

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 +/- 20MM.
- 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.

**NOTES**

**WASTE WATER INFRASTRUCTURE**

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER DOCUMENTS W-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-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.

COMPLIANCE WITH STANDARD DETAILS DRAWINGS STD-WW-5, STD-WW-6 & STD-WW-8A SHALL BE ADHERED TO REGARDING SEPARATION DISTANCES FROM OTHER SERVICES, BOUNDARY WALLS & TREES.

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-06 & 3.26 OF THE IRISH WATER CODE OF PRACTICE FOR PLANTING RESTRICTIONS OF WATER AND WASTE WATER ROOT PROTECTION TO BE REEROT 2000 OR SIMILAR.

REFER TO DETAILS 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.

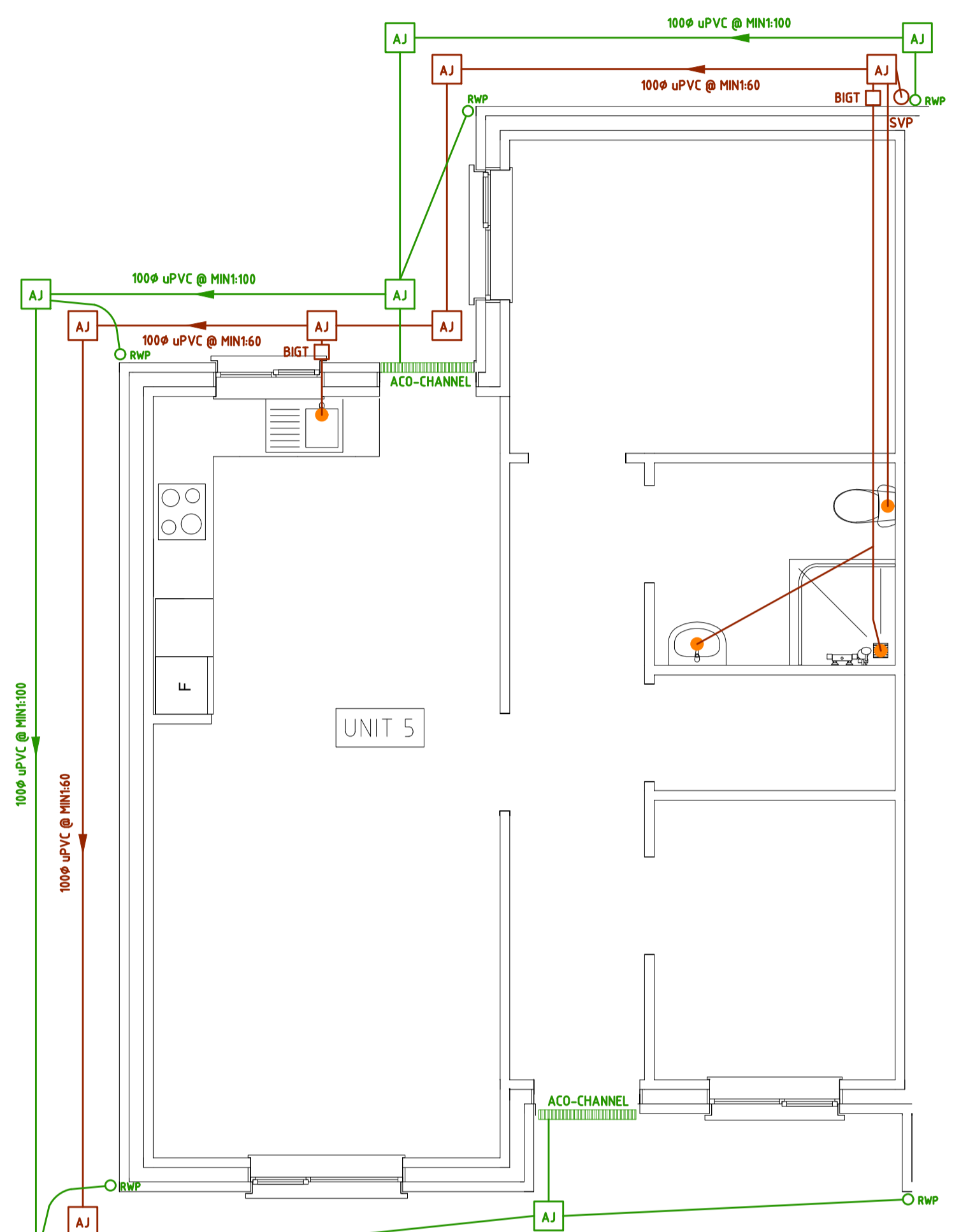
CONFIRMATION BY A CHARTERED ENGINEER AND TEST RESULT CERTIFICATES INDICATING THAT THE WASTEWATER INFRASTRUCTURE HAS UNDERGONE APPROPRIATE ON-SITE TESTING AND COMMISSIONING. THE APPROPRIATE SITE TESTS FOR WASTEWATER COLLECTION INFRASTRUCTURE WOULD BE AS FOLLOWS:

- 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 L-01-03 COMPLIANT REPORT)
- A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT (HOPE WELDING)
- PUMPING STATIONS - TESTING & COMMISSIONING REPORTS

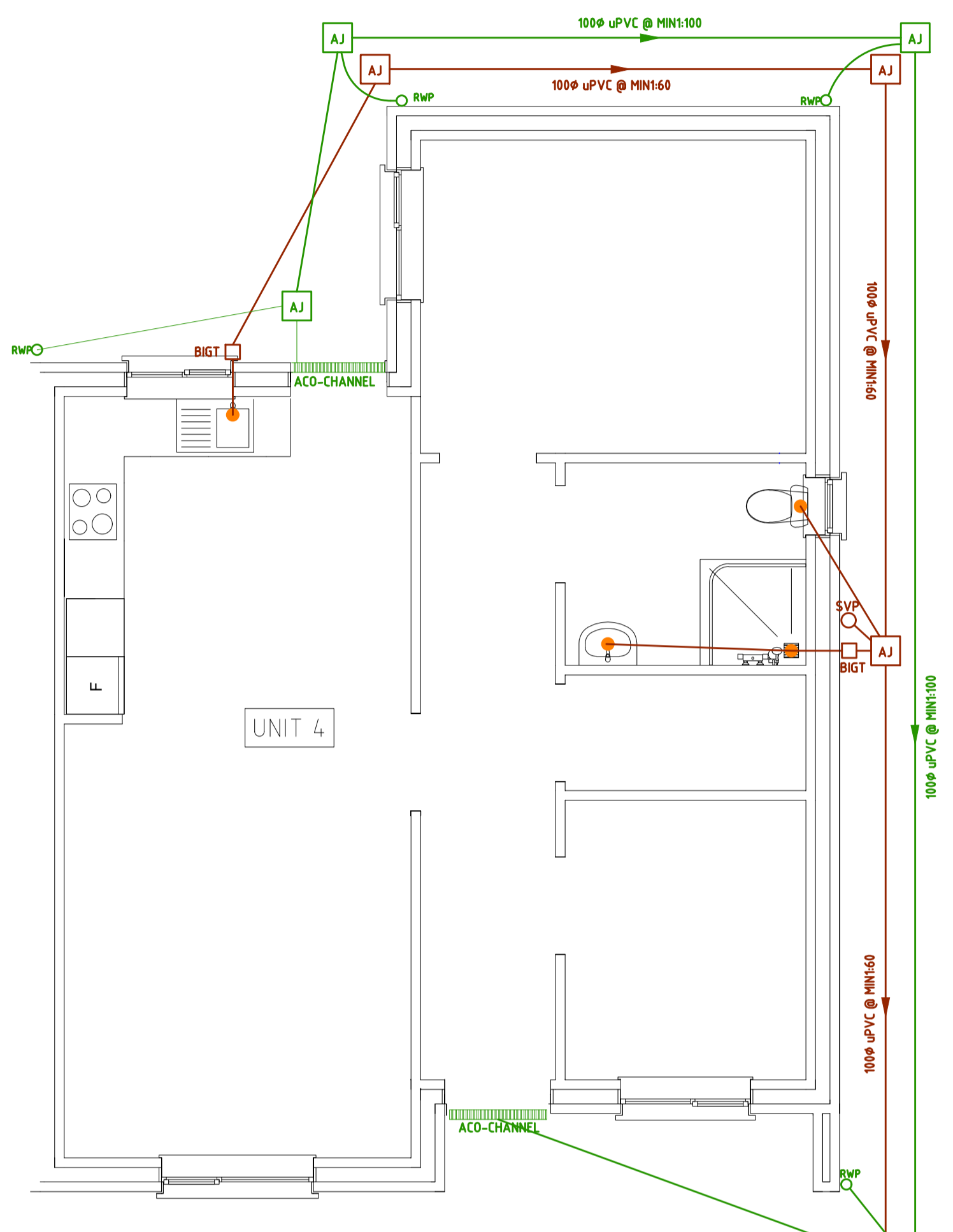
**WASTEWATER INFRASTRUCTURE - CCTV & MANHOLE SURVEY REPORTS**

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

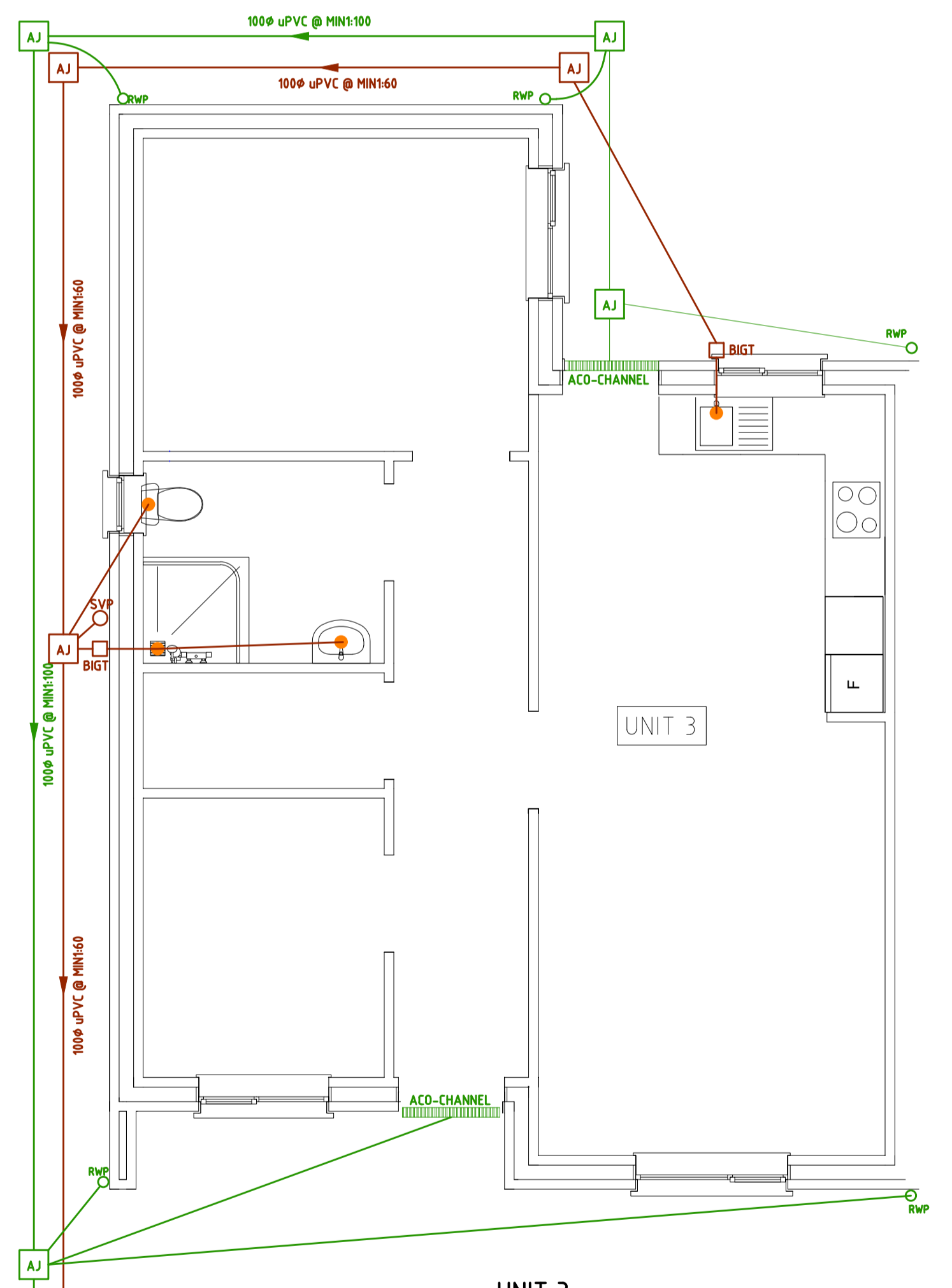
- A- CCTV SURVEY FOOTAGE: FILES IN "XML" FORMAT SUBMITTED TO IRISH IN ACCORDANCE WITH MSCC, 5TH ADDITION, COMPATIBLE WITH INFONET.
- B- CCTV REPORTS: REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN CD OR DVD FORMAT WITH A HARD COPY OF THE SURVEY REPORT.
- C- MANHOLE SURVEY REPORTS: REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN "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 (ING) TO +/- 100mm ACCURACY IN THE HORIZONTAL PLANE, WITH DIMENSIONS RELATING TO FIXED ORDNANCE SURVEY CO-ORDINATES.
- D- CERTIFICATION FROM THE CUSTOMER'S 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.



**UNIT 5**  
SCALE 1:50



**UNIT 4**  
SCALE 1:50



**UNIT 3**  
SCALE 1:50

LEGEND	
FOUL SEWER	→
FOUL SEWER AJ	AJ
FOUL SEWER BIGT	BIGT
SOIL VENT PIPE	SVP
110mm BUILDERS UPSTAND	●
SURFACE WATER SEWER	→
SURFACE WATER AJ	AJ
RAIN WATER PIPE	RWP
ACO CHANNEL	----

TENDER

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

COPYRIGHT RESERVED - THIS DRAWING IS NOT TO BE USED FOR A PURPOSE OTHER THAN THAT FOR WHICH IT HAS BEEN ISSUED BY ALAN TRAYNOR CONSULTING ENGINEERS. NOR IS IT TO BE COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN CONSENT.

**Alan Traynor Consulting Engineers Ltd**

Unit 4, Baturbet Business Park, Creeny, Baturbet, Co. Cavan H44Y9A  
 TEL: (+353) 099522234  
 2nd Floor, 67-70 Meath St, Dublin D08X9Y3  
 TEL: (+353) 01497881  
 Email: info@alantaynor.com Website: www.alantaynor.com

ISO 9001 CERTIFICATION EUROPE

CLIENT <b>CAVAN COUNTY COUNCIL</b>			
PROJECT TITLE <b>PROPOSED RESIDENTIAL DEVELOPMENT AT BARRACK LANE, KILNALECK, CO. CAVAN</b>			
DRAWING TITLE <b>BUILDING DRAINAGE UNITS 3, 4 &amp; 5</b>			
SCALE <b>1:50</b>	DRAWN JOHN O'REILLY DATE JUNE 2023	CHECKED LIAM McELGUNN DATE JUNE 2023	APPROVED ALAN TRAYNOR DATE JUNE 2023
DRAWING No. <b>23-104-103</b>			REV. <b>T1</b>