



- GENERAL DRAINAGE/PRIVATE DRAINAGE NOTES**
1. ALL PIPE LENGTHS AND GRADIENTS ARE BASED ON CENTRE OF MANHOLE TO CENTRE OF MANHOLE.
 2. THE EXACT POSITION, LEVEL, SIZE AND USE OF EXISTING SEWERS TO BE CONFIRMED ON SITE AND REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORKS.
 3. ALL PIPES ARE TO BE LAID WITH LEVELS OFFSETS OR AS INDICATED.
 4. ALL PRIVATE DRAINAGE WORKS TO ACCORD WITH THE REQUIREMENTS OF BUILDING REGULATIONS 2000, PART H (DRAINAGE AND WASTE DISPOSAL).
 5. ALL PIPES TO BE BORED AND ENCASED IN ACCORDANCE WITH PART H, DIAGRAM 10. SHALLOW PIPES SHALL BE PROTECTED IN ACCORDANCE WITH PART H, DIAGRAM 11. UNLESS OTHERWISE STATED, ALL PRIVATE DRAINAGE TO BE 100MM DIAMETER. GRADIENTS HAVE BEEN SHOWN WHERE THERE ARE PIPE CAPACITY ISSUES, HOWEVER MINIMUM GRADIENTS ARE AS BELOW:
 - 6.1. SURFACE WATER 100MM DIAMETER PIPES SHALL NOT BE LAID FLATTER THAN 1 IN 80.
 - 6.2. SURFACE WATER 150MM DIAMETER PIPES SHALL NOT BE LAID FLATTER THAN 1 IN 150.
 - 6.3. FOUL WATER 100MM DIAMETER PIPES SHALL NOT BE LAID FLATTER THAN 1 IN 40 UNLESS THERE IS A WC CONNECTED UPSTREAM AT WHICH IT CAN BE LAID AT 1 IN 80.
 - 6.4. FOUL WATER 150MM DIAMETER PIPES SHALL NOT BE LAID FLATTER THAN 1 IN 150 UNLESS THERE IS A WC CONNECTED UPSTREAM AT WHICH IT CAN BE LAID AT 1 IN 80.
 - 6.5. FOUL WATER SEWERS SERVING MORE THAN 10 DWELLINGS SHALL HAVE A MINIMUM DIAMETER OF 150MM.
 7. PIPES WHICH RUN ADJACENT TO BUILDINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PART H, CLAUSES 2.23 TO 2.25 AND DIAGRAM 8.
 8. ALL PRIVATE MANHOLES AND INSPECTION CHAMBERS SITUATED IN AREAS SUBJECT TO LIGHT VEHICULAR LOADING TO HAVE CLASS B125COVERS AND FRAMES AND THOSE NOT SUBJECT TO VEHICULAR LOADING TO HAVE CLASS A15 COVERS AND FRAMES ALL TO BEEN SHALL DRAIN NEAR EXISTING OR PROPOSED TREES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NHBC'S PRACTICE NOTE 3 'BUILDING NEAR TREES'.
 9. EXCAVATION OF DRAIN TRENCHES MUST NOT BE LOWER THAN THE FOUNDATION OF ANY NEARBY BUILDINGS. IF THE TRENCH IS WITHIN 1M OF FOUNDATIONS, THE TRENCH NEEDS TO BE FILLED WITH CONCRETE UP TO THE LOWEST LEVEL OF THE FOUNDATION. IF THE TRENCH IS FURTHER THAN 1M AWAY FROM THE FOUNDATIONS, THE TRENCH NEEDS TO BE FILLED WITH CONCRETE TO A LEVEL BELOW THE LOWEST LEVEL FOR THE BUILDING, EQUAL TO THE DISTANCE FROM THE BUILDING, LESS THAN 150MM.
 10. ADEQUATE SURFACE WATER DRAINAGE SYSTEMS SHALL BE PROVIDED TO PREVENT UNREGULATED DISCHARGE OF WATER FROM A PRIVATE DRIVE ONTO THE HIGHWAY. THESE MEASURES SHALL BE IMPLEMENTED BEFORE THE DEVELOPMENT IS BROUGHT INTO USE.
 11. TRAPPED ROAD GULLIES TO BE USED FOR ALL GULLIES DESIGNED IN SHARED PARKING AREAS.
 12. BURIED CONCRETE TO SATISFY THE REQUIREMENTS OF BRE SPECIAL DIGEST 1 AS PREDETERMINED BY THE SITE'S GEOTECHNICAL REPORT.
 13. SWP REST BEND INVERT TO BE SET A MINIMUM OF 67MM BELOW FFL IN HOUSES.
 14. ALL MANHOLES AND INSPECTION CHAMBERS IN BLOCK PAVED AREAS TO HAVE RECESSED COVERS, MANHOLE COVERS IN PAVED AREAS TO HAVE SQUARE OR RECTANGULAR COVER & FRAME ORIENTATED WITH THE PAVING BLOCKS.

PROVISION FOR FUTURE DEVELOPMENT

INFORMAL FLOOD ZONE 50M² MAX DEPTH 0.075M

HYDROBRAKE OPTIMUM FLOW CONTROL CHAMBER TO LIMIT FLOW TO 7.5 L/s REF CTL SHE-0120-7500-1500-7500

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EXISTING THAMES WATER MANHOLE 2101 IL 66.00 TBC CL 67.62 TBC LEVELS ARE TAKEN FROM THAMES WATER AND ARE TO BE VERIFIED BY THE CONTR SURVEY PRIOR TO COMMENCING DRAINAGE AND ANY DISCREPANCIES REPORTED TO

- NOTES**
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATION.
 2. THIS DRAWING TO BE READ AND PRINTED IN COLOUR.
 3. ALL ADAPTABLE DRAINAGE TO BE INSTALLED/CONSTRUCTED IN ACCORDANCE WITH S35 APPENDIX C - DESIGN AND CONSTRUCTION GUIDANCE.
 4. WHERE DRAINAGE IS TO BE ADOPTED MANHOLE COVERS TO BE PERMANENTLY AND VISIBLY BADGED WITH 'FW' FOR FOUL WATER AND 'SW' FOR STORM WATER.
 5. ORIENTATE MANHOLE COVERS WITH ADJACENT KERB LINE.
 6. TYPE S BEDDING TO BE USED IN ALL NON TRAFFICKED AREAS.
 7. TYPE Z BEDDING TO BE USED IN TRAFFICKED AREA WHERE COVER TO SEWERS IS GREATER THAN 1200mm.
 8. CONCRETE SLAB PROTECTION TO BE PROVIDED TO SEWERS WHERE THE COVER TO THE CROWN IS LESS THAN 1200mm UNLESS IT WILL ENOUGH ON THE ROAD CONSTRUCTION IN WHICH CASE TYPE Z BEDDING TO BE USED.

- LEGEND**
- IL 66.646 CL 66.679 PROPOSED SURFACE WATER MANHOLE WITH INVERT & COVER LEVELS
 - IL 69.365 CL 71.200 PROPOSED FOUL WATER MANHOLE AND INVERT LEVEL & COVER LEVELS
 - PRIVATE SURFACE WATER DRAIN
 - PRIVATE FOUL WATER DRAIN
 - ACO MULTIDRAIN M1000 10.0 LINEAR CHANNEL DRAIN OR SIMILAR APPROVED
 - RE IL 69.000
 - ROODING EYE
 - TD THRESHOLD DRAIN ACO DOORWAY DRAIN OR SIMILAR APPROVED
 - S.I.C. IL 66.675 PROPOSED SURFACE WATER INSPECTION CHAMBER AND INVERT LEVEL
 - F.I.C. IL 67.300 PROPOSED FOUL WATER INSPECTION CHAMBER AND INVERT LEVEL
 - ➔ EXCEEDANCE FLOW
 - INFORMAL FLOOD ZONE FOR 1:100 YEAR STORM RETURN + 40% CLIMATE CHANGE
 - BELOW GROUND CELLULAR ATTENUATION TANK POLYSTYROM OR SIMILAR
 - BELOW GROUND CELLULAR SOAKAWAY TANK POLYSTYROM OR SIMILAR

Rev.	Description	By	Chkd.	Date
C02	FOUL DRAINAGE REVISED TO CONNECT TO SEWER, TREATMENT PLANT REMOVED	SEH	WTF	12.02 2024
C01	ISSUED FOR CONSTRUCTION	SEH	WTF	19.07 2023
P05	EXCEEDANCE ROUTES AND FLOOD ZONES ADDED	ADP	WTF	31.05 2023
P04	DRAINAGE REVISED TO SUIT INFILTRATION TESTING	ADP	WTF	27.01 2023
P03	SOAKAWAY MOVED	ADP	WTF	07.01 2022
P02	ISSUED FOR APPROVAL	ADP	WTF	29.04 2022
P01	ISSUED FOR APPROVAL	ADP	WTF	21.03 2022

CONSTRUCTION

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Client: ENTERPRISE RESIDENTIAL DEVELOPMENT LTD

Project: HOME FARM DANE END, WARE

Title: DRAINAGE LAYOUT

Drawn: ADP Chkd: WTF Appd: DSM

Scale: 1:250 @A1 Drg. No. Rev.

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