

PRINCIPAL OUTSTANDING HAZARDS

This schedule is provided to assist the principle contractor to determine appropriate working practices & plant requirements during the construction phase & should be included in the Health & Safety Plan File.

The schedule indicates the principle hazards that could not be wholly eliminated during the design phase or that are inherent in the layout of the construction. This schedule should not be considered as an exhaustive list of hazards. It has been assumed an appropriately experienced contractor with a fully trained labour force will be appointed to carry out the work. Hazards implicit in the nature of construction (safe use of tools/plant & appropriate PPE) are assumed. Compliance with relevant legislation (Health and Safety at Work Act etc.) has been assumed.

The notes given here relate to work shown on this drawing ONLY - (Please note that other items may occur on other drawings.)

Ref. No.	IDENTIFIED HAZARD
	DRAINAGE WORKS
1.	DRAIN LAYING AND ASSOCIATED WORKS IS REQUIRED TO BE UNDERTAKEN IN OPEN EXCAVATIONS AND STABILITY OF TRENCHES PRESENTS POTENTIAL COLLAPSE HAZARD - TRENCH SUPPORT REQUIRED
2.	OPEN TRENCHES PRESENT HAZARD OF FALLING TO PERSONNEL AND PLANT - PROTECTION/BARRIERS REQD.
3.	SOME WORK REQUIRED ON EXISTING, LIVE DRAINAGE - HAZARD OF CONTAMINATION/ STORM FLOWS - PPE REQUIRED/ WORK TO BE CARRIED OUT BY EXPERIENCED PERSONNEL
4.	EXCAVATED MATERIALS POTENTIALLY CONTAMINATED (FILL) - REFER TO SITE INVESTIGATION INFO.
5.	HEAVY DRAINAGE COMPONENTS ARE SPECIFIED - SUITABLE LIFTING EQUIPMENT REQUIRED
6.	CEMENTITIOUS MATERIALS REQUIRED - HAZARD OF CONTACT WITH AGGRESSIVE MATERIALS
7.	WORKS REQUIRED IN ACTIVE HIGHWAYS - SUITABLE TRAFFIC CONTROL REQUIRED
8.	WORK IN POTENTIALLY CONFINED SPACES (MANHOLES) - COMPLETE MHS BEFORE INSTALLING COVER SLABS - USE EXPERIENCED PERSONNEL

- ALL EXTERNAL DRAINAGE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS DOCUMENT H, AND TO THE RELEVANT PROJECT SPECIFICATION AS DIRECTED BY THE ENGINEER FOR PRIVATE DRAINAGE.
- PIPE MATERIAL SHALL BE AS FOLLOWS:
1000 TO 1500 - PVCu PIPES TO BS EN 1401-1:1998
- UPVC PIPES SHALL BE BEDDED ON CLASS P BEDDING UNLESS COVER IS LESS THAN 1.2m IN TRAFFICKED AREAS, THEN CLASS Q BEDDING.
- BACKFILL TO TRENCHES MAY BE SUITABLE EXCAVATED MATERIAL IN LANDSCAPED AREAS. TYPE 1 GRANULAR MATERIAL TO BE USED UNDER HANDSTANDINGS AND ROADS.
- GULLY CONNECTIONS SHALL BE 150mm DIAMETER AND WITH CLASS Z BEDDING.
- GULLIES SHALL BE TRAPPED D4-800 YEARD GULLY WITH 110mm dia. OUTLET AND DUCTILE IRON COVER AND FRAME.
- ALL MANHOLE AND DRAINAGE CHANNEL COVERS SHALL COMPLY WITH BS.EN124. MANHOLE COVERS WITHIN BLOCK PAVED AREAS & BUILDINGS SHALL BE RECESSED. COVER STRENGTHS TO BE:
CLASS E600 IN AREAS SUBJECT TO HIGH POINT LOADS (E.G.FORKLIFTS)
CLASS D400 IN HEAVY TRAFFICKED AREAS (ACCESS ROADS, SERVICE YARDS ETC.)
CLASS C250 IN LIGHTLY TRAFFICKED AREAS (CAR PARKS ETC.)
CLASS B125 (WITH MIN. 100mm DEEP FRAME) IN LANDSCAPE & NON-TRAFFICKED AREAS (PLANTING, PEDESTRIAN AREAS ETC.).
- VENTILATION SHALL BE PROVIDED AT THE HEAD OF FOUL DRAINAGE RUNS.
- ACCESS FOR RODDING/JETTING SHALL BE PROVIDED TO ALL SOIL AND RAINWATER DOWNPIPES ABOVE FINISHED FLOOR LEVEL.
- FOR DETAILS OF MANHOLE TYPES AND PIPE BEDDING ETC., SEE STANDARD DETAIL DRAWING(S).
- COVER LEVELS SHOWN ARE APPROXIMATE. COVER LEVELS FOR MANHOLES WITHIN LANDSCAPED AREAS SHOULD BE CHECKED WITH THE LANDSCAPE ARCHITECTS. COVERS SHOULD BE ADJUSTED TO MATCH SURROUNDING FINISH LEVELS.
- THE CONTRACTOR IS TO PROTECT EXISTING BURIED PIPES (PARTICULARLY SHALLOW PIPES) AND TREE ROOTS FROM DAMAGE CAUSED BY LOADS IMPOSED BY CONSTRUCTION PLANT.

NOTES:

All dimensions must be checked on site and not scaled from this drawing.

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PRIVATE DRAINAGE NOTES:

Pipework to be 110mm dia. PVC-U Hepworth PlastDrain or similar approved, unless otherwise stated.

Generally laid to falls of 1:50 on the foul drain and 1:60 on the surface water drain, minimum 1:80 on both. 160mm dia. pipework to be laid at a min. fall of 1:130.

The Specification and installation of the drainage systems are to comply with the Building Regulations Approved Document H & British Standard 8301 Building Drainage current at the time of construction and also the manufacturers recommendations. All connections are to be soffit to soffit.

- House Type
FFL Level
- Foul (Mini chamber <0.6m [1 side connection])
- Foul (PPIC chamber <1.2m [2 side connections])
- Foul (Telescopic PPIC Chamber 1.2-3.0m)
- Foul (Tegra Chamber 1.20-5.0m)
- Surface (Mini chamber <0.6m [1 side connection])
- Surface (PPIC chamber <1.2m [2 side connections])
- Surface (Telescopic PPIC Chamber 1.2-3.0m)
- Surface (Tegra Chamber 1.20-5.0m)
- Backdrop on SW Chamber
- Backdrop on FW Chamber
- FW MH with invert level
- SW MH with invert level
- Rodding eye with Invert Level
- Soil vent pipe [SVP]
- Rainwater outlet [RWP]
- Trench soakaway [ED=Effective Depth]
i.e. depth of trench below lowest invert.
- Dished drainage channel with gully.
- ACO channel or similar.
- Permeable Drives: Base gradients generally 1:500 or 1:1000 for longer drives
- Distribution diffuser grate with invert level.
- Gully
- Road Gully [with 150mm dia. lateral]

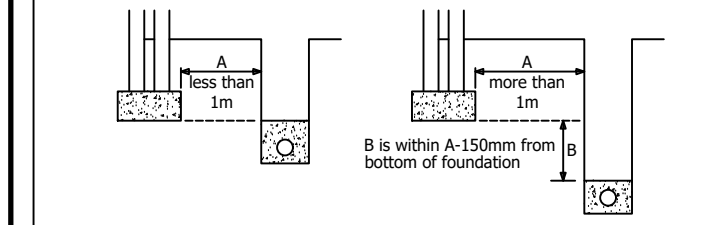
Cover levels generally to be 150mm below slab levels.

Private pipework under adopted areas to be laid as min. 150mm dia. Extra Strength Clayware at minimum fall of 1:130.

Pipework under drives and other areas likely to be trafficked shall be backfilled with Type 2 material. Where depth of cover less than 900mm pipe to have 175mm thick reinforced [A393] concrete slab over. Both treatments to extend a minimum of 1m behind kerb-face. Foul sewers serving more than 10 dwellings should have a minimum diameter of 150mm.

A Soil Vent Pipe [SVP] must be added at the head of any foul drainage system. Air Admittance Valves [AAV] can be used in other locations if required.

Please Note: Where the bottom of a drainage trench is below foundation level, the trench should be filled with concrete as shown below.



Date	Revisions

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Client
Anglia (UK) Ltd.
The Anglian Business Centre
Mill Green Road
Pinchbeck
Spalding
PE11 3PU

Job Title
Erection of Office Building, managers dwelling & storage building
Mill Green Road
Pinchbeck

Drawing Title
Drainage Layout

Date July 2022 Scale @ A1 1:500 Drawn TRS

Drg.No. 9025-107 Rev. -

