22			4.5	OK
6.001	501	22		27.898	-0.067	0.000	0.59			8.2	OK

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Summary Wizard of 30 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	26	27.608	-0.147	0.000	0.26			9.9	OK
6.003	503	26	27.548	-0.092	0.000	0.65			24.6	OK
5.003	403	27	27.315	-0.215	0.000	0.18			41.1	OK
7.000	700	18	28.131	-0.179	0.000	0.09			12.8	OK
7.001	701	27	27.082	-0.178	0.000	0.10			12.8	OK
5.004	404	60	26.616	-1.475	0.000	0.00			64.8	OK
1.005	405	60	26.616	0.416	0.000	0.29			10.5	SURCHARGED
1.006	107	45	26.788	0.763	0.000	0.10			2.6	SURCHARGED
1.007	108	46	25.808	-0.197	0.000	0.04			2.6	OK

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Summary Wizard of 60 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	12		29.316	-0.134	0.000	0.03			1.0	OK
1.001	101	22		28.094	-0.256	0.000	0.05			10.5	OK
2.000	600	12		29.081	-0.129	0.000	0.05			3.1	OK
1.002	102	29		27.238	-0.232	0.000	0.12			21.7	OK
1.003	104	44		26.768	-0.162	0.000	0.17			27.5	OK
3.000	200	12		29.009	-0.091	0.000	0.33			6.0	OK
3.001	201	12		28.741	-0.209	0.000	0.20			12.7	OK
3.002	202	13		28.591	-0.249	0.000	0.07			17.8	OK
4.000	300	26		27.875	-0.230	0.000	0.12			12.6	OK
3.003	203	29		27.506	-0.224	0.000	0.15			34.9	OK
1.004	105	44		26.767	0.267	0.000	0.43			58.5	SURCHARGED
5.000	400	12		29.077	-0.073	0.000	0.17			1.0	OK
5.001	401	12		28.851	-0.119	0.000	0.09			3.7	OK
5.002	402	26		27.885	-0.190	0.000	0.06			5.6	OK
6.000	500	23		28.031	-0.109	0.000	0.17			3.4	OK
6.001	501	26		27.884	-0.081	0.000	0.44			6.1	OK

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Summary Wizard of 60 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	29	27.597	-0.158	0.000	0.19			7.4	OK
6.003	503	29	27.526	-0.114	0.000	0.48			18.3	OK
5.003	403	29	27.302	-0.228	0.000	0.13			30.6	OK
7.000	700	21	28.124	-0.186	0.000	0.07			9.7	OK
7.001	701	29	27.075	-0.185	0.000	0.07			9.7	OK
5.004	404	44	26.766	-1.325	0.000	0.00			48.3	OK
1.005	405	44	26.766	0.566	0.000	0.35			12.6	SURCHARGED
1.006	107	43	26.941	0.916	0.000	0.10			2.8	SURCHARGED
1.007	108	44	25.809	-0.196	0.000	0.04			2.8	OK

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Summary Wizard of 120 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	24		29.313	-0.137	0.000	0.02			0.7	OK
1.001	101	30		28.086	-0.264	0.000	0.03			7.0	OK
2.000	600	24		29.077	-0.133	0.000	0.03			2.1	OK
1.002	102	34		27.226	-0.244	0.000	0.08			14.5	OK
1.003	104	42		26.911	-0.019	0.000	0.11			18.4	OK
3.000	200	24		28.997	-0.103	0.000	0.22			4.1	OK
3.001	201	22		28.723	-0.227	0.000	0.13			8.5	OK
3.002	202	23		28.581	-0.259	0.000	0.05			11.9	OK
4.000	300	37		27.863	-0.242	0.000	0.08			8.5	OK
3.003	203	36		27.493	-0.237	0.000	0.10			23.5	OK
1.004	105	41		26.909	0.409	0.000	0.29			40.0	SURCHARGED
5.000	400	24		29.072	-0.078	0.000	0.11			0.7	OK
5.001	401	20		28.844	-0.126	0.000	0.06			2.5	OK
5.002	402	33		27.878	-0.197	0.000	0.04			3.8	OK
6.000	500	35		28.023	-0.117	0.000	0.11			2.3	OK
6.001	501	35		27.870	-0.095	0.000	0.29			4.1	OK

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Summary Wizard of 120 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	36	27.584	-0.171	0.000	0.13			5.0	OK
6.003	503	34	27.503	-0.137	0.000	0.32			12.3	OK
5.003	403	34	27.290	-0.240	0.000	0.09			20.5	OK
7.000	700	33	28.116	-0.194	0.000	0.05			6.6	OK
7.001	701	38	27.067	-0.193	0.000	0.05			6.6	OK
5.004	404	40	26.909	-1.182	0.000	0.00			32.4	OK
1.005	405	40	26.909	0.709	0.000	0.46			16.4	SURCHARGED
1.006	107	41	26.995	0.970	0.000	0.11			3.0	SURCHARGED
1.007	108	41	25.809	-0.196	0.000	0.04			3.0	OK

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Summary Wizard of 180 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	33		29.310	-0.140	0.000	0.01			0.5	OK
1.001	101	37		28.082	-0.268	0.000	0.03			5.4	OK
2.000	600	33		29.076	-0.134	0.000	0.02			1.6	OK
1.002	102	41		27.218	-0.252	0.000	0.06			11.1	OK
1.003	104	38		26.979	0.049	0.000	0.09			14.1	SURCHARGED
3.000	200	33		28.991	-0.109	0.000	0.17			3.1	OK
3.001	201	30		28.714	-0.236	0.000	0.10			6.6	OK
3.002	202	31		28.576	-0.264	0.000	0.03			9.2	OK
4.000	300	45		27.854	-0.251	0.000	0.06			6.5	OK
3.003	203	42		27.484	-0.246	0.000	0.08			18.0	OK
1.004	105	36		26.978	0.478	0.000	0.23			31.0	SURCHARGED
5.000	400	33		29.070	-0.080	0.000	0.09			0.5	OK
5.001	401	30		28.841	-0.129	0.000	0.05			1.9	OK
5.002	402	41		27.875	-0.200	0.000	0.03			2.9	OK
6.000	500	43		28.020	-0.120	0.000	0.09			1.8	OK
6.001	501	42		27.863	-0.102	0.000	0.23			3.2	OK

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Summary Wizard of 180 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	42	27.578	-0.177	0.000	0.10			3.8	OK
6.003	503	41	27.491	-0.149	0.000	0.25			9.4	OK
5.003	403	41	27.281	-0.249	0.000	0.07			15.7	OK
7.000	700	42	28.113	-0.197	0.000	0.04			5.0	OK
7.001	701	45	27.063	-0.197	0.000	0.04			5.0	OK
5.004	404	36	26.977	-1.114	0.000	0.00			24.5	OK
1.005	405	36	26.977	0.777	0.000	0.41			14.8	SURCHARGED
1.006	107	36	27.059	1.034	0.000	0.11			3.1	SURCHARGED
1.007	108	36	25.810	-0.195	0.000	0.04			3.1	OK

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Summary Wizard of 240 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	40		29.308	-0.142	0.000	0.01			0.4	OK
1.001	101	47		28.080	-0.270	0.000	0.02			4.4	OK
2.000	600	40		29.074	-0.136	0.000	0.02			1.3	OK
1.002	102	49		27.213	-0.257	0.000	0.05			9.1	OK
1.003	104	34		27.015	0.085	0.000	0.07			11.6	SURCHARGED
3.000	200	40		28.987	-0.113	0.000	0.14			2.6	OK
3.001	201	39		28.708	-0.242	0.000	0.08			5.4	OK
3.002	202	40		28.573	-0.267	0.000	0.03			7.5	OK
4.000	300	50		27.849	-0.256	0.000	0.05			5.4	OK
3.003	203	49		27.478	-0.252	0.000	0.06			14.8	OK
1.004	105	32		27.013	0.513	0.000	0.19			25.7	SURCHARGED
5.000	400	40		29.067	-0.083	0.000	0.07			0.4	OK
5.001	401	39		28.839	-0.131	0.000	0.04			1.6	OK
5.002	402	49		27.874	-0.201	0.000	0.02			2.4	OK
6.000	500	49		28.016	-0.124	0.000	0.07			1.5	OK
6.001	501	49		27.858	-0.107	0.000	0.18			2.6	OK

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Summary Wizard of 240 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	49	27.573	-0.182	0.000	0.08			3.1	OK
6.003	503	49	27.484	-0.156	0.000	0.20			7.7	OK
5.003	403	49	27.275	-0.255	0.000	0.06			12.9	OK
7.000	700	48	28.110	-0.200	0.000	0.03			4.1	OK
7.001	701	50	27.061	-0.199	0.000	0.03			4.1	OK
5.004	404	32	27.013	-1.078	0.000	0.00			20.4	OK
1.005	405	32	27.013	0.813	0.000	0.45			16.1	SURCHARGED
1.006	107	31	27.098	1.073	0.000	0.12			3.2	SURCHARGED
1.007	108	31	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 360 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	49		29.306	-0.144	0.000	0.01			0.3	OK
1.001	101	54		28.073	-0.277	0.000	0.02			3.3	OK
2.000	600	49		29.071	-0.139	0.000	0.01			1.0	OK
1.002	102	56		27.207	-0.263	0.000	0.04			6.8	OK
1.003	104	28		27.040	0.110	0.000	0.05			8.6	SURCHARGED
3.000	200	49		28.982	-0.118	0.000	0.10			1.9	OK
3.001	201	49		28.698	-0.252	0.000	0.06			4.0	OK
3.002	202	50		28.570	-0.270	0.000	0.02			5.6	OK
4.000	300	56		27.843	-0.262	0.000	0.04			4.0	OK
3.003	203	56		27.471	-0.259	0.000	0.05			11.0	OK
1.004	105	27		27.039	0.539	0.000	0.14			19.3	SURCHARGED
5.000	400	49		29.065	-0.085	0.000	0.05			0.3	OK
5.001	401	49		28.837	-0.133	0.000	0.03			1.2	OK
5.002	402	56		27.869	-0.206	0.000	0.02			1.8	OK
6.000	500	55		28.012	-0.128	0.000	0.05			1.1	OK
6.001	501	56		27.852	-0.113	0.000	0.14			1.9	OK

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Summary Wizard of 360 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	56	27.566	-0.189	0.000	0.06			2.3	OK
6.003	503	56	27.473	-0.167	0.000	0.15			5.8	OK
5.003	403	56	27.269	-0.261	0.000	0.04			9.6	OK
7.000	700	54	28.108	-0.202	0.000	0.02			3.1	OK
7.001	701	56	27.058	-0.202	0.000	0.02			3.1	OK
5.004	404	27	27.038	-1.053	0.000	0.00			15.4	OK
1.005	405	27	27.038	0.838	0.000	0.41			14.6	SURCHARGED
1.006	107	26	27.119	1.094	0.000	0.12			3.2	SURCHARGED
1.007	108	27	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 480 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	58		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	61		28.068	-0.282	0.000	0.01			2.6	OK
2.000	600	58		29.069	-0.141	0.000	0.01			0.8	OK
1.002	102	63		27.204	-0.266	0.000	0.03			5.5	OK
1.003	104	27		27.042	0.112	0.000	0.04			6.9	SURCHARGED
3.000	200	58		28.979	-0.121	0.000	0.08			1.5	OK
3.001	201	58		28.693	-0.257	0.000	0.05			3.2	OK
3.002	202	59		28.564	-0.276	0.000	0.02			4.5	OK
4.000	300	63		27.840	-0.265	0.000	0.03			3.2	OK
3.003	203	63		27.467	-0.263	0.000	0.04			8.9	OK
1.004	105	26		27.041	0.541	0.000	0.11			15.5	SURCHARGED
5.000	400	58		29.063	-0.087	0.000	0.04			0.3	OK
5.001	401	58		28.835	-0.135	0.000	0.02			0.9	OK
5.002	402	63		27.865	-0.210	0.000	0.01			1.4	OK
6.000	500	62		28.010	-0.130	0.000	0.04			0.9	OK
6.001	501	63		27.848	-0.117	0.000	0.11			1.5	OK
6.002	502	63		27.562	-0.193	0.000	0.05			1.9	OK
6.003	503	63		27.467	-0.173	0.000	0.12			4.6	OK
5.003	403	63		27.265	-0.265	0.000	0.03			7.7	OK

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Summary Wizard of 480 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	61	28.104	-0.206	0.000	0.02			2.5	OK
7.001	701	63	27.055	-0.205	0.000	0.02			2.5	OK
5.004	404	26	27.041	-1.050	0.000	0.00		457	12.5	OK
1.005	405	26	27.041	0.841	0.000	0.29			10.2	SURCHARGED
1.006	107	25	27.125	1.100	0.000	0.12			3.2	SURCHARGED
1.007	108	25	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 600 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	65		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	66		28.066	-0.284	0.000	0.01			2.2	OK
2.000	600	65		29.067	-0.143	0.000	0.01			0.7	OK
1.002	102	68		27.202	-0.268	0.000	0.03			4.6	OK
1.003	104	29		27.040	0.110	0.000	0.04			5.9	SURCHARGED
3.000	200	65		28.976	-0.124	0.000	0.07			1.3	OK
3.001	201	65		28.690	-0.260	0.000	0.04			2.7	OK
3.002	202	65		28.561	-0.279	0.000	0.01			3.8	OK
4.000	300	68		27.838	-0.267	0.000	0.03			2.7	OK
3.003	203	68		27.465	-0.265	0.000	0.03			7.5	OK
1.004	105	28		27.038	0.538	0.000	0.10			13.1	SURCHARGED
5.000	400	65		29.062	-0.088	0.000	0.04			0.2	OK
5.001	401	65		28.834	-0.136	0.000	0.02			0.8	OK
5.002	402	68		27.863	-0.212	0.000	0.01			1.2	OK
6.000	500	67		28.008	-0.132	0.000	0.04			0.7	OK
6.001	501	68		27.846	-0.119	0.000	0.09			1.3	OK
6.002	502	68		27.559	-0.196	0.000	0.04			1.6	OK
6.003	503	68		27.463	-0.177	0.000	0.10			3.9	OK
5.003	403	68		27.263	-0.267	0.000	0.03			6.5	OK

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Summary Wizard of 600 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	66	28.101	-0.209	0.000	0.02			2.1	OK
7.001	701	68	27.052	-0.208	0.000	0.02			2.1	OK
5.004	404	28	27.038	-1.053	0.000	0.00		502	10.6	OK
1.005	405	28	27.038	0.838	0.000	0.23			8.1	SURCHARGED
1.006	107	27	27.119	1.094	0.000	0.12			3.2	SURCHARGED
1.007	108	28	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 720 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	70		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	71		28.064	-0.286	0.000	0.01			1.9	OK
2.000	600	70		29.066	-0.144	0.000	0.01			0.6	OK
1.002	102	72		27.200	-0.270	0.000	0.02			4.0	OK
1.003	104	31		27.033	0.103	0.000	0.03			5.1	SURCHARGED
3.000	200	70		28.974	-0.126	0.000	0.06			1.1	OK
3.001	201	70		28.687	-0.263	0.000	0.04			2.4	OK
3.002	202	70		28.558	-0.282	0.000	0.01			3.3	OK
4.000	300	72		27.836	-0.269	0.000	0.02			2.4	OK
3.003	203	72		27.463	-0.267	0.000	0.03			6.6	OK
1.004	105	30		27.032	0.532	0.000	0.08			11.4	SURCHARGED
5.000	400	70		29.062	-0.088	0.000	0.03			0.2	OK
5.001	401	70		28.832	-0.138	0.000	0.02			0.7	OK
5.002	402	72		27.861	-0.214	0.000	0.01			1.0	OK
6.000	500	72		28.007	-0.133	0.000	0.03			0.6	OK
6.001	501	72		27.843	-0.122	0.000	0.08			1.1	OK
6.002	502	72		27.558	-0.197	0.000	0.04			1.4	OK
6.003	503	72		27.460	-0.180	0.000	0.09			3.4	OK
5.003	403	72		27.261	-0.269	0.000	0.02			5.7	OK

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Summary Wizard of 720 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	71	28.099	-0.211	0.000	0.01			1.8	OK
7.001	701	73	27.050	-0.210	0.000	0.01			1.8	OK
5.004	404	30	27.031	-1.060	0.000	0.00		528	9.2	OK
1.005	405	30	27.031	0.831	0.000	0.21			7.3	SURCHARGED
1.006	107	28	27.116	1.091	0.000	0.12			3.2	SURCHARGED
1.007	108	29	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 960 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		78	29.303	-0.147	0.000	0.00			0.2	OK
1.001	101		78	28.061	-0.289	0.000	0.01			1.6	OK
2.000	600		78	29.065	-0.145	0.000	0.01			0.5	OK
1.002	102		79	27.195	-0.275	0.000	0.02			3.2	OK
1.003	104		35	27.013	0.083	0.000	0.03			4.1	SURCHARGED
3.000	200		78	28.971	-0.129	0.000	0.05			0.9	OK
3.001	201		78	28.684	-0.266	0.000	0.03			1.9	OK
3.002	202		78	28.554	-0.286	0.000	0.01			2.7	OK
4.000	300		79	27.832	-0.273	0.000	0.02			1.9	OK
3.003	203		79	27.460	-0.270	0.000	0.02			5.3	OK
1.004	105		33	27.012	0.512	0.000	0.07			9.2	SURCHARGED
5.000	400		78	29.061	-0.089	0.000	0.03			0.2	OK
5.001	401		78	28.830	-0.140	0.000	0.01			0.6	OK
5.002	402		79	27.859	-0.216	0.000	0.01			0.8	OK
6.000	500		79	28.006	-0.134	0.000	0.03			0.5	OK
6.001	501		79	27.840	-0.125	0.000	0.07			0.9	OK
6.002	502		79	27.555	-0.200	0.000	0.03			1.1	OK
6.003	503		79	27.455	-0.185	0.000	0.07			2.8	OK
5.003	403		79	27.258	-0.272	0.000	0.02			4.6	OK

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Summary Wizard of 960 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	78	28.096	-0.214	0.000	0.01			1.5	OK
7.001	701	79	27.047	-0.213	0.000	0.01			1.5	OK
5.004	404	33	27.012	-1.079	0.000	0.00		582	7.4	OK
1.005	405	33	27.012	0.812	0.000	0.19			6.8	SURCHARGED
1.006	107	33	27.085	1.060	0.000	0.12			3.2	SURCHARGED
1.007	108	34	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 1440 minute 30 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		94	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		94	28.058	-0.292	0.000	0.01			1.1	OK
2.000	600		94	29.064	-0.146	0.000	0.01			0.4	OK
1.002	102		94	27.188	-0.282	0.000	0.01			2.4	OK
1.003	104		39	26.963	0.033	0.000	0.02			3.0	SURCHARGED
3.000	200		94	28.968	-0.132	0.000	0.04			0.7	OK
3.001	201		94	28.680	-0.270	0.000	0.02			1.4	OK
3.002	202		94	28.551	-0.289	0.000	0.01			2.0	OK
4.000	300		94	27.825	-0.280	0.000	0.01			1.4	OK
3.003	203		94	27.453	-0.277	0.000	0.02			3.9	OK
1.004	105		37	26.962	0.462	0.000	0.05			6.8	SURCHARGED
5.000	400		94	29.059	-0.091	0.000	0.02			0.1	OK
5.001	401		94	28.827	-0.143	0.000	0.01			0.4	OK
5.002	402		94	27.857	-0.218	0.000	0.01			0.6	OK
6.000	500		94	28.003	-0.137	0.000	0.02			0.4	OK
6.001	501		94	27.836	-0.129	0.000	0.05			0.7	OK
6.002	502		94	27.553	-0.202	0.000	0.02			0.8	OK
6.003	503		94	27.448	-0.192	0.000	0.05			2.0	OK
5.003	403		94	27.251	-0.279	0.000	0.01			3.4	OK

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Summary Wizard of 1440 minute 30 year Summer I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	94	28.093	-0.217	0.000	0.01			1.1	OK
7.001	701	94	27.044	-0.216	0.000	0.01			1.1	OK
5.004	404	37	26.961	-1.130	0.000	0.00		652	5.5	OK
1.005	405	37	26.961	0.761	0.000	0.18			6.4	SURCHARGED
1.006	107	37	27.045	1.020	0.000	0.11			3.1	SURCHARGED
1.007	108	37	25.810	-0.195	0.000	0.04			3.1	OK

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Summary Wizard of 15 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	1		29.326	-0.124	0.000	0.07			2.7	OK
1.001	101	10		28.126	-0.224	0.000	0.15			29.5	OK
2.000	600	1		29.095	-0.115	0.000	0.12			8.2	OK
1.002	102	21		27.288	-0.182	0.000	0.33			60.5	OK
1.003	104	23		27.111	0.181	0.000	0.43			71.3	SURCHARGED
3.000	200	1		29.057	-0.043	0.000	0.85			15.7	OK
3.001	201	1		28.808	-0.142	0.000	0.53			34.2	OK
3.002	202	1		28.627	-0.213	0.000	0.18			48.4	OK
4.000	300	15		27.922	-0.183	0.000	0.32			32.1	OK
3.003	203	19		27.561	-0.169	0.000	0.39			92.6	OK
1.004	105	42		26.903	0.403	0.000	1.13			154.8	SURCHARGED
5.000	400	1		29.096	-0.054	0.000	0.43			2.7	OK
5.001	401	1		28.871	-0.099	0.000	0.26			10.3	OK
5.002	402	15		27.910	-0.165	0.000	0.16			15.7	OK
6.000	500	11		28.077	-0.063	0.000	0.43			8.9	OK
6.001	501	11		28.044	0.079	0.000	1.13			15.8	SURCHARGED

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Summary Wizard of 15 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	17	27.752	-0.003	0.000	0.52			20.0	OK
6.003	503	19	27.705	0.065	0.000	1.25			47.6	SURCHARGED
5.003	403	21	27.354	-0.176	0.000	0.35			81.3	OK
7.000	700	10	28.150	-0.160	0.000	0.18			25.3	OK
7.001	701	23	27.102	-0.158	0.000	0.19			25.1	OK
5.004	404	41	26.859	-1.232	0.000	0.00			128.3	OK
1.005	405	41	26.859	0.659	0.000	0.44			15.6	SURCHARGED
1.006	107	39	27.034	1.009	0.000	0.11			3.0	SURCHARGED
1.007	108	38	25.810	-0.195	0.000	0.04			3.0	OK

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Summary Wizard of 30 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	3		29.325	-0.125	0.000	0.07			2.5	OK
1.001	101	12		28.122	-0.228	0.000	0.13			26.1	OK
2.000	600	3		29.093	-0.117	0.000	0.11			7.6	OK
1.002	102	23		27.281	-0.189	0.000	0.29			53.5	OK
1.003	104	21		27.168	0.238	0.000	0.37			60.6	SURCHARGED
3.000	200	3		29.051	-0.049	0.000	0.79			14.5	OK
3.001	201	3		28.799	-0.151	0.000	0.48			31.0	OK
3.002	202	3		28.622	-0.218	0.000	0.16			43.4	OK
4.000	300	17		27.916	-0.189	0.000	0.30			30.2	OK
3.003	203	21		27.554	-0.176	0.000	0.35			84.8	OK
1.004	105	22		27.143	0.643	0.000	1.01			139.0	SURCHARGED
5.000	400	3		29.094	-0.056	0.000	0.40			2.5	OK
5.001	401	3		28.869	-0.101	0.000	0.23			9.2	OK
5.002	402	17		27.907	-0.168	0.000	0.14			13.8	OK
6.000	500	13		28.056	-0.084	0.000	0.40			8.2	OK
6.001	501	15		27.979	0.014	0.000	1.02			14.3	SURCHARGED

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Summary Wizard of 30 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	21	27.706	-0.049	0.000	0.47			17.9	OK
6.003	503	21	27.673	0.033	0.000	1.16			44.1	SURCHARGED
5.003	403	23	27.347	-0.183	0.000	0.32			74.0	OK
7.000	700	12	28.147	-0.163	0.000	0.17			23.4	OK
7.001	701	22	27.143	-0.117	0.000	0.18			23.4	OK
5.004	404	22	27.141	-0.950	0.000	0.00			116.4	OK
1.005	405	22	27.141	0.941	0.000	0.41			14.8	SURCHARGED
1.006	107	21	27.401	1.376	0.000	0.12			3.3	SURCHARGED
1.007	108	22	25.811	-0.194	0.000	0.04			3.3	OK

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Summary Wizard of 60 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	5		29.321	-0.129	0.000	0.05			1.9	OK
1.001	101	15		28.112	-0.238	0.000	0.10			19.4	OK
2.000	600	5		29.089	-0.121	0.000	0.09			5.8	OK
1.002	102	20		27.437	-0.033	0.000	0.22			39.9	OK
1.003	104	20		27.436	0.506	0.000	0.28			46.3	SURCHARGED
3.000	200	5		29.034	-0.066	0.000	0.60			11.1	OK
3.001	201	5		28.776	-0.174	0.000	0.36			23.4	OK
3.002	202	5		28.610	-0.230	0.000	0.12			32.7	OK
4.000	300	19		27.901	-0.204	0.000	0.23			23.1	OK
3.003	203	23		27.535	-0.195	0.000	0.27			64.1	OK
1.004	105	20		27.435	0.935	0.000	0.78			106.5	SURCHARGED
5.000	400	5		29.088	-0.062	0.000	0.30			1.9	OK
5.001	401	5		28.862	-0.108	0.000	0.17			6.9	OK
5.002	402	19		27.899	-0.176	0.000	0.11			10.3	OK
6.000	500	15		28.046	-0.094	0.000	0.30			6.3	OK
6.001	501	19		27.918	-0.047	0.000	0.80			11.1	OK

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Summary Wizard of 60 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	23	27.624	-0.131	0.000	0.35			13.5	OK
6.003	503	23	27.581	-0.059	0.000	0.88			33.6	OK
5.003	403	20	27.436	-0.094	0.000	0.24			56.2	OK
7.000	700	14	28.138	-0.172	0.000	0.13			17.8	OK
7.001	701	20	27.435	0.175	0.000	0.14			17.8	SURCHARGED
5.004	404	20	27.434	-0.657	0.000	0.00			88.7	OK
1.005	405	20	27.434	1.234	0.000	0.47			16.9	SURCHARGED
1.006	107	20	27.540	1.515	0.000	0.13			3.6	SURCHARGED
1.007	108	20	25.812	-0.193	0.000	0.05			3.6	OK

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Summary Wizard of 120 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	10		29.318	-0.132	0.000	0.03			1.3	OK
1.001	101	20		28.099	-0.251	0.000	0.06			12.9	OK
2.000	600	10		29.083	-0.127	0.000	0.06			3.9	OK
1.002	102	18		27.710	0.240	0.000	0.14			26.7	SURCHARGED
1.003	104	18		27.709	0.779	0.000	0.19			31.7	SURCHARGED
3.000	200	10		29.016	-0.084	0.000	0.41			7.5	OK
3.001	201	10		28.751	-0.199	0.000	0.25			15.7	OK
3.002	202	10		28.598	-0.242	0.000	0.08			22.0	OK
4.000	300	24		27.883	-0.222	0.000	0.15			15.6	OK
3.003	203	18		27.709	-0.021	0.000	0.18			43.2	OK
1.004	105	18		27.708	1.208	0.000	0.53			72.7	SURCHARGED
5.000	400	10		29.081	-0.069	0.000	0.21			1.3	OK
5.001	401	10		28.854	-0.116	0.000	0.11			4.6	OK
5.002	402	24		27.889	-0.186	0.000	0.07			6.9	OK
6.000	500	21		28.036	-0.104	0.000	0.21			4.2	OK
6.001	501	24		27.894	-0.071	0.000	0.54			7.5	OK

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Summary Wizard of 120 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	20	27.710	-0.045	0.000	0.24			9.2	OK
6.003	503	18	27.709	0.069	0.000	0.60			22.6	SURCHARGED
5.003	403	18	27.708	0.178	0.000	0.16			37.8	SURCHARGED
7.000	700	19	28.129	-0.181	0.000	0.09			12.1	OK
7.001	701	18	27.708	0.448	0.000	0.09			12.1	SURCHARGED
5.004	404	18	27.707	-0.384	0.000	0.00			59.8	OK
1.005	405	18	27.707	1.507	0.000	0.45			16.0	SURCHARGED
1.006	107	17	27.789	1.764	0.000	0.14			3.9	SURCHARGED
1.007	108	17	25.813	-0.192	0.000	0.05			3.9	OK

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Summary Wizard of 180 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	14		29.316	-0.134	0.000	0.03			1.0	OK
1.001	101	23		28.092	-0.258	0.000	0.05			9.9	OK
2.000	600	14		29.080	-0.130	0.000	0.04			3.0	OK
1.002	102	16		27.851	0.381	0.000	0.11			20.5	SURCHARGED
1.003	104	16		27.850	0.920	0.000	0.15			24.3	SURCHARGED
3.000	200	14		29.007	-0.093	0.000	0.31			5.8	OK
3.001	201	13		28.738	-0.212	0.000	0.19			12.1	OK
3.002	202	14		28.589	-0.251	0.000	0.06			16.9	OK
4.000	300	28		27.873	-0.232	0.000	0.12			12.0	OK
3.003	203	16		27.851	0.121	0.000	0.14			33.2	SURCHARGED
1.004	105	16		27.850	1.350	0.000	0.41			55.7	SURCHARGED
5.000	400	14		29.076	-0.074	0.000	0.16			1.0	OK
5.001	401	13		28.850	-0.120	0.000	0.09			3.5	OK
5.002	402	27		27.884	-0.191	0.000	0.05			5.3	OK
6.000	500	25		28.030	-0.110	0.000	0.16			3.3	OK
6.001	501	27		27.882	-0.083	0.000	0.41			5.8	OK

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Summary Wizard of 180 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	16	27.852	0.097	0.000	0.18			7.0	SURCHARGED
6.003	503	16	27.851	0.211	0.000	0.46			17.3	SURCHARGED
5.003	403	16	27.850	0.320	0.000	0.12			28.9	SURCHARGED
7.000	700	23	28.123	-0.187	0.000	0.07			9.3	OK
7.001	701	16	27.850	0.590	0.000	0.07			9.3	SURCHARGED
5.004	404	16	27.849	-0.242	0.000	0.00			46.0	OK
1.005	405	16	27.849	1.649	0.000	0.47			16.6	SURCHARGED
1.006	107	16	27.930	1.905	0.000	0.15			4.0	SURCHARGED
1.007	108	16	25.814	-0.191	0.000	0.05			4.0	OK

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Summary Wizard of 240 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	18		29.315	-0.135	0.000	0.02			0.8	OK
1.001	101	28		28.088	-0.262	0.000	0.04			8.1	OK
2.000	600	18		29.078	-0.132	0.000	0.04			2.5	OK
1.002	102	14		27.958	0.488	0.000	0.09			16.7	SURCHARGED
1.003	104	14		27.956	1.026	0.000	0.12			19.7	SURCHARGED
3.000	200	18		29.001	-0.099	0.000	0.26			4.7	OK
3.001	201	18		28.728	-0.222	0.000	0.15			9.9	OK
3.002	202	19		28.584	-0.256	0.000	0.05			13.8	OK
4.000	300	14		27.959	-0.146	0.000	0.10			9.8	OK
3.003	203	14		27.958	0.228	0.000	0.11			27.1	SURCHARGED
1.004	105	14		27.956	1.456	0.000	0.33			45.6	SURCHARGED
5.000	400	18		29.074	-0.076	0.000	0.13			0.8	OK
5.001	401	18		28.846	-0.124	0.000	0.07			2.9	OK
5.002	402	14		27.958	-0.117	0.000	0.04			4.3	OK
6.000	500	29		28.026	-0.114	0.000	0.13			2.7	OK
6.001	501	17		27.961	-0.004	0.000	0.34			4.7	OK

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Summary Wizard of 240 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	14	27.958	0.203	0.000	0.15			5.8	SURCHARGED
6.003	503	14	27.958	0.318	0.000	0.37			14.2	SURCHARGED
5.003	403	14	27.958	0.428	0.000	0.10			23.6	SURCHARGED
7.000	700	27	28.119	-0.191	0.000	0.05			7.6	OK
7.001	701	14	27.957	0.697	0.000	0.06			7.6	SURCHARGED
5.004	404	14	27.956	-0.135	0.000	0.00			37.5	OK
1.005	405	14	27.956	1.756	0.000	0.47			16.8	SURCHARGED
1.006	107	14	28.020	1.995	0.000	0.15			4.1	SURCHARGED
1.007	108	14	25.814	-0.191	0.000	0.06			4.1	OK

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Summary Wizard of 360 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	28		29.311	-0.139	0.000	0.02			0.6	OK
1.001	101	13		28.119	-0.231	0.000	0.03			5.9	OK
2.000	600	28		29.076	-0.134	0.000	0.03			1.8	OK
1.002	102	10		28.116	0.646	0.000	0.07			12.3	SURCHARGED
1.003	104	10		28.109	1.179	0.000	0.09			14.5	SURCHARGED
3.000	200	28		28.994	-0.106	0.000	0.19			3.5	OK
3.001	201	27		28.717	-0.233	0.000	0.11			7.3	OK
3.002	202	28		28.578	-0.262	0.000	0.04			10.2	OK
4.000	300	10		28.123	0.018	0.000	0.07			7.3	SURCHARGED
3.003	203	10		28.118	0.388	0.000	0.08			20.1	SURCHARGED
1.004	105	10		28.109	1.609	0.000	0.24			33.5	SURCHARGED
5.000	400	28		29.071	-0.079	0.000	0.10			0.6	OK
5.001	401	27		28.842	-0.128	0.000	0.05			2.1	OK
5.002	402	10		28.117	0.042	0.000	0.03			3.2	SURCHARGED
6.000	500	10		28.127	-0.013	0.000	0.10			2.0	OK
6.001	501	10		28.124	0.159	0.000	0.25			3.5	SURCHARGED

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Summary Wizard of 360 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	10	28.118	0.363	0.000	0.11			4.3	SURCHARGED
6.003	503	10	28.117	0.477	0.000	0.28			10.5	SURCHARGED
5.003	403	10	28.113	0.583	0.000	0.07			17.5	SURCHARGED
7.000	700	37	28.114	-0.196	0.000	0.04			5.6	OK
7.001	701	10	28.108	0.848	0.000	0.04			5.5	SURCHARGED
5.004	404	10	28.107	0.016	0.000	0.00			27.8	SURCHARGED
1.005	405	10	28.107	1.907	0.000	0.46			16.4	SURCHARGED
1.006	107	10	28.168	2.143	0.000	0.16			4.3	SURCHARGED
1.007	108	10	25.815	-0.190	0.000	0.06			4.3	OK

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Summary Wizard of 480 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	36		29.309	-0.141	0.000	0.01			0.5	OK
1.001	101	5		28.410	0.060	0.000	0.02			4.8	SURCHARGED
2.000	600	36		29.075	-0.135	0.000	0.02			1.5	OK
1.002	102	5		28.410	0.940	0.000	0.05			9.9	SURCHARGED
1.003	104	5		28.409	1.479	0.000	0.07			12.0	SURCHARGED
3.000	200	36		28.989	-0.111	0.000	0.15			2.8	OK
3.001	201	36		28.711	-0.239	0.000	0.09			5.9	OK
3.002	202	37		28.574	-0.266	0.000	0.03			8.2	OK
4.000	300	5		28.410	0.305	0.000	0.06			5.9	SURCHARGED
3.003	203	5		28.410	0.680	0.000	0.07			16.1	SURCHARGED
1.004	105	5		28.409	1.909	0.000	0.20			27.2	SURCHARGED
5.000	400	36		29.068	-0.082	0.000	0.08			0.5	OK
5.001	401	36		28.840	-0.130	0.000	0.04			1.7	OK
5.002	402	5		28.409	0.334	0.000	0.03			2.6	SURCHARGED
6.000	500	5		28.412	0.272	0.000	0.08			1.6	SURCHARGED
6.001	501	5		28.412	0.447	0.000	0.20			2.8	SURCHARGED

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Summary Wizard of 480 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	5	28.410	0.655	0.000	0.09			3.4	SURCHARGED
6.003	503	5	28.410	0.770	0.000	0.22			8.4	SURCHARGED
5.003	403	5	28.408	0.878	0.000	0.06			14.0	SURCHARGED
7.000	700	5	28.408	0.098	0.000	0.03			4.5	SURCHARGED
7.001	701	5	28.408	1.148	0.000	0.03			4.5	SURCHARGED
5.004	404	5	28.407	0.316	0.000	0.00			22.5	SURCHARGED
1.005	405	5	28.407	2.207	0.000	0.47			16.7	SURCHARGED
1.006	107	5	28.402	2.377	0.000	0.17			4.5	SURCHARGED
1.007	108	5	25.816	-0.189	0.000	0.06			4.5	OK

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Summary Wizard of 600 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	42		29.308	-0.142	0.000	0.01			0.4	OK
1.001	101	4		28.419	0.069	0.000	0.02			4.0	SURCHARGED
2.000	600	42		29.073	-0.137	0.000	0.02			1.2	OK
1.002	102	4		28.419	0.949	0.000	0.05			8.3	SURCHARGED
1.003	104	4		28.419	1.489	0.000	0.06			10.3	SURCHARGED
3.000	200	42		28.985	-0.115	0.000	0.13			2.4	OK
3.001	201	42		28.705	-0.245	0.000	0.08			4.9	OK
3.002	202	43		28.572	-0.268	0.000	0.03			6.9	OK
4.000	300	4		28.419	0.314	0.000	0.05			4.9	SURCHARGED
3.003	203	4		28.419	0.689	0.000	0.06			13.6	SURCHARGED
1.004	105	4		28.418	1.918	0.000	0.17			23.5	SURCHARGED
5.000	400	42		29.066	-0.084	0.000	0.06			0.4	OK
5.001	401	41		28.838	-0.132	0.000	0.04			1.4	OK
5.002	402	4		28.418	0.343	0.000	0.02			2.2	SURCHARGED
6.000	500	4		28.421	0.281	0.000	0.07			1.3	SURCHARGED
6.001	501	4		28.421	0.456	0.000	0.17			2.4	SURCHARGED

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Summary Wizard of 600 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	4	28.419	0.664	0.000	0.08			2.9	SURCHARGED
6.003	503	4	28.419	0.779	0.000	0.19			7.1	SURCHARGED
5.003	403	4	28.418	0.888	0.000	0.05			11.8	SURCHARGED
7.000	700	4	28.417	0.107	0.000	0.03			3.8	SURCHARGED
7.001	701	4	28.417	1.157	0.000	0.03			3.8	SURCHARGED
5.004	404	4	28.416	0.325	0.000	0.00			19.1	SURCHARGED
1.005	405	4	28.416	2.216	0.000	0.47			16.8	SURCHARGED
1.006	107	4	28.411	2.386	0.000	0.17			4.5	SURCHARGED
1.007	108	4	25.816	-0.189	0.000	0.06			4.5	OK

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Summary Wizard of 720 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	48		29.307	-0.143	0.000	0.01			0.4	OK
1.001	101	6		28.391	0.041	0.000	0.02			3.5	SURCHARGED
2.000	600	48		29.071	-0.139	0.000	0.02			1.1	OK
1.002	102	6		28.391	0.921	0.000	0.04			7.2	SURCHARGED
1.003	104	6		28.390	1.460	0.000	0.06			9.1	SURCHARGED
3.000	200	48		28.983	-0.117	0.000	0.11			2.1	OK
3.001	201	48		28.700	-0.250	0.000	0.07			4.3	OK
3.002	202	48		28.571	-0.269	0.000	0.02			6.0	OK
4.000	300	6		28.391	0.286	0.000	0.04			4.3	SURCHARGED
3.003	203	6		28.391	0.661	0.000	0.05			11.8	SURCHARGED
1.004	105	6		28.390	1.890	0.000	0.15			20.5	SURCHARGED
5.000	400	48		29.065	-0.085	0.000	0.06			0.4	OK
5.001	401	47		28.837	-0.133	0.000	0.03			1.3	OK
5.002	402	6		28.390	0.315	0.000	0.02			1.9	SURCHARGED
6.000	500	6		28.393	0.253	0.000	0.06			1.2	SURCHARGED
6.001	501	6		28.393	0.428	0.000	0.15			2.1	SURCHARGED

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Summary Wizard of 720 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	6	28.391	0.636	0.000	0.07			2.5	SURCHARGED
6.003	503	6	28.391	0.751	0.000	0.16			6.2	SURCHARGED
5.003	403	6	28.389	0.859	0.000	0.04			10.3	SURCHARGED
7.000	700	6	28.389	0.079	0.000	0.02			3.3	SURCHARGED
7.001	701	6	28.389	1.129	0.000	0.02			3.3	SURCHARGED
5.004	404	6	28.388	0.297	0.000	0.00			16.6	SURCHARGED
1.005	405	6	28.388	2.188	0.000	0.45			16.0	SURCHARGED
1.006	107	6	28.383	2.358	0.000	0.16			4.5	SURCHARGED
1.007	108	6	25.816	-0.189	0.000	0.06			4.5	OK

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Summary Wizard of 960 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	57		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	8		28.265	-0.085	0.000	0.01			2.8	OK
2.000	600	57		29.069	-0.141	0.000	0.01			0.9	OK
1.002	102	8		28.265	0.795	0.000	0.03			5.8	SURCHARGED
1.003	104	8		28.264	1.334	0.000	0.04			7.1	SURCHARGED
3.000	200	57		28.980	-0.120	0.000	0.09			1.6	OK
3.001	201	57		28.694	-0.256	0.000	0.05			3.4	OK
3.002	202	57		28.566	-0.274	0.000	0.02			4.8	OK
4.000	300	8		28.265	0.160	0.000	0.03			3.4	SURCHARGED
3.003	203	8		28.265	0.535	0.000	0.04			9.4	SURCHARGED
1.004	105	8		28.264	1.764	0.000	0.12			16.2	SURCHARGED
5.000	400	57		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	56		28.836	-0.134	0.000	0.02			1.0	OK
5.002	402	8		28.264	0.189	0.000	0.02			1.5	SURCHARGED
6.000	500	8		28.267	0.127	0.000	0.05			0.9	SURCHARGED
6.001	501	8		28.266	0.301	0.000	0.12			1.6	SURCHARGED
6.002	502	8		28.265	0.510	0.000	0.05			2.0	SURCHARGED
6.003	503	8		28.265	0.625	0.000	0.13			4.9	SURCHARGED
5.003	403	8		28.263	0.733	0.000	0.04			8.2	SURCHARGED

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Summary Wizard of 960 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	8	28.263	-0.047	0.000	0.02			2.6	OK
7.001	701	8	28.263	1.003	0.000	0.02			2.6	SURCHARGED
5.004	404	8	28.262	0.171	0.000	0.00		1007	13.3	SURCHARGED
1.005	405	8	28.262	2.062	0.000	0.35			12.5	SURCHARGED
1.006	107	8	28.257	2.232	0.000	0.16			4.4	SURCHARGED
1.007	108	8	25.815	-0.190	0.000	0.06			4.4	OK

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Summary Wizard of 1440 minute 100 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		68	29.304	-0.146	0.000	0.01			0.2	OK
1.001	101		69	28.064	-0.286	0.000	0.01			2.0	OK
2.000	600		68	29.067	-0.143	0.000	0.01			0.6	OK
1.002	102		11	28.035	0.565	0.000	0.02			4.2	SURCHARGED
1.003	104		11	28.034	1.104	0.000	0.03			5.2	SURCHARGED
3.000	200		68	28.975	-0.125	0.000	0.06			1.2	OK
3.001	201		68	28.688	-0.262	0.000	0.04			2.5	OK
3.002	202		68	28.559	-0.281	0.000	0.01			3.5	OK
4.000	300		11	28.035	-0.070	0.000	0.02			2.5	OK
3.003	203		11	28.035	0.305	0.000	0.03			6.9	SURCHARGED
1.004	105		11	28.034	1.534	0.000	0.09			11.9	SURCHARGED
5.000	400		68	29.062	-0.088	0.000	0.03			0.2	OK
5.001	401		68	28.833	-0.137	0.000	0.02			0.7	OK
5.002	402		11	28.036	-0.039	0.000	0.01			1.1	OK
6.000	500		17	28.038	-0.102	0.000	0.03			0.7	OK
6.001	501		12	28.038	0.073	0.000	0.09			1.2	SURCHARGED
6.002	502		11	28.037	0.282	0.000	0.04			1.5	SURCHARGED
6.003	503		11	28.036	0.396	0.000	0.09			3.6	SURCHARGED
5.003	403		11	28.035	0.505	0.000	0.03			6.0	SURCHARGED

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Summary Wizard of 1440 minute 100 year Summer I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	69	28.100	-0.210	0.000	0.01			1.9	OK
7.001	701	11	28.035	0.775	0.000	0.01			1.9	SURCHARGED
5.004	404	11	28.034	-0.057	0.000	0.00		1119	9.7	OK
1.005	405	11	28.034	1.834	0.000	0.24			8.6	SURCHARGED
1.006	107	11	28.095	2.070	0.000	0.15			4.2	SURCHARGED
1.007	108	11	25.814	-0.191	0.000	0.06			4.2	OK

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Summary Wizard of 15 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	30		29.311	-0.139	0.000	0.01			0.6	OK
1.001	101	42		28.081	-0.269	0.000	0.02			4.9	OK
2.000	600	30		29.076	-0.134	0.000	0.03			1.7	OK
1.002	102	44		27.216	-0.254	0.000	0.06			10.2	OK
1.003	104	60		26.686	-0.244	0.000	0.08			12.9	OK
3.000	200	30		28.993	-0.107	0.000	0.18			3.3	OK
3.001	201	31		28.713	-0.237	0.000	0.10			6.3	OK
3.002	202	34		28.575	-0.265	0.000	0.03			8.6	OK
4.000	300	42		27.856	-0.249	0.000	0.07			6.8	OK
3.003	203	43		27.484	-0.246	0.000	0.07			17.5	OK
1.004	105	118		26.296	-0.204	0.000	0.22			30.5	OK
5.000	400	30		29.070	-0.080	0.000	0.09			0.6	OK
5.001	401	33		28.840	-0.130	0.000	0.04			1.8	OK
5.002	402	44		27.875	-0.200	0.000	0.03			2.6	OK
6.000	500	40		28.021	-0.119	0.000	0.09			1.9	OK
6.001	501	43		27.863	-0.102	0.000	0.22			3.1	OK

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Summary Wizard of 15 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	43	27.577	-0.178	0.000	0.10			3.7	OK
6.003	503	45	27.488	-0.152	0.000	0.23			8.6	OK
5.003	403	45	27.278	-0.252	0.000	0.06			14.3	OK
7.000	700	39	28.113	-0.197	0.000	0.04			5.4	OK
7.001	701	42	27.064	-0.196	0.000	0.04			5.3	OK
5.004	404	119	26.181	-1.910	0.000	0.00			23.9	OK
1.005	405	119	26.181	-0.019	0.000	0.23			8.1	OK
1.006	107	120	26.180	0.155	0.000	0.07			1.8	SURCHARGED
1.007	108	120	25.804	-0.201	0.000	0.02			1.8	OK

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Summary Wizard of 30 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	39		29.308	-0.142	0.000	0.01			0.5	OK
1.001	101	48		28.079	-0.271	0.000	0.02			4.1	OK
2.000	600	39		29.074	-0.136	0.000	0.02			1.4	OK
1.002	102	50		27.212	-0.258	0.000	0.05			8.6	OK
1.003	104	64		26.681	-0.249	0.000	0.07			10.9	OK
3.000	200	39		28.987	-0.113	0.000	0.14			2.6	OK
3.001	201	40		28.707	-0.243	0.000	0.08			5.2	OK
3.002	202	41		28.573	-0.267	0.000	0.03			7.2	OK
4.000	300	49		27.849	-0.256	0.000	0.05			5.4	OK
3.003	203	50		27.478	-0.252	0.000	0.06			14.4	OK
1.004	105	120		26.287	-0.213	0.000	0.18			25.4	OK
5.000	400	39		29.068	-0.082	0.000	0.07			0.5	OK
5.001	401	40		28.839	-0.131	0.000	0.04			1.5	OK
5.002	402	50		27.873	-0.202	0.000	0.02			2.2	OK
6.000	500	48		28.016	-0.124	0.000	0.07			1.5	OK
6.001	501	50		27.858	-0.107	0.000	0.18			2.5	OK

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Summary Wizard of 30 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	50	27.572	-0.183	0.000	0.08			3.1	OK
6.003	503	50	27.482	-0.158	0.000	0.19			7.3	OK
5.003	403	50	27.274	-0.256	0.000	0.05			12.2	OK
7.000	700	47	28.111	-0.199	0.000	0.03			4.2	OK
7.001	701	49	27.061	-0.199	0.000	0.03			4.2	OK
5.004	404	118	26.238	-1.853	0.000	0.00			19.8	OK
1.005	405	118	26.238	0.038	0.000	0.15			5.4	SURCHARGED
1.006	107	116	26.309	0.284	0.000	0.07			2.0	SURCHARGED
1.007	108	117	25.805	-0.200	0.000	0.03			2.0	OK

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Summary Wizard of 60 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	52		29.306	-0.144	0.000	0.01			0.3	OK
1.001	101	56		28.071	-0.279	0.000	0.01			3.0	OK
2.000	600	52		29.070	-0.140	0.000	0.01			0.9	OK
1.002	102	58		27.206	-0.264	0.000	0.03			6.2	OK
1.003	104	70		26.672	-0.258	0.000	0.05			7.8	OK
3.000	200	52		28.981	-0.119	0.000	0.10			1.8	OK
3.001	201	52		28.696	-0.254	0.000	0.06			3.7	OK
3.002	202	53		28.568	-0.272	0.000	0.02			5.1	OK
4.000	300	58		27.842	-0.263	0.000	0.04			3.7	OK
3.003	203	58		27.469	-0.261	0.000	0.04			10.1	OK
1.004	105	116		26.298	-0.202	0.000	0.13			18.0	OK
5.000	400	52		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	52		28.836	-0.134	0.000	0.03			1.1	OK
5.002	402	58		27.868	-0.207	0.000	0.02			1.6	OK
6.000	500	57		28.011	-0.129	0.000	0.05			1.0	OK
6.001	501	58		27.850	-0.115	0.000	0.13			1.8	OK

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Summary Wizard of 60 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	58	27.564	-0.191	0.000	0.06			2.2	OK
6.003	503	58	27.470	-0.170	0.000	0.14			5.3	OK
5.003	403	58	27.267	-0.263	0.000	0.04			8.8	OK
7.000	700	56	28.107	-0.203	0.000	0.02			2.9	OK
7.001	701	58	27.058	-0.202	0.000	0.02			2.9	OK
5.004	404	113	26.298	-1.793	0.000	0.00			14.1	OK
1.005	405	113	26.298	0.098	0.000	0.15			5.4	SURCHARGED
1.006	107	114	26.371	0.346	0.000	0.08			2.1	SURCHARGED
1.007	108	114	25.805	-0.200	0.000	0.03			2.1	OK

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Summary Wizard of 120 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	69		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	70		28.064	-0.286	0.000	0.01			1.9	OK
2.000	600	69		29.066	-0.144	0.000	0.01			0.6	OK
1.002	102	71		27.200	-0.270	0.000	0.02			4.0	OK
1.003	104	79		26.665	-0.265	0.000	0.03			5.1	OK
3.000	200	69		28.974	-0.126	0.000	0.06			1.2	OK
3.001	201	69		28.687	-0.263	0.000	0.04			2.4	OK
3.002	202	69		28.558	-0.282	0.000	0.01			3.4	OK
4.000	300	71		27.836	-0.269	0.000	0.02			2.4	OK
3.003	203	71		27.463	-0.267	0.000	0.03			6.6	OK
1.004	105	104		26.352	-0.148	0.000	0.09			11.8	OK
5.000	400	69		29.062	-0.088	0.000	0.03			0.2	OK
5.001	401	69		28.832	-0.138	0.000	0.02			0.7	OK
5.002	402	71		27.862	-0.213	0.000	0.01			1.0	OK
6.000	500	71		28.007	-0.133	0.000	0.03			0.7	OK
6.001	501	71		27.844	-0.121	0.000	0.08			1.2	OK

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Summary Wizard of 120 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	71	27.558	-0.197	0.000	0.04			1.4	OK
6.003	503	71	27.460	-0.180	0.000	0.09			3.4	OK
5.003	403	71	27.262	-0.268	0.000	0.02			5.7	OK
7.000	700	70	28.099	-0.211	0.000	0.01			1.9	OK
7.001	701	72	27.050	-0.210	0.000	0.01			1.9	OK
5.004	404	104	26.350	-1.741	0.000	0.00			9.3	OK
1.005	405	104	26.350	0.150	0.000	0.16			5.7	SURCHARGED
1.006	107	106	26.422	0.397	0.000	0.08			2.2	SURCHARGED
1.007	108	106	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 180 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		81	29.303	-0.147	0.000	0.00			0.2	OK
1.001	101		81	28.060	-0.290	0.000	0.01			1.5	OK
2.000	600		81	29.065	-0.145	0.000	0.01			0.5	OK
1.002	102		82	27.194	-0.276	0.000	0.02			3.1	OK
1.003	104		87	26.661	-0.269	0.000	0.02			4.0	OK
3.000	200		81	28.971	-0.129	0.000	0.05			0.9	OK
3.001	201		81	28.683	-0.267	0.000	0.03			1.8	OK
3.002	202		81	28.554	-0.286	0.000	0.01			2.6	OK
4.000	300		82	27.831	-0.274	0.000	0.02			1.9	OK
3.003	203		82	27.460	-0.270	0.000	0.02			5.1	OK
1.004	105		100	26.375	-0.125	0.000	0.07			9.0	OK
5.000	400		81	29.060	-0.090	0.000	0.02			0.2	OK
5.001	401		81	28.829	-0.141	0.000	0.01			0.5	OK
5.002	402		82	27.859	-0.216	0.000	0.01			0.8	OK
6.000	500		82	28.006	-0.134	0.000	0.02			0.5	OK
6.001	501		82	27.839	-0.126	0.000	0.06			0.9	OK
6.002	502		82	27.555	-0.200	0.000	0.03			1.1	OK
6.003	503		82	27.454	-0.186	0.000	0.07			2.7	OK
5.003	403		82	27.257	-0.273	0.000	0.02			4.4	OK

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Summary Wizard of 180 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	81	28.096	-0.214	0.000	0.01			1.4	OK
7.001	701	82	27.047	-0.213	0.000	0.01			1.4	OK
5.004	404	100	26.374	-1.717	0.000	0.00		145	7.1	OK
1.005	405	100	26.374	0.174	0.000	0.16			5.6	SURCHARGED
1.006	107	103	26.452	0.427	0.000	0.08			2.2	SURCHARGED
1.007	108	103	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 240 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	89	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	90	28.059	-0.291	0.000	0.01			1.2	OK
2.000	600	89	29.064	-0.146	0.000	0.01			0.4	OK
1.002	102	90	27.190	-0.280	0.000	0.01			2.6	OK
1.003	104	93	26.658	-0.272	0.000	0.02			3.3	OK
3.000	200	89	28.969	-0.131	0.000	0.04			0.7	OK
3.001	201	89	28.681	-0.269	0.000	0.02			1.5	OK
3.002	202	90	28.551	-0.289	0.000	0.01			2.1	OK
4.000	300	89	27.826	-0.279	0.000	0.02			1.5	OK
3.003	203	89	27.455	-0.275	0.000	0.02			4.2	OK
1.004	105	96	26.386	-0.114	0.000	0.05			7.5	OK
5.000	400	89	29.060	-0.090	0.000	0.02			0.1	OK
5.001	401	90	28.828	-0.142	0.000	0.01			0.4	OK
5.002	402	90	27.857	-0.218	0.000	0.01			0.7	OK
6.000	500	89	28.004	-0.136	0.000	0.02			0.4	OK
6.001	501	89	27.837	-0.128	0.000	0.05			0.7	OK
6.002	502	89	27.553	-0.202	0.000	0.02			0.9	OK
6.003	503	90	27.450	-0.190	0.000	0.06			2.2	OK
5.003	403	90	27.252	-0.278	0.000	0.02			3.7	OK

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Summary Wizard of 240 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	89	28.094	-0.216	0.000	0.01			1.2	OK
7.001	701	89	27.045	-0.215	0.000	0.01			1.2	OK
5.004	404	96	26.385	-1.706	0.000	0.00		151	5.9	OK
1.005	405	96	26.385	0.185	0.000	0.16			5.8	SURCHARGED
1.006	107	100	26.457	0.432	0.000	0.08			2.3	SURCHARGED
1.007	108	96	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 360 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	100	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	100	28.057	-0.293	0.000	0.00			0.9	OK
2.000	600	100	29.063	-0.147	0.000	0.00			0.3	OK
1.002	102	100	27.185	-0.285	0.000	0.01			2.0	OK
1.003	104	101	26.652	-0.278	0.000	0.02			2.5	OK
3.000	200	100	28.967	-0.133	0.000	0.03			0.6	OK
3.001	201	100	28.676	-0.274	0.000	0.02			1.2	OK
3.002	202	100	28.549	-0.291	0.000	0.01			1.6	OK
4.000	300	100	27.821	-0.284	0.000	0.01			1.2	OK
3.003	203	100	27.449	-0.281	0.000	0.01			3.2	OK
1.004	105	89	26.394	-0.106	0.000	0.04			5.7	OK
5.000	400	100	29.057	-0.093	0.000	0.02			0.1	OK
5.001	401	100	28.826	-0.144	0.000	0.01			0.3	OK
5.002	402	100	27.856	-0.219	0.000	0.01			0.5	OK
6.000	500	100	28.001	-0.139	0.000	0.02			0.3	OK
6.001	501	100	27.834	-0.131	0.000	0.04			0.6	OK
6.002	502	100	27.549	-0.206	0.000	0.02			0.7	OK
6.003	503	100	27.445	-0.195	0.000	0.04			1.7	OK
5.003	403	100	27.247	-0.283	0.000	0.01			2.8	OK

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Summary Wizard of 360 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	100	28.092	-0.218	0.000	0.01			0.9	OK
7.001	701	100	27.042	-0.218	0.000	0.01			0.9	OK
5.004	404	89	26.393	-1.698	0.000	0.00		207	4.5	OK
1.005	405	89	26.393	0.193	0.000	0.16			5.9	SURCHARGED
1.006	107	93	26.476	0.451	0.000	0.08			2.3	SURCHARGED
1.007	108	89	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 480 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	107		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	107		28.055	-0.295	0.000	0.00			0.8	OK
2.000	600	107		29.063	-0.147	0.000	0.00			0.2	OK
1.002	102	107		27.182	-0.288	0.000	0.01			1.6	OK
1.003	104	108		26.648	-0.282	0.000	0.01			2.0	OK
3.000	200	107		28.966	-0.134	0.000	0.02			0.5	OK
3.001	201	107		28.671	-0.279	0.000	0.01			1.0	OK
3.002	202	107		28.547	-0.293	0.000	0.01			1.3	OK
4.000	300	107		27.818	-0.287	0.000	0.01			1.0	OK
3.003	203	107		27.445	-0.285	0.000	0.01			2.6	OK
1.004	105	91		26.392	-0.108	0.000	0.03			4.6	OK
5.000	400	107		29.056	-0.094	0.000	0.01			0.1	OK
5.001	401	107		28.825	-0.145	0.000	0.01			0.3	OK
5.002	402	107		27.855	-0.220	0.000	0.00			0.4	OK
6.000	500	107		27.999	-0.141	0.000	0.01			0.3	OK
6.001	501	107		27.833	-0.132	0.000	0.03			0.5	OK
6.002	502	107		27.545	-0.210	0.000	0.01			0.6	OK
6.003	503	107		27.442	-0.198	0.000	0.04			1.4	OK
5.003	403	107		27.244	-0.286	0.000	0.01			2.3	OK

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Summary Wizard of 480 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	107	28.091	-0.219	0.000	0.01			0.7	OK
7.001	701	107	27.041	-0.219	0.000	0.01			0.7	OK
5.004	404	91	26.390	-1.701	0.000	0.00		232	3.7	OK
1.005	405	91	26.390	0.190	0.000	0.16			5.9	SURCHARGED
1.006	107	94	26.473	0.448	0.000	0.08			2.3	SURCHARGED
1.007	108	91	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 600 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		113	29.301	-0.149	0.000	0.00			0.1	OK
1.001	101		113	28.055	-0.295	0.000	0.00			0.7	OK
2.000	600		113	29.062	-0.148	0.000	0.00			0.2	OK
1.002	102		113	27.181	-0.289	0.000	0.01			1.4	OK
1.003	104		113	26.645	-0.285	0.000	0.01			1.7	OK
3.000	200		113	28.965	-0.135	0.000	0.02			0.4	OK
3.001	201		113	28.668	-0.282	0.000	0.01			0.8	OK
3.002	202		113	28.546	-0.294	0.000	0.00			1.1	OK
4.000	300		113	27.816	-0.289	0.000	0.01			0.8	OK
3.003	203		113	27.443	-0.287	0.000	0.01			2.2	OK
1.004	105		97	26.382	-0.118	0.000	0.03			4.0	OK
5.000	400		113	29.055	-0.095	0.000	0.01			0.1	OK
5.001	401		113	28.824	-0.146	0.000	0.01			0.2	OK
5.002	402		113	27.854	-0.221	0.000	0.00			0.4	OK
6.000	500		113	27.998	-0.142	0.000	0.01			0.2	OK
6.001	501		113	27.832	-0.133	0.000	0.03			0.4	OK
6.002	502		113	27.543	-0.212	0.000	0.01			0.5	OK
6.003	503		113	27.441	-0.199	0.000	0.03			1.2	OK
5.003	403		113	27.242	-0.288	0.000	0.01			1.9	OK

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Summary Wizard of 600 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	113	28.090	-0.220	0.000	0.00			0.6	OK
7.001	701	113	27.040	-0.220	0.000	0.00			0.6	OK
5.004	404	98	26.381	-1.710	0.000	0.00		241	3.1	OK
1.005	405	98	26.381	0.181	0.000	0.16			5.8	SURCHARGED
1.006	107	102	26.453	0.428	0.000	0.08			2.2	SURCHARGED
1.007	108	97	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 720 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	114		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	114		28.054	-0.296	0.000	0.00			0.6	OK
2.000	600	114		29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	114		27.179	-0.291	0.000	0.01			1.2	OK
1.003	104	114		26.643	-0.287	0.000	0.01			1.5	OK
3.000	200	114		28.963	-0.137	0.000	0.02			0.3	OK
3.001	201	114		28.666	-0.284	0.000	0.01			0.7	OK
3.002	202	114		28.545	-0.295	0.000	0.00			1.0	OK
4.000	300	114		27.815	-0.290	0.000	0.01			0.7	OK
3.003	203	114		27.442	-0.288	0.000	0.01			2.0	OK
1.004	105	102		26.372	-0.128	0.000	0.03			3.5	OK
5.000	400	114		29.054	-0.096	0.000	0.01			0.1	OK
5.001	401	114		28.824	-0.146	0.000	0.01			0.2	OK
5.002	402	114		27.853	-0.222	0.000	0.00			0.3	OK
6.000	500	114		27.997	-0.143	0.000	0.01			0.2	OK
6.001	501	114		27.831	-0.134	0.000	0.02			0.3	OK
6.002	502	114		27.542	-0.213	0.000	0.01			0.4	OK
6.003	503	114		27.439	-0.201	0.000	0.03			1.0	OK
5.003	403	114		27.240	-0.290	0.000	0.01			1.7	OK

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Summary Wizard of 720 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	114	28.089	-0.221	0.000	0.00			0.6	OK
7.001	701	114	27.039	-0.221	0.000	0.00			0.6	OK
5.004	404	102	26.371	-1.720	0.000	0.00		251	2.8	OK
1.005	405	102	26.371	0.171	0.000	0.16			5.6	SURCHARGED
1.006	107	97	26.461	0.436	0.000	0.08			2.2	SURCHARGED
1.007	108	100	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 960 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	118	29.301	-0.149	0.000	0.00			0.0	OK
1.001	101	118	28.053	-0.297	0.000	0.00			0.5	OK
2.000	600	118	29.062	-0.148	0.000	0.00			0.1	OK
1.002	102	118	27.178	-0.292	0.000	0.01			1.0	OK
1.003	104	118	26.641	-0.289	0.000	0.01			1.3	OK
3.000	200	118	28.961	-0.139	0.000	0.02			0.3	OK
3.001	201	118	28.663	-0.287	0.000	0.01			0.6	OK
3.002	202	118	28.544	-0.296	0.000	0.00			0.8	OK
4.000	300	118	27.813	-0.292	0.000	0.01			0.6	OK
3.003	203	118	27.440	-0.290	0.000	0.01			1.6	OK
1.004	105	105	26.350	-0.150	0.000	0.02			2.9	OK
5.000	400	118	29.054	-0.096	0.000	0.01			0.0	OK
5.001	401	118	28.823	-0.147	0.000	0.00			0.2	OK
5.002	402	118	27.853	-0.222	0.000	0.00			0.3	OK
6.000	500	118	27.995	-0.145	0.000	0.01			0.2	OK
6.001	501	118	27.829	-0.136	0.000	0.02			0.3	OK
6.002	502	118	27.540	-0.215	0.000	0.01			0.3	OK
6.003	503	118	27.438	-0.202	0.000	0.02			0.8	OK
5.003	403	118	27.239	-0.291	0.000	0.01			1.4	OK

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Summary Wizard of 960 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	118	28.088	-0.222	0.000	0.00			0.5	OK
7.001	701	118	27.039	-0.221	0.000	0.00			0.5	OK
5.004	404	105	26.349	-1.742	0.000	0.00		282	2.3	OK
1.005	405	105	26.349	0.149	0.000	0.15			5.5	SURCHARGED
1.006	107	105	26.435	0.410	0.000	0.08			2.2	SURCHARGED
1.007	108	105	25.806	-0.199	0.000	0.03			2.2	OK

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Summary Wizard of 1440 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	120		29.301	-0.149	0.000	0.00			0.0	OK
1.001	101	120		28.053	-0.297	0.000	0.00			0.4	OK
2.000	600	120		29.061	-0.149	0.000	0.00			0.1	OK
1.002	102	120		27.176	-0.294	0.000	0.00			0.7	OK
1.003	104	120		26.638	-0.292	0.000	0.01			0.9	OK
3.000	200	120		28.958	-0.142	0.000	0.01			0.2	OK
3.001	201	120		28.660	-0.290	0.000	0.01			0.4	OK
3.002	202	120		28.543	-0.297	0.000	0.00			0.6	OK
4.000	300	120		27.811	-0.294	0.000	0.00			0.4	OK
3.003	203	120		27.437	-0.293	0.000	0.01			1.2	OK
1.004	105	114		26.306	-0.194	0.000	0.02			2.2	OK
5.000	400	120		29.053	-0.097	0.000	0.01			0.0	OK
5.001	401	120		28.822	-0.148	0.000	0.00			0.1	OK
5.002	402	120		27.852	-0.223	0.000	0.00			0.2	OK
6.000	500	120		27.994	-0.146	0.000	0.01			0.1	OK
6.001	501	120		27.826	-0.139	0.000	0.02			0.2	OK
6.002	502	120		27.537	-0.218	0.000	0.01			0.3	OK
6.003	503	120		27.433	-0.207	0.000	0.02			0.6	OK
5.003	403	120		27.236	-0.294	0.000	0.00			1.1	OK

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Summary Wizard of 1440 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	120	28.088	-0.222	0.000	0.00			0.3	OK
7.001	701	120	27.038	-0.222	0.000	0.00			0.3	OK
5.004	404	112	26.305	-1.786	0.000	0.00		276	1.7	OK
1.005	405	112	26.305	0.105	0.000	0.16			5.6	SURCHARGED
1.006	107	112	26.387	0.362	0.000	0.08			2.1	SURCHARGED
1.007	108	112	25.805	-0.200	0.000	0.03			2.1	OK

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Summary Wizard of 15 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	21		29.314	-0.136	0.000	0.02			0.7	OK
1.001	101	35		28.085	-0.265	0.000	0.03			6.3	OK
2.000	600	21		29.078	-0.132	0.000	0.03			2.2	OK
1.002	102	37		27.223	-0.247	0.000	0.07			13.2	OK
1.003	104	54		26.694	-0.236	0.000	0.10			16.6	OK
3.000	200	21		28.999	-0.101	0.000	0.23			4.3	OK
3.001	201	23		28.722	-0.228	0.000	0.13			8.2	OK
3.002	202	24		28.580	-0.260	0.000	0.04			11.2	OK
4.000	300	34		27.865	-0.240	0.000	0.09			8.8	OK
3.003	203	37		27.492	-0.238	0.000	0.09			22.7	OK
1.004	105	113		26.310	-0.190	0.000	0.29			39.5	OK
5.000	400	21		29.073	-0.077	0.000	0.12			0.7	OK
5.001	401	23		28.843	-0.127	0.000	0.06			2.3	OK
5.002	402	36		27.877	-0.198	0.000	0.04			3.4	OK
6.000	500	32		28.024	-0.116	0.000	0.12			2.4	OK
6.001	501	36		27.870	-0.095	0.000	0.29			4.0	OK

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Summary Wizard of 15 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	37	27.583	-0.172	0.000	0.13			4.8	OK
6.003	503	39	27.498	-0.142	0.000	0.29			11.2	OK
5.003	403	38	27.286	-0.244	0.000	0.08			18.5	OK
7.000	700	30	28.117	-0.193	0.000	0.05			6.9	OK
7.001	701	35	27.068	-0.192	0.000	0.05			6.9	OK
5.004	404	115	26.241	-1.850	0.000	0.00			30.6	OK
1.005	405	115	26.241	0.041	0.000	0.25			9.0	SURCHARGED
1.006	107	115	26.311	0.286	0.000	0.07			2.0	SURCHARGED
1.007	108	118	25.805	-0.200	0.000	0.03			2.0	OK

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Summary Wizard of 30 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	29		29.311	-0.139	0.000	0.02			0.6	OK
1.001	101	38		28.082	-0.268	0.000	0.03			5.3	OK
2.000	600	29		29.076	-0.134	0.000	0.03			1.8	OK
1.002	102	40		27.218	-0.252	0.000	0.06			11.2	OK
1.003	104	57		26.689	-0.241	0.000	0.09			14.1	OK
3.000	200	29		28.993	-0.107	0.000	0.18			3.4	OK
3.001	201	29		28.715	-0.235	0.000	0.11			6.7	OK
3.002	202	29		28.576	-0.264	0.000	0.04			9.3	OK
4.000	300	41		27.856	-0.249	0.000	0.07			7.0	OK
3.003	203	41		27.485	-0.245	0.000	0.08			18.5	OK
1.004	105	110		26.316	-0.184	0.000	0.24			32.7	OK
5.000	400	29		29.070	-0.080	0.000	0.09			0.6	OK
5.001	401	28		28.841	-0.129	0.000	0.05			1.9	OK
5.002	402	40		27.875	-0.200	0.000	0.03			2.9	OK
6.000	500	39		28.021	-0.119	0.000	0.09			1.9	OK
6.001	501	41		27.864	-0.101	0.000	0.23			3.3	OK

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Summary Wizard of 30 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	41	27.578	-0.177	0.000	0.10			3.9	OK
6.003	503	40	27.491	-0.149	0.000	0.25			9.5	OK
5.003	403	40	27.281	-0.249	0.000	0.07			15.7	OK
7.000	700	38	28.114	-0.196	0.000	0.04			5.4	OK
7.001	701	41	27.064	-0.196	0.000	0.04			5.4	OK
5.004	404	110	26.315	-1.776	0.000	0.00			25.5	OK
1.005	405	110	26.315	0.115	0.000	0.16			5.6	SURCHARGED
1.006	107	111	26.388	0.363	0.000	0.08			2.1	SURCHARGED
1.007	108	111	25.806	-0.199	0.000	0.03			2.1	OK

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Summary Wizard of 60 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	43		29.307	-0.143	0.000	0.01			0.4	OK
1.001	101	50		28.077	-0.273	0.000	0.02			3.8	OK
2.000	600	43		29.073	-0.137	0.000	0.02			1.2	OK
1.002	102	52		27.210	-0.260	0.000	0.04			7.9	OK
1.003	104	66		26.678	-0.252	0.000	0.06			10.0	OK
3.000	200	43		28.985	-0.115	0.000	0.12			2.3	OK
3.001	201	43		28.703	-0.247	0.000	0.07			4.7	OK
3.002	202	45		28.572	-0.268	0.000	0.02			6.5	OK
4.000	300	52		27.846	-0.259	0.000	0.05			4.8	OK
3.003	203	52		27.475	-0.255	0.000	0.05			12.9	OK
1.004	105	93		26.389	-0.111	0.000	0.17			22.9	OK
5.000	400	43		29.066	-0.084	0.000	0.06			0.4	OK
5.001	401	44		28.838	-0.132	0.000	0.03			1.4	OK
5.002	402	52		27.872	-0.203	0.000	0.02			2.0	OK
6.000	500	51		28.014	-0.126	0.000	0.06			1.3	OK
6.001	501	52		27.855	-0.110	0.000	0.16			2.3	OK

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Summary Wizard of 60 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	52	27.569	-0.186	0.000	0.07			2.7	OK
6.003	503	52	27.478	-0.162	0.000	0.18			6.7	OK
5.003	403	52	27.272	-0.258	0.000	0.05			11.2	OK
7.000	700	50	28.109	-0.201	0.000	0.03			3.7	OK
7.001	701	52	27.060	-0.200	0.000	0.03			3.7	OK
5.004	404	93	26.388	-1.703	0.000	0.00			18.0	OK
1.005	405	93	26.388	0.188	0.000	0.18			6.3	SURCHARGED
1.006	107	96	26.466	0.441	0.000	0.08			2.3	SURCHARGED
1.007	108	99	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 120 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	60		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	62		28.067	-0.283	0.000	0.01			2.4	OK
2.000	600	60		29.068	-0.142	0.000	0.01			0.8	OK
1.002	102	64		27.203	-0.267	0.000	0.03			5.1	OK
1.003	104	74		26.668	-0.262	0.000	0.04			6.5	OK
3.000	200	60		28.978	-0.122	0.000	0.08			1.5	OK
3.001	201	60		28.692	-0.258	0.000	0.05			3.0	OK
3.002	202	60		28.563	-0.277	0.000	0.02			4.2	OK
4.000	300	64		27.839	-0.266	0.000	0.03			3.0	OK
3.003	203	64		27.466	-0.264	0.000	0.03			8.3	OK
1.004	105	83		26.455	-0.045	0.000	0.11			14.7	OK
5.000	400	60		29.063	-0.087	0.000	0.04			0.3	OK
5.001	401	60		28.835	-0.135	0.000	0.02			0.9	OK
5.002	402	64		27.864	-0.211	0.000	0.01			1.3	OK
6.000	500	63		28.009	-0.131	0.000	0.04			0.8	OK
6.001	501	64		27.847	-0.118	0.000	0.10			1.4	OK

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Summary Wizard of 120 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	64	27.561	-0.194	0.000	0.05			1.8	OK
6.003	503	64	27.465	-0.175	0.000	0.11			4.3	OK
5.003	403	64	27.264	-0.266	0.000	0.03			7.2	OK
7.000	700	62	28.103	-0.207	0.000	0.02			2.3	OK
7.001	701	64	27.054	-0.206	0.000	0.02			2.3	OK
5.004	404	83	26.453	-1.638	0.000	0.00			11.5	OK
1.005	405	83	26.453	0.253	0.000	0.19			6.8	SURCHARGED
1.006	107	83	26.543	0.518	0.000	0.09			2.4	SURCHARGED
1.007	108	83	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 180 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	73	29.304	-0.146	0.000	0.00			0.2	OK
1.001	101	74	28.063	-0.287	0.000	0.01			1.9	OK
2.000	600	73	29.066	-0.144	0.000	0.01			0.6	OK
1.002	102	75	27.200	-0.270	0.000	0.02			3.9	OK
1.003	104	82	26.664	-0.266	0.000	0.03			4.9	OK
3.000	200	73	28.974	-0.126	0.000	0.06			1.1	OK
3.001	201	73	28.687	-0.263	0.000	0.04			2.3	OK
3.002	202	73	28.557	-0.283	0.000	0.01			3.2	OK
4.000	300	75	27.836	-0.269	0.000	0.02			2.3	OK
3.003	203	75	27.462	-0.268	0.000	0.03			6.3	OK
1.004	105	78	26.486	-0.014	0.000	0.08			11.1	OK
5.000	400	73	29.061	-0.089	0.000	0.03			0.2	OK
5.001	401	73	28.832	-0.138	0.000	0.02			0.7	OK
5.002	402	75	27.861	-0.214	0.000	0.01			1.0	OK
6.000	500	75	28.007	-0.133	0.000	0.03			0.6	OK
6.001	501	75	27.843	-0.122	0.000	0.08			1.1	OK
6.002	502	75	27.557	-0.198	0.000	0.04			1.3	OK
6.003	503	75	27.459	-0.181	0.000	0.09			3.3	OK
5.003	403	75	27.261	-0.269	0.000	0.02			5.5	OK

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Summary Wizard of 180 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	74	28.099	-0.211	0.000	0.01			1.8	OK
7.001	701	76	27.049	-0.211	0.000	0.01			1.8	OK
5.004	404	76	26.484	-1.607	0.000	0.00		183	8.8	OK
1.005	405	76	26.484	0.284	0.000	0.18			6.3	SURCHARGED
1.006	107	80	26.555	0.530	0.000	0.09			2.4	SURCHARGED
1.007	108	79	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 240 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		79	29.303	-0.147	0.000	0.00			0.2	OK
1.001	101		79	28.061	-0.289	0.000	0.01			1.5	OK
2.000	600		79	29.065	-0.145	0.000	0.01			0.5	OK
1.002	102		80	27.194	-0.276	0.000	0.02			3.2	OK
1.003	104		85	26.662	-0.268	0.000	0.02			4.0	OK
3.000	200		79	28.971	-0.129	0.000	0.05			0.9	OK
3.001	201		79	28.684	-0.266	0.000	0.03			1.9	OK
3.002	202		79	28.554	-0.286	0.000	0.01			2.6	OK
4.000	300		80	27.831	-0.274	0.000	0.02			1.9	OK
3.003	203		80	27.460	-0.270	0.000	0.02			5.2	OK
1.004	105		73	26.499	-0.001	0.000	0.07			9.1	OK
5.000	400		79	29.061	-0.089	0.000	0.02			0.2	OK
5.001	401		79	28.830	-0.140	0.000	0.01			0.5	OK
5.002	402		80	27.859	-0.216	0.000	0.01			0.8	OK
6.000	500		80	28.006	-0.134	0.000	0.02			0.5	OK
6.001	501		80	27.840	-0.125	0.000	0.06			0.9	OK
6.002	502		80	27.555	-0.200	0.000	0.03			1.1	OK
6.003	503		80	27.454	-0.186	0.000	0.07			2.7	OK
5.003	403		80	27.257	-0.273	0.000	0.02			4.5	OK

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Summary Wizard of 240 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	79	28.096	-0.214	0.000	0.01			1.5	OK
7.001	701	80	27.047	-0.213	0.000	0.01			1.5	OK
5.004	404	71	26.497	-1.594	0.000	0.00		197	7.3	OK
1.005	405	71	26.497	0.297	0.000	0.16			5.8	SURCHARGED
1.006	107	75	26.575	0.550	0.000	0.09			2.4	SURCHARGED
1.007	108	77	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 360 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		93	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		93	28.058	-0.292	0.000	0.01			1.2	OK
2.000	600		93	29.064	-0.146	0.000	0.01			0.4	OK
1.002	102		93	27.188	-0.282	0.000	0.01			2.4	OK
1.003	104		96	26.656	-0.274	0.000	0.02			3.0	OK
3.000	200		93	28.968	-0.132	0.000	0.04			0.7	OK
3.001	201		93	28.680	-0.270	0.000	0.02			1.4	OK
3.002	202		93	28.551	-0.289	0.000	0.01			2.0	OK
4.000	300		93	27.825	-0.280	0.000	0.01			1.4	OK
3.003	203		93	27.453	-0.277	0.000	0.02			3.9	OK
1.004	105		67	26.506	0.006	0.000	0.05			6.9	SURCHARGED
5.000	400		93	29.059	-0.091	0.000	0.02			0.1	OK
5.001	401		93	28.827	-0.143	0.000	0.01			0.4	OK
5.002	402		93	27.857	-0.218	0.000	0.01			0.6	OK
6.000	500		93	28.003	-0.137	0.000	0.02			0.4	OK
6.001	501		93	27.836	-0.129	0.000	0.05			0.7	OK
6.002	502		93	27.553	-0.202	0.000	0.02			0.8	OK
6.003	503		93	27.448	-0.192	0.000	0.05			2.0	OK
5.003	403		93	27.251	-0.279	0.000	0.01			3.4	OK

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Summary Wizard of 360 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	93	28.093	-0.217	0.000	0.01			1.1	OK
7.001	701	93	27.044	-0.216	0.000	0.01			1.1	OK
5.004	404	65	26.504	-1.587	0.000	0.00		212	5.5	OK
1.005	405	65	26.504	0.304	0.000	0.17			6.0	SURCHARGED
1.006	107	74	26.575	0.550	0.000	0.09			2.5	SURCHARGED
1.007	108	70	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 480 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	101		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	101		28.057	-0.293	0.000	0.00			0.9	OK
2.000	600	101		29.063	-0.147	0.000	0.00			0.3	OK
1.002	102	101		27.185	-0.285	0.000	0.01			1.9	OK
1.003	104	102		26.651	-0.279	0.000	0.02			2.5	OK
3.000	200	101		28.967	-0.133	0.000	0.03			0.6	OK
3.001	201	101		28.676	-0.274	0.000	0.02			1.2	OK
3.002	202	101		28.549	-0.291	0.000	0.01			1.6	OK
4.000	300	101		27.821	-0.284	0.000	0.01			1.2	OK
3.003	203	101		27.449	-0.281	0.000	0.01			3.2	OK
1.004	105	70		26.503	0.003	0.000	0.04			5.6	SURCHARGED
5.000	400	101		29.057	-0.093	0.000	0.02			0.1	OK
5.001	401	101		28.826	-0.144	0.000	0.01			0.3	OK
5.002	402	101		27.856	-0.219	0.000	0.01			0.5	OK
6.000	500	101		28.001	-0.139	0.000	0.02			0.3	OK
6.001	501	101		27.834	-0.131	0.000	0.04			0.6	OK
6.002	502	101		27.549	-0.206	0.000	0.02			0.7	OK
6.003	503	101		27.445	-0.195	0.000	0.04			1.7	OK
5.003	403	101		27.247	-0.283	0.000	0.01			2.8	OK

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Summary Wizard of 480 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	101	28.092	-0.218	0.000	0.01			0.9	OK
7.001	701	101	27.042	-0.218	0.000	0.01			0.9	OK
5.004	404	68	26.501	-1.590	0.000	0.00		268	4.5	OK
1.005	405	68	26.501	0.301	0.000	0.16			5.8	SURCHARGED
1.006	107	71	26.579	0.554	0.000	0.09			2.4	SURCHARGED
1.007	108	73	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 600 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		106	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		106	28.056	-0.294	0.000	0.00			0.8	OK
2.000	600		106	29.063	-0.147	0.000	0.00			0.2	OK
1.002	102		106	27.183	-0.287	0.000	0.01			1.7	OK
1.003	104		107	26.648	-0.282	0.000	0.01			2.1	OK
3.000	200		106	28.966	-0.134	0.000	0.03			0.5	OK
3.001	201		106	28.672	-0.278	0.000	0.02			1.0	OK
3.002	202		106	28.547	-0.293	0.000	0.01			1.4	OK
4.000	300		106	27.819	-0.286	0.000	0.01			1.0	OK
3.003	203		106	27.446	-0.284	0.000	0.01			2.7	OK
1.004	105		76	26.496	-0.004	0.000	0.04			4.8	OK
5.000	400		106	29.056	-0.094	0.000	0.01			0.1	OK
5.001	401		106	28.825	-0.145	0.000	0.01			0.3	OK
5.002	402		106	27.855	-0.220	0.000	0.00			0.4	OK
6.000	500		106	27.999	-0.141	0.000	0.01			0.3	OK
6.001	501		106	27.833	-0.132	0.000	0.03			0.5	OK
6.002	502		106	27.546	-0.209	0.000	0.02			0.6	OK
6.003	503		106	27.443	-0.197	0.000	0.04			1.4	OK
5.003	403		106	27.244	-0.286	0.000	0.01			2.4	OK

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Summary Wizard of 600 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	106	28.091	-0.219	0.000	0.01			0.8	OK
7.001	701	106	27.041	-0.219	0.000	0.01			0.8	OK
5.004	404	74	26.494	-1.597	0.000	0.00		287	3.9	OK
1.005	405	74	26.494	0.294	0.000	0.16			5.8	SURCHARGED
1.006	107	77	26.572	0.547	0.000	0.09			2.4	SURCHARGED
1.007	108	78	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 720 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		110	29.301	-0.149	0.000	0.00			0.1	OK
1.001	101		110	28.055	-0.295	0.000	0.00			0.7	OK
2.000	600		110	29.062	-0.148	0.000	0.00			0.2	OK
1.002	102		110	27.181	-0.289	0.000	0.01			1.5	OK
1.003	104		110	26.646	-0.284	0.000	0.01			1.9	OK
3.000	200		110	28.965	-0.135	0.000	0.02			0.4	OK
3.001	201		110	28.669	-0.281	0.000	0.01			0.9	OK
3.002	202		110	28.546	-0.294	0.000	0.00			1.2	OK
4.000	300		110	27.817	-0.288	0.000	0.01			0.9	OK
3.003	203		110	27.444	-0.286	0.000	0.01			2.4	OK
1.004	105		79	26.485	-0.015	0.000	0.03			4.2	OK
5.000	400		110	29.055	-0.095	0.000	0.01			0.1	OK
5.001	401		110	28.824	-0.146	0.000	0.01			0.3	OK
5.002	402		110	27.854	-0.221	0.000	0.00			0.4	OK
6.000	500		110	27.998	-0.142	0.000	0.01			0.2	OK
6.001	501		110	27.832	-0.133	0.000	0.03			0.4	OK
6.002	502		110	27.544	-0.211	0.000	0.01			0.5	OK
6.003	503		110	27.441	-0.199	0.000	0.03			1.2	OK
5.003	403		110	27.243	-0.287	0.000	0.01			2.1	OK

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Summary Wizard of 720 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	110	28.090	-0.220	0.000	0.00			0.7	OK
7.001	701	110	27.040	-0.220	0.000	0.01			0.7	OK
5.004	404	77	26.484	-1.607	0.000	0.00		297	3.4	OK
1.005	405	77	26.484	0.284	0.000	0.16			5.6	SURCHARGED
1.006	107	76	26.574	0.549	0.000	0.09			2.4	SURCHARGED
1.007	108	75	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 960 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	115		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	115		28.054	-0.296	0.000	0.00			0.6	OK
2.000	600	115		29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	115		27.179	-0.291	0.000	0.01			1.2	OK
1.003	104	115		26.643	-0.287	0.000	0.01			1.5	OK
3.000	200	115		28.963	-0.137	0.000	0.02			0.3	OK
3.001	201	115		28.666	-0.284	0.000	0.01			0.7	OK
3.002	202	115		28.545	-0.295	0.000	0.00			1.0	OK
4.000	300	115		27.815	-0.290	0.000	0.01			0.7	OK
3.003	203	115		27.441	-0.289	0.000	0.01			1.9	OK
1.004	105	82		26.461	-0.039	0.000	0.03			3.5	OK
5.000	400	115		29.054	-0.096	0.000	0.01			0.1	OK
5.001	401	115		28.824	-0.146	0.000	0.01			0.2	OK
5.002	402	115		27.853	-0.222	0.000	0.00			0.3	OK
6.000	500	115		27.997	-0.143	0.000	0.01			0.2	OK
6.001	501	115		27.831	-0.134	0.000	0.02			0.3	OK
6.002	502	115		27.541	-0.214	0.000	0.01			0.4	OK
6.003	503	115		27.439	-0.201	0.000	0.03			1.0	OK
5.003	403	115		27.240	-0.290	0.000	0.01			1.7	OK

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Summary Wizard of 960 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	115	28.089	-0.221	0.000	0.00			0.5	OK
7.001	701	115	27.039	-0.221	0.000	0.00			0.5	OK
5.004	404	82	26.460	-1.631	0.000	0.00		322	2.8	OK
1.005	405	82	26.460	0.260	0.000	0.16			5.6	SURCHARGED
1.006	107	82	26.550	0.525	0.000	0.09			2.4	SURCHARGED
1.007	108	82	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 1440 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		119	29.301	-0.149	0.000	0.00			0.0	OK
1.001	101		119	28.053	-0.297	0.000	0.00			0.4	OK
2.000	600		119	29.061	-0.149	0.000	0.00			0.1	OK
1.002	102		119	27.177	-0.293	0.000	0.00			0.9	OK
1.003	104		119	26.640	-0.290	0.000	0.01			1.1	OK
3.000	200		119	28.960	-0.140	0.000	0.01			0.3	OK
3.001	201		119	28.662	-0.288	0.000	0.01			0.5	OK
3.002	202		119	28.544	-0.296	0.000	0.00			0.7	OK
4.000	300		119	27.812	-0.293	0.000	0.01			0.5	OK
3.003	203		119	27.439	-0.291	0.000	0.01			1.4	OK
1.004	105		87	26.410	-0.090	0.000	0.02			2.6	OK
5.000	400		119	29.053	-0.097	0.000	0.01			0.0	OK
5.001	401		119	28.823	-0.147	0.000	0.00			0.2	OK
5.002	402		119	27.853	-0.222	0.000	0.00			0.2	OK
6.000	500		119	27.995	-0.145	0.000	0.01			0.1	OK
6.001	501		119	27.828	-0.137	0.000	0.02			0.3	OK
6.002	502		119	27.539	-0.216	0.000	0.01			0.3	OK
6.003	503		119	27.436	-0.204	0.000	0.02			0.8	OK
5.003	403		119	27.238	-0.292	0.000	0.01			1.3	OK

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Summary Wizard of 1440 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	119	28.088	-0.222	0.000	0.00			0.4	OK
7.001	701	119	27.038	-0.222	0.000	0.00			0.4	OK
5.004	404	87	26.409	-1.682	0.000	0.00		332	2.1	OK
1.005	405	87	26.410	0.210	0.000	0.16			5.6	SURCHARGED
1.006	107	87	26.496	0.471	0.000	0.08			2.3	SURCHARGED
1.007	108	87	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 15 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	15		29.316	-0.134	0.000	0.02			1.0	OK
1.001	101	26		28.089	-0.261	0.000	0.04			8.1	OK
2.000	600	15		29.080	-0.130	0.000	0.04			2.9	OK
1.002	102	31		27.232	-0.238	0.000	0.09			17.1	OK
1.003	104	50		26.702	-0.228	0.000	0.13			21.5	OK
3.000	200	15		29.006	-0.094	0.000	0.30			5.6	OK
3.001	201	15		28.732	-0.218	0.000	0.16			10.5	OK
3.002	202	17		28.585	-0.255	0.000	0.05			14.4	OK
4.000	300	29		27.872	-0.233	0.000	0.11			11.3	OK
3.003	203	31		27.500	-0.230	0.000	0.12			29.3	OK
1.004	105	109		26.327	-0.173	0.000	0.37			51.0	OK
5.000	400	15		29.076	-0.074	0.000	0.15			1.0	OK
5.001	401	16		28.847	-0.123	0.000	0.07			3.0	OK
5.002	402	30		27.881	-0.194	0.000	0.05			4.4	OK
6.000	500	26		28.029	-0.111	0.000	0.15			3.1	OK
6.001	501	29		27.878	-0.087	0.000	0.37			5.2	OK

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Summary Wizard of 15 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	31	27.591	-0.164	0.000	0.16			6.2	OK
6.003	503	31	27.511	-0.129	0.000	0.38			14.4	OK
5.003	403	31	27.294	-0.236	0.000	0.10			23.9	OK
7.000	700	24	28.122	-0.188	0.000	0.06			8.9	OK
7.001	701	31	27.073	-0.187	0.000	0.07			8.9	OK
5.004	404	109	26.315	-1.776	0.000	0.00			39.3	OK
1.005	405	109	26.315	0.115	0.000	0.25			9.0	SURCHARGED
1.006	107	109	26.399	0.374	0.000	0.08			2.1	SURCHARGED
1.007	108	108	25.806	-0.199	0.000	0.03			2.1	OK

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Summary Wizard of 30 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	22		29.314	-0.136	0.000	0.02			0.8	OK
1.001	101	31		28.086	-0.264	0.000	0.03			6.9	OK
2.000	600	22		29.078	-0.132	0.000	0.03			2.3	OK
1.002	102	35		27.225	-0.245	0.000	0.08			14.3	OK
1.003	104	52		26.696	-0.234	0.000	0.11			18.1	OK
3.000	200	22		28.999	-0.101	0.000	0.23			4.3	OK
3.001	201	21		28.723	-0.227	0.000	0.13			8.6	OK
3.002	202	22		28.581	-0.259	0.000	0.05			11.9	OK
4.000	300	35		27.865	-0.240	0.000	0.09			9.0	OK
3.003	203	35		27.493	-0.237	0.000	0.10			23.8	OK
1.004	105	86		26.411	-0.089	0.000	0.31			42.0	OK
5.000	400	22		29.073	-0.077	0.000	0.12			0.8	OK
5.001	401	22		28.844	-0.126	0.000	0.06			2.5	OK
5.002	402	34		27.878	-0.197	0.000	0.04			3.7	OK
6.000	500	33		28.024	-0.116	0.000	0.12			2.4	OK
6.001	501	34		27.871	-0.094	0.000	0.30			4.2	OK

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Summary Wizard of 30 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	35	27.584	-0.171	0.000	0.13			5.1	OK
6.003	503	35	27.502	-0.138	0.000	0.32			12.1	OK
5.003	403	35	27.289	-0.241	0.000	0.09			20.2	OK
7.000	700	31	28.117	-0.193	0.000	0.05			7.0	OK
7.001	701	36	27.068	-0.192	0.000	0.05			7.0	OK
5.004	404	86	26.410	-1.681	0.000	0.00			32.7	OK
1.005	405	86	26.410	0.210	0.000	0.20			7.1	SURCHARGED
1.006	107	86	26.513	0.488	0.000	0.08			2.3	SURCHARGED
1.007	108	86	25.806	-0.199	0.000	0.03			2.3	OK

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Summary Wizard of 60 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	35		29.309	-0.141	0.000	0.01			0.5	OK
1.001	101	44		28.081	-0.269	0.000	0.02			4.8	OK
2.000	600	35		29.075	-0.135	0.000	0.02			1.5	OK
1.002	102	46		27.215	-0.255	0.000	0.05			10.0	OK
1.003	104	62		26.685	-0.245	0.000	0.08			12.7	OK
3.000	200	35		28.990	-0.110	0.000	0.16			2.9	OK
3.001	201	35		28.711	-0.239	0.000	0.09			6.0	OK
3.002	202	36		28.575	-0.265	0.000	0.03			8.3	OK
4.000	300	46		27.852	-0.253	0.000	0.06			6.1	OK
3.003	203	46		27.481	-0.249	0.000	0.07			16.4	OK
1.004	105	69		26.503	0.003	0.000	0.21			29.1	SURCHARGED
5.000	400	35		29.069	-0.081	0.000	0.08			0.5	OK
5.001	401	35		28.840	-0.130	0.000	0.04			1.7	OK
5.002	402	46		27.874	-0.201	0.000	0.03			2.6	OK
6.000	500	45		28.018	-0.122	0.000	0.08			1.6	OK
6.001	501	46		27.861	-0.104	0.000	0.21			2.9	OK

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Summary Wizard of 60 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	46	27.576	-0.179	0.000	0.09			3.5	OK
6.003	503	46	27.487	-0.153	0.000	0.22			8.5	OK
5.003	403	46	27.278	-0.252	0.000	0.06			14.2	OK
7.000	700	44	28.112	-0.198	0.000	0.03			4.7	OK
7.001	701	46	27.062	-0.198	0.000	0.04			4.7	OK
5.004	404	66	26.502	-1.589	0.000	0.00			22.7	OK
1.005	405	66	26.502	0.302	0.000	0.32			11.5	SURCHARGED
1.006	107	70	26.579	0.554	0.000	0.09			2.4	SURCHARGED
1.007	108	66	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 120 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	50		29.306	-0.144	0.000	0.01			0.3	OK
1.001	101	55		28.072	-0.278	0.000	0.02			3.1	OK
2.000	600	50		29.070	-0.140	0.000	0.01			1.0	OK
1.002	102	57		27.206	-0.264	0.000	0.03			6.4	OK
1.003	104	69		26.673	-0.257	0.000	0.05			8.1	OK
3.000	200	50		28.981	-0.119	0.000	0.10			1.8	OK
3.001	201	50		28.697	-0.253	0.000	0.06			3.8	OK
3.002	202	51		28.568	-0.272	0.000	0.02			5.3	OK
4.000	300	57		27.842	-0.263	0.000	0.04			3.8	OK
3.003	203	57		27.470	-0.260	0.000	0.04			10.4	OK
1.004	105	62		26.588	0.088	0.000	0.13			18.3	SURCHARGED
5.000	400	50		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	50		28.836	-0.134	0.000	0.03			1.1	OK
5.002	402	57		27.868	-0.207	0.000	0.02			1.7	OK
6.000	500	56		28.012	-0.128	0.000	0.05			1.0	OK
6.001	501	57		27.851	-0.114	0.000	0.13			1.8	OK

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Summary Wizard of 120 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	57	27.565	-0.190	0.000	0.06			2.2	OK
6.003	503	57	27.471	-0.169	0.000	0.14			5.4	OK
5.003	403	57	27.268	-0.262	0.000	0.04			9.1	OK
7.000	700	55	28.108	-0.202	0.000	0.02			2.9	OK
7.001	701	57	27.058	-0.202	0.000	0.02			2.9	OK
5.004	404	62	26.587	-1.504	0.000	0.00			14.6	OK
1.005	405	62	26.587	0.387	0.000	0.28			10.0	SURCHARGED
1.006	107	62	26.663	0.638	0.000	0.09			2.6	SURCHARGED
1.007	108	63	25.807	-0.198	0.000	0.03			2.6	OK

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Summary Wizard of 180 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	62		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	63		28.066	-0.284	0.000	0.01			2.3	OK
2.000	600	62		29.068	-0.142	0.000	0.01			0.7	OK
1.002	102	65		27.202	-0.268	0.000	0.03			4.8	OK
1.003	104	75		26.667	-0.263	0.000	0.04			6.1	OK
3.000	200	62		28.977	-0.123	0.000	0.07			1.4	OK
3.001	201	61		28.691	-0.259	0.000	0.04			2.9	OK
3.002	202	61		28.562	-0.278	0.000	0.02			4.0	OK
4.000	300	66		27.838	-0.267	0.000	0.03			2.9	OK
3.003	203	66		27.465	-0.265	0.000	0.03			7.9	OK
1.004	105	56		26.628	0.128	0.000	0.10			13.7	SURCHARGED
5.000	400	62		29.062	-0.088	0.000	0.04			0.2	OK
5.001	401	61		28.835	-0.135	0.000	0.02			0.8	OK
5.002	402	65		27.864	-0.211	0.000	0.01			1.3	OK
6.000	500	65		28.009	-0.131	0.000	0.04			0.8	OK
6.001	501	66		27.846	-0.119	0.000	0.10			1.4	OK

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Summary Wizard of 180 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	65	27.560	-0.195	0.000	0.04			1.7	OK
6.003	503	65	27.464	-0.176	0.000	0.11			4.1	OK
5.003	403	65	27.264	-0.266	0.000	0.03			6.9	OK
7.000	700	64	28.102	-0.208	0.000	0.02			2.2	OK
7.001	701	66	27.053	-0.207	0.000	0.02			2.2	OK
5.004	404	56	26.626	-1.465	0.000	0.00			11.0	OK
1.005	405	56	26.626	0.426	0.000	0.21			7.7	SURCHARGED
1.006	107	55	26.713	0.688	0.000	0.10			2.6	SURCHARGED
1.007	108	58	25.808	-0.197	0.000	0.04			2.6	OK

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Summary Wizard of 240 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	72		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	72		28.063	-0.287	0.000	0.01			1.9	OK
2.000	600	72		29.066	-0.144	0.000	0.01			0.6	OK
1.002	102	73		27.200	-0.270	0.000	0.02			3.9	OK
1.003	104	80		26.664	-0.266	0.000	0.03			5.0	OK
3.000	200	72		28.974	-0.126	0.000	0.06			1.1	OK
3.001	201	71		28.687	-0.263	0.000	0.04			2.3	OK
3.002	202	71		28.558	-0.282	0.000	0.01			3.3	OK
4.000	300	74		27.836	-0.269	0.000	0.02			2.3	OK
3.003	203	73		27.463	-0.267	0.000	0.03			6.4	OK
1.004	105	51		26.646	0.146	0.000	0.08			11.3	SURCHARGED
5.000	400	72		29.061	-0.089	0.000	0.03			0.2	OK
5.001	401	71		28.832	-0.138	0.000	0.02			0.7	OK
5.002	402	73		27.861	-0.214	0.000	0.01			1.0	OK
6.000	500	74		28.007	-0.133	0.000	0.03			0.6	OK
6.001	501	73		27.843	-0.122	0.000	0.08			1.1	OK

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Summary Wizard of 240 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	73	27.557	-0.198	0.000	0.04			1.4	OK
6.003	503	73	27.460	-0.180	0.000	0.09			3.4	OK
5.003	403	73	27.261	-0.269	0.000	0.02			5.6	OK
7.000	700	73	28.099	-0.211	0.000	0.01			1.8	OK
7.001	701	75	27.050	-0.210	0.000	0.01			1.8	OK
5.004	404	51	26.645	-1.446	0.000	0.00			9.0	OK
1.005	405	51	26.645	0.445	0.000	0.20			7.2	SURCHARGED
1.006	107	48	26.733	0.708	0.000	0.10			2.7	SURCHARGED
1.007	108	48	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 360 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		85	29.303	-0.147	0.000	0.00			0.1	OK
1.001	101		85	28.060	-0.290	0.000	0.01			1.4	OK
2.000	600		85	29.065	-0.145	0.000	0.01			0.4	OK
1.002	102		86	27.193	-0.277	0.000	0.02			3.0	OK
1.003	104		90	26.661	-0.269	0.000	0.02			3.8	OK
3.000	200		85	28.970	-0.130	0.000	0.05			0.8	OK
3.001	201		85	28.683	-0.267	0.000	0.03			1.7	OK
3.002	202		85	28.553	-0.287	0.000	0.01			2.4	OK
4.000	300		86	27.829	-0.276	0.000	0.02			1.8	OK
3.003	203		86	27.458	-0.272	0.000	0.02			4.8	OK
1.004	105		45	26.657	0.157	0.000	0.06			8.5	SURCHARGED
5.000	400		85	29.060	-0.090	0.000	0.02			0.1	OK
5.001	401		85	28.829	-0.141	0.000	0.01			0.5	OK
5.002	402		86	27.858	-0.217	0.000	0.01			0.8	OK
6.000	500		86	28.005	-0.135	0.000	0.02			0.5	OK
6.001	501		86	27.839	-0.126	0.000	0.06			0.8	OK
6.002	502		86	27.554	-0.201	0.000	0.03			1.0	OK
6.003	503		86	27.453	-0.187	0.000	0.07			2.5	OK
5.003	403		86	27.255	-0.275	0.000	0.02			4.2	OK

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Summary Wizard of 360 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	85	28.095	-0.215	0.000	0.01			1.3	OK
7.001	701	86	27.046	-0.214	0.000	0.01			1.3	OK
5.004	404	45	26.656	-1.435	0.000	0.00		267	6.8	OK
1.005	405	45	26.656	0.456	0.000	0.16			5.7	SURCHARGED
1.006	107	47	26.744	0.719	0.000	0.10			2.7	SURCHARGED
1.007	108	47	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 480 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		92	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		92	28.058	-0.292	0.000	0.01			1.2	OK
2.000	600		92	29.064	-0.146	0.000	0.01			0.4	OK
1.002	102		92	27.188	-0.282	0.000	0.01			2.4	OK
1.003	104		95	26.656	-0.274	0.000	0.02			3.0	OK
3.000	200		92	28.968	-0.132	0.000	0.04			0.7	OK
3.001	201		92	28.680	-0.270	0.000	0.02			1.4	OK
3.002	202		92	28.551	-0.289	0.000	0.01			2.0	OK
4.000	300		92	27.825	-0.280	0.000	0.01			1.4	OK
3.003	203		92	27.453	-0.277	0.000	0.02			3.9	OK
1.004	105		46	26.654	0.154	0.000	0.05			6.9	SURCHARGED
5.000	400		92	29.059	-0.091	0.000	0.02			0.1	OK
5.001	401		92	28.827	-0.143	0.000	0.01			0.4	OK
5.002	402		92	27.857	-0.218	0.000	0.01			0.6	OK
6.000	500		92	28.003	-0.137	0.000	0.02			0.4	OK
6.001	501		92	27.836	-0.129	0.000	0.05			0.7	OK
6.002	502		92	27.553	-0.202	0.000	0.02			0.8	OK
6.003	503		92	27.448	-0.192	0.000	0.05			2.0	OK
5.003	403		92	27.251	-0.279	0.000	0.01			3.4	OK

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Summary Wizard of 480 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	92	28.093	-0.217	0.000	0.01			1.1	OK
7.001	701	92	27.044	-0.216	0.000	0.01			1.1	OK
5.004	404	46	26.653	-1.438	0.000	0.00		327	5.5	OK
1.005	405	46	26.653	0.453	0.000	0.17			6.0	SURCHARGED
1.006	107	49	26.729	0.704	0.000	0.10			2.7	SURCHARGED
1.007	108	53	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 600 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		99	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		99	28.057	-0.293	0.000	0.00			1.0	OK
2.000	600		99	29.063	-0.147	0.000	0.00			0.3	OK
1.002	102		99	27.186	-0.284	0.000	0.01			2.0	OK
1.003	104		100	26.652	-0.278	0.000	0.02			2.6	OK
3.000	200		99	28.967	-0.133	0.000	0.03			0.6	OK
3.001	201		99	28.677	-0.273	0.000	0.02			1.2	OK
3.002	202		99	28.549	-0.291	0.000	0.01			1.7	OK
4.000	300		99	27.822	-0.283	0.000	0.01			1.2	OK
3.003	203		99	27.450	-0.280	0.000	0.01			3.3	OK
1.004	105		50	26.648	0.148	0.000	0.04			5.9	SURCHARGED
5.000	400		99	29.058	-0.092	0.000	0.02			0.1	OK
5.001	401		99	28.826	-0.144	0.000	0.01			0.4	OK
5.002	402		99	27.856	-0.219	0.000	0.01			0.5	OK
6.000	500		99	28.001	-0.139	0.000	0.02			0.3	OK
6.001	501		99	27.835	-0.130	0.000	0.04			0.6	OK
6.002	502		99	27.550	-0.205	0.000	0.02			0.7	OK
6.003	503		99	27.446	-0.194	0.000	0.05			1.7	OK
5.003	403		99	27.248	-0.282	0.000	0.01			2.9	OK

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Summary Wizard of 600 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	99	28.092	-0.218	0.000	0.01			0.9	OK
7.001	701	99	27.043	-0.217	0.000	0.01			0.9	OK
5.004	404	50	26.647	-1.444	0.000	0.00		352	4.7	OK
1.005	405	50	26.647	0.447	0.000	0.17			6.0	SURCHARGED
1.006	107	51	26.723	0.698	0.000	0.10			2.7	SURCHARGED
1.007	108	55	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 720 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	104		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	104		28.056	-0.294	0.000	0.00			0.9	OK
2.000	600	104		29.063	-0.147	0.000	0.00			0.3	OK
1.002	102	104		27.184	-0.286	0.000	0.01			1.8	OK
1.003	104	105		26.650	-0.280	0.000	0.01			2.3	OK
3.000	200	104		28.966	-0.134	0.000	0.03			0.5	OK
3.001	201	104		28.673	-0.277	0.000	0.02			1.1	OK
3.002	202	104		28.548	-0.292	0.000	0.01			1.5	OK
4.000	300	104		27.820	-0.285	0.000	0.01			1.1	OK
3.003	203	104		27.447	-0.283	0.000	0.01			2.9	OK
1.004	105	54		26.640	0.140	0.000	0.04			5.2	SURCHARGED
5.000	400	104		29.057	-0.093	0.000	0.01			0.1	OK
5.001	401	104		28.825	-0.145	0.000	0.01			0.3	OK
5.002	402	104		27.855	-0.220	0.000	0.00			0.5	OK
6.000	500	104		28.000	-0.140	0.000	0.01			0.3	OK
6.001	501	104		27.833	-0.132	0.000	0.04			0.5	OK
6.002	502	104		27.547	-0.208	0.000	0.02			0.6	OK
6.003	503	104		27.444	-0.196	0.000	0.04			1.5	OK
5.003	403	104		27.245	-0.285	0.000	0.01			2.5	OK

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Summary Wizard of 720 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	104	28.091	-0.219	0.000	0.01			0.8	OK
7.001	701	104	27.042	-0.218	0.000	0.01			0.8	OK
5.004	404	54	26.638	-1.453	0.000	0.00		367	4.1	OK
1.005	405	54	26.639	0.439	0.000	0.17			6.2	SURCHARGED
1.006	107	59	26.708	0.683	0.000	0.10			2.7	SURCHARGED
1.007	108	56	25.808	-0.197	0.000	0.04			2.7	OK

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Summary Wizard of 960 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	111		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	111		28.055	-0.295	0.000	0.00			0.7	OK
2.000	600	111		29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	111		27.181	-0.289	0.000	0.01			1.4	OK
1.003	104	111		26.646	-0.284	0.000	0.01			1.8	OK
3.000	200	111		28.965	-0.135	0.000	0.02			0.4	OK
3.001	201	111		28.669	-0.281	0.000	0.01			0.9	OK
3.002	202	111		28.546	-0.294	0.000	0.00			1.2	OK
4.000	300	111		27.817	-0.288	0.000	0.01			0.9	OK
3.003	203	111		27.444	-0.286	0.000	0.01			2.4	OK
1.004	105	59		26.620	0.120	0.000	0.03			4.2	SURCHARGED
5.000	400	111		29.055	-0.095	0.000	0.01			0.1	OK
5.001	401	111		28.824	-0.146	0.000	0.01			0.2	OK
5.002	402	111		27.854	-0.221	0.000	0.00			0.4	OK
6.000	500	111		27.998	-0.142	0.000	0.01			0.2	OK
6.001	501	111		27.832	-0.133	0.000	0.03			0.4	OK
6.002	502	111		27.544	-0.211	0.000	0.01			0.5	OK
6.003	503	111		27.441	-0.199	0.000	0.03			1.2	OK
5.003	403	111		27.242	-0.288	0.000	0.01			2.1	OK

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Summary Wizard of 960 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	111	28.090	-0.220	0.000	0.00			0.7	OK
7.001	701	111	27.040	-0.220	0.000	0.01			0.7	OK
5.004	404	59	26.618	-1.473	0.000	0.00		398	3.4	OK
1.005	405	59	26.618	0.418	0.000	0.17			6.2	SURCHARGED
1.006	107	60	26.699	0.674	0.000	0.10			2.6	SURCHARGED
1.007	108	60	25.808	-0.197	0.000	0.04			2.6	OK

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Summary Wizard of 1440 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	117		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	117		28.054	-0.296	0.000	0.00			0.5	OK
2.000	600	117		29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	117		27.178	-0.292	0.000	0.01			1.1	OK
1.003	104	117		26.642	-0.288	0.000	0.01			1.4	OK
3.000	200	117		28.962	-0.138	0.000	0.02			0.3	OK
3.001	201	117		28.664	-0.286	0.000	0.01			0.6	OK
3.002	202	117		28.545	-0.295	0.000	0.00			0.9	OK
4.000	300	117		27.814	-0.291	0.000	0.01			0.6	OK
3.003	203	117		27.440	-0.290	0.000	0.01			1.8	OK
1.004	105	64		26.556	0.056	0.000	0.02			3.2	SURCHARGED
5.000	400	117		29.054	-0.096	0.000	0.01			0.1	OK
5.001	401	117		28.823	-0.147	0.000	0.00			0.2	OK
5.002	402	117		27.853	-0.222	0.000	0.00			0.3	OK
6.000	500	117		27.996	-0.144	0.000	0.01			0.2	OK
6.001	501	117		27.830	-0.135	0.000	0.02			0.3	OK
6.002	502	117		27.540	-0.215	0.000	0.01			0.4	OK
6.003	503	117		27.438	-0.202	0.000	0.02			0.9	OK
5.003	403	117		27.239	-0.291	0.000	0.01			1.5	OK

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Summary Wizard of 1440 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	117	28.089	-0.221	0.000	0.00			0.5	OK
7.001	701	117	27.039	-0.221	0.000	0.00			0.5	OK
5.004	404	64	26.554	-1.537	0.000	0.00		438	2.6	OK
1.005	405	64	26.555	0.355	0.000	0.17			6.1	SURCHARGED
1.006	107	64	26.625	0.600	0.000	0.09			2.5	SURCHARGED
1.007	108	64	25.807	-0.198	0.000	0.03			2.5	OK

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Summary Wizard of 15 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	7		29.319	-0.131	0.000	0.04			1.4	OK
1.001	101	17		28.103	-0.247	0.000	0.07			14.6	OK
2.000	600	7		29.084	-0.126	0.000	0.06			4.2	OK
1.002	102	26		27.251	-0.219	0.000	0.16			30.1	OK
1.003	104	46		26.728	-0.202	0.000	0.23			38.4	OK
3.000	200	7		29.020	-0.080	0.000	0.44			8.1	OK
3.001	201	7		28.757	-0.193	0.000	0.27			17.2	OK
3.002	202	7		28.601	-0.239	0.000	0.09			24.2	OK
4.000	300	21		27.887	-0.218	0.000	0.16			16.6	OK
3.003	203	25		27.521	-0.209	0.000	0.19			46.8	OK
1.004	105	65		26.522	0.022	0.000	0.62			84.5	SURCHARGED
5.000	400	7		29.082	-0.068	0.000	0.22			1.4	OK
5.001	401	7		28.856	-0.114	0.000	0.13			5.2	OK
5.002	402	21		27.892	-0.183	0.000	0.08			7.8	OK
6.000	500	18		28.038	-0.102	0.000	0.22			4.6	OK
6.001	501	21		27.899	-0.066	0.000	0.59			8.2	OK

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Summary Wizard of 15 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	25	27.609	-0.146	0.000	0.26			10.0	OK
6.003	503	25	27.550	-0.090	0.000	0.66			25.0	OK
5.003	403	26	27.316	-0.214	0.000	0.18			42.0	OK
7.000	700	16	28.131	-0.179	0.000	0.09			13.1	OK
7.001	701	26	27.083	-0.177	0.000	0.10			13.0	OK
5.004	404	81	26.471	-1.620	0.000	0.00			66.7	OK
1.005	405	81	26.471	0.271	0.000	0.28			9.9	SURCHARGED
1.006	107	66	26.608	0.583	0.000	0.09			2.4	SURCHARGED
1.007	108	65	25.807	-0.198	0.000	0.03			2.4	OK

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Summary Wizard of 30 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	11		29.317	-0.133	0.000	0.03			1.1	OK
1.001	101	21		28.095	-0.255	0.000	0.06			11.2	OK
2.000	600	11		29.081	-0.129	0.000	0.05			3.4	OK
1.002	102	28		27.240	-0.230	0.000	0.12			23.0	OK
1.003	104	48		26.715	-0.215	0.000	0.18			29.2	OK
3.000	200	11		29.011	-0.089	0.000	0.35			6.4	OK
3.001	201	11		28.743	-0.207	0.000	0.21			13.5	OK
3.002	202	12		28.593	-0.247	0.000	0.07			18.9	OK
4.000	300	25		27.877	-0.228	0.000	0.13			13.4	OK
3.003	203	28		27.508	-0.222	0.000	0.15			37.1	OK
1.004	105	58		26.621	0.121	0.000	0.47			64.5	SURCHARGED
5.000	400	11		29.078	-0.072	0.000	0.18			1.1	OK
5.001	401	11		28.852	-0.118	0.000	0.10			4.0	OK
5.002	402	25		27.886	-0.189	0.000	0.06			6.0	OK
6.000	500	22		28.032	-0.108	0.000	0.18			3.6	OK
6.001	501	25		27.887	-0.078	0.000	0.46			6.5	OK

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Summary Wizard of 30 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	28	27.599	-0.156	0.000	0.21			7.9	OK
6.003	503	28	27.530	-0.110	0.000	0.51			19.5	OK
5.003	403	28	27.304	-0.226	0.000	0.14			32.5	OK
7.000	700	20	28.125	-0.185	0.000	0.07			10.3	OK
7.001	701	28	27.077	-0.183	0.000	0.08			10.3	OK
5.004	404	58	26.619	-1.472	0.000	0.00			51.3	OK
1.005	405	58	26.619	0.419	0.000	0.36			12.9	SURCHARGED
1.006	107	46	26.746	0.721	0.000	0.10			2.6	SURCHARGED
1.007	108	45	25.808	-0.197	0.000	0.04			2.6	OK

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Summary Wizard of 60 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	20		29.314	-0.136	0.000	0.02			0.8	OK
1.001	101	29		28.087	-0.263	0.000	0.04			7.4	OK
2.000	600	20		29.078	-0.132	0.000	0.03			2.3	OK
1.002	102	33		27.228	-0.242	0.000	0.08			15.4	OK
1.003	104	43		26.771	-0.159	0.000	0.12			19.6	OK
3.000	200	20		28.999	-0.101	0.000	0.24			4.4	OK
3.001	201	19		28.725	-0.225	0.000	0.14			9.1	OK
3.002	202	20		28.582	-0.258	0.000	0.05			12.7	OK
4.000	300	33		27.865	-0.240	0.000	0.09			9.1	OK
3.003	203	33		27.494	-0.236	0.000	0.10			25.0	OK
1.004	105	43		26.770	0.270	0.000	0.31			42.5	SURCHARGED
5.000	400	20		29.073	-0.077	0.000	0.12			0.8	OK
5.001	401	19		28.845	-0.125	0.000	0.07			2.7	OK
5.002	402	32		27.879	-0.196	0.000	0.04			4.0	OK
6.000	500	31		28.024	-0.116	0.000	0.12			2.5	OK
6.001	501	32		27.872	-0.093	0.000	0.31			4.4	OK

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Summary Wizard of 60 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	33	27.586	-0.169	0.000	0.14			5.3	OK
6.003	503	33	27.506	-0.134	0.000	0.34			13.1	OK
5.003	403	33	27.292	-0.238	0.000	0.09			21.9	OK
7.000	700	29	28.117	-0.193	0.000	0.05			7.0	OK
7.001	701	34	27.068	-0.192	0.000	0.05			7.0	OK
5.004	404	43	26.769	-1.322	0.000	0.00			34.4	OK
1.005	405	43	26.769	0.569	0.000	0.45			16.2	SURCHARGED
1.006	107	44	26.917	0.892	0.000	0.10			2.8	SURCHARGED
1.007	108	43	25.809	-0.196	0.000	0.04			2.8	OK

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Summary Wizard of 120 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	37		29.309	-0.141	0.000	0.01			0.5	OK
1.001	101	45		28.081	-0.269	0.000	0.02			4.7	OK
2.000	600	37		29.075	-0.135	0.000	0.02			1.4	OK
1.002	102	47		27.214	-0.256	0.000	0.05			9.7	OK
1.003	104	41		26.913	-0.017	0.000	0.08			12.3	OK
3.000	200	37		28.988	-0.112	0.000	0.15			2.8	OK
3.001	201	37		28.710	-0.240	0.000	0.09			5.7	OK
3.002	202	38		28.574	-0.266	0.000	0.03			8.0	OK
4.000	300	47		27.851	-0.254	0.000	0.06			5.7	OK
3.003	203	47		27.480	-0.250	0.000	0.07			15.8	OK
1.004	105	40		26.912	0.412	0.000	0.21			28.2	SURCHARGED
5.000	400	37		29.068	-0.082	0.000	0.08			0.5	OK
5.001	401	37		28.840	-0.130	0.000	0.04			1.7	OK
5.002	402	47		27.874	-0.201	0.000	0.03			2.5	OK
6.000	500	46		28.017	-0.123	0.000	0.08			1.6	OK
6.001	501	47		27.860	-0.105	0.000	0.20			2.8	OK

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Summary Wizard of 120 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	47	27.575	-0.180	0.000	0.09			3.4	OK
6.003	503	47	27.486	-0.154	0.000	0.22			8.3	OK
5.003	403	47	27.277	-0.253	0.000	0.06			13.8	OK
7.000	700	45	28.111	-0.199	0.000	0.03			4.4	OK
7.001	701	47	27.062	-0.198	0.000	0.03			4.4	OK
5.004	404	39	26.911	-1.180	0.000	0.00			22.0	OK
1.005	405	39	26.911	0.711	0.000	0.43			15.4	SURCHARGED
1.006	107	42	26.994	0.969	0.000	0.11			3.0	SURCHARGED
1.007	108	42	25.809	-0.196	0.000	0.04			3.0	OK

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Summary Wizard of 180 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	47		29.307	-0.143	0.000	0.01			0.4	OK
1.001	101	52		28.075	-0.275	0.000	0.02			3.5	OK
2.000	600	47		29.071	-0.139	0.000	0.02			1.1	OK
1.002	102	54		27.208	-0.262	0.000	0.04			7.3	OK
1.003	104	37		26.984	0.054	0.000	0.06			9.3	SURCHARGED
3.000	200	47		28.983	-0.117	0.000	0.11			2.1	OK
3.001	201	46		28.701	-0.249	0.000	0.07			4.3	OK
3.002	202	47		28.571	-0.269	0.000	0.02			6.0	OK
4.000	300	55		27.844	-0.261	0.000	0.04			4.3	OK
3.003	203	54		27.473	-0.257	0.000	0.05			11.9	OK
1.004	105	35		26.983	0.483	0.000	0.15			20.9	SURCHARGED
5.000	400	47		29.065	-0.085	0.000	0.06			0.4	OK
5.001	401	46		28.837	-0.133	0.000	0.03			1.3	OK
5.002	402	54		27.871	-0.204	0.000	0.02			1.9	OK
6.000	500	54		28.013	-0.127	0.000	0.06			1.2	OK
6.001	501	54		27.853	-0.112	0.000	0.15			2.1	OK

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Summary Wizard of 180 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	54	27.567	-0.188	0.000	0.07			2.5	OK
6.003	503	54	27.475	-0.165	0.000	0.16			6.2	OK
5.003	403	54	27.270	-0.260	0.000	0.04			10.3	OK
7.000	700	53	28.108	-0.202	0.000	0.02			3.3	OK
7.001	701	55	27.059	-0.201	0.000	0.03			3.3	OK
5.004	404	35	26.982	-1.109	0.000	0.00			16.6	OK
1.005	405	35	26.982	0.782	0.000	0.44			15.6	SURCHARGED
1.006	107	35	27.066	1.041	0.000	0.11			3.1	SURCHARGED
1.007	108	35	25.810	-0.195	0.000	0.04			3.1	OK

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Summary Wizard of 240 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	55		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	58		28.070	-0.280	0.000	0.01			2.8	OK
2.000	600	55		29.069	-0.141	0.000	0.01			0.9	OK
1.002	102	60		27.205	-0.265	0.000	0.03			5.9	OK
1.003	104	33		27.022	0.092	0.000	0.05			7.5	SURCHARGED
3.000	200	55		28.980	-0.120	0.000	0.09			1.7	OK
3.001	201	55		28.695	-0.255	0.000	0.05			3.5	OK
3.002	202	55		28.566	-0.274	0.000	0.02			4.9	OK
4.000	300	61		27.841	-0.264	0.000	0.03			3.5	OK
3.003	203	61		27.468	-0.262	0.000	0.04			9.6	OK
1.004	105	31		27.021	0.521	0.000	0.12			16.9	SURCHARGED
5.000	400	55		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	54		28.836	-0.134	0.000	0.03			1.0	OK
5.002	402	60		27.867	-0.208	0.000	0.02			1.5	OK
6.000	500	60		28.011	-0.129	0.000	0.05			0.9	OK
6.001	501	61		27.849	-0.116	0.000	0.12			1.7	OK

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Summary Wizard of 240 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	61	27.563	-0.192	0.000	0.05			2.0	OK
6.003	503	60	27.469	-0.171	0.000	0.13			5.0	OK
5.003	403	60	27.267	-0.263	0.000	0.04			8.4	OK
7.000	700	59	28.106	-0.204	0.000	0.02			2.7	OK
7.001	701	61	27.057	-0.203	0.000	0.02			2.7	OK
5.004	404	31	27.020	-1.071	0.000	0.00			13.6	OK
1.005	405	31	27.020	0.820	0.000	0.35			12.5	SURCHARGED
1.006	107	32	27.087	1.062	0.000	0.12			3.2	SURCHARGED
1.007	108	32	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 360 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	67		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	68		28.065	-0.285	0.000	0.01			2.1	OK
2.000	600	67		29.067	-0.143	0.000	0.01			0.6	OK
1.002	102	70		27.201	-0.269	0.000	0.02			4.4	OK
1.003	104	25		27.050	0.120	0.000	0.03			5.6	SURCHARGED
3.000	200	67		28.975	-0.125	0.000	0.07			1.2	OK
3.001	201	67		28.689	-0.261	0.000	0.04			2.6	OK
3.002	202	67		28.559	-0.281	0.000	0.01			3.6	OK
4.000	300	70		27.837	-0.268	0.000	0.03			2.6	OK
3.003	203	70		27.464	-0.266	0.000	0.03			7.1	OK
1.004	105	24		27.049	0.549	0.000	0.09			12.4	SURCHARGED
5.000	400	67		29.062	-0.088	0.000	0.03			0.2	OK
5.001	401	67		28.833	-0.137	0.000	0.02			0.8	OK
5.002	402	70		27.862	-0.213	0.000	0.01			1.1	OK
6.000	500	70		28.008	-0.132	0.000	0.03			0.7	OK
6.001	501	70		27.845	-0.120	0.000	0.09			1.2	OK

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Summary Wizard of 360 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	70	27.559	-0.196	0.000	0.04			1.5	OK
6.003	503	70	27.462	-0.178	0.000	0.10			3.7	OK
5.003	403	70	27.262	-0.268	0.000	0.03			6.2	OK
7.000	700	68	28.100	-0.210	0.000	0.01			2.0	OK
7.001	701	70	27.051	-0.209	0.000	0.02			2.0	OK
5.004	404	24	27.048	-1.043	0.000	0.00			10.0	OK
1.005	405	24	27.048	0.848	0.000	0.22			8.0	SURCHARGED
1.006	107	24	27.129	1.104	0.000	0.12			3.2	SURCHARGED
1.007	108	24	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 480 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		77	29.303	-0.147	0.000	0.00			0.2	OK
1.001	101		77	28.062	-0.288	0.000	0.01			1.7	OK
2.000	600		77	29.066	-0.144	0.000	0.01			0.5	OK
1.002	102		78	27.197	-0.273	0.000	0.02			3.5	OK
1.003	104		24	27.052	0.122	0.000	0.03			4.5	SURCHARGED
3.000	200		77	28.972	-0.128	0.000	0.05			1.0	OK
3.001	201		77	28.685	-0.265	0.000	0.03			2.1	OK
3.002	202		77	28.556	-0.284	0.000	0.01			2.9	OK
4.000	300		78	27.834	-0.271	0.000	0.02			2.1	OK
3.003	203		78	27.461	-0.269	0.000	0.02			5.7	OK
1.004	105		23	27.051	0.551	0.000	0.07			10.1	SURCHARGED
5.000	400		77	29.061	-0.089	0.000	0.03			0.2	OK
5.001	401		77	28.831	-0.139	0.000	0.02			0.6	OK
5.002	402		78	27.860	-0.215	0.000	0.01			0.9	OK
6.000	500		78	28.006	-0.134	0.000	0.03			0.6	OK
6.001	501		78	27.841	-0.124	0.000	0.07			1.0	OK
6.002	502		78	27.556	-0.199	0.000	0.03			1.2	OK
6.003	503		78	27.457	-0.183	0.000	0.08			3.0	OK
5.003	403		78	27.260	-0.270	0.000	0.02			5.0	OK

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Summary Wizard of 480 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	77	28.097	-0.213	0.000	0.01			1.6	OK
7.001	701	71	27.051	-0.209	0.000	0.01			1.6	OK
5.004	404	23	27.051	-1.040	0.000	0.00		418	8.1	OK
1.005	405	23	27.051	0.851	0.000	0.20			7.2	SURCHARGED
1.006	107	23	27.135	1.110	0.000	0.12			3.2	SURCHARGED
1.007	108	23	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 600 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		84	29.303	-0.147	0.000	0.00			0.1	OK
1.001	101		84	28.060	-0.290	0.000	0.01			1.4	OK
2.000	600		84	29.065	-0.145	0.000	0.01			0.4	OK
1.002	102		85	27.193	-0.277	0.000	0.02			3.0	OK
1.003	104		26	27.044	0.114	0.000	0.02			3.8	SURCHARGED
3.000	200		84	28.970	-0.130	0.000	0.05			0.8	OK
3.001	201		84	28.683	-0.267	0.000	0.03			1.8	OK
3.002	202		84	28.553	-0.287	0.000	0.01			2.5	OK
4.000	300		85	27.830	-0.275	0.000	0.02			1.8	OK
3.003	203		85	27.459	-0.271	0.000	0.02			4.9	OK
1.004	105		25	27.043	0.543	0.000	0.06			8.5	SURCHARGED
5.000	400		84	29.060	-0.090	0.000	0.02			0.1	OK
5.001	401		84	28.829	-0.141	0.000	0.01			0.5	OK
5.002	402		85	27.858	-0.217	0.000	0.01			0.8	OK
6.000	500		85	28.005	-0.135	0.000	0.02			0.5	OK
6.001	501		85	27.839	-0.126	0.000	0.06			0.8	OK
6.002	502		85	27.554	-0.201	0.000	0.03			1.0	OK
6.003	503		85	27.453	-0.187	0.000	0.07			2.5	OK
5.003	403		85	27.256	-0.274	0.000	0.02			4.2	OK

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Summary Wizard of 600 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	84	28.095	-0.215	0.000	0.01			1.4	OK
7.001	701	85	27.046	-0.214	0.000	0.01			1.4	OK
5.004	404	25	27.042	-1.049	0.000	0.00		492	6.8	OK
1.005	405	25	27.042	0.842	0.000	0.19			6.6	SURCHARGED
1.006	107	29	27.108	1.083	0.000	0.12			3.2	SURCHARGED
1.007	108	26	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 720 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	88		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	88		28.059	-0.291	0.000	0.01			1.2	OK
2.000	600	88		29.064	-0.146	0.000	0.01			0.4	OK
1.002	102	88		27.190	-0.280	0.000	0.01			2.6	OK
1.003	104	30		27.035	0.105	0.000	0.02			3.3	SURCHARGED
3.000	200	88		28.969	-0.131	0.000	0.04			0.7	OK
3.001	201	88		28.681	-0.269	0.000	0.02			1.5	OK
3.002	202	88		28.552	-0.288	0.000	0.01			2.1	OK
4.000	300	88		27.826	-0.279	0.000	0.02			1.5	OK
3.003	203	88		27.455	-0.275	0.000	0.02			4.2	OK
1.004	105	29		27.034	0.534	0.000	0.05			7.5	SURCHARGED
5.000	400	88		29.060	-0.090	0.000	0.02			0.1	OK
5.001	401	88		28.828	-0.142	0.000	0.01			0.4	OK
5.002	402	88		27.857	-0.218	0.000	0.01			0.7	OK
6.000	500	88		28.004	-0.136	0.000	0.02			0.4	OK
6.001	501	88		27.837	-0.128	0.000	0.05			0.7	OK
6.002	502	88		27.553	-0.202	0.000	0.02			0.9	OK
6.003	503	88		27.450	-0.190	0.000	0.06			2.2	OK
5.003	403	88		27.252	-0.278	0.000	0.02			3.7	OK

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Summary Wizard of 720 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	88	28.094	-0.216	0.000	0.01			1.2	OK
7.001	701	88	27.045	-0.215	0.000	0.01			1.2	OK
5.004	404	29	27.034	-1.057	0.000	0.00		513	6.0	OK
1.005	405	29	27.034	0.834	0.000	0.19			6.6	SURCHARGED
1.006	107	30	27.100	1.075	0.000	0.12			3.2	SURCHARGED
1.007	108	30	25.810	-0.195	0.000	0.04			3.2	OK

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Summary Wizard of 960 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	98		29.302	-0.148	0.000	0.00			0.1	OK
1.001	101	98		28.057	-0.293	0.000	0.00			1.0	OK
2.000	600	98		29.063	-0.147	0.000	0.00			0.3	OK
1.002	102	98		27.186	-0.284	0.000	0.01			2.1	OK
1.003	104	36		27.006	0.076	0.000	0.02			2.7	SURCHARGED
3.000	200	98		28.967	-0.133	0.000	0.03			0.6	OK
3.001	201	98		28.677	-0.273	0.000	0.02			1.2	OK
3.002	202	98		28.549	-0.291	0.000	0.01			1.7	OK
4.000	300	98		27.822	-0.283	0.000	0.01			1.2	OK
3.003	203	98		27.450	-0.280	0.000	0.01			3.4	OK
1.004	105	34		27.004	0.504	0.000	0.04			6.0	SURCHARGED
5.000	400	98		29.058	-0.092	0.000	0.02			0.1	OK
5.001	401	98		28.826	-0.144	0.000	0.01			0.4	OK
5.002	402	98		27.856	-0.219	0.000	0.01			0.5	OK
6.000	500	98		28.002	-0.138	0.000	0.02			0.3	OK
6.001	501	98		27.835	-0.130	0.000	0.04			0.6	OK
6.002	502	98		27.550	-0.205	0.000	0.02			0.7	OK
6.003	503	98		27.446	-0.194	0.000	0.05			1.8	OK
5.003	403	98		27.248	-0.282	0.000	0.01			3.0	OK

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Summary Wizard of 960 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	98	28.092	-0.218	0.000	0.01			1.0	OK
7.001	701	98	27.043	-0.217	0.000	0.01			1.0	OK
5.004	404	34	27.004	-1.087	0.000	0.00		542	4.8	OK
1.005	405	34	27.004	0.804	0.000	0.17			6.1	SURCHARGED
1.006	107	34	27.085	1.060	0.000	0.11			3.1	SURCHARGED
1.007	108	33	25.810	-0.195	0.000	0.04			3.1	OK

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Summary Wizard of 1440 minute 30 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	108		29.301	-0.149	0.000	0.00			0.1	OK
1.001	101	108		28.055	-0.295	0.000	0.00			0.7	OK
2.000	600	108		29.062	-0.148	0.000	0.00			0.2	OK
1.002	102	108		27.182	-0.288	0.000	0.01			1.5	OK
1.003	104	40		26.932	0.002	0.000	0.01			2.0	SURCHARGED
3.000	200	108		28.966	-0.134	0.000	0.02			0.4	OK
3.001	201	108		28.670	-0.280	0.000	0.01			0.9	OK
3.002	202	108		28.547	-0.293	0.000	0.00			1.3	OK
4.000	300	108		27.818	-0.287	0.000	0.01			0.9	OK
3.003	203	108		27.445	-0.285	0.000	0.01			2.5	OK
1.004	105	38		26.931	0.431	0.000	0.03			4.5	SURCHARGED
5.000	400	108		29.056	-0.094	0.000	0.01			0.1	OK
5.001	401	108		28.825	-0.145	0.000	0.01			0.3	OK
5.002	402	108		27.854	-0.221	0.000	0.00			0.4	OK
6.000	500	108		27.999	-0.141	0.000	0.01			0.2	OK
6.001	501	108		27.832	-0.133	0.000	0.03			0.4	OK
6.002	502	108		27.545	-0.210	0.000	0.01			0.5	OK
6.003	503	108		27.442	-0.198	0.000	0.03			1.3	OK
5.003	403	108		27.243	-0.287	0.000	0.01			2.2	OK

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Summary Wizard of 1440 minute 30 year Winter I+0% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	108	28.090	-0.220	0.000	0.01			0.7	OK
7.001	701	108	27.041	-0.219	0.000	0.01			0.7	OK
5.004	404	38	26.931	-1.160	0.000	0.00		592	3.6	OK
1.005	405	38	26.931	0.731	0.000	0.18			6.5	SURCHARGED
1.006	107	40	26.998	0.973	0.000	0.11			3.1	SURCHARGED
1.007	108	39	25.810	-0.195	0.000	0.04			3.1	OK

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Summary Wizard of 15 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	2		29.325	-0.125	0.000	0.07			2.6	OK
1.001	101	11		28.122	-0.228	0.000	0.13			26.4	OK
2.000	600	2		29.094	-0.116	0.000	0.11			7.7	OK
1.002	102	22		27.281	-0.189	0.000	0.30			54.5	OK
1.003	104	32		27.029	0.099	0.000	0.40			65.4	SURCHARGED
3.000	200	2		29.052	-0.048	0.000	0.80			14.7	OK
3.001	201	2		28.800	-0.150	0.000	0.49			31.1	OK
3.002	202	2		28.622	-0.218	0.000	0.17			43.8	OK
4.000	300	16		27.918	-0.187	0.000	0.29			30.0	OK
3.003	203	20		27.555	-0.175	0.000	0.35			84.5	OK
1.004	105	39		26.919	0.419	0.000	1.05			143.4	SURCHARGED
5.000	400	2		29.094	-0.056	0.000	0.40			2.5	OK
5.001	401	2		28.869	-0.101	0.000	0.23			9.3	OK
5.002	402	16		27.907	-0.168	0.000	0.15			14.1	OK
6.000	500	12		28.057	-0.083	0.000	0.40			8.3	OK
6.001	501	14		27.990	0.025	0.000	1.04			14.5	SURCHARGED

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Summary Wizard of 15 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	19	27.710	-0.045	0.000	0.48			18.1	OK
6.003	503	20	27.676	0.036	0.000	1.15			43.6	SURCHARGED
5.003	403	22	27.347	-0.183	0.000	0.31			73.2	OK
7.000	700	11	28.147	-0.163	0.000	0.17			23.7	OK
7.001	701	24	27.099	-0.161	0.000	0.18			23.5	OK
5.004	404	42	26.859	-1.232	0.000	0.00			116.2	OK
1.005	405	42	26.858	0.658	0.000	0.42			15.0	SURCHARGED
1.006	107	38	27.042	1.017	0.000	0.11			3.0	SURCHARGED
1.007	108	40	25.809	-0.196	0.000	0.04			3.0	OK

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Summary Wizard of 30 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	4		29.322	-0.128	0.000	0.05			2.0	OK
1.001	101	14		28.114	-0.236	0.000	0.10			20.4	OK
2.000	600	4		29.090	-0.120	0.000	0.09			6.1	OK
1.002	102	24		27.267	-0.203	0.000	0.23			42.0	OK
1.003	104	22		27.145	0.215	0.000	0.32			52.4	SURCHARGED
3.000	200	4		29.037	-0.063	0.000	0.64			11.7	OK
3.001	201	4		28.780	-0.170	0.000	0.39			24.7	OK
3.002	202	4		28.612	-0.228	0.000	0.13			34.5	OK
4.000	300	18		27.904	-0.201	0.000	0.24			24.4	OK
3.003	203	22		27.538	-0.192	0.000	0.28			67.7	OK
1.004	105	21		27.144	0.644	0.000	0.83			113.9	SURCHARGED
5.000	400	4		29.089	-0.061	0.000	0.32			2.0	OK
5.001	401	4		28.863	-0.107	0.000	0.18			7.2	OK
5.002	402	18		27.900	-0.175	0.000	0.11			10.9	OK
6.000	500	14		28.048	-0.092	0.000	0.32			6.6	OK
6.001	501	18		27.922	-0.043	0.000	0.84			11.7	OK

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Summary Wizard of 30 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	22	27.628	-0.127	0.000	0.37			14.3	OK
6.003	503	22	27.587	-0.053	0.000	0.93			35.4	OK
5.003	403	24	27.333	-0.197	0.000	0.25			59.2	OK
7.000	700	13	28.140	-0.170	0.000	0.14			18.9	OK
7.001	701	21	27.145	-0.115	0.000	0.14			18.9	OK
5.004	404	21	27.144	-0.947	0.000	0.00			93.1	OK
1.005	405	21	27.144	0.944	0.000	0.43			15.5	SURCHARGED
1.006	107	22	27.335	1.310	0.000	0.12			3.3	SURCHARGED
1.007	108	21	25.811	-0.194	0.000	0.04			3.3	OK

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Summary Wizard of 60 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	8		29.318	-0.132	0.000	0.04			1.4	OK
1.001	101	19		28.101	-0.249	0.000	0.07			13.7	OK
2.000	600	8		29.084	-0.126	0.000	0.06			4.2	OK
1.002	102	19		27.438	-0.032	0.000	0.15			28.4	OK
1.003	104	19		27.437	0.507	0.000	0.20			33.4	SURCHARGED
3.000	200	8		29.019	-0.081	0.000	0.43			8.0	OK
3.001	201	9		28.754	-0.196	0.000	0.26			16.8	OK
3.002	202	9		28.600	-0.240	0.000	0.09			23.4	OK
4.000	300	22		27.886	-0.219	0.000	0.16			16.7	OK
3.003	203	27		27.519	-0.211	0.000	0.19			46.0	OK
1.004	105	19		27.436	0.936	0.000	0.56			76.6	SURCHARGED
5.000	400	8		29.082	-0.068	0.000	0.22			1.4	OK
5.001	401	9		28.855	-0.115	0.000	0.12			4.9	OK
5.002	402	23		27.891	-0.184	0.000	0.08			7.3	OK
6.000	500	19		28.037	-0.103	0.000	0.22			4.5	OK
6.001	501	23		27.897	-0.068	0.000	0.57			8.0	OK

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Summary Wizard of 60 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	27	27.607	-0.148	0.000	0.26			9.8	OK
6.003	503	27	27.545	-0.095	0.000	0.63			24.1	OK
5.003	403	19	27.437	-0.093	0.000	0.17			40.2	OK
7.000	700	17	28.131	-0.179	0.000	0.09			12.9	OK
7.001	701	19	27.437	0.177	0.000	0.10			12.9	SURCHARGED
5.004	404	19	27.436	-0.655	0.000	0.00			63.7	OK
1.005	405	19	27.436	1.236	0.000	0.45			16.0	SURCHARGED
1.006	107	19	27.551	1.526	0.000	0.13			3.6	SURCHARGED
1.007	108	19	25.812	-0.193	0.000	0.05			3.6	OK

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Summary Wizard of 120 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	17		29.315	-0.135	0.000	0.02			0.9	OK
1.001	101	25		28.090	-0.260	0.000	0.04			8.6	OK
2.000	600	17		29.079	-0.131	0.000	0.04			2.6	OK
1.002	102	17		27.711	0.241	0.000	0.10			17.9	SURCHARGED
1.003	104	17		27.710	0.780	0.000	0.13			21.2	SURCHARGED
3.000	200	17		29.003	-0.097	0.000	0.27			5.1	OK
3.001	201	16		28.731	-0.219	0.000	0.17			10.6	OK
3.002	202	16		28.586	-0.254	0.000	0.06			14.8	OK
4.000	300	31		27.869	-0.236	0.000	0.10			10.6	OK
3.003	203	17		27.712	-0.018	0.000	0.12			29.1	OK
1.004	105	17		27.710	1.210	0.000	0.36			48.9	SURCHARGED
5.000	400	17		29.075	-0.075	0.000	0.14			0.9	OK
5.001	401	15		28.847	-0.123	0.000	0.08			3.1	OK
5.002	402	29		27.881	-0.194	0.000	0.05			4.6	OK
6.000	500	28		28.027	-0.113	0.000	0.14			2.9	OK
6.001	501	31		27.877	-0.088	0.000	0.36			5.1	OK

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Summary Wizard of 120 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	18	27.712	-0.043	0.000	0.16			6.2	OK
6.003	503	17	27.711	0.071	0.000	0.40			15.2	SURCHARGED
5.003	403	17	27.710	0.180	0.000	0.11			25.4	SURCHARGED
7.000	700	26	28.120	-0.190	0.000	0.06			8.2	OK
7.001	701	17	27.711	0.451	0.000	0.06			8.2	SURCHARGED
5.004	404	17	27.710	-0.381	0.000	0.00			40.2	OK
1.005	405	17	27.710	1.510	0.000	0.46			16.5	SURCHARGED
1.006	107	18	27.780	1.755	0.000	0.14			3.9	SURCHARGED
1.007	108	18	25.813	-0.192	0.000	0.05			3.9	OK

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Summary Wizard of 180 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	26		29.312	-0.138	0.000	0.02			0.7	OK
1.001	101	33		28.085	-0.265	0.000	0.03			6.5	OK
2.000	600	26		29.077	-0.133	0.000	0.03			2.0	OK
1.002	102	15		27.855	0.385	0.000	0.07			13.4	SURCHARGED
1.003	104	15		27.854	0.924	0.000	0.10			16.0	SURCHARGED
3.000	200	26		28.996	-0.104	0.000	0.21			3.8	OK
3.001	201	26		28.720	-0.230	0.000	0.12			7.9	OK
3.002	202	27		28.579	-0.261	0.000	0.04			11.1	OK
4.000	300	39		27.860	-0.245	0.000	0.08			7.9	OK
3.003	203	15		27.855	0.125	0.000	0.09			21.8	SURCHARGED
1.004	105	15		27.854	1.354	0.000	0.27			36.8	SURCHARGED
5.000	400	26		29.071	-0.079	0.000	0.10			0.7	OK
5.001	401	26		28.843	-0.127	0.000	0.06			2.3	OK
5.002	402	37		27.877	-0.198	0.000	0.04			3.5	OK
6.000	500	37		28.022	-0.118	0.000	0.10			2.1	OK
6.001	501	39		27.868	-0.097	0.000	0.27			3.8	OK

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Summary Wizard of 180 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	15	27.856	0.101	0.000	0.12			4.6	SURCHARGED
6.003	503	15	27.855	0.215	0.000	0.30			11.4	SURCHARGED
5.003	403	15	27.854	0.324	0.000	0.08			19.0	SURCHARGED
7.000	700	35	28.115	-0.195	0.000	0.04			6.1	OK
7.001	701	15	27.853	0.593	0.000	0.05			6.1	SURCHARGED
5.004	404	15	27.853	-0.238	0.000	0.00			30.4	OK
1.005	405	15	27.853	1.653	0.000	0.45			16.1	SURCHARGED
1.006	107	15	27.933	1.908	0.000	0.15			4.0	SURCHARGED
1.007	108	15	25.814	-0.191	0.000	0.05			4.0	OK

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Summary Wizard of 240 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	34		29.310	-0.140	0.000	0.01			0.5	OK
1.001	101	40		28.082	-0.268	0.000	0.03			5.2	OK
2.000	600	34		29.076	-0.134	0.000	0.02			1.6	OK
1.002	102	13		27.969	0.499	0.000	0.06			10.8	SURCHARGED
1.003	104	13		27.968	1.038	0.000	0.08			12.7	SURCHARGED
3.000	200	34		28.991	-0.109	0.000	0.17			3.1	OK
3.001	201	32		28.713	-0.237	0.000	0.10			6.4	OK
3.002	202	32		28.576	-0.264	0.000	0.03			9.0	OK
4.000	300	13		27.970	-0.135	0.000	0.06			6.4	OK
3.003	203	13		27.970	0.240	0.000	0.07			17.6	SURCHARGED
1.004	105	13		27.967	1.467	0.000	0.21			29.5	SURCHARGED
5.000	400	34		29.069	-0.081	0.000	0.08			0.5	OK
5.001	401	31		28.841	-0.129	0.000	0.05			1.9	OK
5.002	402	13		27.970	-0.105	0.000	0.03			2.8	OK
6.000	500	44		28.019	-0.121	0.000	0.08			1.7	OK
6.001	501	16		27.972	0.007	0.000	0.22			3.1	SURCHARGED

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Summary Wizard of 240 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	13	27.971	0.216	0.000	0.10			3.7	SURCHARGED
6.003	503	13	27.971	0.331	0.000	0.24			9.2	SURCHARGED
5.003	403	13	27.970	0.440	0.000	0.07			15.4	SURCHARGED
7.000	700	43	28.112	-0.198	0.000	0.04			4.9	OK
7.001	701	13	27.968	0.708	0.000	0.04			4.9	SURCHARGED
5.004	404	13	27.968	-0.123	0.000	0.00			24.6	OK
1.005	405	13	27.968	1.768	0.000	0.45			16.2	SURCHARGED
1.006	107	13	28.026	2.001	0.000	0.15			4.1	SURCHARGED
1.007	108	13	25.814	-0.191	0.000	0.06			4.1	OK

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Summary Wizard of 360 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	44		29.307	-0.143	0.000	0.01			0.4	OK
1.001	101	9		28.203	-0.147	0.000	0.02			3.8	OK
2.000	600	44		29.072	-0.138	0.000	0.02			1.2	OK
1.002	102	9		28.203	0.733	0.000	0.04			7.9	SURCHARGED
1.003	104	9		28.203	1.273	0.000	0.06			9.9	SURCHARGED
3.000	200	44		28.985	-0.115	0.000	0.12			2.3	OK
3.001	201	44		28.703	-0.247	0.000	0.07			4.7	OK
3.002	202	44		28.572	-0.268	0.000	0.02			6.6	OK
4.000	300	9		28.203	0.098	0.000	0.05			4.7	SURCHARGED
3.003	203	9		28.203	0.473	0.000	0.05			12.9	SURCHARGED
1.004	105	9		28.202	1.702	0.000	0.16			22.4	SURCHARGED
5.000	400	44		29.066	-0.084	0.000	0.06			0.4	OK
5.001	401	43		28.838	-0.132	0.000	0.03			1.4	OK
5.002	402	9		28.202	0.127	0.000	0.02			2.1	SURCHARGED
6.000	500	9		28.205	0.065	0.000	0.06			1.3	SURCHARGED
6.001	501	9		28.205	0.240	0.000	0.16			2.3	SURCHARGED

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Summary Wizard of 360 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	9	28.204	0.449	0.000	0.07			2.7	SURCHARGED
6.003	503	9	28.203	0.563	0.000	0.18			6.8	SURCHARGED
5.003	403	9	28.202	0.672	0.000	0.05			11.3	SURCHARGED
7.000	700	9	28.202	-0.108	0.000	0.03			3.6	OK
7.001	701	9	28.201	0.941	0.000	0.03			3.6	SURCHARGED
5.004	404	9	28.201	0.110	0.000	0.00			18.2	SURCHARGED
1.005	405	9	28.201	2.001	0.000	0.47			16.7	SURCHARGED
1.006	107	9	28.196	2.171	0.000	0.16			4.3	SURCHARGED
1.007	108	9	25.815	-0.190	0.000	0.06			4.3	OK

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Summary Wizard of 480 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	51		29.306	-0.144	0.000	0.01			0.3	OK
1.001	101	2		28.556	0.206	0.000	0.02			3.1	SURCHARGED
2.000	600	51		29.070	-0.140	0.000	0.01			0.9	OK
1.002	102	2		28.556	1.086	0.000	0.03			6.4	SURCHARGED
1.003	104	2		28.555	1.625	0.000	0.05			7.9	SURCHARGED
3.000	200	51		28.981	-0.119	0.000	0.10			1.8	OK
3.001	201	51		28.697	-0.253	0.000	0.06			3.8	OK
3.002	202	52		28.568	-0.272	0.000	0.02			5.3	OK
4.000	300	2		28.556	0.451	0.000	0.04			3.8	SURCHARGED
3.003	203	2		28.556	0.826	0.000	0.04			10.4	SURCHARGED
1.004	105	2		28.555	2.055	0.000	0.13			18.0	SURCHARGED
5.000	400	51		29.064	-0.086	0.000	0.05			0.3	OK
5.001	401	51		28.836	-0.134	0.000	0.03			1.1	OK
5.002	402	2		28.554	0.479	0.000	0.02			1.7	SURCHARGED
6.000	500	2		28.558	0.418	0.000	0.05			1.0	SURCHARGED
6.001	501	2		28.557	0.592	0.000	0.13			1.8	SURCHARGED

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Summary Wizard of 480 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	2	28.556	0.801	0.000	0.06			2.2	FLOOD RISK
6.003	503	2	28.555	0.915	0.000	0.14			5.4	SURCHARGED
5.003	403	2	28.554	1.024	0.000	0.04			9.1	SURCHARGED
7.000	700	2	28.554	0.244	0.000	0.02			2.9	SURCHARGED
7.001	701	2	28.553	1.293	0.000	0.02			2.9	SURCHARGED
5.004	404	2	28.553	0.462	0.000	0.00			14.7	SURCHARGED
1.005	405	2	28.553	2.353	0.000	0.40			14.4	SURCHARGED
1.006	107	2	28.548	2.523	0.000	0.17			4.6	SURCHARGED
1.007	108	2	25.816	-0.189	0.000	0.06			4.6	OK

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Summary Wizard of 600 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	59		29.305	-0.145	0.000	0.01			0.3	OK
1.001	101	1		28.594	0.244	0.000	0.01			2.6	SURCHARGED
2.000	600	59		29.068	-0.142	0.000	0.01			0.8	OK
1.002	102	1		28.594	1.124	0.000	0.03			5.4	SURCHARGED
1.003	104	1		28.594	1.664	0.000	0.04			6.6	SURCHARGED
3.000	200	59		28.979	-0.121	0.000	0.08			1.5	OK
3.001	201	59		28.693	-0.257	0.000	0.05			3.2	OK
3.002	202	11		28.595	-0.245	0.000	0.02			4.4	OK
4.000	300	1		28.594	0.489	0.000	0.03			3.2	SURCHARGED
3.003	203	1		28.594	0.864	0.000	0.04			8.8	SURCHARGED
1.004	105	1		28.593	2.093	0.000	0.11			15.1	SURCHARGED
5.000	400	59		29.063	-0.087	0.000	0.04			0.3	OK
5.001	401	59		28.835	-0.135	0.000	0.02			0.9	OK
5.002	402	1		28.593	0.518	0.000	0.01			1.4	SURCHARGED
6.000	500	1		28.596	0.456	0.000	0.04			0.9	SURCHARGED
6.001	501	1		28.596	0.631	0.000	0.11			1.5	SURCHARGED

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Summary Wizard of 600 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	1	28.595	0.840	0.000	0.05			1.9	FLOOD RISK
6.003	503	1	28.594	0.954	0.000	0.12			4.6	SURCHARGED
5.003	403	1	28.593	1.063	0.000	0.03			7.6	SURCHARGED
7.000	700	1	28.593	0.283	0.000	0.02			2.5	SURCHARGED
7.001	701	1	28.592	1.332	0.000	0.02			2.4	SURCHARGED
5.004	404	1	28.592	0.501	0.000	0.00			12.3	SURCHARGED
1.005	405	1	28.592	2.392	0.000	0.31			11.2	SURCHARGED
1.006	107	1	28.586	2.561	0.000	0.17			4.7	SURCHARGED
1.007	108	1	25.816	-0.189	0.000	0.06			4.7	OK

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Summary Wizard of 720 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100	64		29.304	-0.146	0.000	0.01			0.2	OK
1.001	101	3		28.522	0.172	0.000	0.01			2.2	SURCHARGED
2.000	600	64		29.067	-0.143	0.000	0.01			0.7	OK
1.002	102	3		28.522	1.052	0.000	0.03			4.7	SURCHARGED
1.003	104	3		28.522	1.592	0.000	0.03			5.7	SURCHARGED
3.000	200	64		28.976	-0.124	0.000	0.07			1.3	OK
3.001	201	64		28.690	-0.260	0.000	0.04			2.8	OK
3.002	202	63		28.561	-0.279	0.000	0.01			3.9	OK
4.000	300	3		28.522	0.417	0.000	0.03			2.8	SURCHARGED
3.003	203	3		28.523	0.793	0.000	0.03			7.6	SURCHARGED
1.004	105	3		28.521	2.021	0.000	0.10			13.1	SURCHARGED
5.000	400	64		29.062	-0.088	0.000	0.04			0.2	OK
5.001	401	63		28.834	-0.136	0.000	0.02			0.8	OK
5.002	402	3		28.521	0.446	0.000	0.01			1.2	SURCHARGED
6.000	500	3		28.524	0.384	0.000	0.04			0.7	SURCHARGED
6.001	501	3		28.524	0.559	0.000	0.09			1.3	SURCHARGED

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Summary Wizard of 720 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
6.002	502	3	28.523	0.768	0.000	0.04			1.6	FLOOD RISK
6.003	503	3	28.522	0.882	0.000	0.10			4.0	SURCHARGED
5.003	403	3	28.521	0.991	0.000	0.03			6.6	SURCHARGED
7.000	700	3	28.521	0.211	0.000	0.02			2.1	SURCHARGED
7.001	701	3	28.520	1.260	0.000	0.02			2.1	SURCHARGED
5.004	404	3	28.520	0.429	0.000	0.00			10.7	SURCHARGED
1.005	405	3	28.520	2.320	0.000	0.25			9.0	SURCHARGED
1.006	107	3	28.515	2.490	0.000	0.17			4.6	SURCHARGED
1.007	108	3	25.816	-0.189	0.000	0.06			4.6	OK

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Summary Wizard of 960 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		74	29.303	-0.147	0.000	0.00			0.2	OK
1.001	101		7	28.284	-0.066	0.000	0.01			1.8	OK
2.000	600		74	29.066	-0.144	0.000	0.01			0.6	OK
1.002	102		7	28.284	0.814	0.000	0.02			3.7	SURCHARGED
1.003	104		7	28.283	1.353	0.000	0.03			4.6	SURCHARGED
3.000	200		74	28.973	-0.127	0.000	0.06			1.1	OK
3.001	201		74	28.686	-0.264	0.000	0.03			2.2	OK
3.002	202		74	28.557	-0.283	0.000	0.01			3.1	OK
4.000	300		7	28.284	0.179	0.000	0.02			2.2	SURCHARGED
3.003	203		7	28.284	0.554	0.000	0.03			6.1	SURCHARGED
1.004	105		7	28.283	1.783	0.000	0.08			10.5	SURCHARGED
5.000	400		74	29.061	-0.089	0.000	0.03			0.2	OK
5.001	401		74	28.831	-0.139	0.000	0.02			0.6	OK
5.002	402		7	28.283	0.208	0.000	0.01			1.0	SURCHARGED
6.000	500		7	28.286	0.146	0.000	0.03			0.6	SURCHARGED
6.001	501		7	28.285	0.320	0.000	0.08			1.1	SURCHARGED
6.002	502		7	28.284	0.529	0.000	0.03			1.3	SURCHARGED
6.003	503		7	28.283	0.643	0.000	0.08			3.2	SURCHARGED
5.003	403		7	28.282	0.752	0.000	0.02			5.3	SURCHARGED

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Summary Wizard of 960 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	7	28.282	-0.028	0.000	0.01			1.7	OK
7.001	701	7	28.282	1.022	0.000	0.01			1.7	SURCHARGED
5.004	404	7	28.281	0.190	0.000	0.00		985	8.6	SURCHARGED
1.005	405	7	28.281	2.081	0.000	0.22			8.0	SURCHARGED
1.006	107	7	28.276	2.251	0.000	0.16			4.4	SURCHARGED
1.007	108	7	25.815	-0.190	0.000	0.06			4.4	OK

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Summary Wizard of 1440 minute 100 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	100		87	29.302	-0.148	0.000	0.00			0.1	OK
1.001	101		87	28.059	-0.291	0.000	0.01			1.3	OK
2.000	600		87	29.064	-0.146	0.000	0.01			0.4	OK
1.002	102		12	28.005	0.535	0.000	0.01			2.7	SURCHARGED
1.003	104		12	28.004	1.074	0.000	0.02			3.4	SURCHARGED
3.000	200		87	28.970	-0.130	0.000	0.04			0.8	OK
3.001	201		87	28.682	-0.268	0.000	0.03			1.6	OK
3.002	202		87	28.552	-0.288	0.000	0.01			2.3	OK
4.000	300		12	28.005	-0.100	0.000	0.02			1.6	OK
3.003	203		12	28.005	0.275	0.000	0.02			4.4	SURCHARGED
1.004	105		12	28.004	1.504	0.000	0.06			7.7	SURCHARGED
5.000	400		87	29.060	-0.090	0.000	0.02			0.1	OK
5.001	401		87	28.828	-0.142	0.000	0.01			0.5	OK
5.002	402		12	28.006	-0.069	0.000	0.01			0.7	OK
6.000	500		68	28.008	-0.132	0.000	0.02			0.4	OK
6.001	501		13	28.008	0.043	0.000	0.06			0.8	SURCHARGED
6.002	502		12	28.007	0.252	0.000	0.02			0.9	SURCHARGED
6.003	503		12	28.007	0.367	0.000	0.06			2.3	SURCHARGED
5.003	403		12	28.005	0.475	0.000	0.02			3.9	SURCHARGED

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Summary Wizard of 1440 minute 100 year Winter I+40% for Storm

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
7.000	700	87	28.095	-0.215	0.000	0.01			1.2	OK
7.001	701	12	28.005	0.745	0.000	0.01			1.2	SURCHARGED
5.004	404	12	28.004	-0.087	0.000	0.00		1063	6.3	OK
1.005	405	12	28.004	1.804	0.000	0.22			7.7	SURCHARGED
1.006	107	12	28.066	2.041	0.000	0.15			4.2	SURCHARGED
1.007	108	12	25.814	-0.191	0.000	0.06			4.2	OK

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STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	100	PIMP (%)	100
M5-60 (mm)	18.100	Add Flow / Climate Change (%)	0
Ratio R	0.359	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	1.000	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.334	4-8	0.144

Total Area Contributing (ha) = 0.478

Total Pipe Volume (m³) = 349.002

Network Design Table for Storm

« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	20.826	1.100	18.9	0.004	5.00	0.0	0.600		o	150	Pipe/Conduit	
1.001	20.298	0.880	23.1	0.035	0.00	0.0	0.600		o	300	Pipe/Conduit	
2.000	9.742	1.740	5.6	0.012	5.00	0.0	0.600		o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.15	29.300	0.004	0.0	0.0	0.0	2.33	41.1	0.7
1.001	50.00	5.25	28.050	0.039	0.0	0.0	0.0	3.29	232.4	7.0
2.000	50.00	5.04	29.060	0.012	0.0	0.0	0.0	4.29	75.8	2.2

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
1.002	12.497	0.540	23.1	0.030	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.003	9.876	0.430	23.0	0.022	0.00	0.0	0.600		o	300	Pipe/Conduit	
3.000	11.290	0.150	75.3	0.023	5.00	0.0	0.600		o	150	Pipe/Conduit	
3.001	26.520	0.110	241.1	0.025	0.00	0.0	0.600		o	300	Pipe/Conduit	
3.002	12.633	1.110	11.4	0.019	0.00	0.0	0.600		o	300	Pipe/Conduit	
4.000	38.224	0.375	101.9	0.048	5.00	0.0	0.600		o	300	Pipe/Conduit	
3.003	20.245	1.230	16.5	0.017	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.004	9.886	0.300	33.0	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
5.000	14.821	0.180	82.3	0.004	5.00	0.0	0.600		o	100	Pipe/Conduit	
5.001	14.974	0.895	16.7	0.010	0.00	0.0	0.600		o	150	Pipe/Conduit	
5.002	11.349	0.545	20.8	0.007	0.00	0.0	0.600		o	225	Pipe/Conduit	
6.000	10.521	0.175	60.1	0.013	5.00	0.0	0.600		o	150	Pipe/Conduit	
6.001	31.899	0.215	148.4	0.010	0.00	0.0	0.600		o	150	Pipe/Conduit	
6.002	16.847	0.115	146.5	0.005	0.00	0.0	0.600		o	225	Pipe/Conduit	
6.003	16.055	0.110	146.0	0.041	0.00	0.0	0.600		o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.002	50.00	5.32	27.170	0.081	0.0	0.0	0.0	3.28	232.0	14.6
1.003	50.00	5.37	26.630	0.103	0.0	0.0	0.0	3.29	232.9	18.6
3.000	50.00	5.16	28.950	0.023	0.0	0.0	0.0	1.16	20.5	4.2
3.001	50.00	5.60	28.650	0.048	0.0	0.0	0.0	1.01	71.3	8.7
3.002	50.00	5.65	28.540	0.067	0.0	0.0	0.0	4.69	331.2	12.1
4.000	50.00	5.41	27.805	0.048	0.0	0.0	0.0	1.56	110.1	8.7
3.003	50.00	5.73	27.430	0.132	0.0	0.0	0.0	3.89	275.3	23.8
1.004	50.00	5.79	26.200	0.235	0.0	0.0	0.0	2.75	194.3	42.4
5.000	50.00	5.29	29.050	0.004	0.0	0.0	0.0	0.85	6.7	0.7
5.001	50.00	5.39	28.820	0.014	0.0	0.0	0.0	2.47	43.7	2.5
5.002	50.00	5.46	27.850	0.021	0.0	0.0	0.0	2.88	114.5	3.8
6.000	50.00	5.13	27.990	0.013	0.0	0.0	0.0	1.30	23.0	2.3
6.001	50.00	5.78	27.815	0.023	0.0	0.0	0.0	0.82	14.5	4.2
6.002	50.00	6.04	27.530	0.028	0.0	0.0	0.0	1.08	42.9	5.1
6.003	50.00	6.29	27.415	0.069	0.0	0.0	0.0	1.08	42.9	12.5

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
5.003	19.672	1.140	17.3	0.025	0.00	0.0	0.600		o	300	Pipe/Conduit	
7.000	10.512	1.050	10.0	0.037	5.00	0.0	0.600		o	225	Pipe/Conduit	
7.001	8.716	0.870	10.0	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	
5.004	15.616	0.190	82.2	0.037	0.00	0.0		0.050	→[↓]		Cellular Storage	
1.005	23.990	0.040	599.8	0.054	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.006	2.747	0.020	137.4	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	
1.007	2.862	0.280	10.2	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
5.003	50.00	6.38	27.230	0.115	0.0	0.0	0.0	3.80	268.8	20.8
7.000	50.00	5.04	28.085	0.037	0.0	0.0	0.0	4.16	165.4	6.7
7.001	50.00	5.08	27.035	0.037	0.0	0.0	0.0	4.16	165.3	6.7
5.004	50.00	6.51	26.090	0.189	0.0	0.0	0.0	1.91	40447.1	34.1
1.005	50.00	7.14	25.900	0.478	0.0	0.0	0.0	0.63	44.9«	86.3
1.006	50.00	7.18	25.800	0.478	0.0	0.0	0.0	1.11	44.3«	86.3
1.007	50.00	7.19	25.780	0.478	0.0	0.0	0.0	4.12	163.7	86.3

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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
100	29.900	0.600	Open Manhole	1	1.000	29.300	150				
101	29.850	1.800	Open Manhole	1200	1.001	28.050	300	1.000	28.200	150	
600	29.900	0.840	Open Manhole	450	2.000	29.060	150				
102	29.875	2.705	Open Manhole	1200	1.002	27.170	300	1.001	27.170	300	
								2.000	27.320	150	
104	29.825	3.195	Open Manhole	1200	1.003	26.630	300	1.002	26.630	300	
200	29.850	0.900	Open Manhole	450	3.000	28.950	150				
201	29.850	1.200	Open Manhole	1200	3.001	28.650	300	3.000	28.800	150	
202	29.835	1.295	Open Manhole	1200	3.002	28.540	300	3.001	28.540	300	
300	28.930	1.125	Open Manhole	1200	4.000	27.805	300				
203	29.850	2.420	Open Manhole	1200	3.003	27.430	300	3.002	27.430	300	
								4.000	27.430	300	
105	29.630	3.430	Open Manhole	1200	1.004	26.200	300	1.003	26.200	300	
								3.003	26.200	300	
400	29.650	0.600	Open Manhole	1	5.000	29.050	100				
401	29.550	0.730	Open Manhole	450	5.001	28.820	150	5.000	28.870	100	
402	29.300	1.450	Open Manhole	600	5.002	27.850	225	5.001	27.925	150	
500	28.990	1.000	Open Manhole	1	6.000	27.990	150				
501	28.960	1.145	Open Manhole	450	6.001	27.815	150	6.000	27.815	150	
502	28.810	1.280	Open Manhole	600	6.002	27.530	225	6.001	27.600	150	
503	29.000	1.585	Open Manhole	600	6.003	27.415	225	6.002	27.415	225	
403	29.250	2.020	Open Manhole	1200	5.003	27.230	300	5.002	27.305	225	
								6.003	27.305	225	
700	29.860	1.775	Open Manhole	600	7.000	28.085	225				
701	29.800	2.765	Open Manhole	600	7.001	27.035	225	7.000	27.035	225	
404	29.300	3.210	Open Manhole	1200	5.004	26.090		5.003	26.090	300	
								7.001	26.165	225	
405	29.350	3.450	Open Manhole	1200	1.005	25.900	300	1.004	25.900	300	
								5.004	25.900		
107	29.000	3.200	Open Manhole	1500	1.006	25.800	225	1.005	25.860	300	135
108	29.000	3.220	Open Manhole	1000	1.007	25.780	225	1.006	25.780	225	
MH07	29.000	3.500	Open Manhole	0		OUTFALL		1.007	25.500	225	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
100	383803.796	399297.845	383803.796	399297.845	Required	
101	383812.952	399279.140	383812.952	399279.140	Required	
600	383790.664	399279.072	383790.664	399279.072	Required	
102	383794.722	399270.216	383794.722	399270.216	Required	
104	383792.772	399257.872	383792.772	399257.872	Required	
200	383823.928	399260.213	383823.928	399260.213	Required	
201	383828.902	399250.078	383828.902	399250.078	Required	
202	383804.688	399239.262	383804.688	399239.262	Required	
300	383757.840	399219.646	383757.840	399219.646	Required	
203	383792.643	399235.453	383792.643	399235.453	Required	
105	383783.830	399253.680	383783.830	399253.680	Required	
400	383798.892	399298.224	383798.892	399298.224	Required	
401	383785.458	399291.962	383785.458	399291.962	Required	
402	383771.607	399286.275	383771.607	399286.275	Required	
500	383746.900	399229.987	383746.900	399229.987	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
501	383742.899	399239.718	383742.899	399239.718	Required	
502	383730.776	399269.223	383730.776	399269.223	Required	
503	383746.276	399275.822	383746.276	399275.822	Required	
403	383761.152	399281.861	383761.152	399281.861	Required	
700	383786.682	399270.322	383786.682	399270.322	Required	
701	383776.652	399267.177	383776.652	399267.177	Required	
404	383768.667	399263.681	383768.667	399263.681	Required	
405	383774.930	399249.376	383774.930	399249.376	Required	
107	383753.863	399237.899	383753.863	399237.899	Required	
108	383751.352	399236.786	383751.352	399236.786	Required	
MH07	383748.540	399237.320			No Entry	

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	100	29.900	29.300	0.450	Open Manhole	1
1.001	o	300	101	29.850	28.050	1.500	Open Manhole	1200
2.000	o	150	600	29.900	29.060	0.690	Open Manhole	450
1.002	o	300	102	29.875	27.170	2.405	Open Manhole	1200
1.003	o	300	104	29.825	26.630	2.895	Open Manhole	1200
3.000	o	150	200	29.850	28.950	0.750	Open Manhole	450
3.001	o	300	201	29.850	28.650	0.900	Open Manhole	1200
3.002	o	300	202	29.835	28.540	0.995	Open Manhole	1200
4.000	o	300	300	28.930	27.805	0.825	Open Manhole	1200
3.003	o	300	203	29.850	27.430	2.120	Open Manhole	1200
1.004	o	300	105	29.630	26.200	3.130	Open Manhole	1200
5.000	o	100	400	29.650	29.050	0.500	Open Manhole	1
5.001	o	150	401	29.550	28.820	0.580	Open Manhole	450
5.002	o	225	402	29.300	27.850	1.225	Open Manhole	600

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	20.826	18.9	101	29.850	28.200	1.500	Open Manhole	1200
1.001	20.298	23.1	102	29.875	27.170	2.405	Open Manhole	1200
2.000	9.742	5.6	102	29.875	27.320	2.405	Open Manhole	1200
1.002	12.497	23.1	104	29.825	26.630	2.895	Open Manhole	1200
1.003	9.876	23.0	105	29.630	26.200	3.130	Open Manhole	1200
3.000	11.290	75.3	201	29.850	28.800	0.900	Open Manhole	1200
3.001	26.520	241.1	202	29.835	28.540	0.995	Open Manhole	1200
3.002	12.633	11.4	203	29.850	27.430	2.120	Open Manhole	1200
4.000	38.224	101.9	203	29.850	27.430	2.120	Open Manhole	1200
3.003	20.245	16.5	105	29.630	26.200	3.130	Open Manhole	1200
1.004	9.886	33.0	405	29.350	25.900	3.150	Open Manhole	1200
5.000	14.821	82.3	401	29.550	28.870	0.580	Open Manhole	450
5.001	14.974	16.7	402	29.300	27.925	1.225	Open Manhole	600
5.002	11.349	20.8	403	29.250	27.305	1.720	Open Manhole	1200

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.000	o	150	500	28.990	27.990	0.850	Open Manhole	1
6.001	o	150	501	28.960	27.815	0.995	Open Manhole	450
6.002	o		502	28.810	27.530	1.055	Open Manhole	600
6.003	o	225	503	29.000	27.415	1.360	Open Manhole	600
5.003	o	300	403	29.250	27.230	1.720	Open Manhole	1200
7.000	o	225	700	29.860	28.085	1.550	Open Manhole	600
7.001	o	225	701	29.800	27.035	2.540	Open Manhole	600
5.004	→[↓]		404	29.300	26.090	1.209	Open Manhole	1200
1.005	o	300	405	29.350	25.900	3.150	Open Manhole	1200
1.006	o	225	107	29.000	25.800	2.975	Open Manhole	1500
1.007	o	225	108	29.000	25.780	2.995	Open Manhole	1000

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.000	10.521	60.1	501	28.960	27.815	0.995	Open Manhole	450
6.001	31.899	148.4	502	28.810	27.600	1.060	Open Manhole	600
6.002	16.847	146.5	503	29.000	27.415	1.360	Open Manhole	600
6.003	16.055	146.0	403	29.250	27.305	1.720	Open Manhole	1200
5.003	19.672	17.3	404	29.300	26.090	2.910	Open Manhole	1200
7.000	10.512	10.0	701	29.800	27.035	2.540	Open Manhole	600
7.001	8.716	10.0	404	29.300	26.165	2.910	Open Manhole	1200
5.004	15.616	82.2	405	29.350	25.900	1.449	Open Manhole	1200
1.005	23.990	599.8	107	29.000	25.860	2.840	Open Manhole	1500
1.006	2.747	137.4	108	29.000	25.780	2.995	Open Manhole	1000
1.007	2.862	10.2	MH07	29.000	25.500	3.275	Open Manhole	0

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.004	0.004	0.004
1.001	-	-	100	0.035	0.035	0.035
2.000	-	-	100	0.012	0.012	0.012
1.002	-	-	100	0.030	0.030	0.030
1.003	-	-	100	0.022	0.022	0.022
3.000	-	-	100	0.023	0.023	0.023
3.001	-	-	100	0.025	0.025	0.025
3.002	-	-	100	0.019	0.019	0.019
4.000	-	-	100	0.048	0.048	0.048
3.003	-	-	100	0.017	0.017	0.017
1.004	-	-	100	0.000	0.000	0.000
5.000	-	-	100	0.004	0.004	0.004
5.001	-	-	100	0.010	0.010	0.010
5.002	-	-	100	0.007	0.007	0.007
6.000	-	-	100	0.013	0.013	0.013
6.001	-	-	100	0.010	0.010	0.010
6.002	-	-	100	0.005	0.005	0.005
6.003	-	-	100	0.041	0.041	0.041
5.003	-	-	100	0.025	0.025	0.025
7.000	-	-	100	0.037	0.037	0.037
7.001	-	-	100	0.000	0.000	0.000
5.004	-	-	100	0.037	0.037	0.037
1.005	-	-	100	0.054	0.054	0.054
1.006	-	-	100	0.000	0.000	0.000
1.007	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.478	0.478	0.478

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
1.000	100	150	0.450	1.500	Unclassified	1	0	0.450	Unclassified
1.001	101	300	1.500	2.405	Unclassified	1200	0	1.500	Unclassified
2.000	600	150	0.690	2.405	Unclassified	450	0	0.690	Unclassified
1.002	102	300	2.405	2.895	Unclassified	1200	0	2.405	Unclassified
1.003	104	300	2.895	3.130	Unclassified	1200	0	2.895	Unclassified
3.000	200	150	0.750	0.900	Unclassified	450	0	0.750	Unclassified
3.001	201	300	0.900	0.995	Unclassified	1200	0	0.900	Unclassified
3.002	202	300	0.995	2.120	Unclassified	1200	0	0.995	Unclassified
4.000	300	300	0.825	2.120	Unclassified	1200	0	0.825	Unclassified
3.003	203	300	2.120	3.130	Unclassified	1200	0	2.120	Unclassified
1.004	105	300	3.130	3.150	Unclassified	1200	0	3.130	Unclassified
5.000	400	100	0.500	0.580	Unclassified	1	0	0.500	Unclassified
5.001	401	150	0.580	1.225	Unclassified	450	0	0.580	Unclassified
5.002	402	225	1.225	1.720	Unclassified	600	0	1.225	Unclassified
6.000	500	150	0.850	0.995	Unclassified	1	0	0.850	Unclassified
6.001	501	150	0.995	1.060	Unclassified	450	0	0.995	Unclassified
6.002	502	225	1.055	1.360	Unclassified	600	0	1.055	Unclassified
6.003	503	225	1.360	1.720	Unclassified	600	0	1.360	Unclassified
5.003	403	300	1.720	2.910	Unclassified	1200	0	1.720	Unclassified
7.000	700	225	1.550	2.540	Unclassified	600	0	1.550	Unclassified
7.001	701	225	2.540	2.910	Unclassified	600	0	2.540	Unclassified
5.004	404				Cellular Storage	1200	0	1.209	Unclassified
1.005	405	300	2.840	3.150	Unclassified	1200	0	3.150	Unclassified
1.006	107	225	2.975	2.995	Unclassified	1500	0	2.975	Unclassified
1.007	108	225	2.995	3.275	Unclassified	1000	0	2.995	Unclassified

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.007	MH07	29.000	25.500	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

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Simulation Criteria for Storm

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.100	Storm Duration (mins)	30
Ratio R	0.359		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: 107, DS/PN: 1.006, Volume (m³): 7.3

Unit Reference	MD-SCU-0052-5000-3200-5000
Design Head (m)	3.200
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Linear discharge profile
Application	Surface
Sump Available	Yes
Diameter (mm)	52
Invert Level (m)	25.800
Minimum Outlet Pipe Diameter (mm)	75
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	3.200	5.0
Flush-Flo™	0.073	1.0
Kick-Flo®	0.079	0.9
Mean Flow over Head Range	-	3.4

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.0	1.200	3.2	3.000	4.8	7.000	7.2
0.200	1.4	1.400	3.4	3.500	5.2	7.500	7.5
0.300	1.7	1.600	3.6	4.000	5.6	8.000	7.7
0.400	1.9	1.800	3.8	4.500	5.9	8.500	7.9
0.500	2.1	2.000	4.0	5.000	6.2	9.000	8.2
0.600	2.3	2.200	4.2	5.500	6.5	9.500	8.4
0.800	2.6	2.400	4.4	6.000	6.7		
1.000	2.9	2.600	4.5	6.500	7.0		

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Storage Structures for Storm

Cellular Storage Pipe: 5.004

Manning's N	0.050	Infiltration Coefficient Side (m/hr)	0.00000
Invert Level (m)	26.090	Safety Factor	1.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	174.0	0.0	2.001	0.0	0.0
2.000	174.0	0.0			

Volume Summary (Static)

Length Calculations based on Centre-Centre

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	100	0.000	0.368	0.000	0.368
1.001	101	2.036	1.435	0.000	3.471
2.000	600	0.134	0.172	0.000	0.306
1.002	102	3.059	0.883	0.000	3.943
1.003	104	3.613	0.698	0.000	4.312
3.000	200	0.143	0.200	0.000	0.343
3.001	201	1.357	1.875	0.000	3.232
3.002	202	1.465	0.893	0.000	2.358
4.000	300	1.272	2.702	0.000	3.974
3.003	203	2.737	1.431	0.000	4.168
1.004	105	3.879	0.699	0.000	4.578
5.000	400	0.000	0.116	0.000	0.116
5.001	401	0.116	0.265	0.000	0.381
5.002	402	0.410	0.451	0.000	0.861
6.000	500	0.000	0.186	0.000	0.186
6.001	501	0.182	0.564	0.000	0.746
6.002	502	0.362	0.670	0.000	1.032
6.003	503	0.448	0.638	0.000	1.087
5.003	403	2.285	1.391	0.000	3.675
7.000	700	0.502	0.418	0.000	0.920
7.001	701	0.782	0.347	0.000	1.128
5.004	404	3.630	330.683	0.000	334.313
1.005	405	3.902	1.696	0.000	5.598
1.006	107	5.655	0.109	0.000	5.764
1.007	108	2.529	0.114	0.000	2.643
Total		40.498	349.002	0.000	389.500

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Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	100	0.000	0.357	0.000	0.357
1.001	101	2.036	1.350	0.000	3.386
2.000	600	0.134	0.158	0.000	0.291
1.002	102	3.059	0.799	0.000	3.858
1.003	104	3.613	0.613	0.000	4.227
3.000	200	0.143	0.185	0.000	0.328
3.001	201	1.357	1.790	0.000	3.147
3.002	202	1.465	0.808	0.000	2.273
4.000	300	1.272	2.617	0.000	3.889
3.003	203	2.737	1.346	0.000	4.083
1.004	105	3.879	0.614	0.000	4.493
5.000	400	0.000	0.115	0.000	0.115
5.001	401	0.116	0.255	0.000	0.371
5.002	402	0.410	0.415	0.000	0.825
6.000	500	0.000	0.182	0.000	0.182
6.001	501	0.182	0.554	0.000	0.737
6.002	502	0.362	0.646	0.000	1.008
6.003	503	0.448	0.603	0.000	1.051
5.003	403	2.285	1.306	0.000	3.590
7.000	700	0.502	0.394	0.000	0.896
7.001	701	0.782	0.311	0.000	1.093
5.004	404	3.630	305.272	0.000	308.902
1.005	405	3.902	1.600	0.000	5.502
1.006	107	5.655	0.060	0.000	5.714
1.007	108	2.529	0.094	0.000	2.623
Total		40.498	322.443	0.000	362.941

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.359
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.100	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	100	15 Summer	100	+40%					29.326
1.001	101	600 Winter	100	+40%	100/480 Summer				28.594
2.000	600	15 Summer	100	+40%					29.095
1.002	102	600 Winter	100	+40%	100/120 Summer				28.594
1.003	104	600 Winter	100	+40%	30/180 Summer				28.594
3.000	200	15 Summer	100	+40%					29.057
3.001	201	15 Summer	100	+40%					28.808
3.002	202	15 Summer	100	+40%					28.627
4.000	300	600 Winter	100	+40%	100/360 Summer				28.594
3.003	203	600 Winter	100	+40%	100/180 Summer				28.594
1.004	105	600 Winter	100	+40%	2/360 Summer				28.593
5.000	400	15 Summer	100	+40%					29.096
5.001	401	15 Summer	100	+40%					28.871
5.002	402	600 Winter	100	+40%	100/360 Summer				28.593
6.000	500	600 Winter	100	+40%	100/360 Winter				28.596
6.001	501	600 Winter	100	+40%	100/15 Summer				28.596

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	100	-0.124	0.000	0.07			2.7	OK	
1.001	101	0.244	0.000	0.01			2.6	SURCHARGED	
2.000	600	-0.115	0.000	0.12			8.2	OK	
1.002	102	1.124	0.000	0.03			5.4	SURCHARGED	
1.003	104	1.664	0.000	0.04			6.6	SURCHARGED	
3.000	200	-0.043	0.000	0.85			15.7	OK	
3.001	201	-0.142	0.000	0.53			34.2	OK	
3.002	202	-0.213	0.000	0.18			48.4	OK	
4.000	300	0.489	0.000	0.03			3.2	SURCHARGED	
3.003	203	0.864	0.000	0.04			8.8	SURCHARGED	
1.004	105	2.093	0.000	0.11			15.1	SURCHARGED	
5.000	400	-0.054	0.000	0.43			2.7	OK	
5.001	401	-0.099	0.000	0.26			10.3	OK	
5.002	402	0.518	0.000	0.01			1.4	SURCHARGED	
6.000	500	0.456	0.000	0.04			0.9	SURCHARGED	
6.001	501	0.631	0.000	0.11			1.5	SURCHARGED	

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
6.002	502	600 Winter	100	+40%	100/180 Summer				28.595
6.003	503	600 Winter	100	+40%	100/15 Summer				28.594
5.003	403	600 Winter	100	+40%	100/120 Summer				28.593
7.000	700	600 Winter	100	+40%	100/480 Summer				28.593
7.001	701	600 Winter	100	+40%	100/60 Summer				28.592
5.004	404	600 Winter	100	+40%	100/360 Summer				28.592
1.005	405	600 Winter	100	+40%	1/30 Summer				28.592
1.006	107	600 Winter	100	+40%	1/15 Summer				28.586
1.007	108	600 Winter	100	+40%					25.816

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
6.002	502	0.840	0.000	0.05			1.9	FLOOD RISK	
6.003	503	0.954	0.000	0.12			4.6	SURCHARGED	
5.003	403	1.063	0.000	0.03			7.6	SURCHARGED	
7.000	700	0.283	0.000	0.02			2.5	SURCHARGED	
7.001	701	1.332	0.000	0.02			2.4	SURCHARGED	
5.004	404	0.501	0.000	0.00			12.3	SURCHARGED	
1.005	405	2.392	0.000	0.31			11.2	SURCHARGED	
1.006	107	2.561	0.000	0.17			4.7	SURCHARGED	
1.007	108	-0.189	0.000	0.06			4.7	OK	

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APPENDIX C

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Plot Date/Time: 11/10/2024 9:44 AM



KEY

- OVERLAND FLOW ROUTE
- PROPOSED SW PIPE/ MANHOLE
- PROPOSED LINEAR CHANNEL (ACO M100DS 10.0)
- PROPOSED LINEAR CHANNEL (ACO M100DS 0.0)
- PROPOSED TANK
- PROPOSED HYDRO-BRAKE
- PROPOSED DOWNSTREAM DEFENDER
- PROPOSED SITE BOUNDARY

Rev.	Description	Rev. by	Date
P02	Updated to suit drainage layout	PMB	14.10.2024

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
Clarion Housing

Architect

Project
Boddingtons Brewery

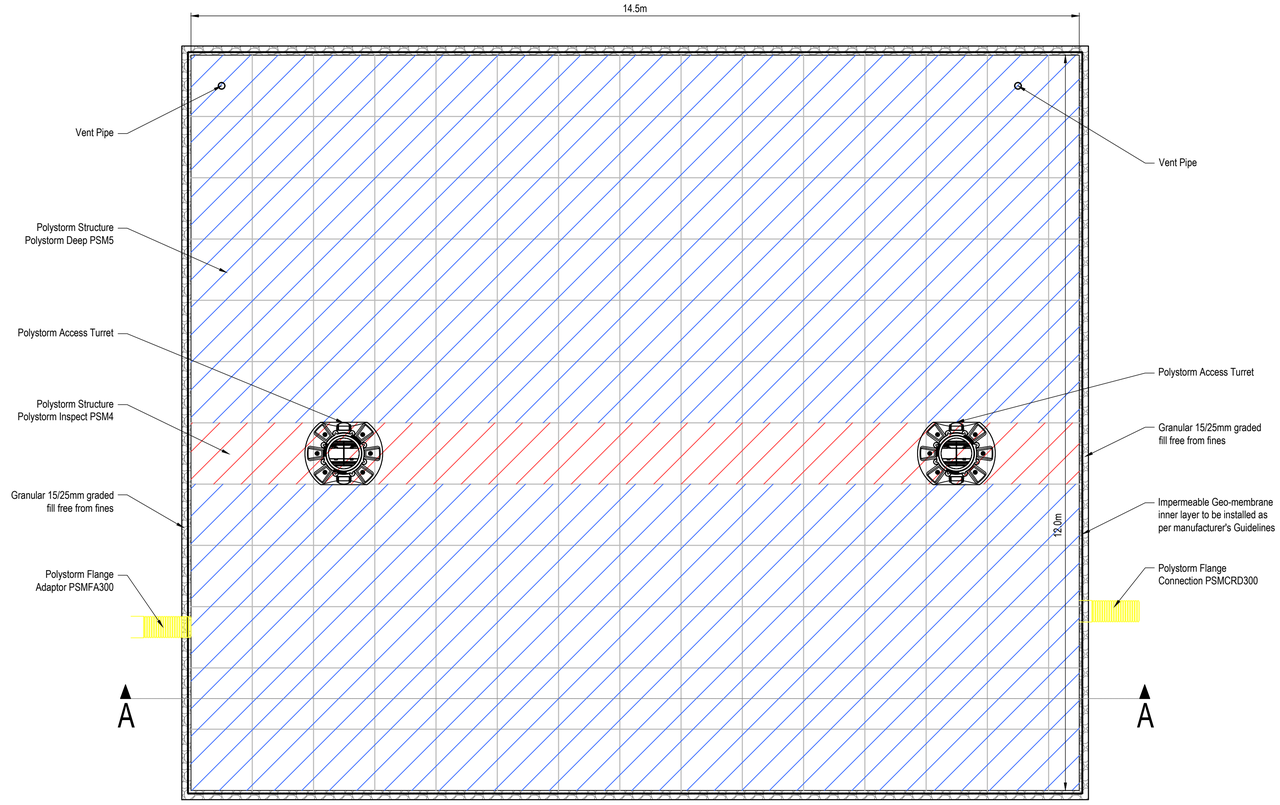
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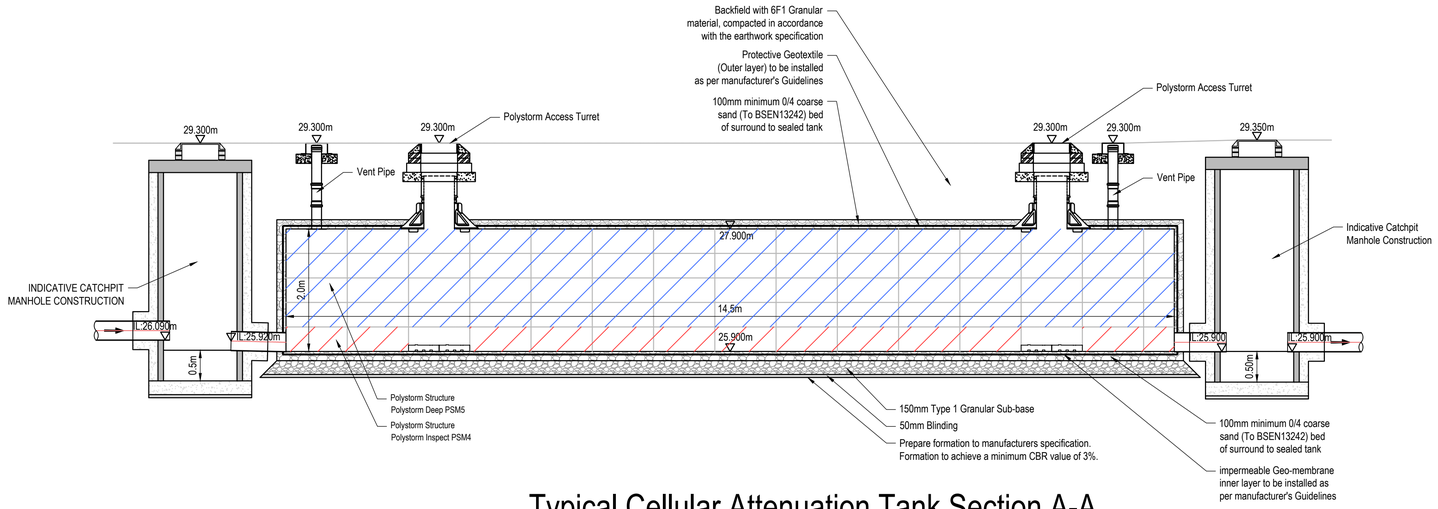
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DN0107-SGI-ZZ-00-DR-C-4000

Rev
P02

APPENDIX D



Typical Cellular Attenuation Tank Plan View



Typical Cellular Attenuation Tank Section A-A

NOTES

1. Construction and specification of the drainage network to be in accordance with the Civil Engineering Specification for the Water Industry and Sewers for Adoption 7th Edition.
2. Concrete base and pipe surround to be placed in a single continuous operation from top of base slab to top of benching and pipe surround.
3. Cut ends of earthenware and concrete pipes shall be treated with epoxy cut ends of pipes shall be treated with epoxy resin/paint/mortar approved by the engineer. Resin/paint/mortar approved by the engineer.
4. A joint sealant (Hydrotite or similar approved) shall be bonded to the segment joint face prior to erection.
5. In addition to the requirements of the specification Class B engineering bricks shall not contain frogs or holes.
6. Safety ladder to be to specification to be in accordance with Sewers for Adoption 7th Edition and approved by the engineer.
7. Standard concrete mixes in accordance with BS 5328 shall be used with a 20mm nominal maximum size of aggregate and a 75mm slump.
8. Suitable applications of concrete mixes are:

Standard mix	Grade of concrete	Application
ST1	C7.5	Fillings, blindings, soft spots and drainage sumps.
ST4	C20	All other applications.

9. High strength concrete topping to benching shall be produced, laid and finished in accordance with the relevant provisions of BS 8204: part 2 and the following approximate mix proportions by weight shall be used: 1 part cement, 1 part natural sand and 2 parts single sized coarse aggregate.
10. Fixings for metalwork mild steel bolts and nuts shall be hot dip galvanised in accordance with BS EN ISO 1460 and stainless steel bolts accordance with BS EN ISO 1460. Stainless steel bolts and nuts shall be manufactured from grade 316S31 steel complying with BS 970: part 1 or BS 1449: part 2.
11. Stainless steel proprietary fixings shall be manufactured stainless steel proprietary fixings shall be manufactured from grade 316S31 steel complying with BS 970: part 1 or BS 1449 part 2. Mild and high tensile steel proprietary fixings shall be protected in accordance with the relevant provisions of the appropriate British Standard as per Sewers for Adoption 7th edition.
12. Covers to chambers should be such so as the lifting effort does not exceed 25kgF.

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Rev.	Description	Rev. by	Date
P04	Updated drawing to suit drainage layout	PMB	11.10.2024
P03	Stage 4 Issue	NU	05.09.2024
P02	ISSUED FOR REVIEW AND COMMENT DRAWING NUMBER UPDATED FROM DN0107-SGI-ZZ-00-DR-C-0207	AS	25.07.2024

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
Clarion Housing

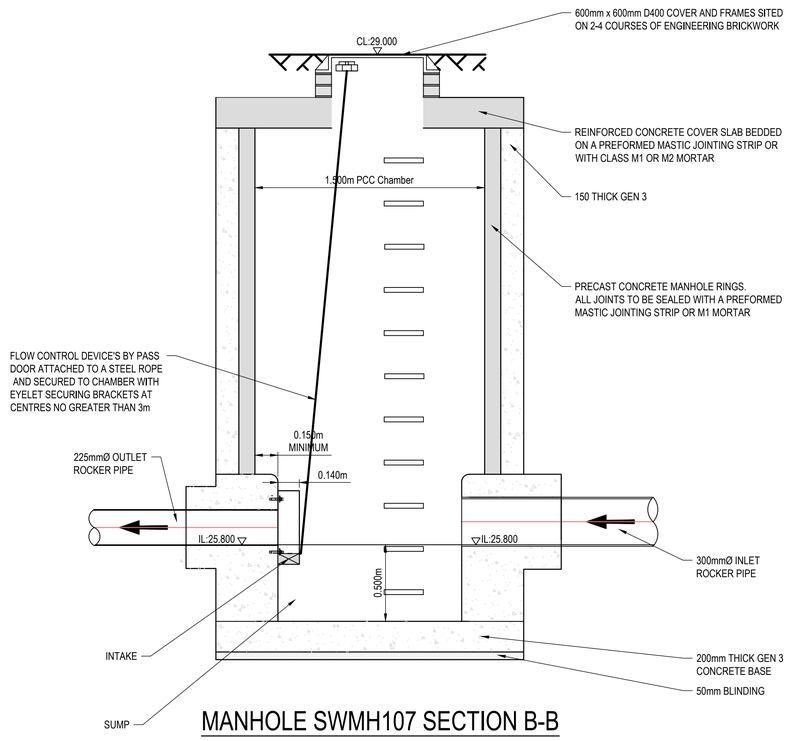
Architect

Project
Boddingtons Brewery

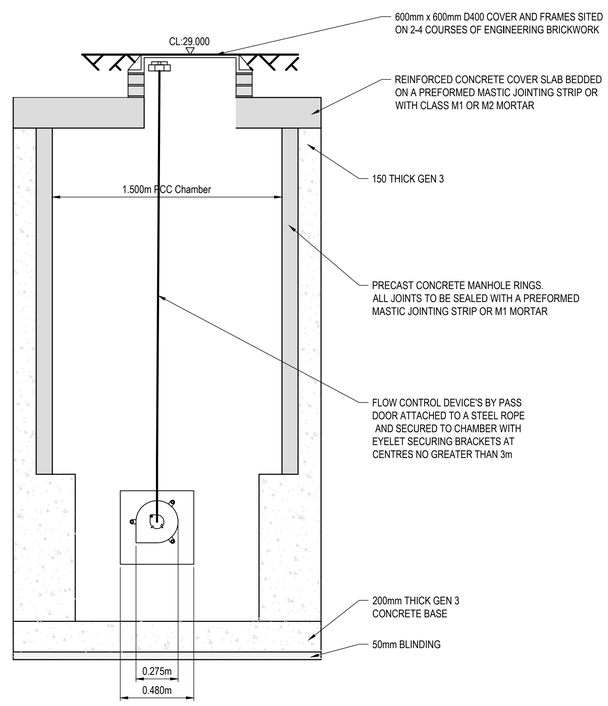
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Date	27.01.2022	Drawn By	WC
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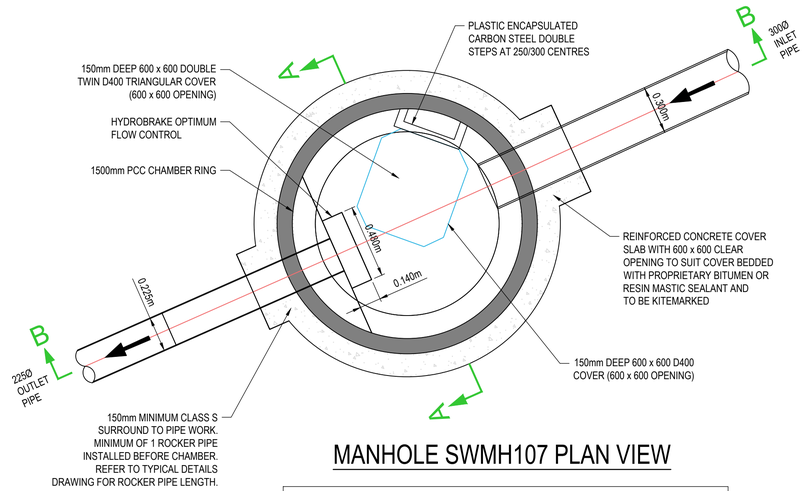
Dwg. No. **DN0107-SGI-ZZ-UG-DR-C-00207** Rev **P04**



MANHOLE SWMH107 SECTION B-B



MANHOLE SWMH107 SECTION A-A



MANHOLE SWMH107 PLAN VIEW

DRAWINGS TO BE READ IN CONJUNCTION WITH SGI TYPICAL DETAILS DRAWING

FLOW CONTROL CHAMBER
VORTEX TYPE : HYDROBRAKE OPTIMUM
UNIT REF: MD-SCU-0052-5000-3200-5000
DESIGN HEAD: 3.20m
DESIGN FLOW: 5.0l/s

NOTES

1. Construction and specification of the drainage network to be in accordance with the Civil Engineering Specification for the Water Industry and Sewers for Adoption 7th Edition.
2. Concrete base and pipe surround to be placed in a single continuous operation from top of base slab to top of benching and pipe surround.
3. Cut ends of earthenware and concrete pipes shall be treated with epoxy cut ends of pipes shall be treated with epoxy resin/paint/mortar approved by the engineer. Resin/paint/mortar approved by the engineer.
4. A joint sealant (Hydrotite or similar approved) shall be bonded to the segment joint face prior to erection.
5. In addition to the requirements of the specification Class B engineering bricks shall not contain frogs or holes.
6. Safety ladder to be to specification to be in accordance with Sewers for Adoption 7th Edition and approved by the engineer.
7. Standard concrete mixes in accordance with BS 5328 shall be used with a 20mm nominal maximum size of aggregate and a 75mm slump.
8. Suitable applications of concrete mixes are:

Standard mix	Grade of concrete	Application
ST1	C7.5	Fillings, blindings, soft spots and drainage sumps.
ST4	C20	All other applications.

9. High strength concrete topping to benching shall be produced, laid and finished in accordance with the relevant provisions of BS 8204: part 2 and the following approximate mix proportions by weight shall be used: 1 part cement, 1 part natural sand and 2 parts single sized coarse aggregate.
10. Fixings for metalwork mild steel bolts and nuts shall be hot dip galvanised in accordance with BS EN ISO 1460 and stainless steel bolts accordance with BS EN ISO 1460. Stainless steel bolts and nuts shall be manufactured from grade 316S31 steel complying with BS 970: part 1 or BS 1449: part 2.
11. Stainless steel proprietary fixings shall be manufactured stainless steel proprietary fixings shall be manufactured from grade 316S31 steel complying with BS 970: part 1 or BS 1449 part 2. Mild and high tensile steel proprietary fixings shall be protected in accordance with the relevant provisions of the appropriate British Standard as per Sewers for Adoption 7th edition.
12. Covers to chambers should be such so as the lifting effort does not exceed 25kgF.

Rev.	Description	Rev. by	Date
P04	Updated to suit drainage layout	PMB	14.10.2024
P03	Stage 4 Issue	NU	06.09.2024
P02	ISSUED FOR REVIEW AND COMMENT DRAWING NUMBER UPDATED FROM DN0107-SGI-ZZ-00-DR-C-0401	AS	25.07.2024

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
Clarion Housing

Architect

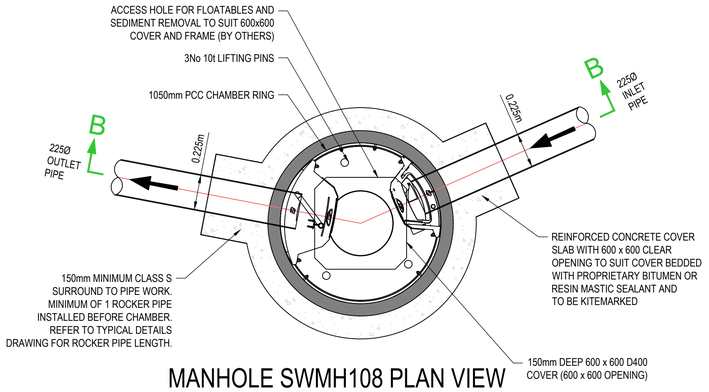
Project
Boddingtons Brewery

Title
Proposed Flow Control Manhole Detail

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Scale	1:200	Approved By	EAJ

Dwg. No. **DN0107-SGI-ZZ-UG-DR-C-00401** Rev **P04**

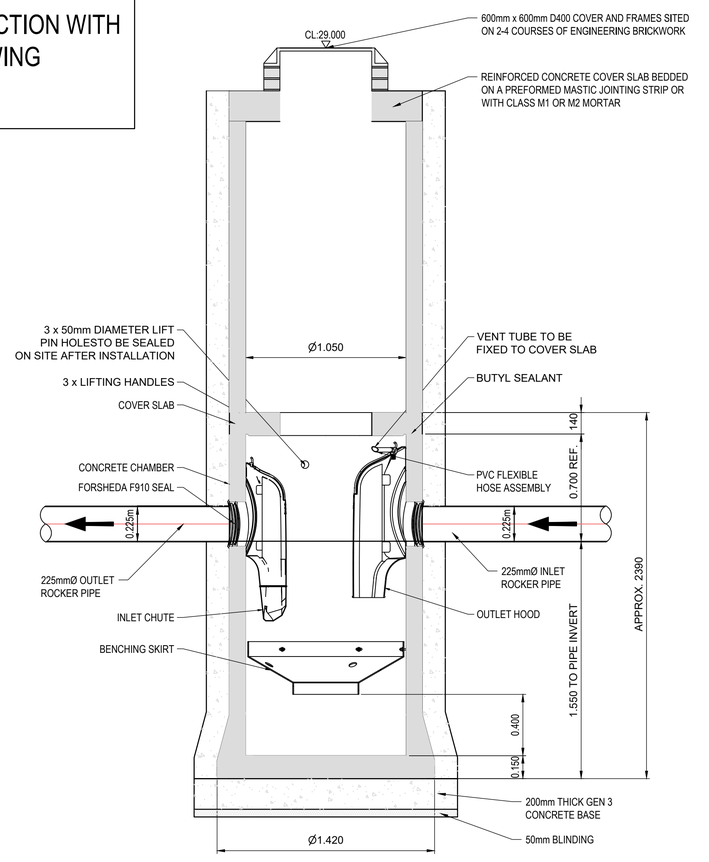
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MANHOLE SWMH108 PLAN VIEW

DDC 10-620-C-225

DRAWINGS TO BE READ IN CONJUNCTION WITH SGI TYPICAL DETAILS DRAWING



MANHOLE SWMH108 SECTION B-B

NOTES

1. Construction and specification of the drainage network to be in accordance with the Civil Engineering Specification for the Water Industry and Sewers for Adoption 7th Edition.
2. Concrete base and pipe surround to be placed in a single continuous operation from top of base slab to top of benching and pipe surround.
3. Cut ends of earthenware and concrete pipes shall be treated with epoxy cut ends of pipes shall be treated with epoxy resin/paint/mortar approved by the engineer. Resin/paint/mortar approved by the engineer.
4. A joint sealant (Hydrotite or similar approved) shall be bonded to the segment joint face prior to erection.
5. In addition to the requirements of the specification Class B engineering bricks shall not contain frogs or holes.
6. Safety ladder to be to specification to be in accordance with Sewers for Adoption 7th Edition and approved by the engineer.
7. Standard concrete mixes in accordance with BS 5328 shall be used with a 20mm nominal maximum size of aggregate and a 75mm slump.
8. Suitable applications of concrete mixes are:

Standard mix	Grade of concrete	Application
ST1	C7.5	Fillings, blindings, soft spots and drainage sumps.
ST4	C20	All other applications.

9. High strength concrete topping to benching shall be produced, laid and finished in accordance with the relevant provisions of BS 8204: part 2 and the following approximate mix proportions by weight shall be used: 1 part cement, 1 part natural sand and 2 parts single sized coarse aggregate.
10. Fixings for metalwork mild steel bolts and nuts shall be hot dip galvanised in accordance with BS EN ISO 1460 and stainless steel bolts accordance with BS EN ISO 1460. Stainless steel bolts and nuts shall be manufactured from grade 316S31 steel complying with BS 970: part 1 or BS 1449: part 2.
11. Stainless steel proprietary fixings shall be manufactured stainless steel proprietary fixings shall be manufactured from grade 316S31 steel complying with BS 970: part 1 or BS 1449 part 2. Mild and high tensile steel proprietary fixings shall be protected in accordance with the relevant provisions of the appropriate British Standard as per Sewers for Adoption 7th edition.
12. Covers to chambers should be such so as the lifting effort does not exceed 25kgF.

Filename: K:\projects\DN\No C1600-1699\C1667 Forres Boddingtons Brewery CONFIDENTIAL\000 Pre-Start\Proposed Downstream Defender.dwg
Plot Date/Time: 15/10/2024 4:10 AM

Rev.	Description	Rev. by	Date
P04	Updated to suit drainage layout	PMB	14.10.2024
P03	Stage 4 Issue	NU	06.09.2024
P02	ISSUED FOR REVIEW AND COMMENT DRAWING NUMBER UPDATED FROM DN0107-SGI-ZZ-00-DR-C-0402	AS	25.07.2024

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
Clarion Housing

Architect

Project
Boddingtons Brewery

Title
Proposed Downstream Defender

Date	14.10.2024	Drawn By	PMB
Size	A1	Checked By	EAJ
Scale	1:200	Approved By	EAJ

Dwg. No. **DN0107-SGI-ZZ-UG-DR-C-00402** Rev **P04**