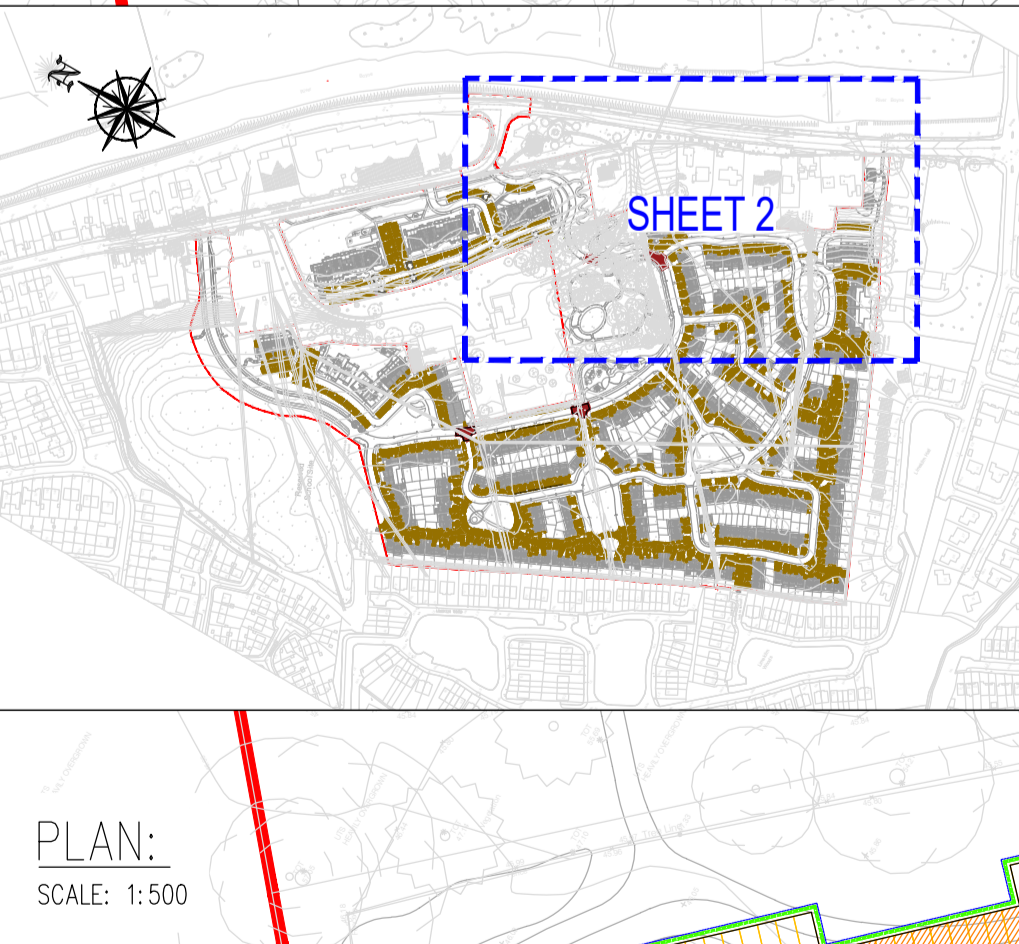


**NOTE:**  
FOR DRAINAGE STANDARD DETAILS REFER TO DRAWINGS D061-016, D061-017, D061-018  
FOR ATTENUATION TANK DETAIL REFER TO DRAWING D061-019

- NOTES:**
- ALL LEVELS ARE TO MAIN HEAD ORDNANCE DATUM.
  - REFER TO DRAWING D061-016 FOR MANHOLE DETAILS.
  - REFER TO DRAWING D061-017 FOR PIPE BEDDING DETAILS.
  - ALL WORKS IN CONFINED SPACES SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE PROVISIONS ON "SAFE WORK" IN CONFINED SPACES CODE OF PRACTICE FOR WORKING IN CONFINED SPACES, PUBLISHED BY THE HEALTH & SAFETY AUTHORITY.
  - ALL SITE DEVELOPMENT WORKS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE CONSTRUCTION DRAWINGS.
  - ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY, THE PUBLICATIONS SERIES 500, THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND THE IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS.
  - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTATION, INCLUDING DRAWINGS AND SPECIFICATIONS.
  - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING ALL EXISTING SERVICES WITHIN THE SITE BOUNDARY AND IN THE AREAS AFFECTED BY THE WORKS. THE ENGINEER HAS PROVIDED INFORMATION ON KNOWN SERVICES BUT GIVES NO GUARANTEE THAT THIS INFORMATION PROVIDED BY THE THIRD PARTIES, IS CORRECT OR THAT THESE ARE THE ONLY SERVICES ON THE SITE.
  - SUITABLE SHORT LENGTHS OF PIPE OR ROCKER PIPES SHALL BE INSTALLED TO PROVIDE A FLEXIBLE JOINT WITHIN 1000MM OF THE OUTER FACE OF THE MANHOLE ON ALL SEWERS AND BRANCHES.
  - WHERE ROCK IS MET IN TRENCHES IT SHALL BE EXCAVATED AND TRIMMED TO 300MM BELOW THE UNDERSIDE OF PIPELINE.
  - GRANULAR MATERIAL SMM - 20MM NOMINAL SIZE GRADED AGGREGATE (TO COMPLY WITH TABLE 1 OF BS) TO BE USED FOR BEDDING, HAUNCHING AND SURROUND TO PIPES WHERE SPECIFIED.
  - CONCRETE MIX C16/20 TO BE USED FOR BEDDING, HAUNCHING AND SURROUND WHERE SPECIFIED.
  - WHERE RIGID PIPES WITH FLEXIBLE JOINTS ARE USED WITH CONCRETE BEDS FOR DRAINS AND WATERMANS, VERTICAL MOVEMENT JOINTS SHALL BE PROVIDED IN THE BEDS AT MAX INTERVALS OF 5.0M AND ALIGNED WITH FACE OF PIPE SOCKET. JOINTS TO BE MINIMUM 12M WIDE AND FILLED WITH FLEXCELL OR SIMILAR APPROVED MATERIAL.
  - SURFACE WATER AND FOUL DRAINS SHALL BE SURROUNDED BY 150 THICKNESS OF C16/20 CONCRETE IF COVER TO PIPE IS LESS THAN:
    - 1.2M IN ROADS AND DRIVEWAYS.
    - 0.9M IN OPEN SPACES AND PATHS NOT NEAR CARRIAGEWAYS.
  - ALL PIPE RUNS SHALL BE LAID IN STRAIGHT LINES BOTH VERTICALLY AND HORIZONTALLY TO THE SPECIFIED GRADIENTS BETWEEN MANHOLES. NO DEVIATIONS OR BENDS SHALL BE PERMITTED.
  - REFER TO THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS FOR DETAILS OF SURFACE WATER MANHOLE STANDARDS AND IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS FOR DETAILS OF FOUL MANHOLE STANDARDS.
  - THE CONTRACTOR SHALL CARRY OUT A CCTV SURVEY REPORT OF THE COMPLETED STORM & FOUL NETWORK TO THE SATISFACTION OF THE LOCAL AUTHORITY AND REPORT TO BE ISSUED ON PRACTICAL COMPLETION.
  - THE LOCAL AUTHORITY MUST BE NOTIFIED AT LEAST TO WORKING DAYS IN ADVANCE OF COMMENCEMENT OF WORKS.
  - PRIOR TO COMMENCEMENT OF CONSTRUCTION OUTFALL LEVELS FOR THE FOUL AND SURFACE WATER MANHOLES SHALL BE VERIFIED ON SITE.
  - PROPOSED FOUL SEWERS WILL BE EITHER CONCRETE, THERMOSTATIC STRUCTURED WALL PIPES OR UNPLASTICISED PVC IN ACCORDANCE WITH SECTION 3.1.3 OF THE IRISH WATER WASTEWATER CODE OF PRACTICE. PROPOSED STORM DRAINS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF MEATH CO. CD.
  - TYPICAL SERVICE LAYOUT DISTANCES (HORIZONTAL AND VERTICAL) AS PER IRISH WATER DETAIL STD-WW-05
  - THE EXTERNAL FACE OF PROPOSED MANHOLE CHAMBERS IN PUBLIC ROADS WILL BE A MINIMUM OF 0.5M FROM THE PROPOSED PUBLIC ROAD KERB LINE IN ACCORDANCE WITH SECTION 1.2.3 OF THE IRISH WATER WASTEWATER CODE OF PRACTICE
  - INSPECTION CHAMBERS TO EACH HOUSE/JUNCTION TO BE IN ACCORDANCE WITH IRISH WATER DETAIL STD-WW-02 AND STD-WW-03.
  - APPROPRIATE MEASURES ADHERING TO SECTION 3.21 OF THE IRISH WATER WASTEWATER CODE OF PRACTICE WILL BE PROVIDED TO DRAINAGE INFRASTRUCTURE IN CLOSE PROXIMITY TO PLANTING TO PREVENT ANY DAMAGE TO INFRASTRUCTURE VIA ROOT INGRESS OR NEGATIVE IMPACTS TO PLANTING SUCH AS DAMAGE OF TREE ROOTS

- LEGEND:**
- EXISTING FOUL SEWER: EX FMH (black circle), EX SMWH (black square)
  - EXISTING SURFACE WATER SEWER: EX SWH (black circle)
  - PROPOSED FOUL SEWER: FMH (red circle), SMWH (red square)
  - PROPOSED SURFACE WATER SEWER: SWH (blue circle)
  - PROPOSED LAND DRAIN: LG (orange line)
  - PROPOSED ROAD GULLY: RG (blue line)
  - PROPOSED LATERAL INLET KERB DETAIL: LK (blue line)
  - PROPOSED FOUL INSPECTION CHAMBER: FIC (red square)
  - PROPOSED SURFACE WATER INSPECTION CHAMBER: SC (blue square)
  - PROPOSED FOUL ARMSTRONG JUNCTION: FAJ (red line)
  - PROPOSED SURFACE WATER ARMSTRONG JUNCTION: SAJ (blue line)
  - PROPOSED PERMEABLE PAVING: P (hatched area)
  - EXISTING GROUND LEVEL: 12.000m (EX) (dotted line)
  - PROPOSED DRY SWALE: DS (green line)
  - RED LINE BOUNDARY: (red line)
- PIPE MATERIALS**  
100mm to 300mm PIPES TO BE uPVC TO IS EN 1401 'U0'  
375mm to 600mm PIPES TO BE CONCRETE TO IS EN 1916
- PLAN:**  
SCALE: 1:500



SURFACE WATER PIPES		FOUL WATER PIPES	
PN	Slope (1:X) Dia (mm)	PN	Slope (1:X) Dia (mm)
2001	88.1 225	PI.001	79.0 150
2002	100.0 225	PI.002	79.0 150
2003	100.0 225	PI.003	79.0 150
2004	100.0 225	PI.004	79.0 150
2005	100.0 225	PI.005	79.0 150
2006	99.9 225	PI.006	79.0 150
2007	99.9 225	PI.007	79.0 150
2008	99.9 225	PI.008	79.0 150
2009	99.9 225	PI.009	79.0 150
2010	99.9 225	PI.010	79.0 150
2011	99.9 225	PI.011	79.0 150
2012	99.9 225	PI.012	79.0 150
2013	99.9 225	PI.013	79.0 150
2014	99.9 225	PI.014	79.0 150
2015	99.9 225	PI.015	79.0 150
2016	99.9 225	PI.016	79.0 150
2017	99.9 225	PI.017	79.0 150
2018	99.9 225	PI.018	79.0 150
2019	99.9 225	PI.019	79.0 150
2020	99.9 225	PI.020	79.0 150
2021	99.9 225	PI.021	79.0 150
2022	99.9 225	PI.022	79.0 150
2023	99.9 225	PI.023	79.0 150
2024	99.9 225	PI.024	79.0 150
2025	99.9 225	PI.025	79.0 150
2026	99.9 225	PI.026	79.0 150
2027	99.9 225	PI.027	79.0 150
2028	99.9 225	PI.028	79.0 150
2029	99.9 225	PI.029	79.0 150
2030	99.9 225	PI.030	79.0 150
2031	99.9 225	PI.031	79.0 150
2032	99.9 225	PI.032	79.0 150
2033	99.9 225	PI.033	79.0 150
2034	99.9 225	PI.034	79.0 150
2035	99.9 225	PI.035	79.0 150
2036	99.9 225	PI.036	79.0 150
2037	99.9 225	PI.037	79.0 150
2038	99.9 225	PI.038	79.0 150
2039	99.9 225	PI.039	79.0 150
2040	99.9 225	PI.040	79.0 150
2041	99.9 225	PI.041	79.0 150
2042	99.9 225	PI.042	79.0 150
2043	99.9 225	PI.043	79.0 150
2044	99.9 225	PI.044	79.0 150
2045	99.9 225	PI.045	79.0 150
2046	99.9 225	PI.046	79.0 150
2047	99.9 225	PI.047	79.0 150
2048	99.9 225	PI.048	79.0 150
2049	99.9 225	PI.049	79.0 150
2050	99.9 225	PI.050	79.0 150
2051	99.9 225	PI.051	79.0 150
2052	99.9 225	PI.052	79.0 150
2053	99.9 225	PI.053	79.0 150
2054	99.9 225	PI.054	79.0 150
2055	99.9 225	PI.055	79.0 150
2056	99.9 225	PI.056	79.0 150
2057	99.9 225	PI.057	79.0 150
2058	99.9 225	PI.058	79.0 150
2059	99.9 225	PI.059	79.0 150
2060	99.9 225	PI.060	79.0 150
2061	99.9 225	PI.061	79.0 150
2062	99.9 225	PI.062	79.0 150
2063	99.9 225	PI.063	79.0 150
2064	99.9 225	PI.064	79.0 150
2065	99.9 225	PI.065	79.0 150
2066	99.9 225	PI.066	79.0 150
2067	99.9 225	PI.067	79.0 150
2068	99.9 225	PI.068	79.0 150
2069	99.9 225	PI.069	79.0 150
2070	99.9 225	PI.070	79.0 150
2071	99.9 225	PI.071	79.0 150
2072	99.9 225	PI.072	79.0 150
2073	99.9 225	PI.073	79.0 150
2074	99.9 225	PI.074	79.0 150
2075	99.9 225	PI.075	79.0 150
2076	99.9 225	PI.076	79.0 150
2077	99.9 225	PI.077	79.0 150
2078	99.9 225	PI.078	79.0 150
2079	99.9 225	PI.079	79.0 150
2080	99.9 225	PI.080	79.0 150
2081	99.9 225	PI.081	79.0 150
2082	99.9 225	PI.082	79.0 150
2083	99.9 225	PI.083	79.0 150
2084	99.9 225	PI.084	79.0 150
2085	99.9 225	PI.085	79.0 150
2086	99.9 225	PI.086	79.0 150
2087	99.9 225	PI.087	79.0 150
2088	99.9 225	PI.088	79.0 150
2089	99.9 225	PI.089	79.0 150
2090	99.9 225	PI.090	79.0 150
2091	99.9 225	PI.091	79.0 150
2092	99.9 225	PI.092	79.0 150
2093	99.9 225	PI.093	79.0 150
2094	99.9 225	PI.094	79.0 150
2095	99.9 225	PI.095	79.0 150
2096	99.9 225	PI.096	79.0 150
2097	99.9 225	PI.097	79.0 150
2098	99.9 225	PI.098	79.0 150
2099	99.9 225	PI.099	79.0 150
2100	99.9 225	PI.100	79.0 150

**PLANNING DRAWING**  
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**NOTES**

- For setting out refer to Architect's drawings.
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Rev No	Date	REVISION NOTE	Dr. By	Chkd. By
A	01.10.2019	ARCHITECT'S LAYOUT REVISED	JS	NB
B	01.11.2019	ISSUED TO IRISH WATER	DD	RFM
C	05.11.2019	REVISED FOLLOWING COMMENTS FROM IRISH WATER	DD	RFM
D	19.11.2019	MANHOLES FW-93 AND SW-91 STAGGERED FOLLOWING COMMENT FROM IRISH WATER	DD	RFM
E	19.11.2019	ISSUED FOR PLANNING	DD	RFM

Architect Project: Conroy Crowe Kelly  
Belmont

Title: Drainage Layout Sheet 2 of 4

Drn by: JC, Chkd by: NB, Aprvd by: NB, Dwg. No: D061/013, Revision: E

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