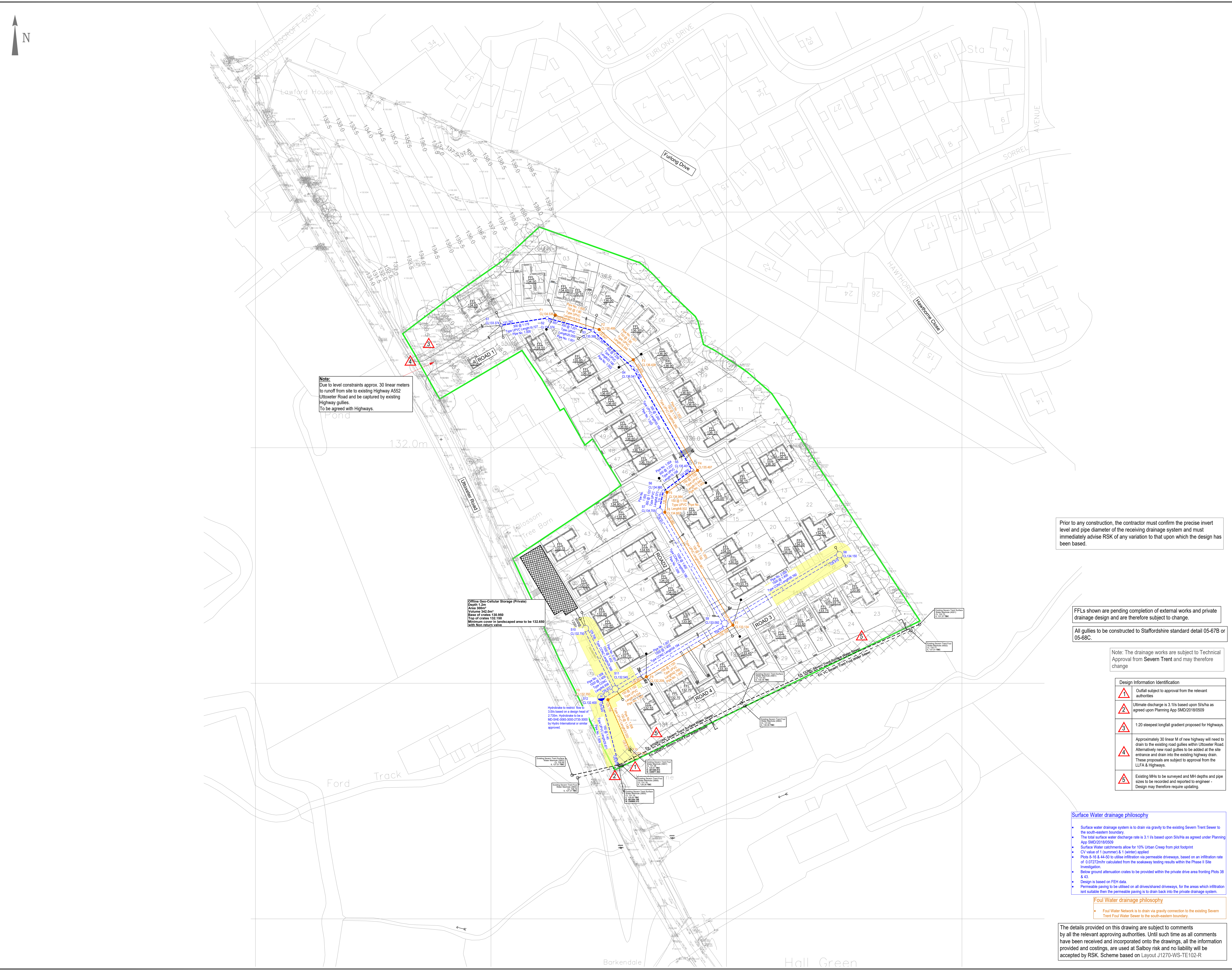




CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing. Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.

Notes

- All adoptable sewer works and material to be in accordance with DCS, The Relevant British/European and Severn Trent Standards/Requirements/Addendum and "Kitemarked".
- Manhole covers shall must have a minimum 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 Severn Trent before any sewer works are carried out.
- Severn Trent is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or indirectly). 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 Severn Trent Water Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be filled above the cover slab to bring the size down to 675mm x 675mm for the Severn Trent specified cover size. Please refer to Concrete Pipe Systems Association (CPSA) - Technical Bulletin issued Autumn 2004 for Kitemarked cover slab opening sizes.
- Substrate resistant cement (C20-OC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- 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 non vehicular access areas) then a concrete slab should be provide above granular bed and surround.
- Bedding and backfill material 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 an increment to accommodate the connections and bends.
- Severn Trent Water policy is not to accept type "C" brick manholes and 1500mm dia manhole rings. 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 soffit is 1 - 1.5m.
- All lateral drains to be 150mm dia, laid at 1 in 100 gradient.

Drainage Legend:

F1

Proposed foul water sewer and manhole

S1

Proposed storm water sewer and manhole

Proposed foul water lateral and connection

Proposed surface water lateral and connection

Proposed road gully with Ø150 connecting pipe

Existing Adoptable Foul water sewer and manhole

Existing Adoptable storm water sewer and manhole

HP

High points in carriageway

Proposed Drainage Easement

Site boundary

Existing Drainage Easement

Prior to any construction, the contractor must confirm the precise invert level and pipe diameter of the receiving drainage system and must immediately advise RSK of any variation to that upon which the design has been based.

FFLs shown are pending completion of external works and private drainage design and are therefore subject to change.

All gullies to be constructed to Staffordshire standard detail 05-67B or 05-68C.

Note: The drainage works are subject to Technical Approval from Severn Trent and may therefore change

Design Information Identification

Outfall subject to approval from the relevant authorities

Ultimate discharge is 3.1 l/s based upon 5 l/s/ha as agreed upon Planning App SMD2018/0509

1:20 steepest longfall gradient proposed for Highways.

Approximately 30 linear M of new highway will need to drain to the existing road gullies within Uttowater Road. Alternatively new road gullies to be added at the site entrance and drain into the existing highway drain. These proposals are subject to approval from the LLFA & Highways.

Existing MHs to be surveyed and MH depths and pipe sizes to be recorded and reported to engineer - Design may therefore require updating.

Surface Water drainage philosophy

- Surface water drainage system is to drain via gravity to the existing Severn Trent Sewer to the south-eastern boundary.
- The total surface water discharge rate is 3.1 l/s based upon 5 l/s/ha as agreed upon Planning App SMD2018/0509
- Surface Water catchments allow for 10% Urban Creep from plot footprint
- CV value of 1 (summer) & 1 (winter) applied
- Plots 8-16 & 44-50 to utilise infiltration via permeable driveways, based on an infiltration rate of 0.0727m/hr calculated from the soakaway testing results within the Phase II Site Investigation
- Below ground attenuation crates to be provided within the private drive area fronting Plots 38 & 43.
- Design is based on FEH data.
- Permeable paving to be utilised on all drives/shared driveways, for the areas which infiltration isn't suitable then the permeable paving is to drain back into the private drainage system.

Foul Water drainage philosophy

- Foul Water Network is to drain via gravity connection to the existing Severn Trent Foul Water Sewer to the south-eastern boundary.

The details provided on this drawing are subject to comments by all the relevant approving authorities. Until such time as all comments have been received and incorporated onto the drawings, all the information provided and costings, are used at Salboy risk and no liability will be accepted by RSK. Scheme based on Layout J1270-WS-TE102-R

Rev

Date

Amendment

Drawn

CHKD

Appd

Client

Project Title

Status

Drawing Title

Drawn

Date

Checked

Date

Approved

Date

Project No.

882930

File Name

40-01

Drawing No.

882930

Rev.

40-01 P5

Project No.

Orig.

Vol./Iss.

Rev./Loc.

Type

Role

Draw. No.

Scale 1:500

0 5 10 15 20 25m

PS

20.04.26

updated to suit latest layout J1270-WS-TE102-R

J-P

MAR

PA

17.03.26

Permissible paving removed from drawings as its private and is indicated on the private drainage as requested by the LLFA.

CB

MAR

P3

14.01.26

Drainage updated to FEH data and layout J1270-WS-TE104

CB

MAR

P2

20.11.25

Permissible paving added to private/shared driveway, with both added & the location of the private information has been updated following comments from the LLFA

MAR

P1

20.09.25

First Issue

CH

MAR