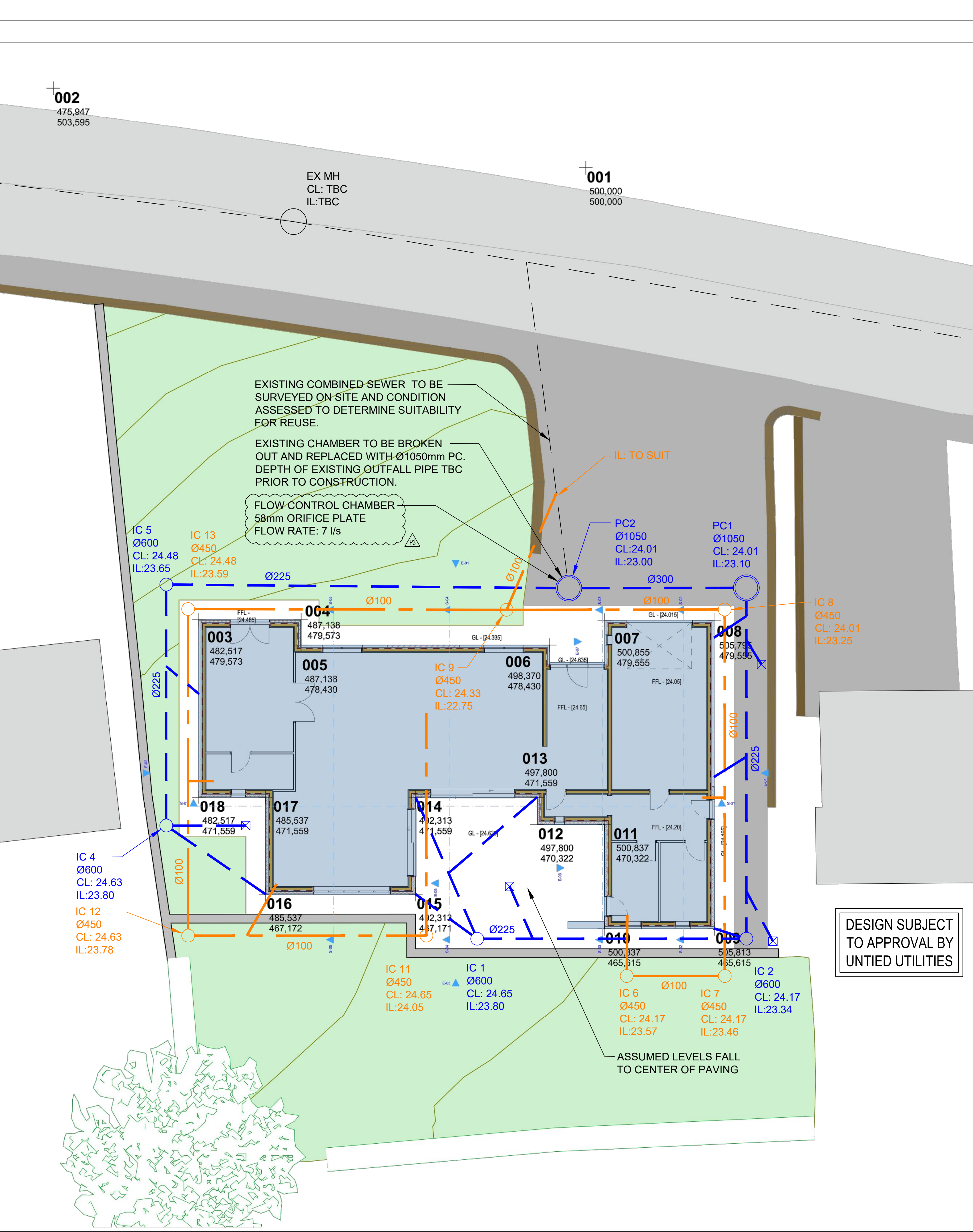




DRAINAGE STRATEGY

THE PROPOSED DRAINAGE STRATEGY FOR THIS SITE WILL INCORPORATE THE PRINCIPLES OF, AND WHERE APPROPRIATE DEMONSTRATE COMPLIANCE WITH THE NPPF AND THE SUDS MANUAL.

THE PROPOSED DRAINAGE SYSTEM SHOULD BE DESIGNED IN ACCORDANCE WITH BS EN 7524 AND BUILDING REGULATIONS PART H (2010). APPROVED DOCUMENT H INDICATES THE FOLLOWING HIERARCHY FOR THE DISPOSAL OF SURFACE WATER DRAINAGE FROM THE NEW DEVELOPMENT SITES:

- 1. DISCHARGE VIA INFILTRATION
- 2. DISCHARGE VIA WATERCOURSE
- 3. DISCHARGE TO SEWER

THESE OPTIONS ARE DISCUSSED IN FURTHER DETAIL BELOW.

SURFACE WATER DISCHARGE VIA INFILTRATION

IN VIEW OF THE RELATIVELY POOR CONDITION OF THE SANDSTONE SUBSTRATA AND DUE TO THE STEEP GRADIENT OF THE SITE REQUIRING MULTIPLE RETAINING WALLS, SURFACE WATER DISCHARGE VIA INFILTRATION IS NOT CONSIDERED SUITABLE AS A DRAINAGE SOLUTION FOR THE NEW DEVELOPMENT. SURFACE WATER DISCHARGE VIA WATERCOURSE

THERE ARE NO EXISTING WATERCOURSES NEAR OR WITHIN THE SITE SO DISCHARGE TO WATERCOURSE IS NOT FEASIBLE IN THIS INSTANCE.

SURFACE WATER DISCHARGE VIA PUBLIC SEWER

AS IT IS NOT FEASIBLE TO DISCHARGE SURFACE WATER RUNOFF FROM THE PROPOSED DEVELOPMENT VIA INFILTRATION (PENDING FURTHER INVESTIGATION) OR TO A WATERCOURSE, IT IS CONSIDERED THAT IT WILL NEED TO BE DISCHARGED TO THE PUBLIC COMBINED DRAINAGE SYSTEM LOCATED EAST OF THE SITE WITHIN A REFUSE STREET BEHIND THE ADJACENT HOUSING VIA A NEW SITE DRAINAGE CONNECTION.

A SITE CCTV DRAINAGE SURVEY SHOULD BE UNDERTAKEN PRIOR TO DETAILED DESIGN TO ASSESS WHETHER AN EXISTING CONNECTION IS PRESENT AND IF IT CAN BE REUSED.

DUE TO THE SITE BEING CLASSIFIED AS A BROWN FIELD SITE THERE IS A REQUIREMENT UNDER THE SFRA FOR A REDUCTION IN SURFACE WATER RUNOFF OF 50%. THE EXISTING SITE SURFACE WATER RUNOFF RATE IS CALCULATED AT 15.0 l/s BASED ON A RAINFALL OF 50mm/hr. IT IS PROPOSED TO RESTRICT THE DISCHARGE RATE TO 7 l/s FOR UP TO AND INCLUDING THE CRITICAL 1 IN 100 YEAR STORM EVENT PLUS A 40% CLIMATE CHANGE ALLOWANCE.

IT IS PROPOSED TO ATTENUATE THE SURFACE WATER DISCHARGE RATE FROM THE PROPOSED HOUSING DEVELOPMENT BY OVER SIZING THE RUNS TO ACCOMMODATE THE STORM WATER AND RESTRICT THE FLOW WITH AN ORIFICE FLOW CONTROL PLATE.

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 WML DRAINAGE DETAIL DRAWINGS

FOR DETAILS OF MATERIALS AND WORKMANSHIP REFER TO THE SPECIFICATION.

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 WML CONSULTING 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 TO BE PROVIDED AT ALL CONCRETE CASED INTERFACES.

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 AND GULLIES 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 SIMILAR.

LEGEND

- EXISTING COMBINED SEWER
- PROPOSED SURFACE WATER SEWER
- PROPOSED FOUL WATER SEWER

DRAWING NOTES

DRAINAGE SHOWN INDICATIVE ONLY.

EXISTING DRAINAGE TO BE SURVEYED CONFIRMING LOCATION DEPTH AND OUTFALL PIPE SIZE PRIOR TO DETAILED DESIGN.

RWPS & FOUL POP-UP LOCATION TO BE CONFIRMED BY ARCHITECT PRIOR TO DETAILED DESIGN.

PROPOSED SITE LEVELS TBC BY ARCHITECT PRIOR TO DETAILED DESIGN.

"PC" REFERS TO PRECAST CONCRETE MANHOLE RINGS. SEE DRAWING FOR SIZE.

"IC" REFERS TO INSPECTION CHAMBER. SEE DRAWING FOR SIZE.

"CL" REFERS TO COVER LEVEL OF CHAMBER.

"IL" REFERS TO INVERT LEVEL OF PIPE.

INSPECTION CHAMBERS ARE TO BE WAVIN RANGE 450mm FOR FOUL DRAINAGE AND RANGE 600mm FOR SURFACE WATER OR SIMILAR APPROVED.

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

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

ALL INTERNAL MANHOLE COVERS TO BE DOUBLE SEALED, LOCKABLE AND RECESSED TO ACCEPT FLOOR FINISHES WHERE APPLICABLE.

SETTING OUT OF ALL INTERNAL GULLY/PLUMBING CONNECTIONS TO BE CO-ORDINATED BETWEEN THE SERVICE ENGINEERS AND THE ARCHITECT.

ALL INTERNAL GULLIES, PLUMBING CONNECTIONS, SOIL STACKS, SVPS AND ALL OTHER CONNECTIONS OF FOUL AND SURFACE WATER DRAINS TO BELOW GROUND TO BE FITTED WITH ACCESSIBLE RODDING POINTS ABOVE SLAB LEVEL.

ALL SURFACE WATER CONNECTIONS TO BE 150mm DIAMETER AT MINIMUM FALLS OF 1:100 UNLESS NOTED OTHERWISE.

ALL FOUL WATER CONNECTIONS TO BE 100mm DIAMETER AT MINIMUM FALLS OF 1:40 UNLESS NOTED OTHERWISE.

ALL CONNECTIONS TO BE MADE IN ACCORDANCE WITH STANDARD DETAIL DRAWINGS.

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

FOR DETAILS OF GREASE TRAP/MACERATOR REQUIREMENTS ASSOCIATED WITH KITCHENS REFER TO SERVICE ENGINEER.

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.

SURFACE CHANNEL DRAINS TO BE ACO MULTIDRAIN OR SIMILAR.

MANHOLES:

ALL PROPOSED NEW MANHOLES TO BE PRECAST RING MANHOLES TYPE B UNLESS NOTED OTHERWISE. INTERNAL DIAMETERS OF MANHOLES TO BE 1050Ømm WHERE DEPTH TO PIPE SOFFIT IS LESS THAN 1.5m, AND 1200Ømm 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 [38Ø] - EN 124 CLASS B125 SLOW MOVING GLV [10Ø] - 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.

DESIGN SUBJECT TO APPROVAL BY UNTIED UTILITIES

PRELIMINARY DRAWING

P3	TYPO REVISED.	03.04.24	DB	TC
P2	DRAINAGE REVISED AS CONTRACTORS COMMENTS.	20.10.17	DB	TC
P1	PRELIMINARY ISSUE	11.10.17	DB	TC
Rev.	Amendment	Date	By	Chkd

Project
64 BLACKSTONE EDGE

Client
DAVID WHITELEY

Title
PROPOSED DRAINAGE LAYOUT

Drawn DB	Checked TC	Date OCT 2017	Scale NTS @ A1
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Job No.	7761	Drawing No.	E01 P3
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