



PRIVATELY MAINTAINABLE
CELLULAR STORAGE SYSTEM BY
SDS OR SIMILAR APPROVED TO
ALLEVIATE FLOODING AT THE
HEAD OF THE RUN.
TOTAL STORAGE VOLUME 14m³
TANK HEIGHT 0.5m
IL 130.625

PRIVATELY MAINTAINABLE 100yr
CELLULAR STORAGE SYSTEM BY
SDS OR SIMILAR APPROVED.
TOTAL STORAGE VOLUME 210m³
TANK HEIGHT 2.0m
IL 128.95

SEVERN TRENT ADOPTABLE 30yr
CELLULAR STORAGE SYSTEM BY
SDS OR SIMILAR APPROVED.
TOTAL STORAGE VOLUME 180m³
TANK HEIGHT 2.0m
IL 128.70

S15
HYDRO-BRAKE FLOW
CONTROL CHAMBER
DISCHARGE - 3.8lit/sec
CL 131.60
IL 128.65
DESIGN HEAD 2.30m

EXISTING SEVERN TRENT
FOUL WATER MANHOLE 3907
CL31.32
IL129.61 TBC

EXISTING SEVERN TRENT SURFACE
WATER MANHOLE 3905
CL31.18
IL128.08 TBC

DRAINAGE STRATEGY

SURFACE WATER

- GROUND CONDITIONS ARE EXTREMELY VARIABLE ACROSS THE SITE AS DETAILED IN THE GEOTECHNICAL REPORT REFERENCE 2689 DATED APRIL 2022. INFILTRATION TESTING WAS UNDERTAKEN AT 5 TRIAL PITS ACROSS THE SITE ACHIEVING A VARIED RESULTS.
- DUE TO THE VARIED INFILTRATION RESULTS AND TO MAXIMIZE THE USE OF INFILTRATION, IT IS PROPOSED THAT INFILTRATION SURFACE WATER DISPOSAL STRATEGY WILL BE UTILIZED FOR PLOTS ONLY BASED ON THE GROUND CONDITIONS. FROM THE GEOTECHNICAL REPORT, INFILTRATION WILL BE UTILIZED FOR THE FOLLOWING PLOTS - 9-14, 24-32 & 47-52. THIS WILL BE IN THE FORM OF POROUS DRIVEWAY WITH AN UNDERDRAIN CONVEYING THE ROOF RUNOFF.
- THE PROPOSED ACCESS ROAD AND ALL OTHER PLOTS NOT SUITABLE FOR INFILTRATION DISPOSAL WILL DISCHARGE INTO A STORM WATER RECEIVED BY SEVERN TRENT AT AN ATTENUATED RATE OF 3.8lit/sec, BASED UPON A SURFACE WATER RUNOFF RATE OF 5.0lit/sec/Ha AS AGREED UNDER PLANNING APPLICATION SMD/2018/0509.
- BELOW GROUND ATTENUATION SYSTEMS IN THE FORM OF CELLULAR STORAGE CRATES WILL BE PROVIDED IN THE LANDSCAPE AREA FRONTING PLOT 34/35 DESIGNED FOR A TOTAL OF 100YR RETURN PERIOD PLUS 30% FOR CLIMATE CHANGE.
- THE DRAINAGE SYSTEM AND THE STORAGE CRATE UP TO 30YR RETURN PERIOD WILL BE OFFERED FOR ADOPTION BY SEVERN TRENT. THE ADDITIONAL STORAGE CRATE FORM 30-100YR RETURN PERIOD WILL REQUIRE MAINTENANCE FROM A PRIVATE MAINTENANCE COMPANY.
- DUE TO THE DEPTH OF THE DRAINAGE SYSTEM THROUGH THE CENTER OF THE SITE, IT MAY BE POSSIBLE TO ROUTE THE DRAINAGE SYSTEM ALONG THE EXISTING HIGHWAY BEFORE RETURNING INTO SITE AND DISCHARGING INTO THE ATTENUATION SYSTEM PROVIDED.

FOUL WATER

- AN ADOPTABLE GRAVITY SYSTEM IS ACHIEVABLE FOR THE PROPOSED DEVELOPMENT CONNECTING INTO A SEVERN TRENT FOUL SYSTEM ALONG THE SOUTHERN BOUNDARY OF THE DEVELOPMENT.

GENERAL NOTES

- CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
- ANY DISCREPANCY TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.

KEY

- 100mm $\varnothing$ ADOPTABLE FOUL DRAINAGE SYSTEM UNLESS STATED IN MANHOLE SCHEDULES
- 150mm $\varnothing$ ADOPTABLE STORM DRAINAGE SYSTEM UNLESS STATED IN MANHOLE SCHEDULES
- 225mm $\varnothing$ HIGHWAY ADOPTABLE STORM DRAINAGE SYSTEM
- 300mm $\varnothing$ ADOPTABLE PERFORATED STORM DRAINAGE SYSTEM
- 150mm $\varnothing$ PRIVATELY MAINTAINABLE STORM DRAINAGE SYSTEM
- 150mm $\varnothing$ PRIVATELY MAINTAINABLE PERFORATED STORM DRAINAGE SYSTEM UNLESS STATED IN MANHOLE SCHEDULES
- LOCAL AUTHORITY ADOPTABLE SURFACE WATER GULLIES AND CONNECTING PIPEWORK
- PRIVATELY MAINTAINABLE POROUS SURFACE CONSTRUCTION WITH TYPE 3 SUBBASE
- EXISTING SEVERN TRENT FOUL WATER SYSTEM
- EXISTING SEVERN TRENT SURFACE WATER SYSTEM
- CELLULAR STORAGE SURFACE WATER ATTENUATION STRUCTURE DESIGNED TO 30YR STORM EVENT
- PRIVATE CELLULAR STORAGE SURFACE WATER ATTENUATION STRUCTURE DESIGNED TO 100YR STORM EVENT
- PROPOSED LINEAR CHANNEL

DRAINAGE NOTES

- THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN SEWERS FOR ADOPTION 7TH EDITION, THE WELSH MINISTERS STANDARDS AND THE REQUIREMENTS OF US (SEVERN TRENT) AS THE STATUTORY SEWERAGE UNDERTAKER
- THE ADOPTABLE DRAINAGE SYSTEMS SUBJECT TO A S104 AGREEMENT NEEDS TO BE IN PLACE PRIOR TO CONSTRUCTION WORK COMMENCING.
- A SECTION 106 APPLICATION TO CONNECT MUST BE MADE TO DOWN, THE DEVELOPER SHALL GIVE 21 DAYS' NOTICE PRIOR TO CONNECTION, THE WORKS MAY ONLY BE UNDERTAKEN BY A SSP ACCREDITED CONTRACTOR.
- CONTRACTOR TO ALLOW FOR ALL NECESSARY STREET WORKS LICENSES ASSOCIATED WITH DRAINAGE SERVICE INSTALLATION IN EXISTING PUBLIC HIGHWAY.
- ALL WORK TO BE CARRIED OUT IN CONNECTION WITH SEWERS AND MANHOLES TO BE IN ACCORDANCE WITH THE HEALTH AND SAFETY GUIDELINE NO. 2 'SAFE WORKING IN SEWERS AND SEWAGE WORKS'.
- THE COVER AND INVERT LEVELS OF ANY EXISTING MANHOLES ARE TO BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ALSO TO INCLUDE VERIFICATION OF MANHOLE AND PIPE DIAMETERS.
- ALL ADOPTABLE SEWERS OR LATERAL DRAINS ARE TO BE LAID AT A MINIMUM GRADIENT OF 1:80 FOR 100mm $\varnothing$ PIPES, 1:150 FOR 150mm $\varnothing$ PIPES AND A MAXIMUM GRADIENT OF 1:5, WHERE SITE LAYOUT DICTATES A RAMPED BACKSLOPE MAY BE UTILISED, ALTHOUGH STEEPER GRADIENTS ARE PREFERRED, AND SHOULD BE PROVIDED WHERE PRACTICABLE.
- LATERAL PIPEWORK WITHIN 1.2m TO THE FACE OF PROPOSED BUILDING TO COMPLY WITH THE REQUIREMENT OF CLAUSE B3.1.4 AND FIGURE B.1
- MINIMUM CLEAR OPENING OF MANHOLE COVERS TO BE 600 X 600MM FOR FOUL WATER AND 675 X 675MM FOR SURFACE WATER.
- PRIOR TO LAYING ANY MATERIAL THE SUBGRADE MUST BE INSPECTED AND ANY SOFT SPOTS REMOVED AND FILLED WITH TYPE 1 MATERIAL TO S104 CLAUSE 803-14.
- ALL ON PLOT ADOPTABLE DEMARCATION CHAMBERS AND PRIVATELY MAINTAINABLE INSPECTION CHAMBERS TO BE IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION TYPE 4, B125 COVER GRADE, APPROXIMATELY 1200mm DEEP.
- RAINWATER DOWN PIPES ARE TO BE CONNECTED DIRECTLY TO THE STORM DRAIN VIA A SUITABLE ADAPTOR, REMOVABLE TO PERMIT ACCESS FOR ROOFING.
- WATER BUTT TO BE INCLUDED AT EACH PLOT WITH A SUITABLE CONNECTION FORM THE DWP.
- ALLOW FOR A15 LOADING GRADE THRESHOLD LINEAR CHANNEL AT ALL LEVEL THRESHOLD DOORWAYS OR SIMILAR APPROVED.
- POSITIONS OF SOIL PIPES, SUB STACKS, WC OUTLETS ETC. TO BE CONFIRMED BY OTHERS.

B	REMOVED 'DO NOT SCALE' NOTE	TE	07.07.22
A	REVISED HYDRO-BRAKE DISCHARGE RATE AND PRIVATE 100YR TANK	TE	10.05.22
Rev.	Detail	By	Date
Revisions			

Reinforcement schedules nos.



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Client



Project

**PROPOSED RESIDENTIAL
DEVELOPMENT AT
UTTOXETER ROAD,
UPPER TEAN**

Drawing Title

**LAYOUT PLAN
DRAINAGE**

PRELIMINARY

Project No.	Drawing No.
C1941	C-SK03
Scale	Date
1:500	29.04.22
Drawn	Checked
DH	DF
Sheet Size	Revision
A1	B