## <u>WASTEWATER DRAINAGE LEGEND:</u>

DENOTES EXISTING FOUL SEWER

DENOTES PROPOSED FOUL DRAINAGE & MANHOLE DENOTES PROPOSED INSPECTION CHAMBER AS

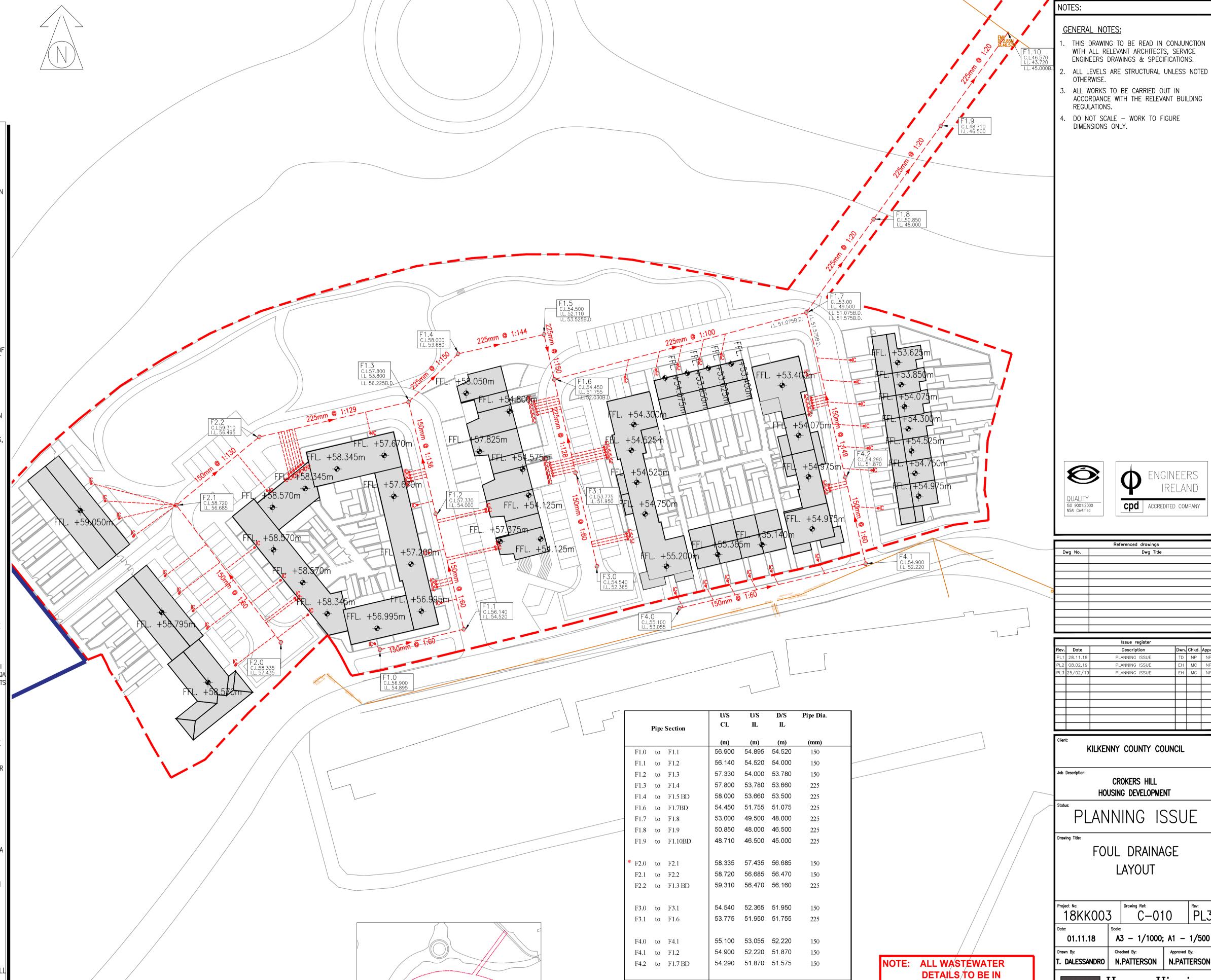
PER IRISH WATER DETAILS DENOTES PROPOSED ARMSTRONG JUNCTION

## **GENERAL DRAINAGE NOTES:**

- . ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
- 2. ALL LEVELS ARE IN METRES ABOVE DATUM UNLESS OTHERWISE NOTED.
- 4. ALL PIPE DIAMETERS ARE NORMAL.
- 3. THE CONTRACTOR MUST CONTACT THE RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION  $\mid$ WORK, & SATISFY HIMSELF IN RESPECT TO THE LOCATION OF ALL EXISTING SERVICES.
- 4. ALL SEWER & DRAIN PIPES ARE uPVC STIFFNESS CLASS SN8 (8Kn/m2) UNLESS OTHERWISE STATED.
- 5. ALL BEDDING TO SEWERS IS CLASS 'B' UNLESS OTHERWISE NOTED.
- 6. ALL MANHOLES CAN BE EITHER PRECAST CONCRETE RING MANHOLES OR BLOCKWORK UNLESS OTHERWISE STATED.
- 7. 600mm MAX. LENGTH ROCKER PIPES ARE TO BE PROVIDED ON SEWER WHERE:
- (A) A PIPE ENTERS A MANHOLE OR PUMPING STATION.
- (B) A PIPE LEAVES A MANHOLE. (C) A PIPE ENTERS CONCRETE ENCASEMENT.
- (D) A PIPE LEAVES CONCRETE ENCASEMENT.
- (E) ANY OTHER LOCATION AS DIRECTED BY THE ENGINEER.
- $\mid$  8. ALL SEWER ROCKER PIPES ARE TO BE FORMED BY CUTTING & TRIMMING A LENGTH OF SPIGOT & SOCKET PIPE TO FORM A SPIGOT AT THE CUT END, THEREBY FORMING SPIGOT & SOCKET JOINTS AT BOTH ENDS OF THE ROCKER PIPE.
- 9. WHERE SEWER PIPES OR RISING MAINS CONNECT TO EXISTING MANHOLES, THE CONTRACTOR IS REQUIRED TO:
- (A) CONTACT THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK. (B) MAKE GOOD THE EXISTING CHAMBER WALL AT THE PROPOSED POINT OF PENETRATION & ADJUST THE EXISTING BENCHING TO THE SATISFACTION OF THE ENGINEER.
- 10. WHERE SEWER PIPES, RISING MAINS OR ROAD GULLY DRAINS CROSS EXISTING ROADS, THE CONTRACTOR IS REQUIRED TO:
- (A) CONTACT THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK. (B) MAKE GOOD THE EXISTING ROAD TO ITS ORIGINAL SPECIFICATION AS APPROVED BY THE ENGINEER.
- 1. MINIMUM FALLS INDICATED ON DRAINAGE PIPES, LEVELS TO BE REVISED IF MANHOLE LOCATIONS ARE MODIFIED BY CONTRACTOR.
- 12. CONCRETE PROTECTION TO BE PROVIDED AROUND ALL PIPES UNO.
- 13. ALL BRANCH & PERIMETER DRAINAGE ARE TO BE DETAILED BY ARCHITECT.
- 14. PROPRIETARY ACCESS JUNCTIONS TO BE USED TO DEPTHS OF 600mm OR LESS.
- 15. 450x450mm INSPECTION CHAMBERS TO BE USED AT DEPTHS OF 600-1000mm. 16. MANHOLES TO DETAILS TO BE USED AT DEPTHS OVER 1000mm.
- 17. ROAD GULLIES TO BE PROVIDED SO THAT MAX AREA CONTRIBUTING TO A SINGLE
- 18. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH 'RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS', DEPARTMENT OF THE ENVIRONMENT.
- 19. ALL FOUL MANHOLE BASES TO BE PRECAST CONCRETE PRE-BENCHED OFF SITE.
- $\mid$  20. THE CONTRACTOR IS TO INCLUDE FOR THE EMPLOYMENT OF A CHARTERED ENGINEER WITH P INSURANCE TO €6.5m TO WITNESS THE INSTALLATION OF ALL AIR TESTS & OTHER IRISH WATER QA AS REQUIRED UNDER THE IRISH WATER QUALITY ASSURANCE (QA) FIELD INSPECTION REQUIREMENTS MANUAL, SEPTEMBER 2017 VERSION 1. IT IS A REQUIREMENT OF THE MAIN CONTRACTOR TO AGREE THE REQUIRED QA WITH THE IW FIELD INSPECTORS, RETAIN ALL THE QA DOCUMENTS ON SITE & REPAIR ANY DEFECTS. THE MAIN CONTRACTORS CHARTERED ENGINEER & THE MAIN CONTRACTOR ARE RESPONSIBLE FOR AGREEING ON SITE CONFORMANCE WITH IW PRIOR TO HAND OVER OF THE WORKS TO IW. THE PRICE FOR ALL THE ABOVE IS TO BE INCLUDED IN THE MAIN CONTRACTORS TENDER SUM.
- 21. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH 'RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS', DEPARTMENT OF THE ENVIRONMENT.
- 22. CONCRETE PROTECTION WILL BE PROVIDED OVER PIPES WHERE THE DEPTH OF COVER TO PIPES UNDER ROADS IS LESS THAN 1200mm & 900mm UNDER GRASSED/PAVED
- 23. CONTRACTOR TO REFER TO LATEST IRISH WATER SPECIFICATION AT TIME OF CONSTRUCTION FOR ALL WASTEWATER DETAILS PRIOR TO COMMENCING CONSTRUCTION. REFER TO WEBSITE https:/www.water.ie/connections.
- TESTING OF SEWERS:

GULLEY IS 180m2.

- FOUL & SURFACE WATER SEWERS TO BE TESTED EITHER BY WATER OR AIR TEST. IF THE AIR TEST IS CARRIED OUT & THE RESULTS SHOW A FAILURE THEN A WATER TEST SHALL BE SUBSEQUENTLY CARRIED OUT TO DETERMINE ACCEPTANCE OR REJECTION.
- . WATER TESTS CARRIED OUT SHALL BE TESTED IN UNDER A HEAD OF WATER IN ACCORDANCE WITH BS 8301 1995, & CARRIED OUT FOR A MINIMUM OF 30 MINUTES.
- 5. THE CONTRACTOR IS TO ENGAGE AN ENGINEER WITH PROFESSIONAL INDEMNITY INSURANCE TO SUPERVISE ALL AIR/WATER TESTS ON MAINS BEFORE BACKFILLING.
- 4. ON COMPLETION OF ALL SEWERS DRAINS & GULLIES, ALL SEWERS SHALL BE FLUSHED OUT & LEFT FREE FROM DEFECT & OBSTRUCTION & SUBSEQUENTLY A CCTV SURVEY SHALL BE CARRIED OUT BY AN INDEPENDENT CONTRACTOR OF THE AS BUILT DRAINAGE. THE CCTV SURVEY SHALL INCLUDE A REPORT & DVD & SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT PRIOR TO PRACTICAL COMPLETION.
- 5. ON COMPLETION OF ALL SEWERS, DRAINS & GULLIES AN AS-BUILT SURVEY MUST BE SUBMITTED INCLUDING LOCATION OF MANHOLES RELATIVE TO THE BUILDING OUTLINE. COVER. INVERT LEVELS & PIPE DIAMETERS TO THE ENGINEER & ARCHITECT FOR THEIR REVIEW PRIOR TO PRACTICAL COMPLETION.



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**ACCORDANCE WITH** 

**DOCUMENT NUMBER:** 

IRISH WATER

IW-CDS-5030-01

\* = CONCRETE PROTECTION WILL BE PROVIDED OVER PIPES

NOTIFY ENGINEER IF DIFFERENT.

BD = Back Drop manhole

KEY PLAN

N.T.S. SCALE

uPVC PIPES ASSUMED AS THE DRAINAGE MATERIAL, PLEASE