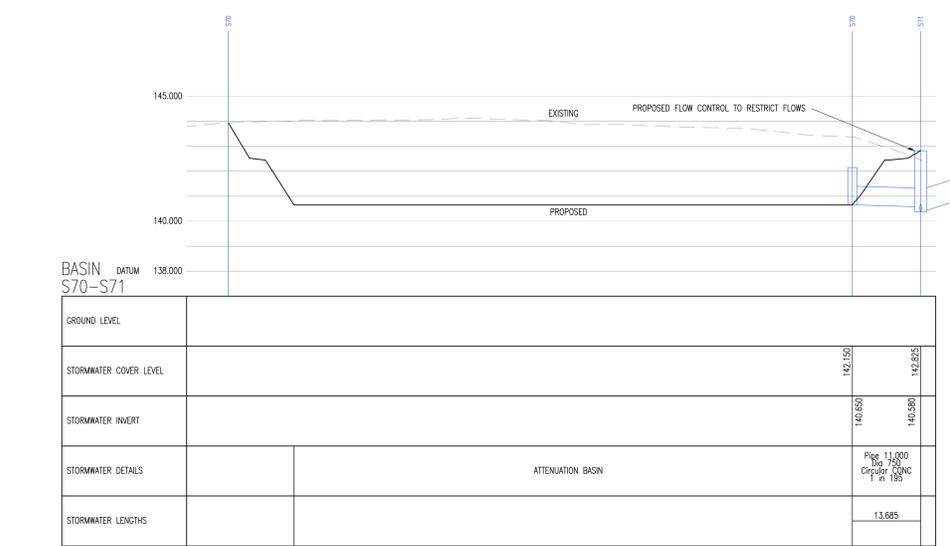


CLAY PIPE STRENGTH REQUIREMENTS
 100mm DIA. MINIMUM CRUSHING STRENGTH = 40kN/m
 150mm DIA. MINIMUM CRUSHING STRENGTH = 45kN/m
 225mm DIA. MINIMUM CRUSHING STRENGTH = 45kN/m
 300mm DIA. MINIMUM CRUSHING STRENGTH = 72kN/m

CONCRETE PIPE STRENGTH REQUIREMENTS
 ALL CONCRETE PIPES SHOULD BE CLASS 120
 TO EN 1916 / BS 5911-1:2002

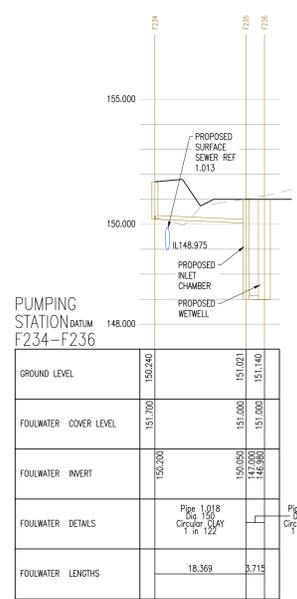
CLASS S TYPE BEDDING AND SURROUND FOR ALL PIPES



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CLASS S TYPE BEDDING AND SURROUND FOR ALL PIPES

GENERAL NOTES

- THIS DRAWING IS BASED UPON REDROW HOMES SITE LAYOUT REFERENCE BVF-16-02-03 - PROPOSED SITE LAYOUT, AND MET 200-ENVIRONMENTAL TOPOGRAPHICAL SURVEY DRAWING REFERENCE P18-01196 DATED FEB 2019.
- ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. P IN DOUBLE ASK.
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH ICOSA'S SPECIFICATIONS/SPECIAL REQUIREMENTS.
- ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REGULATIONS.
- 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.
- THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL RELEVANT APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON SEWERAGE SYSTEMS.
- 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 DVD/CD PASSED TO THE ENGINEER FOR REVIEW.

DRAINAGE NOTES

- (THESE NOTES APPLY TO ALL ADOPTABLE DRAINAGE WORKS)
- ALL ADOPTABLE SEWER WORKS AND MATERIALS ARE TO BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE (DCG) CODE FOR ADOPTION, THE RELEVANT BRITISH/EUROPEAN AND ICOSA'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
 - MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 675mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
 - FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF ICOSA BEFORE ANY SEWER WORKS ARE CARRIED OUT.
 - ICOSA IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND 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 DRAIN/LAND DRAINAGE RUN-OFF.
 - COVER SLABS MUST CARRY THE BS KITEMARK OR WILL BE REJECTED BY ICOSA INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 675mm X 675mm FOR THE ICOSA SPECIFIED COVER SIZE.
 - SULPHATE RESISTANT CEMENT (C20-D02) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 - SEWERS MUST HAVE 3m CLEARANCE FROM TREES AND 1.5m FROM SHRUBS / BUSHES.
 - SEWERS TO BE LAD IN CLASS 'S' BEDDING 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 THE GRANULAR BED AND SURROUND.
 - BEDDING AND BACKFILL MATERIAL IS 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 TO ACCOMMODATE THE CONNECTIONS AND BENDS.
 - ICOSA POLICY IS THAT TYPE 'C' BRICK MANHOLES AND 1050mm DIA MANHOLE RINGS ARE NOT PREFERRED. 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 SLOTT IS BETWEEN 1-1.5m.
 - ADOPTABLE PLASTIC SEWER PIPES TO BE BS KITEMARKED (CERTIFIED TO WS 4-35-01 AND BS/EN13476) AND TO THE RELEVANT BRITISH STANDARDS (SOLID WALL PVC-U TO BS EN 1401, SPIRAL WOUND REINFORCED HOPE TO EN 13476 PARTS 1 & 2, STRUCTURE-WALL THERMOPLASTIC TO EN 13476 PARTS 1 & 3, POLYPROPYLENE TO BS EN 1852). ADOPTABLE PLASTIC SEWER PIPES ARE TO BE LAD IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND ICOSA WOULD PREFER CLAYWARE 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.
 - WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUFFICIENTLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

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SUBJECT TO THE APPROVAL OF KIRKLEES COUNCIL

SUBJECT TO THE APPROVAL OF IWNL

REDROW
 Redrow House, Brunel Road, Wakefield 41 Industrial Estate, WF2 0XG
 Tel: +44 (0)1924 822 566
 www.redrow.co.uk

REV	DATE	BY	DESCRIPTION	APPROVED
C	JULY 2023	MA	BS PIPES 1020-1029 AMENDED TO PLASTIC	MA
B	MAY 2023	MA	AMENDED FOLLOWING PRIVATE DRAINAGE	MA
A	NOV 2022	MA	AMENDED FOLLOWING INTERNAL REVIEW	MA

PROJECT: BRADLEY VILLA FARM HUDDERSFIELD

TITLE: LONGITUDINAL SECTIONS S62-S77 / S70-S71 (BASIN) / F234-F236 (PUMPING STATION)

SCALE: 1:500H / 1:100V

DESIGN: MML

APPROVED: MML

DATE: FEB 22

PROJECT NO: 4607

DRAWING NO: 4607-16-06-119

REV: C

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