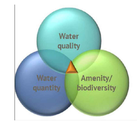
NOTE SUDS SYSTEMS

THE FOLLOWING SUDS SYSTEMS HAVE BEEN INCORPORATED INTO THE OVERALL STORM WATER DRAINAGE NETWORK TO CONTRIBUTE TO THE SUSTAINABLE DEVELOPMENT OF THE PROPOSED RESIDENTIAL DEVELOPMENT COMBINING THE REQUIREMENTS FOR WATER QUANTITY, WATER QUALITY AND AMENITY BIODIVERSITY:

1. MANAGED RUN-OFF VOLUMES FROM HARD SURFACES THROUGH ON SITE STORAGE WITH DISCHARGE MIMMICKING GREENFIELD RATES. 100 YEAR STORAGE PROVIDED WITH 30% ADDITIONAL CLIMATE CHANGE FACTOR INCLUDED IN THE DESIGN
2. PETROL INTERCEPTOR TO CAPTURE ANY OILS AND HAZARDOUS SUBSTANCES SUCH AS HYDROCARBONS, METALS AND SUSPENDED SOLIDS
3. RAINGARDENS (BIORETENTION FACILITIES) TO INCREASE RAIN RUNOFF RE-ABSORPTION FROM THE ROAD SURFACE ON THE ENTRANCE TO THE SITE INTO THE SOILS AND PLANTING WITHIN. REFER TO LANDSCAPE ARCHITECT FOR EXTENT OF PLANTING WITHIN THE RAINGARDEN AREAS.
4. PERMEABLE PAVING TO PROVIDE INFILTRATION. AT SOURCE, ADDITIONAL ONSITE STORM WATER STORAGE, REDUCED EFFECTS OF POLLUTION ON THE ENVIRONMENT AND REDUCING PEAK FLOWS TO THE PIPE NETWORK.



LEGEND:

- PROPOSED STORM WATER NETWORK
- PROPOSED STORM WATER MANHOLES
- PROPOSED STORM WATER RJ / AC
- PROPOSED STORM WATER ROAD GULLY (RG)
- PROPOSED RAINGARDENS
- PROPOSED PERVIOUS PAVING WITH 100mm Ø LAND DRAINS AND ACCESS CHAMBERS
- BELOW GROUND STORM WATER ATTENUATION TANKS - 'A' WEST & 'B (1 & 2)' EAST - SEE PLAN WRAPPED IN AN IMPERMEABLE MEMBRANE
- FILTER DRAINS
- EXISTING WATERCOURSE (DISCHARGE POINTS)
- OIL INTERCEPTOR
- SW PUMP CHAMBER
- PROPOSED RWP & BACK INLET GULLY

PERMEABLE PAVING

NO	NETT SW STORAGE**
PP1	12m³
PP2	12m³
PP3	11m³
PP4	15m³
PP5	18m³
PP6	16m³
PP7	15m³
PP8	13m³
PP9	13m³
PP10	11m³
PP11	10m³
PP12	6m³
TOTAL	158m³

** 450mm DEEP STONE FILLED WITH 30% VOIDS

RAIN GARDENS

NO	NETT SW STORAGE**
RG1	10m³
RG2	17m³
RG3	3m³
RG4	4m³
TOTAL	34m³

** 2.0m WIDE X 0.2m DEEP (90% VOIDS)

INFILTRATION TRENCH

NO	NETT SW STORAGE**
IT1	1.4m³
IT2	3.8m³
IT3	2.5m³
IT4	1.7m³
TOTAL	9.4m³

** 0.60m WIDE X 0.45m DEEP (30% VOIDS)

NOTES

1. ALL NOTED LEVELS ARE TO ORDNANCE DATUM, MALIN HEAD.
2. REFER TO ARCHITECT'S LAYOUT FOR ALL SET-OUT INFORMATION.
3. REFER TO ARCHITECT / LANDSCAPE ARCHITECT'S DESIGN DRAWINGS FOR DETAILS OF PROPOSED SURFACE FINISHES AND LANDSCAPING.
4. ALL SURFACE WATER DRAINAGE IS TO BE INSTALLED IN ACCORDANCE WITH THE GREATER DUBLIN REGION CODE OF PRACTICE FOR DRAINAGE WORKS, THE BUILDING REGULATIONS PART H AND THE SITE DEVELOPMENT SPECIFICATION.
5. ALL WASTEWATER DRAINAGE IS TO BE INSTALLED IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE, THE BUILDING REGULATIONS PART H AND THE SITE DEVELOPMENT SPECIFICATION.
6. ALL DRAINAGE COVER LEVELS ARE TO BE COORDINATED WITH THE PROPOSED ROAD DESIGN LEVELS AND ARCHITECT DESIGN FINISH DETAILS.
7. ALL CONNECTIONS TO NEW DRAINAGE NETWORKS ARE TO BE MADE AT AT AN ANGLE OF 90° OR IN THE DIRECTION OF FLOW.
8. THE CONTRACTOR IS TO VERIFY INVERT LEVEL AT PROPOSED CONNECTION TO EXISTING SEWERS, PRIOR TO ANY OTHER WORKS BEING CARRIED OUT, AND MAKE ANY DISCREPANCIES KNOWN TO THE ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMATION OF PRESENCE ALL EXISTING UTILITIES, IF ANY, ALONG ROUTE OF PROPOSED DRAINAGE NETWORKS - BY INTRUSIVE INVESTIGATION OR EQUAL.
10. EXISTING PUBLIC SEWER TO BE JET CLEANED AND CCTV SURVEYED PRIOR TO, AND AFTER PROPOSED CONNECTIONS FROM NEW NETWORK.
11. ALL NEW DRAINAGE INFRASTRUCTURE TO BE JET CLEANED AND CCTV SURVEYED, WITH ANY NOTED DEFECTS REMEDIATED, ON COMPLETION OF WORKS, TO THE SATISFACTION OF THE LOCAL AUTHORITY.
12. REFER TO ARCHITECTS DRAWINGS FOR DETAILS OF PRIVATE DRAINAGE
13. ALL COVER LEVELS ARE TO BE COORDINATED WITH ROAD DESIGN LEVELS AND LANDSCAPE ARCHITECT'S PROPOSED FINISH LEVELS.
14. THE INTERNAL BUILDING DRAINAGE TO BE COORDINATED WITH ARCHITECT'S LAYOUT.

STORM WATER NETWORK 1 – PIPELINE DETAILS – WEST OF SITE

USMH	USCL (m)	USIL (m)	USMH Dia (mm)	PN	Dia (mm)	Length (m)	Slope (1:X)	DSMH	DSIL (m)
S1	4.740	3.117	1200	S1.000	300	59.883	150.1	S2	2.718
S2	4.909	2.568	1350	S1.001	450	5.082	282.3	S3	2.550
S3	4.909	2.550	1350	S1.002	450	26.833	149.9	S4	2.371
S4	4.694	2.371	1350	S1.003	450	7.061	176.5	S13	2.331
S5	4.825	3.475	1200	S2.000	225	21.445	80.3	S9	3.208
S6	4.880	3.486	1200	S3.000	225	9.682	149.1	S7	3.421
S7	4.898	3.421	1200	S3.001	225	8.465	151.2	S8	3.365
S8	4.961	3.365	1200	S3.002	225	9.678	61.6	S9	3.208
S9	4.724	3.133	1200	S2.001	300	34.275	80.1	S10	2.705
S10	4.617	2.705	1200	S2.002	300	4.807	80.1	S11	2.645
S11	4.655	2.645	1200	S2.003	300	26.677	100.0	S12	2.378
S12	4.741	2.228	1350	S2.004	450	6.245	100.7	S13	2.166
S13	4.787	2.166	1350	S1.004	450	4.798	100.0	S14	2.118
S14	4.787	1.170	1350	S1.005	450	7.000	100.0	Att A	1.100

STORM WATER NETWORK 2 – PIPELINE DETAILS – EAST OF SITE

USMH	USCL (m)	USIL (m)	USMH Dia (mm)	PN	Dia (mm)	Length (m)	Slope (1:X)	DSMH	DSIL (m)
S15	4.630	3.700	1200	S4.000	300	31.300	170.1	S16	3.516
S16	4.753	3.516	1200	S4.001	300	8.860	44.3	S18	3.316
S17	4.781	3.700	1200	S5.000	300	65.260	169.9	S18	3.316
S18	4.710	3.166	1350	S4.002	450	6.330	226.1	S20	3.138
S19	4.900	3.800	1200	S6.000	300	30.970	99.9	S20	3.490
S20	4.814	3.138	1350	S4.003	450	24.960	169.8	S21	2.991
S21	5.150	2.991	1350	S4.004	450	27.160	199.7	S23	2.855
S22	4.900	3.800	1200	S7.000	300	45.870	159.8	S23	3.513
S23	5.150	2.855	1350	S4.005	450	55.670	200.3	S24	2.577
S24	5.290	2.577	1350	S4.006	450	43.350	199.8	S25	2.360
S25	4.400	2.360	1350	S4.007	450	12.940	199.1	S26	2.295
S26	4.500	1.096	1350	S4.008	450	7.000	194.4	ATT B	1.060

FOR DETAILS OF STORM WATER LONG ELEVATIONS REFER TO DRAWING NO'S W369-OCSC-XX-XX-DR-C-0560 AND W369-OCSC-XX-XX-DR-C-0561

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Rev No.	Date	Revision Note	Drn by	Chkd by
P01	July'23	issued for Discussion	PMcm	AS
P02	OCT'23	ISSUED FOR DISCUSSION	PMCM	AS
P03	11.07.24	ISSUED FOR LRD STAGE 2 SUBMISSION	TD	AS
P04	14.01.25	SW DRAINAGE LAYOUT UPDATED ISSUED FOR PLANNING	TD	AS

Rev No.	Date	Revision Note	Drn by	Chkd by

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Client: CABRIZ GROUP
Project: PROPOSED RESIDENTIAL & CRECHE DEVELOPMENT AT HILL STREET,DUNDALK
Title: PROPOSED STORM WATER NETWORKS LAYOUT

Code	Originator	Zone	Level	Type	Role	Number	Status	Revision
W369	OCSC	XX	XX	DR	C	0504	S4	P04

Date:JUL'23 Scale @ A0:1:500 Drn by:PMcM Chkd by:TD Aprvd by:AS