

## NOTES

- This drawing is to be read in conjunction with all other Bright Plan Civils drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
- Bright Plan Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
- Do not scale, work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain.

**Key**  
 - Pipe Reference  
 10,300  
 - Cover Level  
 9.175  
 - Invert Level  
 450  
 - Manhole/Node Size

## -FOUL WATER STRATEGY-

- Foul water disposal should adhere to the following hierarchy;
  - Public Sewer
  - Private Treatment Plant
  - Septic Tank and Drainage Field
  - Cesspool
- It is proposed that, post-development, foul flows generated by the site will outfall to the public foul water sewer running within the site.
- A S106 application will be required, and approval will need to be obtained from Southern Water.
- A Private pumping station will be required on site including 24hrs storage for BRegs compliance.
- Post-development peak foul flows have been determined to be in the region of 0.19l/s (based on Sewers for Adoption, 4000l/day) for 4 No. units.

## -DRAINAGE KEY-

- Existing Foul Water Drain/Sewer
- SW Inspection Chamber (PPIC) (max 1.2m depth to invert) Hatch Denotes CP
- SW Manhole (PCC) Hatch Denotes CP
- SW Brick or precast concrete MH Hatch Denotes CP
- Storm Water Headwall - Type A/B
- Storm Water Headwall - Type C
- 450x950 Road Gully & 1500 Lateral (Double gullies must have separate laterals)
- ENG BRICK Flow Control Manhole (Refer to Construction Details)
- Linear Channel Drain
- Foul Water (Private Drain/Public Sewer)
- Proposed Private Pumping Station
- Proposed Foul Water Rising Main

## -SURFACE WATER DRAINAGE-

- Surface water disposal should be managed in view of the SuDS hierarchy;
  - Infiltration
  - Watercourse
  - Public Surface Water Sewer(s)
- A site-specific geotechnical investigation has concluded infiltration methods are not viable.
- In view of the above, it is proposed that a connection to the Main River will be established due west of the site.
- Attenuation will be provided by site in the form of an open storage basin.
- A flow control device would be required in order to restrict flows to the Main River, at a rate of 2l/s, as so not to exceed pre-development Greenfield run-off rates. (As previously agreed with LLFA)
- Hydraulic calculations adhere to the following criteria; a 1-in-100 year storm event, with an allowance of 40% for climate change.
- An allowance of 10% has been made in view of potential Urban Creep in relation to the development.

THIS DRAINAGE STRATEGY IS IN ACCORDANCE WITH APPROVED AQUACALLIDUS REPORT 'FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY REF: 1841 DATED MARCH 2019.

## FOR APPROVAL

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|   |                         |            |
|---|-------------------------|------------|
| B | Drainage Detail updated | 09/02/2020 |
| A | Pond & FW Pump updated  | 09/02/2020 |
|   | Original Issue          | 05/02/2020 |

| Rev. | Amendments | Date |
|------|------------|------|
|------|------------|------|



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Drawing Status **FOR APPROVAL**

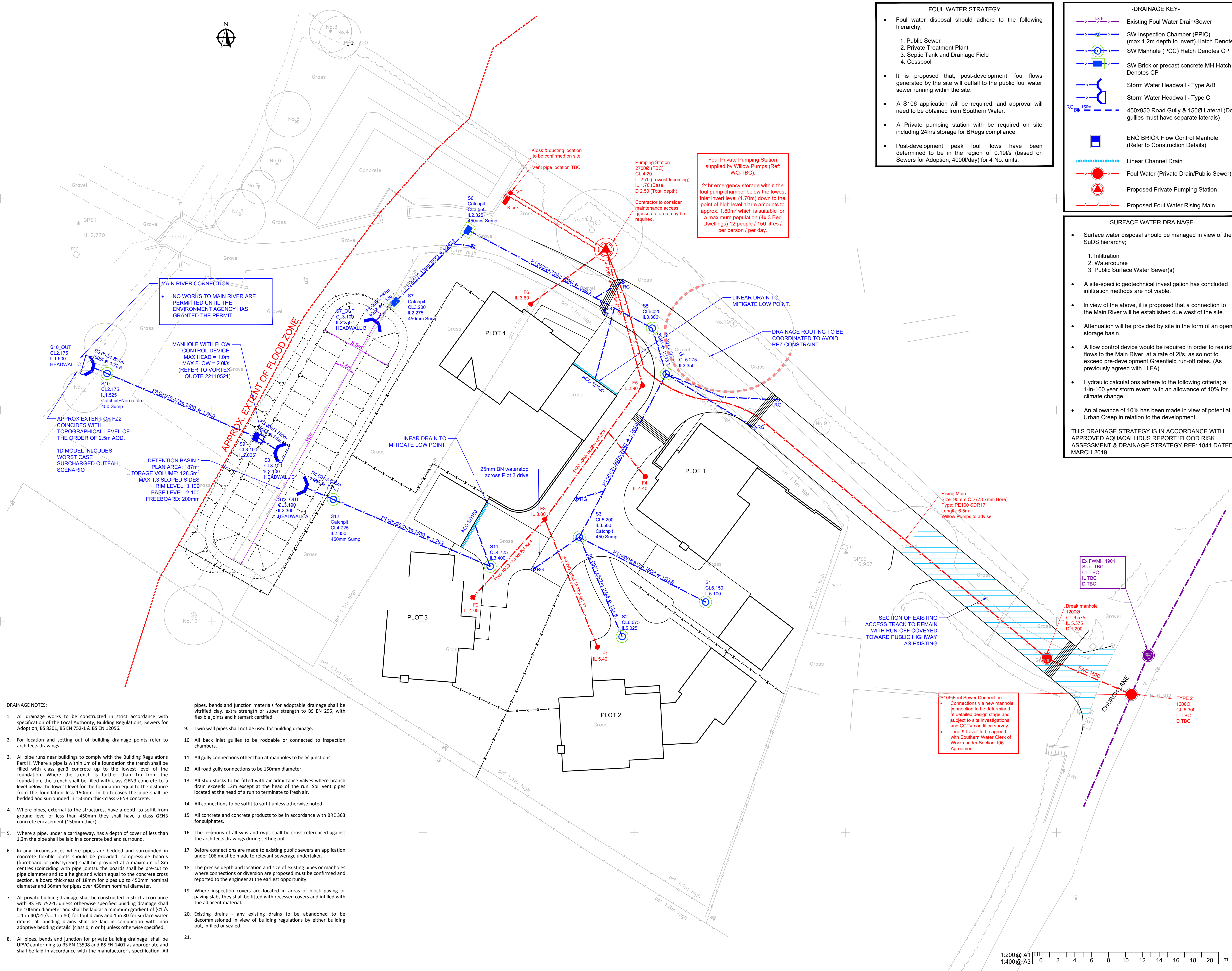
Client **Paul Voller**

Project **Tars Farm House, Church Lane, Barnham, PO22 0DB**

Drawing Title **Proposed Drainage Strategy Preliminary Design**

Scale **1:200** Date **05/02/21** Drawn By **MJA** Checked By **MJA**

Drawing No. **D1946-PL300** Rev. **B**



## DRAINAGE NOTES:

- All drainage works to be constructed in strict accordance with specification of the Local Authority, Building Regulations, Sewers for Adoption, BS 6301, BS EN 752-1 & BS EN 12056.
- For location and setting out of building drainage points refer to architects drawings.
- All pipe runs near buildings to comply with the Building Regulations Part H. Where a pipe is within 1m of a foundation the trench shall be filled with class gen3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN3 concrete.
- Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN3 concrete encasement (150mm thick).
- Where a pipe, under a carriageway, has a depth of cover of less than 1.2m the pipe shall be laid in a concrete bed and surround.
- In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided, compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints), the boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section, a board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
- All private building drainage shall be constructed in strict accordance with BS EN 752-1, unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of (<1/s = 1 in 40/>1/s = 1 in 80) for foul drains and 1 in 80 for surface water drains, all building drains shall be laid in conjunction with 'non adoptive bedding details' (class d, n or b) unless otherwise specified.
- All pipes, bends and junction for private building drainage shall be UPVC in accordance to BS EN 13598 and BS EN 1401 as appropriate and shall be laid in accordance with the manufacturer's specification. All pipes, bends and junction materials for adoptable drainage shall be vitrified clay, extra strength or super strength to BS EN 295, with flexible joints and kitemark certified.
- Twin wall pipes shall not be used for building drainage.
- All back inlet gullies to be roddable or connected to inspection chambers.
- All gully connections other than at manholes to be 'Y' junctions.
- All road gully connections to be 150mm diameter.
- All stub stacks to be fitted with air admittance valves where branch drain exceeds 12m except at the head of the run. Soil vent pipes located at the head of a run to terminate to fresh air.
- All connections to be soffit to soffit unless otherwise noted.
- All concrete and concrete products to be in accordance with BRE 363 for sulphates.
- The locations of all svps and rwps shall be cross referenced against the architects drawings during setting out.
- Before connections are made to existing public sewers an application under 106 must be made to relevant sewerage undertaker.
- The precise depth and location and size of existing pipes or manholes where connections or diversion are proposed must be confirmed and reported to the engineer at the earliest opportunity.
- Where inspection covers are located in areas of block paving or paving slabs they shall be fitted with recessed covers and infilled with the adjacent material.
- Existing drains - any existing drains to be abandoned to be decommissioned in view of building regulations by either building out, infilled or sealed.
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1:200 @ A1  
 1:400 @ A3  
 0 2 4 6 8 10 12 14 16 18 20 m