DRAINAGE INVESTIGATION REPORT

CLIENT	Strata Homes Ltd
SITE	BURNTWOOD ROAD, GRIMESTHORPE
DATE	17/11/2009
JOB No.	3149

- **Comprehensive Site Surveys**
- **Drainage Rehabilitation**
- **Pipeline and Ancillary Installation**
- **Maintenance Programme Appraisal & implementation**

environmental drainage solutions ltd

CORUS MILLS, SHEFFIELD RD, S60 IBN
Telephone 0845 2300 939 Facsimile : 0845 2300 949
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CCTV REPORT HEADER CODE EXPLANATION

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Detailed below are explanations for the standard Water Research Council (WRC) CCTV report header codes. Whilst WRC defect codes are also included within the body of the report, they are accompanied by an explanation in the "Observation" column. Please contact Environmental Drainage Solutions on the number below if you wish to discuss any aspect of this report.

CODE	LOCATION DESCRIPTION
A	Main road - urban (town or city centre with heavy goods vehicles)
B	Main road - suburban/rural (all other roads with heavy goods vehicles)
C	Light road (rural roads with light traffic, town and city back streets, estate roads and parking areas)
D	Footpath or verge (within the highway boundary)
E	Fields (farmland and public open space)
F	Gardens (within private property)
G	Woodland
X	Difficult access (Motorway, railway, watercourse, inside building).

CODE	PIPE MATERIAL DESCRIPTION
AC	Asbestos cement
AK	Alkathene
BR	Brick
CC	Concrete box culvert
CI	Cast Iron
CO	Concrete
CSB	Concrete segments (bolted)
CSU	Concrete segments (unbolted)
DI	Ductile iron
GRC	Glass reinforced cement
GRP	Glass reinforced plastic
MAC	Masonry - in regular courses
MAR	Masonry - randomly coursed
PE	Polyethylene
PF	Pitch fibre
PP	Polypropylene
PSC	Plastic/steel composite
PVC	Polyvinyl chloride
RPM	Reinforced plastic matrix
SI	Spun (grey) iron
ST	Steel
VC	Vitrified clay (ie all clayware)
XXX	Other (state in comments)
ZZZ	Not known

CODE	PIPE SHAPE DESCRIPTION
A	Arched (with flat bottom)
B	Barrel (e.g. beer barrel shape)
C	Circular
E	Egg shaped
H	Horshoe (i.e. inverted U)
O	Oval
R	Rectangular
S	Square
T	Trapezoidal
U	U-shaped with flat top
X	Other (state in comments)

CODE	WEATHER DESCRIPTION
1	Dry
2	Heavy rain
3	Light rain
4	Showers
5	Snow

CODE	PIPE LINING DESCRIPTION
BL	Bitumen
CL	Cement
IS	Soft inversion type liner
PL	Plastic
RL	Resin
XXX	Other (state in comments)
ZZZ	Not known

CODE	PIPE USE DESCRIPTION
C	Combined
F	Foul
S	Surface Water
T	Trade Effluent
W	Watercourse
X	Other
Z	Not known

CODE	SURVEY DIRECTION DESCRIPTION
D	Downstream
U	Upstream

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STRUCTURAL PERFORMANCE ASSESSMENT CRITERIA

CLAYWARE AND CONCRETE DRAINAGE

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Detailed below are the criteria used for the assessment of severity of defects in accordance with the Water Research Council (WRC). Proposed remedial works are based upon these assessments in conjunction with many other issues such as nature of original problem (if any), implications of collapse (depth, location etc), frequency of surcharging, and many more. Most drainage systems exhibit structural defects of some sort and the WRC assessments can only be a guideline. In the right ground conditions, quite serious defects can be stable for many years. We aim to provide a reasonable, balanced recommendation for remedial works, based upon our experience and following consultation with the client. Please contact Environmental Drainage Solutions if you wish to discuss any aspect of this report.

DEFECT	STRUCTURAL IMPLICATION
CIRCUMFERENTIAL CRACK	MINIMAL COLLAPSE RISK IN SHORT TERM, BUT POTENTIAL FOR FURTHER DETERIORATION
MEDIUM JOINT DISPLACEMENT	MINIMAL COLLAPSE RISK IN SHORT TERM, BUT POTENTIAL FOR FURTHER DETERIORATION
MEDIUM OPEN JOINT	MINIMAL COLLAPSE RISK IN SHORT TERM, BUT POTENTIAL FOR FURTHER DETERIORATION
SLIGHT SPALLING OR WEAR	MINIMAL COLLAPSE RISK IN SHORT TERM, BUT POTENTIAL FOR FURTHER DETERIORATION
FRACTURE WITH DEFORMATION <5%	COLLAPSE UNLIKELY IN NEAR FUTURE BUT FURTHER DETERIORATION LIKELY
LONGITUDINAL OR MULTIPLE CRACKING	COLLAPSE UNLIKELY IN NEAR FUTURE BUT FURTHER DETERIORATION LIKELY
MINOR LOSS OF LEVEL (i.e. DIP IN PIPE)	COLLAPSE UNLIKELY IN NEAR FUTURE BUT FURTHER DETERIORATION LIKELY
LARGE DISPLACED JOINT	COLLAPSE UNLIKELY IN NEAR FUTURE BUT FURTHER DETERIORATION LIKELY
LARGE OPEN JOINT	COLLAPSE UNLIKELY IN NEAR FUTURE BUT FURTHER DETERIORATION LIKELY
SLIGHT SPALLING OR WEAR	COLLAPSE UNLIKELY IN NEAR FUTURE BUT FURTHER DETERIORATION LIKELY
BROKEN PIPEWORK	COLLAPSE LIKELY IN FORESEEABLE FUTURE
BROKEN PIPEWORK WITH DEFORMATION <10%	COLLAPSE LIKELY IN FORESEEABLE FUTURE
FRACTURE WITH DEFORMATION <10%	COLLAPSE LIKELY IN FORESEEABLE FUTURE
MULTIPLE FRACTURE	COLLAPSE LIKELY IN FORESEEABLE FUTURE
SERIOUS LOSS OF LEVEL	COLLAPSE LIKELY IN FORESEEABLE FUTURE
LARGE SPALLING OR WEAR	COLLAPSE LIKELY IN FORESEEABLE FUTURE
ALREADY COLLAPSED	COLLAPSED OR COLLAPSE IMMINENT
BROKEN PIPEWORK WITH DEFORMATION >10%	COLLAPSED OR COLLAPSE IMMINENT
EXTENSIVE AREAS OF FABRIC MISSING	COLLAPSED OR COLLAPSE IMMINENT
FRACTURE WITH DEFORMATION >10%	COLLAPSED OR COLLAPSE IMMINENT

CCTV REPORT SUMMARY

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SITE ADDRESS: BURNTWOOD ROAD, GRIMESTHORPE **DATE:** 17/11/2009

No.	FROM	TO	DIR	DIA(MM)	JET	COMMENTS
1	EDS1	EDS2	U	225		
2	EDS2	CONN A	U	225		
3	EDS7	CONN A	U	225		
4	EDS1	EDS6	D	225		
	EDS1	EDS6	D	225		SURVEY No.4 CONTINUED
5	EDS3	EDS4	U	300		
6	EDS3	EDS5	D	300		
	EDS3	EDS5	D	300		SURVEY No.6 CONTINUED

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	1
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS1	1.5	EDS2	1.83	U	225	0	VC	S	31.40

General comments	

Count	Code	Observation	Remarks
0.9	ST	Start of survey	
0.9	MH	Manhole or node	EDS1
0.9	WL	Water Level	5%
4.0	JN	Junction	150MM at 3 o'clock
14.6	FM	Multiple fracture	12 o'clock to 12 o'clock
16.2	FM	Multiple fracture	12 o'clock to 12 o'clock
18.6	JN	Junction	100MM AT 10 o'clock
24.4	JN	Junction	150MM AT 3 o'clock
31.4	MH	Manhole or node	EDS2
31.4	FH	Finish survey	

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	2
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS2	1.82	CONN A		U	225	0	VC	S	18.60

General comments	
	CONN A = NO DEPTH (EDS7 NOT RAISED)

Count	Code	Observation	Remarks
0.9	ST	Start of survey	
0.9	MH	Manhole or node	EDS2
0.9	WL	Water Level	20% - SWILLY INTO MANHOLE
7.4	WL	Water Level	10%
9.0	WL	Water Level	5%
9.0	CN	Connection at	12 o'clock - 100MM DIA.
13.4	DES	Debris silt	20%
13.9	JDM	Medium joint displacement	
18.4	CL	Longitudinal crack at	3 o'clock
18.4	CL	Longitudinal crack at	9 o'clock
18.6	MH	Manhole or node	EDS7
18.6	FH	Finish survey	

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	3
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS7		CONN A		U	225	0	VC	S	

General comments	
	EDS7 = NO DEPTH (NOT RAISED) & CONN A = NO DEPTH (UNKNOWN)

Count	Code	Observation	Remarks
0.9	ST	Start of survey	
0.9	MH	Manhole or node	EDS7
0.9	WL	Water Level	5%
1.4	LD	Line of pipe deviates down	SLIGHT (SWILLY)
1.4	WL	Water Level	10%
2.9	LU	Line of pipe deviates up	SLIGHT (END OF SWILLY)
2.9	WL	Water Level	5%
6.6	GO	General observation	LOSS OF TRACTION
6.6	SA	Survey abandoned	DUE TO LOSS OF TRACTION

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	4
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS1	1.5	EDS6		D	225	0	VC	S	

General comments	
	EDS6 = NO DEPTH (BURIED)

Count	Code	Observation	Remarks
0.9	ST	Start of survey	
0.9	MH	Manhole or node	EDS1
0.9	WL	Water Level	5%
1.3	JN	Junction	100MM AT 10 o'clock
16.2	JN	Junction	100MM AT 10 o'clock
17.0	JN	Junction	100MM AT 2 o'clock
22.3	MH	Manhole or node	BURIED - LOCATED AND MARKED ON SURFACE IN HIGHWAY - EDS10
25.6	CL	Longitudinal crack at	8 o'clock
25.6	FC	Circumferential fracture	6 o'clock to 11 o'clock
26.5	FC	Circumferential fracture	12 o'clock to 6 o'clock
26.5	FC	Circumferential fracture	8 o'clock to 11 o'clock
26.5	H	Hole in pipe at	5 o'clock to 8 o'clock
27.5	FC	Circumferential fracture	12 o'clock to 6 o'clock
27.5	B	Broken pipe at	5 o'clock to 7 o'clock
33.3	CN	Connection at	12 o'clock - 100MM
34.5	CN	Connection at	10 o'clock - 100MM
36.5	JN	Junction	100MM AT 2 o'clock
37.3	JN	Junction	100MM AT 10 o'clock
43.1	FL	Longitudinal fracture	2 o'clock

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	4
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS1	1.5	EDS6		D	225	0	VC	S	

General comments	SURVEY No.4 CONTINUED
	EDS6 = NO DEPTH (BURIED)

Count	Code	Observation	Remarks
43.1	FL	Longitudinal fracture	4 o'clock
43.1	FL	Longitudinal fracture	6 o'clock
43.1	CL	Longitudinal crack at	10 o'clock
43.1	D	Deformed pipe	5%
43.6	FL	Longitudinal fracture	9 o'clock
43.6	FC	Circumferential fracture	5 o'clock to 6 o'clock
56.0	GO	General observation	LOSS OF TRACTION - HAD TO JET WATER INTO SYST CREATE TRACTION, THEREFORE FLOW LEVELS ARE ARTIFICIAL.
58.0	JN	Junction	100MM AT 2 o'clock
58.6	JN	Junction	100MM AT 10 o'clock
63.4	JN	Junction	100MM AT 2 o'clock
65.1	JN	Junction	100MM AT 10 o'clock
76.6	MH	Manhole or node	BURIED - LOCATED ON SURFACE IN VERGE - EXPOSED AFTER SURVEY - EDS8
78.0	LR	Line of pipe deviates right	MEDIUM - OUT OF MANHOLE
82.4	GO	General observation	LOSS OF TRACTION
82.4	SA	Survey abandoned	DUE TO LOSS OF TRACTION

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	5
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS3	1.84	EDS4	2.75	U	300	0	VC	C	51.30

General comments	

Count	Code	Observation	Remarks
0.9	ST	Start of survey	
0.9	MH	Manhole or node	EDS3
0.9	WL	Water Level	5%
14.0	CL	Longitudinal crack at	12 o'clock
14.4	FL	Longitudinal fracture	12 o'clock - CONTINUES THROUGH TO 16.7M
14.5	CL	Longitudinal crack at	8 o'clock
15.6	FM	Multiple fracture	7 o'clock to 5 o'clock
16.7	FL	Longitudinal fracture	12 o'clock - ENDS
22.0	CL	Longitudinal crack at	10 o'clock
27.8	CL	Longitudinal crack at	2 o'clock
29.6	CL	Longitudinal crack at	2 o'clock
32.2	MH	Manhole or node	EDS9 - TARMACED OVER IN HIGHWAY
33.0	LR	Line of pipe deviates right	MEDIUM - OUT OF MANHOLE
37.5	FC	Circumferential fracture	7 o'clock to 12 o'clock
37.5	CL	Longitudinal crack at	11 o'clock
51.3	MH	Manhole or node	EDS4
51.3	FH	Finish survey	

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	6
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS3	1.88	EDS5		D	300	0	VC	C	81.70

General comments	
	EDS5 = NO DEPTH (BURIED)

Count	Code	Observation	Remarks
0.9	ST	Start of survey	
0.9	MH	Manhole or node	EDS3
0.9	WL	Water Level	5%
2.7	CC	Circumferential crack from	7 o'clock to 9 o'clock
6.5	FC	Circumferential fracture	7 o'clock to 11 o'clock
14.1	CC	Circumferential crack from	7 o'clock to 11 o'clock
15.7	FL	Longitudinal fracture	11 o'clock
18.6	FM	Multiple fracture	9 o'clock to 3 o'clock
24.6	MH	Manhole or node	BURIED - LOCATED IN HIGHWAY, MARKED ON SURFACE - EDS11
39.7	CL	Longitudinal crack at	1 o'clock
43.4	CL	Longitudinal crack at	4 o'clock
44.1	FC	Circumferential fracture	7 o'clock to 5 o'clock
44.1	FL	Longitudinal fracture	8 o'clock
44.1	FL	Longitudinal fracture	4 o'clock
44.1	FL	Longitudinal fracture	3 o'clock
46.5	MH	Manhole or node	BURIED - LOCATED IN HIGHWAY, MARKED ON SURFACE - EDS12
49.1	CC	Circumferential crack from	10 o'clock to 12 o'clock
49.8	CL	Longitudinal crack at	8 o'clock

CCTV REPORT SHEET

environmental drainage solutions ltd

Client:	Strata Homes Ltd	Sheet No:	6
Site:	BURNTWOOD ROAD, GRIMESTHORPE, BARNSLEY	Date:	17/11/2009

Job No.	Operator	Location code	Weather	Pre clean	Shape	Lining	Tape No.
3149	IW	C	1		C		1

Start MH	Depth(m)	Finish MH	Depth(m)	Direction	Dia(mm)	Dim(mm)	Material	Use	Length(M)
EDS3		EDS5		D	300	0	VC	C	81.70

General comments	SURVEY No.6 CONTINUED

Count	Code	Observation	Remarks
56.0	CL	Longitudinal crack at	12 o'clock
61.9	FC	Circumferential fracture	1 o'clock to 10 o'clock
61.9	FL	Longitudinal fracture	3 o'clock
69.8	FC	Circumferential fracture	3 o'clock to 9 o'clock
81.7	MH	Manhole or node	EDS5
81.7	FH	Finish survey	

MANHOLE RECORD CARD

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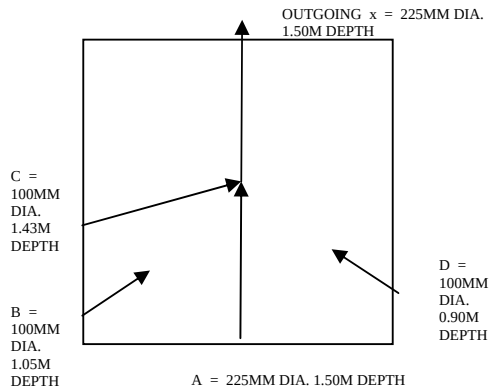
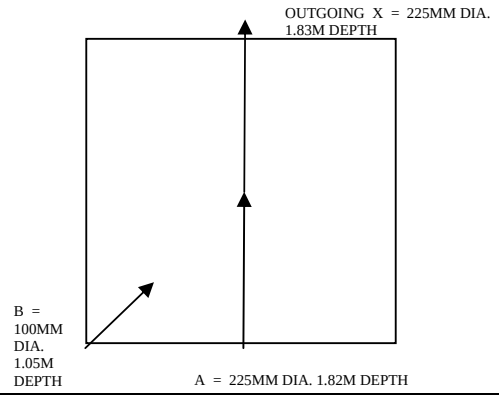
JOB No. 3149 SHEET 1 OF 2

CLIENT:- **HOMES BY STRATA** SITE:- **BURNTWOOD ROAD**

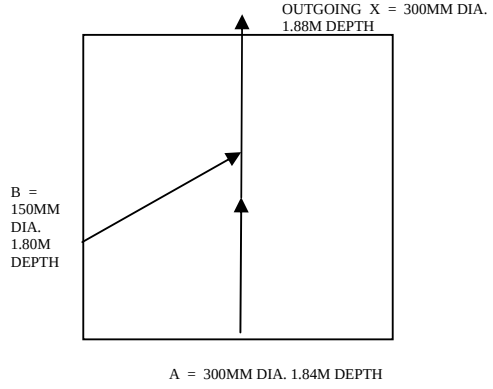
NODE REF	EDS1
SURVEY DATE	17/11/09
NODE TYPE	MH/IC/GULLY/OTHER
STATUS	PU/PR
FUNCTION	F/SW/C
INVERT DEPTH(M)	1.50M
CONSTRUCTION	BR/PCC/OTHER
REMARKS (Photos etc)	



NODE REF	EDS2
SURVEY DATE	17/11/09
NODE TYPE	MH/IC/GULLY/OTHER
STATUS	PU/PR
FUNCTION	F/SW/C
INVERT DEPTH(M)	1.83M
CONSTRUCTION	BR/PCC/OTHER
REMARKS (Photos etc)	



NODE REF	EDS3
SURVEY DATE	17/11/09
NODE TYPE	MH/IC/GULLY/OTHER
STATUS	PU/PR
FUNCTION	F/SW/C
INVERT DEPTH(M)	1.88M
CONSTRUCTION	BR/PCC/OTHER
REMARKS (Photos etc)	



MH – MANHOLE, IC – INSPECTION CHAMBER, PU – PUBLIC, PR – PRIVATE
F – FOUL, SW – SURFACE WATER, C – COMBINED, BR – BRICK, PCC – PRE-CAST CONCRETE

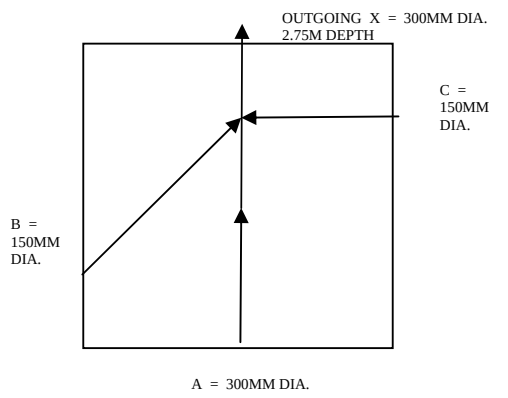
MANHOLE RECORD CARD

environmental drainage solutions ltd

JOB No. 3149 SHEET 2 OF 2

CLIENT:- **HOMES BY STRATA** SITE:- **BURNTWOOD ROAD**

NODE REF	EDS4
SURVEY DATE	17/11/09
NODE TYPE	MH/IC/GULLY/OTHER
STATUS	PU/PR
FUNCTION	F/SW/C
INVERT DEPTH(M)	2.75M
CONSTRUCTION	BR/PCC/OTHER
REMARKS (Photos etc)	



MH – MANHOLE, IC – INSPECTION CHAMBER, PU – PUBLIC, PR – PRIVATE
F – FOUL, SW – SURFACE WATER, C – COMBINED, BR – BRICK, PCC – PRE-CAST CONCRETE

BURNTWOOD RD. - GRIMESTHORPE

Title: GP1
Date: 17/11/09
Description: EDS1

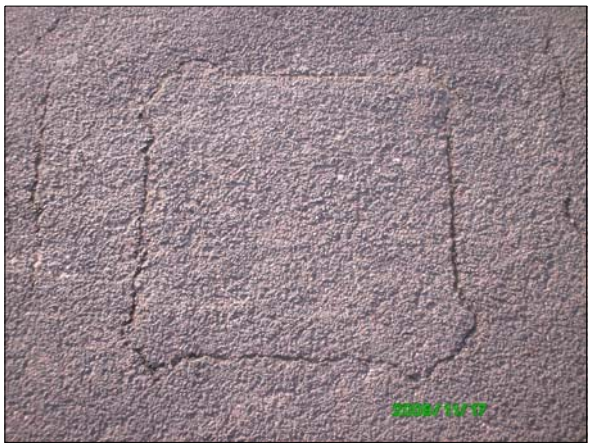
Title: GP2
Date: 17/11/09
Description: EDS1 - LOCATION

Title: GP3
Date: 17/11/09
Description: EDS3

Title: GP4
Date: 17/11/09
Description: EDS3 - LOCATION

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE



Title: GP5
Date: 17/11/09
Description: EDS9 - UNABLE TO RAISE

Title: GP6
Date: 17/11/09
Description: EDS9 - LOCATION

Title: GP7
Date: 17/11/09
Description: EDS8 - POST DIGGING OUT

Title: GP8
Date: 17/11/09
Description: EDS8 - POST DIGGING OUT

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE

Title: GP9

Date: 17/11/09

Description: EDS8 - LOCATION

Title: GP10

Date: 17/11/09

Description: APPROX. LOCATION OF 6902 - COVER & FRAME UPSIDE DOWN IN FIELD

Title: GP11

Date: 17/11/09

Description: APPROX. LOCATION OF 6902

Title: GP12

Date: 17/11/09

Description: 6001 - VIEW OF ESCAPING SEWAGE

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE

Title: GP13

Date: 17/11/09

Description: 6001 - VIEW OF ESCAPING SEWAGE

Title: GP14

Date: 17/11/09

Description: 6001 - LOCATION

Title: GP15

Date: 17/11/09

Description: APPROX. LOCATION OF SURFACE WATER OUTFALL

Title: GP16

Date: 17/11/09

Description: APPROX. LOCATION OF SURFACE WATER OUTFALL

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE

Title: GP17
Date: 17/11/09
Description: 6004

Title: GP18
Date: 17/11/09
Description: 6004

Title: GP19
Date: 17/11/09
Description: 6004 - LOCATION

Title: GP20
Date: 17/11/09
Description: EDS2

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE

Title: GP21
Date: 17/11/09
Description: EDS2 - LOCATION

Title: GP22
Date: 17/11/09
Description: EDS4

Title: GP23
Date: 17/11/09
Description: EDS4 - LOCATION

Title: GP24
Date: 17/11/09
Description: EDS7 - UNABLE TO RAISE

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE

Title: GP25

Date: 17/11/09

Description: EDS7 & EDS4 - LOCATION

Title: GP26

Date: 17/11/09

Description: EDS10 (LEFT) & EDS11 (RIGHT - LOCATION

Title: GP27

Date: 17/11/09

Description: EDS10 (LEFT) & EDS11 (RIGHT) - LOCATION

Title: GP28

Date: 17/11/09

Description: EDS12 - LOCATION

GENERAL PHOTOS

BURNTWOOD RD. - GRIMESTHORPE

Title: GP29

Date: 17/11/09

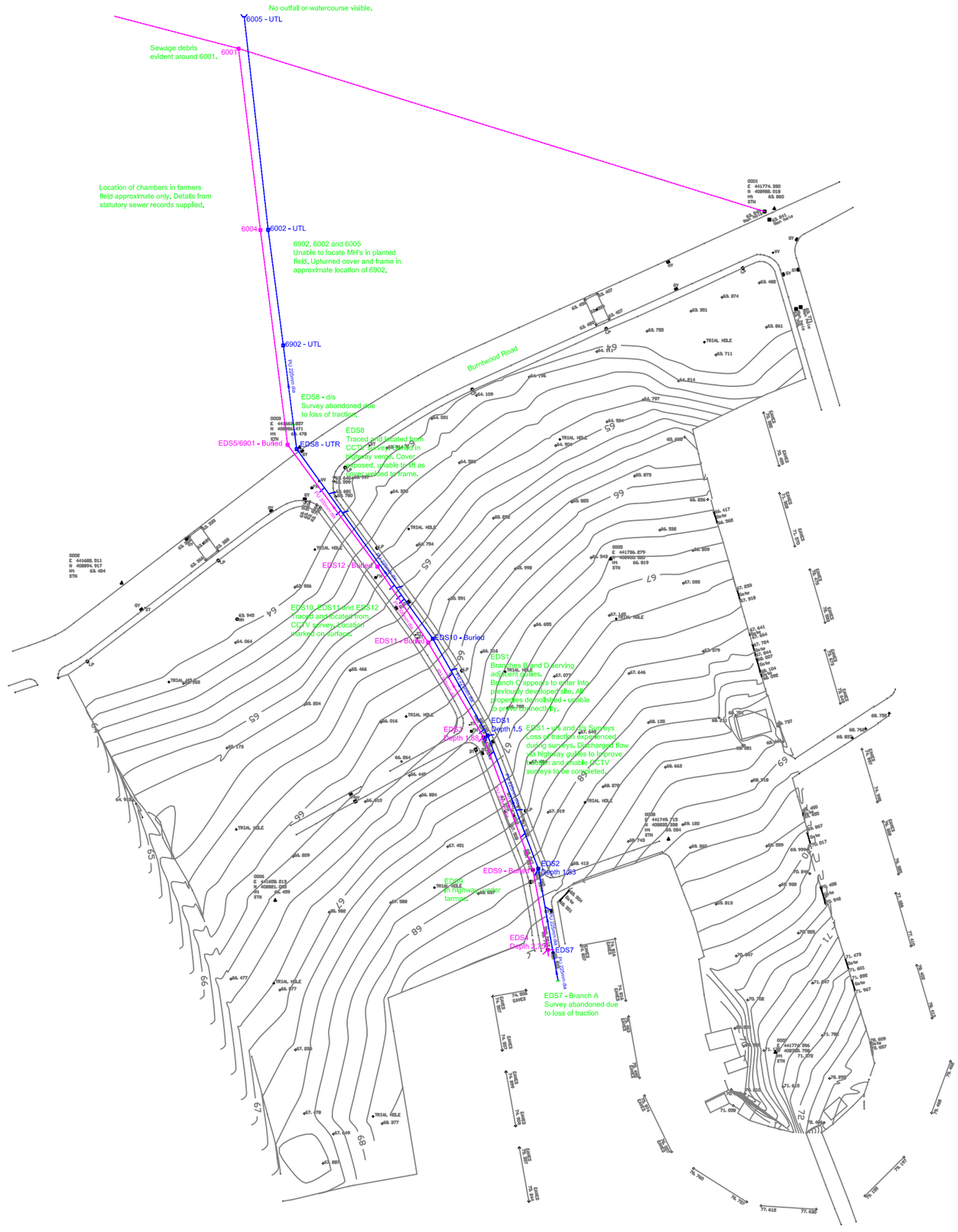
Description: EDS8 (RIGHT) & EDS5 (LEFT) - LOCATION

Title: GP30

Date: 17/11/09

Description: EDS8 (RIGHT) & EDS5 (LEFT) - LOCATION

GENERAL PHOTOS



NOTES
Manhole locations from topographical survey supplied unless stated otherwise.
Lengths shown dashed not CCTV surveyed.
Public sewer data taken from statutory sewer records supplied.

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Client
HOMES BY STRATA

Title
BURNTWOOD ROAD
GRIMESTHORPE

Drawn	IW	Checked	GEC
Date	17/11/09	Scale	NTS
Drawing No.	EDS/EAC/3149/01		

LEGEND

Foul Drain/Sewer
Surface Water Drain/Sewer
Watercourse/culvert
Combined Drain/Sewer

Manhole (Colour denotes use)
Gully (Colour denotes use)
Rainwater Pipe / Gully
Soil Vent Pipe

EDS1
G
RWP RWG
SVP