

PROPOSED VORTEX FLOW CONTROL MANHOLE -
TO RESTRICT OFF SITE FLOWS TO NO GREATER
THAN 5.0% AT 2.285m DESIGN HEAD.
HYDROBRAKE OPTIMUM SHE-0089-5000-2285-5000





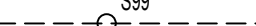


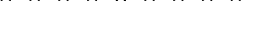



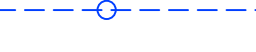


EXISTING PUBLIC MANHOLE / SEWER
LOCATION TAKEN FROM GP DRAIN SURVEY
AND ARE SUBJECT TO CONFIRMATION.

- PROPOSED DISCHARGE INTO EXISTING SW MANHOLE. EXISTING MANHOLE TO BE INSPECTED BY THE YW INSPECTOR TO ENSURE IT CAN ACCOMMODATE THE PROPOSED CONNECTION. IT MAY BE NECESSARY TO REBUILD THE MANHOLE AT THE DEVELOPERS EXPENSE.

SEWER DEPTH INFORMATION ON EXISTING
MANHOLES MUST BE CHECKED AND
VERIFIED BY THE CONTRACTOR PRIOR TO
THE COMMENCEMENT OF DRAINAGE WORKS

PROPOSED FOUL WATER TO DIS
NEW MANHOLE C1 CONSTRUCTE
EXISTING 300Ø COMBINED SEWE

KEY:

- | DEVELOPMENT BOUNDARY | |
|---|--|
|  | EXISTING PUBLIC FOUL WATER SEWER |
|  | EXISTING PUBLIC SURFACE WATER SEWER |
|  | EXISTING PUBLIC COMBINED SEWER |
|  | PROPOSED SURFACE WATER SEWER / MANHOLE (S165) |
|  | EXISTING PUBLIC SURFACE WATER SEWER TO BE ABANDONED (S165) |
|  | PROPOSED FOUL WATER SEWER / MANHOLE (S104) |
|  | PROPOSED SURFACE WATER SEWER / MANHOLE (S104) |
|  | PROPOSED SURFACE WATER & FOUL WATER BACKDROPS |
|  | PROPOSED FOUL WATER LATERAL / DEMARCATION CHAMBER |
|  | PROPOSED SURFACE WATER LATERAL / DEMARCATION CHAMBER |
|  | ROAD/HIGHWAY GULLY (DG DENOTES DOUBLE GULLY) |
|  | DRAINAGE EASEMENT (S104) |
|  | YORKSHIRE WATER TO HAVE RIGHTS OF ACCESS IN PERPETUITY |
|  | PROPOSED SERVICE MARGIN |

YORKSHIRE WATER NOTES:

THESE NOTES APPLY TO ALL ADOPTABLE DRAINAGE WORKS)

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6TH EDITION, THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.

MANHOLE COVERS SHALL MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN FILLED GROUND.

WELL POINTS MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.

YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAINLAND DRAINAGE RUN OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAINLAND DRAINAGE RUN-OFF.

COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LEADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600mm x 600mm FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), TECHNICAL BULLETIN ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.

SULPHATE RESISTANT CEMENT (C20-C22) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.

THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.

"SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES (PLEASE ALSO REFER TO FIGURE 2.3 ON PAGE 33 IN "SEWERS FOR ADOPTION" 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS)".

SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED AND SURROUND), WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.

BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).

THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.

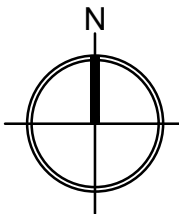
YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1050mm DIA MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIA OR 1500mm DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1-1.5m.

ADAPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS EN 13476). ADAPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CHAYLWARE CHANNEL IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.

THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA 40kN/m, 150mm DIA 40kN/m, 225mm DIA 45kN/m AND 300mm DIA 72kN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/B55911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN 13476.

WHERE B125 COVER AND FRAMES HAVE BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

THE CLEARANCE OF THE CROSSOVER POINTS (MIN 300mm) BETWEEN THE SURFACE WATER SEWERS, FOUL WATERS SEWERS, RISING MAINS AND OTHER SERVICES SHOULD BE SUFFICIENT CLEARANCE TO PROVIDE 150mm GRANULAR BED AND SURROUND AROUND BOTH PIPES.



NOTES:

1. THIS DRAWING IS BASED UPON BERKELEY DEVEPER PROPOSED SITE LAYOUT DRAWING AH/03.002 RECEIVED 09/10/2019. CSL SURVEYS TOPOGRAPHICAL SURVEY DRAWINGS 10432/01 DATED JANUARY 2018, YORKSHIRE WATER RECORD DRAWINGS 1432/01 DATED 11/12/2017, G.P. DRAIN SURVEYS DRAINAGE CCTV SURVEY DATED 13/02/2018 AND ORDANCE SURVEY DATA.
2. ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH "SEWERS FOR ADOPTION 6TH EDITION" AND YORKSHIRE WATER SPECIFICATIONS/SPECIAL REQUIREMENTS.
3. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH EN8275:2008 BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REGULATIONS.
4. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT & DIVERSION WORKS AS NECESSARY TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITY COMPANIES.
5. ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS. DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
6. THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL RELEVANT APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON SEWERAGE SYSTEMS.
7. UPON COMPLETION OF THE WORKS, THE CONTRACTOR SHALL CLEAN ALL DRAINAGE BY JETTING, REMOVING ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC DRAINAGE OR WATERCOURSE SYSTEM. ALL DRAINS SHALL BE CCTV SURVEYED WITH THE CD PASSED TO THE CLIENT FOR REVIEW.

DRAWING SUBJECT TO
THE APPROVAL OF
LOCAL AUTHORITY

DRAWING SUBJECT TO
THE APPROVAL OF
YORKSHIRE WATER

A	19.07.19	Drawing updated to suit revised site layout and in accordance with comments from Yorkshire Water and Barnsley MBC.	ML
Rev	Date	Amendments	By

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Project

COTE LANE, THURGOLAND

Drawing Title.

SECTION 104 LAYOUT

Drawn: PB	Scale: 1:500 @ A1
Checked: RD	Date: JAN 2019

Drawing No.	1018 - 102	Rev.	A
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DC REF CO-ORDINATES	PIPE LENGTH	PIPE DIA	PIPE CLAY GRADIENT	PIPE MATERIAL
FD001 E: 492947.695 N: 400626.935	4.814	100	1 IN 80	VITRIFIED CLAY
FD002 E: 492925.061 N: 400625.602	4.202	100	1 IN 40	VITRIFIED CLAY
FD003 E: 492925.355 N: 400616.920	4.500	100	1 IN 75	VITRIFIED CLAY
FD004 E: 491901.428 N: 400625.237	3.951	100	1 IN 40	VITRIFIED CLAY
FD005 E: 491901.457 N: 400616.787	4.500	100	1 IN 36	VITRIFIED CLAY
FD006 E: 491693.672 N: 400626.270	5.741	100	1 IN 46	VITRIFIED CLAY
FD007 E: 491136.265 N: 400633.919	4.793	100	1 IN 40	VITRIFIED CLAY
FD008 E: 491448.002 N: 400694.697	6.000	100	1 IN 60	VITRIFIED CLAY

DC REF CO-ORDINATES	PIPE LENGTH	PIPE DIA	PIPE CLAY GRADIENT	PIPE MATERIAL
SD001 E: 429247.257 N: 400624.266	5.730	150	1 IN 76	VITRIFIED CLAY
SD002 E: 429227.071 N: 400626.462	6.201	150	1 IN 78	VITRIFIED CLAY
SD003 E: 429227.721 N: 400616.711	3.600	150	1 IN 10	VITRIFIED CLAY
SD004 E: 429196.553 N: 400626.229	6.200	150	1 IN 78	VITRIFIED CLAY
SD005 E: 429196.553 N: 400614.629	3.000	150	1 IN 40	VITRIFIED CLAY
SD006 E: 429167.398 N: 400625.566	6.000	150	1 IN 40	VITRIFIED CLAY
SD007 E: 429142.756 N: 400633.046	5.900	150	1 IN 74	VITRIFIED CLAY
SD008 E: 429148.190 N: 400593.094	3.200	150	1 IN 10	VITRIFIED CLAY
SD009 E: 429140.647 N: 400694.805	4.800	150	1 IN 80	VITRIFIED CLAY