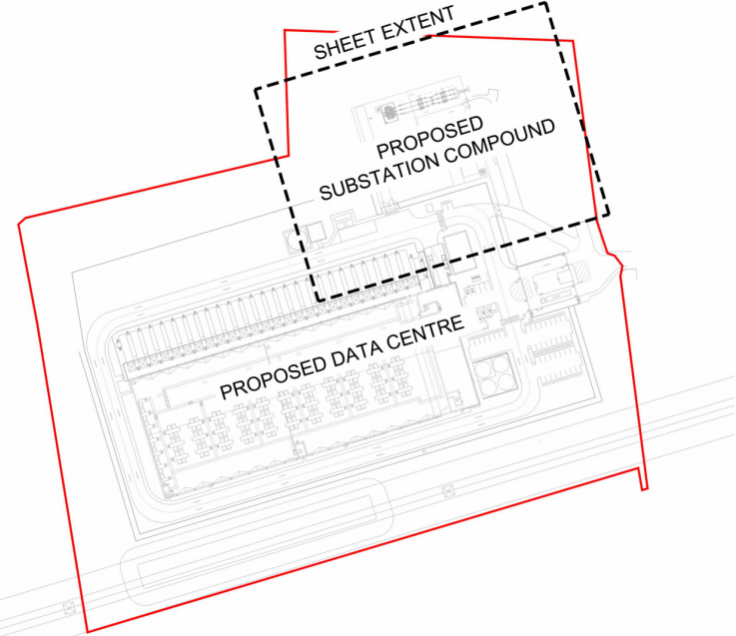




NOTES

DRAINAGE NOTES:

- 01) THE COVER LEVELS INDICATED ARE APPROXIMATE.
- 02) GULLY CONNECTOR PIPES SHALL BE SURROUNDED IN CONCRETE TO HIGHWAYS ENGLAND DETAILS.
- 03) 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 EXECUTIVE.
- 04) ALL SITE DEVELOPMENT WORKS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE CONSTRUCTION DRAWINGS.
- 05) FOUL DRAINAGE WORKS TO BE TAKEN IN CHARGE SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF 'STANDARDS FOR ADOPTION' SURFACE WATER DRAINAGE WORKS TAKEN SHALL COMPLY WITH LOCAL AUTHORITY.
- 06) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE, PRECISE LOCATION AND DEPTH OF ANY SERVICE OR ADDITIONAL SERVICES NOT SHOWN WITHIN THE SITE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR 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 DOES NOT GUARANTEE THAT THIS INFORMATION PROVIDED BY THE THIRD PARTIES IS CORRECT OR THAT THESE ARE THE ONLY SERVICES ON THE SITE.
- 07) ALL WORKS SHOULD BE CARRIED OUT IN STRICT ACCORDANCE WITH THE DOCUMENT 'AVOIDING DANGER FROM UNDERGROUND SERVICES' AS PUBLISHED BY THE HEALTH AND SAFETY EXECUTIVE.
- 08) IN SITU CONCRETE RISERS SHALL NOT BE USED TO RAISE GULLY GRATES TO THE IN WITH PROPOSED ROAD LEVELS. FALLS AND CROSSFALLS. ENGINEERING BRICKWORK TO BS 911 & SERIES 200 OF HIGHWAYS ENGLAND SPECIFICATION FOR ROADWORKS BY HIGHWAYS WETLAND. ENGINEERING BRICK TO BE Laid RASGALLY.
- 09) CONCRETE TO MANHOLE BASES AND SURROUNDS SHALL BE GRADE C25/30. SURROUND SHALL BE A MINIMUM OF 150MM THICK AND CONTAIN ONE LAYER OF A142 REINFORCEMENT MESH.
- 10) BLINDING CONCRETE SHALL BE GRADE C12/15. BLINDING SHALL BE A MINIMUM THICKNESS OF 100MM.
- 11) SAND CEMENT RENDER 25MM THICK SHALL BE APPLIED TO THE BENCHING AND CHANNEL WITH A STEEL TROWEL FINISH.
- 12) LADDER RINGS SHALL BE F.V.C. COATED STEEL FOR MANHOLES WITH A DEPTH TO INSET GREATER THEN 400MM USE GRADE 316 STAINLESS STEEL LADDERS OR GALVANIZED MILD STEEL.
- 13) MANHOLE COVERS AND FRAMES SHALL COMPLY WITH BS 154 AND SHALL BE CLASS B125 IN NON TRAFFICED AREAS & D400 IN TRAFFICED AREAS WITH A CIRCULAR OPENING OF 600MM MINIMUM AND A SQUARE FRAME.
- 14) SUITABLE SHORT LENGTHS OF PIPE OR ROCKER PIPES SHALL BE INSTALLED TO PROVIDE A FLEXIBLE JOINT WITHIN 1500MM OF THE OUTER FACE OF THE MANHOLE ON ALL RUNNERS AND BRANCHES.
- 15) SEMI ENGINEERING BRICK SHALL BE CLASS B.
- 16) FOR ALL INLETS, OUTLETS AND BRANCHES MATCH CROWN LEVELS UNLESS INDICATED OTHERWISE ELSEWHERE.
- 17) WHERE ROCK IS MET IN TRENCHES IT SHALL BE EXCAVATED AND TRIMMED TO 300MM BELOW THE UNDERSIDE OF PIPELINE.
- 18) (SMALLER MATERIAL 20MM - 25MM NOMINAL SIZE GRADED AGGREGATE TO COMPLY WITH TABLE 1 OF BS1 TO BE USED FOR BEDDING, HAUNCHING AND SURROUND TO PIPES WHERE SPECIFIED.
- 19) CONCRETE MIX C16/20 TO BE USED FOR BEDDING, HAUNCHING AND SURROUND WHERE SPECIFIED.
- 20) 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 SOCKET. JOINTS TO BE MINIMUM 12M WIDE AND FILLED WITH FLEXCELL OR SIMILAR APPROVED MATERIAL.
- 21) 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.
 - 0.5M IN OTHER SPACES AND PATHS NOT NEAR CARRIAGEWAYS.
- 21) 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.
- 22) REFER TO SEWER FOR ADOPTION 8th EDITION FOR DETAILS OF MANHOLE STANDARDS FOR FOUL & STORM.
- 23) THE CONTRACTOR SHALL CARRY OUT A CCTV SURVEY REPORT OF THE COMPLETED STORM & FOUL NETWORK TO THE SATISFACTION OF THE CONSULTANT ENGINEER AND REPORT TO BE ISSUED ON PRACTICAL COMPLETION.
- 24) THE LOCAL AUTHORITY MUST BE NOTIFIED AT LEAST 10 WORKING DAYS IN ADVANCE OF COMMENCEMENT OF DRAINAGE WORKS.
- 25) NO SURFACE WATER (RAINWATER) IS TO DISCHARGE INTO THE FOUL WATER SYSTEM UNDER ANY CIRCUMSTANCES. NO CONNECTIONS ARE PERMITTED TO THE PUBLIC DRAINAGE NETWORK WITHOUT THE EXPRESS PERMISSION OF THAMES WATER. UNAUTHORISED CONNECTIONS WILL BE REJECTED AND ALL ASSOCIATED COSTS INCURRED BY THAMES WATER WILL BE RECOVERED FROM THE CONTRACTOR.

LEGEND

FOUL DRAINAGE

- PROPOSED FOUL DRAINAGE PIPE
- PROPOSED FOUL DRAINAGE MANHOLE
- ACO DRAINAGE
- INSPECTION CHAMBERS
- PETROL INTERCEPTOR
- BACK INLET GULLY

1 UNDERGROUND SERVICES - FOUL WATER

Scale 1:500

FOUL DRAINAGE - MANHOLE SCHEDULE			
Mark	Manhole Cover Level	Manhole Invert Level	Internal Diameter
FMH-01	34.200	32.500	1200mm
FMH-02	34.200	32.270	1200mm
FMH-03	34.200	32.020	1200mm
FMH-04	34.260	31.450	1200mm
FMH-05	34.100	31.408	1200mm
FMH-06	34.100	31.408	1200mm
FMH-07	34.450	31.202	1200mm
FMH-08	34.400	31.135	1200mm
FMH-10	34.340	33.380	1200mm
FMH-11	34.370	33.770	1200mm
FMH-12	34.370	33.450	1200mm
FMH-13	34.370	33.240	1200mm
FMH-14	34.370	32.940	1200mm
FMH-15	34.370	32.740	1200mm
FMH-16	34.250	32.290	1200mm
FMH-17	34.380	31.730	1200mm
FMH-30	34.000	32.450	1200mm
MHS21	34.490	31.010	1200mm

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PROJECT: LHR114

FOUL WATER DRAINAGE - OVERALL PLAN

DRAWING: LHR114-CSC-00-XX-DR-C-1200

PAPER SIZE: A0 SCALE: As indicated AGILE NO: 800-053572-001 REV: 1