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THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND THE PRELIMINARY HEALTH & SAFETY PLAN. ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE. DO NOT SCALE DIMENSIONS.

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

**DRAINAGE NOTES**

- ALL FOUL WORKS TO BE IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE DOCUMENT IW-CDS-5030-03 AND IRISH WATER STANDARD DETAILS IW-CDS-5030-01.
- ALL FOUL WATER DRAINAGE RUNS ARE TO A GRADE OF 1:150 AND PIPE SIZE OF 225mm UNLESS OTHERWISE STATED.
- ALL SURFACE WATER DRAINAGE RUNS ARE TO A GRADE OF 1:200 AND PIPE SIZE OF 225mm UNLESS OTHERWISE STATED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING OUT JUNCTION BOXES, CHAMBERS, MANHOLES, GULLIES TO ENSURE NO CLASHES WITH SERVICE DUCTS AND PIPES.
- ALL LEVELS ARE IN METRES ABOVE MALIN HEAD DATUM UNLESS OTHERWISE NOTED.
- ALL COVER LEVELS ARE INDICATIVE ONLY.
- ALL DRAINAGE WORK TO BE IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE FOR WASTE WATER INFRASTRUCTURE AND STANDARD DETAILS.
- MANHOLES, MANHOLE COVERS AND ROAD GULLY GRATINGS TO STANDARD SPECIFICATION.
- ALL PIPE DIAMETERS ARE NOMINAL.
- THE CONTRACTOR MUST SATISFY HIMSELF IN RESPECT TO THE LOCATION OF ALL EXISTING SERVICES.
- ALL DRAINAGE PIPEWORK TO BE CONCRETE IN PUBLIC AREAS TAKING IN CHARGE AND UPVC IN PRIVATE AREAS.
- ALL FOUL PIPEWORK TO BE IN ACCORDANCE WITH SECTION 3.13 AND 3.14 OF IRISH WATER CODE OF PRACTICE FOR WASTE WATER INFRASTRUCTURE.
- ALL SURFACE WATER PIPEWORK IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
- ALL ROAD GULLY DRAINS ARE 150mm $\phi$ .
- 600mm MAX LENGTH ROCKER PIPES ARE TO BE PROVIDED ON SEWERS WHERE:
  - A PIPE ENTERS A MANHOLE OR PUMPING STATION
  - A PIPE LEAVES A MANHOLE
  - A PIPE ENTERS CONCRETE ENCASMENT
  - A PIPE LEAVES CONCRETE ENCASMENT
  - ANY OTHER LOCATION AS DIRECTED BY THE ENGINEER
- ALL ROCKER PIPES SHALL BE TO BE FORMED BY CUTTING AND 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.
- ALL MANHOLE COVERS LOCATED IN TRAFFICED AREA ARE TO BE SKID RESISTANT.
- ALL GULLY GRATINGS ARE TO BE MIN. CLASS D400 TO IS EN 124 AND ARE TO BE LOCKABLE.
- WHERE COVER TO PIPE IS LESS THAN 900mm UNDER GRASSED AREAS OR LESS THAN 1200mm UNDER ROADWAYS THE PIPE SHOULD BE SURROUNDED IN CONCRETE.
- EXTERNAL FACE OF PROPOSED MANHOLE CHAMBERS LOCATED AT LEAST 0.5m FROM KERB LINES. EXTERNAL FACE OF SEWERS TO BE LOCATED AT LEAST 1m FROM KERB LINES.
- EXTERNAL FACE OF SEWERS TO BE A MINIMUM OF 3m FROM EXTERNAL FACE OF DEVELOPMENT OR EQUIVALENT DISTANCE TO THE DEPTH OF SEWER BELOW THE FOUNDATION (WHICHEVER IS GREATER).
- NOTE: ALL ATTENUATION ZONES TO BE SEALED TO AVOID ANY POTENTIAL NEGATIVE EFFECTS ON THE SURROUNDING GROUND WATER.
- EXTERNAL FACE OF FOUL MANHOLE CHAMBERS TO BE LOCATED AT LEAST 0.5m FROM KERBLINES. EXTERNAL FACE OF FOUL SEWER PIPEWORK TO BE LOCATED AT LEAST 1.5m FROM KERBLINES.
- ALL WASTEWATER INSPECTION CHAMBERS SHOULD BE IN COMPLIANCE WITH THE IW CODE OF PRACTICE AND STD-WW-02 & 03.
- SEPARATION DISTANCES FROM OTHER SERVICES, BOUNDARY WALLS, TREES, ETC. TO BE IN ACCORDANCE WITH IRISH WATER STANDARD DETAILS STD-WW-05, STD-WW-06, STD-WW-06A.

BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB5-BMD-DR-MOR-CS-P3-1004	17.10.2024
S. Archt	SHB5-BMD-DR-MAL-L-PT-0001	17.10.2024

**LEGEND**

- EXISTING SURFACE DRAINAGE LINE
- EXISTING SURFACE MANHOLE
- EXISTING SURFACE ARMSTRONG JUNCTION
- EXISTING SURFACE ROAD GULLY
- PROPOSED SURFACE DRAINAGE LINE
- PROPOSED SURFACE MANHOLE
- PROPOSED SURFACE ROAD GULLY
- PROPOSED TREE PIT
- PERMEABLE PAVING
- SWALE AREA
- RATED MANHOLE
- RAIN GARDEN AREA
- PERMEABLE PAVING UNDERDRAIN 150 $\phi$
- SWALE/ RAIN GARDEN UNDERDRAIN 150 $\phi$
- TREE PIT UNDERDRAIN 150 $\phi$
- DROPPED KERB AT 5m C/C
- INSPECTION CHAMBER



**PROPOSED DETENTION BASIN "SITE 17"**  
 LEVELS CHECK  
 LOWEST FFL = 63.250m-0.5m FREEBOARD = 62.750m  
 PERMITTED 1:100 YEAR WATER LEVEL = 62.745m  
 SIDE SLOPE = 1:4  
 TOP OF EMBANKMENT = VARIES 63.60m - 62.790m  
 1:100 YEAR WATER LEVEL = 62.745m  
 LEVEL AT BASE OF POND = 62.105m  
 TOP AREA OF BASIN AT 1:100YR STORM WATER = 171.215m<sup>2</sup>  
 AVERAGE AREA = 117.910m<sup>2</sup>  
 1:100YR STORM VOLUME PROVIDED = 117.910m<sup>2</sup> x 0.649m = 76.524m<sup>3</sup>  
 1:100YR STORM VOLUME REQUIRED = 18.037m<sup>3</sup>

**PROPOSED DETENTION BASIN "SITE 15&16"**  
 LEVELS CHECK  
 LOWEST FFL = 62.475m  
 PERMITTED 1:100 YEAR WATER LEVEL = 62.475m  
 SIDE SLOPE = 1:3  
 TOP OF EMBANKMENT = VARIES FROM 63.375m - 62.50m  
 1:100 YEAR WATER LEVEL = 62.475m  
 LEVEL AT BASE OF POND = 61.800m  
 TOP AREA OF BASIN AT 1:100YR STORM WATER = 98.058m<sup>2</sup>  
 BOTTOM AREA OF BASIN AT 1:100YR STORM WATER = 30.253m<sup>2</sup>  
 AVERAGE AREA = 64.156m<sup>2</sup>  
 1:100YR STORM VOLUME PROVIDED = 64.156m<sup>2</sup> x 0.675m = 43.304m<sup>3</sup>  
 1:100YR STORM VOLUME REQUIRED = 37.301m<sup>3</sup>  
 REFER TO DRAWING 151 FOR DETENTION BASIN SECTION

**PROPOSED DETENTION BASIN "SITE 5"**  
 LEVELS CHECK  
 LOWEST FFL = 62.500m-0.3m FREEBOARD = 62.200m  
 PERMITTED 1:100 YEAR WATER LEVEL = 62.200m  
 SIDE SLOPE = 1:3  
 TOP OF EMBANKMENT = 62.345m  
 1:100 YEAR WATER LEVEL = 62.200m  
 LEVEL AT BASE OF POND = 61.185m  
 TOP AREA OF BASIN AT 1:100YR STORM WATER = 116.711m<sup>2</sup>  
 BOTTOM AREA OF BASIN AT 1:100YR STORM WATER = 41.395m<sup>2</sup>  
 AVERAGE AREA = 116.711m<sup>2</sup>  
 1:100YR STORM VOLUME PROVIDED = 116.711m<sup>2</sup> x 1.015m = 118.462m<sup>3</sup>  
 1:100YR STORM VOLUME REQUIRED = 59.975m<sup>3</sup>

REV	DESCRIPTION	DATE	BY	CHK
1	ISSUED FOR PLANNING	21.10.24	KA	KA
0	ISSUED FOR INFORMATION	02.10.24	KA	DW

**P3 - PLANNING**

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NDA ON BEHALF OF DUBLIN CITY COUNCIL

JOB NAME  
SHB5 BMD, BALLYMUN, DUBLIN 11

DRG. NAME  
SUDS LAYOUT

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV.
23006	A1	1:500	OCT'2024	KA	KA	DW	1

DRG. NO.  
SHB5-BMD-DR-MOR-CS-P3-150