



Sheet 1 of 2

Key

- Storm Drainage
- Storm Manhole
- Rodding Eyes

- Linear Drainage
- Gullies

Notes

- Do not scale this drawing.
- All dimensions are in millimetres unless stated otherwise.
- This drawing to be read in conjunction with all other relevant drawings and specifications.
- All proprietary items to be installed in strict compliance with manufacturers instructions and recommendations.
- Some services are present on this site, and the contractor should satisfy himself as to their location and depth by means of any existing plans or by direct survey. Any services not shown on the drawings are to be assumed to be present unless otherwise stated. No warranty is given as to the accuracy of this information and no liability accepted for incorrectly located plant. The contractor is to obtain all necessary utility company information prior to commencing any excavations on site. Contractor is recommended to accurately locate services by hand dug trial holes prior to carrying out mechanical excavation.
- All works to be carried out in accordance with the requirements of Sewers For Adoption 7th Edition and the Adopting Authorities requirements.
- All private drainage is to be constructed in accordance with the Building Regulations as current at construction.
- All drains to have Class S granular bed and surround, except where a cover beam is used for the drainage system. The cover beam must be at least 0.15m in width and 0.15m in depth. The cover beam must be made of concrete and must be in which case class Z concrete bed and surround is required.
- Side connections to SW to be 1000 @ 1/100 gradient and to FW to be 1000 @ 1/40 unless stated otherwise.
- All Road gully connections to be 1500 and all Footway gully connections to be 1000 unless noted otherwise or tying into existing gully connection.
- Rain water pipe positions are based on information supplied by the Architect. For accurate positioning refer to Architects details.
- Rain water pipe connections are to be roddable.
- Refer to Architect / M&E details for above ground to below ground drainage pipe positions.
- All pipes to be Clayware or Concrete:
 - 1000 & 1500 to be clay to minimum strength class FN 22
 - 2250 to be clay strength class 120
 - 3000 and above to be Precast Concrete L, M, or H to BS 5911
- When connecting to existing drains/sewers the contractor must ensure the final run is roddable.
- Where new pipes connect into existing pipe runs, connection is to be made by insertion of proprietary pre-formed junction pipe into run using appropriate hand seal type repair couplers. Saddle connections are not permitted.
- Where pipes pass through the manhole wall a joint must be formed within 150mm of the wall.
- All pipes to enter manhole with soffits level.
- Where drains pass through footings and openings are formed provide linings over, ensuring 50mm minimum clearance all around, pipe is to be provided with compressible material surround, the opening is to be masked by rigid steel, i.e. cement particle board material to prevent ingress of vermin.
- All chambers to have ductile iron, single seal lock down covers to grade D400 BS EN 124 in road or car park areas and B125 BS EN 124 in all other areas. recessed covers to be used in areas of block paving. Covers are to be aligned parallel to kerbs, paving orientation or structures unless otherwise shown.
- New pipeline design is based on the drains final loading on completion of the roads and landscaping above, additional protection may be required to these pipes during construction, particularly the shallow sections.
- Drainage Channels to be ACO MultiDrain M1000 sloping invert system with cast-in galvanised steel edge rails. Units ref. M1000 No1 to No20 to be laid in sequence or part sequence to suit location. Outlets to be ACO Universal Sump ref. 23410 with Roddable foul air trap ref. 7331. Gratings to be Headguard ductile iron lock down ref. 23450L, load class C250. All to be installed in accordance with manufacturers recommendations.
- Drainage Channels to all door thresholds / showers to Architect specification and to connect into new / existing pipe run's to the soffit to soffit.
- Drainage Channels to door thresholds to be ACO MultiDrain M1000 cement lined system with cast-in galvanised steel edge rails. Units ref. M1000 No011 ref. 23050 to be laid with ACO Outlet to the Universal Sump ref. 23410 with Roddable foul air trap ref. 7331. Gratings to be Headguard galvanised steel ref. 23461, load class C250. All to be installed in accordance with manufacturers recommendations.
- Maintenance of sewers, manholes, drainage channels and silt pits should be inspected at 6 monthly intervals and cleaned out at 12 monthly intervals. A full CCTV survey should also be carried out at 10 yearly intervals. Refer also to specialist drainage channel manufacturer's information and maintenance requirements. In all instances, inspection and cleaning should be carried out only by a specialist contractor and in accordance with the guidelines given in 'Safe Working in Sewers and at Sewage Works' published by National Joint Health and Safety Committee for the Water Services.
- Plastic Pipes:
 - All private drainage pipes to be Clayware or Plastic. Clay to be minimum FN22. Plastics to be BS1 Kitemarked, Agrement, certified, or both. PVC-U solid wall systems to be BS EN 1401 with fittings to BS 4660 or BS EN 13598-1.
 - Structured wall pipes in PVC-U, PE or PP to be to BS EN 13476-1 and either -2 or -3. All systems to be installed in accordance with manufacturers recommendations and with appropriate bed and surround. Additional concrete protection must be provided where side support may be lost in the future due to parallel trench excavation eg for services or drain repair/replacement.
- PVC-U pipes must be able to withstand a jetting pressure resistance of 2600psi without damage as per the 'Sewer Jetting Code of Practice 2nd Edition (2005-2006)' Table 5.2.



For Continuation refer to drawing 1415-0137-WDK-C-312

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1415-0137-WDK-C-313			P2
Status			
Preliminary			
Scale	Date		
1:250 @A1	Mar. '15		
Project		Drawn By	PM
GPD		Checked By	GPD
		Approved By	GPD

Proposed Storm Drainage Plan
Sheet 2 of 2

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