



**Culvert Inspection Services Framework Scheme
2015 - EAST HAMPSHIRE & CHICHESTER CULVERT SURVEYS**

Survey and Condition Assessment Report

Watercourse: River Ems
Site: Flour Mill, Emsworth
Asset Ref: 07427N1020101R02
Quick Ref: Lot 1 - EH4
OnSite Ref: 487189

Executive Summary

Watercourse: River Ems
Site: Flour Mill, Emsworth
Survey Date: 31/03/2015

National Grid Ref: SU7512105825 to SU7523505736
Asset Ref: 07427N1020101R02
Quick Reference: Lot 1 - EH4

Summary

A survey of asset ref: 07427N1020101R02 was undertaken on Tuesday, 31 March 2015 for the Environment Agency to ascertain the structural integrity, service condition and route of the culvert.

The weather conditions were dry and the flow rate was medium to fast at a depth of approximately 110mm

This asset consists of a 2100x1100mm brick walled Culvert with a concrete invert and soffit leaving the Inlet located in the car park of the Old Flour Mill on Queen Street. It runs downstream through 3 manholes changing size and material many times before reaching the Outlet located on the South end of No.8 Chequers Quay as a 1630x1100mm rectangular brick Culvert. All of the sections on this asset were completed in full and appear to be in a fairly good condition structurally with no major defects detected throughout. One thing of note was within the chamber of MH01 where there is a large non return flap valve over a junction that has a broken hinge and is hanging into the line of the Culvert and requires fixing as it could possibly trap debris over time.

Method of Survey: CCTV crawler survey

Debris: Nil

Locations and Route

Inlet Location: Behind the Old Flour Mill on Queen Street
Outlet Location: Harbour

The route is as shown on the attached plan

The culvert runs from the inlet to the outlet in an Easterly then Southerly direction, running under the Old Flour Mill, Queen Street and Chequers Quay

Inlet /Headwall Details

Size(mm): 2400x2100
Construction Material: Brick
Shape: Rectangular
Location Details: In a car park
Grid Reference: 475120 105824
Access Restrictions: None
Construction Features: Headwall with a fitted trash grille
Condition: Good


Outlet /Headwall Details

Size(mm): 5800x1840
Construction Material: Brick
Shape: Rectangular
Location Details: On the side of a building
Grid Reference: 475236 105734
Access Restrictions: None
Construction Features: Headwall
Condition: Good



Section 1**INLET downstream to MH01**

- This Section is a 2100x1100mm rectangular brick walled Culvert with a concrete invert and soffit
- At 4.4m there is an old Inlet access cover
- At 6.2m the line of the Culvert deviates to the right
- At 6.8m the material changes to concrete
- At 14.6m there is a PVC sheet hanging down from the shuttering which continues throughout the length
- At 31.3m there is a 100mm connection intruding into the Culvert by 5% at 2 o'clock
- At 46.4m there is a 150mm connection intruding into the Culvert by 10% at 2 o'clock
- At 47.5m there is a 100mm connection intruding into the Culvert by 20% at 11 o'clock
- At 52.5m there is a 225mm connection intruding into the Culvert by 15% at 10 o'clock
- At 53.1m there is a blocked 225mm junction at 9 o'clock
- At 54.4m there is a large non return flap valve that is open and has a broken hinge
- This section was completed in full and is 54.4m in length

Section 2**MH02 upstream to MH01**

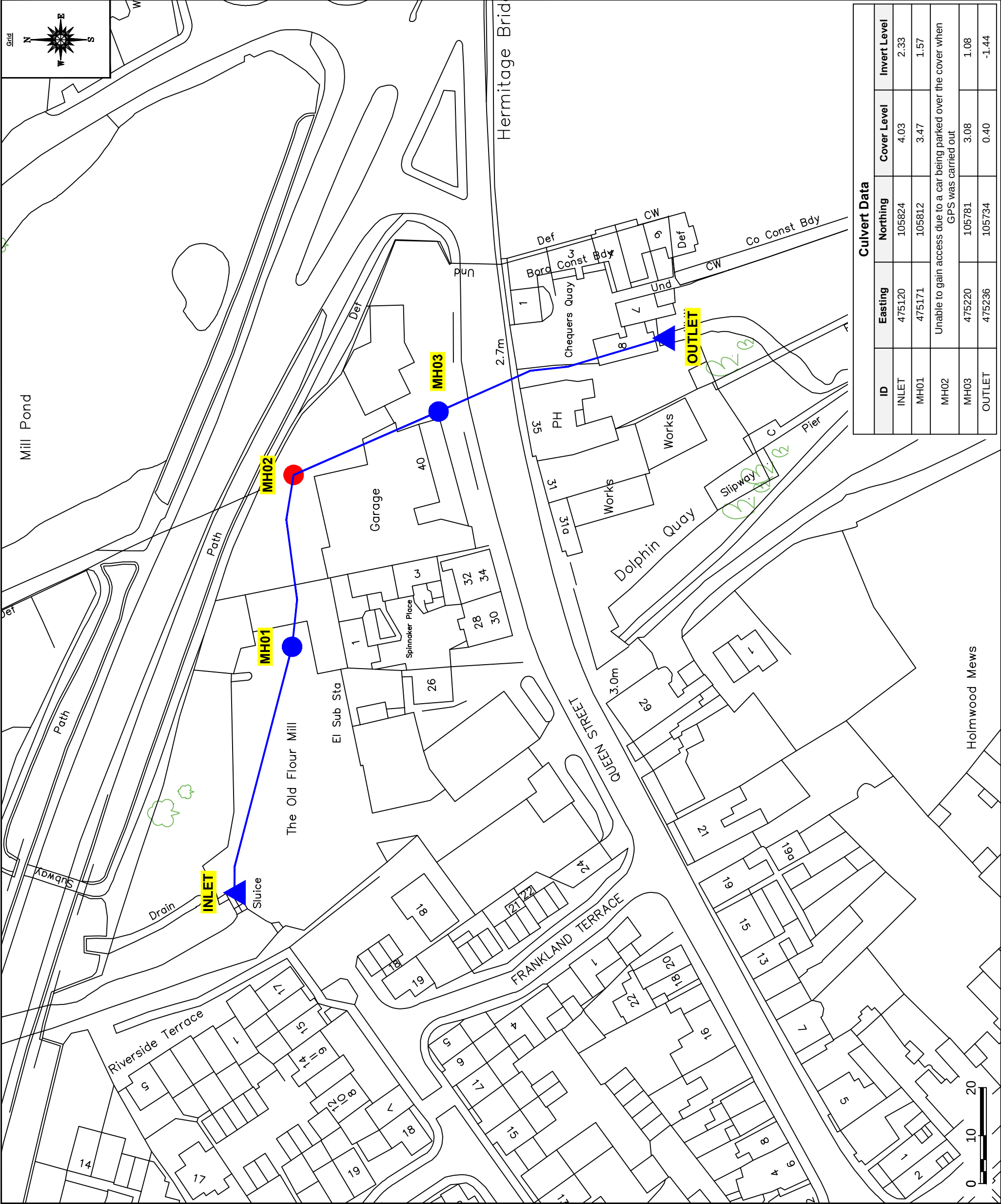
- This Section is a 2100x1100mm rectangular concrete Culvert
- At 3.7m there is a service pipe protruding through the walls of the Culvert from 10 to 2 o'clock causing a 5% cross-sectional area loss
- At 5.3m there are a few displaced bricks at 3 o'clock which appears to be a blocked off old junction
- At 6.7m there is missing render on the left hand wall between 7 and 10 o'clock
- At 9.6m the line of the Culvert deviates to the left
- At 12.3m there is a service pipe protruding through the walls of the Culvert from 10 to 2 o'clock causing a 10% cross-sectional area loss
- At 24.9m the line of the Culvert deviates to the right
- At 35.6m there is a large non return flap valve that is open and has a broken hinge
- This section was completed in full and is 35.6m in length

Section 3**MH02 downstream to MH03**

- This Section is a 1500x1100mm brick arched shaped Culvert
- From 10.2m to 15.1m there is missing mortar in the brickwork from 8 to 9 o'clock at a depth of between 15mm and 50mm
- From 11.6m to 15.1m there is missing mortar in the brickwork from 3 to 4 o'clock at a depth of between 15mm and 50mm
- At 11.8m the dimensions of the Culvert change to 1400x1500mm
- At 15.2m the dimensions of the Culvert change to 1500x1300mm
- At 15.7m there are displaced bricks between 8 and 9 o'clock
- At 17.7m there is a service pipe protruding through the walls of the Culvert from 10 to 2 o'clock causing a 10% cross-sectional area loss
- At 19.3m the Culvert changes to a 2000x2000mm square shape
- At 19.3m the material changes to brick and steel
- At 22.7m the dimensions of the Culvert change to 1700x1500mm
- This section was completed in full and is 34.3m in length

Section 4**MH03 downstream to the OUTLET**

- This Section is a 1700x1140mm brick arched shaped Culvert
- At 3.3m there is missing mortar in the brickwork between 3 and 5 o'clock at a depth of between 5mm and 15mm
- At 4.5m the size of the Culvert changes to approximately 1440x800mm
- At 14.4m there is a large piece of concrete protruding through the soffit between 11 and 1 o'clock causing a 10% cross-sectional area loss
- At 18.6m the dimensions of the Culvert change to approximately 1440x1400mm
- At 21.1m the line of the Culvert deviates to the right
- At 21.3m the dimensions of the Culvert change to approximately 1440x1800mm
- At 28.6m the line of the Culvert deviates to the left
- At 34m the dimensions of the Culvert change to approximately 1440x1000mm
- At 37.3m the Culvert changes to a rectangular shape measuring 1630x1000mm
- This section was completed in full and is 50m in length



LEGEND

▲ INLET / OUTLET (Located accurately)

▲ INLET / OUTLET (Approximate location only)

● MANHOLE (Located accurately)

● MANHOLE (Approximate location only)

— CULVERT ALIGNMENT (surveyed)

— CULVERT ALIGNMENT (assumed)

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Environment Agency, 100026380, (2009).

SITE NAME: FLOUR MILL, EMSWORTH

ASSET REFERENCE: Line of culvert survey
07427N102010R02 / LOT 1 - EH4

SURVEYED BY: OnSite Central Ltd.
SURVEY DATES: 31st March 2015
WATERCOURSE: River Ems
SCALE: In metres as per the scale bar

DRN: PW	CHKD: RE
DATE: APR 2015	DATE: APR 2015

Culvert Data				
ID	Easting	Northing	Cover Level	Invert Level
INLET	475120	105824	4.03	2.33
MH01	475171	105812	3.47	1.57
MH02	Unable to gain access due to a car being parked over the cover when GPS was carried out			
MH03	475220	105781	3.08	1.08
OUTLET	475236	105734	0.40	-1.44

Project-informationProject name :
07427N1020101R02Project Number :
487189Contact :
CATHERINE COOPERDate :
31/03/2015

Client: ENVIRONMENT AGENCY
Contact Name: CATHERINE COOPER
Department: ASSET PERFORMANCE TEAM
Road: CANAL WALK
Town: ROMSEY
County/Postcode: HAMPSHIRE, SO51 7LP
Telephone: 01794 832764
E-mail: catherine.cooper@environment-agency.gov.uk

Project Number: 487189
Asset Reference: 07427N1020101R02
Quick Reference: LOT 1 - EH4
Road: OFF QUEEN STREET
Town: EMSWORTH
County: HAMPSHIRE

Contractor: ONSITE CENTRAL LTD
Contact Name: RICHARD EDLINGTON
Location: UNIT N, GROUNDWELL INDUSTRIAL ESTATE
Road: HARGREAVES ROAD
Town: SWINDON
County/Postcode: WILTSHIRE, SN25 5AZ
Telephone: 01793 707 911
Fax: 01793 707 919
Mobile: 07774 725 201
E-mail: richardedlington@onsite.co.uk

Defect Grade Description

Project Name :
07427N1020101R02

Project number :
487189

Contact :
CATHERINE COOPER

Date :
31/03/2015

1:

Brick: No Structural Defects
Pipe: No Structural Defects

Acceptable Structural Condition

**////--NOTE: GRADE DESCRIPTION DOES NOT RELATE TO EA
CONDITION ASSESSMENT MANUAL/T98 SPECIFICATION.--////**

2:

Brick: Minor cracking, Surface mortar loss, Spalling slight, wear slight
Pipe: Circumfrential crack, Moderate joint defects, Spalling slight, Wear slight

Minor collapse risk in short term but potential for further deterioration

3:

Brick: Total mortar loss without other defects, single brick displaced, Deformation up to 5%, Spalling medium, Wear medium
Pipe: Fractures with deformation up to 5%, Longitudinal cracking or multiple cracking, Minor loss of level, More severe joint defects, Spalling medium, Wear medium

! Collapse unlikely in near future but future deterioration likely !

4:

Brick: Total mortar loss with deformation greater than 10%, Deformation up to 10% and fractured, Displaced/hanging brickwork, Small number of missing bricks
Pipe: Broken, Deformation up to 10% and broken, Fractured with deformation 5 - 10%, Multiple fractures, Serious loss of level, spalling large, wear large

!! Collapse likely in foreseeable future !!

5:

Brick: Already Collapsed, Missing invert, Deformation over 10% and fractured, Displaced/hanging brickwork and deformation over 10%, Extensive missing bricks
Pipe: Already collapsed, Deformation over 10% and broken, Extensive areas of fabric missing, Fractured with deformation over 10%

!!! Collapsed or collapse imminent !!!

Inspection report

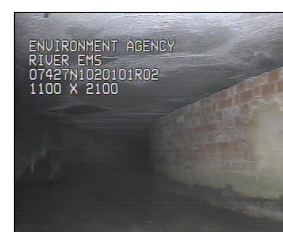
Date : 31/03/2015	Job number : 07427N1020101R02	Weather : no rain or snow	Operator : ONSITE-JN	Section number : 1	PLR SUFFIX: X
	Vehicle : 259	Camera : CRAWLER		Cleaned : no	

Place : Road : Location : Inspection Dir :	EMSWORTH OFF QUEEN STREET Property with buildings INLET (D/S) MH01	Location details: Catchment : Tape number : Pipe Length	 N/A	U/S MH : U/S Depth : D/S MH : D/S Depth :	INLET 1.70 MH01 1.90
Use: Year laid : Purpose : Total length :	Culverted watercourse Z Sample survey to determin asset condition 54.40 m	Pipe shape : Pipe size : Pipe material : Lining :	Rectangular 2100x1100 mm Brick 		

Comment :

1:432 Position
Depth: 1.70

Position	Code	Observation	Grade
INLET 0.00	MH	Start node type, manhole, reference number : INLET	0
0.00	WL	Water level 10 % height/diameter	0
0.00	REM	General remark Remarks: BRICK WALLS WITH A CONCRETE SOFFIT AND INVERT	0
4.40	REM	General remark Remarks: OLD INLET ACCESS COVER	0
4.40	CN	Connection at 09 o'clock, dia 450 mm	0
6.20	LR	Line of drain/sewer deviates right	0
6.80	MC	Material of drain/sewer changes to Concrete	0
14.60	REM	General remark Remarks: PVC SHEET FROM SHUTTERING HANGING DOWN THROUGHOUT THE LENGTH	0
31.30	CXI	Connection intruding at 02 o'clock dia 100 mm intrusion 5 %	2
46.40	CXI	Connection intruding at 02 o'clock dia 150 mm intrusion 10 %	3
47.50	CXI	Connection intruding at 11 o'clock dia 100 mm intrusion 20 %	3
52.50	CXI	Connection intruding at 10 o'clock dia 225 mm intrusion 15 %	3
53.10	JXB	Junction defective, connecting pipe is blocked, at 9 o'clock, diameter 225mm	0
53.10	JN	Junction at 03 o'clock dia 225 mm	0



0 m // 00:00:00



4.4 m // 00:00:11



6.2 m // 00:02:08



6.8 m // 00:02:15



14.6 m // 00:03:21

Inspection Report

Date : 31/03/2015	Job number : 07427N1020101R02	Weather : no rain or snow	Operator : ONSITE-JN	Section number : 1	PLR : X
	Vehicle : 259	Camera : CRAWLER		Cleaned : no	

1:432 Position Code Observation Grade



MH01

54.40

JN

Junction at 09 o'clock dia 600 mm Remarks:
LARGE OPEN NON RETURN FLAP VALVE
WITH A BROKEN HINGE

0

54.40

MHF

Finish node type, manhole reference number:
MH01

0

Depth: 1.90

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	0	0	0	1	4	2	0.13	7	3

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 1	PLR Suffix : X
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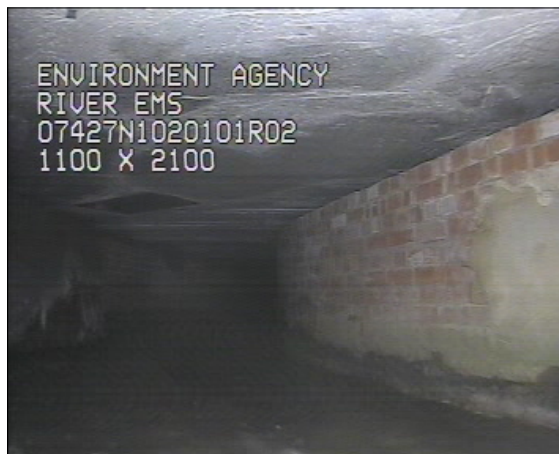


Photo: 1_3A, 00:00:00
 0m, General remark Remarks: BRICK WALLS WITH A CONCRETE SOFFIT AND INVERT



Photo: 1_5A, 00:00:11
 4.4m, General remark Remarks: OLD INLET ACCESS COVER



Photo: 1_6A, 00:02:08
 6.2m, Line of drain/sewer deviates right



Photo: 1_7A, 00:02:15
 6.8m, Material of drain/sewer changes to Concrete

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 1	PLR Suffix : X
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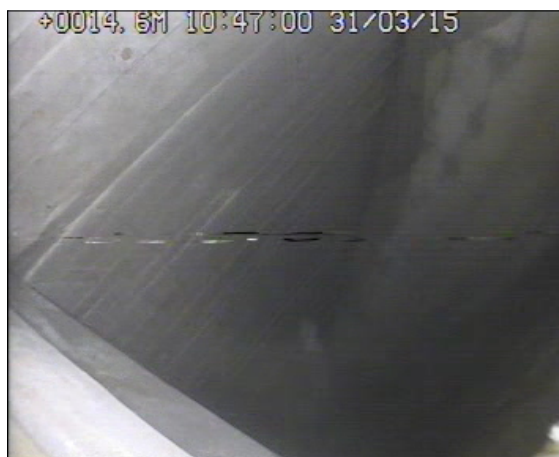


Photo: 1_8A, 00:03:21
 14.6m, General remark Remarks: PVC SHEET FROM SHUTTERING HANGING DOWN THROUGHOUT THE LENGTH



Photo: 1_9A, 00:04:28
 31.3m, Connection intruding at 02 o'clock dia 100 mm intrusion 5 %



Photo: 1_10A, 00:06:16
 46.4m, Connection intruding at 02 o'clock dia 150 mm intrusion 10 %



Photo: 1_11A, 00:07:03
 47.5m, Connection intruding at 11 o'clock dia 100 mm intrusion 20 %

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 1	PLR Suffix : X
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Photo: 1_12A, 00:08:10
 52.5m, Connection intruding at 10 o'clock dia 225 mm intrusion 15 %



Photo: 1_13A, 00:08:39
 53.1m, Junction defective, connecting pipe is blocked, at 9 o'clock, diameter 225mm



Photo: 1_15A, 00:10:21
 54.4m, Junction at 09 o'clock dia 600 mm Remarks: LARGE OPEN NON RETURN FLAP VALVE WITH A BROKEN HINGE

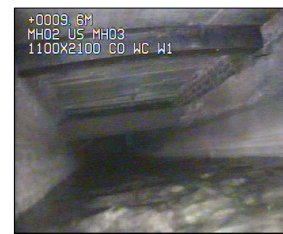
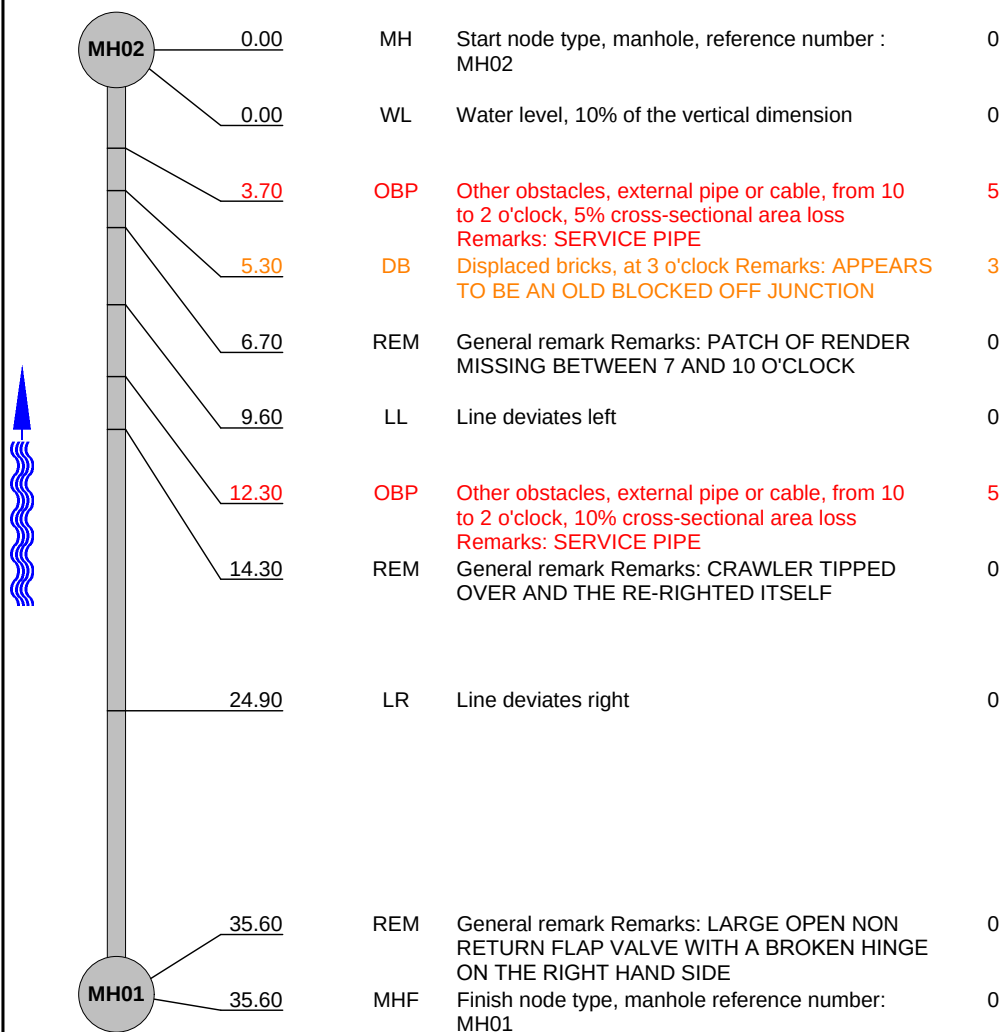
Inspection report

Date : 31/03/2015	Job number : 07427N1020101R02	Weather : no rain or snow	Operator : ONSITE-JH	Section number : 2	PLR SUFFIX: X
	Vehicle : 259	Camera : CRAWLER		Cleaned : no	

Place : Road : Location : Inspection Dir : EMSWORTH OFF QUEEN STREET Property with buildings MH02 (U/S) MH01	Location details: Catchment : Tape number : Pipe Length : 1.50 m	U/S MH : U/S Depth : D/S MH : D/S Depth : MH01 1.90 MH02 1.63
Use : Year laid : Purpose : Total length : Culverted watercourse Z Routine inspection of condition 35.60 m	Pipe shape : Pipe size : Pipe material : Lining : Rectangular 2100x1100 mm Brick	

Comment :

1:285 Position Code Observation Grade
Depth: 1.63



Depth: 1.90

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	40	1.12	40	3	2	10	0.56	20	5

Inspection pictures

Place :
EMSWORTH

Road :
OFF QUEEN STREET

Date :
31/03/2015

Section number :
2

PLR Suffix :
X



Photo: 3_3A, 00:00:22
 3.7m, Other obstacles, external pipe or cable, from 10 to 2 o'clock, 5% cross-sectional area loss Remarks: SERVICE PIPE



Photo: 3_4A, 00:00:30
 5.3m, Displaced bricks, at 3 o'clock Remarks: APPEARS TO BE AN OLD BLOCKED OFF JUNCTION



Photo: 3_5A, 00:01:38
 6.7m, General remark Remarks: PATCH OF RENDER MISSING BETWEEN 7 AND 10 O'CLOCK



Photo: 3_6A, 00:01:53
 9.6m, Line deviates left

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 2	PLR Suffix : X
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Photo: 3_7A, 00:02:08
 12.3m, Other obstacles, external pipe or cable, from 10 to 2 o'clock, 10% cross-sectional area loss
 Remarks: SERVICE PIPE



Photo: 3_9A, 00:04:07
 24.9m, Line deviates right

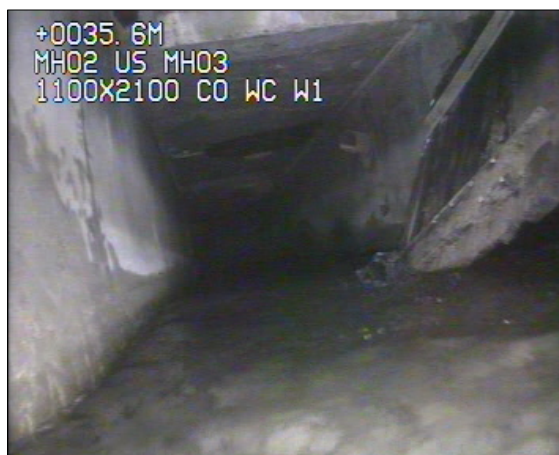


Photo: 2_10A, 00:05:46
 35.6m, General remark
 Remarks: LARGE OPEN NON RETURN FLAP VALVE WITH A BROKEN HINGE ON THE RIGHT HAND SIDE

Inspection report

Date : 31/03/2015	Job number : 07427N1020101R02	Weather : no rain or snow	Operator : ONSITE-JN	Section number : 3	PLR SUFFIX: X
	Vehicle : 259	Camera : FLOAT THROUGH		Cleaned : no	

Place : Road : Location : Inspection Dir : EMSWORTH OFF QUEEN STREET Property with buildings MH02 (D/S) MH03	Location details: Catchment : Tape number : Pipe Length : . N/A	U/S MH : U/S Depth : D/S MH : D/S Depth : MH02 1.63 MH03 2.00
Use : Year laid : Purpose : Total length : Culverted watercourse Z Sample survey to determin asset condition 34.30 m	Pipe shape : Pipe size : Pipe material : Lining : Arched (with flat bottom) 1500x1100 mm Brick	

Comment :

1:198 Position **Code** **Observation** **Grade**

Depth: 1.63

	0.00	MH	Start node type, manhole, reference number : MH02	0	
	0.00	WL	Water level 30 % height/diameter	0	
	10.20	S01	MM	Missing mortar, from 8 to 9 o'clock, between 15mm and 50mm, Start	2
	11.60	S02	MM	Missing mortar, from 3 to 4 o'clock, between 15mm and 50mm, Start	2
	11.80	SC		Dimension changes, 1400mm high, 1500mm wide	0
	15.10	F01	MM	Missing mortar, from 8 to 9 o'clock, between 15mm and 50mm, End	2
	15.10	F02	MM	Missing mortar, from 3 to 4 o'clock, between 15mm and 50mm, End	2
	15.20	SC		Dimension changes, 1300mm high, 1500mm wide	0
	15.70	DB		Displaced bricks, from 8 to 9 o'clock	4
	17.70	OBP		Other obstacles, external pipe or cable, from 10 to 2 o'clock, 10% cross-sectional area loss Remarks: SERVICE PIPE	5
	19.30	SC		Dimension changes, 2000mm high, 2000mm wide Remarks: SQUARE SHAPE	0
	19.30	MC		Material changes, brick Remarks: AND STEEL	0
	22.70	SCA		Shape changes to arched, 1500mm high, 1700mm wide	0
	24.00	SCR		Shape changes to rectangular, 1140mm high, 1700mm wide	0



Inspection Report

Date : 31/03/2015	Job number : 07427N1020101R02	Weather : no rain or snow	Operator : ONSITE-JN	Section number : 3	PLR : X
	Vehicle : 259	Camera : FLOAT THROUGH		Cleaned : no	

1:198 **Position** **Code** **Observation** **Grade**



MH03

34.30

REM

General remark Remarks: MANHOLE WITHIN VIEW APPROXIMATELY 3M AWAY

0

34.30

MHF

Finish node type, manhole reference number: MH03

0

Depth: 2.00

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
3	80	7.23	248	4	1	10	0.29	10	5

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 3	PLR Suffix : X
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Photo: 3_3A, 00:03:03
 10.2m, Missing mortar, from 8 to 9 o'clock, between 15mm and 50mm, Start



Photo: 3_4A, 00:03:11
 11.6m, Missing mortar, from 3 to 4 o'clock, between 15mm and 50mm, Start



Photo: 3_3A, 00:03:12
 11.8m, Dimension changes, 1400mm high, 1500mm wide



Photo: 3_6A, 00:03:25
 15.2m, Dimension changes, 1300mm high, 1500mm wide

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 3	PLR Suffix : X
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Photo: 3_9A, 00:03:28
 15.7m, Displaced bricks, from 8 to 9 o'clock



Photo: 3_10A, 00:03:36
 17.7m, Other obstacles, external pipe or cable, from 10 to 2 o'clock, 10% cross-sectional area loss
 Remarks: SERVICE PIPE



Photo: 3_11A, 00:03:43
 19.3m, Dimension changes, 2000mm high, 2000mm wide
 Remarks: SQUARE SHAPE



Photo: 3_13A, 00:04:53
 22.7m, Shape changes to arched, 1500mm high, 1700mm wide

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 3	PLR Suffix : X
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Photo: 3_14A, 00:00:05
 24m, Shape changes to rectangular, 1140mm high, 1700mm wide



Photo: 3_14A, 00:10:30
 34.3m, General remark Remarks: MANHOLE WITHIN VIEW APPROXIMATELY 3M AWAY

Inspection report

Date : 31/03/2015	Job number : 07427N1020101R02	Weather : no rain or snow	Operator : ONSITE-JN	Section number : 4	PLR SUFFIX: X
	Vehicle : 259	Camera : FLOAT THROUGH		Cleaned : no	

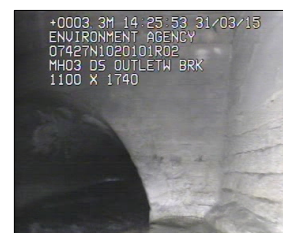
Place : Road : Location : Inspection Dir : EMSWORTH OFF QUEEN STREET Property with buildings MH03 (D/S) OUTLET	Location details: Catchment : Tape number : Pipe Length : N/A	U/S MH : U/S Depth : D/S MH : D/S Depth : MH03 2.00 OUTLET 1.84
Use : Year laid : Purpose : Total length : Culverted watercourse Z Sample survey to determin asset condition 50.00 m	Pipe shape : Pipe size : Pipe material : Lining : Rectangular 1700x1140 mm Brick	

Comment :

1:405 Position Code Observation Grade
Depth: 2.00

MH03	<u>0.00</u>	MH	Start node type, manhole, reference number : MH03	0
	<u>0.00</u>	WL	Water level 30 % height/diameter	0
	<u>3.30</u>	MC	Material changes, brick	0
	<u>3.30</u>	MM	Missing mortar, from 3 to 5 o'clock, between 5mm and 15mm	2
	<u>4.50</u>	SCA	Shape changes to arched, 800mm high, 1440mm wide Remarks: APPROXIMATE SIZE	0
	<u>14.40</u>	OBI	Other obstacles protuding through wall, from 11 to 1 o'clock, 10% cross-sectional area loss Remarks: LARGE PIECE OF CONCRETE STIC	5
	<u>18.60</u>	SC	Dimension changes, 1400mm high, 1440mm wide Remarks: APPROXIMATE SIZE	0
	<u>21.10</u>	LR	Line deviates right	0
	<u>21.30</u>	SC	Dimension changes, 1800mm high, 1440mm wide Remarks: APPROXIMATE SIZE	0
	<u>28.60</u>	LL	Line deviates left	0
	<u>34.00</u>	SCA	Shape changes to arched, 1000mm high, 1400mm wide Remarks: APPROXIMATE SIZE	0
	<u>37.30</u>	SCR	Shape changes to rectangular, 1000mm high, 1630mm wide	0
OUTLET	<u>50.00</u>	OFF	Finish node type, outfall reference number: OUTLET	0

Depth: 1.84



3.3 m // 00:00:50



4.5 m // 00:00:54



14.4 m // 00:01:32



18.6 m // 00:01:55



21.1 m // 00:02:03

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	10	0.2	10	2	1	10	0.2	10	5

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 4	PLR Suffix : X
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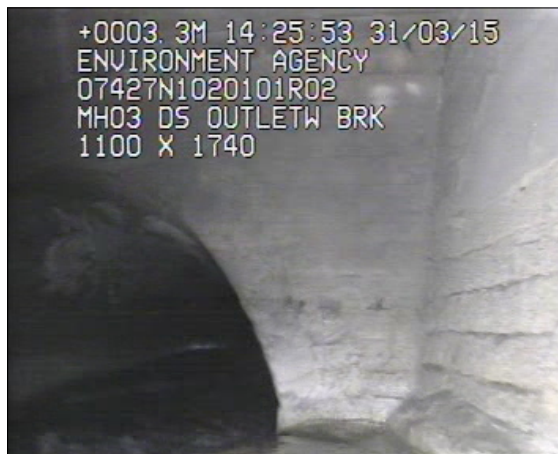


Photo: 4_3A, 00:00:50
 3.3m, Material changes, brick

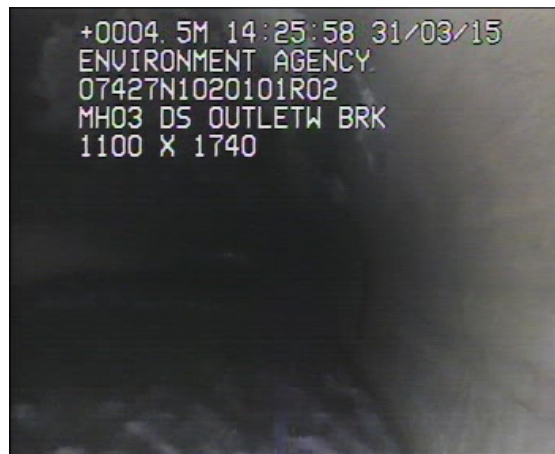


Photo: 4_5A, 00:00:54
 4.5m, Shape changes to arched, 800mm high, 1440mm wide
 Remarks: APPROXIMATE SIZE



Photo: 4_6A, 00:01:32
 14.4m, Other obstacles protruding through wall, from 11 to 1 o'clock, 10% cross-sectional area loss
 Remarks: LARGE PIECE OF CONCRETE STICKING THROUGH THE SOFFIT

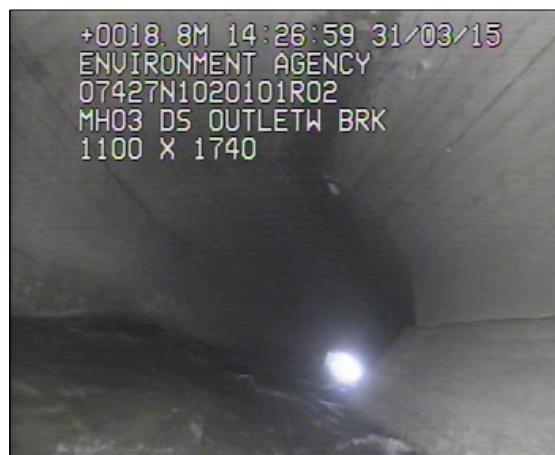


Photo: 4_7A, 00:01:55
 18.6m, Dimension changes, 1400mm high, 1440mm wide
 Remarks: APPROXIMATE SIZE

Inspection pictures

Place : EMSWORTH	Road : OFF QUEEN STREET	Date : 31/03/2015	Section number : 4	PLR Suffix : X
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Photo: 4_7A, 00:02:03
 21.1m, Line deviates right



Photo: 4_8A, 00:02:31
 28.6m, Line deviates left



Photo: 4_9A, 00:03:48
 34m, Shape changes to arched, 1000mm high, 1400mm wide
 Remarks: APPROXIMATE SIZE



Photo: 4_9A, 00:04:03
 37.3m, Shape changes to rectangular, 1000mm high, 1630mm wide

/ Main sections

Project name :
07427N1020101R02

Project number :
487189

Contact :
CATHERINE COOPER

Date :
31/03/2015

Nr.	US MH	DS MH	Date	Road	Tape No.	Material	m	(m)
3	MH02	MH03	31/03/2015	OFF QUEEN STREET		Concrete	34.30	34.30

Pipe size: ARCHED (WITH FLAT BOTTOM) 1100/1500 = 34.3 m (34.3 m)

Nr.	US MH	DS MH	Date	Road	Tape No.	Material	m	(m)
1	INLET	MH01	31/03/2015	OFF QUEEN STREET		Brick	54.40	54.40
2	MH01	MH02	31/03/2015	OFF QUEEN STREET		Brick	35.60	35.60

Pipe size: RECTANGULAR 1100/2100 = 90 m (90 m)

Nr.	US MH	DS MH	Date	Road	Tape No.	Material	m	(m)
4	MH03	OUTLET	31/03/2015	OFF QUEEN STREET		Brick	50.00	50.00

Pipe size: RECTANGULAR 1140/1700 = 50 m (50 m)

All sections = 174.3 m (174.3 m)



ONSITE CENTRAL LTD
HARGREAVES ROAD
SWINDON
Tel: 01793 707 911
Fax: 01793 707 919
Email: richardedlington@onsite.co.uk

Service / Operational Defects (SRM 4)

Project name :
07427N1020101R02

Project Number :
487189

Contact :
CATHERINE COOPER

Date :
31/03/2015

No.	PLR	Dir.	Use	Shape / Size	Date	Mat.	Total Length	Insp. Length	Peak HWG	Peak Score	Grade	Mean Score	Total Score
1	INLETX	D	W	R 1100/2100	31/03/2015	BR	54.40	54.40	-	2	3	0.13	7
2	MH01X	U	W	R 1100/2100	31/03/2015	BR	35.60	35.60	3	10	5	0.56	20
3	MH02X	D	W	A 1100/1500	31/03/2015	CO	34.30	34.30	-	10	5	0.29	10
4	MH03X	D	W	R 1140/1700	31/03/2015	BR	50.00	50.00	3	10	5	0.2	10



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HARGREAVES ROAD
SWINDON
Tel: 01793 707 911
Fax: 01793 707 919
Email: richardedlington@onsite.co.uk

Structural Defects (SRM 4)

Project name :
07427N1020101R02

Project Number :
487189

Contact :
CATHERINE COOPER

Date :
31/03/2015

No.	PLR	Dir.	Use	Shape / Size	Date	Mat.	Total Length	Insp. Length	Peak HWG	Peak Score	Grade	Mean Score	Total Score
1	INLETX	D	W	R 1100/2100	31/03/2015	BR	54.40	54.40	-	0	1	0	0
2	MH01X	U	W	R 1100/2100	31/03/2015	BR	35.60	35.60	-	40	3	1.12	40
3	MH02X	D	W	A 1100/1500	31/03/2015	CO	34.30	34.30	-	80	4	7.23	248
4	MH03X	D	W	R 1140/1700	31/03/2015	BR	50.00	50.00	-	10	2	0.2	10

MANHOLE RECORD CARD

 CHAMBER REFERENCE **MH01**

 ASSET REFERENCE **07427N1020101R02**

 ONSITE JOB NO. **487189**

 SURVEYED DATE **31/01/2015**

LOCATION

OUTSIDE UNITS 15 & 16 OF THE OLD FLOUR MILL, EMSWORTH

YEAR LAID

Z

STATUS

WC

FUNCTION

S

NODE TYPE

H

COVER

SHAPE

D

HINGED

N

LOCK

N

DUTY

H

SIZE (mm)

(diam)

1370

x

680

TOXIC ATMOSPHERE

N

SHAFT

SIDE ENTRY

N

REGULAT COURSE

0

DEPTH (m)

0.38

SIZE (mm)

1440

x

620

EVIDENCE OF VERMIN

N

CHAMBER

SOFFIT

N

STEPS

0

LADDERS

0

LNDGS

0

SIZE (mm)

NO CHAMBER

CONSTRUCT CODE

C

DEPTH OF FLOW (mm)

200

DEPTH OF SILT (mm)

0

HEIGHT SURCH (mm)

0

COVER LEVEL (m)

3.47

INCOMING PIPE

	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm) (W)	PIPE SIZE (mm) (diam)	PIPE SIZE (mm) (H)	BACKDROP DIAM(mm)	PIPE MATERIAL	LINING MATERIAL	DEPTH FROM COVER (m)	INVERT LEVEL (m)
A	INLET	R	2100	x	1100		CO/BR		1.89	1.58
B	UNKNOWN	R	1320	x	1100		CO		1.89	1.58
C				x						
D				x						
E				x						
F				x						

OUTGOING PIPE

	DOWNSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm) (W)	PIPE SIZE (mm) (diam)	PIPE SIZE (mm) (H)	BACKDROP DIAM(mm)	PIPE MATERIAL	LINING MATERIAL	DEPTH FROM COVER (m)	INVERT LEVEL (m)
X	MH02	R	2100	x	1100		CO/BR		1.90	1.57
Y				x						

CONDITION (Y if attention required)

COVER

N

IRONS/ LADDERS

N

SHAFT

N

CHAMBER

N

BENCHING

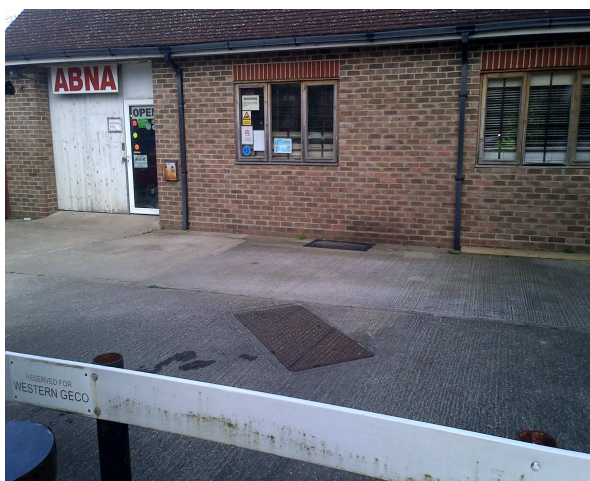
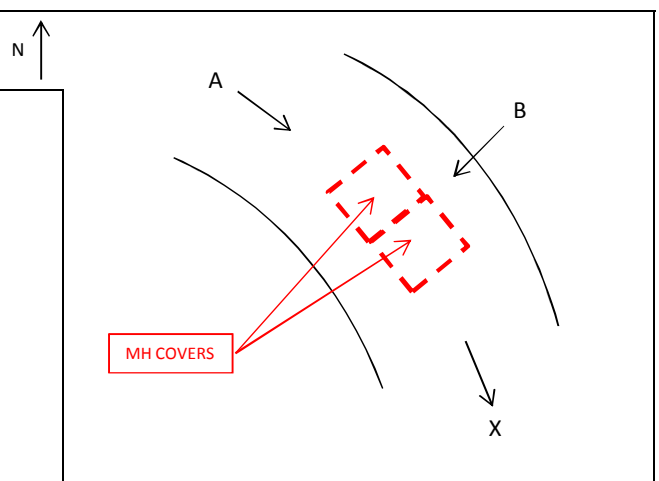
N

OTHER

N

REMARKS

THIS MANHOLE CONTAINS TWIN COVERS AND NO CHAMBER AS THE SHAFT DROPS STRAIGHT ONTO THE LINE OF THE CULVERT. THERE IS A LARGE NON RETURN FLAP VALVE OVER A JUNCTION WITHIN THIS CHAMBER WHICH HAS A BROKEN HINGE AND HAS PARTIALLY DROPPED INTO THE LINE OF THE CULVERT

LOCATION PHOTO

INTERNAL SKETCH


NOT TO SCALE

MANHOLE RECORD CARD

CHAMBER REFERENCE **MH02**

ASSET REFERENCE **07427N1020101R02**

ONSITE JOB NO. **487189**

SURVEYED DATE **31/01/2015**

LOCATION

AT THE REAR OF THE LILYWHITE BROS LTD GARAGE ON QUEEN STREET, EMSWORTH

YEAR LAID

Z

STATUS

WC

FUNCTION

S

NODE TYPE

M

COVER

SHAPE

D

HINGED

N

LOCK

N

DUTY

H

(diam)
SIZE
(mm)

620

x

620

TOXIC
ATMOSPHERE

N

SHAFT

SIDE ENTRY

N

REGULAT
COURSE

2

DEPTH
(m)

0.47

SIZE
(mm)

610

x

600

EVIDENCE
OF VERMIN

N

CHAMBER

SOFFIT

N

STEPS

0

LADDERS

0

LNDGS

0

SIZE
(mm)

NO CHAMBER

CONSTRUCT
CODE

C

DEPTH
OF FLOW
(mm)

200

DEPTH
OF SILT
(mm)

100

HEIGHT
SURCH
(mm)

0

COVER
LEVEL
(m)

**UNABLE TO
GAIN GPS**

INCOMING PIPE

	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm) (W)	(diam)	(H)	BACKDROP DIAM(mm)	PIPE MATERIAL	LINING MATERIAL	DEPTH FROM COVER (m)	INVERT LEVEL (m)
A	MH01	R	2100	x	1100		CO		1.62	
B				x						
C				x						
D				x						
E				x						
F				x						

OUTGOING PIPE

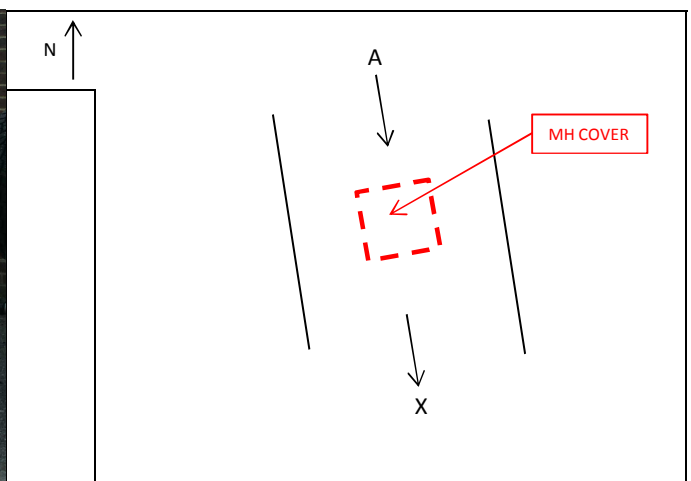
	DOWNSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm) (W)	(diam)	(H)	COND	CRITY	PIPE MATERIAL	LINING MATERIAL	DEPTH FROM COVER (m)	INVERT LEVEL (m)
X	MH03	R	1500	x	1100			CO		1.63	
Y				x							

CONDITION
(Y if attention required)

COVER **N** IRONS/
LADDERS **N** SHAFT **N** CHAMBER **N** BENCHING **N** OTHER **N**

REMARKS

THIS MANHOLE CONTAINS NO CHAMBER AND THE SHAFT DROPS STRAIGHT ONTO THE LINE OF THE CULVERT. UNABLE TO TAKE THE GRID REFS AND COVER LEVEL DUE TO A CAR BEING PARKED OVER THE MANHOLE COVER WHEN GPS WAS CARRIED OUT
LOCATION PHOTO

INTERNAL SKETCH


NOT TO SCALE

MANHOLE RECORD CARD

CHAMBER REFERENCE **MH03**

ASSET REFERENCE **07427N1020101R02**

ONSITE JOB NO. **487189**

SURVEYED DATE **31/01/2015**

LOCATION

**OUTSIDE THE LILYWHITE BROS LTD GARAGE ON QUEEN STREET,
EMSWORTH**

YEAR LAID

Z

STATUS

WC

FUNCTION

S

NODE TYPE

M

COVER

SHAPE

R

HINGED

N

LOCK

N

DUTY

L

(diam)
SIZE
(mm)

680

x

520

TOXIC
ATMOSPHERE

N

SHAFT

SIDE ENTRY

N

REGULAT
COURSE

1

DEPTH
(m)

0.40

SIZE
(mm)

600

x

450

EVIDENCE
OF VERMIN

N

CHAMBER

SOFFIT

N

STEPS

0

LADDERS

0

LNDGS

0

SIZE
(mm)

NO CHAMBER

CONSTRUCT
CODE

CO

DEPTH
OF FLOW
(mm)

200

DEPTH
OF SILT
(mm)

100

HEIGHT
SURCH
(mm)

0

COVER
LEVEL
(m)

3.08

INCOMING PIPE

	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm) (W)	PIPE SIZE (mm) (diam)	PIPE SIZE (mm) (H)	BACKDROP DIAM(mm)	PIPE MATERIAL	LINING MATERIAL	DEPTH FROM COVER (m)	INVERT LEVEL (m)
A	MH02	R	1700	x	1500		CO		1.97	1.11
B				x						
C				x						
D				x						
E				x						
F				x						

OUTGOING PIPE

	DOWNSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm) (W)	PIPE SIZE (mm) (diam)	PIPE SIZE (mm) (H)	COND	CRITY	PIPE MATERIAL	LINING MATERIAL	DEPTH FROM COVER (m)	INVERT LEVEL (m)
X	OUTLET	R	1700	x	1140			CO		2.00	1.08
Y				x							

CONDITION
(Y if attention required)

COVER

N

IRONS/
LADDERS

N

SHAFT

N

CHAMBER

N

BENCHING

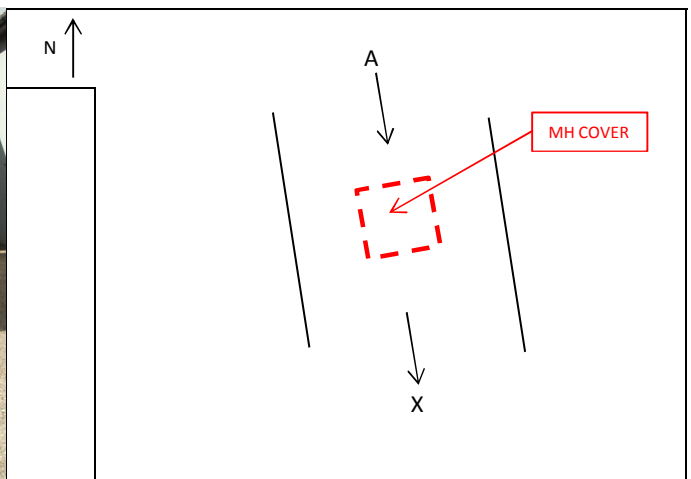
N

OTHER

N

REMARKS

THIS MANHOLE CONTAINS NO CHAMBER AND THE SHAFT DROPS STRAIGHT ONTO THE LINE OF THE CULVERT
LOCATION PHOTO

INTERNAL SKETCH


NOT TO SCALE

PHOTO LOG

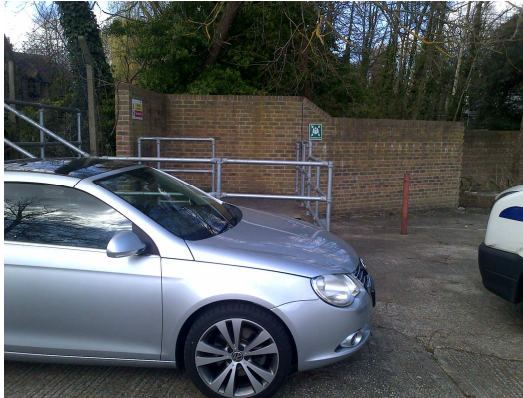
Site Name	Flour Mill, Emsworth
Asset Reference	07427N1020101R02
Onsite Project Number	487189
Quick Reference	Lot 1 - EH4



View of the Inlet



View of the Inlet trash grille



Inlet location next to the car park of the Old Flour Mill on Queen Street



MH01 location outside Units 15 & 16 of the Old Flour Mill



View into MH01



MH02 location at the rear of Lilywhite Bros Ltd garage on Queen Street

PHOTO LOG

Site Name	Flour Mill, Emsworth
Asset Reference	07427N1020101R02
Onsite Project Number	487189
Quick Reference	Lot 1 - EH4



View into MH02



MH03 location outside the Lilywhite Bros Ltd garage on Queen Street



View into MH03



View of the Outlet located on the South side of No.8 Chequers Quay on the South side of Queen Street