TOBIN

Pobail Le Cheile
Regeneration Project
Ballymahon, Co. Longford
Engineering Services Report

AN LONGFORT CONNECTED
Comhairle Chontae An Longfoirt
Longford County Council
People - Place - Opportunity

BUILT ON KNOWLEDGE

Document Control Sheet	
Document Reference	TR01 Engineering Services Report
Client:	Longford County Council
Project Reference	11560

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P01	Issued for Planning	PF	15/03/2024	EN	20/03/2024	MC	20/03/2024
P02	Updated for Planning	YM	30/04/2025	PF	05/05/2025	MC	05/05/2025

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1. INTRODUCTION

1.1 BACKGROUND

TOBIN have been commissioned by Longford County Council to provide Civil & Structural consultancy services for the rehabilitation and regeneration of three buildings and subsequent sites in the town of Ballymahon, Co. Longford.

1.2 ADMINISTRATION JURISDICTION

The site is located within the jurisdiction of Longford County Council, whose offices are located at Áras an Chontae, great Water Street, Longford, N39 NH56.

Figure 1-1: Site Location drawing 11560-2000

The project is located at one existing site within the centre of Ballymahon town. The site is located on the western side of the Church View Street, North of the R392.

The site is an old convent building located behind the existing St Matthews Catholic church and LWETB College of Furth Education and Training. Access to the site is off the Church View Street located to the west of the site. The site is bounded to the Northeast by residential properties and to the Southeast by the Mercy Secondary School.

1.3 PROPOSED DEVELOPMENTS

It is proposed to regenerate the existing buildings on the site to bring them into use for today's requirements. There will be some minor demolition works to each site, removing existing retaining walls, ramps and not fit for purpose extensions.

1.3.1 Convent Building

The convent building regeneration works involves the demolition of two existing extensions, construction of two new extensions, new car parking facilities, a new standalone building and upgrading of drainage infrastructure.

Figure 1-2: Convent building, drawing 2245-KLA-00-ZZ-DR-A-101

1.4 PURPOSE OF REPORT

The purpose of this report is to address the proposed service infrastructural requirements for the development. In the coming sections Potable Water, Wastewater and Surface Water proposals will be detailed with the designed layouts showcased.

The design principles adopted will be those of best engineering practices and standards used will be the most recent applicable publications.

2. INVESTIGATIONS

2.1 INTRODUCTION

At the time of writing, the site investigation works have not been completed on site. Once the results are received TOBIN will review them against the proposed service infrastructure and will make any changes necessary while liaising with the planning authority and subsequent sections throughout.

Topographical survey was completed on all three sites and its outcome drawings can be found in Appendix B.

A Ground Penetrating Radar (GPR) survey was completed on all three sites and adjacent roads. These outcome drawings can be seen in Appendix B.

3. POTABLE WATER SUPPLY

3.1 INTRODUCTION

Uisce Eireann's records indicate a 180mm HDPE and 125mm HDPE pipes traversing beneath the R392 and a 50mm uPVC travelling through the Convent House site.

There is currently potable water already serving the site. Further investigations is required discover the location of the existing connection and its size.

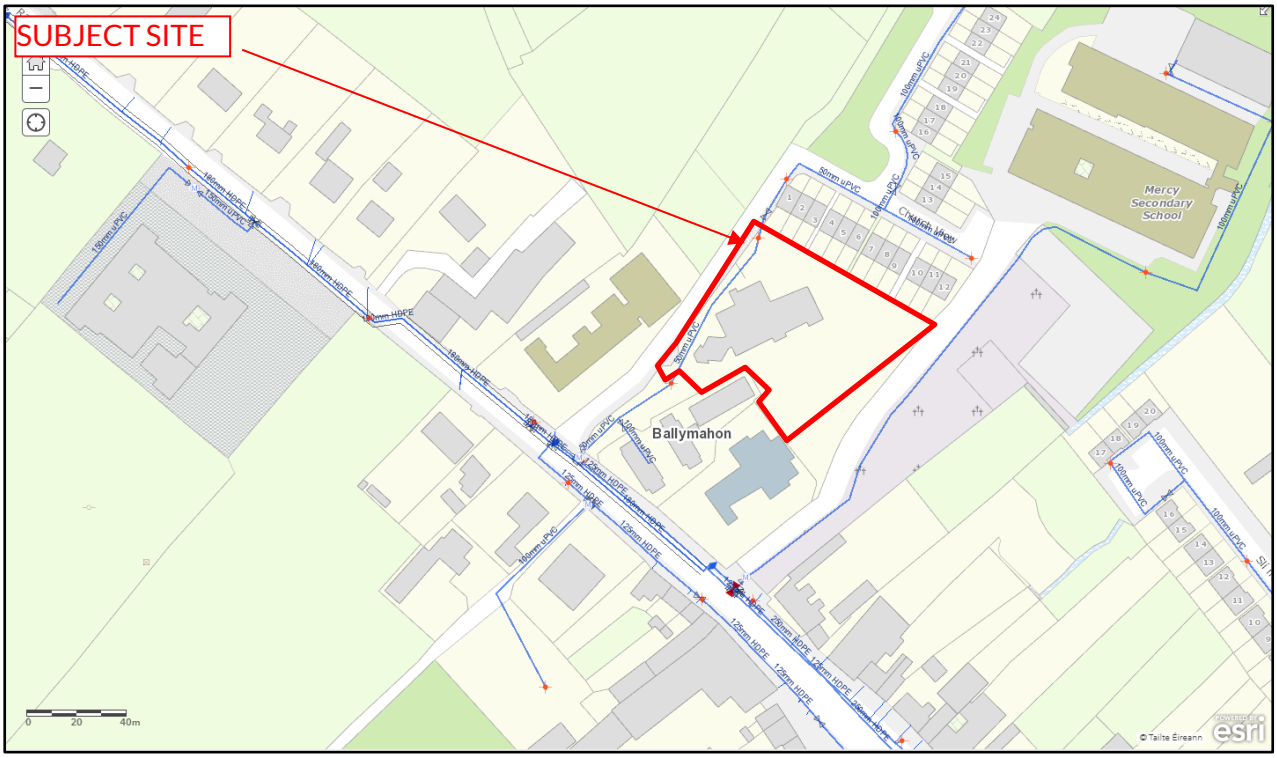

Figure 3-1: Uisce Eireann's Potable Water Records

For further information please refer to Appendix A for record maps and Appendix B for GPR survey drawings.

3.2 PROPOSAL

It is proposed to maintain the existing potable water connection on the site, therefore no new connections are required.

A pre-connection enquiry will be made to Uisce Eireann to confirm there is capacity in the existing infrastructure for the rehabilitation of the sites. As these will be communal buildings and potable water requirements will be low, this is not foreseen as a risk to the project.

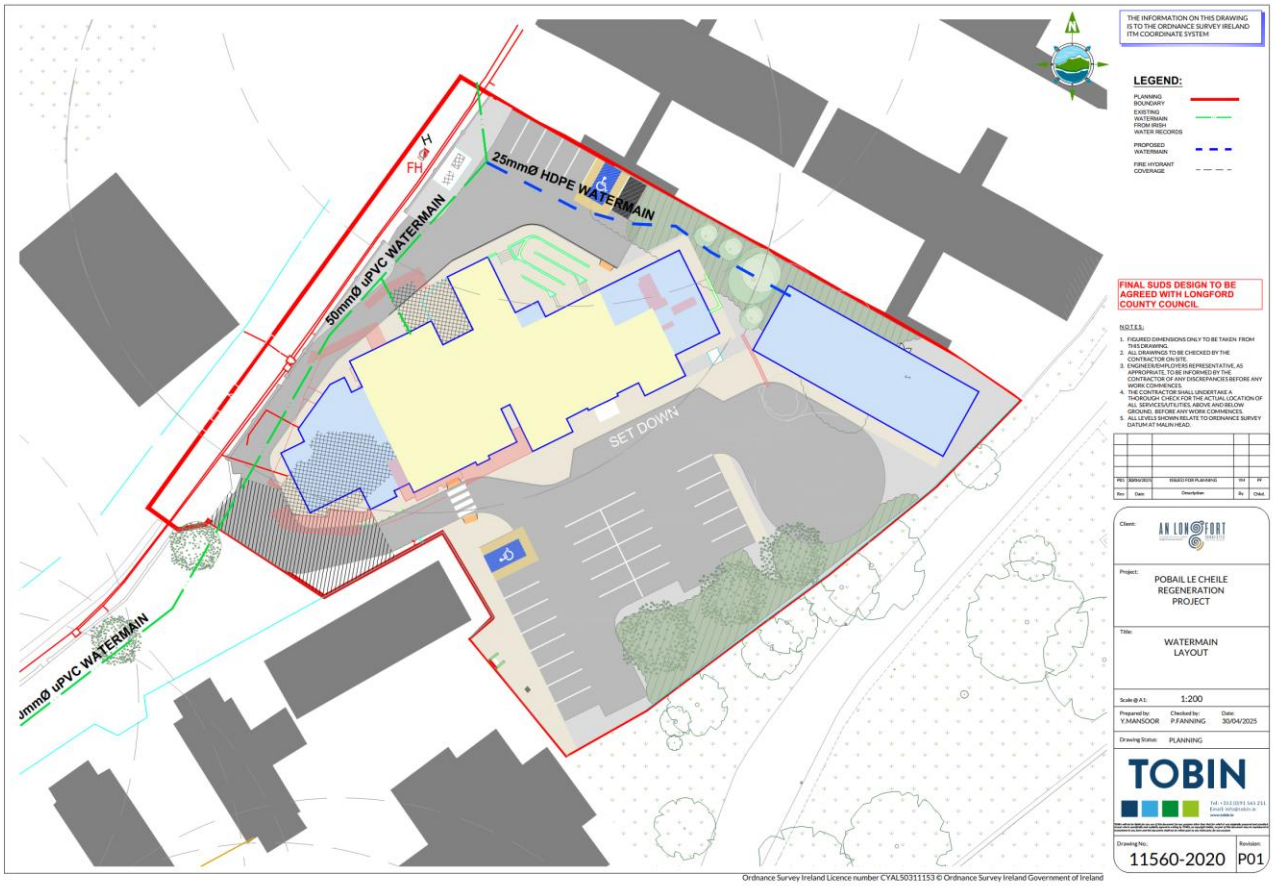

Figure 3-2: Watermain Layout, drawing 11560-2020

4. WASTEWATER INFRASTRUCTURE

4.1 INTRODUCTION

Uisce Eireann's records indicate the presence of an existing 150mm Concrete pipe traversing underneath the R392 road.

The convent building from review of the GPR maps, discharges both its foul and surface water through the boundary wall located at the Northeast corner. Possibly discharging into the 150mm foul concrete pipe located within Mercy Secondary School's land.

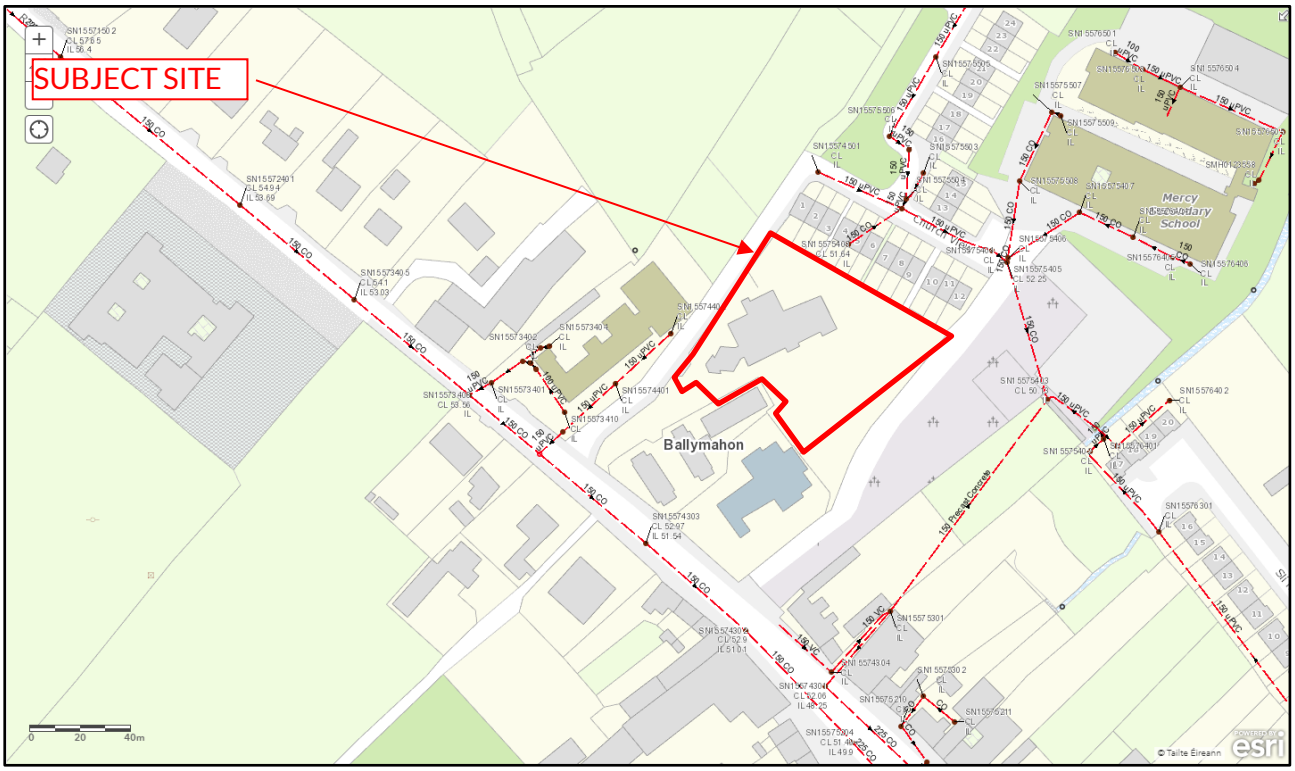

Figure 4-1: Uisce Eireann's Wastewater Records

For further information please refer to Appendix A for record maps and Appendix B for GPR survey drawings.

4.2 PROPOSAL

It is proposed to lay new collector and carrier pipes internally on the site. These new pipes will only collect wastewater discharge from the buildings. Once collected, a new discharge public pipe along the Church View Road will discharge the wastewater effluent into the 150mm Concrete pipe located in the R392.

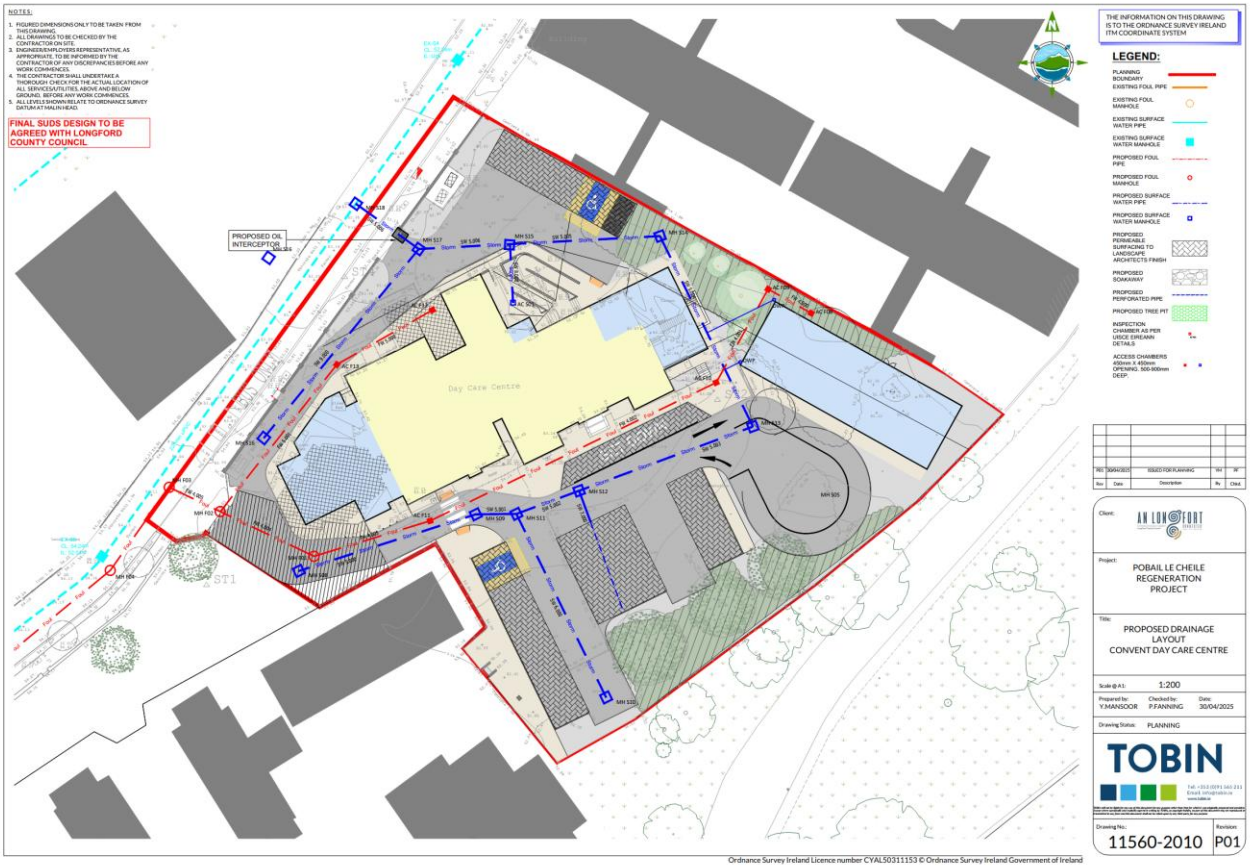

Figure 4-2: Proposed Convent Drainage, drawing 11560-2010

A pre-connection enquiry will be made to Uisce Eireann to confirm there is capacity in the existing infrastructure for the rehabilitation of the site. As these will be communal buildings and wastewater discharge will be low, this is not foreseen as a risk to the project.

For further information on the proposed Wastewater layout please refer to drawing 11560-2010.

5. SURFACE WATER INFRASTRUCTURE

5.1 INTRODUCTION

Longford County Council's records indicate the presence of a 300mm Concrete public surface water pipe traversing through the existing garage across from the School House site and appears to continue falling Northeasterly. The records also indicate a 225mm uPVC pipe traversing along church View, which continues falling Northeasterly.

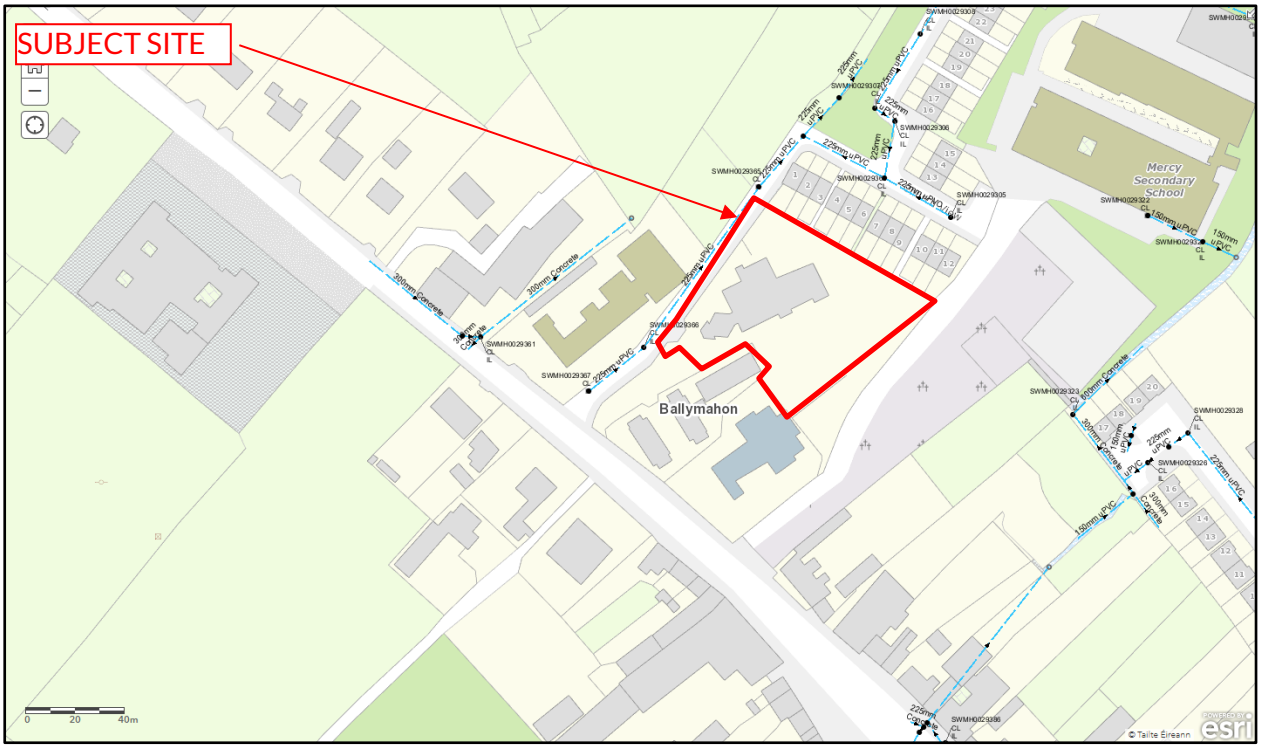

Figure 5-1: Longford County Council's Surface Water Record Maps

For further information please refer to Appendix A for record maps and Appendix B for GPR survey drawings.

5.2 DESIGN PRINCIPLES

The design and management of the Surface Water for the proposed development will comply with the policies and guidelines outlined in the following.

- The Greater Dublin Strategic Drainage Study (GDSDS).
- Longford County Council's Development Plan, 2021-2027
- Recommendations for Site Development Works for Housing Areas published by the Department of the Environment.
- Greater Dublin Regional Code of Practice for Drainage Works.
- The SuDs Manual (2015).

The key design principles of the Surface Water drainage are as follows.

1. The flow from the development to the existing Surface Water Infrastructure is designed to equal the natural greenfield runoff in accordance with the GDSDS and sustainable drainage best practice.
2. The flow of surface water from the site will be reduced compared to the current brownfield site runoff.

3. The site will incorporate the use of soft SuDs measures to slow the flow of surface water from the site.

5.3 PROPOSAL

It is proposed to construct new collector and conveyance pipes internally on the site. The infrastructure will be entirely separate from the wastewater system and will only cater for the surface water runoff from rainfall events.

It is proposed to discharge the Convent house site into the existing 225mm uPVC pipe, located within the Church View Road.

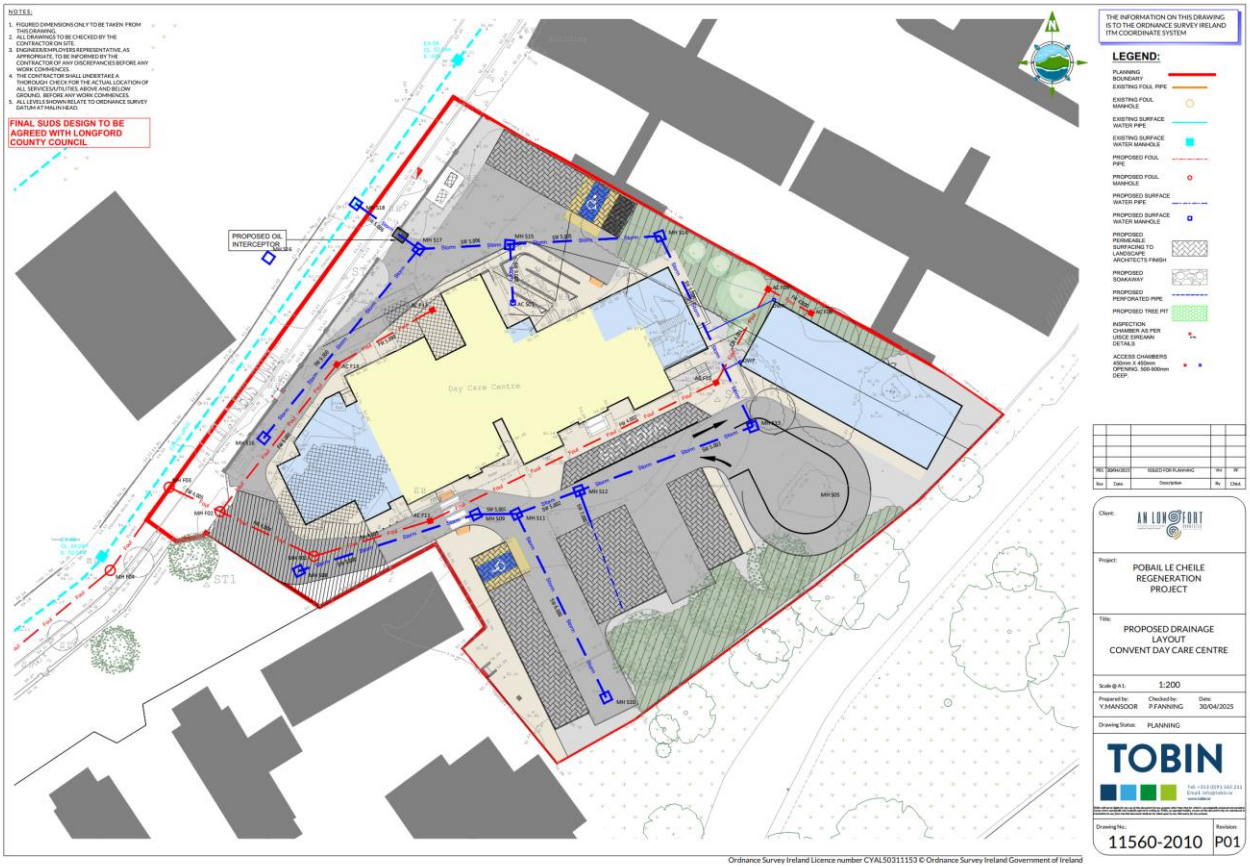

Figure 5-2: Proposed Convent Drainage, drawing 11560-2010

5.4 SUDS (SUSTAINABLE URBAN DRAINAGE SYSTEMS)

A number of SuDs features have been proposed as part of the surface water drainage system in accordance with the GDSDs. SuDs are incorporated to attenuate runoff and volumes; reduce pollutant concentrations in surface water and to replicate the natural characteristics of surface water run off for the site in its pre-developed state.

The following SuDs features are proposed:

5.4.1 Permeable Surfacing

It is proposed to install permeable surfacing within the car parking areas of the site. The water, once permeated into the pavement, will be allowed to infiltrate into the ground. The inclusion of

the permeable paving will slow the surface water run off at source, treat the surface water runoff and provide storage. Refer to figure below.

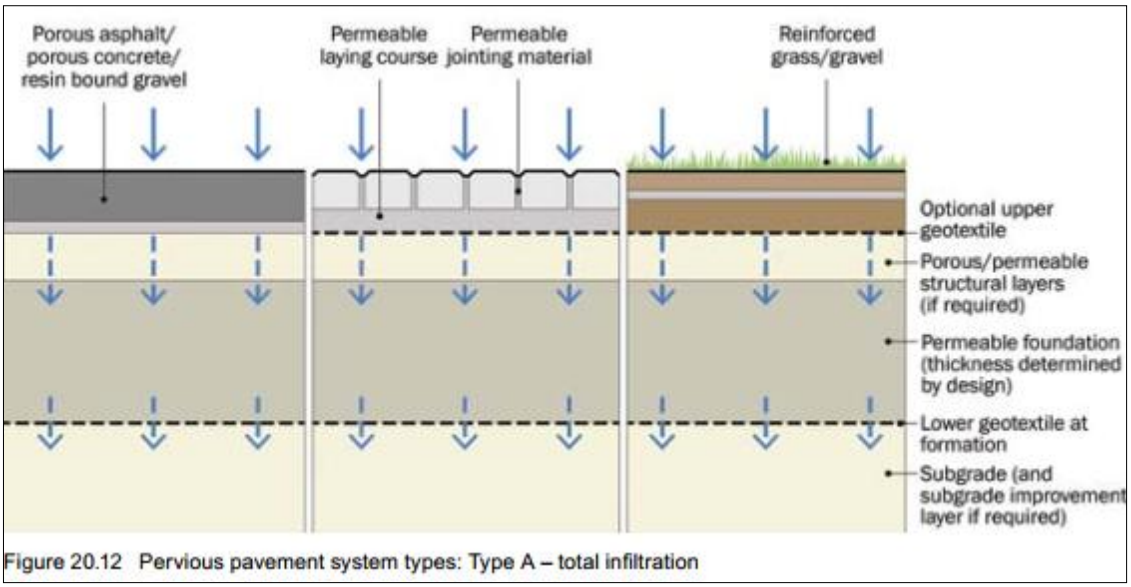

Figure 5-3: Typical Cross Section of infiltration permeable paving (Extract from CIRA SuDs Manual)

5.4.2 Petrol Interceptor

It is proposed to flow all the surface water collected on the convent site through a petrol interceptor before discharging to the existing infrastructure to ensure a certain level of treatment is provided to the runoff and to act as a final treatment process before discharge.

5.4.3 Treatment Train

Through the SuDs measures described above, the surface water management (treatment train) approach has been incorporated into the development in accordance with the GDSDS. This will assure the surface water runoff quantity and quality issues are addressed.

In accordance with the GDSDS, the following four objectives of the treatment train provide an integrated and balanced approach to help mitigate the changes in surface water runoff flows that occur as land is urbanised and to help mitigate the impacts of surface water quality on receiving systems:

1. **Pollution Prevention**: spill prevention (protection provided by Petrol Interceptor and permeable surfacing), recycling, public awareness, and participation.
2. **Source Control**: conveyance and infiltration of runoff (provided by the proposed surface water network, permeable surfacing and Petrol Interceptor).
3. **Site Control:** reduction in volume and rate of surface water runoff, with some additional treatment provided (provided by Petrol Interceptor and Permeable surfacing).
4. **Regional Control:** Interception of runoff downstream of all source and on-site controls to provide follow-up flow management and water quality treatment (provided by the Existing Surface Water infrastructure).

The above measures ensure a suitable treatment train is provided in accordance with GDSDS.

Appendix A RECORD MAPS

SN15571502
CL 57.65
IL 56.4
150 CO
SN15572401
CL 54.94
IL 53.69
SN15573405
CL 54.1
IL 53.03
SN15573402
CL
IL
SN15573404
CL
IL
SN15573406
CL 53.56
IL
SN15573401
CL
IL
100 uPVC
150 uPVC
SN15573410
CL
IL
SN15574402
CL
IL
SN15574401
CL
IL
Ballymahon
SN15574303
CL 52.97
IL 51.54
SN15574302
CL 52.9
IL 51.01
SN15574301
CL
IL
SN15574501
CL
IL
SN15575506
CL
IL
SN15575505
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SN15575503
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SN15575408
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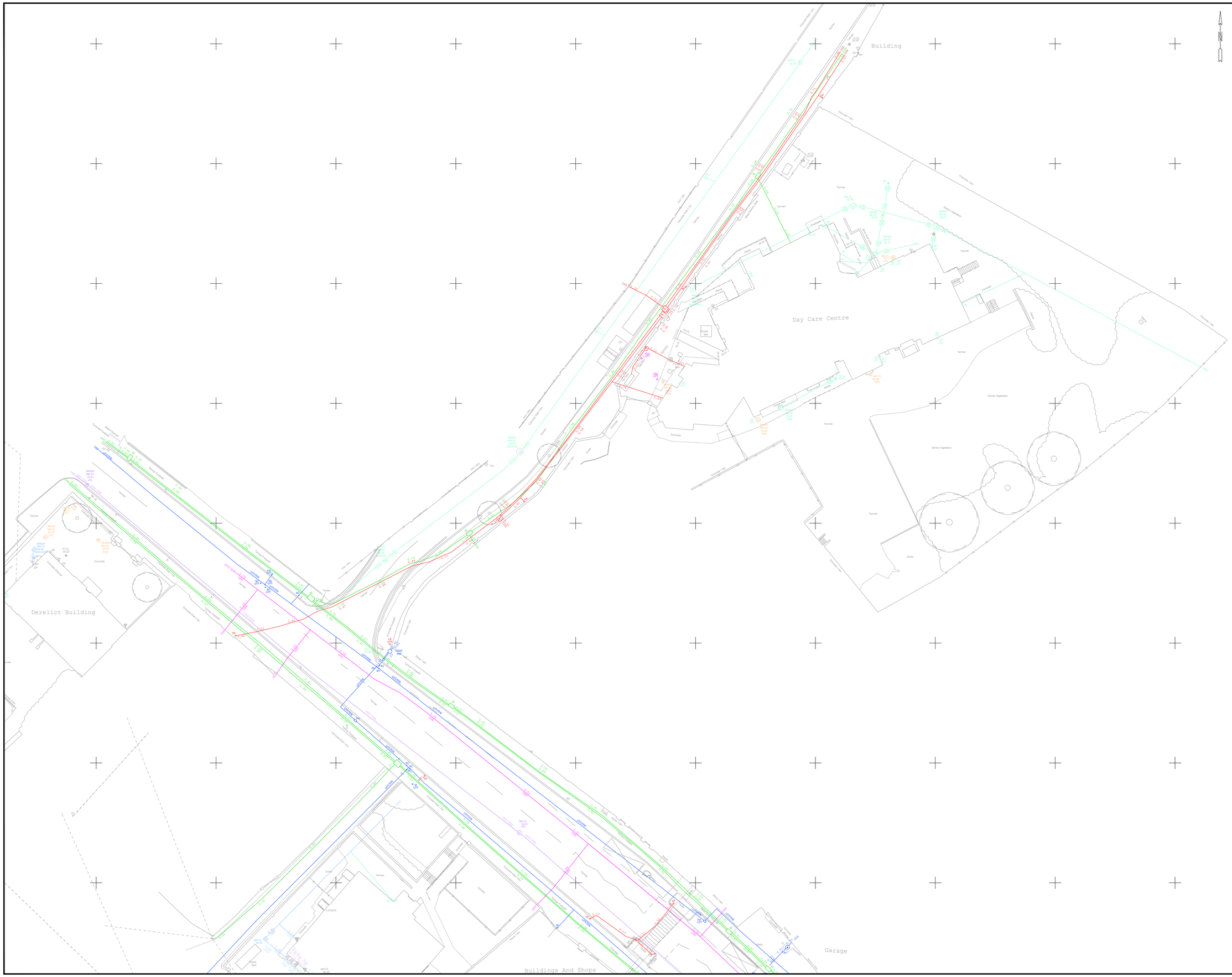
SN15575304
CL 51.49
IL 49.9
SN15575302
CL
IL
SN15575210
CL
IL
SN15575211
CL
IL
150 Precast Concrete
225 CO
Church View
Mercy Primary School
0
20
40m
© Tailte Éireann
POWERED BY esri


Ballymahon
Mercy Secondary School
SWMH0029361
SWMH0029365
SWMH0029366
SWMH0029367
SWMH0029308
SWMH0029307
SWMH0029306
SWMH0029305
SWMH0029322
SWMH0029323
SWMH0029328
SWMH0029326
SWMH0029386
300mm Concrete
225mm uPVC
150mm uPVC
CL
IL
0
20
40m
© Tailte Éireann
POWERED BY esri


Mercy Secondary School
Ballymahon
Church View
180mm HDPE
150mm uPVC
125mm HDPE
100mm uPVC
50mm uPVC
250mm HDPE
0
20
40m
© Tailte Éireann
esri

Appendix B SURVEY DRAWINGS



Legend

CATV	Cable TV	S	Storm Water
C	Combined Water	BT	Telecom
E	Electric	U	Unknown
FO	Fibre Optic	W	Water
F	Foul Water	- - - -	Chamber Extents
FU	Fuel Line	——]	Empty Duct
H	Heating Pipe	▬ ▬ ▬	Survey Extent
G	Gas		Photo Location
RM	Rising Main		

A/G	Above Ground	GPR	Ground Penetration Radar
AR	Assumed Route	LKD	Locked
B/D	Back Drop	MAR	Man Access Required
BLKD	Blocked	NDV	No Ducts Visible
BRKN	Broken	NIV	No Incoming Visible
DOB	Depth of Bottom	NOV	No Outfall Visible
DOC	Depth of Cover	TFR	Taken from Records
EOS	End of Sonde	UPI	Underground Enclosed Pipe
EOT	End of Trace	UTL	Unable To Lift
FOS	Full of Silt	UTS	Unable to Sonde
FOW	Full of Water	UTSV	Unable to Survey

(A) Horizontal and Vertical Position verified Visually
(Accuracy: Horizontal (±25mm) Vertical (±50mm)

(B1) Horizontal and Vertical Position detected by Multiple Methods
(Estimated Accuracy: ±150mm or ±40% of detected depth)

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(C) Route Transcribed from Utility Asset Plans and correlated to visual indicators and surface features
(Accuracy Undefined)

(D) Route Transcribed from Utility Asset Plans
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Control Stations

Notes:

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4. Manholes have been lifted where possible using manual methods. Invert levels and pipe sizes have been measured using surface inspection only and should be treated as indicative.

5. Tree dimensions should be treated as approximate only.

1	Txt annots for utils move to separate layers	14/08/23	AH	JC
Rev	Amendments	Date	Dwn	Chk

Surveyed	Drawn	Checked	Approved
JS	JS	DMC	JC
Date	Date	Date	Date
18/05/23	21/06/23	03/07/23	03/07/23

Scale	Size
1:200	A0

Underground Services (2D)
Pobail Le Cheile
Ballymahon
Co. Longford

Kenny Lyons & Associates
Block 6, Central Business Park
Gayfield
Tullamore Co. Offaly

geo-info
Specialist Surveyors

Liberty House
15 Cromarty Campus, Rosyth Europarc
Rosyth, KY11 2YB
Tel: 01383 435982
Email: enquiries@geo-info.info

DRAWING No.	REV.
GEO-KLA-001-003-001	1

Legend

CATV	Cable TV	S	Storm Water
C	Combined Water	BT	Telecom
E	Electric	U	Unknown
FO	Fibre Optic	W	Water
F	Foul Water		Chamber Extents
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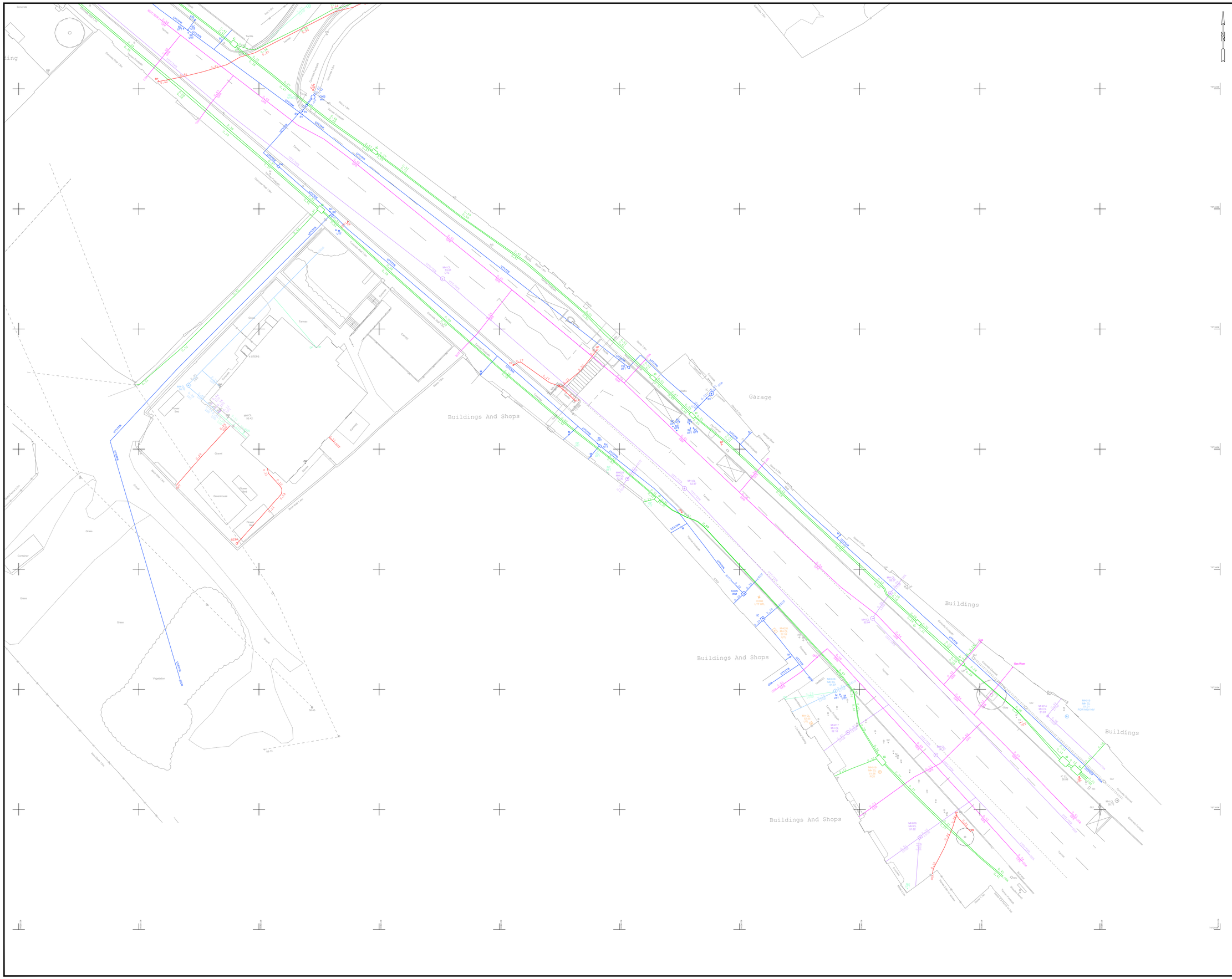
DRAWING No.: GEO-KLA-001-003-002
REV.: 1



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Email: enquiries@geo-info.info

DRAWING No. GEO-KLA-001-003-003 | REV. 1

Legend

A	Guy Wire Anchor	IL	Invert Level
AV	Air Valve	JBox	Junction Box
AWS	Automatic Warning System	KO	Kerb Outlet
BH	Borehole	LP	Lamp Post
BIN	Bin	LRP	Lateral Resistance Plate
BM	Benchmark	LT	Lineside Telephone
BL	Bed Level	M	Meter Cover
B	Bollard	MH	Manhole Cover
BS	Bus Stop	MK	Marker Post
BT	British Telecom Cover	MPB	Mail Box
CATV	Cable TV Cover	MP	Mileage Post
CB	Call Box	MS	Milestone
CCTV	Camera	P	Pole
CM	Cant Marker	PO	Post
CN	Crossing Node	PIT	Trial Pit
COL	Column	RE	Rodding Eye
CL	Cover Level	RL	Ridge Level
DP	Down Pipe	RP	Railway Point
DPL	Datum Plate	RS	Road Sign
DR	Drain	SC	Stop Cock
DS	Drain Sump	SOF	Soffit Level
E	Electric Point	SP	Signal Post
EJ	Expansion Joint	SPT	Signal Post Telephone
EL	Eave Level	S	Tree Stump
EP	Electric Pole	Stay	Cable Stay
ER	Earth Rod	SV	Stop Valve
FH	Fire Hydrant	THL	Threshold Level
FW	Flash Weld	TOE	Switch Toe
GB	Gradient Board	TL	Traffic Lights
GG	Greaser Gun	TP	Telegraph Pole
GP	Gate Post	TPWS	Train Protection Warning Sysytem
GS	Ground Sign	TT	Tree Trunk
GU	Gully	TV	Cable TV
GV	Gas Valve	TW	Thermal Weld
HS	Hook Swiches	TWL	Top of Wall
IC	Inspection Cover	VP	Vent Pipe
IJ	Insulated Joint	WL	Water Level
L	Laser Sweep Position	WM	Water Meter

Bush · Tree · Photo Location · Wet Area · Samplings

Adjustment Switch	Top of Kerb
Antitrespass Mat	Level Crossing Units
Ballast Bottom	Magnet
Ballast Top	Metal Base
Bin	Miscellanious
Bottom of Bank	OLE Mast
Top of Bank	Open Sided Building
Building	Orange Pipe Crossing
Bus Stop	Overhang
Cable	Overhead Line
Cable Trough	Overhead Line Gantry
Canopy	Pipe
Catchpit	Pylon
Channel	Rail Buffer
Change of Surface	Railway Line
Check Rails	Retaining Wall
Concrete	Road Markings
Conductor Rail	Road Sign
Crash Barrier	Road Verge
Crossover Knuckle	Rock Face
Ditch	Safety Kerb
Door	Scrap Rail
Edge of Platform	Seat
Fence	Shelter
Foliage	Signal Gantry
Footpath	Sleeper
French Drain	Steps
Gabions	Switch Equipment
Gate	Switch Heater
Girder	Switch Motor
Handrail	Timber Sleeper
Hedge	Top of Wall
Impedance Bonds	Traffic Light Sensor
Bottom of Kerb	Verge
Low Kerb	Wall
	Water Edge
	Water Course Bottom

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Control Stations

STN	Easting (m)	Northing(m)	Height (mAOD)
ST1	615384.4438	757448.2790	53.8860
ST2	615451.4292	757472.4940	53.0652
ST3	615423.4813	757504.8744	52.8532
ST4	615402.5470	757488.5480	53.3490
ST5	615332.5550	757431.1690	53.8730
ST6	615364.3040	757389.1640	53.6700
ST7	615419.6260	757358.8600	53.0530
ST8	615262.9930	757440.1080	54.1830
ST9	615310.6020	757362.6250	55.4240
ST10	615335.7880	757334.6630	55.3440

Notes:

1. All dimensions are in metres unless otherwise stated.
2. All survey co-ordinates are related to ITM Grid.
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Surveyed	Drawn	Checked	Approved
CF,JS,LP	CF	LP	JC
Date	Date	Date	Date
18/05/23	30/05/23	05/07/23	05/07/23

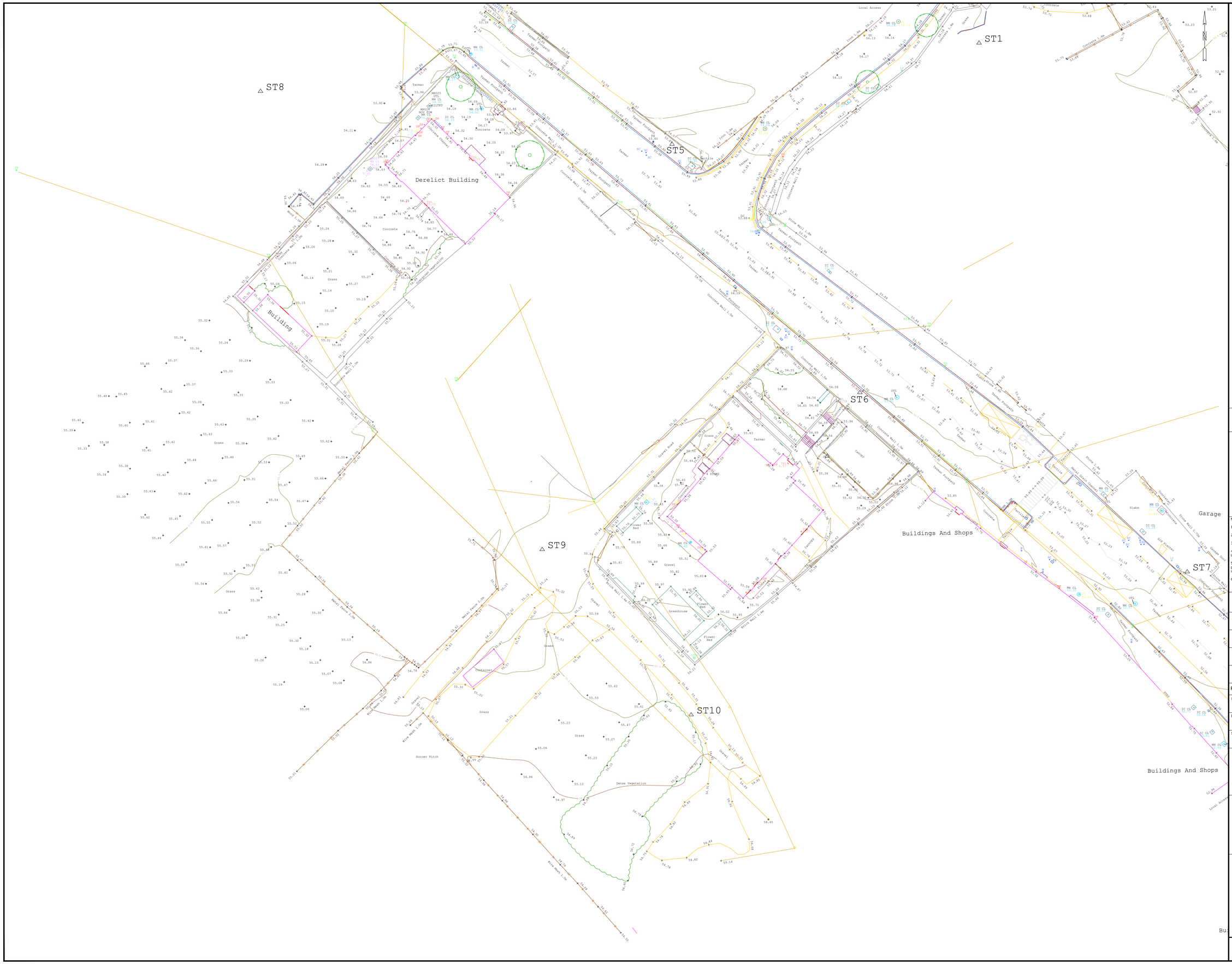
Scale	Size
1:200	A0

Topographic Survey (2D) at 'Pobail le Cheile' Ballymahon

KENNY LYONS Associates Architects
Block 6
Central Business Park
Clonminch
Tullamore
Co. Offaly
Tel: 057 9324241
Fax: 057 9351345
office@kennylyons.ie
www.kennylyons.ie

geo-info Specialist Surveyors
Liberty House
15 Cromarty Campus, Rosyth Europarc
Rosyth, KY11 2YB
Tel: 01383 420062
Email: enquiries@geo-info.info

DRAWING No.	REV.
GEO-KLA-001-004-001	1



Legend

A	Guy Wire Anchor	IL	Invert Level
AV	Air Valve	JBox	Junction Box
AWS	Automatic Warning System	KO	Kerb Outlet
BH	Borehole	LP	Lamp Post
BIN	Bin	LRP	Lateral Resistance Plate
BM	Benchmark	LT	Lineside Telephone
BL	Bed Level	M	Meter Cover
B	Bollard	MH	Manhole Cover
BS	Bus Stop	MK	Marker Post
BT	British Telecom Cover	MPB	Mail Box
CATV	Cable TV Cover	MP	Mileage Post
CB	Call Box	MS	Milestone
CCTV	Camera	P	Pole
CM	Cant Marker	PO	Post
CN	Crossing Node	PIT	Trial Pit
COL	Column	RE	Rodding Eye
CL	Cover Level	RL	Ridge Level
DP	Down Pipe	RP	Railway Point
DPL	Datum Plate	RS	Road Sign
DR	Drain	SC	Stop Cock
DS	Drain Sump	SOF	Soffit Level
E	Electric Point	SP	Signal Post
EJ	Expansion Joint	SPT	Signal Post Telephone
EL	Eave Level	S	Tree Stump
EP	Electric Pole	Stay	Cable Stay
ER	Earth Rod	SV	Stop Valve
FH	Fire Hydrant	THL	Threshold Level
FW	Flash Weld	TOE	Switch Toe
GB	Gradient Board	TL	Traffic Lights
GG	Greaser Gun	TP	Telegraph Pole
GP	Gate Post	TPWS	Train Protection Warning Sysytem
GS	Ground Sign	TT	Tree Trunk
GU	Gully	TV	Cable TV
GV	Gas Valve	TW	Thermal Weld
HS	Hook Swiches	TWL	Top of Wall
IC	Inspection Cover	VP	Vent Pipe
IJ	Insulated Joint	WL	Water Level
L	Laser Sweep Position	WM	Water Meter

Bush · Tree · Photo Location · Wet Area · Samplings

Adjustment Switch	Top of Kerb
Antitrespass Mat	Level Crossing Units
Ballast Bottom	Magnet
Ballast Top	Miscellanious
Bin	OLE Mast
Bottom of Bank	Open Sided Building
Top of Bank	Orange Pipe Crossing
Building	Overhang
Bus Stop	Overhead Line
Cable	Overhead Line Gantry
Cable Trough	Pipe
Canopy	Pylon
Catchpit	Rail Buffer
Channel	Railway Line
Change of Surface	Retaining Wall
Check Rails	Road Markings
Concrete	Road Sign
Conductor Rail	Road Verge
Crash Barrier	Rock Face
Crossover Knuckle	Safety Kerb
Ditch	Scrap Rail
Door	Seat
Edge of Platform	Shelter
Fence	Signal Gantry
Foliage	Sleeper
Footpath	Steps
French Drain	Switch Equipment
Gabions	Switch Heater
Gate	Switch Motor
Girder	Timber Sleeper
Handrail	Top of Wall
Hedge	Traffic Light Sensor
Impedance Bonds	Verge
Bottom of Kerb	Wall
Low Kerb	Water Edge
	Water Course Bottom

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Control Stations

STN	Easting (m)	Northing(m)	Height (mAOD)
ST1	615384.4438	757448.2790	53.8860
ST2	615451.4292	757472.4940	53.0652
ST3	615423.4813	757504.8744	52.8532
ST4	615402.5470	757488.5480	53.3490
ST5	615332.5550	757431.1690	53.8730
ST6	615364.3040	757389.1640	53.6700
ST7	615419.6260	757358.8600	53.0530
ST8	615262.9930	757440.1080	54.1830
ST9	615310.6020	757362.6250	55.4240
ST10	615335.7880	757334.6630	55.3440

Notes:

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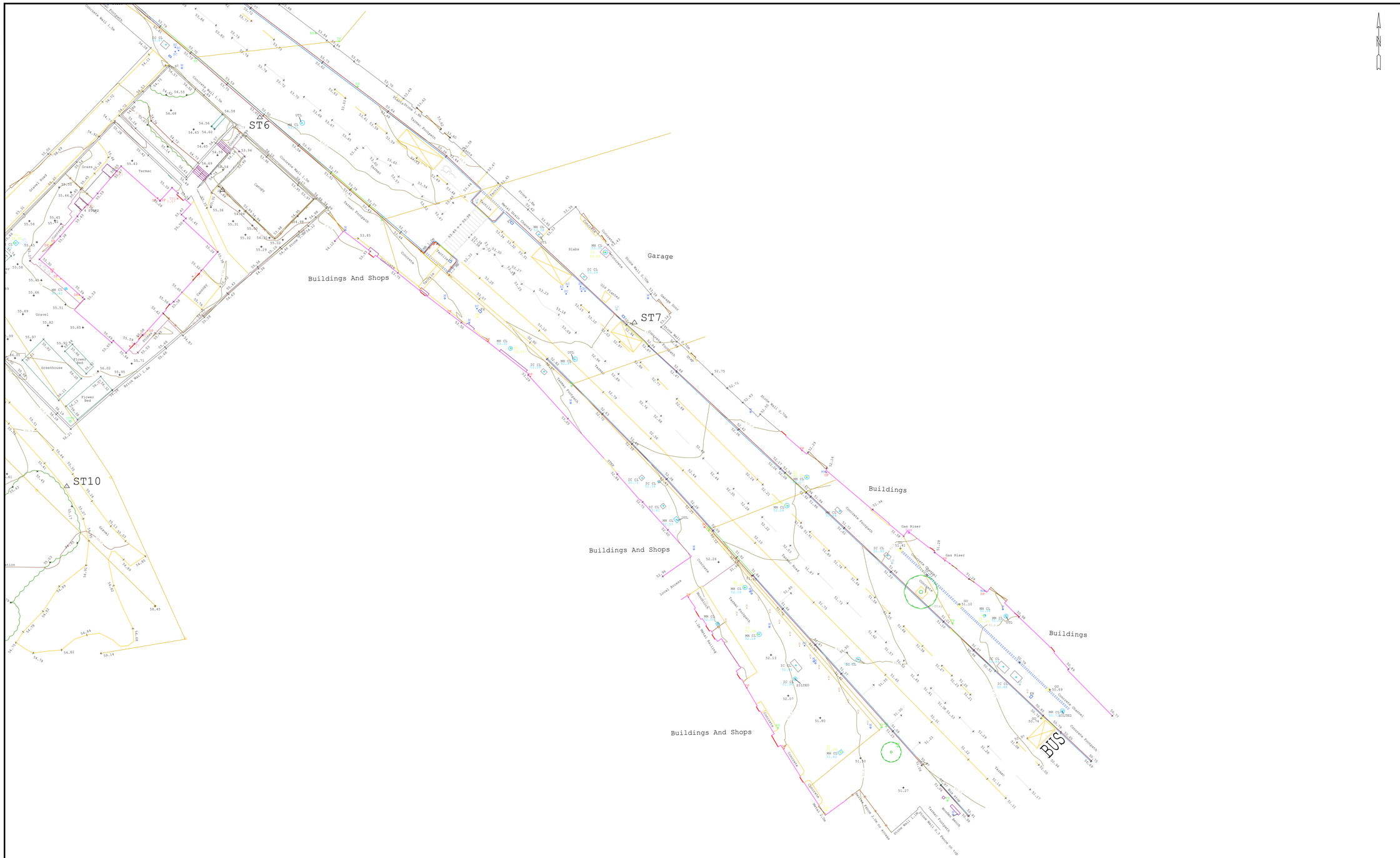
DRAWING No. GEO-KLA-001-004-002

REV. 1



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Bush
Tree
Photo Location
Wet Area
Samplings

Adjustment Switch
Antitrespass Mat
Ballast Bottom
Ballast Top
Bin
Bottom of Bank
Top of Bank
Building
Bus Stop
Cable
Cable Trough
Canopy
Catchpit
Channel
Change of Surface
Check Rails
Concrete
Conductor Rail
Crash Barrier
Crossover Knuckle
Ditch
Door
Edge of Platform
Fence
Foliage
Foothpath
French Drain
Gabions
Gate
Girder
Handrail
Hedge
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Bottom of Kerb
Low Kerb

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Level Crossing Units
Magnet
Metal Base
Miscellanious
OLE Mast
Open Sided Building
Orange Pipe Crossing
Overhang
Overhead Line
Overhead Line Gantry
Pipe
Pylon
Rail Buffer
Railway Line
Retaining Wall
Road Markings
Road Sign
Road Verge
Rock Face
Safety Kerb
Scrap Rail
Seat
Shelter
Signal Gantry
Sleeper
Steps
Switch Equipment
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