

SPECIFICATION NOTES

All drainage shall be constructed and commissioned in accordance with BS EN 295 & BS EN752, Building Regulations Doc. H and any particular requirements of the Building Control Officer.

Drainage pipelines shall be in PVC-U below ground as Marley or similar approved, or vitrified clay.
All sewer pipelines to be VC only.

This drawing shall be read in conjunction with all other relevant drainage drawings, architectural drawings and structural drawings.
For manhole details, gully details, bedding etc, refer to gta detail sheets.

All foul water drain runs shall have a fall of 1:40 or steeper, unless noted otherwise.

All cement used for concrete drainage installations shall be sulphate resistant to class 3 of BRE Digest 363. (Grade ST5)

The use of short radius or 90° bends for changes in direction is not permitted, only long or medium radius 45° bends shall be used. All junctions shall be 45°.

All drains shall have granular bed and surround as class 'S' bedding, unless noted otherwise.

All drainage works shall commence from the upstream end first unless agreed otherwise. Outfall level to be checked by contractor prior to any works commencing and any discrepancy identified to engineer prior to laying and drainage.

DESIGN NOTES

1. CELLULAR SOAKAWAY&SWALE DESIGN BASED ON 1 IN 100 YR STORM + 45%, CV VALUE:1, 10% URBAN CREEP AND MEASURED INFILTRATION RATE OF 3.37 x 10-5M/S - CGS CIVILS BRE 365 TESTING DATED 23.04.20.

2. DRAIN POINTS AND LOCATIONS TO BE CONFIRMED BY ARCHITECT.

3. CONTRACTOR TO ESTABLISH LOCATIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCING.

4. EXISTING TREES TO BE PROTECTED WHERE EXCAVATIONS RUN CLOSE.

5. APPROVAL TO BE GAINED FROM SOUTHERN WATER FOR CONNECTION TO FOUL SEWER UNDER SECTION 106 APPLICATION

ABBREVIATIONS

D307.0	DETAIL NUMBER - SEE DRAINAGE DETAIL SHEET
FD	FOUL DRAIN
SWD	SURFACE WATER DRAIN
FWS	ADOPTABLE FOUL WATER SEWER
SWS	ADOPTABLE SURFACE WATER SEWER
MH	MANHOLE
IC	INSPECTION CHAMBER
SA	SOAKAWAY
FIC	450mm DIA. FOUL INSPECTION CHAMBER - D202.6
SIC	450mm DIA. SURFACE WATER INSPECTION CHAMBER - D202.6
FAC	300mm DIA. FOUL ACCESS CHAMBER - D202.18
SAC	300mm DIA. SURFACE WATER ACCESS CHAMBER - D202.18
CI	CAST IRON
VC	VITRIFIED CLAY
CONC	CONCRETE
PVC-U	POLYVINYL CHLORIDE - UNPLASTICISED
G	SMALL GULLY - D209.0
YG	YARD GULLY - D209.2
RG	ROAD GULLY - D208.1
CPG	CAR PARK GULLY - D208.2
DP	BELOW GROUND DRAIN POINT
SVP	SOIL VENT PIPE DROP
SS	STUB STACK OR DIRECT DRAIN CONNECTION
BP	EXTERNAL RODDING POINT - D213.1
DT	SURFACE WATER DISTRIBUTION TANK
FFL	FINISHED FLOOR LEVEL
SSL	STRUCTURAL SLAB LEVEL
GL	GROUND LEVEL
CL	COVER LEVEL
IL	INVERT LEVEL
SUMP	SUMP LEVEL
BL	BASE LEVEL
HL	HIGH LEVEL
BD	BACKDROP
CBS	CONCRETE BED & SURROUND
CLASS S	GRANULAR BED & SURROUND
CLASS B	GRANULAR BED

KEY

	Existing surface water drain
	Existing foul water drain
	Private surface water drain
	Private foul drain
	Foul drain point D307.0
	SW Drain point for RWP D203.5
	Drainage channel
	Foul Plastic Inspection Chamber - D202.6
	Surface Water Plastic Inspection Chamber - D202.6
	300mm diameter Surface Water Access Chamber - D202.18
	300mm diameter Foul Water Access Chamber - D202.18
	Private Yard gully
	Roddng point
	Distribution/ collection tank in permeable paving sub-base
	Concrete Baffle in sub-base
	Swale with land drain under

LEVEL = 59.47m+

USE PRINT LEVEL MATCHED TO NEAREST LEVEL N SURVEY AREA.

Existing House

Existing House

HOUSE FOOTPRINT LEVEL MATCHED TO NEAREST LEVEL WITHIN SURVEY AREA.

PERMEABLE DRIVEWAY AREA 2 WITH POROUS SUB-BASE

DRIVEWAY AREA 230m²
MIN CL 51.190 SLOPE 1:33
SUB-BASE DEPTH 300mm
MINIMUM 30% VOIDS
MAXIMUM STORAGE REQUIRED: 8.1m³

CELLULAR SOAKAWAY C

IMPERMEABLE AREA 114m² with 10% urban creep
CLS1.600 ILS0.900
IL in 51.250
1.0m x 16.0m x 0.4m DEEP
MAXIMUM STORAGE REQUIRED: 6.0m³

PERMEABLE DRIVEWAY AREAS A-E WITH POROUS SUB-BASE

DRIVEWAY AREA SEGMENTS 4MX12M
= 46m²
LAID FLAT BETWEEN BAFFLES
MIN SUB-BASE DEPTH 300mm
MINIMUM 30% VOIDS
MAXIMUM STORAGE REQUIRED PER SEGMENT:1.6m³

CONCRETE BAFFLES -

250mm HIGH FROM SUB-BASE FORMATION
SUB-BASE FORMATION TO BE LAID FLAT 300mm DEPTH BELOW LOWEST LEVEL AND STEPPED AT BAFFLES

PERMEABLE DRIVEWAY AREA 3 WITH POROUS SUB-BASE

Min CL 49.400
DRIVEWAY AREA 187m²
SLOPE 1:568
SUB-BASE DEPTH 300mm
MINIMUM 30% VOIDS
MAXIMUM STORAGE REQUIRED:5.9m³

PERMEABLE DRIVEWAY AREA 4 WITH POROUS SUB-BASE

Min CL 49.400
DRIVEWAY AREA 187m²
SLOPE 1:568
SUB-BASE DEPTH 300mm
MINIMUM 30% VOIDS
MAXIMUM STORAGE REQUIRED: 5.9m³

CELLULAR SOAKAWAY A

IMPERMEABLE AREA 185m² (INC 10% U/C)
Min CL50.620 IL49.000 Top 49.400
IL in 49.250
3.0m x 10.0m x 0.4m DEEP
MAXIMUM STORAGE REQUIRED: 11.0m³

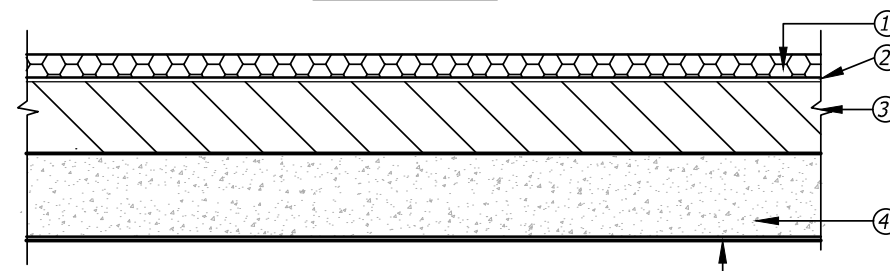
CELLULAR SOAKAWAY B

IMPERMEABLE AREA 134m² (INC 10% U/C)
Min CL50.780 IL49.700 Top 50.100
IL in 49.950
2.0m x 10.0m x 0.4m DEEP
MAXIMUM STORAGE REQUIRED: 7.4m³

SPECIFICATION NOTES

1. ALL DRAINAGE SHALL BE CONSTRUCTED AND COMMISSIONED IN ACCORDANCE WITH BS EN 295 & BS EN752, BUILDING REGULATIONS DOC. H AND ANY PARTICULAR REQUIREMENTS OF THE BUILDING CONTROL OFFICER.
2. DRAIN BEDDING IS TO BE PROVIDED AS D200.0, D200.1 AND D200.2 AS SHOWN ON THE DRAINAGE DETAILS SHEETS.
3. 'EFFECTIVE COVER' IS THE MINIMUM DEPTH OF COVER OVER THE PIPE CROWN AT ANY TIME DURING THE CONSTRUCTION PROCESS.
4. ALL CONCRETE PIPEWORK, MANHOLES AND FITTINGS SHALL BE TO BS 5911 (ALL RELEVANT PARTS). ALL CONCRETE PIPEWORK TO BE TO HIGH STRENGTH
5. WHERE CONNECTIONS ARE TO BE MADE TO EXISTING MANHOLES/SEWERS, INVERT LEVELS, PIPE SIZES & ORIENTATION SHALL BE CHECKED PRIOR TO THE COMMENCEMENT OF THE WORKS AND ANY VARIANCE REPORTED TO THE ENGINEER IMMEDIATELY. WORK TO COMMENCE AT DOWNSTREAM END WHEREVER POSSIBLE.
6. WHERE PIPELINES CROSS, EACH IS TO BE SURROUNDED WITH GRADE ST4 MASS CONCRETE FOR A DISTANCE NOT LESS THAN 1m CENTRED ON THE CROSSING POINT. LENGTH OF SURROUND TO BE EXTENDED AS NECESSARY TO WITHIN 150mm OF THE NEXT NEAREST FLEXIBLE JOINTS.
7. THE CONTRACTOR IS TO ENSURE THAT PROTECTIVE MEASURES ARE TAKEN TO ENSURE THAT DRAINAGE PIPEWORK AND FITTINGS ARE NOT DAMAGED BY SITE TRAFFIC PRIOR TO OVERSITE FILLING OPERATIONS BEING COMPLETED AROUND BUILDINGS.
8. ALL PRIVATE DRAINAGE PIPEWORK SHALL BE PVC-U. ALL ADOPTED DRAINAGE TO BE VC. ALL UNDERBUILDING DRAINS TO BE LAID AT A GRADIENT OF 1:40
9. WHERE DRAINS PASS THROUGH FOUNDATIONS OR CONNECT TO MANHOLES, FLEXIBLE PIPE JOINTS ARE TO PROVIDED WITHIN 150mm OF THE FACE OF THE STRUCTURE AND WITHIN A FURTHER 600mm TO FORM A ROCKER PIPE.
10. WHERE PIPES PASS THROUGH SCREEN WALLS, FOOTINGS OR RETAINING WALLS, LINTELS ARE TO BE PROVIDED.
11. WHERE PIPELINES PASS WITHIN 1m OF BUILDINGS OR WALLS THE FOUNDATIONS ARE TO BE TAKEN DOWN BELOW THE BOTTOM OF THE TRENCH
12. 450mm DIA. INSPECTION CHAMBERS (FIC/SIC) MAY BE USED:
- WITH 350mm REDUCED OPENING WHERE THE DEPTH FROM COVER TO INVERT EXCEEDS 1000mm.
300mm DIA. POLYPROPYLENE ACCESS CHAMBERS (FAC/SAC) MAY BE USED
- WHERE THE DEPTH FROM COVER TO INVERT DOES NOT EXCEED 600mm AND WHERE THE PIPE SIZE DOES NOT EXCEED 100mm DIA.
13. STEEL COVERS WITHIN PROPERTY BOUNDARIES SHALL BE:
(UNLESS NOTED ON DRAWING OR MANHOLE SCHEDULE)
-ON PRIVATE DRIVEWAYS: FACTA GRADE B (BS EN ISO 1461: 1999)
-ON PRIVATE PATHWAYS, VERGES OR ON GARDENS: FACTA GRADE A (BS EN ISO 1461: 1999)
DUCTILE IRON COVERS OUTSIDE PROPERTY BOUNDARIES SHALL BE:
(UNLESS NOTED ON DRAWING OR MANHOLE SCHEDULE)
-ON ACCESS ROADS AND CAR PARKS: GRADE D400 (BS EN 124:1994)
-ON SHARED PATHWAYS, VERGES: GRADE A15 (BS EN 124:1994)
14. COVER LEVELS SHOWN 'CL' AND INVERT LEVELS SHOWN 'IL' ARE IN METRES ABOVE ORDNANCE DATUM.
15. ALL DRAINS TO BE 100mm DIAMETER UNLESS NOTED OTHERWISE
16. ALL DRAINS MARKED 'FWS' OR 'SWS' ARE PROPOSED ADOPTED SEWERS AND ARE TO BE CONSTRUCTED IN ACCORDANCE WITH 'SEWERAGE SECTOR GUIDANCE' (SSG)

NIDAGRAVEL CONSTRUCTION FOR DRIVEWAY



- 1 30mm deep Nidagravel 130 grid filled with 4 - 10mm size gravel to landscape architects spec. Cover layer 10 to 20mm thick can be laid over the grid after compaction/ settlement to hide the grid. See manufacturer's instructions
- 2 30-40mm thick bedding layer of angular aggregate within the range 2mm - 6mm.
- 3 70mm thick Base, Dense Asphalt: Concrete, AC28 Dense Base, 40/60 Pen to BSEN13108-1. Perforated with 75mm dia. holes at 0.75m centres both ways and filled with 2-6.3mm size clean stone
- 4 300mm thick Sub-base. Type 3 or 4-20mm size open graded crushed rock with no fines (30% voids) (Surface water storage based on 1 in 100yr + cc). Subject to CBR values and infiltration rate of sub-soils.
- 5 Terram 1000 geotextile over compacted formation in accordance with the specification for highway works. Over compacted formation

DATUM

ENGINEERING DESIGN BASED ON SURVEY TO ORDNANCE DATUM.

APPROVED PLANNING DRAWINGS ARE BASED ON AN ARBITRARY DATUM WHICH IS 7m LOWER THAN THIS DESIGN

0 1m 5m 10m 20m
1 : 200

GENERAL NOTES

1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.
2. Tender or billing drawings shall not be used for construction or the ordering of materials.
3. Do not scale. All dimensions and levels to be site confirmed.
4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

P3	Amendments to MSDC Comments	13.06.25	CM	MR
P2	Driveway revised to non-permeable	28.03.25	CM	MR
P1	INITIAL ISSUE	27.2.25	CM	MR
Rev	Amendments	Date	Dsn	Chk

Status	PRELIMINARY		
Client	MR OLIVER ATKINSON		
Architect			
Project	HURST WICKHAM BARN COLLEGE LANE, HURSTPIERPPOINT		
Title	DETAILED DRAINAGE LAYOUT		
Date	FEBRUARY 2025	Scale @ A1	1:200
Clients Ref.		Project Ref.	10644
 Civils & Transport Maple House, 192-198 London Road, Burgess Hill, West Sussex, RH15 9RD Tel.01444 871444 Web: www.gtacivils.co.uk			
Drawing Number	10644/1601		Rev. P3