PRELIMINARY
SUBJECT TO SECTION 104 APPROVAL

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGN DRAWINGS AND OTHER INFORMATION

MINIMUM DIMENSIONS FOR MANHOLES

Type	Size of largest pipe (DN)	Min internal dimensions[1] Rectangular length and width	Circular diameter	Min clear opening size[1] Rectangular length and width	Circular diameter
Manhole < 1.5m deep to soffit	≤ 150 225 300 >300	750 x 675[7] 1200 x 675 1200 x 750 1800 x (DN+450)	1000[7] 1200 1200 The larger of 1800 or (DN+450)	750 x 675[2] 1200 x 675[2]	na[3]
> 1.5m deep to soffit	≤ 225 300 375-450 >450	1200 x 1000 1200 x 1075 1350 x 1225 1800 x (DN+775)	1200 1200 1200 The larger of 1800 or (DN+775)	675 x 675	600
Manhole[4] > 3.0m deep to soffit	Steps[5]	1050 x 800	1050	675 x 675	600
	Ladder[5]	1200 x 800	1200		
	Winch	900 x 800	900	675 x 675	600

NOTES:
1) LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS.
2) MAY BE REDUCED TO 675 BY 675 WHERE REQUIRED BY HIGHWAY LOADING CONSIDERATIONS, SUBJECT TO A SAFE SYSTEM OF WORK BEING SPECIFIED.
3) NOT APPLICABLE DUE TO WORKING SPACE NEEDED.
4) MINIMUM HEIGHT OF CHAMBER IN SHAFTED MANHOLE 2M FROM BENCHING TO UNDERSIDE OF REDUCING SLAB.
5) MIN CLEAR SPACE BETWEEN LADDERS OR STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROXIMATELY 900MM.
6) WINCH ONLY - NO STEPS OR LADDERS, PERMANENT OR REMOVABLE
7) THE MINIMUM SIZE OF ANY MANHOLE SERVING A SEWER (I.E ANY DRAIN SERVING MORE THAN ONE PROPERTY) SHOULD BE 1200 MM X 675 MM RECTANGULAR OR 1200 MM DIAMETER

INDEPENDENT WATER NETWORKS LIMITED (IWNL) MANHOLE REQUIREMENTS FOR DESIGN AND CONSTRUCTION GUIDANCE

GENERAL REQUIREMENTS

COPIES OF DELIVERY NOTES FOR CONCRETE AND PIPE BEDDING WILL BE REQUIRED INTERMITTENTLY AS THE JOB PROGRESSES. ALL OTHER COMPONENT UNITS MUST BE KITE-MARKED.

CHANNELS AND BENCHING

ALL CHAMBERS WITH PIPE SIZES 150MM, 225MM, 300MM MUST HAVE SWEPT BENDS AND CHANNELS. ALL BENCHING TO BE A *MINIMUM 40MM THICK* GRANOLITHIC CONCRETE *TROWELLED TO A SMOOTH FINISH.*

IRONWORK IN MANHOLES

IF THE CHAMBER IS LESS THAN 3M DEEP WE REQUIRE DOUBLE ENCAPSULATED STEP RUNGS UNLESS OTHERWISE APPROVED. IF THE CHAMBER IS OVER 3M DEEP WE REQUIRE *HOT DIPPED GALVANISED MILD STEEL LADDERS*. THERE MUST BE 900MM BETWEEN LADDER AND BACK OF SHAFT. DEPTH IS MEASURED FROM FINISHED COVER LEVEL TO THE TOP OF THE BENCHING. THE MAXIMUM DISTANCE BETWEEN COVER LEVEL AND THE FIRST STEP MUST BE 675MM.

BRICKWORK

MIN 2 MAX 4 COURSES UNDER FRAME AND MUST BE SOLID CLASS B ENGINEERING BRICKS OR CONCRETE SPACING RINGS NEATLY POINTED UP. ENGLISH BOND TO BE USED ON ALL BRICKWORK. SULPHATE RESISTING CEMENT MUST BE USED IN ALL LOCATIONS.

COVER AND FRAMES

COVER SLAB OPENING, COVER AND FRAMES MUST BE 675 X 675 *UNLESS OTHERWISE APPROVED*.
DN400 SHALL BE USED AT ALL LOCATIONS. ON SPINE ROADS MUST BE 150MM DEEP. ON RESIDENTIAL CUL-DE-SACS 100MM MAY BE USED SUBJECT TO APPROVAL. FRAMES FOR MANHOLE COVERS SHOULD BE BEDDED IN A POLYESTER RESIN BEDDING MORTAR IN ALL SITUATIONS WHERE COVERS ARE SITED IN NRSWA ROAD CATEGORIES I, II OR III.

'INFILL' TYPE COVERS SHOULD NOT BE USED.

IN BLOCK PAVED AREAS 150MM DEEP FRAMES MUST BE USED (IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE P22)

LATERALS

THEY SHOULD BE LAID TO THE SAME STANDARD AS PUBLIC SEWERS. THEY SHOULD HAVE NO CHANGES OF LINE OR GRADIENT BETWEEN THE SEWER AND THE DEMARCATION CHAMBER. THEY SHOULD HAVE AN ADOPTABLE MANHOLE AS THE DEMARCATION CHAMBER UNLESS THERE IS ONLY ON PROPERTY WHEN A PLASTIC CHAMBER TO BS EN 13598-2:2009 IS ALLOWED. LOCKABLE B125 AND A15 COVERS MAY BE ALLOWED IN CERTAIN LOCATIONS SUBJECT TO APPROVAL. THE DEMARCATION SHOULD BE INSIDE THE BOUNDARY OF THE PROPERTY, NO MORE THAN 1M INSIDE THE BOUNDARY, PREFERABLY IN THE DRIVEWAY AND NOT IN THE WHEEL TRACKS OF VEHICLES.

S106 APPLICATION

A SECTION 106 APPLICATION TO SEVERN TRENT WATER MUST BE COMPLETED FOR THE RE USE OF ANY EXISTING CONNECTION INTO THE EXISTING PUBLIC SEWERAGE SYSTEM OR THE CONSTRUCTION OF A NEW CONNECTION.

AN APPLICATION WILL BE REQUIRED FOR THE FOUL AND SURFACE WATER DRAINAGE ARRANGEMENTS AND THIS SHOULD BE COMPLETED BY THE CONTRACTOR.

ALL SEWERS ARE TO COMPLY WITH THE DESIGN AND CONSTRUCTION GUIDE AND SEVERN TRENT WATER REQUIREMENTS

WHERE PIPE CROSSING, PLASTIC MEMBRANE TO BE USED FOR PROTECTION TO ELIMINATE CHANCES OF CROSS CONTAMINATION

PIPES OF DIFFERENT DIAMETERS ENTERING MANHOLES SHOULD BE INSTALLED WITH SOFFITS AT THE SAME LEVEL

THE OUTSIDE OF THE SEWER SHOULD BE IN VEHICLE CARRIAGEWAY (NOT FOOTPATH) AND BE AT LEAST 1m FROM KERB LINE. THE OUTSIDE MANHOLES SHOULD BE AT LEAST 0.5m FROM THE KERB LINE.

TREES ON THE DRAWING ARE EXISTING OR PROPOSED AND ADHERE TO B.2.3 (PAGE 33) OF SFA6. THE TREES SPECIFIED WILL BE AS PER SEWERS FOR ADOPTION AND POSITIONED. WHERE CLEARANCES WITH VEGETATION IS NOT ACHIEVABLE, APPROPRIATE ROOT PROTECTION WILL BE PROVIDED

THE MATERIALS TO BE USED ARE SUITABLE FOR THE GROUND CONDITIONS

ANY POND BED LINING AND / OR BANK STABILISATION METHODS REQUIRED FOR BALANCING POND TO BE ASSESSED BY STRUCTURAL ENGINEER

IMPORTANT:
HEADWALLS WILL REQUIRE THE ENVIRONMENT AGENCY'S PRIOR WRITTEN CONSENT UNDER SECTION 109 OF THE WATER RESOURCES ACT 1991 BEFORE ANY CONSTRUCTION TAKES PLACE

HEADWALLS TO BE PRE_CAST CONCRETE. PLEASE REFER TO ALTHON DRAWINGS FOR DETAILS

MATERIALS FOR ADOPTABLE SEWERS

PIPES 150mm - 300mm DIA :-

SURFACE AND FOUL WATER PIPES ARE TO BE EXTRA STRENGTH VITRIFIED CLAY WITH FLEXIBLE MECHANICAL JOINTS. PIPES MUST COMPLY WITH THE RELEVANT REQUIREMENTS OF BS EN 295-1:2013 AND BS 65:1991 (surface water pipes only).

PIPES > 300mm:-

DIA SURFACE AND FOUL WATER PIPES ARE TO BE HIGH STRENGTH CONCRETE. CONCRETE PIPES AND FITTINGS WITH FLEXIBLE JOINTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911-1:2002.

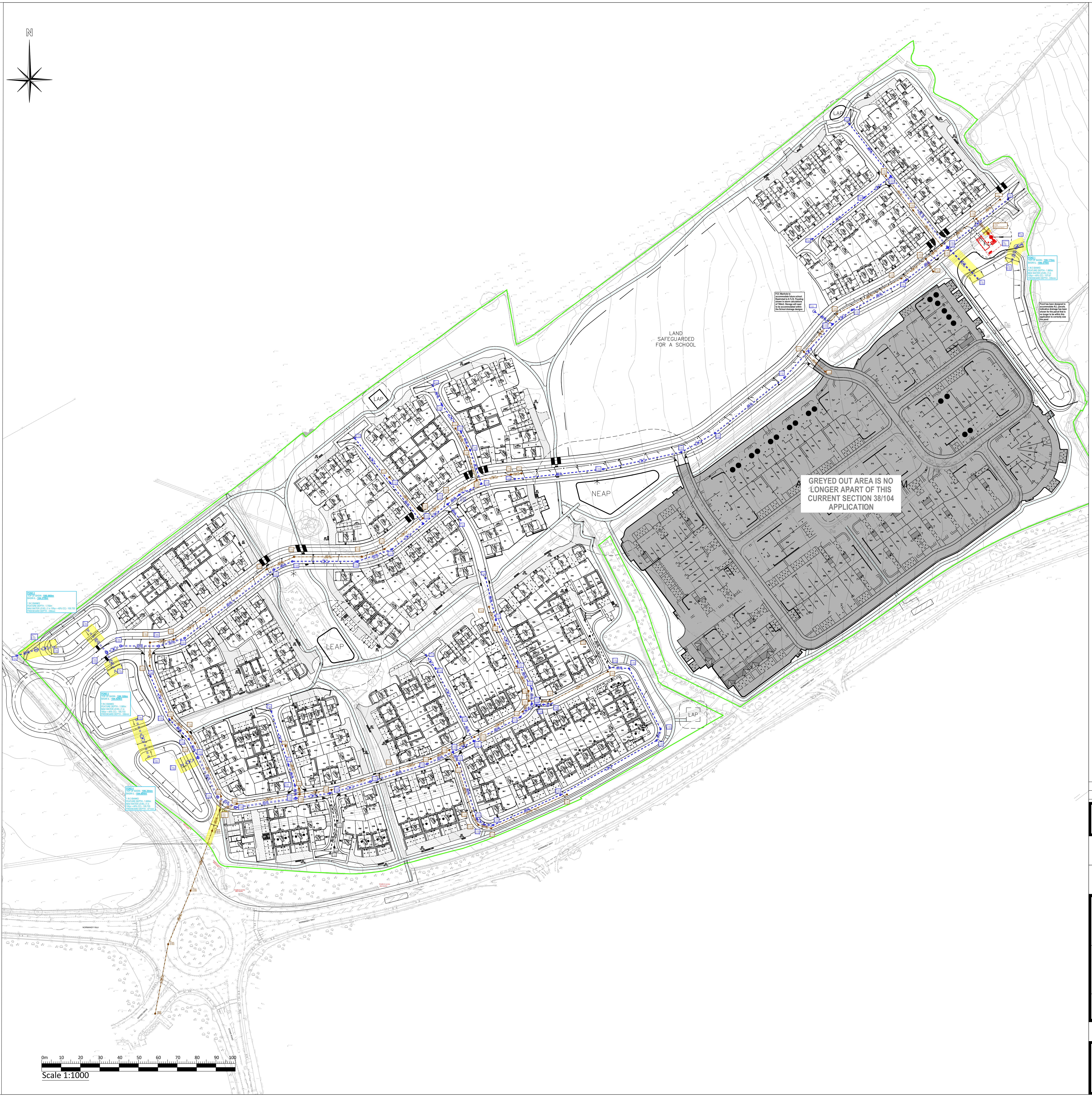
DRAINAGE KEY

FOUL WATER
- Manhole ●
- Pipe line
- Pipe line to be adopted by others
- Rising Main

SURFACE WATER
- Manhole ○
- Pipe line
- Pipe line to be adopted by others
- Headwall

HIGHWAY DRAINAGE
- Highway Drain / Gully Connection

MISCELLANEOUS
- Sewer Easements. up to 300dia. - 5m 300dia. and above - 10m ▨


N
LAP
LEAP
NEAP
LAND SAFEGUARDED FOR A SCHOOL
GREYED OUT AREA IS NO LONGER APART OF THIS CURRENT SECTION 38/104 APPLICATION
0m 10 20 30 40 50 60 70 80 90 100
Scale 1:1000

GENERAL NOTES

1. THIS DRAWING IS COPYRIGHT AND SHOULD NOT BE REPRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF AJP MIDLANDS LTD.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS TO BE CHECKED ON SITE AND CO-ORDINATE WITH RELEVANT ARCHITECT'S DRAWINGS. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
4. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
5. ALL LEVELS IN METRES.
6. SIZES HEREON SHALL NOT BE MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
7. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS & SPECIFICATIONS.

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	09.04.2026	INITIAL ISSUE FOR CLIENT REVIEW	AQ	KG	CS

DRAWING STATUS:
S2 - ISSUED FOR INFORMATION

CLIENT:
VISTRY SOUTH EAST MIDLANDS

ARCHITECT:
N/A

PROJECT:
STOKE ROAD, HINCKLEY

TITLE:
S104 DRAINAGE GENERAL ARRANGEMENT
SHEET 6

STATUS:	PROJECT No.	PROJECT	ORIGINATOR	VOL/SYS	LEVEL	TYPE	ROLE	DRAWING No.	REV:
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SCALE @ A0:	DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:
1:1000	KG/LP	LP	KG	CS	09.04.2026

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