



SOAKAWAY: SIZE & INVERT LEVEL TBC CAPABLE OF ACCEPTING THE RUNOFF FROM ALL STORMS UP TO THE 1 IN 100 YEAR EVENT PLUS 30% CLIMATE CHANGE WITHOUT SURFACE FLOODING. CONSTRUCTED USING CELLULAR STORAGE UNITS WRAPPED WITH A PERMEABLE GEOTEXTILE MATERIAL IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

EXISTING FOOTWAY WITH FEATURES TO DEMARK THE PATH. NO MANHOLES OR OTHER FEATURES THAT COULD BE CLASSED AS A POTENTIAL HAZARD WHEN UNDERWATER

PUMP RISING MAIN APPROVAL IN PRINCIPLE OBTAINED FROM THAMES WATER TO DISCHARGE INTO PUBLIC SEWER IN TELFORD ROAD OPPOSITE. SUBJECT TO FINAL APPROVAL.

FFL - 70.0

LAYOUT SUBJECT TO:
 1. DETAILED HYDRAULIC MODELLING.
 2. ABOVE GROUND DRAINAGE DESIGN LAYOUT AND FLOWRATES.
 3. FURTHER SITE PERCOLATION TESTS TO DETERMINE SOIL INFILTRATION RATES.

- GENERAL
- These notes are intended to augment drawings and specifications. Where conflict of requirements exists the order of precedence shall be as shown in the specifications. Otherwise the strictest provision shall govern.
 - This drawing is to be read in conjunction with all other relevant Engineers and Architects drawings.
 - Drawings not to be scaled.
 - All dimensions to be checked on site by the Contractor. Any discrepancies to be notified to the Engineer and further instructions obtained before work is commenced.

- DRAINAGE
- All building drainage works shall be carried out in accordance with the current British Standard BS EN 12052 (which supports BS 801 "building drainage"), the current building regulations and the local authority building control or other specifications and requirements.
 - This drawing to be read in accordance with all other relevant drawings, third party drawings, specifications and supporting documentation.
 - Position size and depth of all existing sewers and services shall be established prior to commencement on site.
 - 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 all traffic management in connection with road works.
 - The contractor shall allow for keeping sewer trenches and excavations as dry as practicable by pumping from temporary sumps, dewatering and wall painting as appropriate, the point and method of discharge to be agreed with the drainage authority.
 - Insitu and precast concrete units shall have sulphate resisting portland cement to BS 4027, unless agreed otherwise with the adopting authority.
 - Precast concrete products shall comply with the relevant provisions of BS 5911 and be kilnmarked. concrete pipes to be class m unless noted otherwise.
 - Verified clay pipes and fittings shall comply with the relevant provisions of BS EN 295 and be kilnmarked. all pipes shall be extra strength or equivalent BS EN 295 pipe crushing strength.
 - Manhole covers and frames shall comply with the relevant provisions of BS EN 124, have minimum 600 x 600 clear openings with 150 deep frames unless otherwise specified. Manhole covers and frames to be of a non-rocking design with cushion inserts and kilnmarked. Load class D400 in vehicular trafficked areas class C250 in areas subject to light snow moving traffic, and load class S125 in footways and pedestrian areas.
 - Gully grates and frames shall comply with the relevant provisions of BS EN 124 and be of a non-rocking design with cushion inserts and kilnmarked. Load class D400 for roads regularly carrying fast moving heavy vehicles. Class C250 to be used in lesser trafficked areas eg. estate roads, cul-de-sacs, residential car parking areas etc. Class S125 used in footways and pedestrian areas.
 - Class 2 bedding detail shall be provided where cover to the pipe barrel is less than 1.2m in vehicular trafficked areas and 0.9m elsewhere, to all road gully connections and within areas of deep rooting vegetation. Where class 2 trench bedding detail is used, the concrete bed and surround shall be discontinued at each pipe joint over the full cross section by means of a stippled compressible filler. (See table)
 - Granular type 1 sub base to be in accordance with CL 803 of DTP specification for highway works 1991 and laid in accordance with CL 802. No mechanical compaction within 300mm of crown of pipe. Granular type 1 sub base within 300mm of crown of pipe to be 40mm deep.
 - Selected excavated material shall be of a uniform nature free from stones larger than 40mm, clay lumps larger than 75mm, tree roots, organic matter and frozen soil. Mechanically compacted selected excavated material to be compacted in layers with a vibratory roller complying with method 2 of table 6/4 of DTP specification for highway works 1991.
 - Backfill in proposed trafficked areas:-
To be type 1 as note 12.
Backfill in non-traffic external areas:-
To be selected excavated material as note 13, if regarded as suitable by the contract administrator.
 - Backfilling and reinstatement to trenches in existing public highways shall be in accordance with the requirements and specifications of the Highway authority, or, in the absence of such, in accordance with the requirements of "the street works regulations 1992" and relevant provisions of h.a.u.c. "specification for the reinstatement of openings in highways" June 1992, both under section 71 of the new roads and street works act 1991.
 - Contractor to take measures to protect his operatives with respect to the presence of gas in sewer trenches and manholes through the use of gas monitoring equipment and breathing apparatus as required.
 - Contractor to apply for sewer permits and road opening permits as necessary from the appropriate authorities, prior to commencing works.

KEY:

150mm DIA	FOUL WATER PIPE (PRIVATE)
150mm DIA	SURFACE WATER PIPE (PRIVATE)
BD	BACKDROP
S10	SURFACE WATER MANHOLE
F9	FOUL WATER MANHOLE
PPIC	INSPECTION CHAMBER
RWP	RAINWATER PIPE
G	GULLY
CHANNEL	DRAINAGE CHANNEL
RE	RODDING EYE

A	SURFACE WATER LAYOUT AMENDED.	AC	17.09.13
-	NOTES, ADD'D, WHERE SHOWN.	AC	09.08.13
REV	INITIAL ISSUE	BY	DATE
	DETAILS		

arcengineers
 CONSULTING STRUCTURAL AND CIVIL ENGINEERS
 FF 05 CITY MILLS, PEELE STREET, LEEDS, LS27 9QL
 Phone: 0113 253 3904 Fax: 0871 714 6751
 www.arc-engineers.co.uk

CLIENT:	MMCC
PROJECT:	PROPOSED 60 NURSING HOME SKIMMINGDISH LANE, BICESTER

TITLE:	DRAINAGE LAYOUT
DRAWING STATUS:	PRELIMINARY

DRAWN:	AC	DATE:	AUGUST 2013
CHECKED:	LF	DATE:	AUGUST 2013
SCALE & SIZE:	1:100 @ A0		

DRAWING NO:	13 105 -S 500	REV:	A
-------------	---------------	------	---

DRAINAGE LAYOUT SCALE 1:100