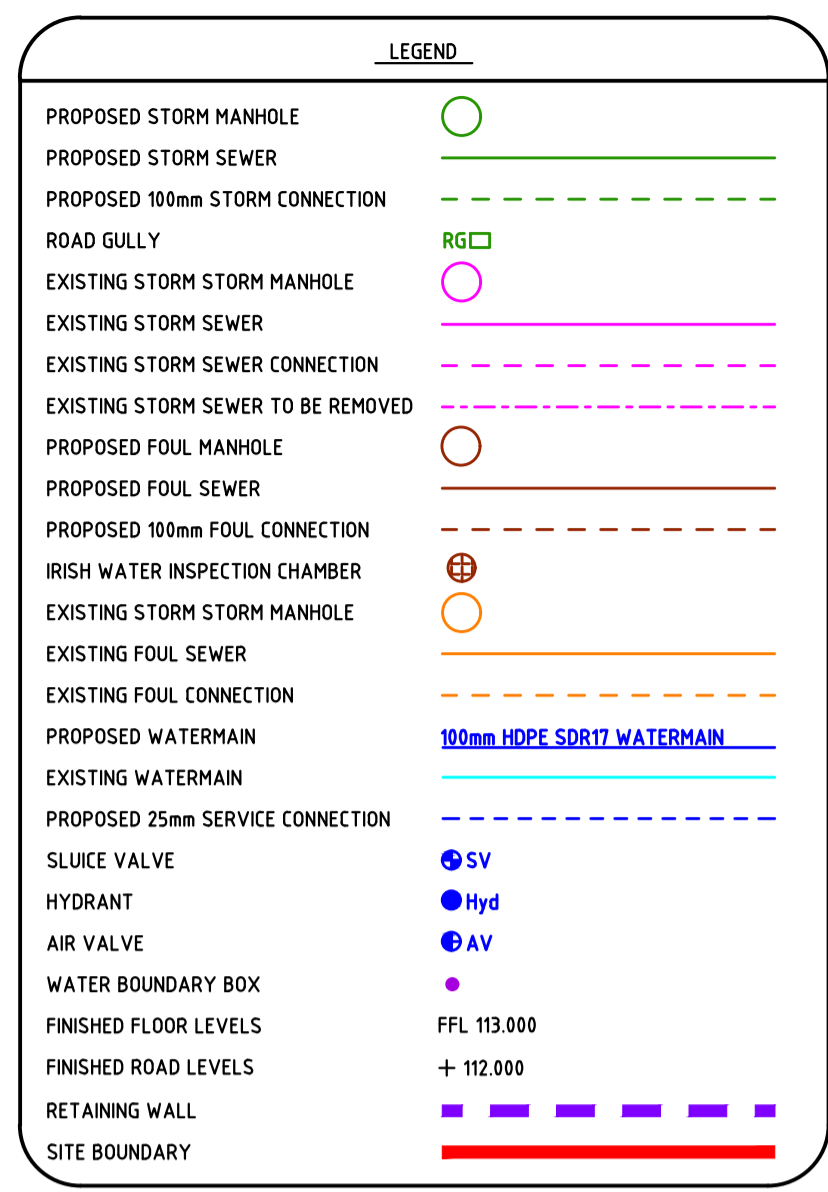


STORM SEWER			
MANHOLE REF	MANHOLE TYPE	COVER LEVEL	INVERT LEVEL
S1	1.2m	113.975	112.311
S2	1.2m	113.390	111.781
S3	1.2m	112.115	110.679
S4	1.2m	112.140	110.649
S5	1.2m	113.400	110.857 (TBC)
S6	1.2m	112.300	110.632
OUTFALL	-	-	110.000

FOUL SEWER			
MANHOLE REF	MANHOLE TYPE	COVER LEVEL	INVERT LEVEL
F1	1.2m	113.930	112.353
F2	1.2m	113.320	111.850
F3	1.2m	112.025	110.655



WASTE WATER INFRASTRUCTURE

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER DOCUMENTS IW-CDS-5030-01 (STANDARD DETAILS) & IW-CDS-5030-03 (CODE OF PRACTICE).

INDIVIDUAL WASTEWATER CONNECTION TO EACH DWELLING WILL BE AS PER STANDARD DETAIL DRAWING STD-W-02.

REFER TO SECTION 3.2 FOR SERVICE CONNECTION GRADIENTS.

THE INSPECTION CHAMBER WILL BE IN COMPLIANCE WITH STD-W-03 AND STD-W-13 AND WILL BE LOCATED WITHIN 1M OF EACH SITE BOUNDARY.

PIPE MATERIALS SHALL COMPLY WITH SECTION 3.13 OF THE IRISH WATER CODE OF PRACTICE.

PIPE MATERIALS WILL BE UNPLASTICISED PVC FOR THE MAIN SEWERS AS PER SECTION 3.13.3 OF THE IRISH WATER CODE OF PRACTICE.

COMPLIANCE WITH STANDARD DETAILS DRAWINGS STD-W-5, STD-W-6 & STD-W-6A SHALL BE ADHERED TO REGARDING SEPARATION DISTANCES FROM OTHER SERVICES, BOUNDARY WALLS & TREES.

MANHOLES WILL CONFORM TO STANDARD DETAILS STD-W-09, STD-W-10, STD-W-11 AND/OR STD-W-12 AS APPROPRIATE.

SEPARATION DISTANCES FROM FOUL SEWERS TO STRUCTURES AND OTHER UTILITIES WILL COMPLY WITH SECTION 3.5 OF THE IRISH WATER CODE OF PRACTICE.

REFER TO STD-W-12A, STD-W-06, STD-W-06A & 326 OF THE IRISH WATER CODE OF PRACTICE FOR PLANTING RESTRICTIONS OF WATER AND WASTE WATER. ROOT PROTECTION TO BE REDOBT 2000 OR SIMILAR.

REFER TO DETAILS STD-W-11 FOR TYPICAL SERVICES LAYOUT DISTANCES & STD-W-05 FOR WASTEWATER TYPICAL SERVICES LAYOUT AND 321 IRISH WATER WASTEWATER CODE OF PRACTICE.

REFER TO SECTION 3.5.16 OF THE WASTE WATER IRISH WATER CODE OF PRACTICE FOR UNAVOIDABLE SERVICES CROSSOVER.

MANHOLE COVERS LOCATED IN GRASS AREAS TO HAVE 200mm ALL ROUND CONCRETE PLINTH AND 100mm DEEP FORMED C8 CONCRETE, 20mm AGGREGATE, BEDDED IN CLAUSE 804 MATERIAL.

REFER TO 3.5.13 OF THE IRISH WATER CODE OF PRACTICE FOR STAGGERED MANHOLE SYSTEMS DETAILS.

EXTERNAL FACE OF PROPOSED MANHOLE CHAMBER TO BE A MINIMUM OF 0.5m FROM KERB LINE AND EXTERNAL FACE OF SEWERS ARE A MINIMUM OF 9m FROM KERB LINE. SEE SECTION 3.5.15 OF IRISH WATER WASTEWATER CODE OF PRACTICE.

CONFIRMATION BY A CHARTERED ENGINEER AND TEST RESULT CERTIFICATES INDICATING THAT THE WASTEWATER INFRASTRUCTURE HAS UNDERGONE APPROPRIATE ON-SITE TESTING AND COMMISSIONING, THE APPROPRIATE SITE TESTS FOR WASTEWATER COLLECTION INFRASTRUCTURE WOULD BE AS FOLLOWS:

- AIR TESTS AND WATER TESTS COMPLETION RESULTS FOR SEWERS
- WATER RETAINING TESTS COMPLETION RESULTS FOR MANHOLES AND PUMPING STATION STRUCTURES
- PRESSURE TESTING COMPLETION RESULTS OF RISING MAINS COMPLETE WITH A HARD COPY PRINT OUT FROM THE LOGGER OF THE RELAXATION CURVE AS PROOF OF THE OUTCOME OF THE TEST (IGN 4-01-03 COMPLIANT REPORT)
- A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT (HOPE WELDING)
- PUMPING STATIONS - TESTING & COMMISSIONING REPORTS

WASTEWATER INFRASTRUCTURE - CCTV & MANHOLE SURVEY REPORTS

REPORTING AND DELIVERING - THE FINAL REPORTS AND DELIVERABLES TO IRISH WATER SHALL INCLUDE THE FOLLOWING ITEMS:

- A - CCTV SURVEY FOOTAGE FILES IN "XML" FORMAT SUBMITTED TO IRISH IN ACCORDANCE WITH MSC, 5TH ADDITION, COMPATIBLE WITH INFONET.
- B - CCTV REPORTS/REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN CD OR DVD FORMAT WITH A HARD COPY OF THE SURVEY REPORT.
- C - MANHOLE SURVEY REPORTS/REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN "CSC" FORMAT ON CD OR DVD WITH A HARD COPY OF THE SURVEY REPORTS. MANHOLE REFERENCING SHALL BE CONSISTENT WITH THE AS CONSTRUCTED DRAWINGS - TO IRISH NATIONAL GRID COORDINATES (INGI) TO +/- 100mm ACCURACY IN THE HORIZONTAL PLANE, WITH DIMENSIONS RELATING TO FIXED ORDNANCE SURVEY CO-ORDINATES.
- D - CERTIFICATION FROM THE CUSTOMERS CONSULTANT ENGINEER, CONFIRMATION THAT A QUALITY CONTROL REGIME HAS BEEN IMPLEMENTED WITH THE RESULT THAT NO DEFECTS EXIST IN EITHER THE SEWERS OR THE MANHOLES.

NOTES

WATER INFRASTRUCTURE

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER DOCUMENTS IW-CDS-5020-01 (STANDARD DETAILS) & IW-CDS-5020-03 (CODE OF PRACTICE).

WATER BOUNDARY BOXES TO BE IN COMPLIANCE WITH THE IW CODE OF PRACTICE AND STANDARD DETAILS.

PIPE MATERIALS SHALL BE IN COMPLIANCE WITH SECTION 3.9 OF THE CODE OF PRACTICE.

COMPLIANCE WITH STANDARD DETAILS DRAWINGS STD-W-11, STD-W-12 & STD-W-12A SHALL BE ADHERED TO REGARDING SEPARATION DISTANCES FROM OTHER SERVICES, BOUNDARY WALLS & TREES.

SCOUR CHAMBER TO BE CONSTRUCTED AS PER IRISH WATER STANDARD DETAIL DRAWING STD-W-30.

BYPASS FLOW METER TO BE CONSTRUCTED AS PER IRISH WATER STANDARD DETAIL DRAWING STD-W-26F.

CONFIRMATION BY A CHARTERED ENGINEER AND TEST RESULT CERTIFICATES & REPORTS INDICATING THAT THE WATER INFRASTRUCTURE HAS UNDERGONE APPROPRIATE ON-SITE TESTING, OFF-SITE TESTING AND COMMISSIONING, THE APPROPRIATE SITE TESTS FOR WATER COLLECTION INFRASTRUCTURE WOULD BE AS FOLLOWS:

- IGN TEST REPORTS - WATERMAIN PRESSURE TESTING
- SERVICE CONNECTION TEST RESULTS
- ELECTROBUTT FUSION WELD TEST REPORTS (DESTRUCTIVE TESTING)
- PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH ELECTROFUSION & BUTT FUSION JOINT
- TESTING COMPLETION RESULTS FOR BOOSTER PUMP PLANT (IF APPLICABLE)
- SWABBING & FLUSHING RECORDS
- DISINFECTION TEST REPORTS (ACCREDITED LABORATORY REPORT)
- WATER QUALITY SAMPLING RESULTS (ACCREDITED LABORATORY REPORT)

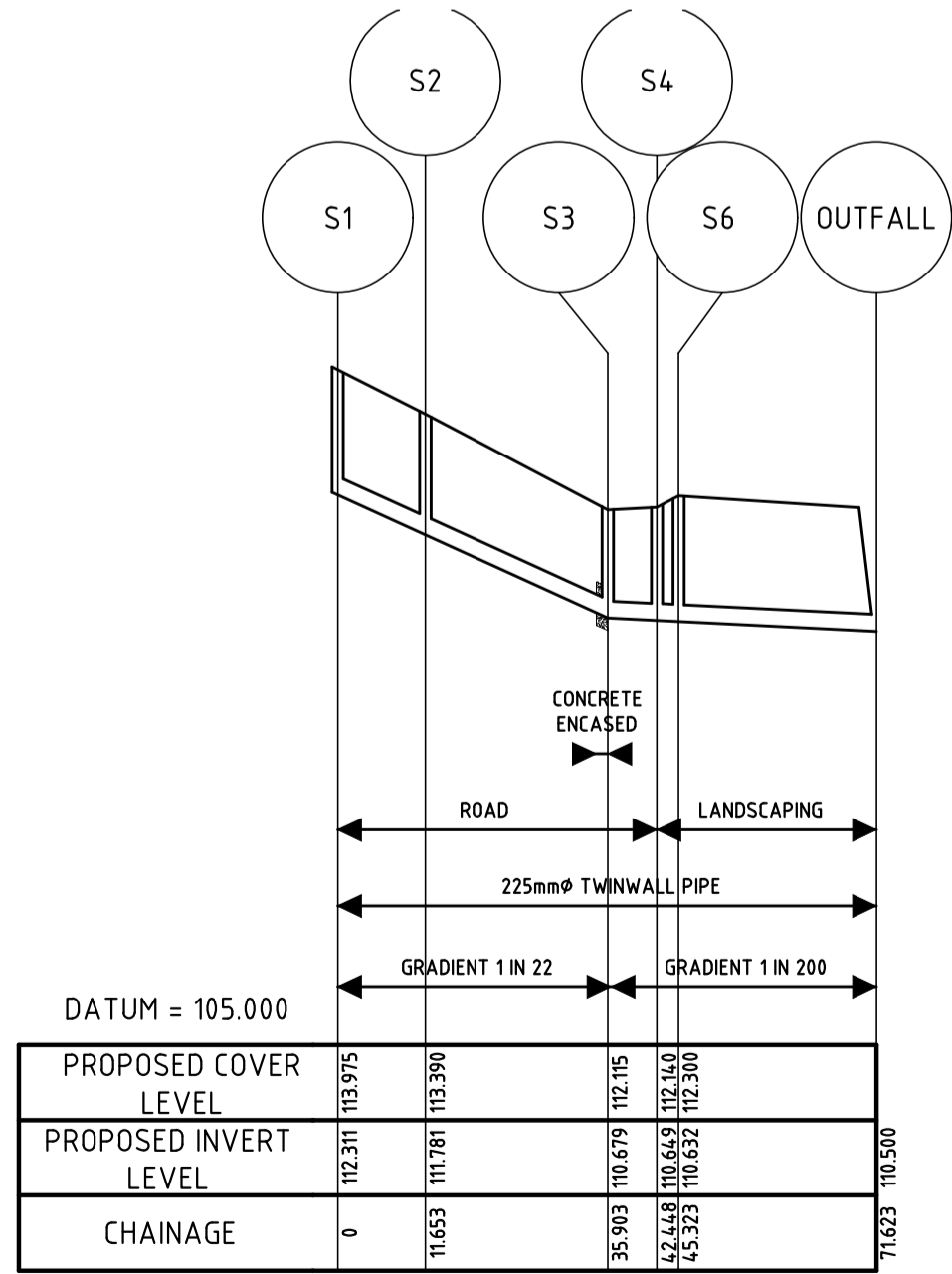
AS CONSTRUCTED DRAWINGS:

AS CONSTRUCTED RECORD DRAWINGS (IN HARD COPY AND DIGITAL FORMAT) SHALL SHOW THE LOCATION, LAYOUT PLANS, LONGITUDINAL SECTIONS AND DETAILS OF THE WORKS AND THE DEVELOPMENT IN FULL. PLAN SCALES SHOULD BE IN COMMON USE, ie 1:200, 1:500, 1:1000 OR 1:2500 AS APPROPRIATE. DRAWINGS SHOULD BE PREPARED USING AN ELECTRONIC SYSTEM AND SUBMITTED IN STANDARD "CAD COMPATIBLE (DWG/DXF)" FILE FORMAT. THESE DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION:

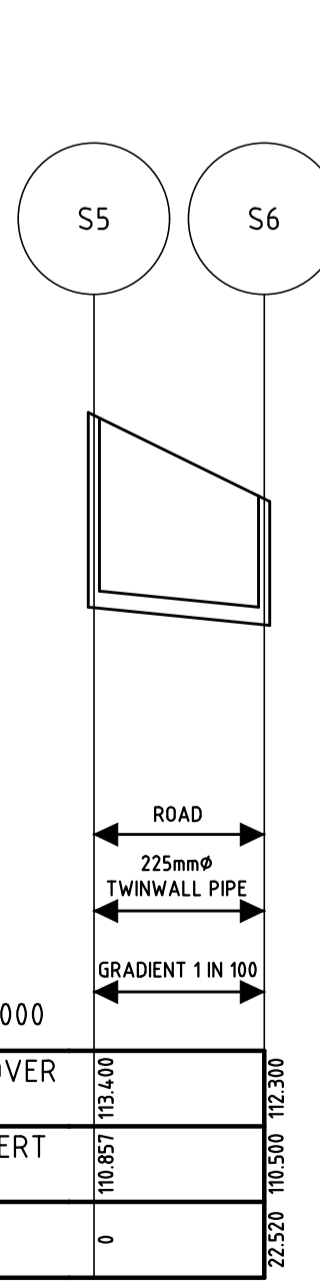
- LOCATIONS OF ALL VALVES, HYDRANTS, SCOUR VALVES OR WASHOUT HYDRANTS, METERS, DUCTS, TAPPING LOCATIONS, WATER MAIN AND SERVICE PIPES, BOUNDARY BOXES, ETC. COMPLETE WITH LEGENDS TO IRISH WATER'S REQUIREMENTS.
- DETAILED PIPE MATERIAL TYPES, SIZES, CONNECTION DETAILED PLANS OF PIPE BRANCHES, SHOWING VALVE LOCATIONS, ETC.
- LOCATIONS OF ASSETS ARE TO BE TO +/- 100MM ACCURACY IN THE HORIZONTAL PLANE TO THE CENTRE OF THE ASSET, WITH DIMENSIONS RELATING TO FIXED IRISH NATIONAL GRID (ING) CO-ORDINATES.
- COVER LEVEL FOR WATER MAIN FITTINGS AND INTERMITTENT WATER MAIN INVERT LEVELS RELATING TO FIXED ORDNANCE SURVEY DATUM (MALIN HEAD) TO AN ACCURACY OF +/- 200MM.
- LONGITUDINAL SECTIONS, TO AN EXAGGERATED VERTICAL SCALE, (SUCH AS 1:1000 HORIZONTAL AND 1:100 VERTICAL) SHOWING INSTALLED LEVELS, COMPLETED GROUND LEVELS, INVERT LEVELS, PIPE SIZES, BEDDING, HAUNCH AND SURROUND DETAILS, BACKFILL DETAILS, TOGETHER WITH CHAMBER LOCATIONS, CHANGES, GRADIENTS, PIPE MATERIALS, ETC. ALL CHAMBERS FOR WATER SUPPLY FITTINGS SHALL BE IDENTIFIED AND PROVIDED WITH LOCATION CO-ORDINATES TO IRISH NATIONAL GRID (ING) DETAILS OF ANY SERVICES AND STRUCTURES ON THE SITE, ESPECIALLY THOSE IN CLOSE PROXIMITY TO THE WORKS INCLUDING OFFSET MEASUREMENT TO THE WATER SUPPLY SYSTEM.
- DWELLING AND BUILDING NUMBERS.
- CONSTRUCTION DETAILS OF PUMP STATION AS WELL AS MECHANICAL, ELECTRICAL AND INSTRUMENTATION EQUIPMENT DETAILS.
- DETAILS OF SERVICES AND STRUCTURES ON THE SITE, EXISTING AND PROPOSED, ESPECIALLY THOSE IN CLOSE PROXIMITY TO THE WORKS INCLUDING OFFSETS MEASUREMENTS TO THE WORKS.

SITE SERVICES LAYOUT
SCALE 1:200

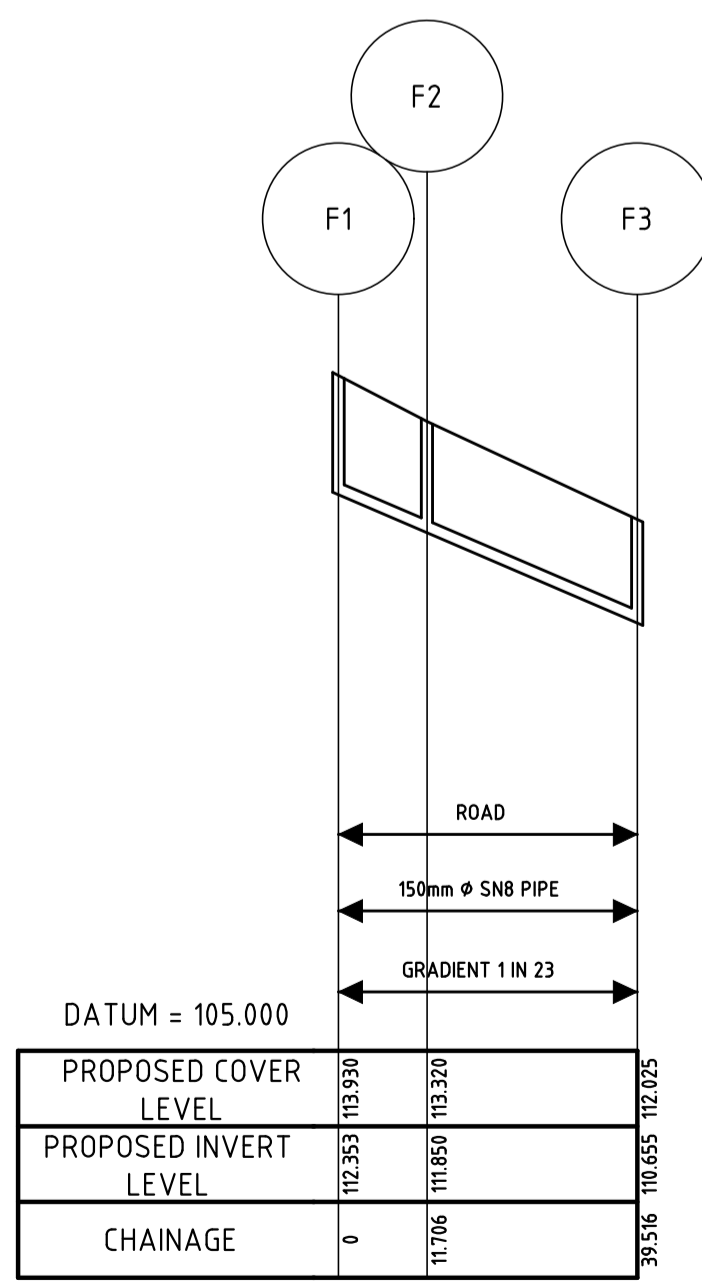
TENDER



PROPOSED STORM SEWER SECTIONS S5-S6
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:100



PROPOSED STORM SEWER SECTIONS S5-S6
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:100



PROPOSED FOUL SEWER SECTIONS F1-F3
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:100

T1	04/10/2023	ISSUED FOR TENDER	JOR
REV.	DATE	DESCRIPTION	APPROVED

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Alan Traynor Consulting Engineers Ltd

Unit 4, Baturbet Business Park, Creeny, Baturbet, Co. Cavan HA49Y9
TEL: (+353) 49952234

2nd Floor, 67-70 Meath St, Dublin 8 D08XV93
TEL: (+353) 1 497881
Email: info@alantraynor.com Website: www.alantraynor.com

ISO 9001 CERTIFICATION EUROPE

CLIENT CAVAN COUNTY COUNCIL			
PROJECT TITLE PROPOSED RESIDENTIAL DEVELOPMENT AT BARRACK LANE, KILNALECK, CO. CAVAN			
DRAWING TITLE PROPOSED SITE SERVICE LAYOUT			
SCALE AS SHOWN	DRAWN JOHN O'REILLY	CHECKED LIAM MCELGUNN	APPROVED ALAN TRAYNOR
DATE JUNE 2023	DATE JUNE 2023	DATE JUNE 2023	DATE JUNE 2023
DRAWING No. 23-104-100			REV. T1