

WATER INFRASTRUCTURE

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
- ELECTRO/BUTT FUSION WELD TEST RESULT 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 APPROPRIATE)
- SWABBING & FLUSHING RECORDS
- DISINFECTION TEST REPORTS (ACCREDITED LABORATORY REPORT)
- WATER QUALITY SAMPLING RESULTS (ACCREDITED LABORATORY REPORT)

WASTE WATER INFRASTRUCTURE

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

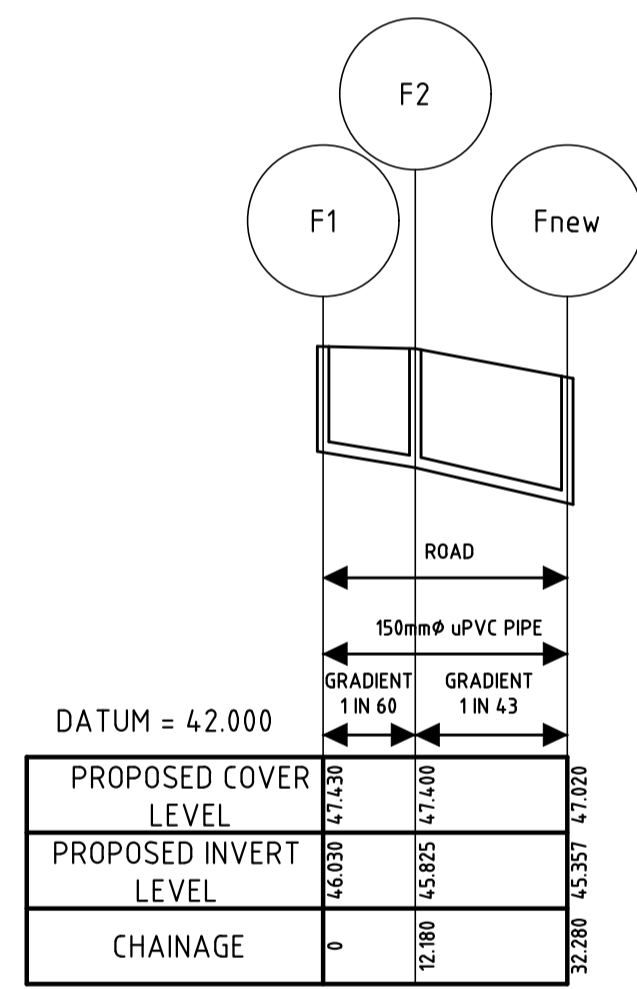
WASTEWATER INFRASTRUCTURE - CCTV & MANHOLE SURVEY REPORTS

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

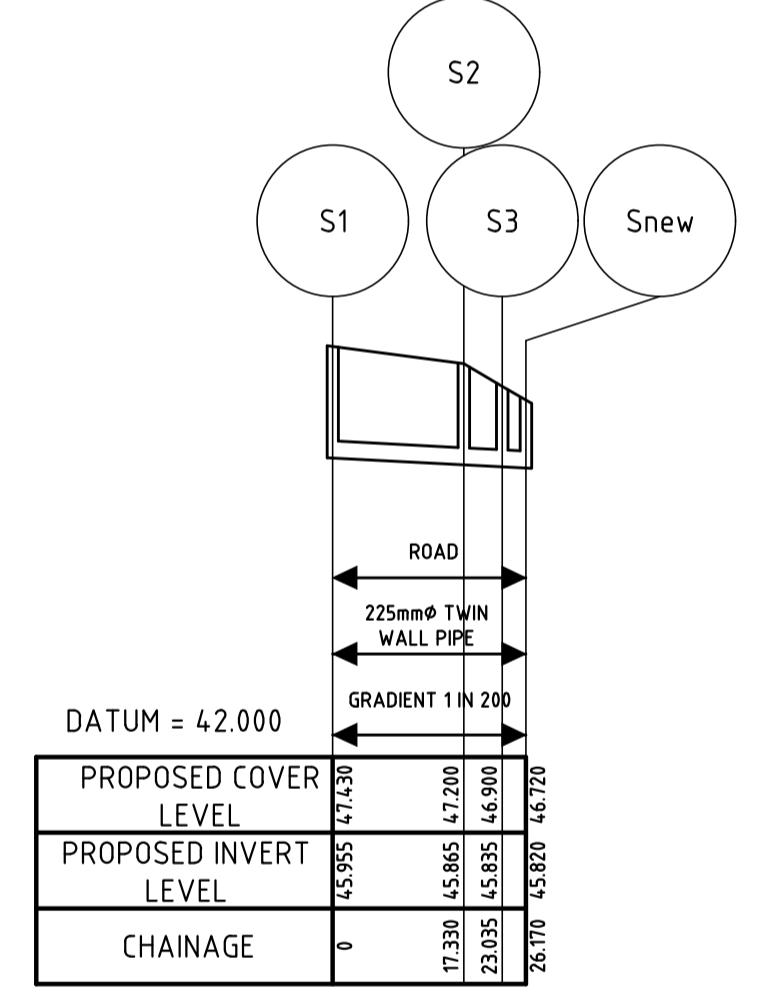
- A - CCTV SURVEY FOOTAGE: FILES IN "XML" FORMAT SUBMITTED TO IRISH IN ACCORDANCE WITH MSCC 5TH ADDITION, COMPATIBLE WITH INFONET.
- B - CCTV REPORTS: REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN CD OR DVD FORMAT WITH A HARD COPY OF THE SURVEY REPORT.
- C - MANHOLE SURVEY REPORTS: REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN "EXCEL" 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

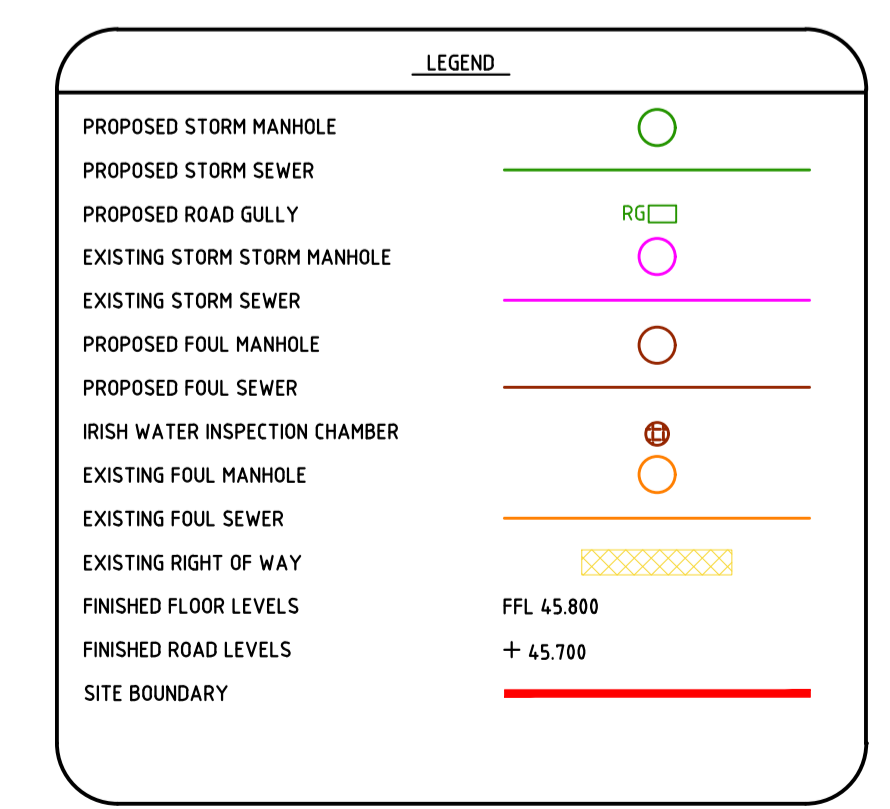
- ALL WORKS REGARDING THE FOUL SEWER TO BE CARRIED OUT TO IRISH WATER CODE OF PRACTICE DOCUMENT CDS-5030-03
- INDIVIDUAL WASTEWATER CONNECTION TO EACH DWELLING WILL BE AS PER STANDARD DETAIL STD-WW-02.
- REFER TO SECTION 3.2 FOR SERVICE CONNECTION GRADIENTS.
- THE INSPECTION CHAMBER WILL BE IN COMPLIANCE WITH STD-WW-03 AND STD-WW-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.
- MANHOLES WILL CONFORM TO STANDARD DETAILS STD-WW-09, STD-WW-10, STD-WW-11 AND/OR STD-WW-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-WW-06, STD-WW-06A & 3.26 OF THE IRISH WATER CODE OF PRACTICE FOR PLANTING RESTRICTIONS OF WATER AND WASTE WATER. ROOT PROTECTION TO BE REROD 2000 OR SIMILAR.
- REFER TO DETAIL STD-W-11 FOR TYPICAL SERVICES LAYOUT DISTANCES & STD-WW-05 FOR WASTEWATER TYPICAL SERVICES LAYOUT AND 3.21 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 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 1M FROM KERB LINE. SEE SECTION 3.5.15 OF IRISH WATER WASTEWATER CODE OF PRACTICE
- ALL WORKS TO COMPLY WITH THE RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS AS ISSUED BY THE DEPARTMENT OF THE ENVIRONMENT NOVEMBER 1998
- ALSO REFER TO ALAN TRAYNOR CONSULTING ENGINEERS GENERAL SPECIFICATION
- ALL SEWER PIPES WITH LESS THAN 1200MM COVER IN ROADS AND 600MM ELSEWHERE TO BE SURROUNDED IN MINIMUM 150MM THICK CONCRETE (35M/20)
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTS DRAWINGS
- EXACT START & FINISHED LEVELS TO BE CONFIRMED ON SITE
- ALL MANHOLE COVERS TO BE LOADING CLASS D400 AND TO BE LOCKABLE
- LOCATION AND LEVELS OF ALL EXISTING SERVICES TO BE CONFIRMED ON SITE AND RECORDED TO ALL NECESSARY PARTIES PRIOR TO ANY CONSTRUCTIONS



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



PROPOSED STORM SEWER SECTIONS
S1-Snew
 HORIZONTAL SCALE 1:100
 VERTICAL SCALE 1:100



REV.	DATE	DESCRIPTION	APPROVED

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ISO 9001 CERTIFICATION EUROPE

CLIENT
LEITRIM COUNTY COUNCIL

PROJECT TITLE
PROPOSED HOUSING DEVELOPMENT DRUMSNA, CO LEITRIM

DRAWING TITLE
SITE SERVICES LAYOUT PROPOSED FOUL & SURFACE WATER SEWERS

SCALE	DRAWN	CHECKED	APPROVED
1:100	JOHN O'REILLY	LIAM MCELGUNN	ALAN TRAYNOR
	DATE	DATE	DATE
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DRAWING No.	22-202-100		REV.