No.	Date	Description	By	Chk

REVISIONS

E. D. P. M. Ltd

Consulting Engineers, Designers & Project Managers

7 Ormonde Road
Kilkenny
Phone 056 77 23707 Fax 056 77 56466
e-mail edpmk@eircom.net

PROJECT:
PROPOSED DEVELOPMENT AT MAIN STREET RATHCOOLE FOR LORAT TRADING LTD

TITLE:
PROPOSED FOUL SEWER AND STORM DRAIN LAYOUT

STATUS: FURTHER INFORMATION			File Ref: 2021/21	
BY:	SCALE:	DATE:	DWG No:	rev
CHK:	A1 1:250	FEB 23	FI-101	
			cad:–	

LEGEND

FOUL SEWER MANHOLE COVER AND INVERT LEVELS — MH F4 CL 117.41 IL 115.74

FOUL SEWER DIAMETER GRADIENT AND FLOW DIRECTION — 150Ø @ 1/87

STORM DRAIN MANHOLE COVER AND INVERT LEVELS — MH S10 CL 117.78 IL 116.75

STORM DRAIN DIAMETER GRADIENT AND FLOW DIRECTION — 225Ø @ 1/200

ROAD GULLY WITH 150Ø OUTLET

EXISTING FOUL SEWER AND MANHOLE — EX FOUL MH CL 117.07 IL 114.85

EXISTING STORM DRAIN AND MANHOLE — EX STORM MH CL 117.20 IL 116.13

IRISH WATER SPECIFICATION AND DETAILS

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE FOLLOWING IRISH WATER DOCUMENTS:
'WASTEWATER INFRASTRUCTURE CODE OF PRACTICE' AND
'WASTEWATER INFRASTRUCTURE STANDARD DETAILS'
JULY 2020 (REV.4) OR LATEST EDITION

THE FOLLOWING STANDARD DETAILS APPLY
STD-WW-03 REV 2 DRAIN AND SERVICE CONNECTION PIPEWORK
STD-WW-04 REV 4 TYPICAL SEWER/SERVICE PIPE CONNECTION
STD-WW-05 REV 2 SERVICE LAYOUT SEPARATION DISTANCES
STD-WW-06A WASTEWATER SERVICE CONNECTION VERTICAL SEPARATION DISTANCE
STD-WW-07 REV 2 TRENCH AND BACKFILL AND BEDDING
STD-WW-08 REV 1 CONCRETE PROTECTION TO WASTEWATER PIPES
STD-WW-09 REV 3 BLOCKWORK MANHOLE
STD-WW-10 REV 3 PRECAST CONCRETE MANHOLE WITH CAST IN-SITU BASE
STD-WW-10A REV 0 PRECAST CONCRETE MANHOLE WITH PRECAST CONCRETE BASE
STD-WW-11 REV 3 IN-SITU CONCRETE MANHOLE
STD-WW-12 REV 3 BACKDROP AND CASCADE MANHOLE
STD-WW-13 REV 3 PRIVATE SIDE INSPECTION CHAMBER
STD-WW-39 REV 0 LAYOUT PLAN SEPARATION DISTANCES SECTION
STD-WW-40 REV 0 LAYOUT PLAN SEPARATION DISTANCES PLAN

THE ABOVE IS NOT AN EXHAUSTIVE LIST AND MAYBE BE SUBJECT TO CHANGE POST-PLANNING

MANHOLE SCHEDULE

MANHOLE No.	COVER LEVEL	INVERT LEVEL	DEPTH TO CROWN	REMARKS
F1	115.91	113.87	1.59	INVERT TO CROWN CONNECTION MANHOLE BUILT OVER EXISTING FOUL SEWER
F2	116.92	115.24	1.53	
F3	117.08	115.37	1.56	
F4	117.41	115.74	1.52	
F5	117.49	115.79	1.55	
F6	117.76	115.97	1.64	
F7	117.83	116.02	1.66	
F8	117.92	116.15	1.62	
F9	117.90	116.31	1.44	
F10	117.50	116.37	0.98	HEAD OF RUN
S1	117.13	116.45	0.46	HEAD OF RUN
S2	117.76	116.17	1.37	
S3	117.49	116.03	1.24	
S4	117.37	115.98	1.16	
S5	117.05	115.13/115.57	1.70/1.26	BACKDROP AND HYDROBRAKE
S5A	117.09	115.66	1.21	
S6	117.00	115.07	1.66	
S7	115.98	114.92	0.76	MANHOLE BUILT OVER EXISTING STORM DRAIN
S8	117.82	116.40	1.20	
S9	117.94	116.52	1.20	
S10	117.78	116.74	0.80	HEAD OF RUN
S11	117.40	116.27	0.91	
S12	117.40	116.34	0.84	
S5/1	117.17	115.18	1.76	ATTENUATION INLET
A/T 1	117.54	115.30	2.01	ATTENUATION LINK
A/T 2	117.67	115.40	2.04	

NOTES:

1. ROAD GULLIES TO BE PRECAST CONCRETE CHAMBERS TO BS5911 WITH FLIP TOP GRATINGS TO IS 261 GRADE A
2. STORM SEWER PIPEWORK IN ACCORDANCE WITH BS EN 752. PIPES TO BE SPIGOT AND SOCKET CONCRETE PIPES IN ACCORDANCE WITH IS EN 1916:2004 . COVER TO CROWN GENERALLY 1.2m WITH CLASS F BEDDING (GRANULAR MATERIAL) IF NECESSARY 150mm CONCRETE BED AND SURROUND.
3. FOUL SEWER PIPEWORK IN ACCORDANCE WITH BS EN 752 . PIPES TO BE PVC-U IN ACCORDANCE WITH EN 1401 . COVER TO CROWN LEVEL GENERALLY 1.2m WITH 100mm GRANULAR MATERIAL BELOW PIPES . IF NECESSARY 150mm CONCRETE BED AND SURROUND
4. MANHOLE CONSTRUCTION TO BE PRECAST CONCRETE UNITS IN ACCORDANCE WITH IS EN 420:2004. COVERS TO BE CAST IRON 550mmØ TO BS EN 124 GRADE A
5. ALL WORKS SHALL BE CARRIED OUT IN A SAFE MANNER AND IN ACCORDANCE WITH CURRENT STATUTORY LEGISLATION INCLUDING THE SAFETY, HEALTH AND WELFARE AT WORK ACT 1989, AND THE SAFETY, HEALTH AND WELFARE (CONSTRUCTION) REGULATIONS 2001.
6. ALL WORKS IN CONFINED SPACES SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROVISIONS OF 'SAFE WORK IN CONFINED SPACES' CODE OF PRACTICE FOR WORKING IN CONFINED SPACES, PUBLISHED BY THE HEALTH & SAFETY AUTHORITY.
7. ALL SITE DEVELOPMENT SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE DRAWINGS.
8. ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND THE DEPARTMENT OF THE ENVIRONMENT 'RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS IN HOUSING AREAS', AND BS EN 752.
9. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTATION, INCLUDING DRAWINGS AND SPECIFICATIONS.
10. DO NOT SCALE FROM THIS DRAWING, USE STATED DIMENSIONS. IF IN DOUBT ASK THE ENGINEER.
11. THE DEVELOPER/CONTRACTOR IS SOLELY RESPONSIBLE 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 THIRD PARTIES, IS CORRECT OR THAT THERE ARE THE ONLY SERVICES ON THE SITE.
12. THE DEVELOPER/CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CORRECT AND ACCURATE SETTING OUT OF THE WORKS.
13. PRIOR TO COMMENCEMENT OF THE WORKS THE DEVELOPER/CONTRACTOR SHALL INSPECT AND SURVEY (AS REQUIRED) ALL EXISTING SEWERS, DRAINS AND MANHOLES WHICH AREITO BE PROTECTED AND MAINTAINED. CLEANING, WHERE INSTRUCTED, SHALL BE CARRIED OUT USING A JETVAC WITH A WORKING PRESSURE OF NOT LESS THAN 2600psi. ALL BRANCH CONNECTIONS DISCOVERED SHALL BE TRACED AND LOCATED ON SITE. ALL DETAILS OF COMPLETED INSPECTIONS/SURVEYS SHALL BE MADE AVAILABLE TO THE ENGINEER AS SOON AS POSSIBLE.
14. PRECAST MANHOLE RINGS, COVER SLABS AND REDUCING SLABS SHALL COMPLY WITH IS EN420:2004 AND SHALL BE INSTALLED COMPLETE WITH TYPE 2 RUBBER GASKETS AND JOINTING RINGS TO BS 2494.
15. CONCRETE TO MANHOLE BASES AND SURROUNDS SHALL BE GRADE C28/30, SURROUND SHALL BE A MIN. OF 150mm THICK WITH ONE LAYER OF A142 MESH.
16. BLINDING CONCRETE SHALL BE MIN GRADE C10/15 AND A MIN THICKNESS OF 150mm.
17. SAND/CEMENT RENDER 25mm THICK SHALL BE APPLIED TO BENCHING AND CHANNELS WITH A STEEL TROWEL FINISH.
18. LADDER RUNGS SHALL BE PVC COATED STEEL FOR MANHOLES WITH A DEPTH TO INVERT GREATER THAN 6m USE GRADE 316 STAINLESS STEEL LADDERS OF GALVANISED MILD STEEL.
19. MANHOLE COVERS AND FRAME SHALL COMPLY WITH IS EN 124 AND BE CLASS D400 WITH A CIRCULAR OPENING OF 600mm MIN.
20. FOR ALL INLETS, OUTLETS AND BRANCHES, MATCH CROWN LEVELS UNLESS INDICATED OTHERWISE.
21. GRANULAR MATERIAL 5-20mm NOMINAL SIZE GRADED AGGREGATE TO BE USED FOR BEDDING, HAUNCHING AND SURROUND TO PIPES WHERE SPECIFIED.
22. 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.
23. UPON COMPLETION OF THE SEWERS AND DRAINS, THEY SHALL BE TESTED IN ACCORDANCE WITH THE ENGINEERS REQUIREMENTS.

TOTAL OPERATING VOLUME OF ATTENUATION STORAGE = 193.1 + 168.7 = 361.8 cu.m

ATTENUATION STORAGE CROWN LEVEL 116.73 BASE LEVEL 115.53

ATTENUATION STORAGE 34m LONG 5m WIDE 1.2m DEEP 95% OPERATING VOLUME 193.1cu.m

ATTENUATION STORAGE CROWN LEVEL 116.62 BASE LEVEL 115.42

ATTENUATION STORAGE CROWN LEVEL 116.50 BASE LEVEL 115.30

A/T LINK MH 1 CL 117.54 IL 115.30

ATTENUATION STORAGE LINK PIPE 225Ø @ 1/300

A/T LINK MH 2 CL 117.67 IL 115.40

ATTENUATION STORAGE 37m LONG 4m WIDE 1.2m DEEP 95% OPERATING VOLUME 168.7cu.m

ATTENUATION STORAGE CROWN LEVEL 116.38 BASE LEVEL 115.18

EXISTING UNDOCUMENTED MANHOLE

PETROL INTERCEPTOR KLARGESTOR NSB012

HYDROBRAKE AT S5 OUTLET DISCHARGE LIMIT 2.1 l/s

ALL REINSTATEMENT IN THE PUBLIC DOMAIN IN ACCORDANCE WITH DOELG GUIDELINES

EXISTING 110Ø UPVC WATERMAIN

EXISTING 4" ASBESTOS WATERMAIN

EXISTING 250Ø STORM DRAIN

EXISTING 300Ø FOUL SEWER

EXISTING FOUL DRAINAGE SERVING PUBLIC HOUSE RETAINED

EXISTING FOUL DRAINAGE FROM EXISTING DWELLINGS RETAINED

ROOF RUN-OFF FROM THE EXISTING BUILDINGS DISCHARGES TO THE EXISTING STORM DRAIN

FOR SURFACE FINISHES REFER TO LANDSCAPE ARCHITECT DRAWINGS

NOTE: INFORMATION ON EXISTING DRAINAGE TAKEN FORM MAPPING PROVIDED BY SOUTH DUBLIN COUNTY COUNCIL.

MH S1 CL 117.13 IL 116.45
MH S2 CL 117.76 IL 116.17
MH S3 CL 117.49 IL 116.03
MH F5 CL 117.49 IL 115.79
MH F6 CL 117.76 IL 115.97
MH S8 CL 117.82 IL 116.40
MH F7 CL 117.83 IL 116.02
MH S4 CL 117.37 IL 115.98
MH F4 CL 117.41 IL 115.74
MH F9 CL 117.90 IL 116.31
MH S10 CL 117.78 IL 116.74
MH F8 CL 117.92 IL 116.15
MH S9 CL 117.94 IL 116.52
MH S5/1 CL 117.17 IL 115.18
MH S5A CL 117.09 IL 115.66
MH F3 CL 117.08 IL 115.37
MH S5 CL 117.05 IL 115.13
MH F10 CL 117.50 IL 116.37
MH S6 CL 117.00 IL 115.07
MH F2 CL 116.92 IL 115.24
MH S11 CL 117.40 IL 116.27
MH S12 CL 117.40 IL 116.34
MH S7 CL 115.98 IL 114.92
MH F1 CL 115.91 IL 113.87
EX STORM MH CL 115.27 IL 114.21
EX FOUL MH CL 115.69 IL 113.69
EX MH
EX STORM MH CL 117.20 IL 116.13
EX FOUL MH CL 117.19 IL 114.94
EX FOUL MH CL 117.07 IL 114.85

225Ø @ 1/200
150Ø @ 1/150
225Ø @ 1/100
300Ø @ 1/200
1500 FALL TO BASE OF STORAGE

DRAINAGE LAYOUT

FOR PLANNING PURPOSES ONLY NOT FOR POST PLANNING