

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<br>largest<br>pipe (mm) | Min internal<br>diameter<br>(mm) | Min internal<br>diameter<br>(mm) | Min clear<br>space<br>(mm) | Min clear<br>space<br>(mm) |
| Manhole<br>depth to<br>soffit   | 1200                            | 1200 x 1200                      | 1200 x 1200                      | 1200 x 1200                | 1200 x 1200                |
| Manhole<br>depth to<br>soffit   | 1200                            | 1200 x 1200                      | 1200 x 1200                      | 1200 x 1200                | 1200 x 1200                |
| Manhole<br>depth to<br>soffit   | 1200                            | 1200 x 1200                      | 1200 x 1200                      | 1200 x 1200                | 1200 x 1200                |
| Manhole<br>depth to<br>soffit   | 1200                            | 1200 x 1200                      | 1200 x 1200                      | 1200 x 1200                | 1200 x 1200                |

NOTE:  
1) LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON RIDS OR WHERE  
TRENCHING IS NOT POSSIBLE.  
2) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
3) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
4) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
5) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
6) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
7) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
8) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
9) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.  
10) MANHOLES SHALL BE 1200mm DIA UNLESS OTHERWISE SPECIFIED.

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

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

CHANNELS AND BENCHING  
ALL CHANNELS WITH PIPE SIZES 150MM, 225MM, 300MM  
MUST HAVE SWEET EDGES AND  
CHANNELS, ALL BENCHING TO BE A MINIMUM 40MM THICK  
GRANULATING CONCRETE, POWDERED TO A SMOOTH FINISH.  
IRONWORK IN MANHOLES

IF THE CHANNEL IS LESS THAN 3M DEEP WE REQUIRE  
COARSE ENCAPULATED STEEL REINFORCEMENT UNLESS OTHERWISE  
APPROVED. IF THE CHANNEL IS OVER 3M DEEP WE  
REQUIRE NOT CORRODED GALVANIZED STEEL LADDERS  
THERE MUST BE 300MM BETWEEN LADDERS AND BACK OF  
SHUNT. 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  
MEN 2 MAY 4 COURSED UNDER FRAME AND MUST BE SOLID  
CLASS B ENGINEERING BRICKS ON CONCRETE SPACING  
BRICKS NEARLY 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.  
UNITS SHALL BE USED AT ALL LOCATIONS. ON SPINE ROADS  
UNITS SHALL BE 1000 X 1000. ON SIDE ROADS  
1000MM MAY BE USED SUBJECT TO APPROVAL. FRAMES FOR  
MANHOLES COVERS SHOULD BE REINFORCED WITH STEEL  
REINFORCING MORTAR IN ALL SITUATIONS WHERE  
COVERS ARE SITED IN MINOR ROAD CATEGORIES 1 & 2 OR 3.  
INFLU TYPE COVERS SHOULD NOT BE USED.

IN BLOCK PAVED AREAS 1500MM DEEP FRAMES MUST BE  
USED IN ACCORDANCE WITH DESIGN AND CONSTRUCTION  
GUIDANCE (P2).

LATERALS  
THEY SHOULD BE LAD TO THE SAME STANDARD AS PUBLIC  
SEWERS. THEY SHOULD HAVE CHANGES OF LINE OR  
GRADIENT BETWEEN THE SEWER AND THE DEMARCATION  
CHAMBER. THEY SHOULD HAVE AN ADJUSTABLE MANHOLE  
AS THE DEMARCATION CHAMBER UNLESS THERE IS ONLY  
ONE PROPERTY WHEN A PLASTIC CHAMBER TO BE USED  
1000X2000 IS ALLOWED. LOCKABLE RINGS AND AIS 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 GARDEN, FRONT OR REAR GARDEN.

SEWER APPLICATION  
A SECTION 104 APPLICATION TO SEVERN TRENT  
WATER NEED BE COMPLETED FOR THE USE OF  
ANY EXISTING CONNECTION INTO THE EXISTING  
SEWER SYSTEM OR THE CONSTRUCTION OF  
A NEW CONNECTION.

AN APPLICATION WILL BE REQUIRED FOR THE FOLLO  
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

MANHOLE PROTECTING PLASTIC MEMBRANE TO BE USED  
FOR PROTECTION TO ELIMINATE CHANCES OF GROSS  
CONTAMINATION

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

THE COVER OF THE SEWER SHOULD BE IN VEHICLE  
CORRIDORS AND FOOTPATHS AND BE AT LEAST 1.5M  
FROM THE KERB LINE

TREES ON THE DRAWING ARE EXISTING OR PROPOSED  
AND WHERE THEY ARE PROPOSED THEY SHALL BE  
PROTECTED BY A 1.5M BUFFER ZONE FROM THE TREE  
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PROTECTED BY A 1.5M BUFFER ZONE FROM THE TREE  
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PROTECTED BY A 1.5M BUFFER ZONE FROM THE TREE

THE MATERIALS TO BE USED ARE SUITABLE FOR THE  
GROUND CONDITIONS

ANY FORDING LINES AND OR BANK STABILIZATION  
METHODS REQUIRED FOR BANKING SHALL TO BE  
APPROVED BY STRUCTURAL ENGINEER

IMPORTANT  
MANHOLES WILL REQUIRE THE ENVIRONMENT AGENCY'S  
NOTICE FROM 1/1/2024. THESE REQUIREMENTS OF THE  
WATER RESOURCES ACT 1991 BEFORE ANY  
CONSTRUCTION TAKES PLACE

MANHOLES TO BE CAST CONCRETE. PLEASE REFER  
TO ALL TYPICAL DETAILS FOR DETAILS

MATERIALS FOR ADAPTABLE SEWERS

PIPES 150mm - 300mm DIA -

SURFACE AND FOL WATER PIPES ARE TO BE  
EXTRA STRENGTH VITRIFIED CLAY WITH  
FLEXIBLE MECHANICAL JOINTS. PIPES MUST  
COMPLY WITH THE RELEVANT REQUIREMENTS  
OF BS EN 285-1:2013 AND BS EN 1991 (surface  
water pipes only)

PIPES > 300mm

ON SURFACE AND FOL WATER PIPES ARE TO  
BE HIGH STRENGTH CONCRETE. CONCRETE  
PIPES AND FITTINGS WITH FLEXIBLE JOINTS  
SHALL COMPLY WITH THE RELEVANT  
PROVISIONS OF BS EN 12052

DRAINAGE KEY

FULL WATER  
Manhole

Pipe line

Pipe line to be  
adopted by others

Rising Main

SURFACE WATER  
Manhole

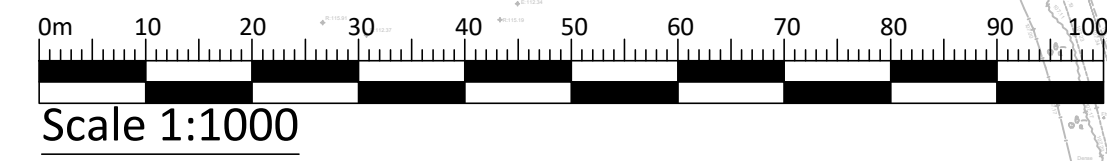
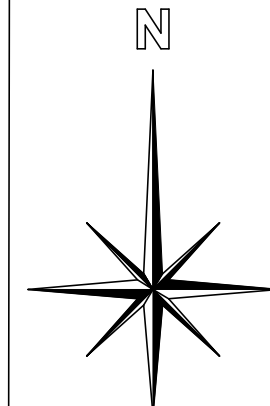
Pipe line

Pipe line to be  
adopted by others

Headwall

HIGHWAY DRAINAGE  
Highway Drain /  
Gully Connection

MISCELLANEOUS  
Sewer Excesses  
up to 3000 - 5m  
3000+ and above - 10m



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.

GREYED OUT AREA IS NO  
LONGER APART OF THIS  
CURRENT SECTION 38/104  
APPLICATION

|     |            |                                 |    |     |     |
|-----|------------|---------------------------------|----|-----|-----|
| PO1 | 09.04.2026 | INITIAL ISSUE FOR CLIENT REVIEW | AQ | KG  | CS  |
| REV | DATE       | DESCRIPTION                     | BY | CHK | APP |

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 | VOUSYS LEVEL | TYPE | ROLE | DRAWING No: | REV: |
|---------|-------------|-------------------------------------|------------|--------------|------|------|-------------|------|
| S2      | M224-138    | SRH - AJP - ZZ - 00 - DR - C - 2005 | P01        |              |      |      |             |      |

| SCALE @ AD: | DESIGNED: | DRAWN: | CHECKED: | APPROVED: | DATE:      |
|-------------|-----------|--------|----------|-----------|------------|
| 1:1000      | KG/LP     | LP     | KG       | CS        | 09.04.2026 |