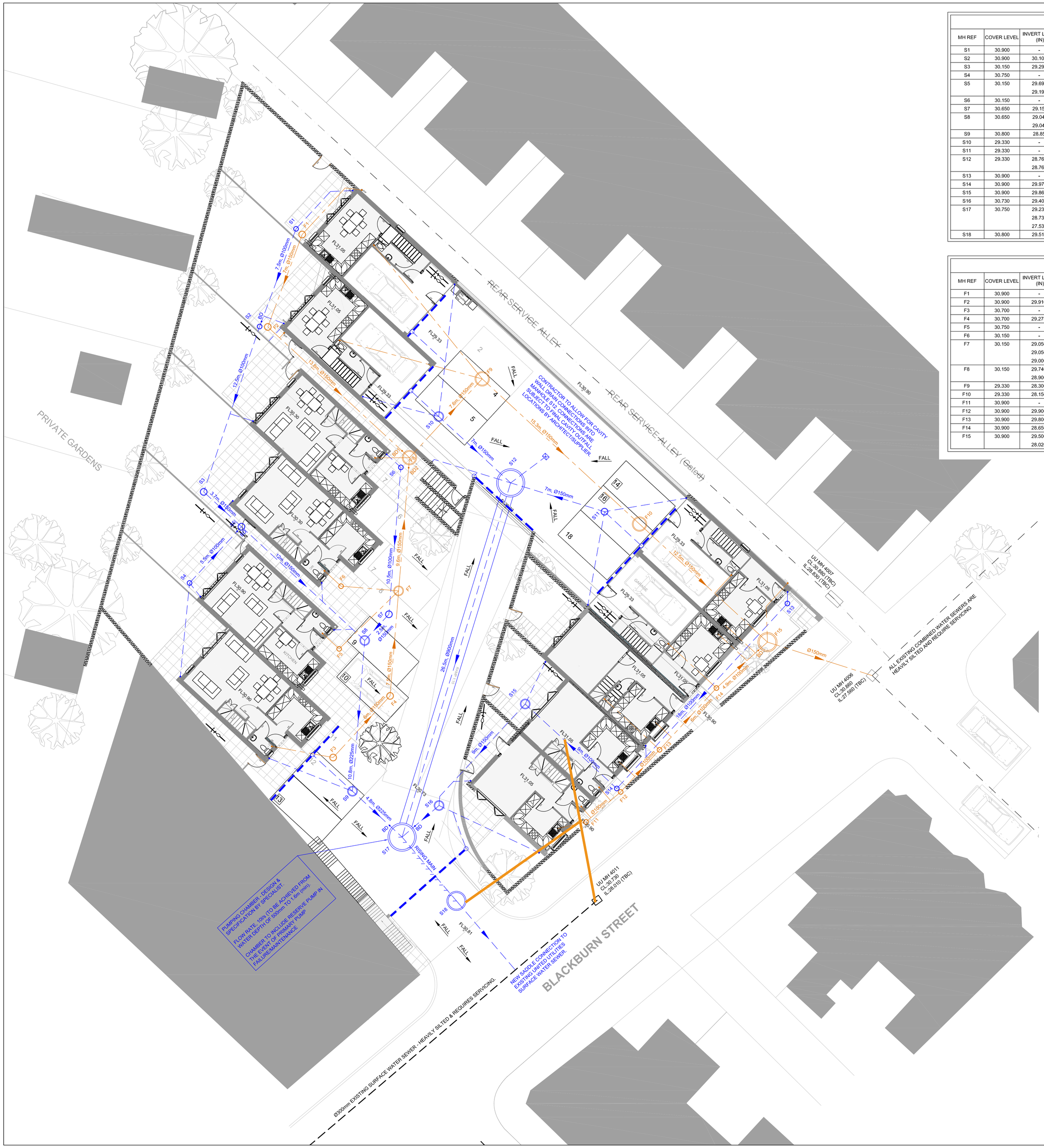

SURFACE WATER MANHOLE SCHEDULE

MH REF	COVER LEVEL	INVERT LEVEL (IN)	INVERT LEVEL (OUT)	MAIN PIPE Ø (IN)	MAIN PIPE Ø (OUT)	MH TYPE	DIAMETER	COVER TYPE	COMMENTS
S1	30.900	-	30.200	-	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
S2	30.900	30.100	29.450	Ø100mm	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED. Ø100mm BACKDROP IL:30.100.
S3	30.150	29.290	29.240	Ø100mm	Ø150mm	PPIC	450	B125	WAVIN 450 RANGE OR SIMILAR APPROVED.
S4	30.750	-	30.050	-	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
S5	30.150	29.690 29.190	29.190	Ø100mm Ø150mm	Ø150mm	PPIC	450	B125	WAVIN 450 RANGE OR SIMILAR APPROVED. Ø100mm BACKDROP IL:29.690.
S6	30.150	-	29.450	-	Ø100mm	PPIC	450	B125	WAVIN 450 RANGE OR SIMILAR APPROVED.
S7	30.650	29.150	29.100	Ø100mm	Ø150mm	PPIC	450	D400	WAVIN 450 RANGE OR SIMILAR APPROVED.
S8	30.650	29.040 29.040	28.965	Ø150mm Ø150mm	Ø225mm	PPIC	600	D400	WAVIN 600 RANGE OR SIMILAR APPROVED.
S9	30.800	28.850	28.850	Ø225mm	Ø225mm	PPIC	600	D400	WAVIN 600 RANGE OR SIMILAR APPROVED.
S10	29.330	-	28.580	-	Ø150mm	PPIC	600	D400	WAVIN 600 RANGE OR SIMILAR APPROVED.
S11	29.330	-	28.580	-	Ø150mm	PPIC	600	D400	WAVIN 600 RANGE OR SIMILAR APPROVED.
S12	29.330	28.760 28.760	27.630	Ø150mm Ø150mm	Ø900mm	TYPE B	1800	D400	675 x 675 SINGLE COVER. 2No. Ø150mm BACKDROP IL:28.760
S13	30.900	-	30.200	-	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
S14	30.900	29.970	29.970	Ø100mm	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
S15	30.900	29.860	29.810	Ø100mm	Ø150mm	PPIC	450	B125	WAVIN 450 RANGE OR SIMILAR APPROVED.
S16	30.730	29.400	29.400	Ø150mm	Ø150mm	PPIC	450	D400	WAVIN 450 RANGE OR SIMILAR APPROVED.
S17	30.750	29.230 28.730 27.530	TBC	Ø150mm Ø225mm Ø900mm	RISING MAIN	TYPE B	1800	D400	PUMPING CHAMBER - FINAL SPECIFICATION BY SPECIALIST. FLOW RATE: 10 l/s 675 x 675 SINGLE COVER. Ø150mm BACKDROP IL:29.230. Ø225mm BACKDROP IL:28.730.
S18	30.800	29.510	29.450	RISING MAIN	Ø150mm	TYPE B	1200	D400	675 x 675 SINGLE COVER.

FOUL WATER MANHOLE SCHEDULE

MH REF	COVER LEVEL	INVERT LEVEL (IN)	INVERT LEVEL (OUT)	MAIN PIPE Ø (IN)	MAIN PIPE Ø (OUT)	MH TYPE	DIAMETER	COVER TYPE	COMMENTS
F1	30.900	-	30.000	-	Ø150mm	PPIC	450	B125	WAVIN 450 RANGE OR SIMILAR APPROVED.
F2	30.900	29.910	29.910	Ø150mm	Ø150mm	PPIC	450	B125	WAVIN 450 RANGE OR SIMILAR APPROVED.
F3	30.700	-	29.350	-	Ø150mm	PPIC	450	D400	WAVIN 450 RANGE OR SIMILAR APPROVED.
F4	30.700	29.275	29.275	Ø150mm	Ø150mm	PPIC	450	D400	WAVIN 450 RANGE OR SIMILAR APPROVED.
F5	30.750	-	29.850	-	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
F6	30.150	-	29.250	-	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
F7	30.150	29.050 29.050 29.000	29.000	Ø100mm Ø100mm Ø150mm	Ø150mm	PPIC	600	D400	WAVIN 600 RANGE OR SIMILAR APPROVED.
F8	30.150	29.740 28.900	28.400	Ø150mm Ø150mm	Ø150mm	TYPE B	900	B125	675 x 675 SINGLE COVER. Ø150mm BACKDROP 1 IL:29.740. Ø150mm BACKDROP 2 IL:28.900.
F9	29.330	28.300	28.300	Ø150mm	Ø150mm	TYPE B	900	D400	675 x 675 SINGLE COVER.
F10	29.330	28.150	28.150	Ø150mm	Ø150mm	TYPE B	900	D400	675 x 675 SINGLE COVER.
F11	30.900	-	30.000	-	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
F12	30.900	29.900	29.900	Ø100mm	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
F13	30.900	29.800	29.800	Ø100mm	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
F14	30.900	28.650	28.650	Ø100mm	Ø100mm	PPIC	315	B125	WAVIN 315 RANGE OR SIMILAR APPROVED.
F15	30.900	29.500 28.020	28.020	Ø100mm Ø150mm	Ø150mm	TYPE B	1200	B125	675 x 675 SINGLE COVER. Ø100mm BACKDROP IL:29.500.

LEGEND

- DENOTES EXISTING PUBLIC SURFACE WATER SEWER
- DENOTES EXISTING PUBLIC COMBINED WATER SEWER
- DENOTES PROPOSED PRIVATE SURFACE WATER SEWER
- DENOTES PROPOSED PRIVATE SURFACE WATER RISING MAIN
- DENOTES PROPOSED PRIVATE ACO MULTIDRAIN OR SIMILAR
- DENOTES PROPOSED PRIVATE FOUL WATER SEWER
- DENOTES SITE BOUNDARY
- FALL — DENOTES INDICATIVE FALLS

DRAINAGE NOTES

1. COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE AND INDICATIVE ONLY. ARCHITECT IS TO CONFIRM COVER LEVELS TO ALL MANHOLES, GULLIES AND CHANNEL DRAINS PRIOR TO CONSTRUCTION.
2. INDICATIVE FALL ARROWS HAVE BEEN ADDED TO THE DRAWING SHOWING ASSUMED FALLS FOR THE PURPOSE OF THE DRAINAGE DESIGN. THE ARCHITECT IS TO CONFIRM DETAILED SITE LEVELS AND SETTING OUT PRIOR TO CONSTRUCTION.
3. A TRAPPED ROAD GULLY HAS BEEN INCLUDED WITHIN THE BASEMENT TO CAPTURE RUNOFF IN THE EVENT OF A SPILLAGE OR OVERFLOW OF CHANNEL DRAIN.
4. THE PROPOSED DRAINAGE STRATEGY SHOWN ON THIS DRAWING ASSUMES THAT SURFACE WATER CAN BE DISCHARGED TO THE EXISTING PUBLIC SEWER NETWORK WITHOUT ANY FURTHER RESTRICTIONS IMPOSED BY UNITED UTILITIES.
5. THE EXISTING PUBLIC SEWER NETWORK IS UNDERSTOOD TO BE HEAVILY SILTED/BLOCKED AND REQUIRES SERVICING. UNITED UTILITIES ARE TO BE CONTACTED REGARDING THE CURRENT CONDITION OF THEIR SEWERS AND A FORMAL SECTION 106 APPLICATION (PERMISSION TO CONNECT) SUBMITTED PRIOR TO CONSTRUCTION.
6. RWP AND SVP LOCATIONS ARE APPROXIMATE AND INDICATIVE ONLY. THE ARCHITECT IS TO CONFIRM FINAL SETTING OUT PRIOR TO CONSTRUCTION.
7. DOWN PIPES FROM THE 'GREEN ROOF' ARE ASSUMED TO DISCHARGE INTO MANHOLE S12, EXACT LOCATIONS OF ALL GREEN ROOF DOWN PIPES ARE TO BE CONFIRMED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
8. REMOVABLE SILT BUCKETS ARE TO BE INCLUDED ON ALL CHANNEL DRAIN OUTLET BOX/SUMP LOCATIONS.
9. THE BASEMENT CAR PARK HAS RESULTED IN THE PROPOSED DRAINAGE BEING SIGNIFICANTLY DEEPER THAN THE EXISTING PUBLIC SEWERS LOCATED WITHIN BLACKBURN ST. IT HAS THEREFORE BEEN NECESSARY TO INCORPORATE A PUMPING CHAMBER.
10. THE FINAL SPECIFICATION OF THE PUMPING CHAMBER IS TO BE CONFIRMED BY A SPECIALIST SUPPLIER I.E. TT PUMPS OR SIMILAR.
11. THE PROPOSED FLOW RATE OF 10 l/s SHOULD BE ACHIEVED FROM A WATER DEPTH OF 0.5m TO 1.6m. ANY DEVIATION SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY AND WILL RESULT IN ALTERATIONS TO THE SIZE OF THE PROPOSED ATTENUATION PIPE WORK.
12. IT IS RECOMMENDED THAT THE PUMP SPECIFICATION SHOULD BE CONFIRMED AT THE EARLIEST POSSIBLE STAGE BY THE CONTRACTORS CHOSEN SUPPLIER SO ANY NECESSARY ALTERATIONS ARE CAPTURED PRIOR TO CONSTRUCTION.
13. WHERE THE PROPOSED PRIVATE DRAINAGE SYSTEM PASSES BENEATH THE PROPOSED STRUCTURES IT SHOULD BE ADEQUATELY PROTECTED DURING THE CONSTRUCTION OF FOUNDATIONS.

GENERAL NOTES

DO NOT SCALE FROM THIS DRAWING WORK TO FIGURED DIMENSIONS ONLY.

NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS ALLOWED WITHOUT PRIOR PERMISSION IN WRITING.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.

THE CONTRACTOR SHALL INCORPORATE ALL THE REQUIREMENTS OF THE PRE-TENDER STAGE HEALTH AND SAFETY PLAN.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH TYPICAL DRAINAGE DETAIL DRAWINGS.

THE CONTRACTOR IS RESPONSIBLE FOR CHECKING INVERT LEVELS AND POSITIONS OF ALL EXISTING DRAINS, SEWERS, INSPECTION CHAMBERS AND MANHOLES SHOWN ON THIS DRAWING IMMEDIATELY ON SITE ESTABLISHMENT. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.

WHERE THE NEW SITE DRAINAGE CONNECTS IN TO EXISTING MANHOLES IN CARRIAGEWAYS AND/OR EXISTING ADOPTED SEWERS, THE CONTRACTOR IS RESPONSIBLE FOR ALL LIAISON WITH THE RELEVANT STATUTORY UNDERTAKER AND LOCAL AUTHORITY WITH REGARD TO ROAD CLOSURES, TRAFFIC MANAGEMENT, PERMITS TO WORK, SUBMISSION OF CONTRACTORS METHOD STATEMENTS AND RISK ASSESSMENTS AND OTHER DOCUMENTATION AND CORRESPONDENCE ASSOCIATED WITH THE SITE STAGE (PART 2) ELEMENT OF THE WORKS.

ROCKER PIPES ARE TO BE PROVIDED AT ALL CONCRETE CASED INTERFACES.

THE CONTRACTOR IS TO PROVIDE ADEQUATE PROTECTION TO MAINTAIN MINIMUM COVER TO DRAINS DURING THE CONSTRUCTION PERIOD.

COVER LEVELS ON THIS DRAWING ARE APPROXIMATE AND INDICATIVE ONLY. ARCHITECT TO CONFIRM COVER LEVELS TO ALL MANHOLES, GULLIES AND CHANNEL DRAINS PRIOR TO CONSTRUCTION.

THE LAYOUT OF DRAINAGE ON THIS DRAWING IS INDICATIVE ONLY ARCHITECT TO CONFIRM EXACT LOCATION OF MANHOLES AND GULLIES.

U.N.O. ALL DRAINAGE GOODS & FITTINGS TO BE:-

UPTO 300Ø (AND INCLUDING) TO BE SUPERSLEVE VITRIFIED CLAY PIPES OR HEPWORTH TWINWALL PLASTIC PIPES OR SIMILAR

ABOVE 300Ø TO BE CONCRETE BY STANTON BONNA OR SIMILAR.

ALL COVERS AND RODDING ACCESS POINTS TO BE SEALED AND SCREWED TIGHT.

ALL PIPEWORK TO BE INSTALLED WITH SOFFITS LEVEL (E.G. AT CHANGES IN PIPE SIZE) U.N.O.

ON COMPLETION OF DRAINAGE WORKS, THE NEW DRAINAGE SYSTEM IS TO BE THOROUGHLY CLEANED AND A CCTV SURVEY CARRIED OUT TO CONFIRM NO CONSTRUCTION DEBRIS OR BLOCKAGES REMAIN.

CONNECTIONS TO CARRIER DRAINS ARE TO BE 'Y' JUNCTIONS.

ALL PRIVATE DRAINAGE IS TO COMPLY WITH BS EN 752 AND BUILDING REGS. PART H.

PIPE GRADIENTS ARE INDICATIVE MINIMUMS.

MANHOLES:

ALL PROPOSED NEW MANHOLES TO BE PRECAST RING MANHOLES TYPE B UNLESS NOTED OTHERWISE. INTERNAL DIAMETERS OF MANHOLES TO BE 1050Ø mm WHERE DEPTH TO PIPE SOFFIT IS LESS THAN 1.5m, AND 1200mm Ø ELSEWHERE UNLESS NOTED OTHERWISE. IC - DENOTES POLYPROPYLENE INSPECTION CHAMBER BY HEPWORTH OR SIMILAR APPROVED INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

MANHOLE COVERS:

CARRIAGEWAYS GENERAL - EN124 CLASS D400
CARRIAGEWAYS WITHIN 0.5m OF KERB - EN124 CLASS C250
SLOW MOVING HGV [38t] - EN 124 CLASS B125 SLOW MOVING
GLV [10t] - EN 124 CLASS B125 SLOW MOVING PRIVATE CARS - EN124 CLASS B125.

INTERNAL - JONES OF OSWESTRY - SUPRASTEEL DOUBLE SEALED WITH NEOPRENE GASKET AND COVER GREASE OR SIMILAR APPROVED.

REFER TO ARCHITECTS DRAWINGS FOR DETAILS OF ANY MANHOLE COVERS WHICH REQUIRE INSET PANELS.

SUBJECT TO APPROVAL FROM UNITED UTILITIES

REV	DATE	NAME	REVISION	REV CHECK
T01	29.07.20	DB	TENDER ISSUE	JNL

SBS
Consulting Structural & Civil Engineers

TITLE: PROPOSED DRAINAGE GA

PROJECT: BLACKBURN ST, STRETFORD

CLIENT: MSN PROPERTIES

DRAWN AT:	OFFICE:	DRAWN BY:	C.A.D.
-		DB	
SCALE: 1:100 @ A0	DATE: APRIL 20	CHECKED BY: JNL	

CONTRACT No: 20255

DRAWING No: 1001