



## **TECHNICAL NOTE**

Date: 22 September 2021

File Ref: SG/VL/P21-2315/01TN Vol. 3 of 3

Project: Land at Impington, Histon, Cambridgeshire

Subject: Summary of Flood Risk and Drainage Matters

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## **APPENDIX E**

## Graham Sinclair

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**From:** Harry Pickford <Harry.Pickford@cambridgeshire.gov.uk>  
**Sent:** 22 September 2021 11:58  
**To:** Graham Sinclair; FR Planning; Sophie Gadsdon  
**Cc:** Jessica Jordan; Tracey Tooke  
**Subject:** RE: Villa Road Impington Cambridge

Good afternoon Graham,

Having reviewed the document and considered this further in light of the email you sent on 8<sup>th</sup> September, we think the use of the fluvial modelling carried out can be used as a proxy for the surface water. The surface water modelling is probably fairly conservative compared to the fluvial model as it doesn't take into account the culvert to the north and the level of detail on the channel input into the fluvial model.

I hope this is of use, but happy to discuss should you have any further queries.

Kind regards

**Harry Pickford**  
**Senior SuDS & Flood Risk Officer**  
T: 01223 715952 | M: 07469 377536  
Flood Risk and Biodiversity Team



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**From:** Graham Sinclair [mailto:Graham.Sinclair@createconsultingengineers.co.uk]  
**Sent:** 22 September 2021 11:17  
**To:** Harry Pickford <Harry.Pickford@cambridgeshire.gov.uk>; FR Planning <FR.Planning@cambridgeshire.gov.uk>; Sophie Gadsdon <Sophie.Gadsdon@createconsultingengineers.co.uk>  
**Cc:** Jessica Jordan <Jessica.Jordan@createconsultingengineers.co.uk>; Tracey Tooke <Tracey.Tooke@createconsultingengineers.co.uk>  
**Subject:** RE: Villa Road Impington Cambridge

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Hi Harry,

Further to our conversation on Monday are you ok to respond on this one today please?

Many thanks,

Graham.

Graham Sinclair  
Associate | Water

**Create Consulting Engineers Ltd**  
15 Princes Street | Norwich | NR3 1AF  
T 01603 877 010  
M 07734 604 920

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**From:** Graham Sinclair  
**Sent:** 14 September 2021 11:16  
**To:** 'Harry Pickford' <[Harry.Pickford@cambridgeshire.gov.uk](mailto:Harry.Pickford@cambridgeshire.gov.uk)>; 'FR Planning' <[FR.Planning@cambridgeshire.gov.uk](mailto:FR.Planning@cambridgeshire.gov.uk)>; Sophie Gadsdon <[Sophie.Gadsdon@createconsultingengineers.co.uk](mailto:Sophie.Gadsdon@createconsultingengineers.co.uk)>  
**Cc:** Jessica Jordan <[Jessica.Jordan@createconsultingengineers.co.uk](mailto:Jessica.Jordan@createconsultingengineers.co.uk)>; Tracey Tooke <[Tracey.Tooke@createconsultingengineers.co.uk](mailto:Tracey.Tooke@createconsultingengineers.co.uk)>  
**Subject:** RE: Villa Road Impington Cambridge

Hi Harry,

Can you come back to us on this one please so we can get everything tied up.

Many thanks,

Graham.

Graham Sinclair  
Associate | Water

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---

**From:** Graham Sinclair  
**Sent:** 08 September 2021 09:56  
**To:** 'Harry Pickford' <[Harry.Pickford@cambridgeshire.gov.uk](mailto:Harry.Pickford@cambridgeshire.gov.uk)>; FR Planning <[FR.Planning@cambridgeshire.gov.uk](mailto:FR.Planning@cambridgeshire.gov.uk)>; Sophie Gadsdon <[Sophie.Gadsdon@createconsultingengineers.co.uk](mailto:Sophie.Gadsdon@createconsultingengineers.co.uk)>  
**Cc:** Jessica Jordan <[Jessica.Jordan@createconsultingengineers.co.uk](mailto:Jessica.Jordan@createconsultingengineers.co.uk)>; Tracey Tooke <[Tracey.Tooke@createconsultingengineers.co.uk](mailto:Tracey.Tooke@createconsultingengineers.co.uk)>  
**Subject:** RE: Villa Road Impington Cambridge

Hi Harry,

Apologies for the delay in coming back to you on this, we have reviewed internally and it isn't possible to compare rainfall between the two. The issue is the flood modelling has been carried out using a WINFAP analysis which uses a pooling group of similar gauged catchments to estimate a flow for the catchment in question. As this is based off gauged data and scaled accordingly there is no rainfall input into the model so we're unable to get an intensity/total rainfall depth to compare. The surface water flood maps are however based on a rainfall input, however without doing the surface water modelling ourselves it would be difficult to estimate the critical design rainfall here still.

With regards the depressions on site it is clear from our topographic information and the surface water flood maps (which don't show deeper spots over and above the flood modelling done) that there are no localised low spots on the site.

I should also note that the surface water flood maps don't take into account the culvert to the north (beneath the busway) nor would they take the detail of the channel into account like our modelling has, hence why we feel the modelling we have done is more representative of the real world situation.

Therefore without undertaking a surface water modelling exercise I feel we can't provide any further detail so would be grateful of your views on how to progress.

Many thanks,

Graham.

Graham Sinclair  
Associate | Water

**Create Consulting Engineers Ltd**

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M 07734 604 920

---

**From:** Harry Pickford <[Harry.Pickford@cambridgeshire.gov.uk](mailto:Harry.Pickford@cambridgeshire.gov.uk)>

**Sent:** 01 September 2021 10:05

**To:** Graham Sinclair <[Graham.Sinclair@createconsultingengineers.co.uk](mailto:Graham.Sinclair@createconsultingengineers.co.uk)>; FR Planning <[FR.Planning@cambridgeshire.gov.uk](mailto:FR.Planning@cambridgeshire.gov.uk)>; Sophie Gadsdon <[Sophie.Gadsdon@createconsultingengineers.co.uk](mailto:Sophie.Gadsdon@createconsultingengineers.co.uk)>

**Cc:** Jessica Jordan <[Jessica.Jordan@createconsultingengineers.co.uk](mailto:Jessica.Jordan@createconsultingengineers.co.uk)>; Tracey Tooke <[Tracey.Tooke@createconsultingengineers.co.uk](mailto:Tracey.Tooke@createconsultingengineers.co.uk)>

**Subject:** RE: Villa Road Impington Cambridge

Good morning Graham,

Apologies for the delay in responding to this one. I was discussing the proposals with another member of the team before going on leave.

The general decision we have come to on this is that if the fluvial model is based on the same amount of rainfall across the catchment then we would expect this to mirror the surface water modelling outputs for any areas that are in continuity with the fluvial flooding you have modelled previously. However if there are depressions elsewhere in the site which are picked up on the surface water modelling then these would need to be treated differently. However, I do not think this is the case? Do you think this is something which could be demonstrated around the rainfall across the catchments?

Kind regards

**Harry Pickford**

**Senior SuDS & Flood Risk Officer**

T: 01223 715952 | M: 07469 377536

Flood Risk and Biodiversity Team



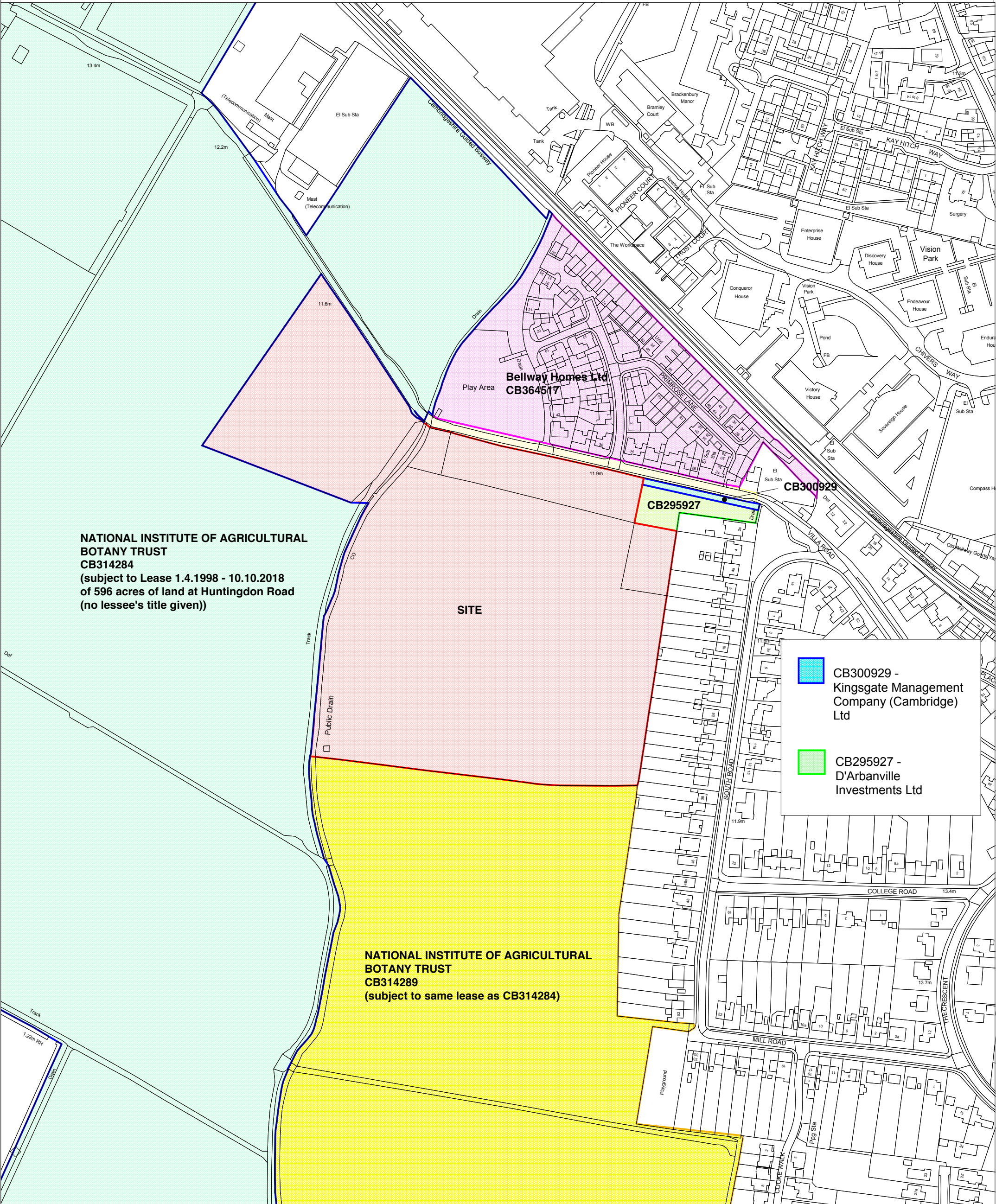
**NEWLY UPDATED Surface Water Planning Guidance!**

Check out our newly updated Surface Water Planning Guidance document, which can be accessed [HERE](#). This expands on our previous version to assist developers and consultants with producing flood risk assessments and surface water drainage strategies for new developments in Cambridgeshire. The latest version includes a number of updates and additional information on the LLFA's surface water drainage strategy requirements as a statutory consultee for all major development proposals.

# PLANS

# Land off Villa Road, Histon/Impington



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**NATIONAL INSTITUTE OF AGRICULTURAL BOTANY TRUST**  
**CB314284**  
 (subject to Lease 1.4.1998 - 10.10.2018  
 of 596 acres of land at Huntingdon Road  
 (no lessee's title given))

**SITE**

**NATIONAL INSTITUTE OF AGRICULTURAL BOTANY TRUST**  
**CB314289**  
 (subject to same lease as CB314284)

	<b>CB300929 - Kingsgate Management Company (Cambridge) Ltd</b>
	<b>CB295927 - D'Arbanville Investments Ltd</b>



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Date: 19.9.2016

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 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017

BBS- BB- EGL- SU- 01		Revision
Originator	Initials	Number
Detail	Type	

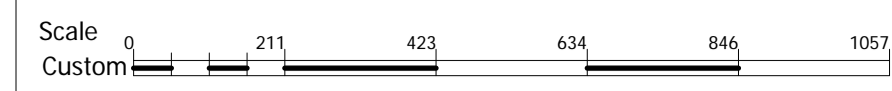
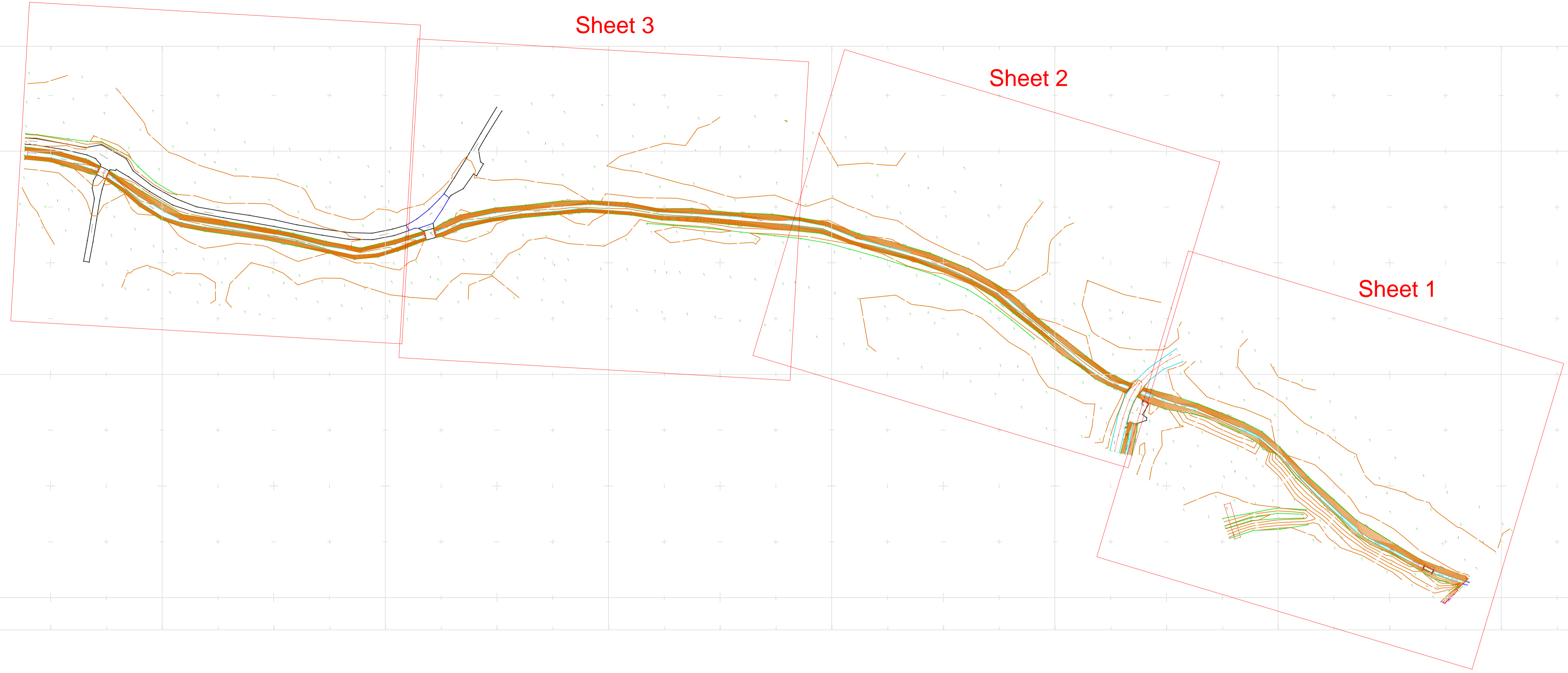


Sheet 4

Sheet 3

Sheet 2

Sheet 1



Notes:

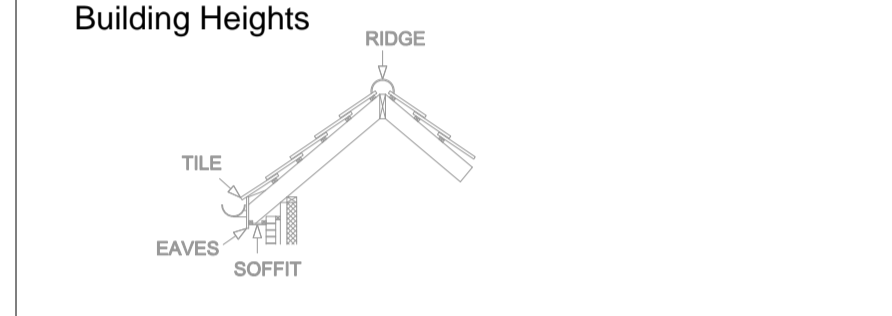
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BB Bottom Bank	FP Footpath	STAY Stay
BH Bore Hole	G Gully Grate	SV Sluice Valve
BL Lt Bollard	GV Gas Valve	TAC Tactile Paving
BOL Bollard	Hedge Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
BS Bus Stop	IL Invert Level	TL Traffic Light
Bushes Bush	KO Kerb Outlet	TOK Top Of Kerb
BT BT Box	LP Lamp Post	TP Telegraph Pole
CAB Cabinet	MH Manhole	TRK Track
CHNL Channel	MP Marker Post	TS Traffic Sign MH
CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Drop Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EEB Electric MH Cover	Ridge Ridge Level	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP+Transformer	SETTS Granite Setts	
Feeder Feeder Pillar	SF Safety Fence	

Features

Fences	FCB 1.8m	Control Station
Walls	Wall 1.2m	Column
Hedges	Hedge 1.2m	xxx Floor to Ceiling Height
Overhead Line	OHL	xxx FC Floor to False Ceiling Height

Services

Foul Sewers	0.225m	0.300m	0.450m	0.600m	Pipe position and alignment is indicative only
Storm Sewers	0.375m	0.450m	0.600m		



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REV	Date	Created By	Comments
-	08.03.17	BB	First Issue

Scale at A1	Project Number
Custom	2219-545

Drawing Status

Existing Topographic Survey

As Built Survey

For Information



**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client  
**Create Consulting  
Edward Funnell**

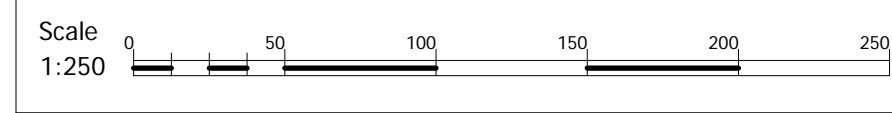
Project  
**Survey of Watercourse  
Villa Road, Histon**

Title  
**Existing Ground Level Survey  
Overview**

BBS- BB- EGL- SU- 01		Revision
Originator	Initials	Number
Detail	Type	







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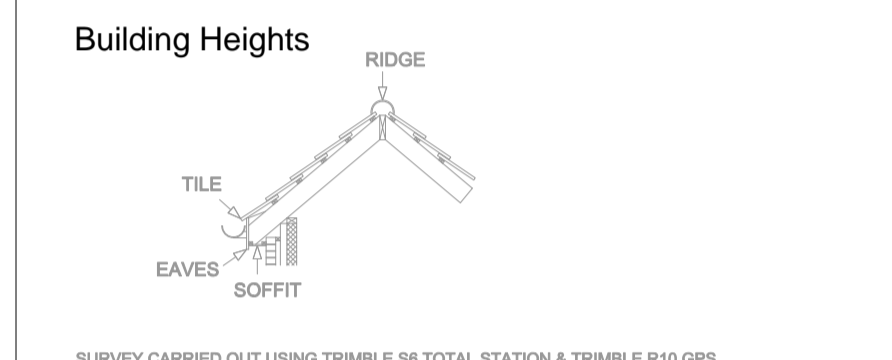
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BL	Lt Bollard	GV	Gas Valve	TAC	Tactile Paving
BOL	Bollard	Hedge	Hedge	TB	Top Bank
BIN	Bin	IC	Inspection Cover	TBOX	Telephone Box
BS	Bus Stop	IL	Invert Level	TL	Traffic Light
Bushes	Bush	KO	Kerb Outlet	TOK	Top Of Kerb
BT	BT Box	LP	Lamp Post	TP	Telegraph Pole
CAB	Cabinet	MH	Manhole	TRK	Track
CHNL	Channel	MP	Marker Post	TS	Traffic Sign MH
CL	Centreline	NB	Name Board	VENT	Vent
CONC	Concrete	PW	Partition Wall	W	Water Cover
COL	Column	PB	Post Box	WL	White Line
DB	Ditch Bottom	PM	Parking Meter	WO	Wash Out
DCHNL	Drainage Channel	PO	Post	YL	Yellow Line
Door	Door	RE	Rodding Eye		
EEB	Electric MH Cover	Ridge	Ridge Level		
EP	Electric Pole	RP	Reflector Post		
ER	Earth Road	RS	Road Sign		
ET	EP+Transformer	SETTS	Granite Setts		
Feeder	Feeder Pillar	SF	Safety Fence		
FCB	Close Boarded			CS	Control Station
FCL	Chain Link			COL	Column
FHD	Hoarding			XXX	Floor to Ceiling Height
FHR	Horse Fence			XXX FC	Floor to False Ceiling Height
FPL	Palisade				
FPR	Post & Rail				
FPW	Post & Wire				
RAL	Railings				

Features

Fences	FCB 1.00	
Walls	Wall 1.20	
Hedges	Hedge 1.20	Average root line shown.
Overhead Line	OHL	Indicative position of cables.

Services

Foul Sewers	0.2250	FW 100	Pipe position and alignment is indicative only.
Storm Sewers	0.3750	SS 150	



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REV	Date	Created By	Comments
-	09.03.17	BB	First Issue

Scale at A1	Project Number
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**1 Chestnut Place, Cringleford  
 Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

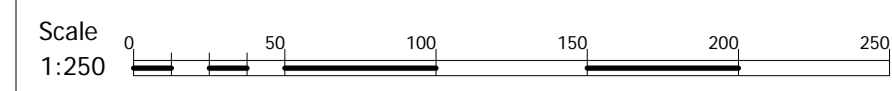
Client  
**Create Consulting  
 Edward Funnell**

Project  
**Survey of Watercourse  
 Villa Road, Histon**

Title  
**Existing Ground Level Survey  
 Sheet 1**

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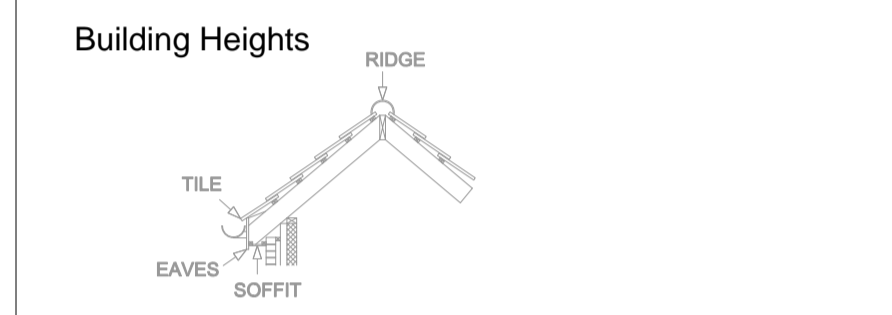
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BH	Bore Hole	G	Gully Grate	SV	Sluice Valve
BL	Lt Bollard	GV	Gas Valve	TAC	Tactile Paving
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BIN	Bin	IC	Inspection Cover	TBOX	Telephone Box
BS	Bus Stop	IL	Invert Level	TL	Traffic Light
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CONC	Concrete	PW	Partition Wall	W	Water Cover
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FCB	Close Boarded			CS	Control Station
FCL	Chain Link			COL	Column
FHD	Hoarding			XXX	Floor to Ceiling Height
FHR	Horse Fence			XXX FC	Floor to False Ceiling Height
FPL	Palisade				
FPR	Post & Rail				
FPW	Post & Wire				
RAL	Railings				

Features

FCB 1.25	Close Boarded	CS	Control Station
W 1.25	Wall	COL	Column
Hedge 1.25	Hedge	XXX	Floor to Ceiling Height
OHL	Overhead Line	XXX FC	Floor to False Ceiling Height

Services

0.2250	Foul Sewers	FWS MH	Pipe position and alignment is indicative only.
0.3750	Storm Sewers	SS MH	



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REV	Date	Created By	Comments
-	09.03.17	BB	First Issue

Scale at A1: 1:250

Project Number: 2219-545

Drawing Status:

- Existing Topographic Survey
- As Built Survey
- For Information



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 Norwich, Norfolk NR4 7BD**  
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 m: 07786 388175  
 e: barry@bbsurveys.co.uk

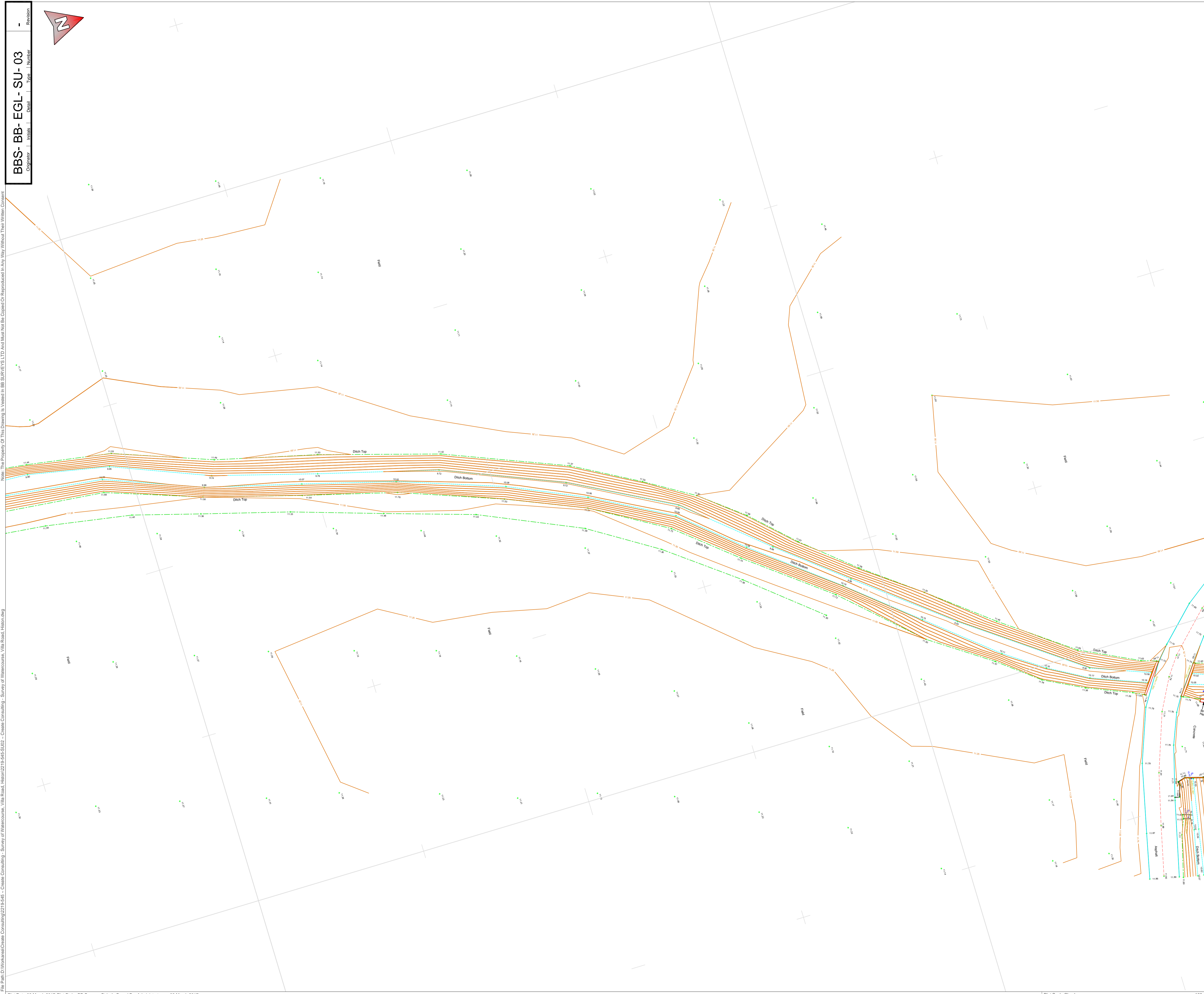
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 Edward Funnell

Project: Survey of Watercourse  
 Villa Road, Histon

Title: Existing Ground Level Survey  
 Sheet 2

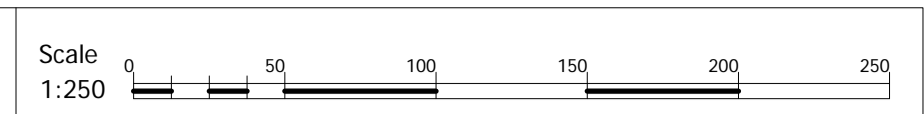
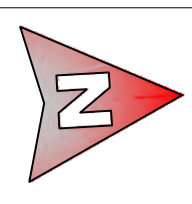
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BBS- BB- EGL- SU- 04				
Originator	Initials	Detail	Type	Number
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**Notes:**

AV Air Valve	FH Fire Hydrant	SP Sign Post
BB Bottom Bank	FP Footpath	STAY Stay
BH Bore Hole	G Gully Grate	SV Sluice Valve
BL Lt Bollard	GV Gas Valve	TAC Tactile Paving
BOL Bollard	Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
BS Bus Stop	IL Invert Level	TL Traffic Light
Bushes Bush	KO Kerb Outlet	TOK Top Of Kerb
BT BT Box	LP Lamp Post	TP Telegraph Pole
CAB Cabinet	MH Manhole	TRK Track
CHNL Channel	MP Marker Post	TS Traffic Sign MH
CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Dip Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EEB Electric MH Cover	Ridge	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP-Transformer	SETS Granite Sets	
Feeder Feeder Pillar	SF Safety Fence	

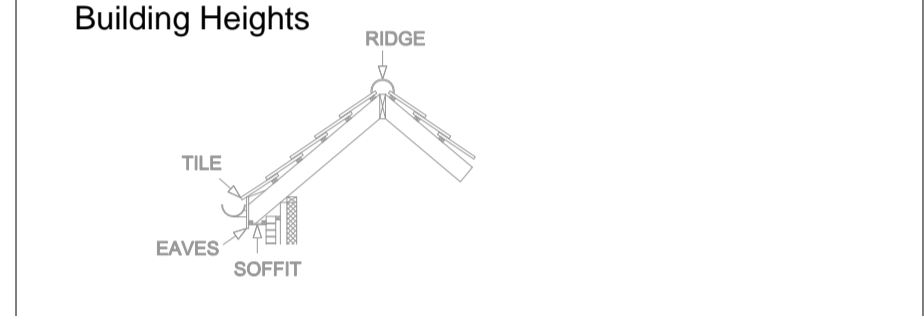
FCB Close Boarded	Control Station
FCL Chain Link	Column
FHD Hoarding	xxx Floor to Ceiling Height
FHR Horse Fence	xxx FC Floor to False Ceiling Height
FPL Palisade	
FPR Post & Rail	
FPW Post & Wire	
RAL Railings	

**Features**

FCB 1.25	Average root line shown.
Wall 1.25	Indicative position of cables.
Hedge 1.25	
OHL	

**Services**

0.2250 FWS	0.2250 FWS	0.2250 FWS	Pipe position and alignment is indicative only.
0.3750 FWS	0.3750 FWS	0.3750 FWS	



SURVEY CARRIED OUT USING TRIMBLE S8 TOTAL STATION & TRIMBLE R10 GPS.  
 ALL SURVEY DATA TO ORDNANCE SURVEY NATIONAL GRID (OSN215)  
 ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.  
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 ANY ERRORS SHOULD BE NOTIFIED TO BB SURVEYS LTD.  
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 DRAINAGE RUNS BETWEEN INSPECTION COVERS HAVE NOT BEEN INVESTIGATED. ANY SHOWN ARE ESTIMATED AND NOT CONFIRMED. ALL DRAINAGE RUNS SHOULD BE PROBED BY DYE TRACING AND, IF NECESSARY BY RADIO DETECTION METHODS PRIOR TO ANY DESIGN WORK. ALL PIPE SIZES AND CONNECTIONS SHOULD ALSO BE CONFIRMED WITH YOUR LOCAL DRAINAGE AUTHORITY PRIOR TO ANY DESIGN WORK.  
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REV	Date	Created By	Project Number	Comments
-	09.03.17	BB	2219-545	First Issue

Scale at A1

1:250	2219-545
-------	----------



**1 Chestnut Place, Cringleford  
 Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client: **Create Consulting  
Edward Funnell**

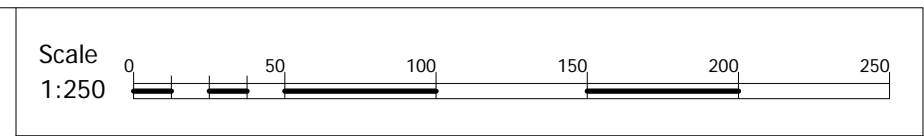
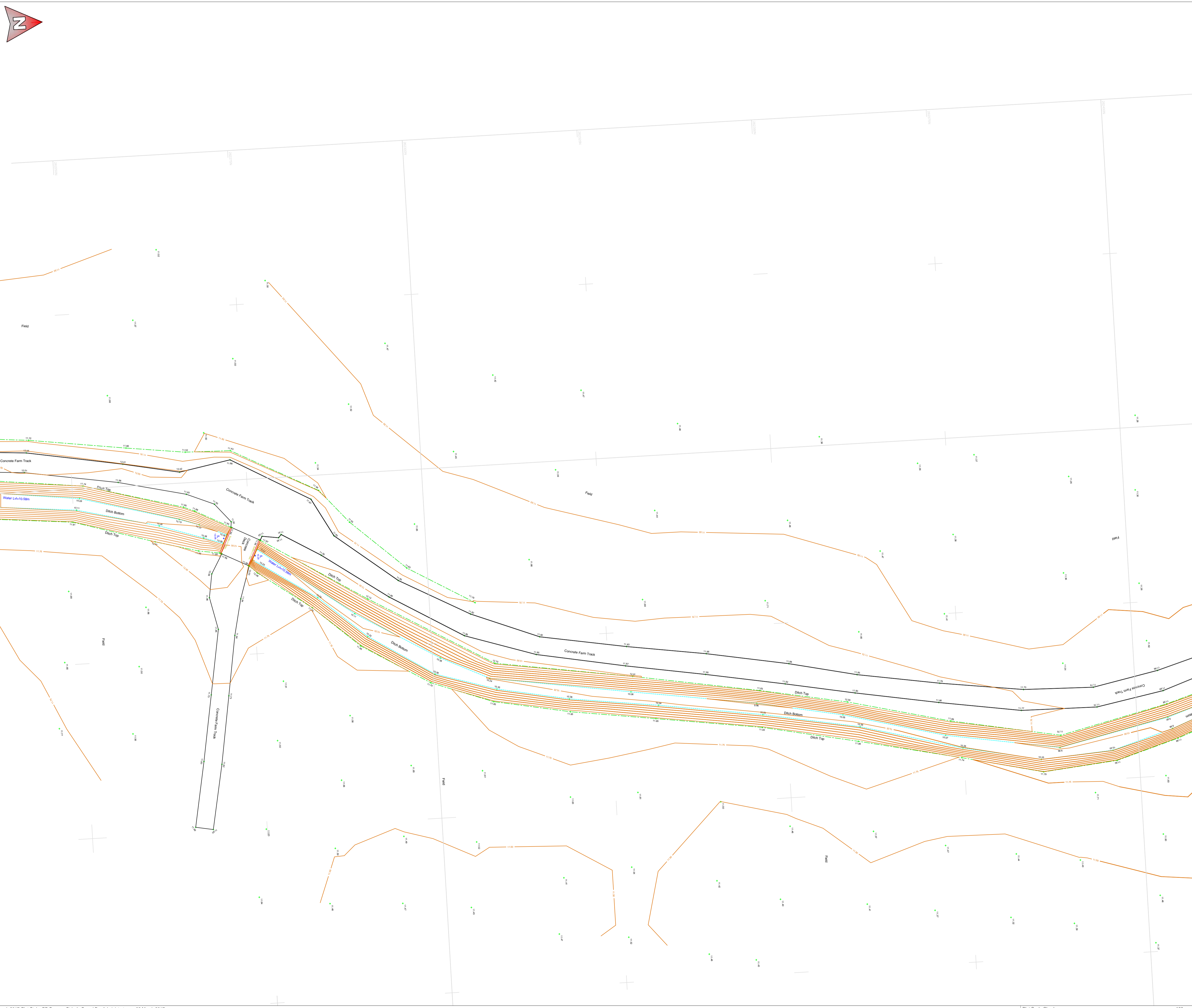
Project: **Survey of Watercourse  
Villa Road, Histon**

Title: **Existing Ground Level Survey  
Sheet 3**

BBS- BB- EGL- SU- 04					-
Originator	Initials	Detail	Type	Number	Revision
-	-	-	-	-	-

File Path: D:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017

BBS- BB- EGL- SU- 05				
Originator	Initials	Detail	Type	Number
-	-	-	-	-



**Notes:**

AV Air Valve	FH Fire Hydrant	SP Sign Post
BB Bottom Bank	FP Footpath	STAY Stay
BH Bore Hole	G Gully Grate	SV Sluice Valve
BL Lt Bollard	GV Gas Valve	TAC Tactile Paving
BOL Bollard	H Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
BS Bus Stop	IL Invert Level	TL Traffic Light
Bushes Bush	KO Kerb Outlet	TOK Top Of Kerb
BT BT Box	LP Lamp Post	TP Telegraph Pole
CAB Cabinet	MH Manhole	TRK Track
CHNL Channel	MP Marker Post	TS Traffic Sign MH
CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Drain Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EEB Electric MH Cover	RIDGE Ridge Level	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP+Transformer	SETTS Granite Sets	
Feeder Feeder Pillar	SF Safety Fence	

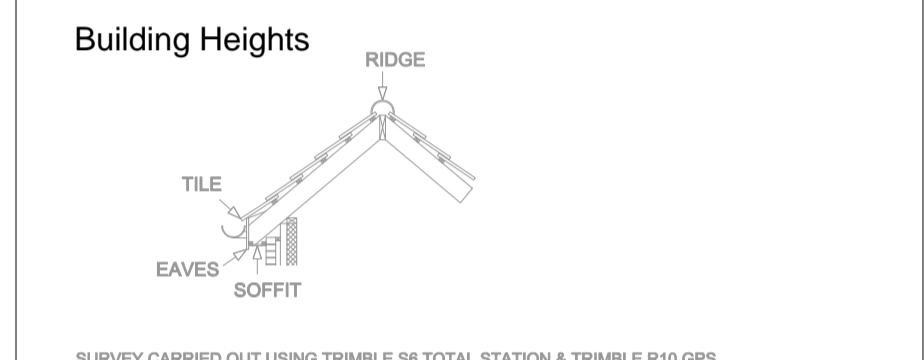
FCB Close Boarded	Control Station
FCL Chain Link	Column
FHD Hoarding	xxx Floor to Ceiling Height
FHR Horse Fence	xxx FC Floor to False Ceiling Height
FPL Palisade	
FPR Post & Rail	
FPW Post & Wire	
RAL Railings	

**Features**

FCB 1.0m	Average root line shown.
W 1.2m	Indicative position of cables.
Hedge 1.2m	
OHL	

**Services**

0.225m	0.300m	0.375m	0.450m	Pipe position and alignment is indicative only.
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REV	Date	Created By	Comments
-	09.03.17	BB	First Issue
Scale at A1		Project Number	
1:250		2219-545	

Drawing Status

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<input type="checkbox"/>	As Built Survey
<input type="checkbox"/>	For Information



**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client  
**Create Consulting  
Edward Funnell**

Project  
**Survey of Watercourse  
Villa Road, Histon**

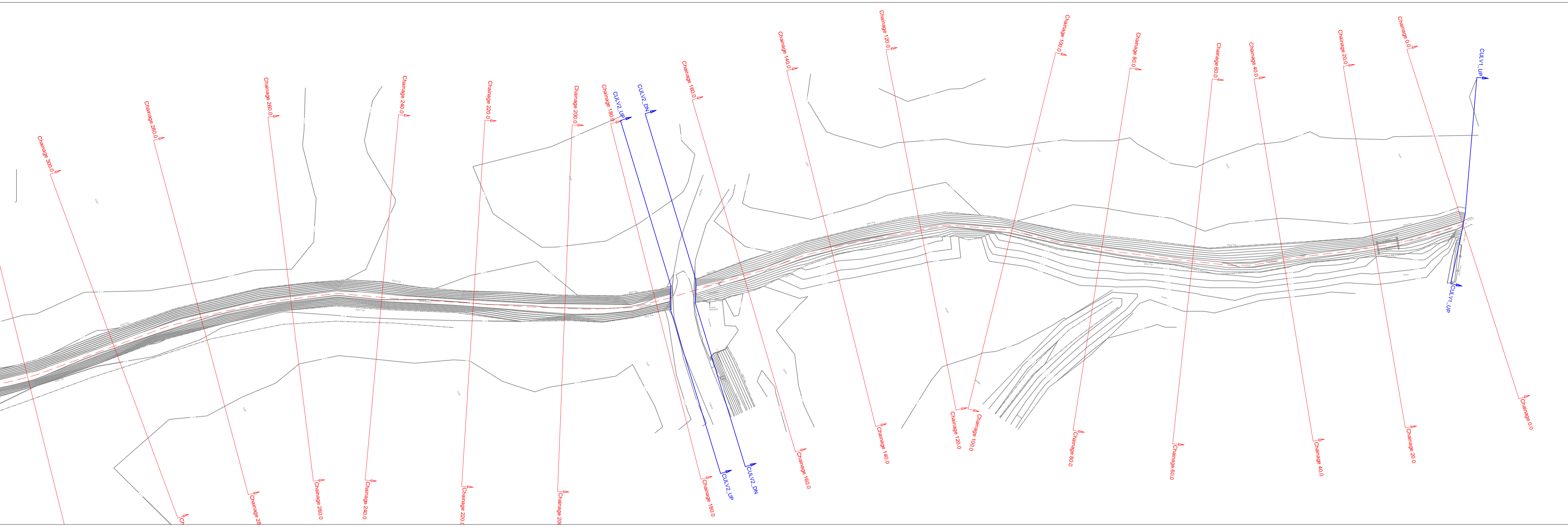
Title  
**Existing Ground Level Survey  
Sheet 4**

BBS- BB- EGL- SU- 05					-
Originator	Initials	Detail	Type	Number	Revision
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Note: The Property Of This Drawing Is Vested In BB SURVEYS LTD And Must Not Be Copied Or Reproduced In Any Way Without Their Written Consent  
 File Path: C:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017

<b>BBS- BB- EGL- SU- 07</b>	
Originator	Initials
Detail	Type
Number	Revision



Scale 1:125

Notes:

AV Air Valve	FH Fire Hydrant	SP Sign Post
BB Bottom Bank	FP Footpath	STAY Stay
BL Bore Hole	GV Gully Grate	SV Sluice Valve
BL Bolt	IC Inspection Cover	TAC Tactile Paving
BOL Bolt	IL Invert Level	TB Top Bank
BIN Bin	KO Kerb Outlet	TBOX Telephone Box
BS Bus Stop	LA Lamp Post	TL Traffic Light
Bushes Bush	LP Lamp Post	TOK Top Of Kerb
BT BT Box	MH Manhole	TP Telegraph Pole
CAB Cabinet	MP Marker Post	TRK Track
CHNL Channel	NB Name Board	TS Traffic Sign MH
CL Centreline	PW Partition Wall	VENT Vent
CONC Concrete	PB Post Box	W Water Cover
COL Column	PM Post Meter	WL White Line
DB Drop Bottom	PO Post	WO Wash Out
DCHNL Drainage Channel	RE Rodding Eye	YL Yellow Line
Door Door	RIDGE Ridge Level	
EEB Electric MH Cover	RP Reflector Post	
EP Electric Pole	RS Road Sign	
ER Earth Road	SETS Granite Setts	
ET EP-Transformer	SF Safety Fence	
Feeder Feeder Pillar		

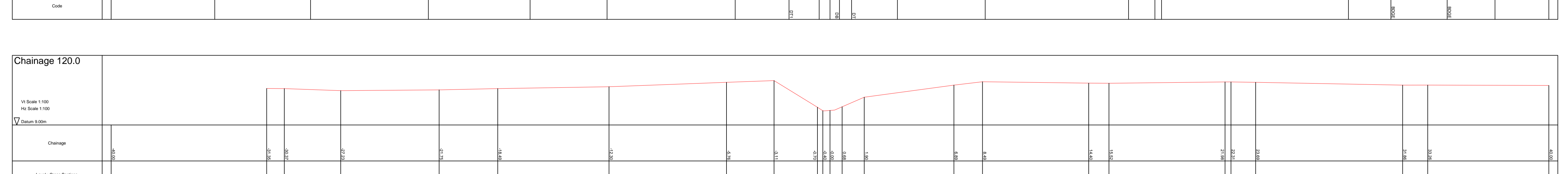
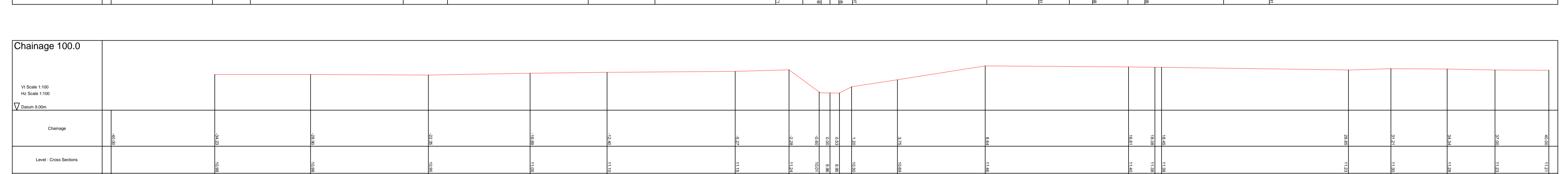
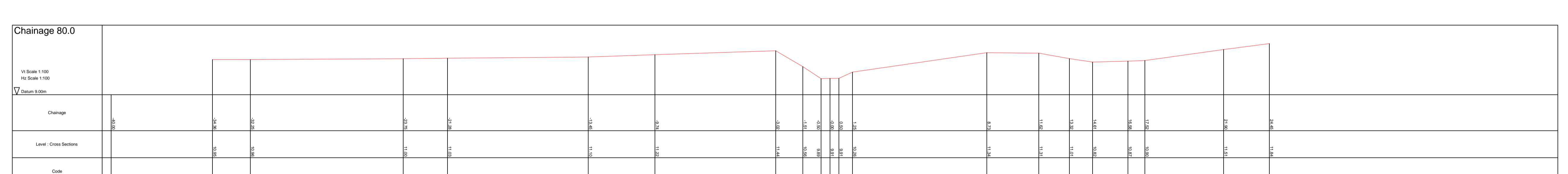
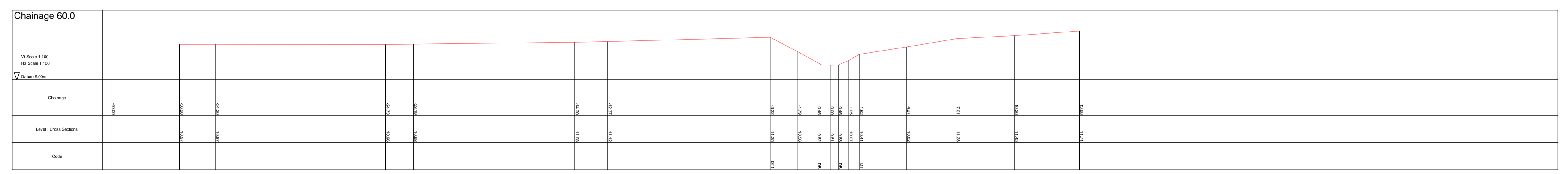
Features

- FCB 1.0m Close Boarded
- FCL Chain Link
- FHD Hoarding
- FHR Horse Fence
- FPL Palisade
- FPR Post & Rail
- FPW Post & Wire
- RAIL Railings

Services

- 0.225m Fuel Sewers
- 0.375m Storm Sewers
- 0.75m Pipe position and alignment is indicative only

Building Heights



SURVEY CARRIED OUT USING TRIMBLE S6 TOTAL STATION & TRIMBLE R10 GPS. ALL SURVEY DATA TO ORDNANCE SURVEY NATIONAL GRID (OSN15).

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REV	Date	Created By	Project Number	Comments
-	09.03.17	BB	2219-545	First Issue

Drawing Status

Existing Topographic Survey

As Built Survey

For Information



**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client  
**Create Consulting  
Edward Funnell**

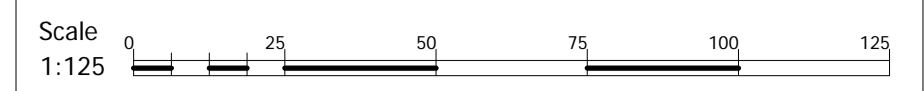
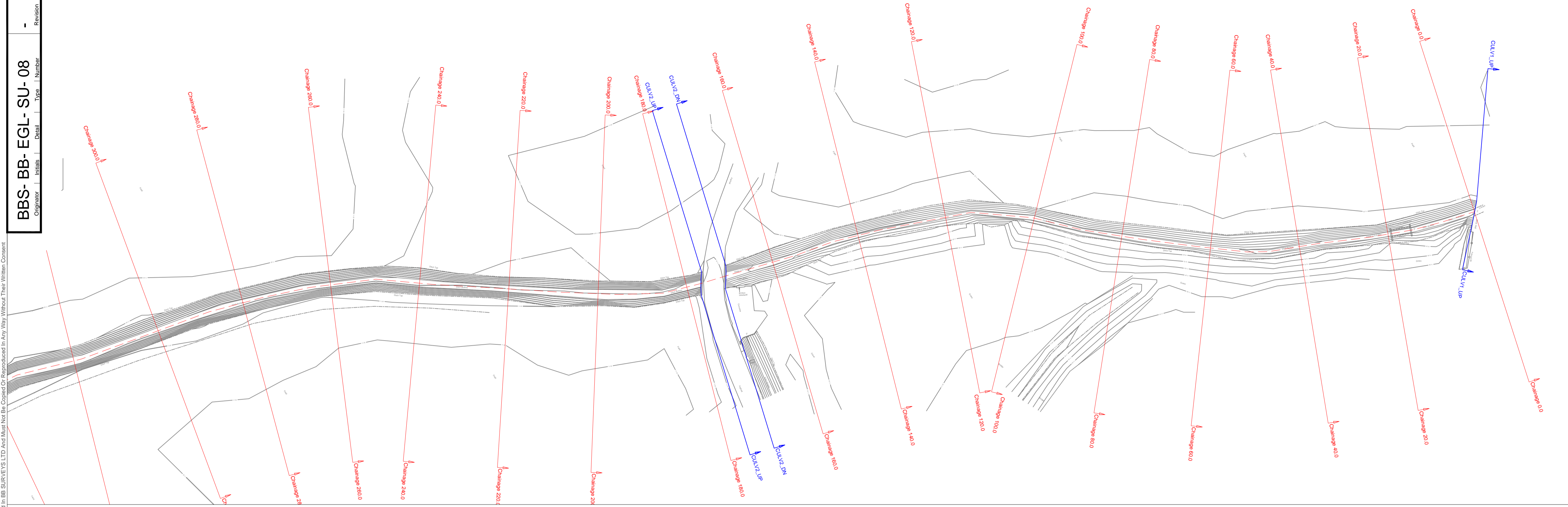
Project  
**Survey of Watercourse  
Villa Road, Histon**

Title  
**Cross Sections  
CH60 - CH120**

<b>BBS- BB- EGL- SU- 07</b>		-
Originator	Initials	Detail
Type	Number	Revision

Note: The Property Of This Drawing Is Vested In BB SURVEYS LTD And Must Not Be Copied Or Reproduced In Any Way Without Their Written Consent  
 File Path: C:\Work\area\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon\2219-545-SU-08 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017

BBS- BB- EGL- SU- 08	Originator	Initials	Detail	Type	Number
	BB				



**Notes:**

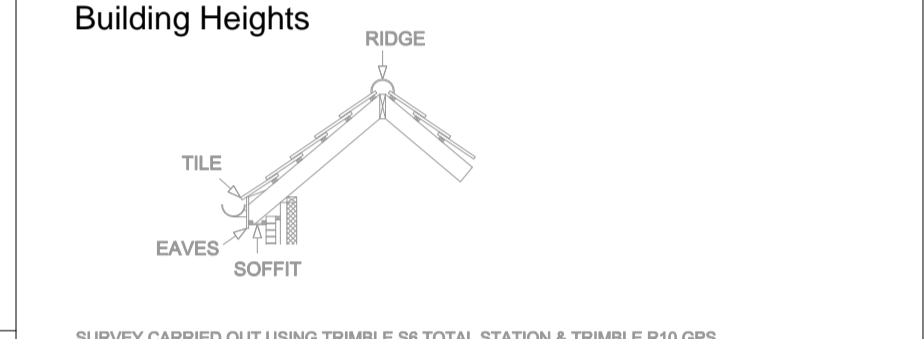
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BB Bottom Bank	FP Footpath	STAY Stay
BL Bore Hole	G Gully Grate	SV Sluice Valve
BL Lt Bollard	GV Gas Valve	TAC Tactile Paving
BOL Bollard	H Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
BS Bus Stop	IL Invert Level	TL Traffic Light
Bushes Bush	KO Kerb Outlet	TOK Top Of Kerb
BT BT Box	LA Lamp Post	TP Telegraph Pole
CAB Cabinet	MH Manhole	TRK Track
CHNL Channel	MP Marker Post	TS Traffic Sign MH
CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Drop Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EEB Electric MH Cover	Ridge Ridge Level	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP-Transformer	SETTS Granite Setts	
Feeder Feeder Pillar	SF Safety Fence	

**Features**

Fences	FCB 1.8m	Control Station
Walls	W 1.2m	Column
Hedges	Hedge 1.2m	Floor to Ceiling Height
Overhead Line	OHL	Floor to False Ceiling Height

**Services**

Storm Sewers	0.225m	0.375m	0.50m	0.75m	1.0m	1.5m	2.0m	2.25m	2.5m	3.0m	3.75m	4.5m	5.0m	6.0m	7.5m	9.0m	10.0m
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SURVEY CARRIED OUT USING TRIMBLE S6 TOTAL STATION & TRIMBLE R10 GPS. ALL SURVEY DATA TO ORDNANCE SURVEY NATIONAL GRID (OSN15).

ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.

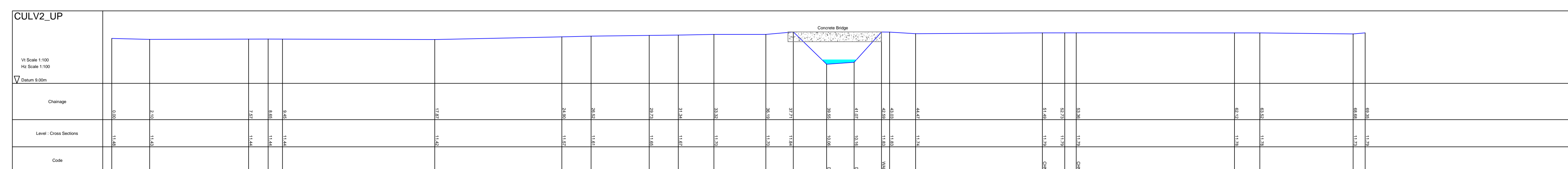
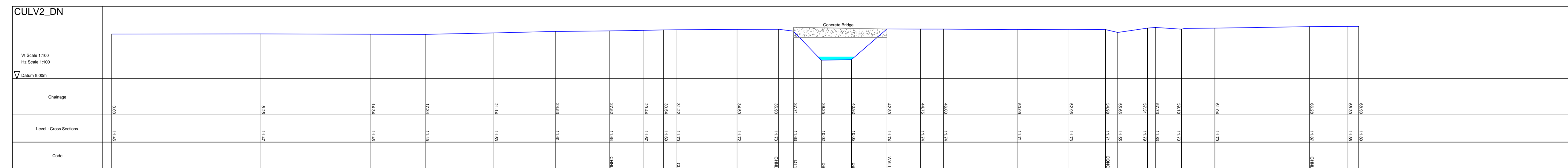
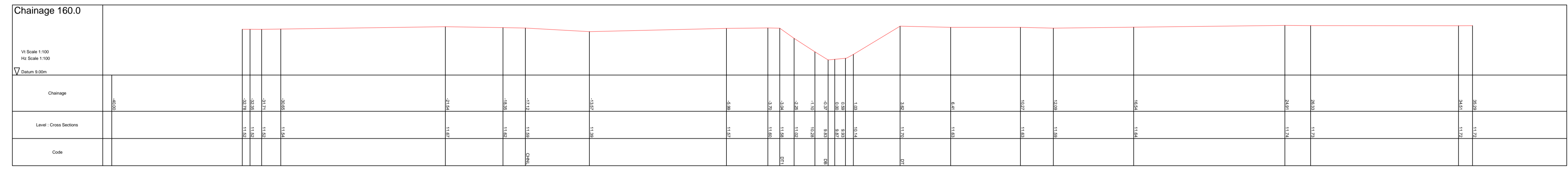
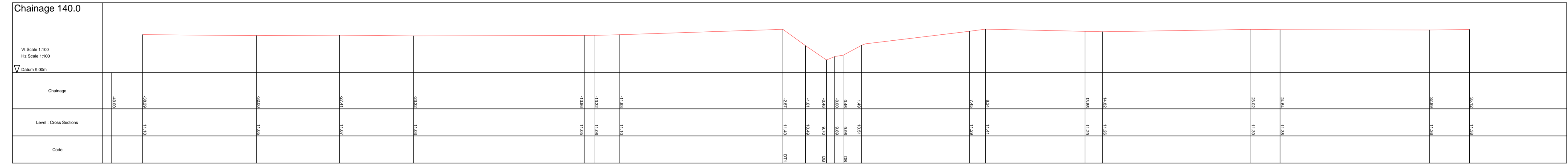
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REV	Date	Created By	Comments
1:125	09.03.17	BB	First Issue
Scale at A1		Project Number	
1:125		2219-545	

**Drawing Status**

<input checked="" type="checkbox"/>	Existing Topographic Survey
<input type="checkbox"/>	As Built Survey
<input type="checkbox"/>	For Information



**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client: **Create Consulting  
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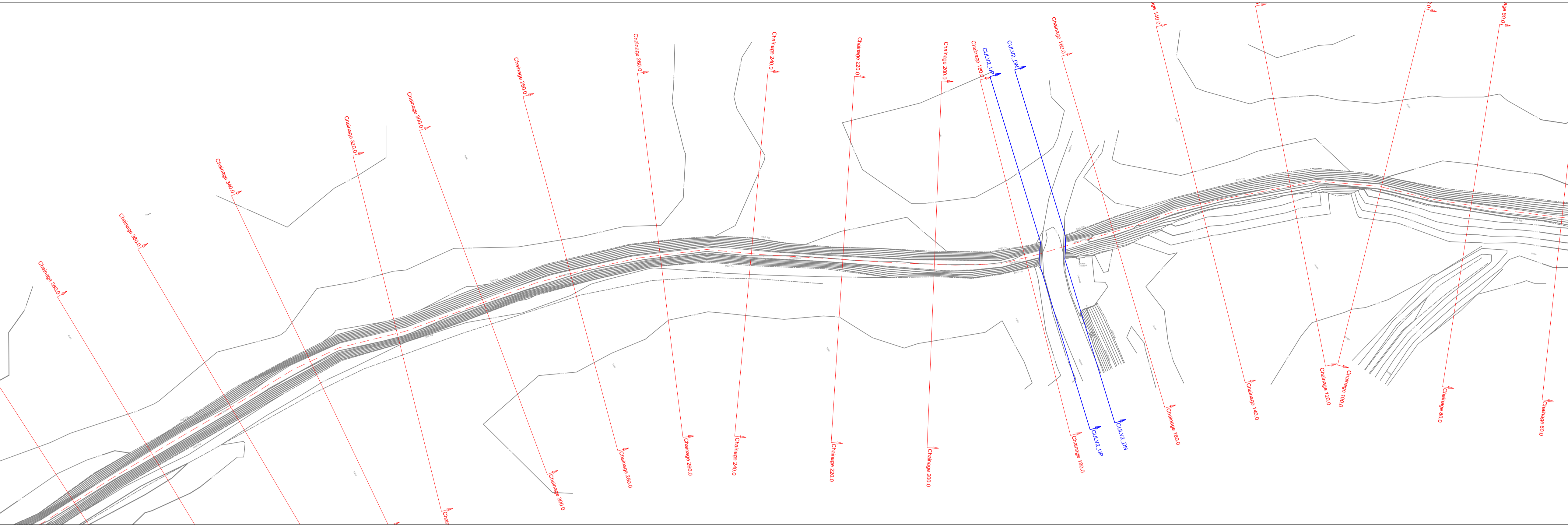
Project: **Survey of Watercourse  
Villa Road, Histon**

Title: **Cross Sections  
CH140 - CULVERT**

BBS- BB- EGL- SU- 08	-
Originator	Initials
Detail	Type
Number	Revision

File Path: D:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017  
 Note: The Property Of This Drawing Is Vested In BB SURVEYS LTD And Must Not Be Copied Or Reproduced In Any Way Without Their Written Consent

<b>BBS- BB- EGL- SU- 09</b>	Originator	Initials	Detail	Type	Number	Revision
-						



**Scale**  
1:125

**Notes:**

AV Air Valve	FH Fire Hydrant	SP Sign Post
BB Bottom Bank	FP Footpath	STAY Stay
BH Bore Hole	GV Gully Grate	SV Sluice Valve
BL Lx Bollard	GV Gas Valve	TAC Tactile Paving
BOL Bollard	Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
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CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Drop Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EEB Electric MH Cover	Ridge	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP-Transformer	SETS Granite Setts	
Feeder Feeder Pillar	SF Safety Fence	

**Features**

FCB 1.6	Close Boarded	CS Control Station
FCL	Chain Link	C Column
FHD	Hoarding	FC Floor to Ceiling Height
FFR	Flora Fence	FC Floor to False Ceiling Height
FPL	Palisade	
FPR	Post & Rail	
FPW	Post & Wire	
RAL	Railings	

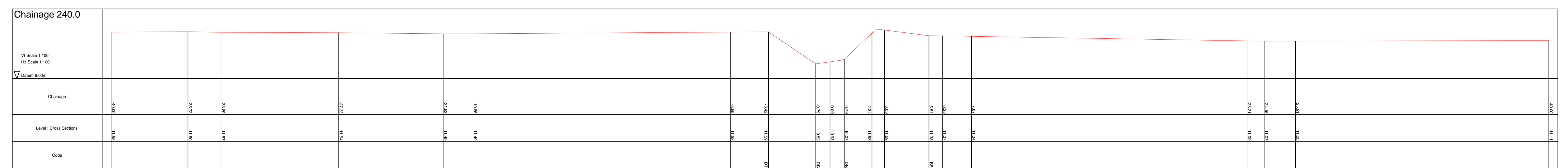
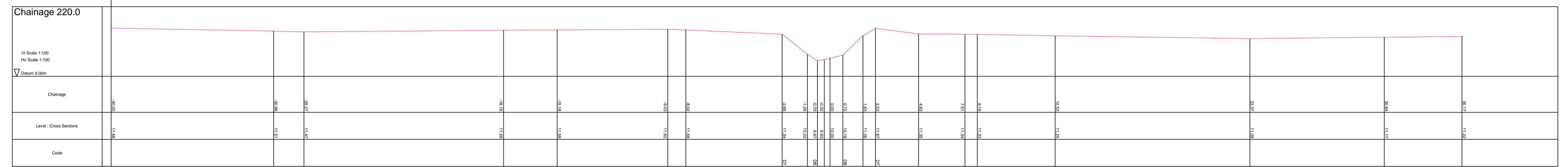
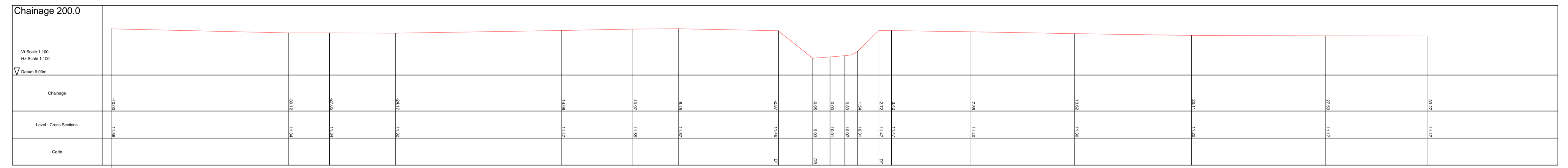
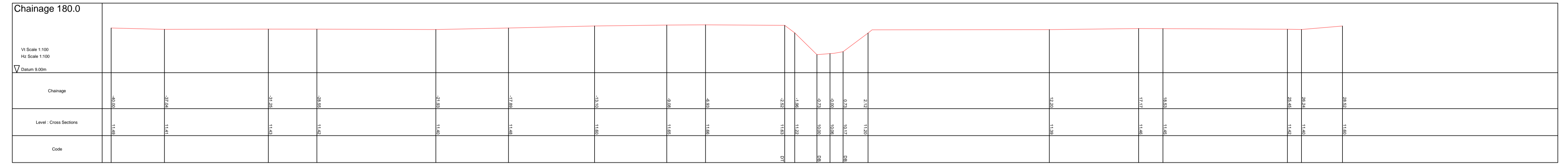
  

**Services**

0.2268	FW 184	Pipe position and alignment is indicative only.
0.3792	200 SW	

**Building Heights**



SURVEY CARRIED OUT USING TRIMBLE S6 TOTAL STATION & TRIMBLE R10 GPS.  
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-	09.03.17	BB	First Issue	
REV	Date	Created By	Project Number	Comments
	1:125		2219-545	

**Drawing Status**

Existing Topographic Survey

As Built Survey

For Information



**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**

t: 01603 507917  
m: 07786 388175  
e: barry@bbsurveys.co.uk

Client: **Create Consulting  
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Project: **Survey of Watercourse  
Villa Road, Histon**

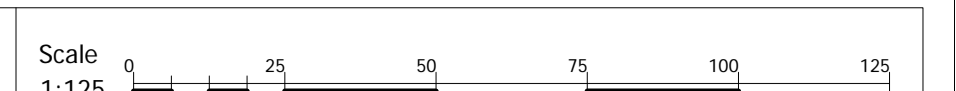
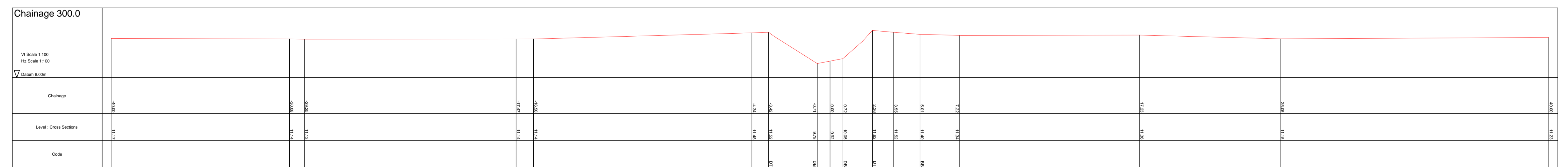
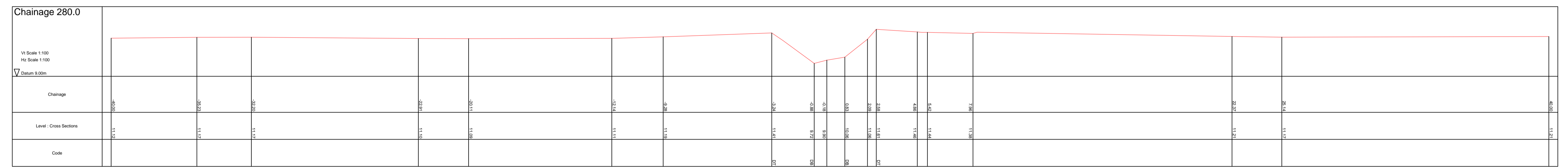
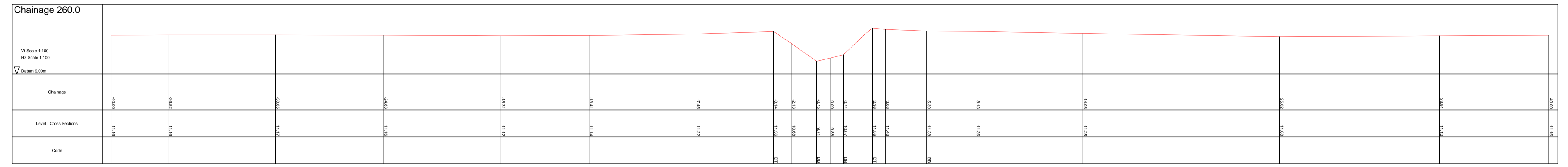
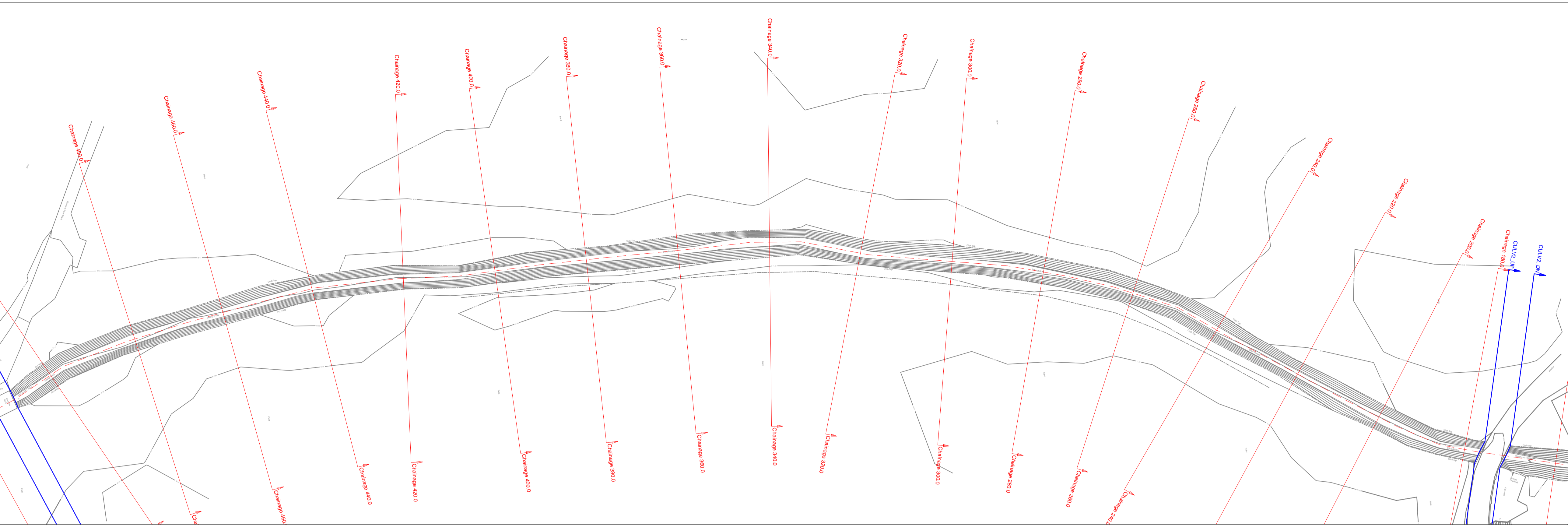
Title: **Cross Sections  
CH180 - CH240**

<b>BBS- BB- EGL- SU- 09</b>	Originator	Initials	Detail	Type	Number	Revision
-						



File Path: C:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon\2219-545-SU05 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg

<b>BBS- BB- EGL- SU- 10</b>	
Originator	Initials
Detail	Type
Number	Revision



**Notes:**

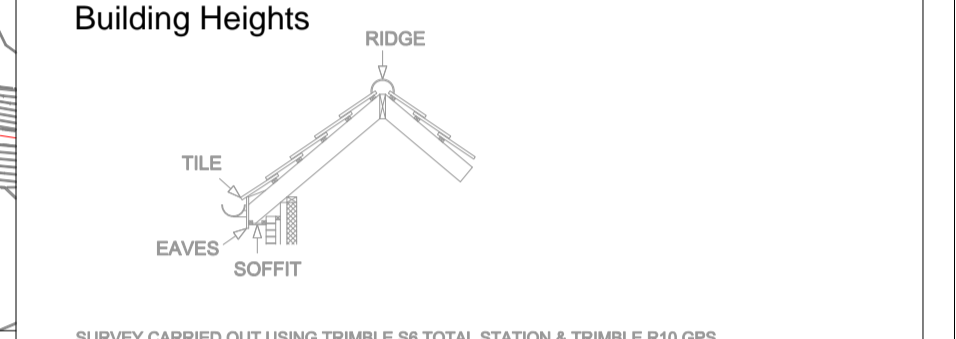
AV Air Valve	FH Fire Hydrant	SP Sign Post
BB Bottom Bank	FP Footpath	STAY Stay
BH Bore Hole	GV Gully Grate	SV Sluice Valve
BL Lt Bollard	GV Gas Valve	TAC Tactile Paving
BOL Bollard	Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
BS Bus Stop	IL Invert Level	TL Traffic Light
Bushes Bush	KO Kerb Outlet	TOK Top Of Kerb
BT BT Box	LP Lamp Post	TP Telegraph Pole
CAB Cabinet	MH Manhole	TRK Track
CHNL Channel	MP Marker Post	TS Traffic Sign MH
CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Drain Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EER Electric MH Cover	Ridge	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP+Transformer	SETTS Granite Setts	
Feeder Feeder Pillar	SF Safety Fence	

**Features**

	FCB 1.25	Control Station
	Wall 1.25	Column
	Hedge 1.25	XXX XXX
	OHL	XXX XXX
		Average root line shown.
		Indicative position of cables.

**Services**

	0.225m	FW 100	Pipe position and alignment is indicative only.
	0.375m	200 100	



SURVEY CARRIED OUT USING TRIMBLE S6 TOTAL STATION & TRIMBLE R10 GPS. ALL SURVEY DATA TO ORDINANCE SURVEY NATIONAL GRID (OSTN15). ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED. ANY CRITICAL DIMENSIONS AND MEASUREMENTS SHOULD BE BASED ON THE ORIGINAL DIGITAL DATA AND CONFIRMED WITH BB SURVEYS LTD. ANY ERRORS SHOULD BE NOTIFIED TO BB SURVEYS LTD. NO ATTEMPT HAS BEEN MADE TO ENTER ANY CONFINED SPACES ON THIS SITE. WE HAVE MEASURED INVERT DEPTHS, ESTIMATED PIPE SIZES AND SHOWN THE DIRECTION OF FLOW ONLY WHERE DRAIN RUNS ARE ACTIVE AT THE TIME OF SURVEY. INSPECTION COVERS WHICH WE WERE UNABLE TO LIFT BY MANUAL METHODS ARE DENOTED AS MH (D/L). WE DO NOT QUOTE FOR THE USE OF HYDRAULIC LIFTING EQUIPMENT. DRAINAGE RUNS BETWEEN INSPECTION COVERS HAVE NOT BEEN INVESTIGATED. ANY SHOWN ARE ESTIMATED AND NOT CONFIRMED. ALL DRAINAGE RUNS SHOULD BE PROBED BY DYE TRACING AND, IF NECESSARY BY RADIO DETECTION METHODS PRIOR TO ANY DESIGN WORK. ALL PIPE SIZES AND CONNECTIONS SHOULD ALSO BE CONFIRMED WITH YOUR LOCAL DRAINAGE AUTHORITY PRIOR TO ANY DESIGN WORK. THERE MAY BE INSPECTION COVERS ON SITE WHICH WERE NOT VISIBLE AT THE TIME OF SURVEY. THEY MAY HAVE BEEN BURIED OR COVERED BY VEGETATION. YOU SHOULD CONSULT YOUR LOCAL DRAINAGE AUTHORITY OR COMMISSION A CCTV DRAINAGE SURVEY TO ENSURE THAT YOU LOCATE ANY MISSING COVERS OR DRAINAGE RUNS.

REV	Date	Created By	Comments
	09.03.17	BB	First Issue

Scale at A1: 1:125  
Project Number: 2219-545



**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

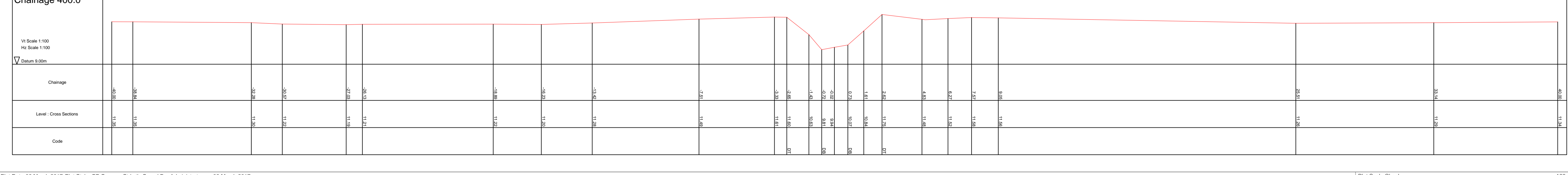
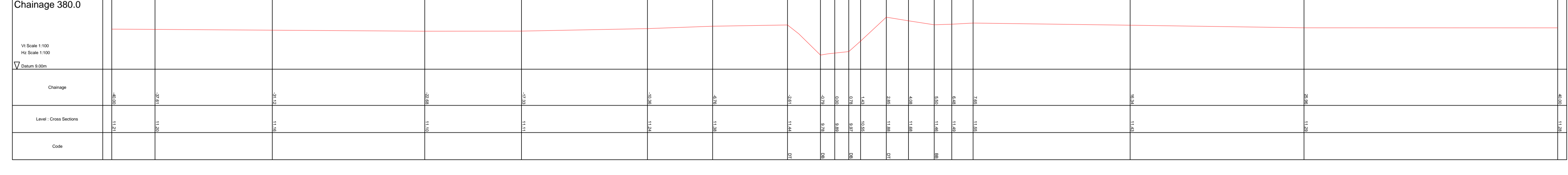
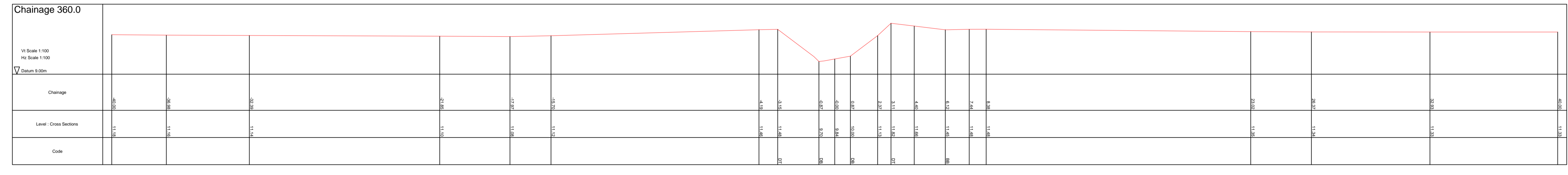
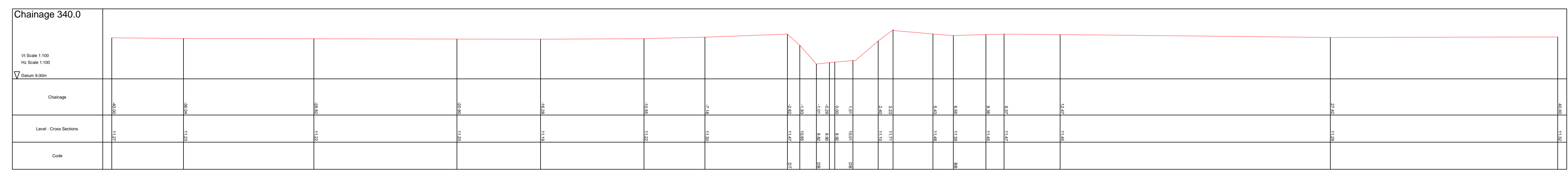
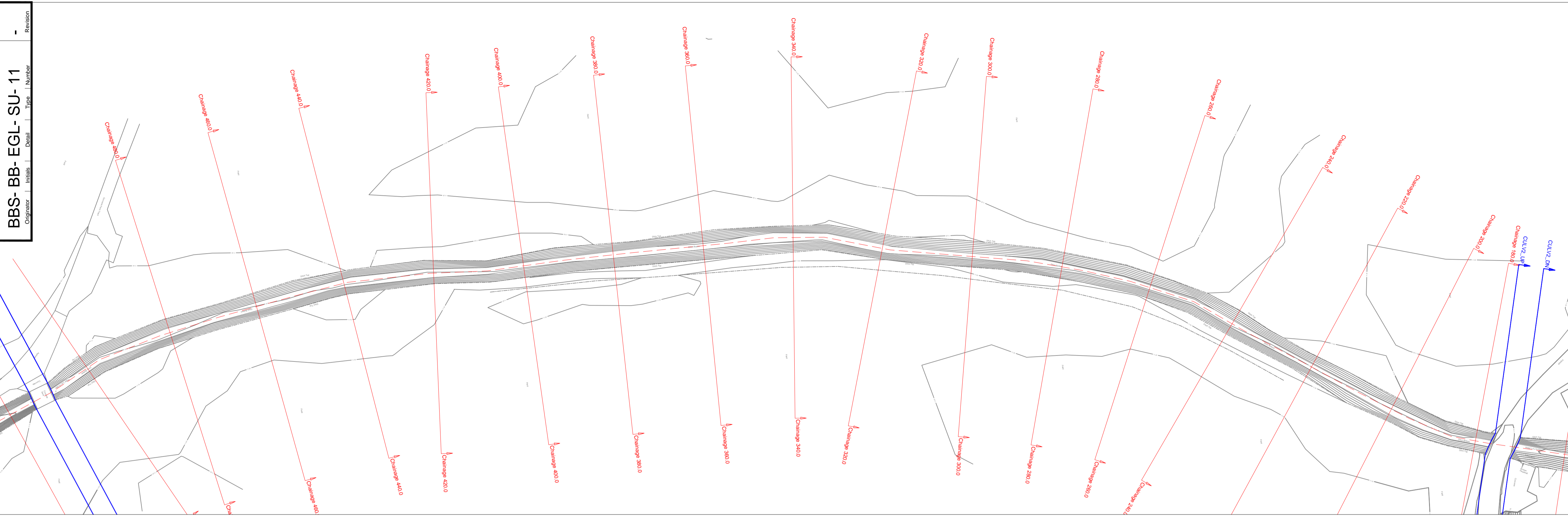
Client: Create Consulting  
Edward Funnell

Project: Survey of Watercourse  
Villa Road, Histon

Title: Cross Sections  
CH260 - CH320

<b>BBS- BB- EGL- SU- 10</b>	-
Originator	Initials
Detail	Type
Number	Revision

Note: The Property Of This Drawing Is Vestied In BB SURVEYS LTD And Must Not Be Copied Or Reproduced In Any Way Without Their Written Consent  
 File Path: C:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017



#### Notes:

AV	Air Valve	FH	Fire Hydrant	SP	Sign Post
BB	Bottom Bank	FP	Footpath	STAY	Stay
BH	Bore Hole	GV	Gully Grate	SV	Sluice Valve
BL	Li Bolard	GV	Gas Valve	TAC	Tactile Paving
BOL	Bolard	HG	Hedge	TB	Top Bank
BIN	Bin	IC	Inspection Cover	TBOX	Telephone Box
BS	Bus Stop	IL	Invert Level	TL	Traffic Light
Bushes	Bush	KO	Kerb Outlet	TOK	Top Of Kerb
BT	BT Box	LP	Lamp Post	TP	Telegraph Pole
CAB	Cabinet	MH	Manhole	TRK	Track
CHNL	Channel	MP	Marker Post	TS	Traffic Sign MH
CL	Centreline	NB	Name Board	VENT	Vent
CONEC	Concrete	PW	Partition Wall	W	Water Cover
COL	Column	PB	Post Box	WL	White Line
DB	Drop Bottom	PM	Parking Meter	WO	Wash Out
DCHNL	Drainage Channel	PO	Post	YL	Yellow Line
Door	Door	RE	Rodding Eye		
EBC	Electric MH Cover	RIDGE	Ridge Level		
EP	Electric Pole	RP	Reflector Post		
ER	Earth Road	RS	Road Sign		
ET	EP+Transformer	SETS	Granite Setts		
Feeder	Feeder Pillar	SF	Safety Fence		

#### Features

FCB 1.25	Close Boarded	CS	Control Station
FCL	Chain Link	CUM	Column
FHD	Hoarding	XXX	Floor to Ceiling Height
FHR	Horse Fence	XXX FC	Floor to Floor Ceiling Height
FPL	Palisade		
FPR	Post & Rail		
FPW	Post & Wire		
RAL	Railings		

Average root line shown.  
 Indicative position of cables.

#### Services

0.2258	0.2258	FW 104	Pipe position and alignment is indicative only.
0.3758	0.3758	SW 104	

#### Building Heights

SURVEY CARRIED OUT USING TRIMBLE S6 TOTAL STATION & TRIMBLE R10 GPS.  
 ALL SURVEY DATA TO ORDNANCE SURVEY NATIONAL GRID (OSTN15)  
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REV	Date	Created By	Comments
-	09.03.17	BB	First Issue
Scale at A1		Project Number	
1:125		2219-545	

- Drawing Status
- Existing Topographic Survey
  - As Built Survey
- For Information

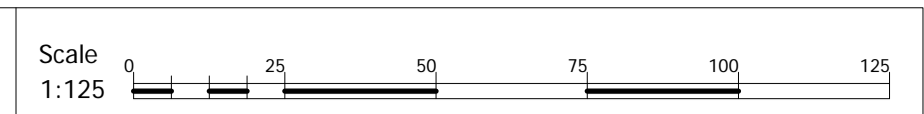
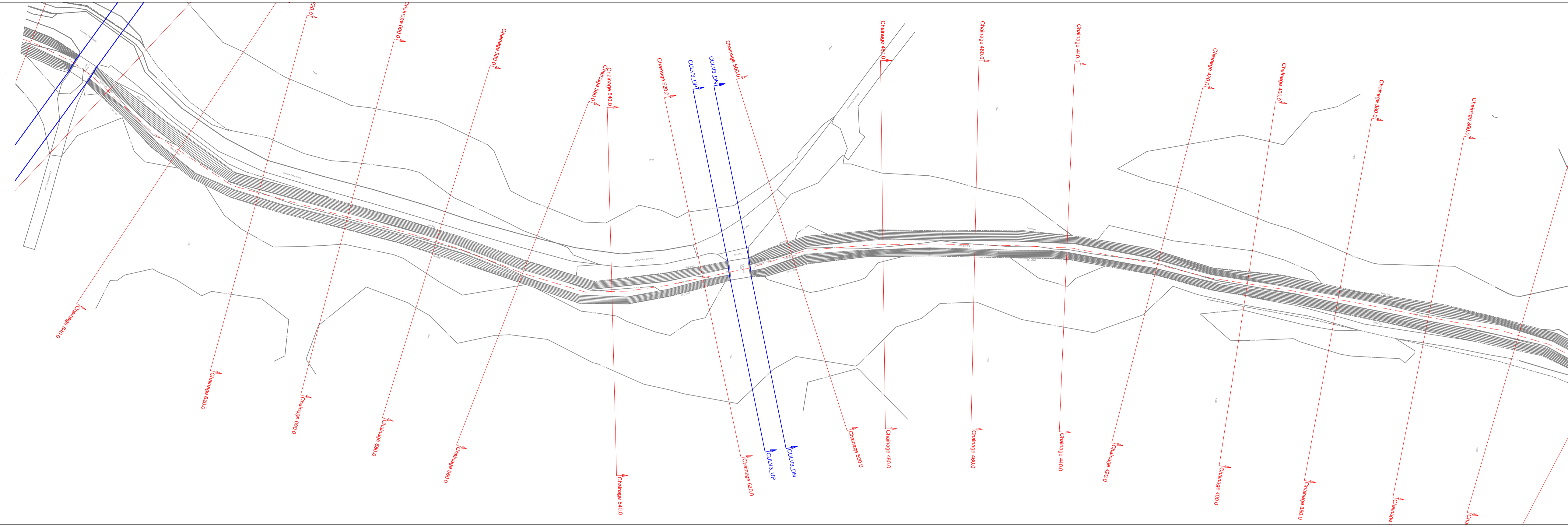


**1 Chestnut Place, Cringleford  
 Norwich, Norfolk NR4 7BD**  
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 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client  
**Create Consulting  
 Edward Funnell**

Project  
**Survey of Watercourse  
 Villa Road, Histon**

Title  
**Cross Sections  
 CH340 - CH400**

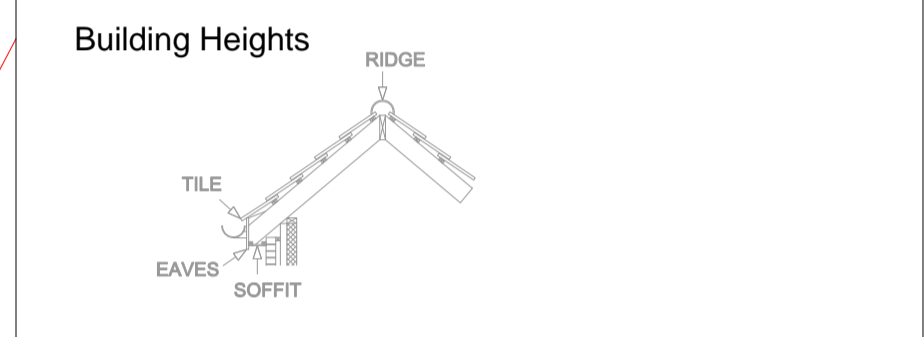


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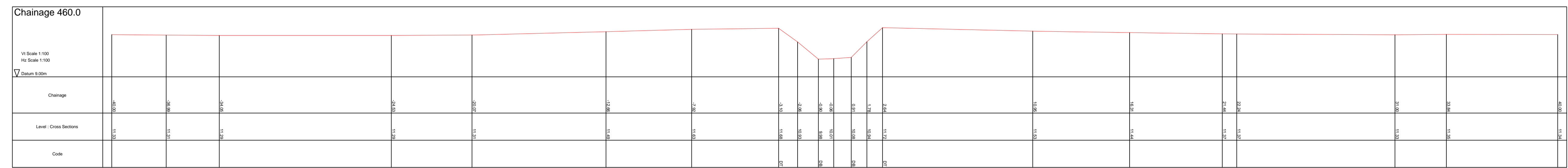
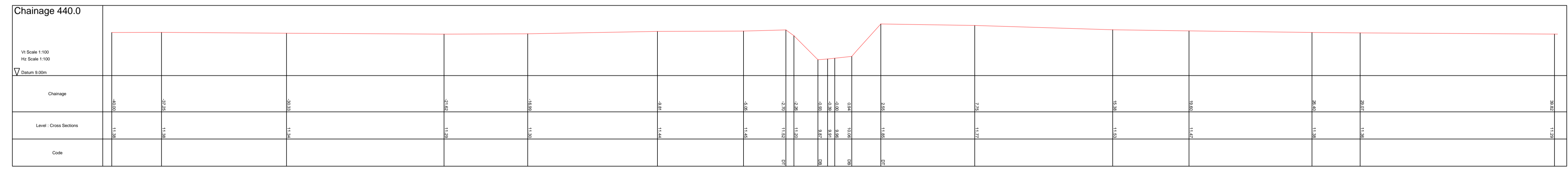
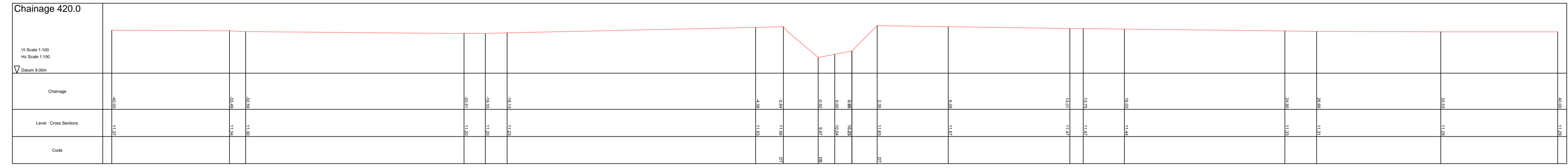
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BB	Bottom Bank	FP	Footpath	STAY	Stay
BB	Bore Hole	G	Gully Grate	SV	Sluice Valve
BL	Li Bolard	GV	Gas Valve	TAC	Tactile Paving
BOL	Bolard	H	Hedge	TB	Top Bank
BIN	Bin	IC	Inspection Cover	TBOX	Telephone Box
BS	Bus Stop	IL	Invert Level	TL	Traffic Light
Bushes	Bush	KO	Kerb Outlet	TOK	Top Of Kerb
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CAB	Cabinet	MH	Manhole	TRK	Track
CHNL	Channel	MP	Marker Post	TS	Traffic Sign MH
CL	Centreline	NB	Name Board	VENT	Vent
CONC	Concrete	PW	Partition Wall	W	Water Cover
COL	Column	PB	Post Box	WL	White Line
DB	Drop Bottom	PM	Ranking Meter	WO	Wash Out
DCHNL	Drainage Channel	PO	Post	YL	Yellow Line
Door	Door	RE	Rodding Eye		
EEB	Electric MH Cover	RIDGE	Ridge Level		
EP	Electric Pole	RP	Reflector Post		
ER	Earth Road	RS	Road Sign		
ET	EP+Transformer	SETTS	Granite Setts		
Feeder	Feeder Pillar	SF	Safety Fence		

Features

FCB 1.0	Close Boarded	CS	Control Station
W 1.2	Chain Link	C	Column
H 1.2	Hoarding	XXX	Floor to Ceiling Height
H 1.2	Horse Fence	XXX FC	Floor to False Ceiling Height
P	Palisade		
FPR	Post & Rail		
FPW	Post & Wire		
RAL	Railings		



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REV	Date	Created By	Comments
-	09.03.17	BB	First Issue

Scale at A1	Project Number
1:125	2219-545



1 Chestnut Place, Cringleford  
 Norwich, Norfolk NR4 7BD  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

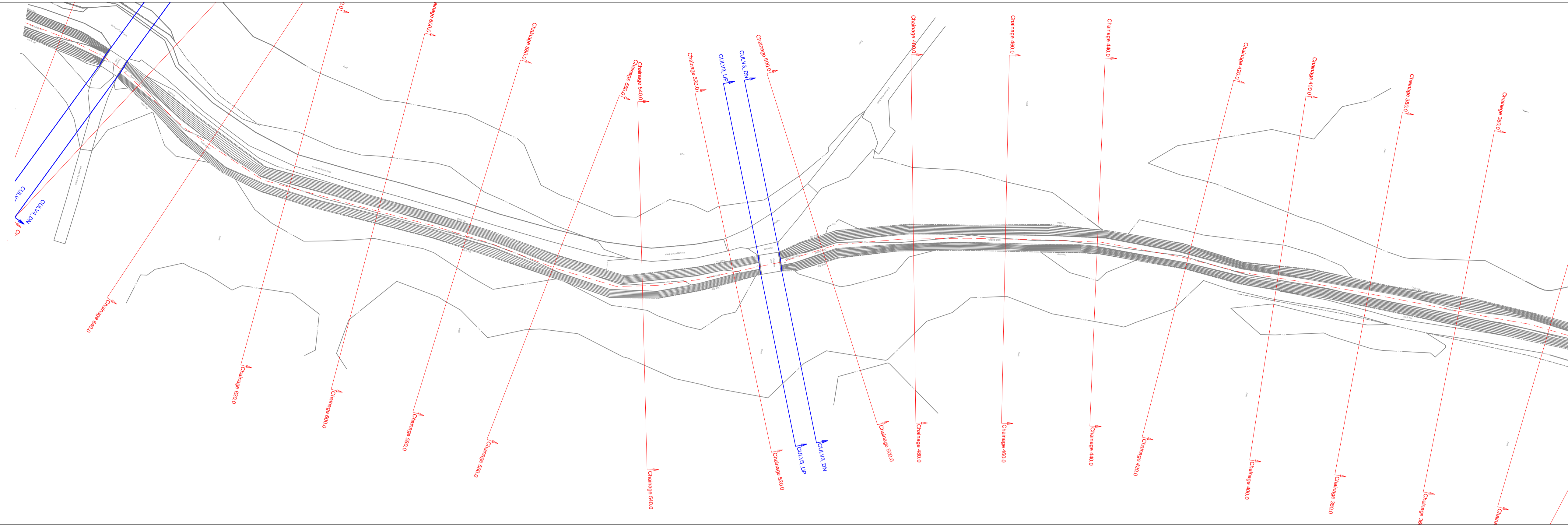
Client  
 Create Consulting  
 Edward Funnell

Project  
 Survey of Watercourse  
 Villa Road, Histon

Title  
 Cross Sections  
 CH420 - CH480

Note: The Property Of This Drawing Is Vestied In BB SURVEYS LTD And Must Not Be Copied Or Reproduced In Any Way Without Their Written Consent  
 File Path: D:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017

<b>BBS- BB- EGL- SU- 13</b>	Revision
Originator	Number
Initials	Type
Detail	



Scale 1:125

Notes:

AV Air Valve	FH Fire Hydrant	SP Sign Post
BB Bottom Bank	FP Footpath	STAY Stay
BH Bore Hole	GV Gully Grate	SV Sluice Valve
BL Lt Bolard	GV Gas Valve	TAC Tactile Paving
BOL Bolard	Hedge	TB Top Bank
BIN Bin	IC Inspection Cover	TBOX Telephone Box
BS Bus Stop	IL Invert Level	TL Traffic Light
Bushes Bush	KO Kerb Outlet	TOK Top Of Kerb
BT BT Box	LP Lamp Post	TP Telegraph Pole
CAB Cabinet	MH Manhole	TRK Track
CHNL Channel	MP Marker Post	TS Traffic Sign MH
CL Centreline	NB Name Board	VENT Vent
CONC Concrete	PW Partition Wall	W Water Cover
COL Column	PB Post Box	WL White Line
DB Drop Bottom	PM Parking Meter	WO Wash Out
DCHNL Drainage Channel	PO Post	YL Yellow Line
Door Door	RE Rodding Eye	
EEB Electric MH Cover	RIDGE Ridge Level	
EP Electric Pole	RP Reflector Post	
ER Earth Road	RS Road Sign	
ET EP+Transformer	SETTS Granite Setts	
Feeder Feeder Pillar	SF Safety Fence	

Features

- Fences: FCB 1.8m, WFL 1.2m
- Walls: Hedge 1.2m
- Hedges: Hedge 1.2m
- Overhead Line: OHL

Services

- Foul Sewers: 0.225m, 0.375m
- Storm Sewers: 0.375m, 0.500m

Building Heights

Scale 0 25 50 75 100 125

Chainage 500.0		Cross Section Data																				
Chainage	Level	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
500.0	11.28	OT	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28

CUL3_DN		Cross Section Data																				
Chainage	Level	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
500.0	11.28	OT	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28

CUL3_UP		Cross Section Data																				
Chainage	Level	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
500.0	11.28	OT	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28

Chainage 520.0		Cross Section Data																				
Chainage	Level	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
520.0	11.28	OT	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28

SURVEY CARRIED OUT USING TRIMBLE S6 TOTAL STATION & TRIMBLE R10 GPS.  
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REV	Date	Created By	Comments
1:125	09.03.17	BB	First Issue
Project Number		2219-545	

<input checked="" type="checkbox"/> Existing Topographic Survey
<input type="checkbox"/> As Built Survey
<input type="checkbox"/> For Information



**1 Chestnut Place, Cringleford  
 Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client: Create Consulting  
 Edward Funnell

Project: Survey of Watercourse  
 Villa Road, Histon

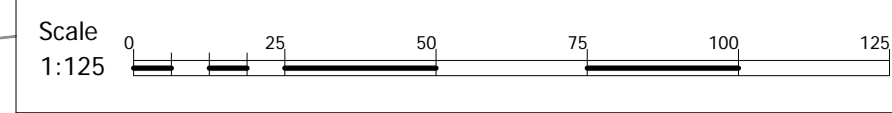
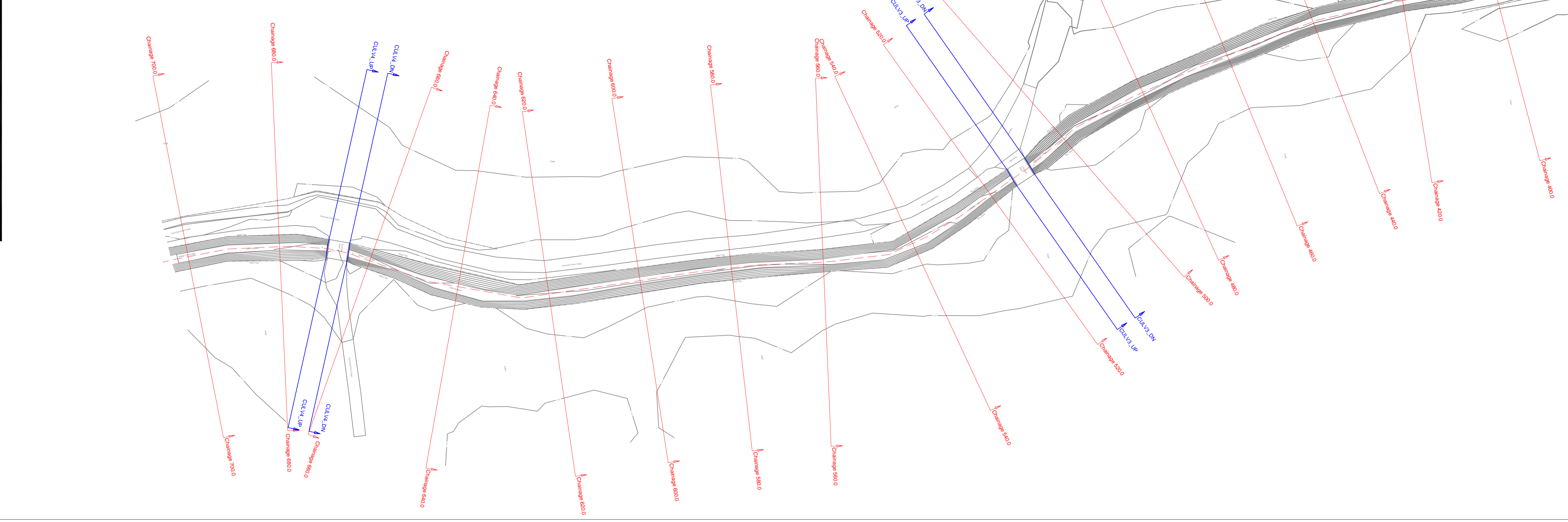
Title: Cross Sections  
 CH500 - CH520

**BBS- BB- EGL- SU- 13**

Originator Initials Detail Type Number Revision

BBS- BB- EGL- SU- 14

Note: The Property Of This Drawing Is Vested In BB SURVEYS LTD And Must Not Be Copied Or Reproduced In Any Way Without Their Written Consent  
 File Path: C:\Workarea\Create Consulting\2219-545 - Create Consulting - Survey of Watercourse, Villa Road, Histon.dwg  
 Plot Date: 09 March 2017 Plot Style: BB Surveys Std.ctb Saved By: Administrator on 09 March 2017



**Notes:**

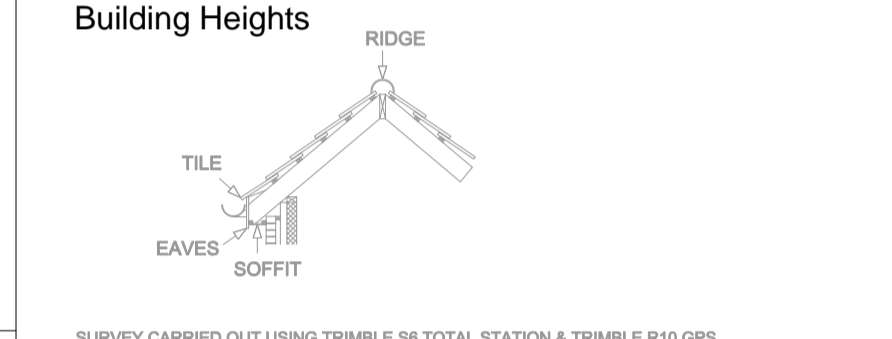
AV	Air Valve	FH	Fire Hydrant	SP	Sign Post
BB	Bottom Bank	FP	Footpath	STAY	Stay
BH	Bore Hole	G	Gully Grate	SV	Sluice Valve
BL	Li Bolard	GV	Gas Valve	TAC	Tactile Paving
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Bushes	Bush	KO	Kerb Outlet	TK	Top Of Kerb
BT	BT Box	LP	Lamp Post	TP	Telegraph Pole
CAB	Cabinet	MH	Manhole	TRK	Track
CHNL	Channel	MP	Marker Post	TS	Traffic Sign MH
CL	Centreline	NB	Name Board	VENT	Vent
CONC	Concrete	PW	Partition Wall	W	Water Cover
COC	Column	PB	Post Box	WL	White Line
DB	Drop Bottom	PM	Parking Meter	WO	Wash Out
DCHNL	Drainage Channel	PO	Post	YL	Yellow Line
Door	Door	RE	Rodding Eye		
EEB	Electric MH Cover	R	Ridge Level		
EP	Electric Pole	RP	Reflector Post		
ER	Earth Road	RS	Road Sign		
ET	EP+Transformer	SET3	Granite Setts		
Feeder	Feeder Pillar	SF	Safety Fence		
FCB	Close Boarded				
FCL	Chain Link				
FHD	Hoarding				
FHR	Horse Fence				
FPL	Palisade				
FPR	Post & Rail				
FPW	Post & Wire				
RAL	Railings				

**Features**

Fences	FCB 1.50				
Walls	WHL 1.20				
Hedges	Hedge 1.20				Average root line shown.
Overhead Line	OHL				Indicative position of cables.

**Services**

Foul Sewers	0.225d	0.300d	0.450d	0.600d	Pipe position and alignment is indicative only.
Storm Sewers	0.375d	0.450d	0.600d		



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REV	Date	Created By	Comments
	09.03.17	BB	First Issue
Scale at A1			Project Number
1:125			2219-545

**Drawing Status**

<input checked="" type="checkbox"/>	Existing Topographic Survey
<input type="checkbox"/>	As Built Survey
<input type="checkbox"/>	For Information



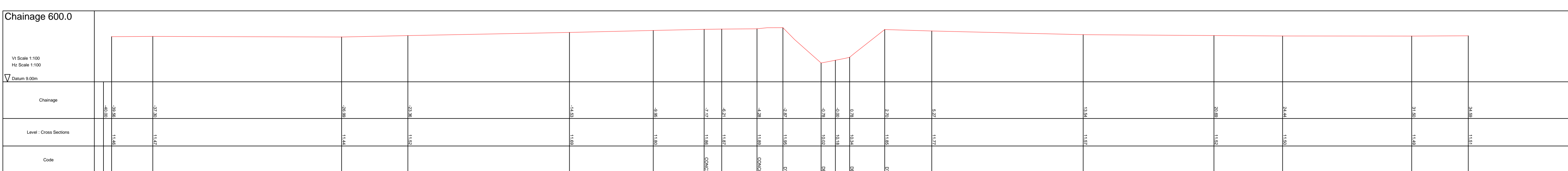
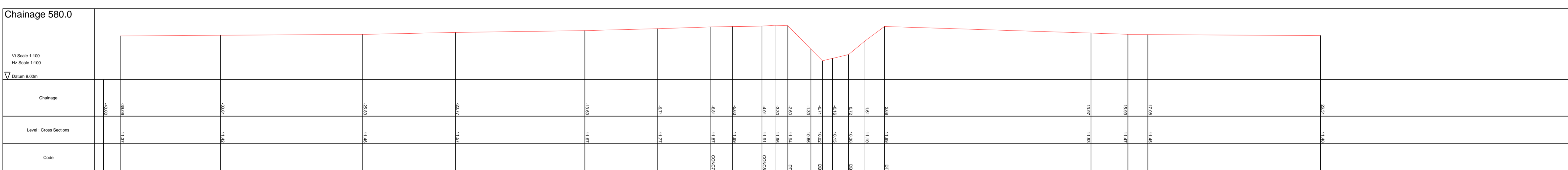
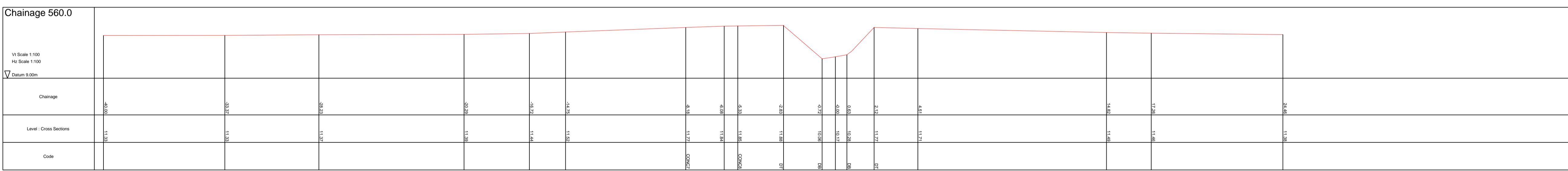
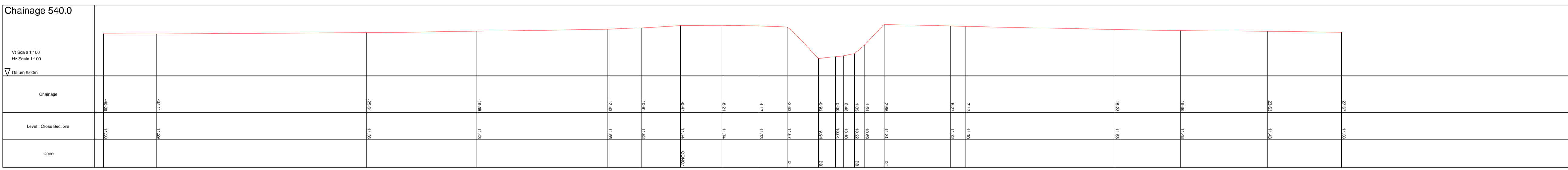
**1 Chestnut Place, Cringleford  
Norwich, Norfolk NR4 7BD**  
 t: 01603 507917  
 m: 07786 388175  
 e: barry@bbsurveys.co.uk

Client **Create Consulting  
Edward Funnell**

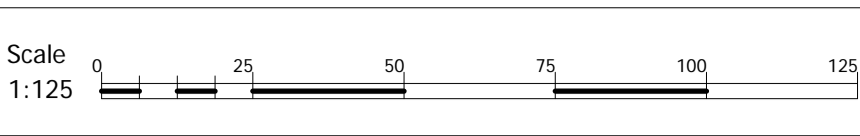
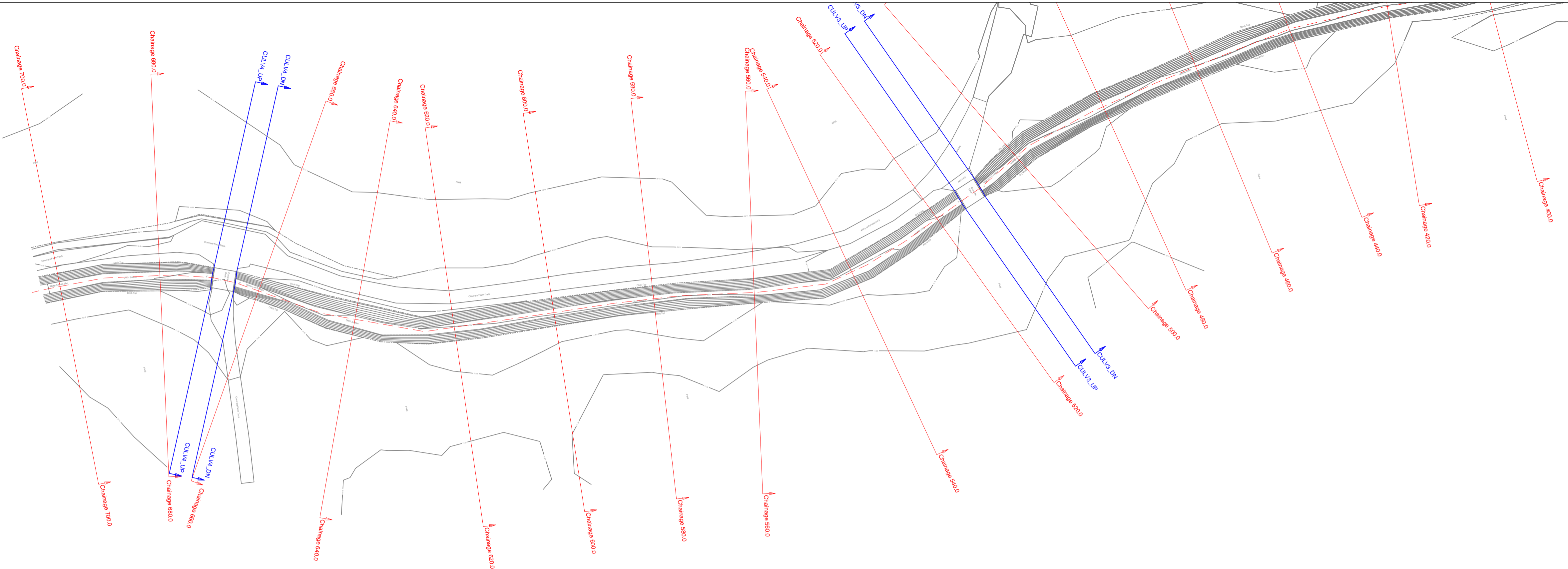
Project **Survey of Watercourse  
Villa Road, Histon**

Title **Cross Sections  
CH540 - CH600**

BBS- BB- EGL- SU- 14	-
Originator	Initials
Detail	Type
Number	Revision







**Notes:**

AV	Air Valve	FH	Fire Hydrant	SP	Sign Post
BB	Bottom Bank	FP	Footpath	STAY	Stay
BH	Bore Hole	G	Gully Grate	SV	Sluice Valve
BL	Li Bollard	GV	Gas Valve	TAC	Tactile Paving
BOL	Bollard	H	Hedge	TB	Top Bank
BIN	Bin	IC	Inspection Cover	TBOX	Telephone Box
BS	Bus Stop	IL	Invert Level	TL	Traffic Light
Bushes	Bush	KO	Kerb Outlet	TOK	Top Of Kerb
BT	BT Box	LP	Lamp Post	TP	Telegraph Pole
CAB	Cabinet	MH	Manhole	TRK	Track
CHNL	Channel	MP	Marker Post	TS	Traffic Sign MH
CL	Centreline	NB	Name Board	VENT	Vent
CONC	Concrete	PW	Partition Wall	W	Water Cover
COL	Column	PB	Post Box	WL	White Line
DB	Drop Bottom	PM	Parking Meter	WO	Wash Out
DCHNL	Drainage Channel	PO	Post	YL	Yellow Line
Door	Door	RE	Rodding Eye		
EAB	Electric Mh Cover	R	Ridge		
EP	Electric Pole	RP	Reflector Post		
ER	Earth Road	RS	Road Sign		
ET	EP+Transformer	SET3	Granite Setts		
Feeder	Feeder Pillar	SF	Safety Fence		
FCB	Close Boarded			CS	Control Station
FCL	Chain Link			COL	Column
FHD	Hoarding			xxx	Floor to Ceiling Height
FHR	Horse Fence			xxx FC	Floor to False Ceiling Height
FPL	Palisade				
FPR	Post & Rail				
FPW	Post & Wire				
RAL	Railings				

**Services:**

0.228	0.376	FW 84	0.376	0.376
Pipe position and alignment is indicative only				

**Features:**

- FCB 1.5
- W 1.2
- Hedge 1.2
- OH

**Services:**

- 0.228
- 0.376
- FW 84
- 0.376
- 0.376

**Building Heights:**

SURVEY CARRIED OUT USING TRIMBLE S8 TOTAL STATION & TRIMBLE R10 GPS. ALL SURVEY DATA TO ORDNANCE SURVEY NATIONAL GRID (OSTN15)

ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.

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Client: **Create Consulting  
Edward Funnell**

Project: **Survey of Watercourse  
Villa Road, Histon**

Title: **Cross Sections  
CULVERT - CH700**

