

SPECIFICATION SERIES 500 APPENDIX

DRAINAGE AND SERVICE DUCTS

BROOKLEIGH, FAIRBRIDGE WAY IMPROVEMENTS

Homes England

Project number: 60610807
60610807-ACM-CS-FBW-SP-HW-0500

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Foreword

Scope of Appendices

All appendices relevant to the Fairbridge Way Improvements have been produced in accordance with the Specification for Highway Works.

Contractual references and terminologies used within the appendices are to be discussed and agreed with Homes England, as part of the scheme contract.

Any Appendix referred to in the Specification which is not used shall be deemed not to apply.

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Appendix 5/1 – Drainage Requirements

1. The drainage requirements are shown on Layout Drawings 60610807-ACM-CS-FB-DR-HW-0500 and Standard Drainage Details drawing 60610807-ACM-CS-FB-DR-HW-1500.
2. Where a concrete bed, cradle or surround is used with rigid pipes having flexible joints, a compressible board of pre-formed joint filler in accordance with Specification for Highway Works Clause 504.5 shall be provided and shall have a minimum thickness of 12mm. In addition to the requirements of SHW Clause 504.5 a joint filler board shall be installed at each pipe joint to maintain flexibility.
3. All gully connections shall have bed Type Z (ST4 Concrete Bed and Surround). All new gullies are to be trapped and fitted with a stopper and chain, and in accordance with West Sussex County Council (WSCC) Standard Details
4. Pipe bedding and surround for proposed surface water sewers to be Type Z or Type S depending on achievable pipe cover per SSG requirements.
5. All manholes and catchpits are to be designed and constructed in accordance with Sewerage Sector Guidance (SSG) and in accordance with any WSCC specification / standard details for WSCC's highway drainage assets. For drainage assets owned by others, standards/specification is to be agreed with the asset owner.
6. All gully outlet pipes to be 150mm dia.
7. Pipe couplings to be compliant with BS EN 295 Part 4 and EN 681-1 requirements when using vitrified clay pipes and fittings (Flexseal standard couplings or similar that can universally connect different pipe products without the requirement of a manhole chamber construction)
8. Drains/sewers/pipelines in or beneath embankments or other areas of fill shall not be constructed until the embankment or area of fill is constructed and compacted to the earthworks outline or to a level which will give a minimum cover of 1.2 metres.
9. The pipework material for the surface water drains up to and including 300mm in diameter shall be Vitrified Clay to BS 65 or BS EN 295 unless otherwise specified on the contract drawings. Pipework 375mm or greater in diameter shall be concrete pipes to BS5911.
10. Manhole covers and frames and gully grates and frames shall comply with the requirements of BS EN 124 and be Kite-marked. They shall be of Class D400.
11. Any discrepancies arising between the Standard Details contained in this document, Specification for Highway Works, the Sewerage Sector Guidance or WSCC specification / standard details, the latter reference document shall take precedence with regards to billing, construction and measurement except where specified by the existing asset owner or adopting authority.
12. All chambers for drainage shall be inspected and tested to ensure they are substantially watertight with no identifiable flow of water penetrating the works.
13. All existing drainage within the site shall be maintained until the new permanent drainage has been installed and is functioning satisfactorily.
14. All connections to the existing sewers, whether to pipes or chambers, shall be made by The Contractor or their nominated sub-contractor and to be to SSG. The Contractor shall be responsible for arranging and liaising with The Owner of the existing sewers for the connections to be made and for the cost of these works to be undertaken by the owner or their nominated contractor. For the avoidance of doubt, The Owner or their nominated sub-contractor's costs are deemed to be included in the Contractor's rates. The Contractor is to confirm via survey the location, level and condition of all existing drainage and all other drainage in the area affected by the works.
15. Connections to existing chambers shall be undertaken by breaking through the wall of the chamber providing an opening of the minimum size to effectively make the connection. The pipe shall be installed such that its invert level is level with the invert of existing pipes within the chamber, unless otherwise stated on the contract drawings. The flexible pipe joints shall be provided at the connection to the chamber in accordance with SHW Clause 507.17 and / or SSG and the opening in the chamber wall shall be properly sealed in accordance with SSG Clause E6.4 or [series 500 equivalent].

16. The Contractor is to construct new permanent drainage in sections so that existing drainage can accommodate the temporary arrangement until such time the new drainage systems come into service
17. Mandrel test in accordance with Clause.509 to be used for testing purposes.
18. On completion of drainage works and prior to CCTV Surveys, the internal surfaces of drains and chambers shall be cleaned to remove all deleterious matter, without passing forward such matter to existing drains, sewers or watercourses.
19. As well as completing an air test, all new pipes shall have a CCTV camera survey. The results of which shall be supplied electronically to the Client. Should defects be found, further survey will be required once remedial works are complete.
20. Construction tolerances shall be in accordance with SSG and Series 500.

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