

### UTILITIES - UNDERGROUND INVESTIGATIONS

#### ABBREVIATIONS & SYMBOLS

DC	Drain Chamber	CP	Cable Chamber	ED	End of Trace
DL	Drain Line	CL	Cable Line	EB	External Boundary
AR	Assured Route	DD	Depth To Down	EL	External Level
BL	Base Level	DT	Depth To Top	EBL	External Boundary
CB	Concrete Box	DB	Depth To Surface	RCB	Rectangular Cable Chamber
CC	Cable Core Chamber	DTB	Depth To Base	SL	Sub Level
CCD	Cable Core Chamber	DTH	Depth To Head	SLL	Sub Level
CL	Cable Line	DTE	Depth To Edge	UL	Under To Line
				ULI	Under To Line
				UTL	Under To Line
				UTR	Under To Line
				TR	Taken From Records
				EBL	External Boundary

**DRAWING NOTES**

All below ground details shown have been identified from above ground without excavation. Survey Solutions use electromagnetic and/or ground penetrating radar (GPR) methods to investigate underground utilities, services and features. Results using these methods are not reliable and we recommend trial excavations are carried out to confirm any identifications, positions and depths.

Any areas on the drawing where services or features have not been shown are not necessarily clear of services or features but are an indication that no items have been identified during our investigations. All reasonable care and normal good practice should still be employed during design and construction processes.

Certain types of services such as plastic or concrete pipes, some conduit and ducting where direct access can not be achieved for tracing may not be shown and alternative costing methods should be used.

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Depths obtained using electromagnetic or GPR are affected by ground conditions and should be treated as indicative only. Electro-magnetic depths to utilities and services are generally taken to the centre of a feature. GPR depths to the top of a feature and drainage depth shown to invert, unless otherwise indicated.

Drainage pipe sizes will be obtained without entering the chamber and therefore should be treated as approximate. Pipe dimensions which have not been obtained usually will be taken from records when available.

All services, drainage and utilities routes are assumed straight between access points, unless otherwise stated. The numbers of cables in runs will not be shown unless specifically indicated. All services are below ground unless indicated.

Services, utilities and features may not have been surveyed if obstructed or not reasonably visible or accessible at the time of survey.

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The contractor must check and verify all site and building dimensions, levels, utilities and drainage details and connections prior to commencing work.

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#### AVAILABILITY OF UTILITY RECORD DRAWINGS

UTILITY	AVAILABILITY	UTILITY	AVAILABILITY	UTILITY	AVAILABILITY
SEWER	SITE	ST	PUBLIC	ON PIPES	SITE
WATER MAIN	SITE	CABLE TV	SITE	OT ERS	NO
GAS MAIN	PUBLIC	ELECTRICITY	SITE		

REV	DESCRIPTION	DRAWN	APPR	DATE

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LAND SURVEYING BUILDING SURVEYING UNDERGROUND SURVEYING

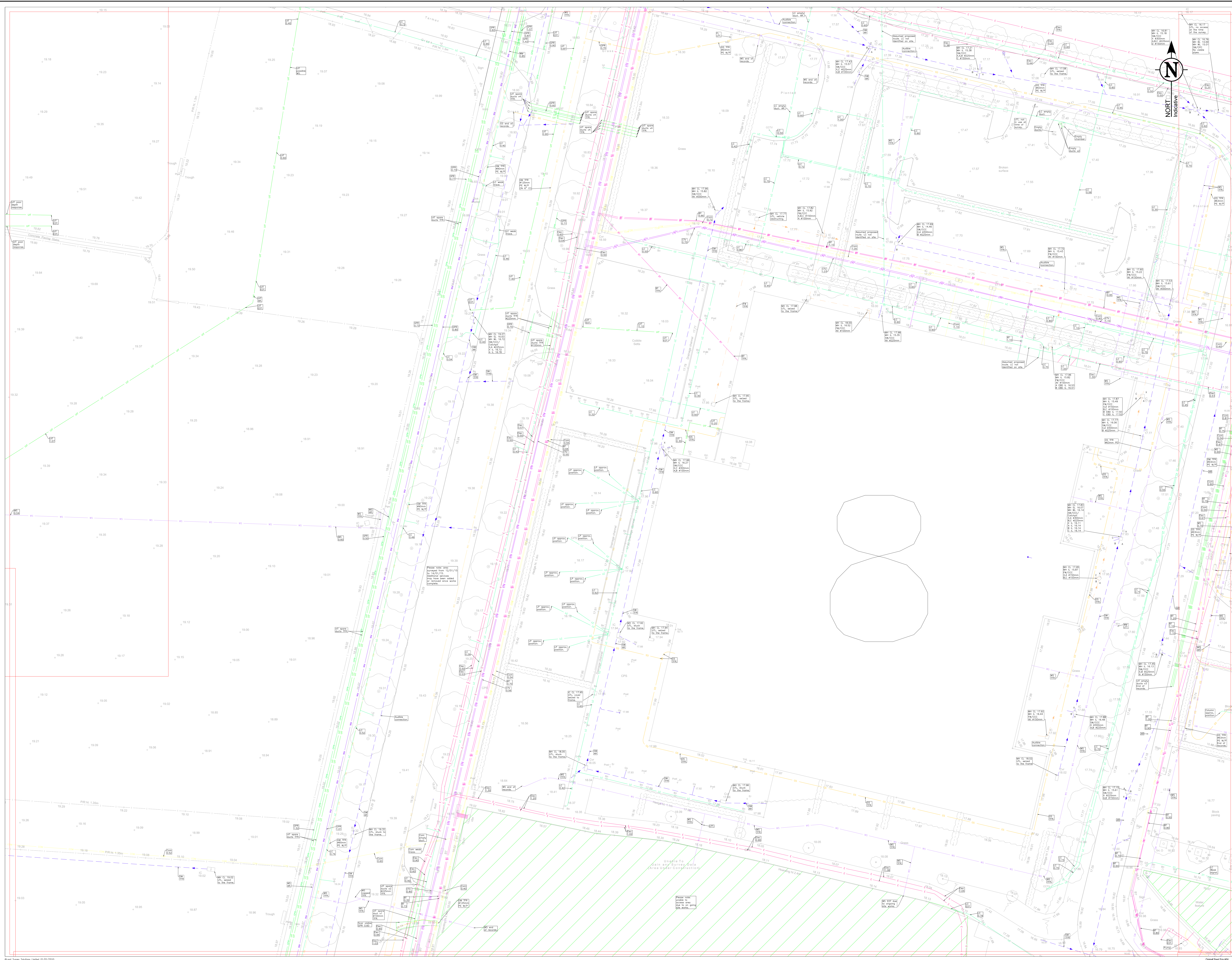
PROJECT TITLE: WEST CAMBRIDGE DENSIFICATION SC. EME MADINGLEY ROAD, CB3 0EL  
DRAWING DETAIL: UTILITIES AND DRAINAGE INVESTIGATION  
S. EET 6 OF 2

CLIENT: PETER BRETT ASSOCIATES  
SCALE: 1:200

SURVEYOR: DWB/PM SURVEY DATE: C. IC. ED BY: RAG APPROVED BY: RAG DRG STATUS: FINAL

DRAWING NUMBER: 15415UG-06 REVISION: ISSUE DATE: APR 2015





### ABBREVIATIONS & SYMBOLS

Abbreviation	Description
CD	Cable Chamber
CL	Cable Line
CC	Concrete Chamber
CCS	Cable Chamber
CCM	Cable Chamber
CCD	Cable Chamber
CCV	Cable Chamber
CCW	Cable Chamber
CCX	Cable Chamber
CCY	Cable Chamber
CCZ	Cable Chamber
CC1	Cable Chamber
CC2	Cable Chamber
CC3	Cable Chamber
CC4	Cable Chamber
CC5	Cable Chamber
CC6	Cable Chamber
CC7	Cable Chamber
CC8	Cable Chamber
CC9	Cable Chamber
CC0	Cable Chamber
CC10	Cable Chamber

UTILITY COMMENT NO.

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SEWER	SITE	ST	PUBLIC	ON PIPES	SITE
WATER MAIN	SITE	CABLE TV	SITE	OT	ERS
GAS MAIN	PUBLIC	ELECTRICITY	SITE		



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PROJECT TITLE  
**WEST CAMBRIDGE DENIFICATION SC. EME  
MADINGLEY ROAD, CB3 0EL**

DRAWING DETAIL  
**UTILITIES AND DRAINAGE INVESTIGATION**  
S. EET. OF 2.

CLIENT  
PIETER BRETT ASSOCIATES

SURVEYOR  
DWRP1

SURVEY DATE  
03/11/2014

C. I. C. E. D.  
TM

APPROVED BY  
RAG

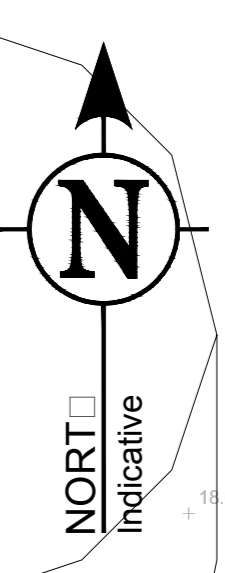
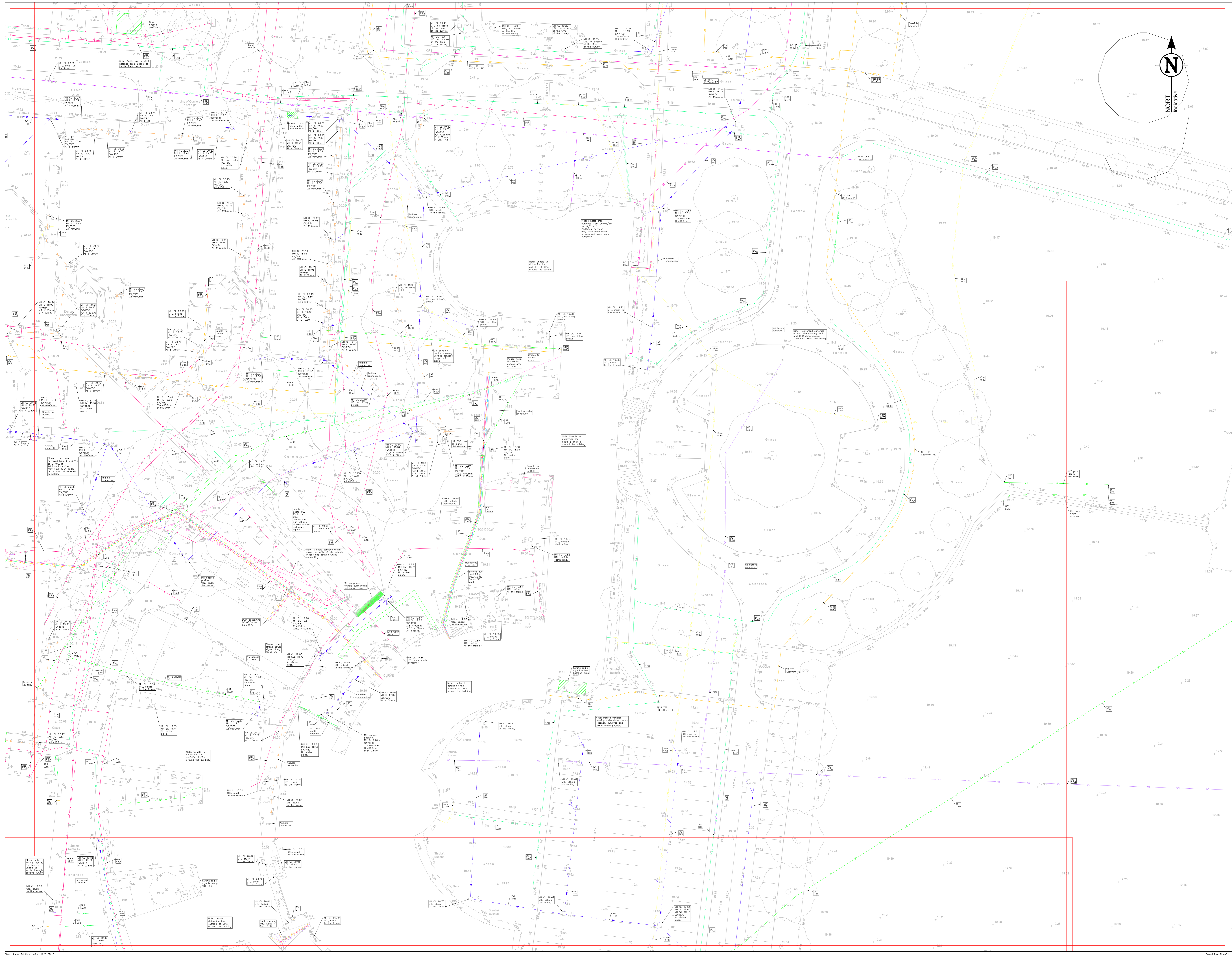
ENIG STATUS  
FINAL

DRAWING NUMBER  
1541SUG-0

REVISION

SCALE  
1:200

ISSUE DATE  
APR 2015



**ABBREVIATIONS & SYMBOLS**

10-DC	Duct Covers	CP	Cable Tray	ED	End of Trace
AS	Asphalt	DO	Down to level	E	Electrical
BL	Base Level	DS	Down to surface	RS	Reinforced Concrete
CB	Concrete Base	DT	Down to top	RCS	Rear Garden Cover
CC	Concrete Cover	DTL	Down to level	SL	Surface Level
CC	Concrete Cover	DTW	Down to water	UL	Under Level
GL	Ground Level	EL	Electricity	UTL	Under to level
GA	Grass	ET	Electricity	UTL	Under to level
GC	Gravel	ET	Electricity	UTL	Under to level
GC	Gravel	ET	Electricity	UTL	Under to level
GC	Gravel	ET	Electricity	UTL	Under to level

**DRAWING NOTES**

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**AVAILABILITY OF UTILITY RECORD DRAWINGS**

UTILITY	AVAILABILITY	UTILITY	AVAILABILITY	UTILITY	AVAILABILITY
SEWER	SITE	WATER	SITE	WATER MAIN	SITE
WATER	PUBLIC	CABLE TV	SITE	WATER MAIN	PUBLIC
ELECTRICITY	SITE	ELECTRICITY	SITE	ELECTRICITY	SITE

REV	DESCRIPTION	DRAWN	APPR	DATE

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PROJECT FILE: WEST CAMBRIDGE DENSIFICATION SC. EME MADINGLEY ROAD, CB3 0EL

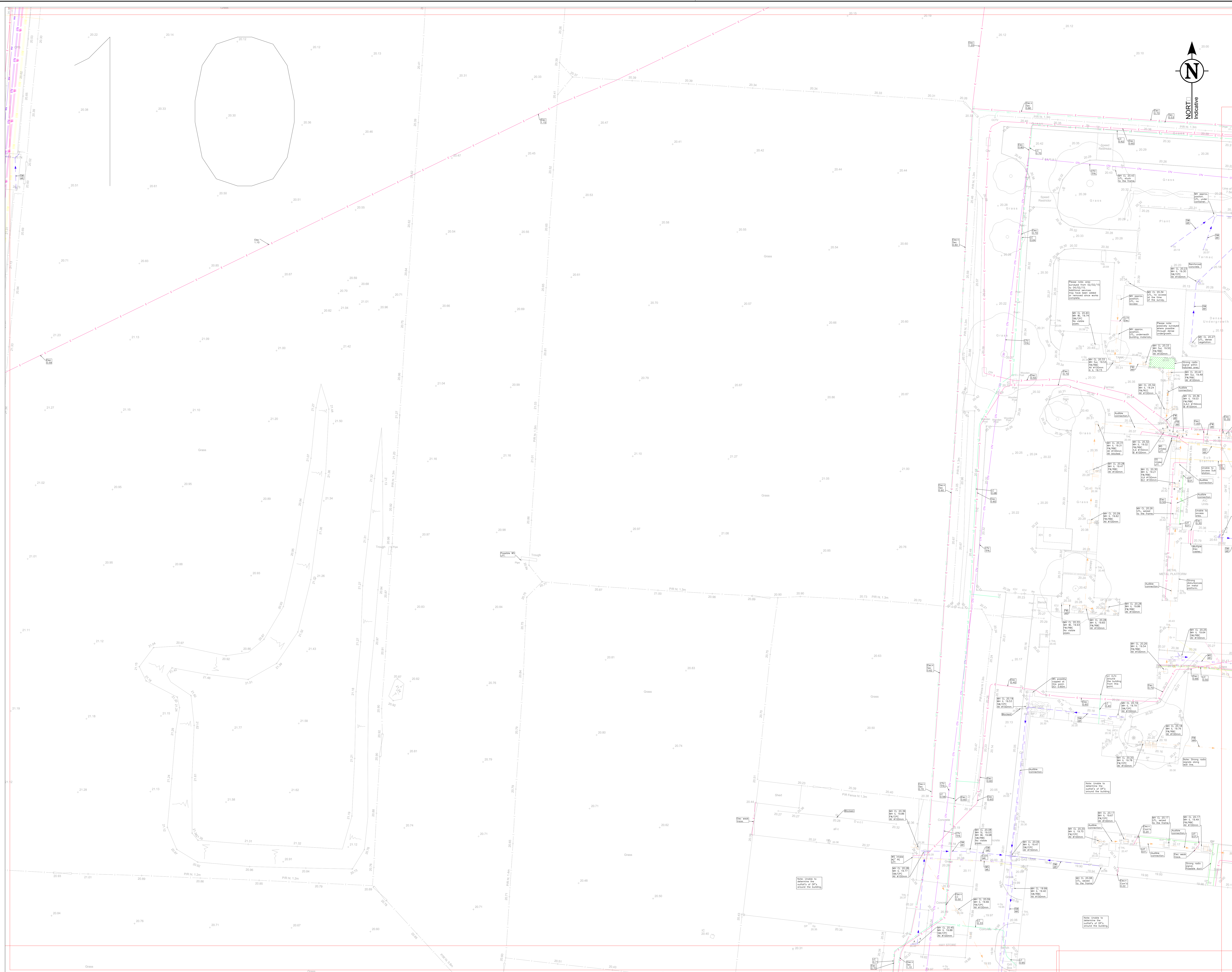
DRAWING DETAIL: UTILITIES AND DRAINAGE INVESTIGATION

SHEET OF 2

CLIENT: PETER BRETT ASSOCIATES

SURVEYOR: DW/PR1 SURVEY DATE: C/C BY: TM APPROVED BY: RAG

DRAWING NUMBER: 1541-SUG-0 REVISION: ISSUE DATE: APR 2015



**UTILITIES - UNDERGROUND INVESTIGATIONS**

**ABBREVIATIONS & SYMBOLS**

0-10	Drain Chamber	GP	Cable Chamber	EQ	End of Trace
0-20	Drain	GL	Cable Line	ES	Electric Service
AR	Asphalt Road	DD	Drain To Down	ET	End of Trace
BL	Base Level	DS	Drain To Street	ES	Electric Service
CB	Concrete Banding	DT	Drain To Terrace	GC	Gas Control Chamber
CCC	Concrete Core Chamber	DW	Drain To Waste	GL	Ground Level
CD	Concrete Core Chamber	DW	Drain To Waste	GL	Ground Level
GL	Ground Level	DW	Drain To Waste	GL	Ground Level
GL	Ground Level	DW	Drain To Waste	GL	Ground Level

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Drainage pipes at 1m will be obtained without entering the chamber and therefore should be treated as approximate. Pipe dimensions which have not been obtained usually will be taken from records when available.

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WATER MAIN	SITE	CABLE TV	SITE	OT	ERS
GAS MAIN	PUBLIC	ELECTRICITY	SITE		

REV	DESCRIPTION	DRAWN	APPR	DATE

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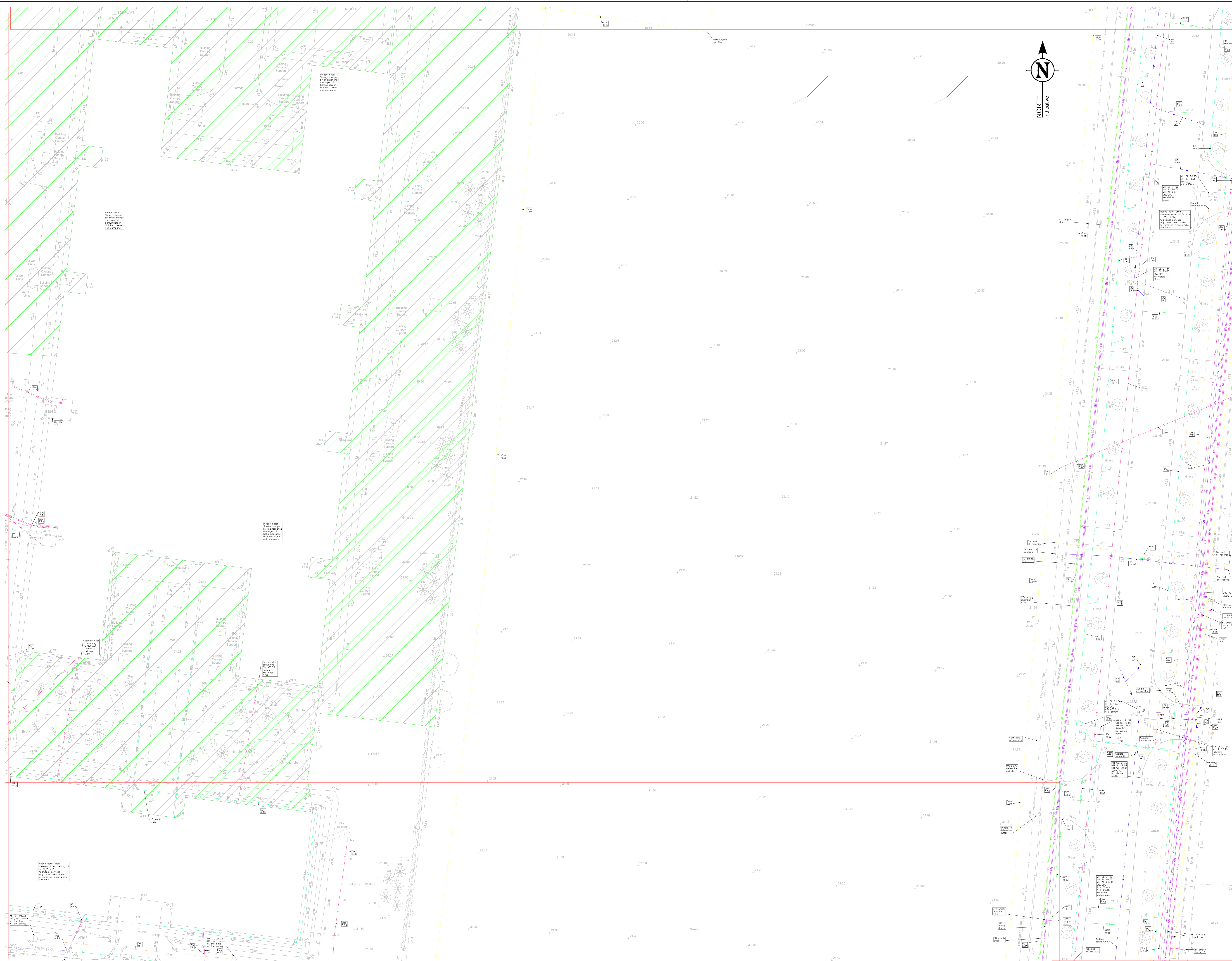
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PROJECT TITLE:  
WEST CAMBRIDGE DENIFICATION SC, EME  
MADINGLEY ROAD, CB3 0EL

DRAWING DETAIL:  
UTILITIES AND DRAINAGE INVESTIGATION  
SHEET 10 OF 2

CLIENT:	PETER BRETT ASSOCIATES	SCALE:	1:200
SURVEYOR:	DWR/PI	SURVEY DATE:	C EC ED BY RAG
DRAWING NUMBER:	03110214 TM	APPROVED BY:	ENG STATUS
		REVISION:	FINAL
		ISSUE DATE:	APR 2015



**ABBREVIATIONS & SYMBOLS**

DC	Down Chamber	CP	Cable Chamber	ED	End Of Trace
DR	Down Rise	CR	Cable Rise	RD	Rise Down
AR	Assumed Rise	DC	Down To Down	LR	Level Rise
BL	Base Level	DR	Down To Rise	RR	Rise To Rise
CB	Concrete Base	DR	Down To Rise	RC	Rise To Concrete
CC	Concrete Chamber	DR	Down To Rise	RL	Rise To Level
CC	Concrete Chamber	DR	Down To Rise	SL	Surface Level
CC	Concrete Chamber	DR	Down To Rise	UL	Under To Level
CC	Concrete Chamber	DR	Down To Rise	UR	Under To Rise
CC	Concrete Chamber	DR	Down To Rise	TR	Trace From Records
CC	Concrete Chamber	DR	Down To Rise	ER	External Rise

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UTILITY	AVAILABILITY	UTILITY	AVAILABILITY	UTILITY	AVAILABILITY
SEWER	SITE	ST	PUBLIC	ON PAPER	SITE
WATER MAIN	SITE	CABLE TV	SITE	OT ERS	NO
GAS MAIN	PUBLIC	ELECTRICITY	SITE		

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PROJECT TITLE: WEST CAMBRIDGE DENSIFICATION SC. EME MADINGLEY ROAD, CB3 0EL  
 DRAWING DETAIL: UTILITIES AND DRAINAGE INVESTIGATION  
 S. EET 11 OF 2

CLIENT: PETER BRETT ASSOCIATES  
 SURVEYOR: DW/PH SURVEY DATE: C 15/03/11 APPROVED BY: RAG  
 DRAWING NUMBER: 15415UG-11 REVISION: ISSUE DATE: APR 2015

