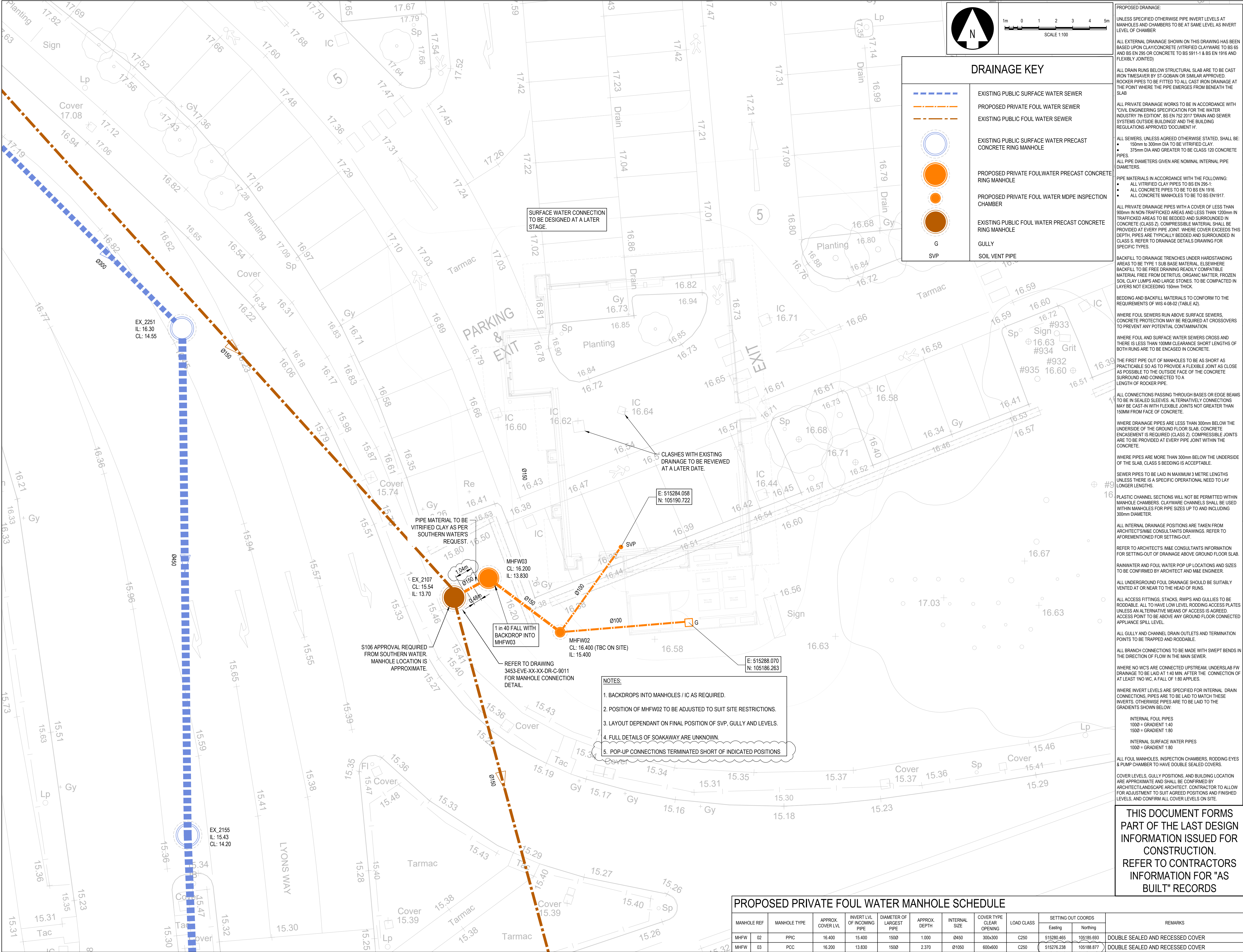


DRAINAGE KEY	
	EXISTING PUBLIC SURFACE WATER SEWER
	PROPOSED PRIVATE FOUL WATER SEWER
	EXISTING PUBLIC FOUL WATER SEWER
	EXISTING PUBLIC SURFACE WATER PRECAST CONCRETE RING MANHOLE
	PROPOSED PRIVATE FOULWATER PRECAST CONCRETE RING MANHOLE
	PROPOSED PRIVATE FOUL WATER MDPE INSPECTION CHAMBER
	EXISTING PUBLIC FOUL WATER PRECAST CONCRETE RING MANHOLE
	GULLY
	SOIL VENT PIPE

PROPOSED DRAINAGE:

UNLESS SPECIFIED OTHERWISE PIPE INVERT LEVELS AT MANHOLES AND CHAMBERS TO BE AT SAME LEVEL AS INVERT LEVEL OF CHAMBER

ALL EXTERNAL DRAINAGE SHOWN ON THIS DRAWING HAS BEEN BASED UPON CLAY/CONCRETE (VITRIFIED CLAYWARE TO BS 95 AND BS EN 295 OR CONCRETE TO BS 5911-1 & BS EN 1916 AND FLEXIBLY JOINTED)

ALL DRAIN RUNS BELOW STRUCTURAL SLAB ARE TO BE CAST IRON TIMESAVER BY ST-GOBAIN OR SIMILAR APPROVED. ROCKER PIPES TO BE FITTED TO ALL CAST IRON DRAINAGE AT THE POINT WHERE THE PIPE EMERGES FROM BENEATH THE SLAB

ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH "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.

ALL SEWERS, UNLESS AGREED OTHERWISE STATED, SHALL BE:

- 150mm to 300mm DIA TO BE VITRIFIED CLAY.
- 375mm DIA AND GREATER TO BE CLASS 120 CONCRETE PIPES.

ALL PIPE DIAMETERS GIVEN ARE NOMINAL INTERNAL PIPE DIAMETERS.

PIPE MATERIALS IN ACCORDANCE WITH THE FOLLOWING:

- ALL VITRIFIED CLAY PIPES TO BS EN 295-1.
- ALL CONCRETE PIPES TO BE TO BS EN 1916.
- ALL CONCRETE MANHOLES TO BE TO BS EN1917.

ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 900mm 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 LAYERS NOT EXCEEDING 150mm THICK.

BEDDING AND BACKFILL MATERIALS TO CONFORM TO THE REQUIREMENTS OF WIS 4-08-02 (TABLE A2).

WHERE FOUL SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSOVERS TO PREVENT ANY POTENTIAL CONTAMINATION.

WHERE FOUL AND SURFACE WATER SEWERS CROSS AND THERE IS LESS THAN 100MM CLEARANCE SHORT LENGTHS OF BOTH RUNS ARE TO BE ENCASED IN CONCRETE.

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.

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.

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.

WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS S BEDDING IS ACCEPTABLE.

SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.

PLASTIC CHANNEL SECTIONS WILL NOT BE PERMITTED WITHIN MANHOLE CHAMBERS. CLAYWARE CHANNELS SHALL BE USED WITHIN MANHOLES FOR PIPE SIZES UP TO AND INCLUDING 300mm DIAMETER.

ALL INTERNAL DRAINAGE POSITIONS ARE TAKEN FROM ARCHITECT'S/MBE CONSULTANTS DRAWINGS. REFER TO AFOREMENTIONED FOR SETTING-OUT.

REFER TO ARCHITECT'S/MBE CONSULTANTS INFORMATION FOR SETTING-OUT OF DRAINAGE ABOVE GROUND FLOOR SLAB.

RAINFALL AND FOUL WATER POP UP LOCATIONS AND SIZES TO BE CONFIRMED BY ARCHITECT AND M&E ENGINEER.

ALL UNDERGROUND FOUL DRAINAGE SHOULD BE SUITABLY VENTED AT OR NEAR TO THE HEAD OF RUNS.

ALL ACCESS FITTINGS, STACKS, RW/PS 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.

ALL GULLY AND CHANNEL DRAIN OUTLETS AND TERMINATION POINTS TO BE TRAPPED AND RODDABLE.

ALL BRANCH CONNECTIONS TO BE MADE WITH SWEEP BENDS IN THE DIRECTION OF FLOW IN THE MAIN SEWER.

WHERE NO W/C'S ARE CONNECTED UPSTREAM, UNDERSLAB FW DRAINAGE TO BE LAID AT 1:40 MIN. AFTER THE CONNECTION OF AT LEAST 1 NO W/C, A FALL OF 1:80 APPLIES.

WHERE INVERT LEVELS ARE SPECIFIED FOR INTERNAL DRAIN CONNECTIONS, PIPES ARE TO BE LAID TO MATCH THESE INVERTS. OTHERWISE PIPES ARE TO BE LAID TO THE GRADIENTS SHOWN BELOW:

INTERNAL FOUL PIPES
1000 = GRADIENT 1:40
1500 = GRADIENT 1:80

INTERNAL SURFACE WATER PIPES
1000 = GRADIENT 1:80

ALL FOUL MANHOLES, INSPECTION CHAMBERS, RODDING EYES & PUMP CHAMBER TO HAVE DOUBLE SEALED COVERS.

COVER LEVELS, GULLY POSITIONS, AND BUILDING 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.

GENERAL NOTES:

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS AND GENERAL NOTES DRAWING.

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.

ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.

ALL EXISTING SERVICES TO BE LOCATED PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS, AND WHERE NECESSARY PROTECTION OR DIVERSIONS ARE TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORK.

ALL PROPOSED SERVICES TO BE COORDINATED WITH PROPOSED UNDERGROUND DRAINAGE.

POSITIONS AND INVERTS OF PUBLIC SEWERS HAVE BEEN ESTIMATED FROM SOUTHERN WATER ASSET DRAWINGS. CONTRACTOR TO CONFIRM EXACT LOCATION SIZE OF PIPE AND INVERT LEVEL OF THE UPSTREAM AND DOWNSTREAM MANHOLES ADJACENT TO THE PROPOSED CONNECTIONS BEFORE COMMENCEMENT OF WORKS. THE CONTRACTOR IS TO SURVEY AND RELAY TO EVOLVE THE INVERT LEVEL OF THE EXISTING PUBLIC SEWER IN ORDER TO CONFIRM THAT THERE IS NO CHANGE TO THE SYSTEM.

THIS DESIGN IS DEPENDANT ON SOUTHERN WATER APPROVAL OF DRAINAGE PROPOSAL, AND SUITABILITY OF CONNECTION TO THE PUBLIC SEWER. NO WORKS ARE TO COMMENCE UNTIL CONSENT TO CONNECT IS RECEIVED FROM SOUTHERN WATER.

EXISTING DRAINAGE:

ALL EXISTING SEWERS, CONNECTIONS, PIPE SIZES AND INVERT LEVELS TO BE CONFIRMED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS TO ENSURE CONNECTIVITY. ANY VARIANCE FROM THE INFORMATION SHOWN SHOULD BE REPORTED TO THE ENGINEER FOR REVIEW.

IT IS ADVISED THAT THE CONTRACTOR SURVEY RETAINED EXISTING DRAINAGE PRIOR TO COMMENCEMENT TO CONFIRM LOCATION AND CONDITION. POTENTIAL PRE-CLEANING TO BE UNDERTAKEN IN ORDER TO FACILITATE SURVEY IF REQUIRED.

EXISTING SEWER LOCATIONS WHERE THE PROPOSED DRAINAGE IS TO CONNECT, ARE TO BE SURVEYED AND EXACT LEVELS CONFIRMED AND PROVIDED TO ENGINEER PRIOR TO COMMENCEMENT OF WORKS.

ALL EXISTING DRAINS TO BE ABANDONED SHALL BE EITHER REMOVED OR GROUTED UP IF NOT POSSIBLE. GROUTING TO BE PERFORMED BY CAPPING ALL ENDS / CONNECTIONS AND FILLING THE RETAINING VOID WITH GROUT, IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 8th EDITION (CESWI).

NOTES TO THE CONTRACTOR:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING:-

(i) ALL OPERATIONS SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE GENERAL HEALTH AND SAFETY POLICY OF THE DEVELOPER AS REQUIRED BY SECTIONS 2 OF THE HEALTH AND SAFETY AT WORK ACT 1974 AND IN PARTICULAR THE CONSTRUCTION (GENERAL PROVISIONS) REGULATIONS.

(ii) THE LOCAL AUTHORITY AND UTILITIES COMPANIES ARE TO BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK ON SITE.

(iii) PRIOR TO CONSTRUCTION THE ACTUAL POSITIONS AND DEPTHS OF SERVICES LIKELY TO BE AFFECTED BY THE WORKS SHOULD BE ESTABLISHED BY MEANS OF HAND DIG IN CLOSE LIAISON WITH THE UTILITY COMPANIES. THE CONTRACTOR SHALL IMMEDIATELY ADVISE THE ENGINEER OF ANY SERVICES EXPOSED WHICH MAY AFFECT THE DESIGN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT PIPES ARE ADEQUATELY PROTECTED FROM CONCENTRATED LOADING BY CONSTRUCTION TRAFFIC DURING THE CONSTRUCTION PERIOD. EVOLVE ARE RESPONSIBLE FOR PERMANENT WORKS ONLY. ANY TEMPORARY BUILD UPS ARE TO BE PROPOSED AND APPROVED BY THE CONTRACTOR PRIOR TO INSTALLATION.

THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.

THE CONTRACTOR SHALL ALLOW FOR KEEPING TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DE-WATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY, LFAA AND ENVIRONMENT AGENCY.

IT IS ADVISED THAT DRAINAGE WORKS ARE TO BE CONSTRUCTED FROM THE OUTFALL TOWARDS THE HEAD OF RUN TO ENSURE THE OUTFALL CAN BE ACHIEVED.

ALL DRAINS TO BE CCTV SURVEYED ON COMPLETION OF THE WORKS.

ALL DRAINAGE SYSTEMS ARE TO BE CLEANED OUT, PRESSURE TESTED AND CCTV SURVEYED UNTIL THEY CAN BE SHOWN TO BE FREE FLOWING AND WITHOUT PONDING OR DEFECTS IMMEDIATELY PRIOR TO PRACTICAL COMPLETION.

C05	02/12/25	LAST DESIGN INFORMATION	DP	MG
C04	14/11/25	SVP, MHFW02 AND MHFW03 RELOCATED. LEVELS REVISED	DP	MG
C03	10/11/25	FW01 REMOVED. SVP AND MHFW03 RELOCATED. LEVELS REVISED	DP	MG
C02	30/10/25	SVP LOCATION REVISED	DP	MG
C01	29/10/25	ISSUED FOR CONSTRUCTION	DP	MG
P02	03/10/25	UPDATED TO SOUTHERN WATER COMMENTS	GS	PK
P01	27/05/25	FIRST ISSUE	GS	PK
Rev	Date	Revision	By	CHK
Status	CONSTRUCTION			Code S3

Client
MELFORD CAPITAL PARTNERS

Project
**DOWNLANDS RETAIL PARK
WORTHING**

Drawing Title
PROPOSED DRAINAGE STRATEGY

Drawn by GS	Checked by PK	Scale @ A1 1:100
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Drawing No.
3453-EVE-XX-XX-DR-C-9000

Revision
C05

EVOLVE

20 Baltic Street
London
EC1Y 0UL

www.evolveuk.biz
info@evolveuk.biz
0207 251 6888

PROPOSED PRIVATE FOUL WATER MANHOLE SCHEDULE

MANHOLE REF	MANHOLE TYPE	APPROX. COVER LVL	INVERT LVL OF INCOMING PIPE	DIAMETER OF LARGEST PIPE	APPROX. DEPTH	INTERNAL SIZE	COVER TYPE CLEAR OPENING	LOAD CLASS	SETTING OUT COORDS		REMARKS
									Eastings	Northings	
MHFW 02	PPIC	16.400	15.400	1500	1.000	Ø450	300x300	C250	515280.465	105185.693	DOUBLE SEALED AND RECESSED COVER
MHFW 03	PCC	16.200	13.830	1500	2.370	Ø1050	600x600	C250	515276.238	105188.877	DOUBLE SEALED AND RECESSED COVER