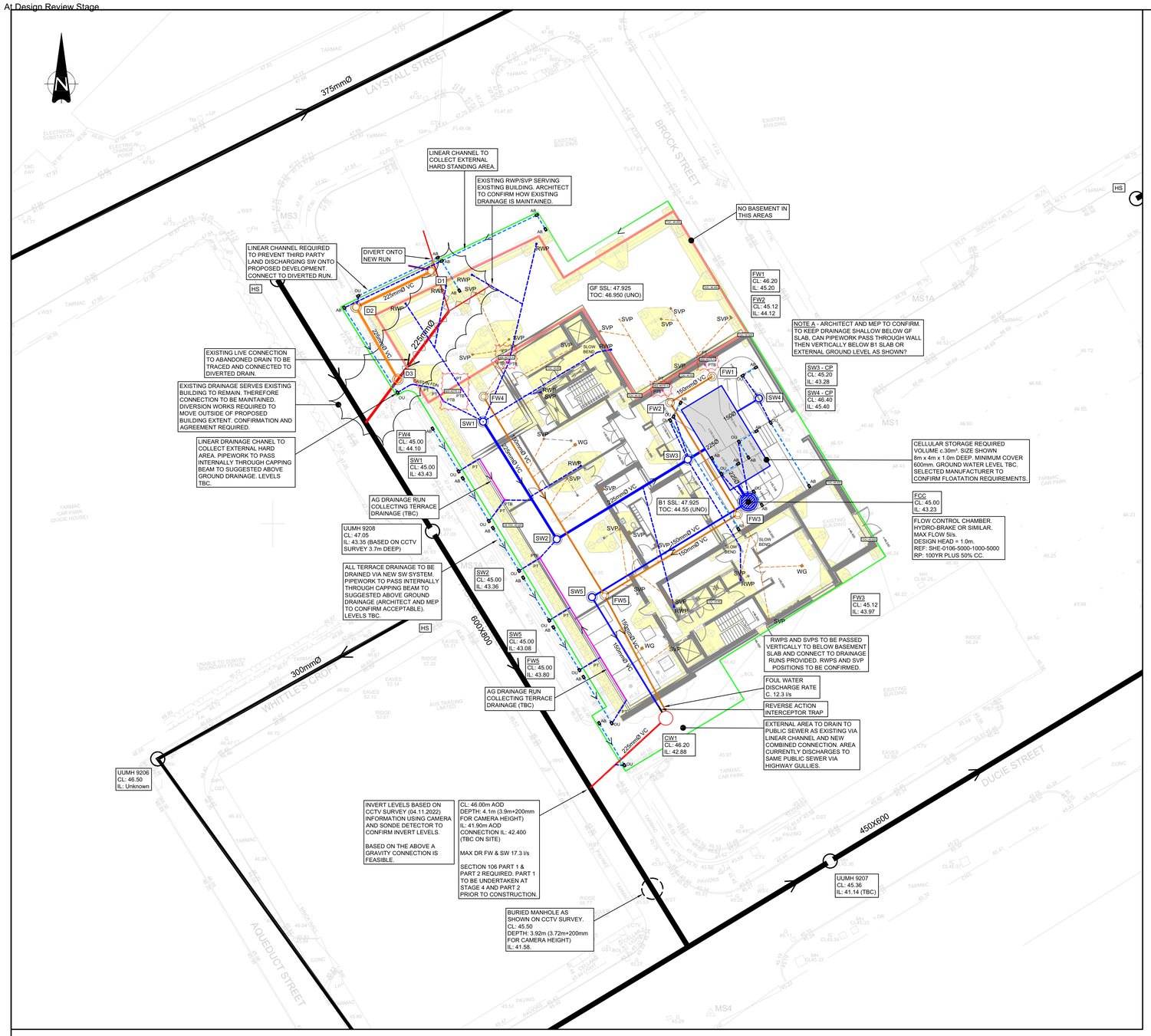

KEY:

- SITE BOUNDARY
- PUBLIC COMBINED SEWER
- EX PRIVATE COMBINED DRAIN
- PROPOSED FW DRAIN
- PROPOSED SW DRAIN
- PROPOSED ATTENUATION
- PROPOSED FLOW CONTROL CHAMBER
- PROPOSED RAIN WATER PIPE AND 150mm CONNECTION (TBC) — RWP
- PROPOSED SOIL VENT PIPE AND 150mm CONNECTION (TBC) — SVP
- WASHDOWN GULLY, VERTICAL OUTLET, TRAPPED TYPE. SPECIFICATION BY ARCHITECT. — WG
- GATIC SLOT DRAIN OR SIMILAR APPROVED. CASTSLOT TREADSAFE TYPE. OUTLET AND ACCESS BOXES TO BE PROVIDED. OUTLET PIPE TO MATCH CHANNEL OR 150mm MINIMUM. SIZE TBC. — AB / OU
- EXISTING DRAINAGE TO BE ABANDONED
- FOUNDATIONS
- PASS TO BELOW GROUND DRAINAGE SYSTEM — PTB
- PASS THROUGH WALL OR FOUNDATION — PT
- ABOVE GROUND DRAINAGE TO BE CO-ORDINATED WITH

DRAWING BASED ON THE FOLLOWING:

EXISTING SURVEY INFORMATION
- UNITED UTILITIES SEWER RECORDS
- TEAM DRAINAGE CCTV SURVEY INFORMATION 09.11.2022
- TOPOGRAPHICAL SURVEY (L&M SURVEY SERVICES) - 18.01.21 17E111_2D.

ARCHITECTURAL INFORMATION (04.11.2022)
- 1383-OMI-XX-LG-DR-A-L1110-P01 - General Arrangement - LG
- 1383-OMI-XX-00-DR-A-L1100-P01 - General Arrangement - L00
- 1383-OMI-XX-RL-DR-A-L1109-P01 - General Arrangement - Roof Level
- 1383-OMI-XX-RL-DR-A-L1120-P01 - External Treatment Plan

MEP INFORMATION (03.11.2022)
- C3799-52-M001 - LGF - P1
- C3799-52-M002 -GF - P1
- C3799-52-M011 - RF - P1
- 3799 LAYSTALL STREET DRAINAGE STACK SIZING

FOUNDATION INFORMATION
- 1-21458-CCL-XX-FL-GA-S-060-T01 - General Arrangement Foundation Layout

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. ALL ADOPTABLE DRAINAGE WORKS INCLUDING WORKS TO EXISTING PUBLIC SEWERS TO BE UNDERTAKEN IN ACCORDANCE WITH "SEWERS FOR ADOPTION 7th EDITION" AND "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION" AND CONSTRUCTED TO THE RELEVANT STATUTORY UNDERTAKERS DETAILS.
3. ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH CURTINS DRAINAGE SPECIFICATION, "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION", BS EN 752 2017 'DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS' AND THE BUILDING REGULATIONS APPROVED 'DOCUMENT H'.
4. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
5. DESIGN BASED ON TOPOGRAPHICAL SURVEY AND CCTV SURVEY INFORMATION AVAILABLE AT THE TIME OF THE DESIGN.
6. OUTFALL CONNECTION(S) SUBJECT TO AGREEMENT WITH THE APPROVING AUTHORITY.
7. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
8. COVER LEVELS, GULLY POSITIONS, AND BUILDINGS LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT/ LANDSCAPE ARCHITECT. CONTRACTOR TO ALLOW FOR ADJUSTMENT TO SUIT AGREED POSITIONS AND FINISHED LEVELS, AND CONFIRM ALL COVER LEVELS ON SITE.
9. ALL INTERNAL DRAINAGE CONNECTIONS ARE PROVIDED TO THE PENETRATION POSITIONS SHOWN ON ARCHITECT AND M&E DRAWINGS. REFER TO DIMENSIONED LOCATIONS AND DIAMETERS ON ARCHITECT'S GROUND FLOOR SETTING-OUT PLANS.
10. ALL UNDERGROUND FOUL DRAINAGE SHOULD BE SUITABLY VENTED AT OR NEAR TO THE HEAD OF RUNS.
11. ALL ACCESS FITTINGS, STACKS, RWP'S AND GULLIES TO BE RODDABLE. ALL TO HAVE LOW LEVEL RODDING ACCESS PLATES UNLESS AN ALTERNATIVE MEANS OF ACCESS IS AGREED. ACCESS POINT TO BE ABOVE ANY GROUND FLOOR CONNECTED APPLIANCE SPILL LEVEL.
12. LARGE ACCESS FITTING REQUIRED ABOVE GROUND WHERE GREATER THAN 12M UP TO 22M TO A JUNCTION. SMALL ACCESS FITTING REQUIRED UP TO 12M TO A JUNCTION.
13. ALL GULLY AND CHANNEL DRAIN OUTLETS AND TERMINATION POINTS TO BE TRAPPED AND RODDABLE. INTERNAL GULLIES AND CHANNEL DRAINS TO BE SPECIFIED BY OTHERS.
14. WHERE NO WC'S ARE CONNECTED UPSTREAM, UNDERSLAB FW DRAINAGE TO BE LAID AT 1:40 MIN. AFTER THE CONNECTION OF AT LEAST 1NO WC, A MIN. FALL OF 1:80 APPLIES.
15. ALL CONNECTIONS FROM POP-UPS TO BE LAID AT A CONSTANT GRADIENT TO JUNCTION/ INSPECTION CHAMBER/ MANHOLE UNLESS NOTED OTHERWISE. ANY ISSUES RELATING TO CLASHES WITH FOUNDATIONS ARE TO BE FORWARDED TO THE ENGINEER, ALLOWING SUFFICIENT TIME FOR AN ALTERNATIVE SOLUTION TO BE PROPOSED.
16. INVERT LEVELS AT MANHOLES/ INSPECTION CHAMBERS TO BE USED TO SET OUT PIPEWORK. PIPE GRADIENTS ARE SHOWN INDICATIVELY ONLY.
17. ALL PIPE DIAMETERS GIVEN ARE NOMINAL INTERNAL PIPE DIAMETERS.
18. ALL PIPWORK, UNLESS AGREED OTHERWISE STATED, SHALL BE:
    - 100mm to 300mm DIA TO BE VITRIFIED CLAY.
    - 375mm DIA AND GREATER TO BE CLASS 120 CONCRETE PIPES.
19. AS AN ALTERNATIVE THE CONTRACTOR MAY USE AN APPROVED UNPLASTICISED POLYVINYL CHLORIDE (PVCU) WITH APPROVAL FROM THE ENGINEER.
20. SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.
21. THE FIRST PIPE OUT OF MANHOLES TO BE AS SHORT AS PRACTICABLE SO AS TO PROVIDE A FLEXIBLE JOINT AS CLOSE AS POSSIBLE TO THE OUTSIDE FACE OF THE CONCRETE SURROUND AND CONNECTED TO A LENGTH OF ROCKER PIPE.
22. ALL NEW CONNECTIONS INTO EXISTING MANHOLES (OR INTO EXISTING SEWERS) TO BE 'SOFFITS LEVEL' UNLESS OTHERWISE NOTED.
23. ALL ADOPTABLE DRAINAGE PIPES WILL REQUIRE A MINIMUM OF 1200mm COVER, IN ACCORDANCE WITH SEWERAGE UNDERTAKERS REQUIREMENTS. WHERE THIS IS NOT ACHIEVED, IT WILL BE NECESSARY TO AGREE THE BED AND SURROUND DETAIL.
24. ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 600mm IN NON-TRAFFICKED AREAS AND LESS THAN 1200mm IN TRAFFICKED AREAS TO BE BEDDED AND SURROUNDED IN CONCRETE (CLASS Z). COMPRESSIBLE MATERIAL SHALL BE PROVIDED AT EVERY PIPE JOINT. WHERE COVER EXCEEDS THIS DEPTH, PIPES ARE TYPICALLY BEDDED AND SURROUNDED IN CLASS S. REFER TO PIPE EMBEDMENT DETAILS DRAWING FOR SPECIFIC TYPES.
25. WHERE DRAINAGE PIPES ARE LESS THAN 300mm BELOW THE UNDERSIDE OF THE GROUND FLOOR SLAB, CONCRETE ENCASEMENT IS REQUIRED (CLASS Z). COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE.
26. WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS S BEDDING IS ACCEPTABLE.
27. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED TO PROVE THAT SUCH PRECAUTIONS ARE NOT REQUIRED.
28. WHERE FOUL SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSOVERS TO PREVENT ANY POTENTIAL CONTAMINATION.
29. ALL CONNECTIONS PASSING THROUGH BASES OR EDGE BEAMS TO BE IN SEALED SLEEVES. ALTERNATIVELY CONNECTIONS MAY BE CAST-IN WITH FLEXIBLE JOINTS NOT GREATER THAN 150MM FROM FACE OF CONCRETE.
30. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED TO ACCOMMODATE THE CONNECTIONS AND BENDS.
31. ALL MANHOLE COVERS IN BLOCK/SLAB AND EXTERNAL PAVING AREAS TO HAVE RECESSED COVERS OF THE APPROPRIATE GRADE TO ACCEPT ARCHITECT'S PAVING PROPOSAL.
32. ALL INTERNAL COVERS TO HAVE MECHANICALLY JOINTED CORNERS AND DOUBLE SEALED WITH RECESSED TRAY TO ALLOW FOR FINISHES.
33. UNLESS NOTED OTHERWISE IN THE MANHOLE SCHEDULE, ALL MANHOLE, GULLY AND CHANNEL COVERS (IRONWORK) SHOULD BE THE FOLLOWING SPECIFICATION:
    - B125 LOAD CLASS IN PEDESTRIAN AREAS
    - D400 LOAD CLASS IN VEHICULAR AREAS.
35. ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, INSTRUCTIONS AND RECOMMENDATIONS.
36. PRIOR TO ANY DRAINAGE WORKS, CONTRACTOR TO CONFIRM INVERT LEVELS FOR CONNECTION POINTS AND PROVIDE THIS INFORMATION TO THE ENGINEER.
37. CONTRACTOR TO MAKE ALLOWANCE FOR REMEDIATION WORKS TO EXISTING DRAINAGE (I.E. DAMAGED PIPEWORK ETC) TO REMAIN.
38. DRAINAGE LAYOUT SUBJECT TO FORMAL RECEIPT OF ACCEPTANCE OF DRAINAGE STRATEGY BY THE LLFA AND UNITED UTILITIES.
39. WHERE DRAINAGE IS TO BE PASSED THROUGH WALLS OR FOUNDATION, APPROPRIATE WATER PROOFING REQUIRED I.E. WATER BARS AND/OR PUDDLE FLANGE.
40. BELOW GROUND DRAINAGE THAT PASSES INTERNAL TO ABOVE GROUND DRAINAGE TO BE CO-ORDINATED WITH MEP ENGINEER.
41. FOUNDATION AND DRAINAGE CLASH DETECTION REQUIRED AT STAGE 4, TO CONFIRM PIPEWORK REQUIRED TO PASS ABOVE, THROUGH OR BELOW FOUNDATIONS.
42. ARCHITECT OR LANDSCAPE ARCHITECT TO CONFIRM MANHOLE COVER TYPES WITHIN BASEMENT AND EXTERNAL AREAS. ALLOW FOR RECESSED TYPE IN EXTERNAL AREAS TO RECEIVE PAVING FINISHES. ALL INTERNAL MANHOLES TO BE DOUBLE SEALED AND LOCKING TYPE.

MANHOLE SCHEDULE

MH REF	CL (mAOD)	IL (mAOD)	DEPTH TO SOFFIT (m)	DS PIPE DIA (m)	MH DIA (mm)	MH TYPE	COVER SIZE (mm)	COVER CLASS	RECESSED	RESTRICTED ACCESS	BACK DROP	COMMENTS	EASTING	NORTHING
SURFACE WATER														
SW1	45.000	43.430	1.345	0.225	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY	TBC AT STAGE 5	
SW2	45.000	43.360	1.415	0.225	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY		
SW3	45.200	43.280	1.695	0.225	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY. CATCHPIT TYPE (500mm SUMP)		
SW4	46.400	45.400	0.850	0.150	600	PPIC	600X600	TBC	TBC	N		NON ENTRY. CATCHPIT TYPE (500mm SUMP)		
FCC	45.200	43.230	1.820	0.150	1200	PCC	600X600	TBC	TBC	N		FLOW CONTROL CHAMBER		
SW5	45.000	43.080	1.770	0.150	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY		
FOUL WATER DIVERSION														
FW1	46.200	45.200	0.850	0.150	450	PPIC	450X450	TBC	TBC	N		NON ENTRY	TBC AT STAGE 5	
FW2	45.120	44.120	0.850	0.150	450	PPIC	450X450	TBC	TBC	N		NON ENTRY		
FW3	45.120	43.970	1.000	0.150	450	PPIC	450X450	TBC	TBC	N		NON ENTRY		
FW4	45.000	44.100	0.750	0.150	450	PPIC	450X450	TBC	TBC	N		NON ENTRY		
FW5	45.000	43.800	1.050	0.150	450	PPIC	450X450	TBC	TBC	Y		NON ENTRY		
COMBINED WATER														
CW1	46.200	42.880	3.095	0.225	1200	PCC	600X600	TBC	TBC	N		NON ENTRY. DS IL TBC.	TBC AT STAGE 5	
COMBINED WATER														
D1	47.700	46.200	1.275	0.225	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY. IL TBC.	TBC AT STAGE 5	
D2	47.600	46.000	1.375	0.225	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY. IL TBC.		
D3	47.400	45.800	1.375	0.225	600	PPIC	600X600	TBC	TBC	Y		NON ENTRY. IL TBC.		

NON ENTRY - REDUCER CAP REQUIRED AND FITTED TO SHAFT, PPIC - POLYPROPYLENE INSPECTION CHAMBER, PCC - PRECAST CONCRETE.

PROPOSED DRAINAGE SUBJECT TO APPROVAL WITH RELEVANT AUTHORITIES.

Rev	Date	Description	By	Check	App.
P2	11.11.22	STAGE 3	CD	DS	DS
P1	04.11.22	FIRST ISSUE	CD	DS	DS

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Client: GREAT PLACES HOUSING GROUP

Project: LAYSTALL STREET DEVELOPMENT MANCHESTER

Office: ALTRINCHAM

Discipline: CIVIL AND STRUCTURAL

Title: DRAINAGE LAYOUT

Scale @ A1: 1-200

Status: STAGE 3

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Job Number	Originator	Building/Zone	Level
1/21458	CCL	LS	00
Type	**Discipline**	**Drawing No.**	**Revision**
DR	C	500	P2

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