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Materials not in conformity with relevant British or European Standards/Codes of practice or materials known to be deleterious to health & safety must not be used or specified on this project.

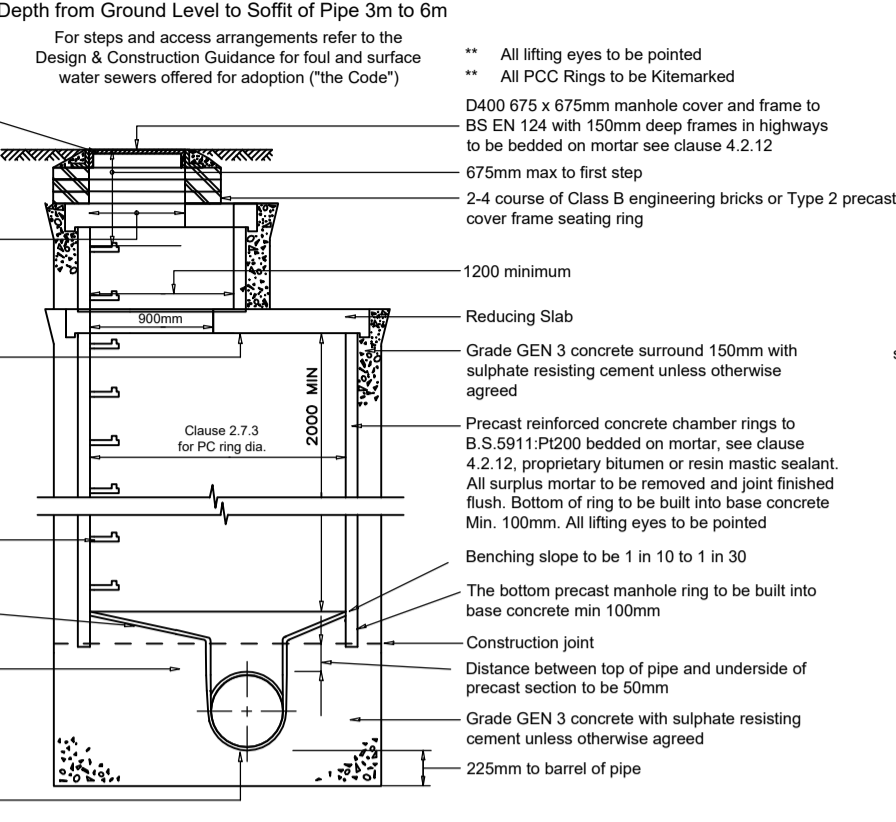
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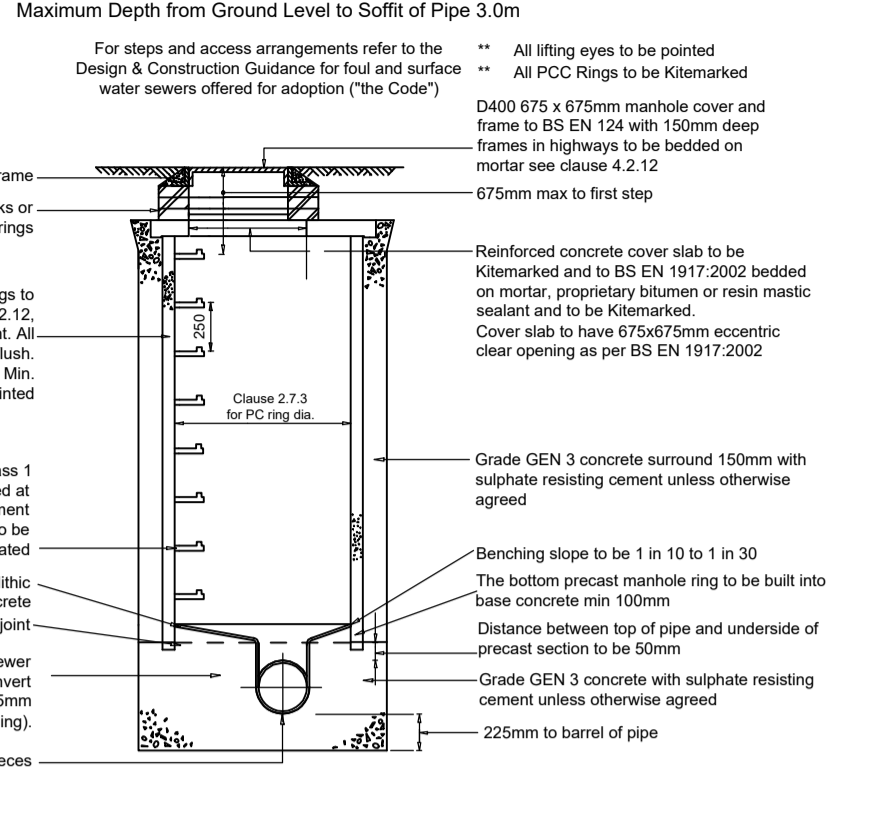
It remains the client's and/or its appointed contractor's responsibility to check for any discrepancies. Any anomalies discovered must be reported immediately to Bryan G Hall Limited for verification.

The locations of utilities apparatus, if shown, have been reproduced from plans supplied to Bryan G Hall Limited. Although care has been taken when duplicating this information, these locations are approximate only. No guarantee can be given by Bryan G Hall Limited for their accuracy. It is the client's or its appointed agent/contractor's responsibility to verify the exact locations on site by appropriate means prior to mechanical excavation.

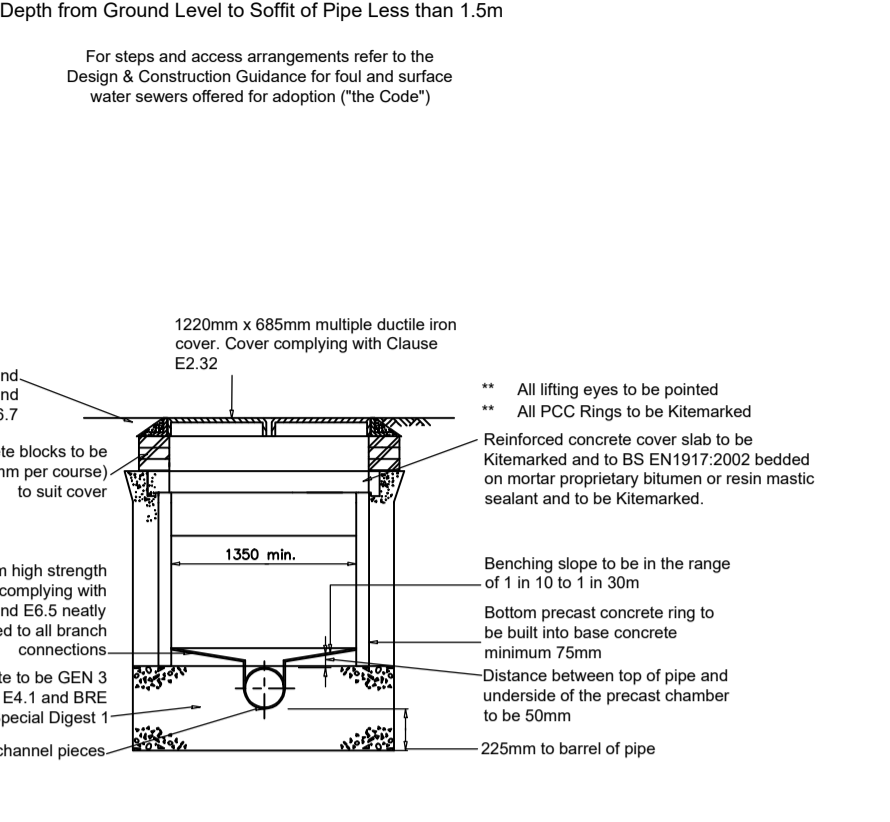
Typical Manhole Detail - Type A



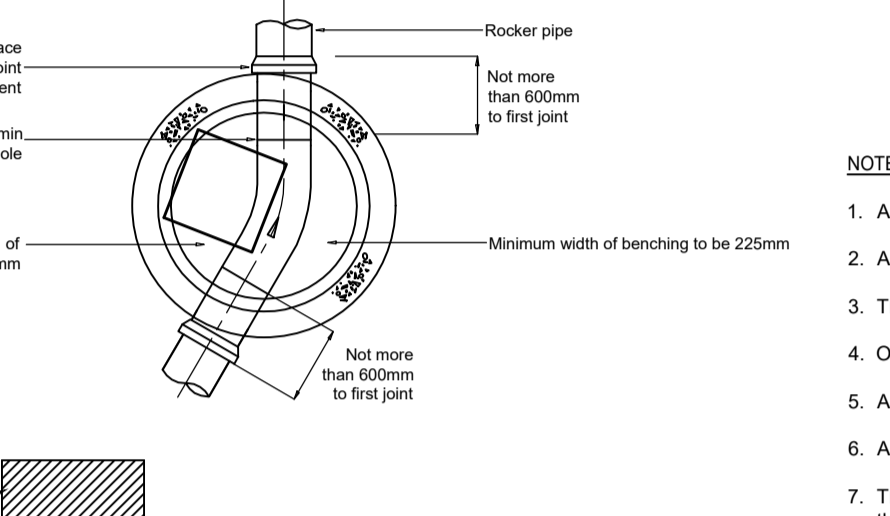
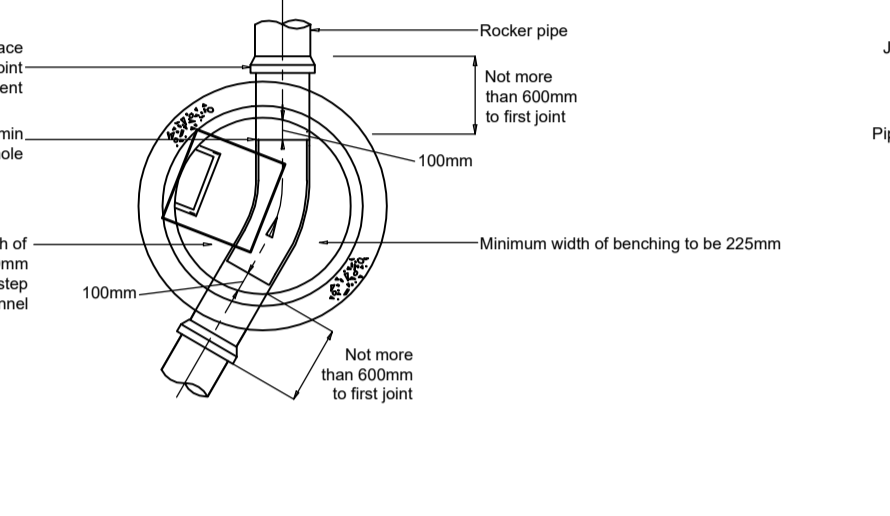
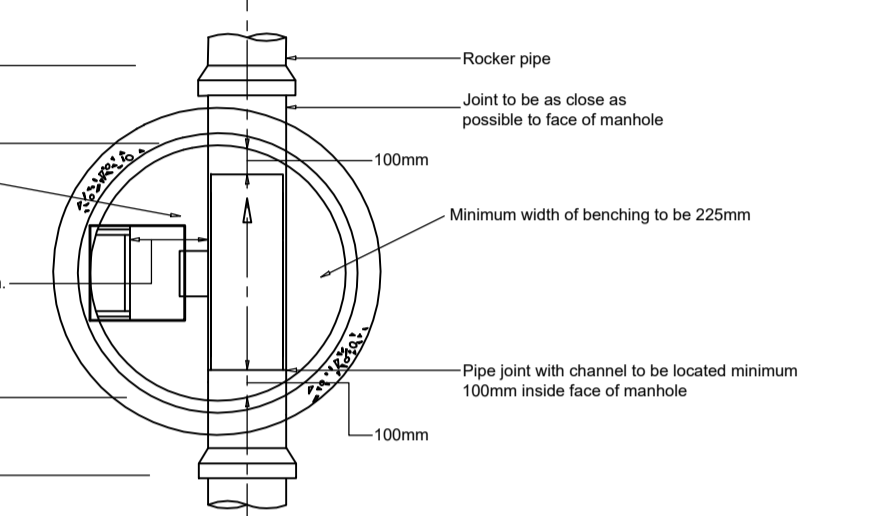
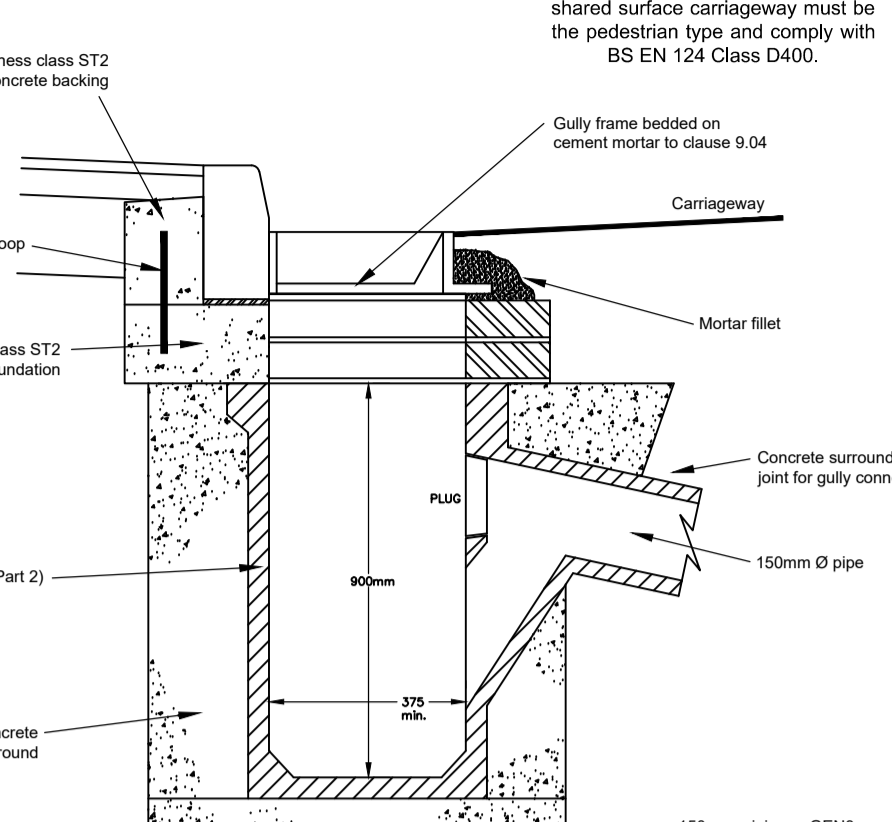
Typical Manhole Detail - Type B



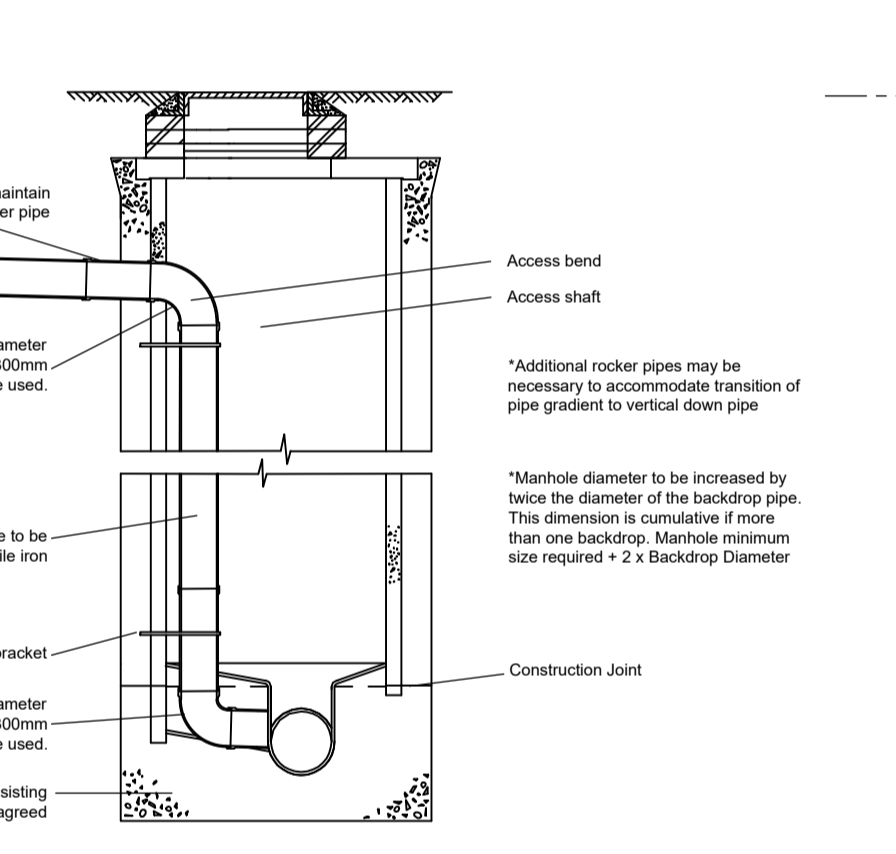
Typical Manhole Detail - Type C



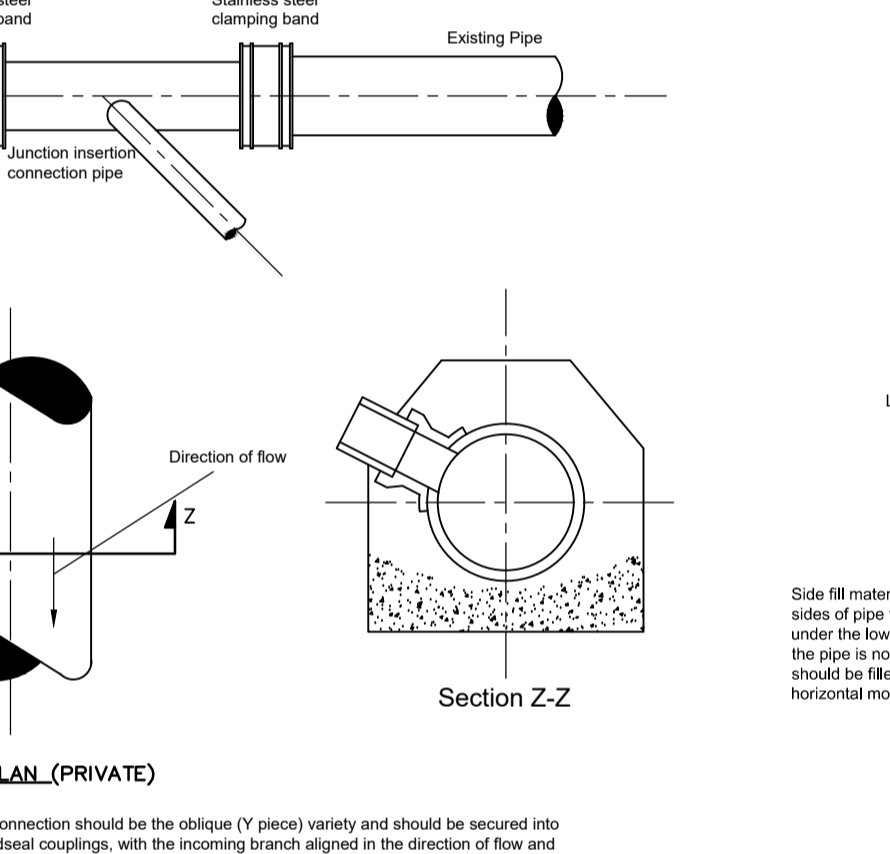
Private Precast Concrete Road Gully



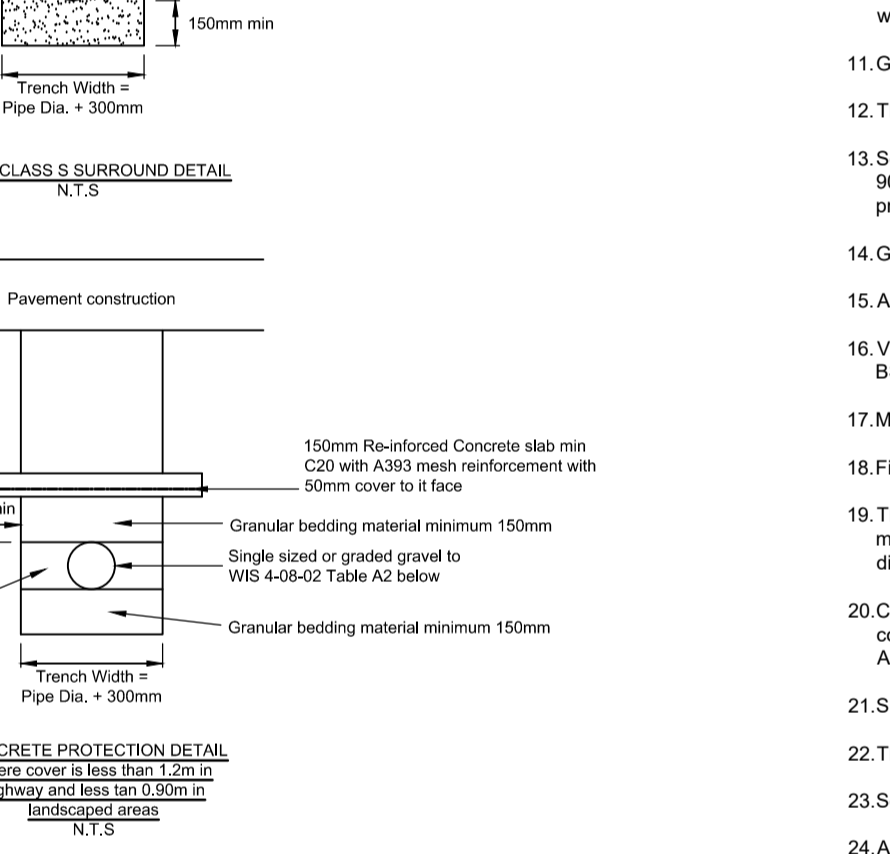
Typical Internal Backdrop Detail



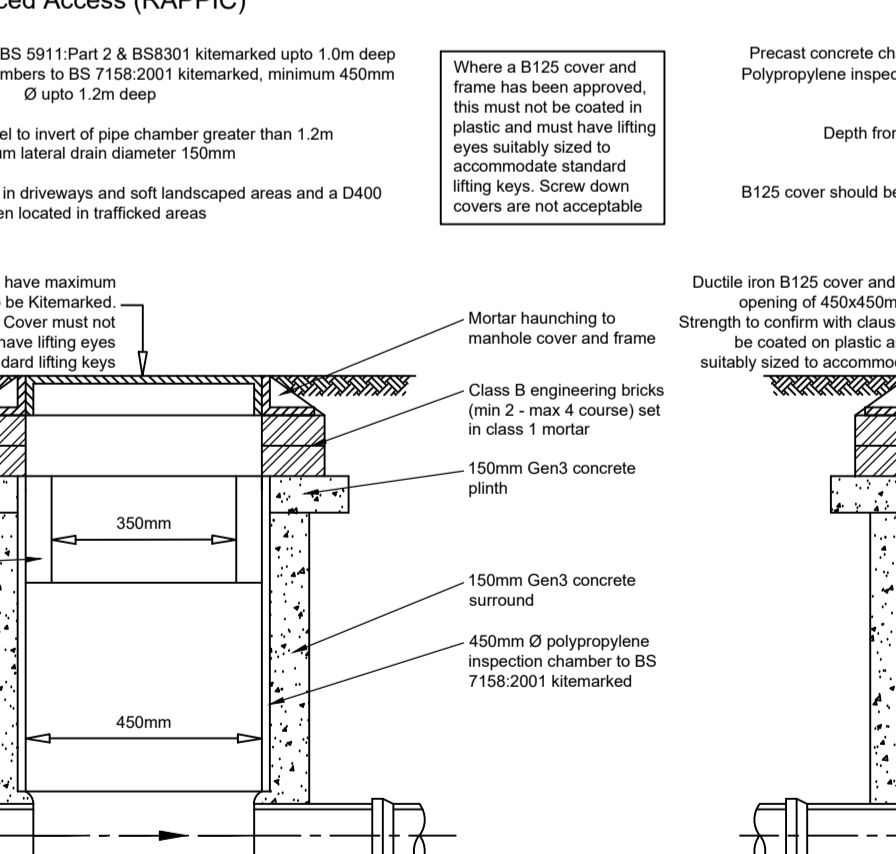
Propriety Junction Piece



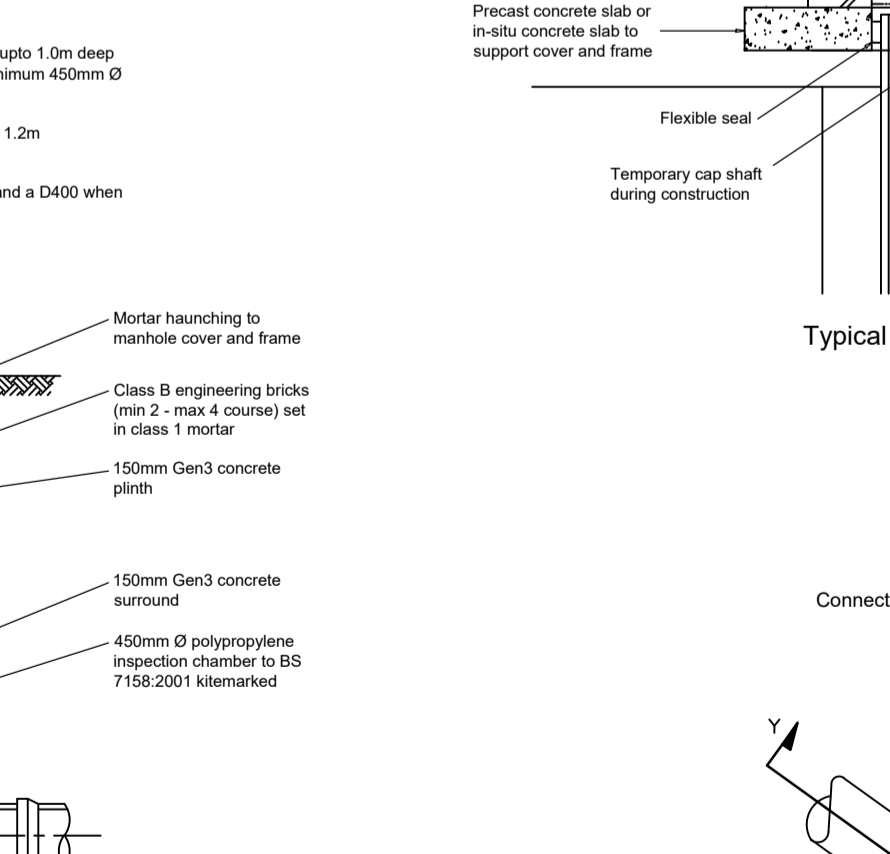
Typical Class S Surround Detail



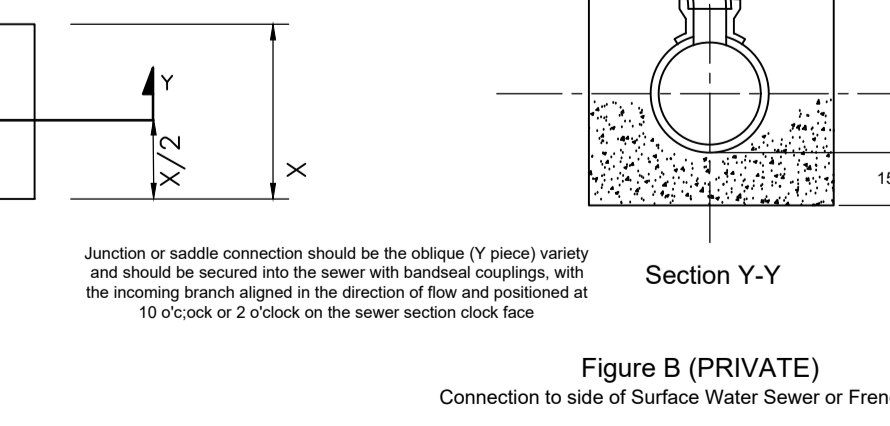
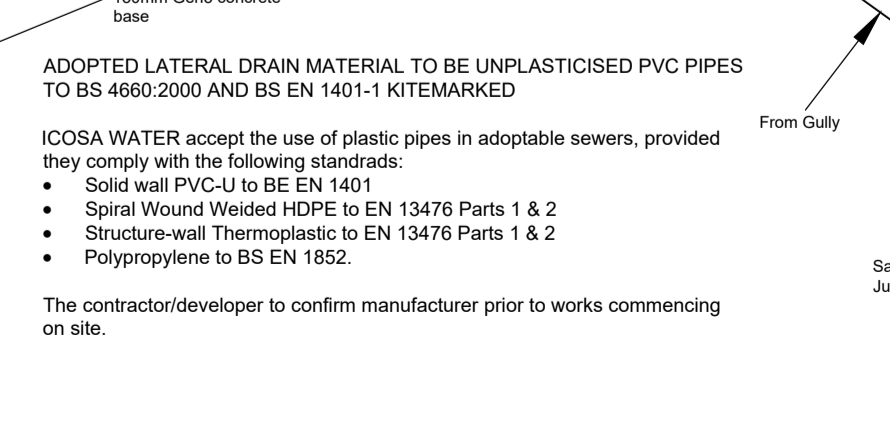
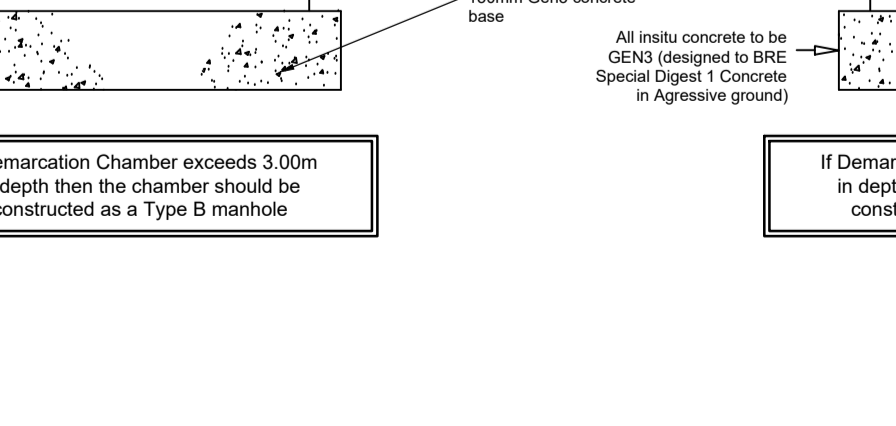
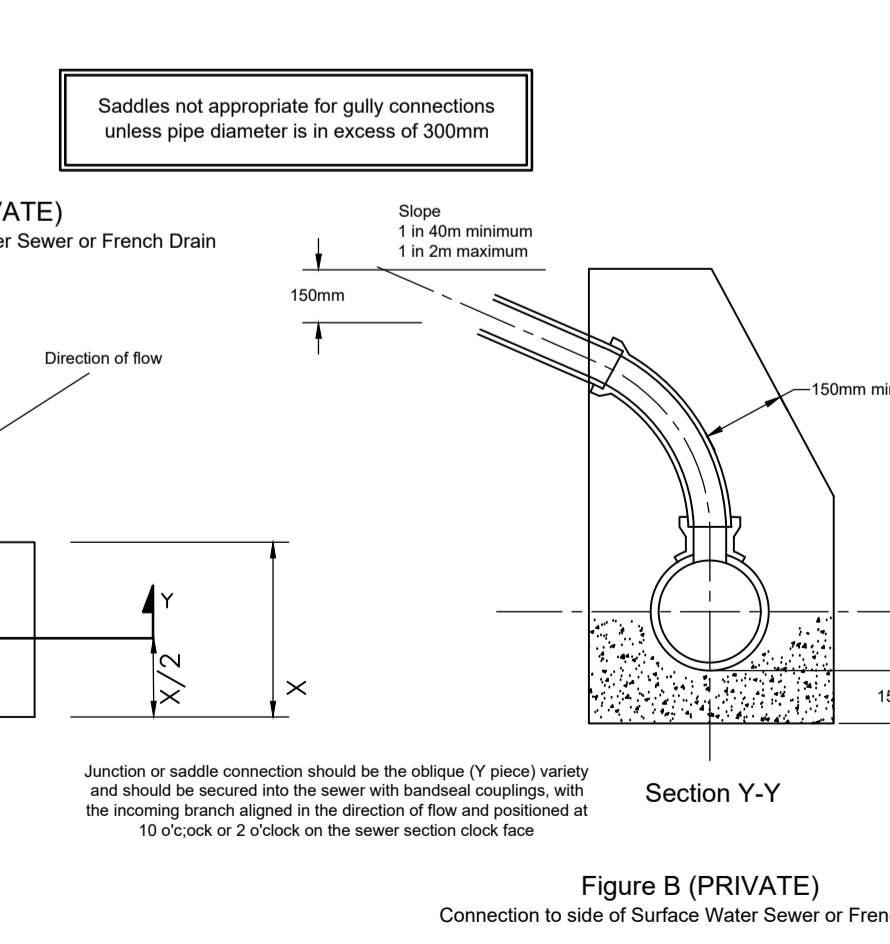
Typical Demarcation Chamber Detail



Typical Demarcation Chamber Detail



Typical Inspection Chamber Detail - Type 3 - D400 Cover



NOTES:

- All statutory undertakers equipment in footway and carriageway to be located and diverted before work commences.
- A pedestrian route through the works shall be maintained at all times and clearly defined by suitable barriers and lights where necessary.
- The contractor is obliged to obtain necessary road opening and/or sewer connection licence prior to commencement of the works.
- One vertical joint per course of brick work shall be left open to allow drainage during construction.
- All statutory undertakers covers and frames to be adjusted to suit new carriageway levels prior to surfacing.
- All existing gullies and drain runs to be cleaned of debris and high pressure water jetted prior to commencement of works.
- The existing sewers and culverts shown on this drawing are taken from various archives, drainage plans and sewer records. Some of this information is contradictory and the locations shown are interpreted using existing features and manhole locations shown on the survey. The exact depth and location should be verified on-site prior to commencing construction.
- All adoptable sewer works and material to be in accordance with Sewer Sector Guidance (SSG) / DCG, and adopting Water Authorities requirements and Kitemarked.
- All drainage works that shall be adopted by Advanced Water to be subject to their approval prior to commencement on site.
- All hard standing and impermeable areas outside the adopted highway boundary to be drained and collected in private drainage systems and discharged into the surface water sewer before water encroaches onto the public highway.
- Gullies should not be located in the area of dropped crossings.
- The chamber size of manholes with more than one connection in them may need to be increased and increment to accommodate the connections and bends.
- 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. Refer to Sewer Sector Guidance (SSG) / DCG for protection measures.
- Granular bedding for pipes shall consist of aggregates from natural sources complying with the relevant provisions of BS 882 sized in accordance with the table across.
- All pipes with a diameter larger or equal to 375mm shall be concrete. Pipes with a diameter less than 375mm shall be clay or ductile iron.
- Vitrified clay pipes and fittings for sewers shall have flexible mechanical joints. Pipes for foul Sewers and surface water Sewers shall comply with relevant requirements of BS EN295 and BS 65 (surface water pipes only).
- Manhole covers shall/must 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 Icos Water before any sewer works are carried out.
- The Water Authority is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or indirectly). The method of disposal of the land drainage runoff 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 runoff.
- Cover slabs must carry the BSI Kitemark or will be rejected by the Water Authorities Inspectors. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm. Please refer to Concrete Pipe Systems Association (CPSA), Technical Bulletin issued Autumn 2004 for Kitemarked cover slab opening sizes.
- Sulphate Resistant cement (C20-D2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- The adoptable sewer should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5.0m clearance from trees and hedges. (refer to Sewer Sector Guidance (SSG) / DCG for restrictions on tree planting adjacent to sewers).
- All private work to be in accordance with current building regulations.
- Drains passing through buildings to be protected with lintel cover.
- No building to take place within 3.0m of an adoptable sewer.
- No services to be sited over or within 1.0m of an adoptable sewer.
- Private drainage connections not direct to manholes are to be made via a 45 degree junction and not saddles.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- Any proposed sewers located within 5 meters of the public sewer shall be ductile iron pipe work.

B	20.11.24	Details updated on receipt of latest site layout dated 19.11.24	NB	IE	
A	28.08.24	Details added following initial comments from ICOSA dated 27.08.24	NB	IE	
Rev:	Date:	Amendment:	DRN	CHK	APR

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Client: Newett Homes
Status:
Scale: NTS
Size: A1 - 841 x 594
Drawn: JI
Chkd: NB
Appvd: IE

Project: Residential Development
Owston Road, Carcroft, Doncaster
Title: Drainage Standard Details

Drawing No: 23/347/500/005
Job No: 23-347
Revision: B
Date: 22.07.24