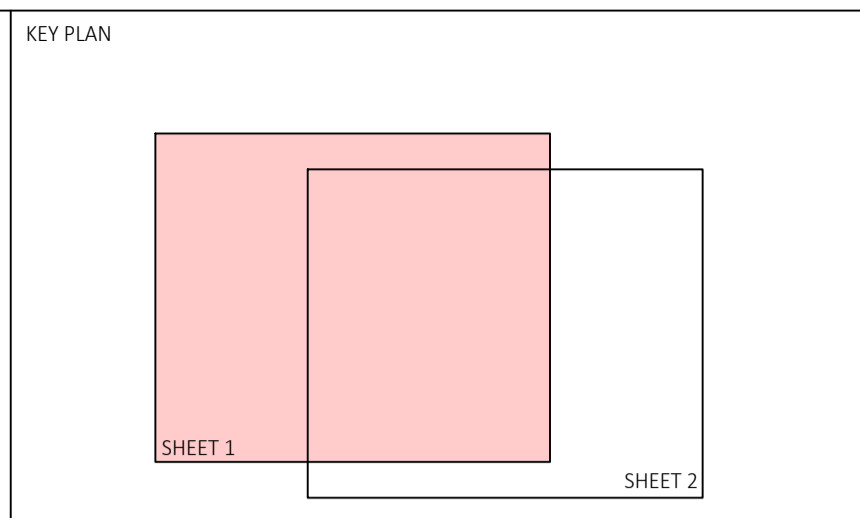


- Key**
- F1 New Thames Water section 104 foul water sewer
  - S1 New Thames Water section 104 surface water sewer
  - S1 New private surface water drain
  - New Oxfordshire county highway adoptable road gully
  - New Headwall
  - Foul Water Spur (Refer to layout for pipe diameter, length, and gradient)
  - Surface Water Spur (Refer to layout for pipe diameter, length, and gradient)
  - Sewer Easement (3m min unless otherwise shown)
  - Foul Water Lateral
  - Surface Water Lateral



- Section 104 Specification Notes:**
1. The planning, design and construction of sewers shall be in accordance with Sewerage Sector Guidance Appendix C, the Civil Engineering Specification for the Water Industry 7th Edition and Thames Water amendments to CESWI.
  2. All Adoptable sewers within adoptable highway with less than 1.2m cover to have reinforced concrete slab protection. All Adoptable sewers within grassed areas with cover less than 0.9m to have reinforced concrete slab protection. All areas with greater cover than the minimum required to have type S bed and surround.
  3. MH covers and frames shall be ductile iron with a minimum square opening of 600x600mm. Covers shall be double triangle for 600mm square openings and be provided with loose bolted connections. Frame depths shall be 150mm but in any case all frames shall comply with SF47 clause 5.2.32 & Table 5.7 (page 124).
  3. Sealed and lockable covers to be supplied where specified on manhole schedule.
  5. Use of this drawing does not absolve the client from his responsibilities under the Health and Safety: The Construction Design and Management Regulations 2015. The Principal Designer is required to contact Hydrock Consultants prior to permitting this drawing to be used in connection with any construction works.
  6. All private drainage to comply with current Building Regulations, BS EN-752 Drain and Sewer systems outside Buildings and other relevant British Standards and Codes of Practices.
  7. The minimum size of sewer where guide bars, safety chains, or other safety devices are required in Manholes shall be 600mm diameter.
  8. All sewers to be laid soffit to soffit unless otherwise shown.
  9. Prior to laying any material the subgrade must be inspected and any soft spots removed and filled with Type 1 material to SHW Clause 803
  10. It is the Contractors responsibility to locate existing services on site accurately.
  11. The Contractor should comply with h5(g) 47 "Avoiding Danger from Underground Services" when excavating around existing services.
  12. The Contractor is to verify the line, level and diameter of existing sewers before commencing drainage works.
  13. Contractor to provide temporary screens in each of the down stream manholes during the construction period of the development in accordance with SF40 2.9.10
  14. All in-situ concrete and precast concrete components to be manufactured using Sulphate Resisting Portland Cement (SRPC) to BS 4027, if required, subject to soil conditions.
  15. All manholes should have a concrete surround. Concrete rings shall be sealed using "Tektap" and lifting eyes pointed with resin modified mortar.
  16. Clay pipes to be vitrified clay to be as per 295-1:1991
  17. Crushing strength of clay pipes to be as follows:
 

crushing strength	40
150	45
225	
450	
  18. Manhole components to be to bs en 1917:2002
  19. All levels are to OS datum.
  20. Compliance with Health & Safety matters on any trench/manhole is obligatory and a permit to enter a confined space is required when connecting site drainage to the existing public sewerage system. A permit to enter a confined space will be obtained from Thames Water Ltd prior to the works commencing on any public sewerage system.
  21. The use of ladders or steps in manholes, wet wells and valve chambers shall comply with the following: Steel plastic encapsulated MH single steps shall not be used in MHs of a greater depth than 1.0m. Steel plastic encapsulated double steps shall be provided in MHs up to 3.0m in depth. Ladders shall be provided in accordance with BS 4211 in MHs between 3.0 & 6.0m deep. MHs greater than 6.0m deep shall be specially designed and have intermediate landings. Access holes in intermediate landings shall be provided with galvanised mild steel gratings to prevent persons falling through. The design of deep MHs shall permit the use of a winch or lifting gear mounted at ground level in case of emergencies.
  22. Only low carbon steel or stainless steel ladders for vertical fixing to MHs will be acceptable.
  23. Proposed adoptable sewers are only permitted to have other sewer/gully connections and other services laid at an angle of 45° and 90° across the line with a vertical clearance in excess of 300mm.
  24. All pipework to be kile marked by BSI or certified by equal inspection authority.
  25. Red coloured plastic marker tape at least 150mm wide shall be laid at a minimum of 200mm above the soffit of the pipe. The tape shall be printed with the words GRAVITY SEWER in bold capital letters throughout its length and at intervals not exceeding 700mm and shall incorporate a corrosion resistant tracing system for non-metallic pipes.
  26. Where the proposed site drainage connects to the public sewerage system either by new junction, new manhole or at an existing manhole, it will require the submission of an application for sewer connection form to Thames Water Ltd prior to works commencing.
  27. Where sewers are to be constructed inside the restricted tree root zone a suitable tree root protection barrier is to be installed to Thames's specification.

**REVISIONS**

P03	19/05/23	S1-S5 updated to suit new gradients	EP	OD	OD
P02	06/04/23	Updated foul drainage	EP	JC	JC
P01	31/01/23	First Issue.	DN	OD	OD

Rev	Date	Description	By	Ckd	App
<p>OVER COURT BARN OVER LANE ALMONDSBURY BRISTOL BS32 4DF T: +44 (0) 1454 619533 e: bristol@hydrock.com</p>					

CLIENT  
**PERSIMMON HOMES  
SOUTH MIDLANDS**

PROJECT  
**WYKHAM PARK  
FARM - PARCELS  
1 & 3**

TITLE  
**SECTION 104 AGREEMENT  
SHEET 1 OF 2**

HYDROCK PROJECT NO. <b>C-22647-C</b>	SCALE @ A1 <b>1 : 500</b>	STATUS <b>S2</b>
STATUS DESCRIPTION <b>INFORMATION</b>	REVISION	STATUS <b>P03</b>
DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER) <b>22647-HYD-XX-XX-DR-C-0100</b>		