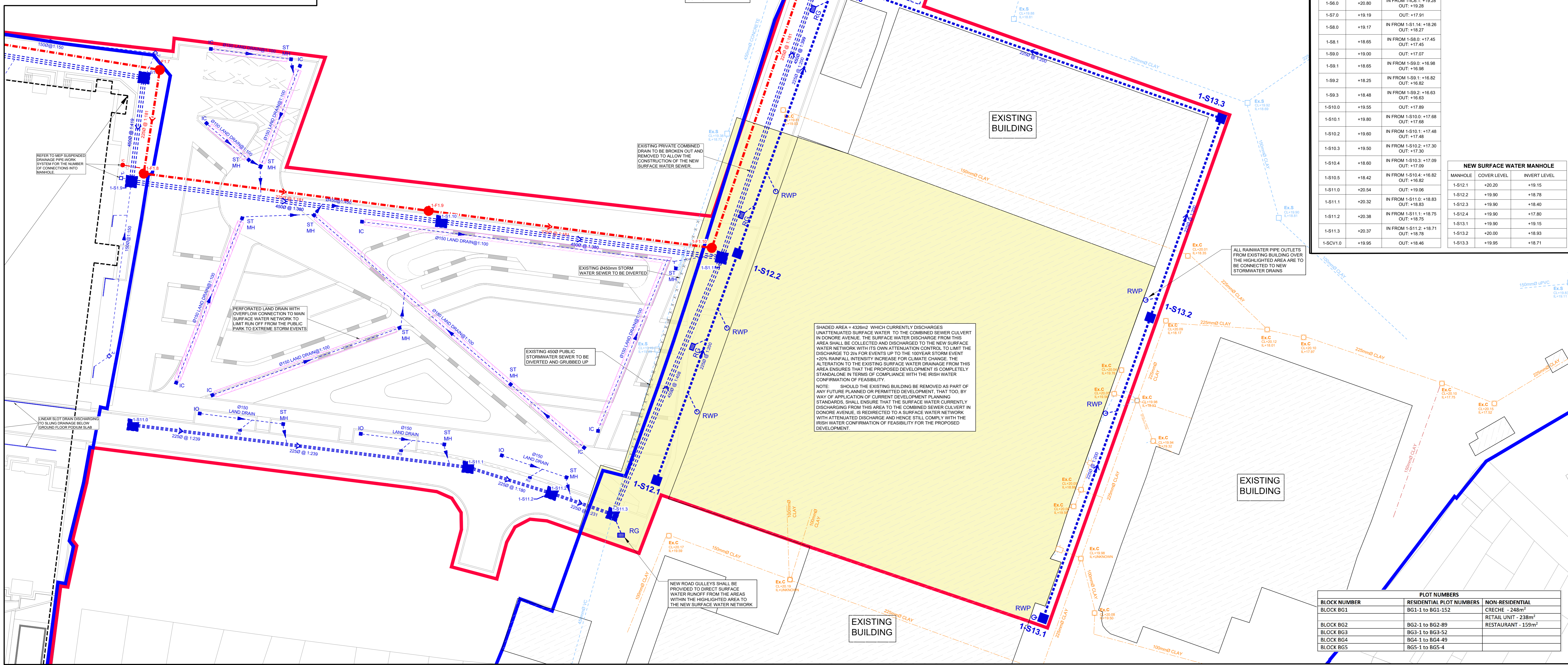


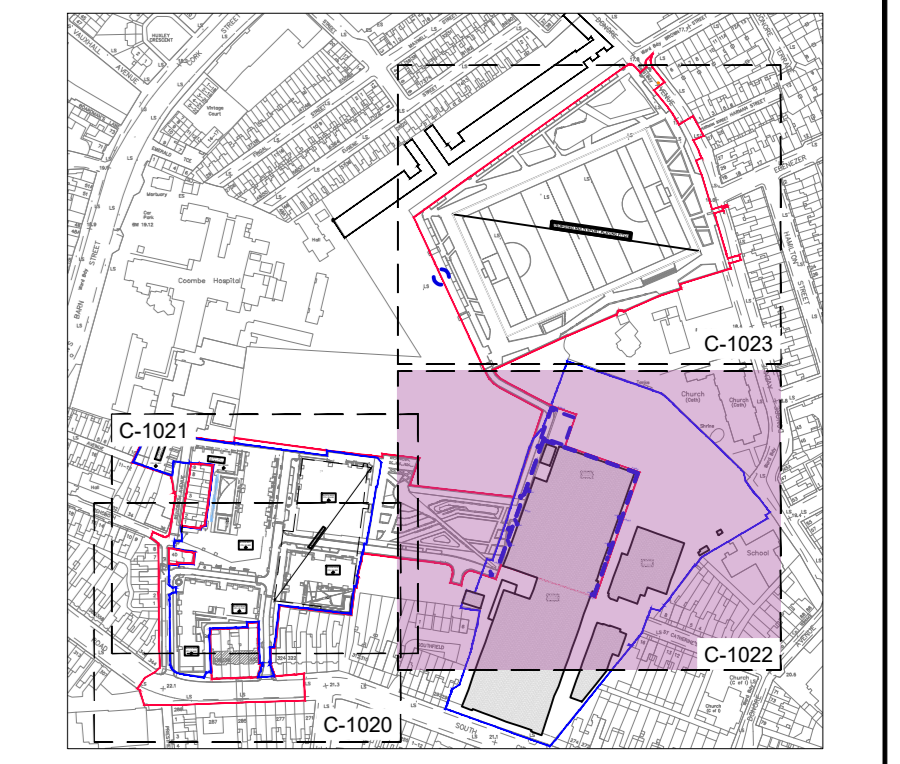
- ### 1. DRAINAGE NOTES
- SURFACE WATER DRAINS TO BE AS SPECIFIED ON DRAWING BGL-BMD-ZZ-DR-C-1220 & 1222.
 - FOUL DRAINS TO BE UNPLASTICISED PVC PIPES TO IS EN 1401 2009/2011 CLASS SNE IN LINE WITH THE REQUIREMENTS OF IRISH WATER CODE OF PRACTICE FOR WASTEWATER.
 - PIPE DIAMETERS SHOWN ON DRAINAGE LAYOUTS ARE REQUIRED MINIMUM INTERNAL DIAMETERS (MM).
 - ALL DRAINS WITH COVER LESS THAN 0.5M IN GARDENS/PATHWAYS AND 1.2M UNDER ROADS TO BE REDDED & SURROUNDED IN C16/20 CONCRETE AS PER BMCE DRAWING BGL-BMD-ZZ-DR-C-1220 & 1222 AND SPECIFICATIONS.
 - DUBLIN CITY COUNCIL SURFACE WATER MANHOLES (LOCATED UNDER ALL ROADS) TO BE HIGH DENSITY BLOCKWORK TO IS 20 PART 1/197 OR CAST IN SITU CLASS 30N/200M IN LINE WITH THE GREATER DUBLIN REGION (GDR) CODE OF PRACTICE FOR DRAINAGE. REFER TO SUPPORTING DOCUMENTATION AND BMCE DRAWING BGL-BMD-ZZ-DR-C-1220 & 1222. ALL MANHOLES TO BE WATERTIGHT STRUCTURES.
 - ALL FOUL DRAINAGE & WATERMANS OUTSIDE THE BUILDING FOOTPRINT TO BE CONSTRUCTED IN ACCORDANCE WITH IRISH WATER DETAILS & CODES OF PRACTICE.
 - INSPECTION CHAMBERS (IC / AJ) TO BE POLYPROPYLENE 0.5M INTERNAL DIAMETER, MAXIMUM OF 1.0M DEEP. 150MM THICK C16 / 20 CONCRETE BED AND SURROUND.
 - SILT TRAP MANHOLES (ST MH) TO BE CAST IN SITU CONCRETE CL 30N/200M IN LINE WITH THE GREATER DUBLIN REGION (GDR) CODE OF PRACTICE FOR DRAINAGE. PIT TO BE 0.5M DEEP (BELOW OUTLET INVERT LEVEL).
 - TREE PITS (TP) TO BE PROPRIETARY UNITS. REFER TO BMCE DRAWING BGL-BMD-ZZ-DR-C-1221. INSPECTION OPENINGS (IO) ADJACENT TO TREE PITS TO BE DUCTILE IRON COVERS/FRAMES. MIN CLASS D400 TO IS EN 1242 2015.
 - MANHOLE COVERS IN TRAFFICKED AREAS TO BE MIN CLASS D400 TO IS EN 1242 2015 DUCTILE IRON COVERS/FRAMES. ALL OTHER AREAS TO BE MIN CLASS 2500 MANHOLE COVERS IN CARRIAGEWAYS TO HAVE POLYESTER RESIN BEDDING MATERIAL FOR FLOORING MANHOLE FRAMES AS PER BMCE CIVIL SPECIFICATION.
 - ROAD GULLIES TO BE CONSTRUCTED OF 150MM ENGINEERING BLOCKS OR 225MM MASS CONCRETE TO GDR CODE OF PRACTICE FOR DRAINAGE. COVER FRAME TO BE DUCTILE IRON WITH MIN CLASS D400 TO IS EN 1242 2015. REFER TO SUPPORTING DOCUMENTATION AND BMCE DRAWING BGL-BMD-ZZ-DR-C-1210.
 - DRAINS FROM A1 / ICs TO MAIN LINES TO BE 100mm DIAMETER UPVC UNLESS OTHERWISE SHOWN ON LAYOUT, BED AND SURROUNDED IN 150mm CONCRETE.
 - LAND DRAIN TO BE 100 DIA. UPVC PERFORATED PIPES, BED & SURROUND IN 150MM THICK PEA GRAVEL & WRAPPED IN TERRAM 1000 OR SIMILAR APPROVED GEOTEXTILE.
 - INFILTRATION TRENCH TO BE GRANULAR FILL MATERIAL, TO TB SPECIFICATION TO CLAUSE 505 TYPE B. TRENCH TO BE 400MM DEEP BY 700MM WIDE, UNLESS OTHERWISE SHOWN ON THIS DRAWING.
 - ALL TRENCHES IN ROADS TO BE BACKFILLED TO FORMATION LEVEL WITH CLAUSE 808 MATERIAL TO TB SPECIFICATION.
 - DIMENSIONED POSITION OF BUILDERS UPSTAND (PU / SWP / RWP) STACKS TO BE PROVIDED BY THE ARCHITECT.
 - CONNECTIONS FROM PUS / RWPS TO BE 100 DIA. UPVC PIPES UNLESS OTHERWISE SHOWN. FOUL DRAIN CONNECTIONS FROM PUS (WASTE AND OR SOL) TO EXTERNAL MANHOLES OR INSPECTION CHAMBERS TO BE LAID TO A MINIMUM FALL OF 1 IN 40. RWP CONNECTIONS TO EXTERNAL SYSTEM TO BE LAID TO A MINIMUM FALL OF 1 IN 100.
 - MANHOLE COVERS / INSPECTION CHAMBERS TO MATCH FINISHED LEVELS OF EXTERNAL PAVING, ROAD, HARDSTANDING OR LANDSCAPED AREAS COVER LEVELS ARE INDICATIVE ONLY.
 - PRIOR TO COMPLETION OF DRAINAGE CONSTRUCTION ON SITE THE CONTRACTOR SHALL COMPLETE THE NEXT LIST OF WORKS IN ACCORDANCE WITH THE SPECIFICATION.
 - RELEASE THE SYSTEM.
 - TEST ALL PIPE WORK.
 - CARRY OUT A CCTV INSPECTION.
 - COMPLETE A SET OF AS CONSTRUCTED DRAWINGS.
 - THE CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR LOCATING THE POSITIONS OF ALL EXISTING SERVICES AND SHALL IF REQUIRED BY THE ENGINEER/CLIENT, REPRESENTATIVE CARRY OUT A SURVEY OF THE SITE TO LOCATE THESE SERVICES INCLUDING WHERE REQUIRED RATES FOR CARRYING OUT EXCAVATION IN ROADS, AND ELSEWHERE WHERE SERVICES ARE ENCOUNTERED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIVERSION OF EXISTING SERVICES ENCOUNTERED DURING THE COURSE OF THE WORK.
 - ALL EXISTING SERVICES SHOWN ON THE GPR SURVEY PROVIDED IN THE SUPPORTING DOCUMENTATION AND NOT SHOWN ON THIS DRAWING, TO BE BROKEN AND REMOVED.
 - ALL EXISTING OCC AND IRISH WATER SEWERS TO BE MAINTAINED AND KEPT ALIVE DURING WORKS.
 - ALL STACKS TO BE REDDED ABOVE SLAB LEVEL.
 - MINIMUM DISTANCE BETWEEN BRANCH CONNECTIONS TO THE MAIN LINES TO BE 300mm.
 - ALL BRANCH CONNECTIONS TO MAIN LINE FOUL SEWER TO BE BY MEANS OF 45 DEGREE 'Y' BRANCH CONNECTIONS ONLY.
 - ALL FINAL FOUL INSPECTION CHAMBERS WITHIN THE CURTAGE OF EACH PROPERTY TO BE IN ACCORDANCE WITH IRISH WATER'S STANDARD DETAILS FOR INSPECTION CHAMBERS.
 - THE CONTRACTOR SHALL NOTE THE TESTING REQUIREMENTS, WHICH SHALL APPLY TO BOTH FOUL AND SURFACE WATER NETWORKS, AS OUTLINED IN THE IRISH WATER QUALITY ASSURANCE FIELD INSPECTION REQUIREMENTS MANUAL, AND ALLOW FOR ALL COSTS ASSOCIATED WITH TESTING AND COMMISSIONING. THE CONTRACTOR SHALL NOTE THAT IRISH WATER NOW REQUIRE A CHARTERED ENGINEER TO CERTIFY INSTALLATION / TESTING, MATERIALS COMPLIANCE AND WORKMANSHIP.
 - THE CONTRACTOR SHALL PREPARE ALL FINAL DOCUMENTS PRIOR TO HANDOVER FOR SUBMISSION TO IRISH WATER AS OUTLINED IN APPENDIX 4 OF THE IRISH WATER QUALITY ASSURANCE FIELD INSPECTION REQUIREMENTS MANUAL. IN PARTICULAR, THE CONTRACTOR SHALL NOTE THE REQUIREMENTS FOR MANHOLE INTEGRITY TESTS, PIPELINE AIR TESTS, MANHOLE INSPECTION CARDS, CCTV SURVEYS OF COMPLETED PIPE WORK, AND AS CONSTRUCTED DRAWINGS.



PROPOSED DRAINAGE LAYOUT
SCALE @ A0: 1:200
SCALE @ A2: 1:500

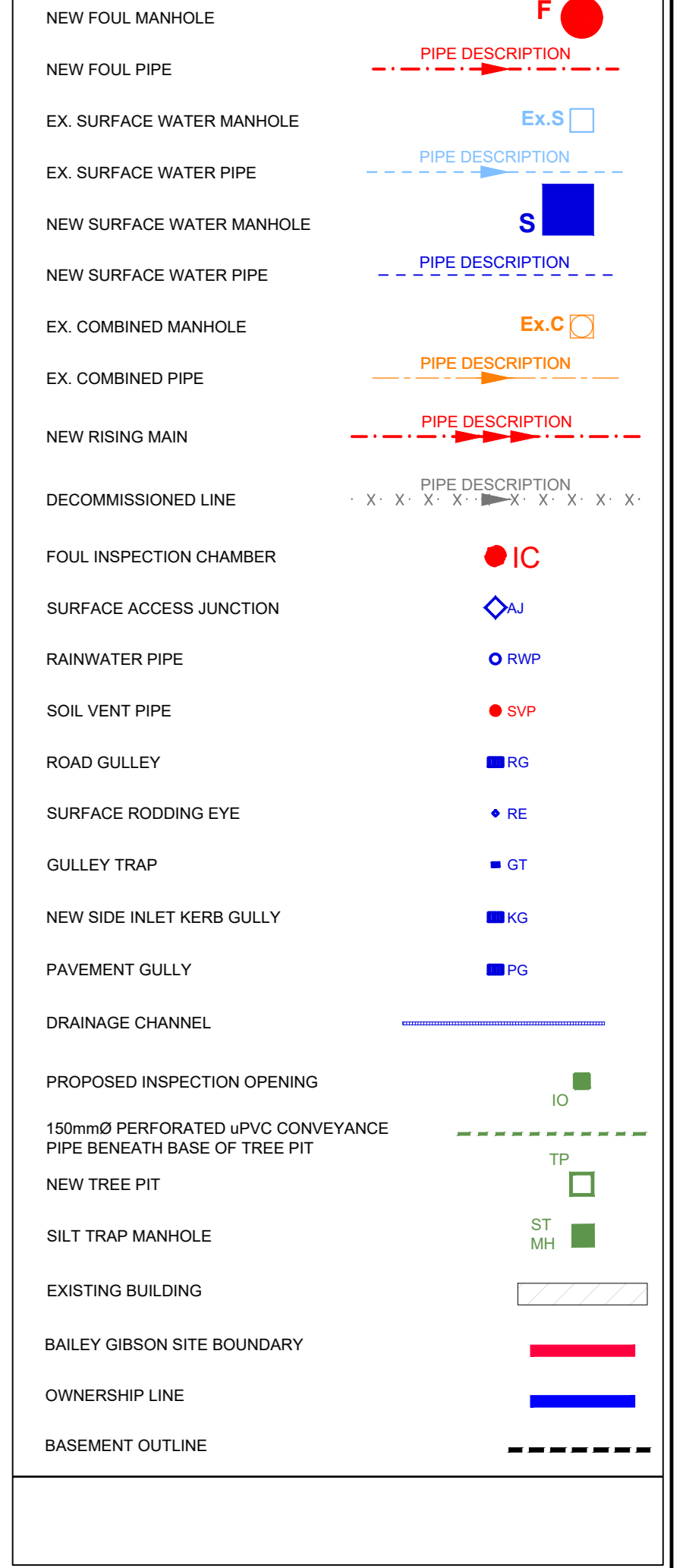
NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS DRAWINGS FIGURED DIMENSIONS ONLY (NOT SCALING) TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT - ASK.
- CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.



KEY PLAN
SCALE @ A0: 1:1000
SCALE @ A2: 1:10000

CIVIL LEGEND



NEW SURFACE WATER MANHOLE			NEW FOUL DRAINAGE MANHOLE		
MANHOLE	COVER LEVEL	INVERT LEVEL	MANHOLE	COVER LEVEL	INVERT LEVEL
1-I-C3.0	+21.82	OUT: +20.66	1-F1.0	+20.66	OUT: +19.31
1-I-C6.0	+20.80	OUT: +19.79	1-F1.1	+20.79	IN FROM 1-F2.2 +18.16 OUT: +18.99
1-I-C6.1	+20.80	IN FROM 1-I-C6.0 +19.64 OUT: +19.84	1-F1.2	+20.66	IN FROM 1-F1.1 +18.84 OUT: +18.84
1-S1.0	+21.70	OUT: +20.32	1-F1.3	+20.62	IN FROM 1-F1.2 +18.88 OUT: +18.83
1-S1.1	+20.93	IN FROM 1-S1.0 +19.14 OUT: +19.14	1-F1.4	+20.08	IN FROM 1-F1.3 +18.63 OUT: +18.63
1-S1.2	+20.77	IN FROM 1-S1.1 +18.02 OUT: +18.71	1-F1.5	+19.97	IN FROM 1-F1.4 +18.55 OUT: +18.55
1-S1.3	+20.80	IN FROM 1-S1.2 +18.70 OUT: +18.71	1-F1.6	+19.90	IN FROM 1-F1.5 +18.53 OUT: +18.53
1-S1.4	+20.64	IN FROM 1-S1.3 +18.56 OUT: +18.51	1-F1.7	+19.97	IN FROM 1-F1.6 +18.53 OUT: +18.53
1-S1.5	+20.60	IN FROM 1-S1.4 +18.51 OUT: +18.52	1-F1.8	+20.41	IN FROM 1-F1.7 +18.10 OUT: +18.10
1-S1.6	+20.02	IN FROM 1-S1.5 +18.32 OUT: +18.32	1-F1.9	+20.30	IN FROM 1-F1.8 +17.85 OUT: +17.85
1-S1.7	+19.92	IN FROM 1-S1.6 +18.28 OUT: +18.28	1-F1.10	+20.10	IN FROM 1-F1.9 +17.60 OUT: +17.60
1-S1.8	+19.99	IN FROM 1-S1.7 +18.13 OUT: +18.13	1-F1.11	+19.85	IN FROM 1-F1.10 +17.22 OUT: +17.22
1-S1.9	+20.47	IN FROM 1-S1.8 +18.09 OUT: +17.86	1-F1.12	+19.43	OUT: +17.82
1-S1.10	+19.91	IN FROM 1-S1.9 +17.96 OUT: +17.96	1-F1.13	+17.76	IN FROM 1-F1.12 +16.93
1-S1.11	+19.91	IN FROM 1-S1.10 +17.84 OUT: +17.84	1-F1.14	+17.68	IN FROM 1-F1.13 +16.85
1-S1.12	+20.05	IN FROM 1-S1.11 +17.66 OUT: +17.66	1-F1.15	+17.43	OUT: +16.82
1-S1.13	+19.42	IN FROM 1-S1.12 +17.55 OUT: +17.43	1-F1.16	+17.32	IN FROM 1-F1.15 +16.41 OUT: +16.41
1-S1.14	+19.30	IN FROM 1-S1.13 +17.43 OUT: +17.43	1-F1.17	+18.24	IN FROM 1-F1.16 +16.10 OUT: +16.10
1-S1.15	+19.20	IN FROM 1-S1.14 +17.37 OUT: +17.37	1-F1.18	+18.34	IN FROM 1-F1.17 +15.79 OUT: +15.79
1-S1.16	+19.13	IN FROM 1-S1.15 +17.18 OUT: +17.18	1-F2.0	+21.66	IN FROM 1-I-C2.0 +20.89 OUT: +19.82
1-S1.17	+18.65	IN FROM 1-S1.16 +17.02 OUT: +17.02	1-F2.1	+20.91	IN FROM 1-F2.0 +19.56 OUT: +19.56
1-S1.18	+18.59	IN FROM 1-S1.17 +16.82 OUT: +16.82	1-F2.2	+20.78	IN FROM 1-F2.1 +19.43 OUT: +19.43
1-S1.19	+18.23	IN FROM 1-S1.18 +16.57 OUT: +16.57	1-F3.0	+20.80	IN FROM 1-I-C3.0 +18.99 OUT: +19.09
1-S1.20	+18.23	IN FROM 1-S1.19 +16.56 OUT: +16.56	1-F4.0	+20.59	OUT: +19.16
1-S1.21	+17.85	IN FROM 1-S1.20 +16.48 OUT: +16.48	1-F5.0	+20.17	OUT: +19.19
1-S1.22	+17.93	IN FROM 1-S1.21 +16.46 OUT: +16.46	1-F6.0	+20.45	OUT: +19.02
1-S2.0	+21.34	OUT: +19.56	1-F6.1	+20.08	IN FROM 1-F6.0 +18.92 OUT: +18.92
1-S2.1	+20.82	IN FROM 1-S2.0 +19.29 OUT: +18.91	1-F6.2	+19.98	IN FROM 1-F6.1 +18.73 OUT: +18.73
1-S3.0	+21.71	IN FROM 1-I-C3.0 +20.43 OUT: +20.43	1-F6.3	+19.93	IN FROM 1-F6.2 +18.70 OUT: +18.70
1-S3.1	+20.94	IN FROM 1-S3.0 +20.04 OUT: +19.57	1-C2.0	+22.06	OUT: +21.18
1-S4.0	+20.60	OUT: +18.63	1-C3.0	+20.80	OUT: +20.43
1-S5.0	+20.51	OUT: +19.54	1-C3.1	+20.80	IN FROM 1-I-C3.0 +19.89 OUT: +19.89
1-S5.1	+20.09	IN FROM 1-S5.0 +19.28 OUT: +19.22	EX F5	+18.03	IN FROM 1-F1.18 +15.68
1-S5.2	+19.94	IN FROM 1-S5.1 +19.08 OUT: +19.08			
1-S5.3	+19.96	IN FROM 1-S5.2 +19.05 OUT: +19.05			
1-S6.0	+20.80	IN FROM 1-S5.1 +19.28 OUT: +19.28			
1-S7.0	+19.19	OUT: +17.91			
1-S8.0	+19.17	IN FROM 1-S1.14 +18.28 OUT: +18.27			
1-S8.1	+18.65	IN FROM 1-S8.0 +17.45 OUT: +17.45			
1-S9.0	+19.00	OUT: +17.07			
1-S9.1	+18.65	IN FROM 1-S9.0 +16.98 OUT: +16.98			
1-S9.2	+18.25	IN FROM 1-S9.1 +16.82 OUT: +16.82			
1-S9.3	+18.48	IN FROM 1-S9.2 +16.63 OUT: +16.63			
1-S10.0	+19.55	OUT: +17.89			
1-S10.1	+19.80	IN FROM 1-S10.0 +17.68 OUT: +17.68			
1-S10.2	+19.60	IN FROM 1-S10.1 +17.48 OUT: +17.48			
1-S10.3	+19.50	IN FROM 1-S10.2 +17.30 OUT: +17.30			
1-S10.4	+18.60	IN FROM 1-S10.3 +17.09 OUT: +17.09			
1-S10.5	+18.42	IN FROM 1-S10.4 +16.82 OUT: +16.82			
1-S11.0	+20.54	OUT: +19.06			
1-S11.1	+20.32	IN FROM 1-S11.0 +18.83 OUT: +18.83			
1-S11.2	+20.38	IN FROM 1-S11.1 +18.75 OUT: +18.75			
1-S11.3	+20.37	IN FROM 1-S11.2 +18.71 OUT: +18.71			
1-S10V.0	+19.95	OUT: +18.46			

NEW SURFACE WATER MANHOLE		
MANHOLE	COVER LEVEL	INVERT LEVEL
1-S12.1	+20.20	+19.15
1-S12.2	+19.90	+18.78
1-S12.3	+19.90	+18.60
1-S12.4	+19.90	+18.70
1-S13.1	+19.90	+19.15
1-S13.2	+20.00	+18.93
1-S13.3	+19.95	+18.71

SHADDED AREA - 4320m² WHICH CURRENTLY DISCHARGES UNATTENUATED SURFACE WATER TO THE COMBINED SEWER CULVERT IN DONORE AVENUE. THE SURFACE WATER DISCHARGE FROM THIS AREA SHALL BE COLLECTED AND DISCHARGED TO THE NEW SURFACE WATER NETWORK WITH ITS OWN ATTENUATION CONTROL TO LIMIT THE DISCHARGE TO 2% FOR EVENTS UP TO THE 100YEAR STORM EVENT @ 20% RAINFALL INTENSITY INCREASE FOR CLIMATE CHANGE. THE ALLOCATION TO THE EXISTING SURFACE WATER DRAINAGE FROM THIS AREA ENSURES THAT THE PROPOSED DEVELOPMENT IS COMPLETELY STANDALONE IN TERMS OF COMPLIANCE WITH THE IRISH WATER CONFIRMATION OF FEASIBILITY.

NOTE: SHOULD THE EXISTING BUILDING BE REMOVED AS PART OF ANY FUTURE PLANNED OR PERMITTED DEVELOPMENT, THAT TOO, BY WAY OF APPLICATION OF CURRENT DEVELOPMENT PLANNING STANDARDS, SHALL ENSURE THAT THE SURFACE WATER CURRENTLY DISCHARGING FROM THIS AREA TO THE COMBINED SEWER CULVERT IN DONORE AVENUE, IS REDIRECTED TO A SURFACE WATER NETWORK WITH ATTENUATED DISCHARGE AND HENCE STILL COMPLY WITH THE IRISH WATER CONFIRMATION OF FEASIBILITY FOR THE PROPOSED DEVELOPMENT.

PL6	31.05.22	PLANNING ISSUE	KS
PL5	16.03.22	UPDATED AS PER IW COMMENTS	TN
PL4	24.02.22	IW DIVERSIONS TEAM COMMENTS	TN
PL3	20.01.22	ISSUED FOR IW DESIGN VETTING	TN
PL2	10.12.21	ISSUED FOR IW DESIGN VETTING	TN
PL1	09.11.21	ISSUED FOR PRE-APPLICATION SUBMISSION	TN

ISSUE DATE DESCRIPTION BY

Project Engineer: CIARAN O'RAFFERTY Project Director: CIARAN KENNEDY

BM STAGE

PLANNING

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Client: CWTC MULTI FAMILY ICAV ACTING SOLELY IN RESPECT OF ITS SUB FUND DBTR SCR1 FUND

PROJECT TITLE: BAILEY GIBSON SHD 2 BM PROJECT No: 19117

REFERENCE: BGL-BMD-ZZ-00-DR-C-1020-1022 & 1120-1122 SUBMITTAL: 81 REVISION: P01

DRAWING TITLE: PROPOSED DRAINAGE LAYOUT (SHEET 3 OF 4)

DRAWING REFERENCE: BGL-BMD-ZZ-00-DR-C-1022 DRAWING NO: D2 REVISION: PL6