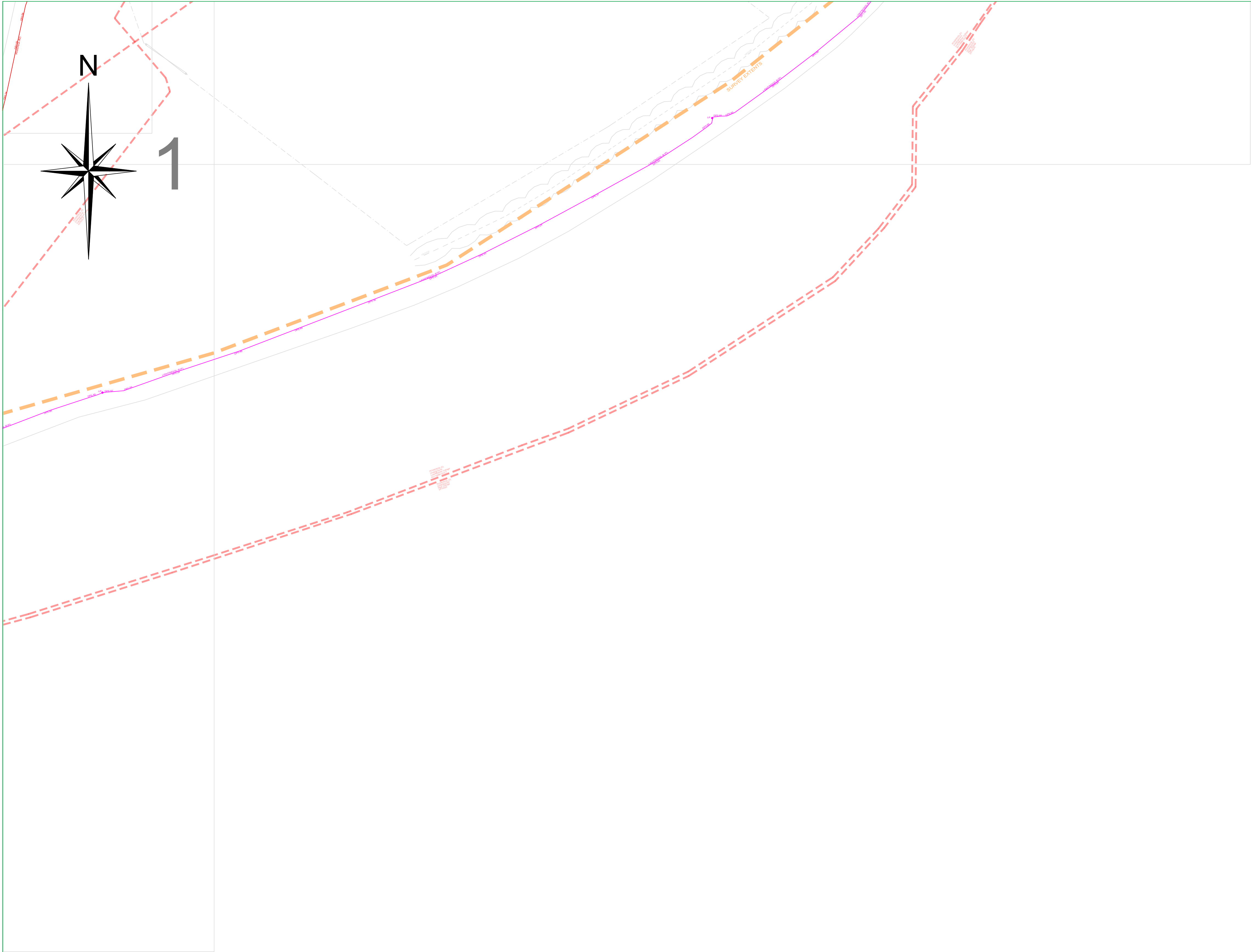




PAS 128: 2014 (Quality of Survey Level Outputs):

DESKTOP UTILITY RECORDS SEARCH	
QL-D	Drafted from utility records
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QL-C	Location Demonstrated by visual reference to street furniture or evidence of previous streetworks, ie - reinstatement scars
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QL-B4	A segment of utility suspected to exist but has not been detected by a geophysical technique
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VERIFICATION	
QL-A	Horizontal and vertical location of the top and/or bottom of the utility

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 - Loss of signal: It is not always possible to trace the entire length of each underground service.
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TELEPHONE POLE	ER +
EARTHING ROD	LP +
LAMP POST	MARK +
MARKER POST	SIGN +
SIGN POST	TL +
TRAFFIC LIGHT	FB +
TELEPHONE BOX	TV +
POST	POST -
POST BOX	POST BOX
ROADSIGN	RS - RS
BORE HOLE	BH +
TRIAL PIT	TPIT +

SERVICES :

AIR VALVE	AV
ARMSTRONG JUNCTION	AJ
CABLE TV IC	CATV
COVER LEVEL	CL
EIRCOM COVER	EIRCOM
EIRCOM JUNCTION BOX	EIRCOM BOX
ELECTRICAL CABLE PIT	ECP
ESAT COVER	ESAT
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GULLY	G
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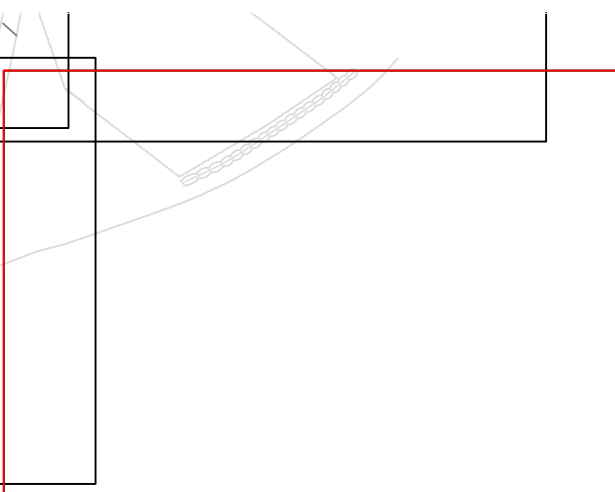
LEVELS :

BED LEVEL	+BED101.50
FLOOR LEVEL	+FL101.50
INVERT LEVEL	+IL101.50
ROAD LEVEL	+101.50
SOFFIT LEVEL	+SL101.50
SPOT LEVEL	+101.50
TOP OF WALL LEVEL	+TOW101.50
WATER LEVEL	+WL101.50
SURVEY CONTROL STATION	

UNDERGROUND LEGEND :

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GAS MAIN	GAS
STORM DRAIN	STORM
FOUL SEWER	FOUL
COMBINED SEWER	COMB
ELECTRIC CABLE	POWER
ELECTRIC LIGHTING	LIGHTING
EIRCOM	EIRCOM
FIBRE OPTIC CABLE	FIBRE
BROADBAND	BROADBAND
CABLE TV	TV
TRAFFIC AND SIGNAL CABLE	TRAFFIC
CCTV	CCTV
IRRIGATION PIPE	IRRIGATION
EMPTY DUCT	EMPTY
GPR ANOMALY	ANOMALY
UNKNOWN CABLE	CABLE
O'HEAD ELECTRICITY	OK
O'HEAD TELECOM	OT

SHEET LAYOUT :



PLAN PRODUCED BY:



CLIENT:

Sligo County Council

PROJECT:

Sligo Regional Sports Centre

GRID SYSTEM: Irish Transverse Mercator
DATUM: Malin Head (OSGM15)
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	
001	dd/mm/yy	Original Drawing

SCALE : 1/200 A1

DATE : 20/04/2026

DRG No: 7862

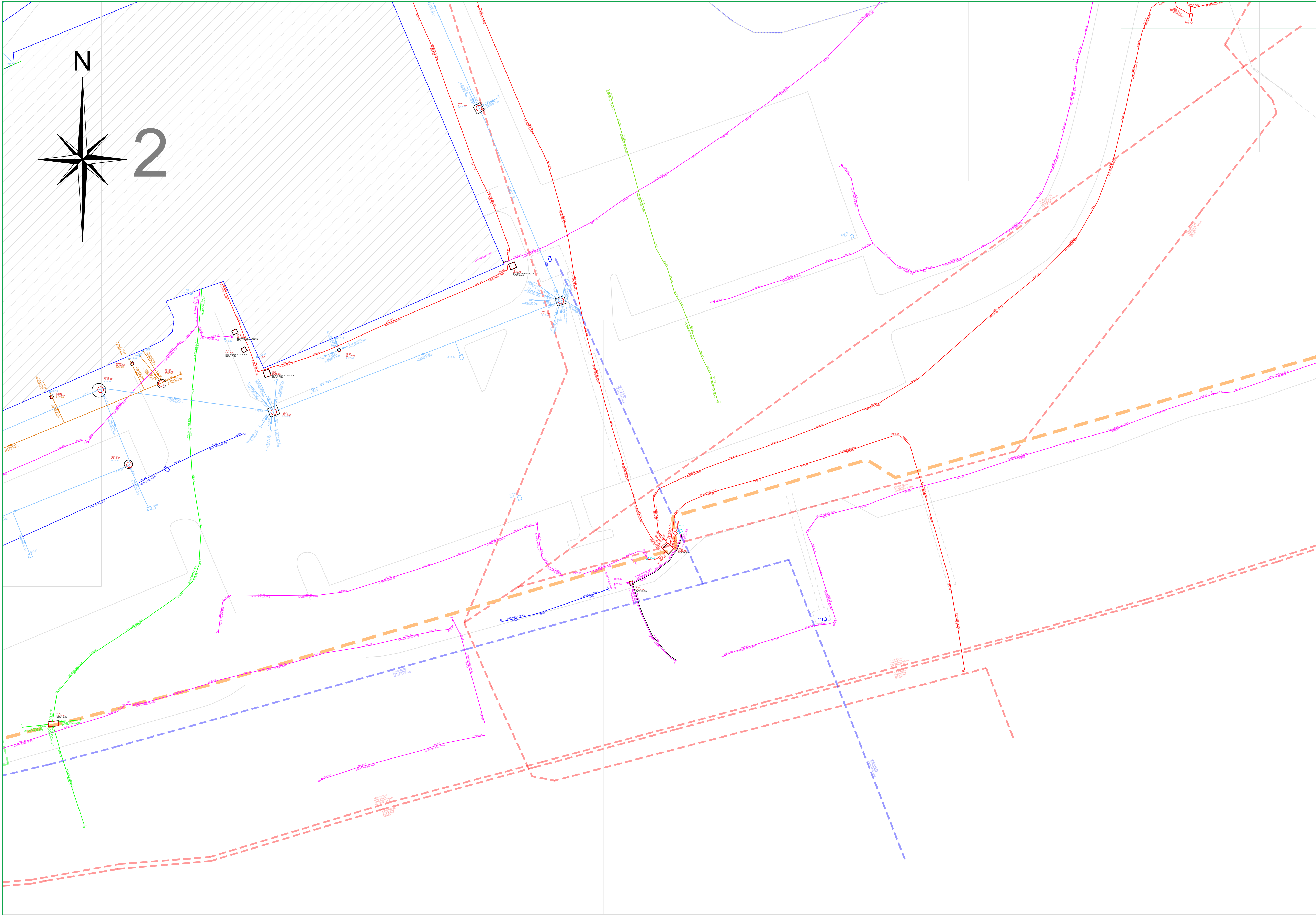
SHEET: 1 of 9

DESCRIPTION : 2D Utilities

SURVEYED BY : YM

PROCESSED BY : WM

CHECKED BY : A.B.



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APEX
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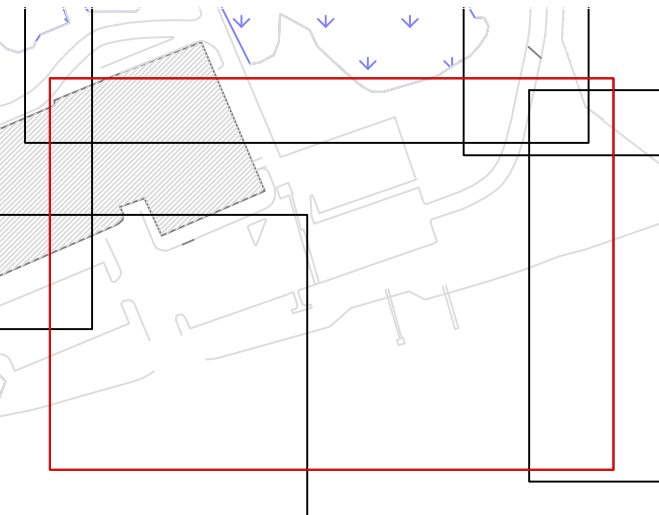
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SHEET LAYOUT :



PLAN PRODUCED BY:

APEX
SURVEYS

CLIENT:

Sligo County Council

PROJECT:

Sligo Regional Sports Centre

GRID SYSTEM: Irish Transverse Mercator
DATUM: Malin Head (OSGM15)
NOTES: Drawing Contains Scale Factor

REVISIONS:	No.	Date	20/04/26
	001	dd/mm/yy	Original Drawing

SCALE : 1/200 A1

DATE : 20/04/2026

DESCRIPTION : 2D Utilities

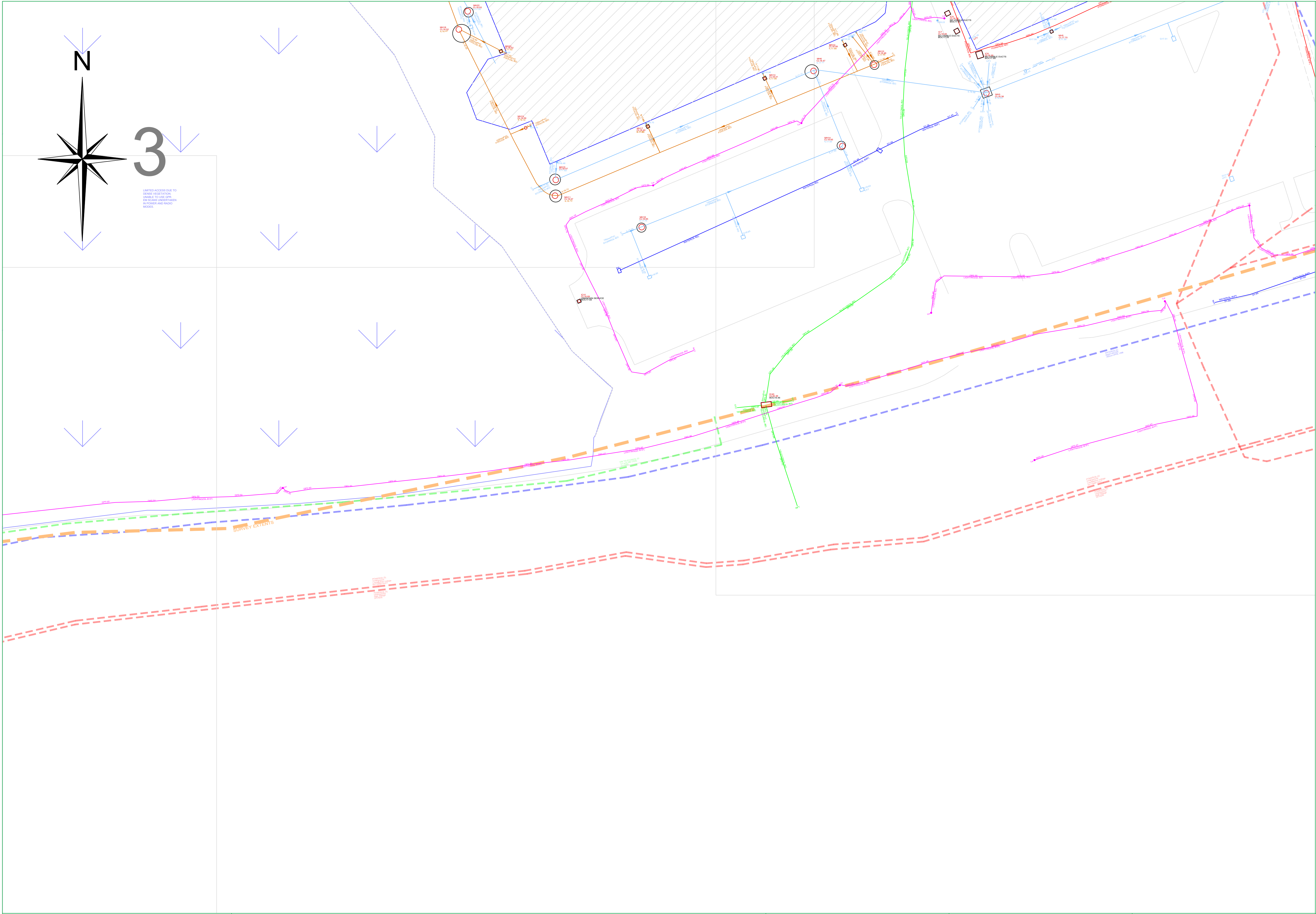
SURVEYED BY : YM

PROCESSED BY : WM

CHECKED BY : A.B.

DRG No: 7862

SHEET: 2 of 9



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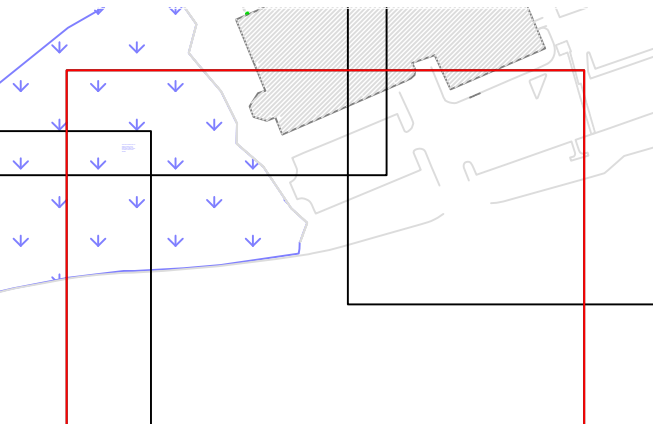
UNDERGROUND LEGEND :

STOPCOCK	ST +
SERVICE BOX (UNKNOWN)	BOX
TRAFFIC COVER	TUC
VENT	VENT +
WATER METER	WM +
LEVELS :	
BED LEVEL	+BED101.50
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ROAD LEVEL	+101.50
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SPOT LEVEL	+101.50
TOP OF WALL LEVEL	+TOW101.50
WATER LEVEL	+WL101.50
SURVEY CONTROL STATION	SCS
START OF RUN	SOR
UNABLE TO OPEN	UTO
UNABLE TO TRACE	UTT

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The following is a non-exhaustive list of the limitations of utility surveys:	
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Accuracy estimates:	
Locational accuracy is determined by referring to the manufacturers guidelines for the detector used. In ideal conditions the spatial accuracies for the underground utilities may be +/- 5% for Radiodetection and +/- 10% of depth for the GPR to 2.5m depth. However variations within the subsurface, depth below the ground, close proximity of other services and/or different geophysical, atmospheric or ground conditions, bends, lateral service connections and any of the other limitations listed in this disclaimer may affect this estimated accuracy. Plan accuracies of +/- 150mm may be achieved but this figure will depend on the depth of service below ground level. However variations within the subsurface subsurface, depth below the ground, close proximity of other services and local magnetic, atmospheric or ground conditions, bends, lateral service connections and any of the other limitations listed in this disclaimer may affect this estimated accuracy. DP represents distance from the surface level to the top of the service/ target Where technically possible, depth indications will be given. These along with plan positions should be used for guidance only and wherever critical accuracy is required these should be confirmed by the client by undertaking trial excavations or similar.	
Record Drawing Information	
Services which have been traceable are shown from records where possible or 'Invalued'. These services are annotated as 'Taken From Records' or 'From Records'. Existing record information showing underground services is often incomplete and with known accuracies therefore it should be regarded as indicative only. Where Apex Surveys issue a utility drawing, this should be read in conjunction with all available public or private utility records. Apex Surveys endeavor to add relevant Public Utility record information onto the final drawing. However, we would recommend that direct contact is made with the asset owner or statutory undertaker. We shall not be held responsible for the accuracy, or otherwise, of the location of a service, as issued by the utility provider and therefore shown as 'Taken From Records' on the drawing.	
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GATE GP+
ELECTRICITY POLE EP+
TELEPHONE POLE TP+
EARTHING ROD ER+
LAMP POST LP+
MARKER POST MKR+
SIGN SIGN+
TRAFFIC LIGHT TL+
TELEPHONE BOX TB+
POST POST+
POST BOX POST BOX+
ROADSIGN RS+RS+
BORE HOLE BH+
TRIAL PIT TRIT+P

SERVICES :

AIR VALVE AV+
ARMSTRONG JUNCTION AJ+
CABLE TV IC+
COVER LEVEL CL+
EIRCOM COVER EIRCOM+
EIRCOM JUNCTION BOX EIRCOM BOX+
ELECTRICAL CABLE PIT EOP+
ESAT COVER ESAT+
ESB COVER ESB+
ESS JUNCTION BOX ESS BOX+
FIRE HYDRANT FH+
GAS VALVE GV+
GULLY G+
INSPECTION COVER IC+
MANHOLE MH+
SEPTIC TANK SEPTIC+
SLUICE VALVE SV+
DOWNPIPE DP+
CAST-IRON CCI+
CONCRETE CONC+
DIAMETER DIA

SERVICES :

STOPCOCK ST+
SERVICE BOX (UNKNOWN) BOX+
TRAFFIC COVER TLOC+
VENT VENT+
WATER METER WM+
LEVELS :

BED LEVEL +BED101.50
FLOOR LEVEL +FL101.50
FIRE TRAVEL +101.50
ROOF LEVEL +SL101.50
GULLY +101.50
TOP OF WALL LEVEL +TOW101.50
WATER LEVEL +WL101.50
SURVEY CONTROL STATION SOR
START OF RUN E/W
EARTHENWARE UTO
NO FURTHER TRACE N/O
OFFSITE N/O

UNDERGROUND LEGEND :

WATER WATER
GAS GAS
STORM STORM
FLOOR FLOOR
POSS. POSS.
COMB. COMB.
POWER POWER
LIGHTING LIGHTING
EIRCOM EIRCOM
F.OPTIC F.OPTIC
BROADBAND BROADBAND
CABLE TV CABLE TV
TRAFFIC TRAFFIC
CCTV CCTV
IRRIGATION IRRIGATION
EMPTY DUCT EMPTY
GPR ANOMALY ANOMALY
UNKNOWN CABLE CABLE
O/H EAD ELECTRICITY O/H EAD
O/H EAD TELECOM O/H EAD

SHEET LAYOUT :



PLAN PRODUCED BY:

APEX SURVEYS

CLIENT:

Sligo County Council

Sligo Regional Sports Centre

PROJECT:

DRG No: 7862

SHEET: 4 of 9

GRID SYSTEM: Irish Transverse Mercator
DATUM: Malin Head (OSGM15)
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	Description
001	dd/mm/yy	Original Drawing

DESCRIPTION : 2D Utilities

SURVEYED BY : YM

PROCESSED BY : WM

CHECKED BY : A.B.



PAS 128: 2014 (Quality of Survey Level Outputs):

DESKTOP UTILITY RECORDS SEARCH	
QL-D	Drafted from utility records
SITE RECONNAISSANCE	
QL-C	Location Demonstrated by visual reference to street furniture or evidence of previous streetworks, ie - reinstatement scars
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QL-B4	A segment of utility suspected to exist but has not been detected by a geophysical technique
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VERIFICATION	
QL-A	Horizontal and vertical location of the top and/or bottom of the utility

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MARKER POST
SIGN POST
TRAFFIC LIGHT
TELEPHONE BOX
POST
POST BOX
ROADSIGN
BORE HOLE
TRIAL PIT

BD +
BS +
CB
EP +
TP +
ER +
LP +
UNKN +
SIGN
TL +
TB
POST +
POST BOX
RS - RS
BIH +
TPIT +

BOTTOM OF CHAMBER
CAST-IRON
CONCRETE
DIAMETER

BOC
CI
CONC
DIA

SERVICES :

AIR VALVE
ARMSTRONG JUNCTION
CABLE TV IC
COVER LEVEL
EIRCOM COVER
EIRCOM JUNCTION BOX
ELECTRICAL CABLE PIT
ESAT COVER
ESB COVER
ESB JUNCTION BOX
FIRE HYDRANT
GAS VALVE
GULLY
INSPECTION COVER
MANHOLE
SEPTIC TANK
SLUICE VALVE

AV
AJ
CATV
CL
EIRCOM
EIRCOM
ECP
ESAT
ESB
ESB BOX
FH
GV
IC
MH
SEPTIC
SV

DOWNSPIPE
EARTHENWARE
NO FURTHER TRACE
OFFSITE

DP
E/W
NFT
O/S

STOPCOCK
SERVICE BOX (UNKNOWN)
TRAFFIC COVER
VENT
WATER METER

LEVELS :
BED LEVEL
FLOOR LEVEL
INVERT LEVEL
ROAD LEVEL
SOFFIT LEVEL
SPOT LEVEL
TOP OF WALL LEVEL
WATER LEVEL
SURVEY CONTROL STATION

+BED101.50
+FL101.50
+IL101.50
+101.50
+SL101.50
+101.50
+TOW101.50
+VL101.50

START OF RUN
UNABLE TO OPEN
UNABLE TO TRACE

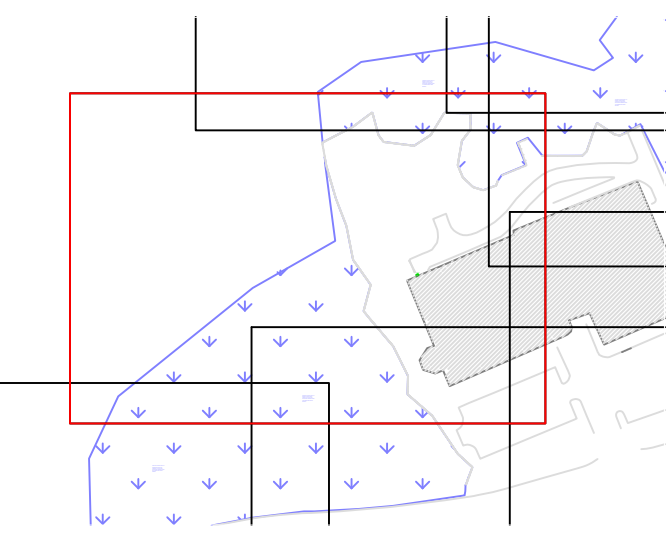
SOR
UTO
UTT

UNDERGROUND LEGEND :

WATER MAIN
GAS MAIN
STORM DRAIN
FOUL SEWER
COMBINED SEWER
ELECTRIC CABLE
ELECTRIC LIGHTING
EIRCOM
FIBRE OPTIC CABLE
BROADBAND
CABLE TV
TRAFFIC AND SIGNAL CABLE
CCTV
IRRIGATION PIPE
EMPTY DUCT
GPR ANOMALY
UNKNOWN CABLE
OHEAD ELECTRICITY
OHEAD TELECOM

WATER
GAS
STORM
FOUL
COMB
POWER
LIGHTING
EIRCOM
FIBRE
BROADBAND
TV
TRAFFIC
CCTV
IRRIGATION
EMPTY
ANOMALY
CABLE
OK
OT

SHEET LAYOUT :



PLAN PRODUCED BY:

APEX
SURVEYS

CLIENT:

Sligo County Council

PROJECT:

Sligo Regional Sports Centre

GRID SYSTEM: Irish Transverse Mercator
DATUM: Malin Head (OSGM15)
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	
001	dd/mm/yy	Original Drawing

SCALE : 1/200 A1

DATE : 20/04/2026

DESCRIPTION : 2D Utilities

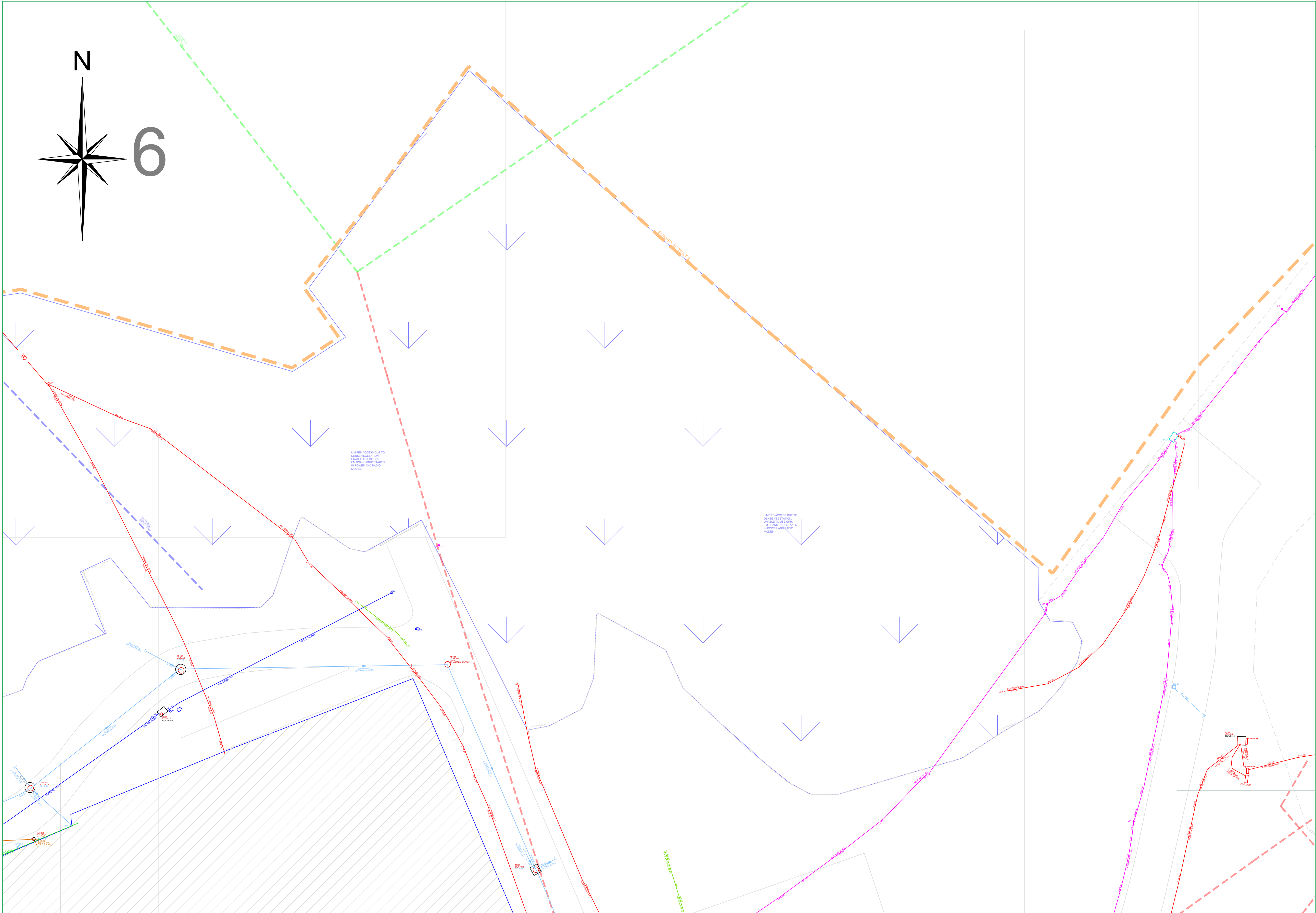
SURVEYED BY : YM

PROCESSED BY : WM

CHECKED BY : A.B.

DRG No: 7862

SHEET: 5 of 9



PAS 128: 2014 (Quality of Survey Level Outputs):	
DESKTOP UTILITY RECORDS SEARCH	
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LAMP POST	LP +
MARKER POST	MP +
SIGN POST	SIGN —
TRAFFIC LIGHT	TL +
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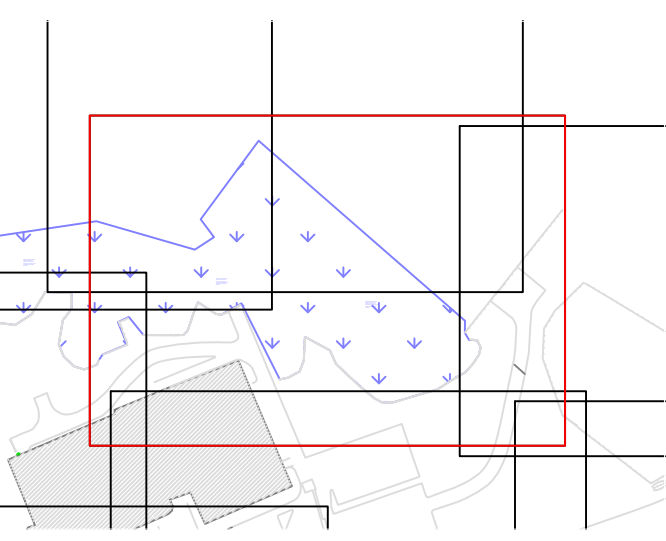
SERVICES :

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O'HEAD ELECTRICITY	OK
O'HEAD TELECOM	OT

SHEET LAYOUT :



PLAN PRODUCED BY:

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SURVEYS

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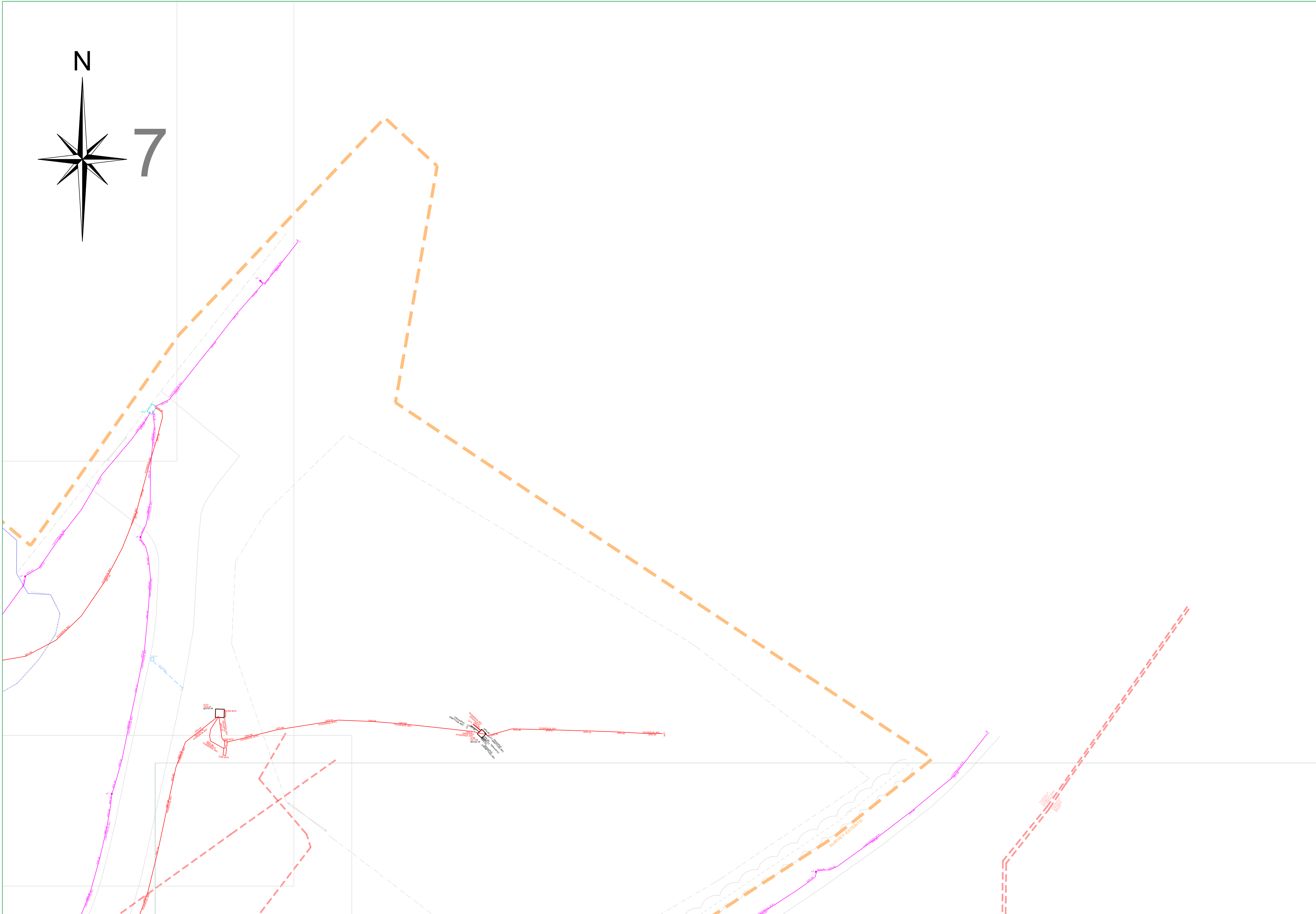
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DATE : 20/04/2026

DRG No: 7862

SHEET: 6 of 9

CHECKED BY : A.B.



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QL-A	Horizontal and vertical location of the top and/or bottom of the utility

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The following is a non-exhaustive list of the limitations of utility surveys:

- The Survey aims to map existing utilities subsurface utilities and provide information with respect to pipe size, material type and drainage connectivity. However utility surveying is limited by the following guidelines and it may not be possible to accurately survey, define and locate all services and sub-surface features.
 - Depth of Utility: The depth and size of a utility affect the signal response and the degree with which a utility can be located.
 - Due to attenuation of the radar signal with depth, resolution is restricted, hence making identification of utilities more difficult with increasing depth.
 - Size of Utility: The smaller the diameter of a utility the more difficult it is to locate. This difficulty increases with depth.
 - Ground Conditions: The depth penetration and quality of the data depends on the ground conditions of the site. GPR Surveying works best within high resistivity material. Clay overburden can impair GPR Surveying. Poor data may be a result of areas with high conductivity.
 - Utility Congestion: Where different utilities converge together into a service corridor or cross paths it becomes difficult to isolate a specific utility and to map its route. The reflected signal will display a single response to multiple utilities. Therefore multiple utilities may appear to be a single utility. Where similar services run on close proximity, separation may be impossible.
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 - Surface Obstructions: The GPR system relies on a relatively flat and even surface on which to perform radar passes. If ground obstructions such as vehicles, organic material (long grass, scrub) or undulating ground surface are present then the acquired data will be of lower resolution and in some cases not viable.
 - Loss of signal: It is not always possible to trace the entire length of each underground service.
 - Connections between manholes: Connections between manhole chambers are assumed to be straight.
 - Non-metallic objects: Nonmetallic objects are amongst the most difficult to trace therefore successful tracing of non-metallic pipes/ utilities may be limited.
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 - Acute bends in pipework: It may not be possible to trace a pipe past an acute bend.
- Accuracy estimates:**
- Locational accuracy is determined by referring to the manufacturers guidelines for the detector used.
 - In ideal conditions the spatial accuracies for the underground utilities may be +/- 5% for Radiodetection and +/- 10% of depth for the GPR to 2.5m deep. However variations within the subsurface, depth below the ground, close proximity of other services and local magnetic, atmospheric or ground conditions, bends, lateral service connections and any of the other limitations listed in this disclaimer may alter this estimated accuracy.
 - Plan accuracies of + or - 150mm may be achieved but this figure will depend on the depth of service below ground level. However variations within the subsurface subsurface, depth below the ground, close proximity of other services and local magnetic, atmospheric or ground conditions, bends, lateral service connections and any of the other limitations listed in this disclaimer may alter this estimated accuracy.
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- Record Drawing Information**
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All works carried out by Apex Surveys conforms to the guidelines set out by The Survey Association (TSA) and PAS:128 Standard for utility mapping



Unit 78 Dunboyne Business Park
Dunboyne, Co. Meath, Ireland
A86 K795

www.apexsurveys.ie
info@apexsurveys.ie
00353 1 691 0156

STREET FURNITURE :

- | | |
|------------------|----------|
| BOLLARDS | BD + |
| BUS STOP | BS + |
| CRASH BARRIER | CB |
| GATE | — |
| ELECTRICITY POLE | EP + |
| TELEPHONE POLE | TP + |
| EARTHING ROD | ER + |
| LAMP POST | LP + |
| MARKER POST | MPR + |
| SIGN POST | SIGN |
| TRAFFIC LIGHT | TL + |
| TELEPHONE BOX | TB |
| POST | POST + |
| POST BOX | POST BOX |
| ROADSIGN | RS-RS |
| BORE HOLE | BH + |
| TRIAL PIT | TPIT + |

- | | |
|-------------------|------|
| BOTTOM OF CHAMBER | BOC |
| CAST-IRON | CI |
| CONCRETE | CONC |
| DIAMETER | DIA |

SERVICES :

- | | |
|----------------------|------------|
| AIR VALVE | AV |
| ARMSTRONG JUNCTION | AJ |
| CABLE TV IC | CATV |
| COVER LEVEL | CL |
| EIRCOM COVER | EIRCOM |
| EIRCOM JUNCTION BOX | EIRCOM BOX |
| ELECTRICAL CABLE PIT | ECP |
| ESAT COVER | ESAT |
| ESB COVER | ESB |
| ESB JUNCTION BOX | ESB BOX |
| FIRE HYDRANT | FH |
| GAS VALVE | GV |
| GULLY | G |
| INSPECTION COVER | IC |
| MANHOLE | MH |
| SEPTIC TANK | SEPTIC |
| SLUICE VALVE | SV |

- | | |
|------------------|-----|
| DOWNSPIPE | DP |
| EARTHENWARE | EW |
| NO FURTHER TRACE | NFT |
| OFFSITE | O/S |

LEVELS :

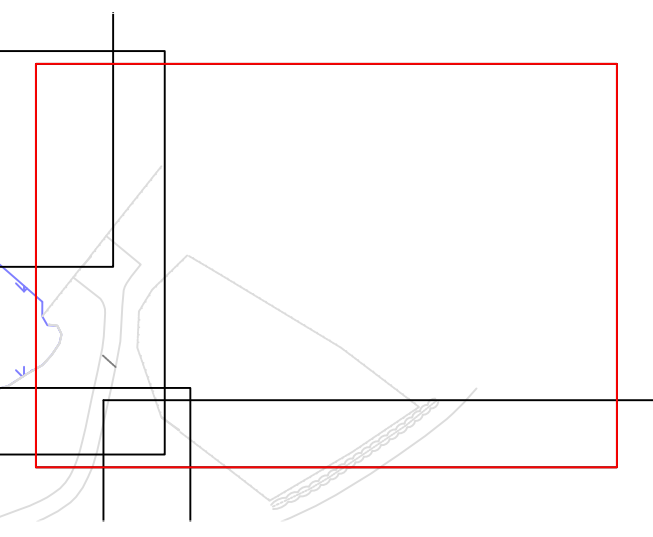
- | | |
|------------------------|------------|
| BED LEVEL | +BED101.50 |
| FLOOR LEVEL | +FL101.50 |
| INVERT LEVEL | +IL101.50 |
| ROAD LEVEL | +101.50 |
| SOFFIT LEVEL | +SL101.50 |
| SPOT LEVEL | +101.50 |
| TOP OF WALL LEVEL | +TOW101.50 |
| WATER LEVEL | +WL101.50 |
| SURVEY CONTROL STATION | CS |

- | | |
|-----------------|-----|
| START OF RUN | SOR |
| UNABLE TO OPEN | UTO |
| UNABLE TO TRACE | UTT |

UNDERGROUND LEGEND :

- | | |
|--------------------------|------------|
| WATER MAIN | WATER |
| GAS MAIN | GAS |
| STORM DRAIN | STORM |
| FOUL SEWER | FOUL |
| COMBINED SEWER | COMB |
| ELECTRIC CABLE | POWER |
| ELECTRIC LIGHTING | LIGHTING |
| EIRCOM | EIRCOM |
| FIBRE OPTIC CABLE | FIBRE |
| BROADBAND | BROADBAND |
| CABLE TV | TV |
| TRAFFIC AND SIGNAL CABLE | TRAFFIC |
| CCTV | CCTV |
| IRRIGATION PIPE | IRRIGATION |
| EMPTY DUCT | EMPTY |
| GPR ANOMALY | ANOMALY |
| UNKNOWN CABLE | CABLE |
| O'HEAD ELECTRICITY | OK |
| O'HEAD TELECOM | OT |

SHEET LAYOUT :



PLAN PRODUCED BY:



CLIENT:

Sligo County Council

PROJECT:

Sligo Regional Sports Centre

GRID SYSTEM: Irish Transverse Mercator
DATUM: Malin Head (OSGM15)
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	
001	dd/mm/yy	Original Drawing

SCALE : 1/200 A1

DATE : 20/04/2026

DESCRIPTION : 2D Utilities

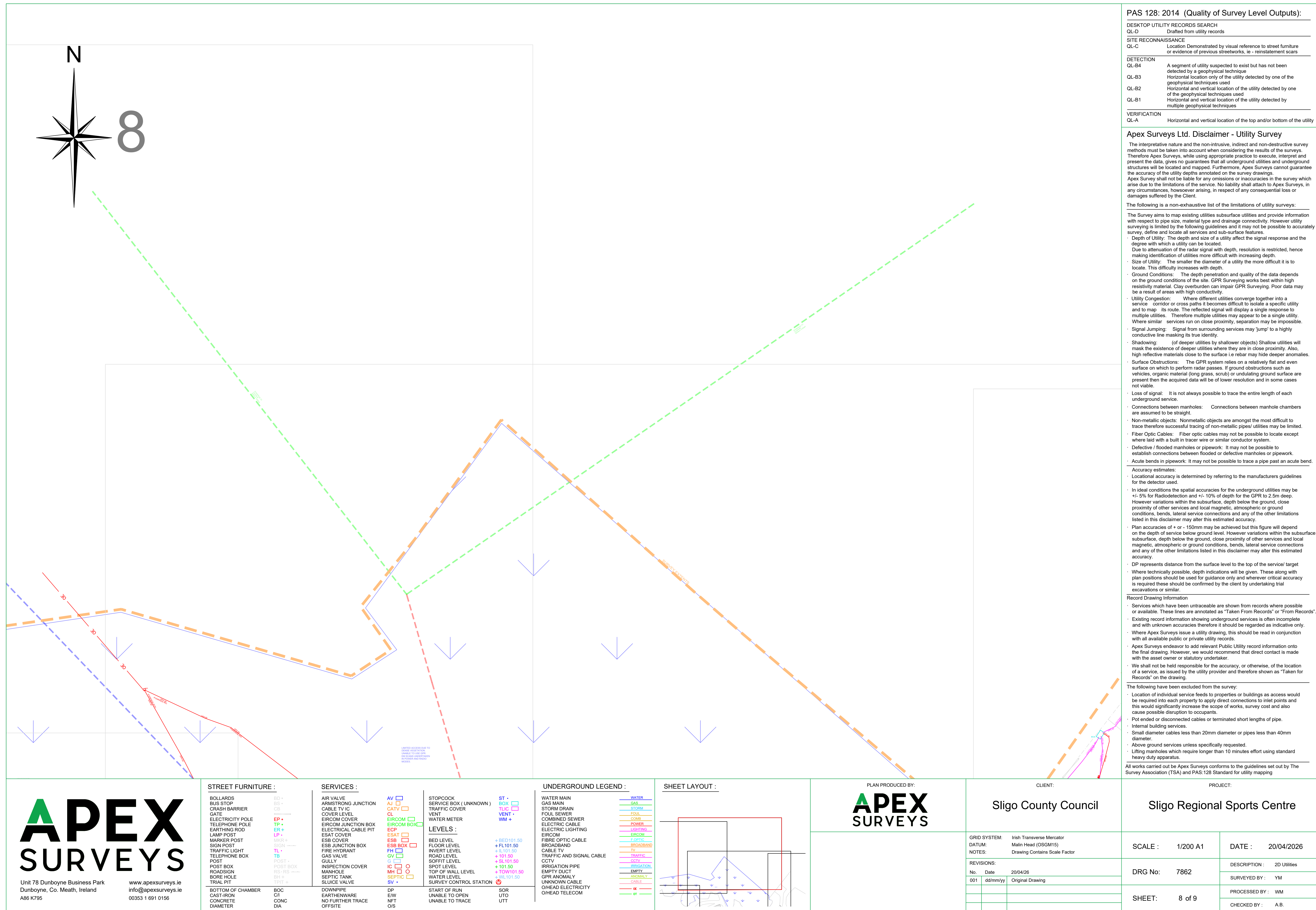
SURVEYED BY : YM

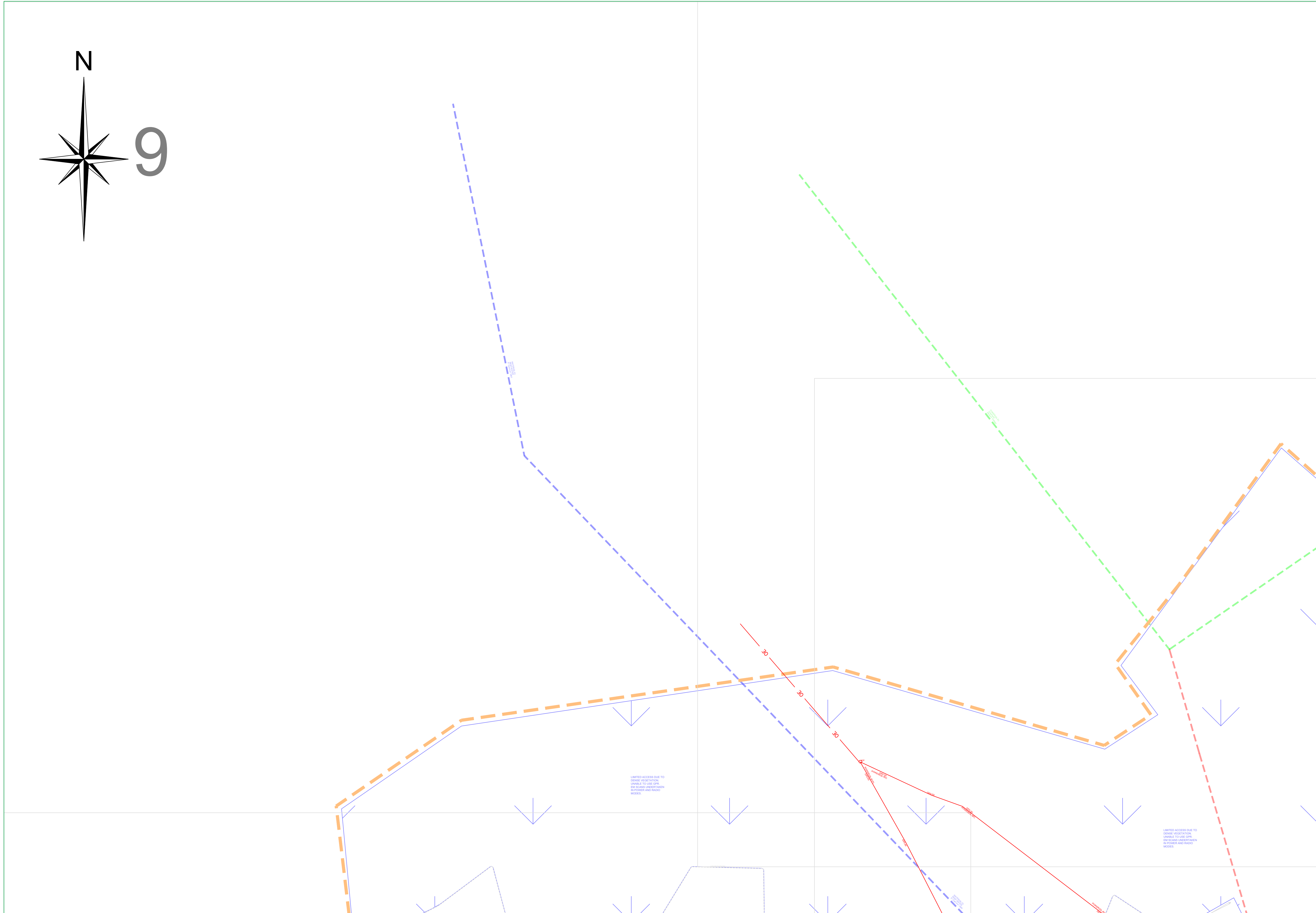
PROCESSED BY : WM

CHECKED BY : A.B.

DRG No: 7862

SHEET: 7 of 9





PAS 128: 2014 (Quality of Survey Level Outputs):

DESKTOP UTILITY RECORDS SEARCH	
QL-D	Drafted from utility records
SITE RECONNAISSANCE	
QL-C	Location Demonstrated by visual reference to street furniture or evidence of previous streetworks, ie - reinstatement scars
DETECTION	
QL-B4	A segment of utility suspected to exist but has not been detected by a geophysical technique
QL-B3	Horizontal location only of the utility detected by one of the geophysical techniques used
QL-B2	Horizontal and vertical location of the utility detected by one of the geophysical techniques used
QL-B1	Horizontal and vertical location of the utility detected by multiple geophysical techniques
VERIFICATION	
QL-A	Horizontal and vertical location of the top and/or bottom of the utility

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APEX
SURVEYS

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STREET FURNITURE :

BOLLARDS BS +
BUS STOP CB
GATE
ELECTRICITY POLE EP +
TELEPHONE POLE TP +
EARTHING ROD ER +
LAMP POST LP +
MARKER POST MGR +
SIGN POST SIGN
TRAFFIC LIGHT TL +
TELEPHONE BOX TB
POST POST +
POST BOX POST BOX
ROADSIGN RS - RS
BORE HOLE BH +
TRIAL PIT TPIT +

SERVICES :

AIR VALVE AV
ARMSTRONG JUNCTION AJ
CABLE TV IC
COVER LEVEL CL
EIRCOM COVER EIRCOM
EIRCOM JUNCTION BOX EIRCOM BOX
ELECTRICAL CABLE PIT ECP
ESAT COVER ESAT
ESB COVER ESB
ESB JUNCTION BOX ESB BOX
FIRE HYDRANT FH
GAS VALVE GV
INSPECTION COVER IC
MANHOLE MH
SEPTIC TANK SV
SLUICE VALVE SV

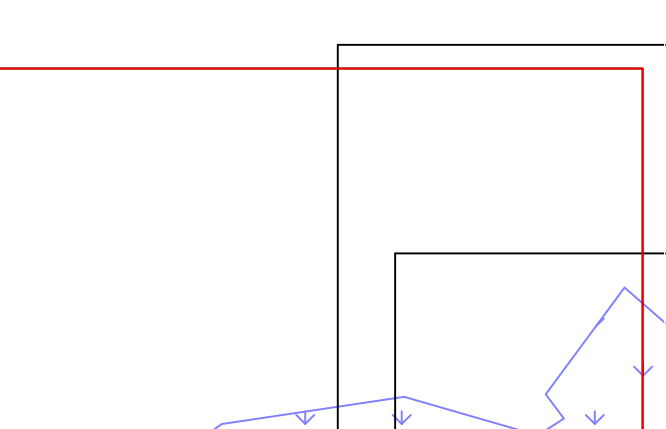
UNDERGROUND LEGEND :

WATER MAIN
GAS MAIN
STORM DRAIN
FOUL SEWER
COMBINED SEWER
ELECTRIC CABLE
ELECTRIC LIGHTING
EIRCOM
FIBRE OPTIC CABLE
BROADBAND
CABLE TV
TRAFFIC AND SIGNAL CABLE
CCTV
IRRIGATION PIPE
EMPTY DUCT
GPR ANOMALY
UNKNOWN CABLE
O'HEAD ELECTRICITY
O'HEAD TELECOM

LEVELS :

BED LEVEL
FLOOR LEVEL
INVERT LEVEL
ROAD LEVEL
SOFFIT LEVEL
SPOT LEVEL
TOP OF WALL LEVEL
WATER LEVEL
SURVEY CONTROL STATION

SHEET LAYOUT :



PLAN PRODUCED BY:

APEX
SURVEYS

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REVISIONS:

No. Date 20/04/26
001 dd/mm/yy Original Drawing

SCALE : 1/200 A1

DATE : 20/04/2026

DRG No: 7862

SHEET: 9 of 9

DESCRIPTION : 2D Utilities

SURVEYED BY : YM

PROCESSED BY : WM

CHECKED BY : A.B.