Foul and Surface Water Drainage Strategy

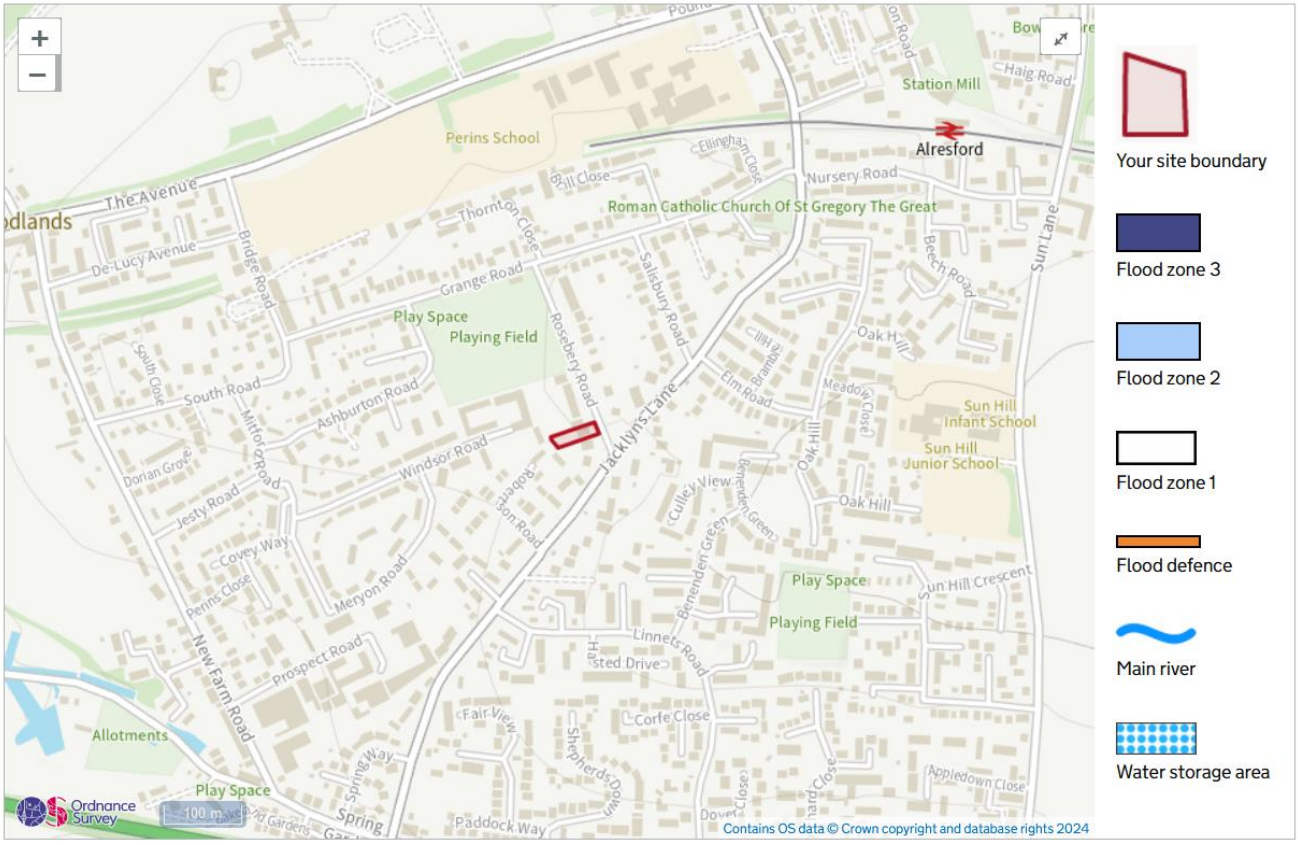
Project name:	30 Rosebery Road
Project number:	D2234
Client:	Mr. & Mrs. J Phare
Prepared by and date:	S Burnett, January 2024
Site address:	30 Rosebery Road, New Alresford, Winchester, Hampshire SO24 9HQ
Grid Reference:	SU 58398 32051 / SU583320
Eastings / Northings:	458398 / 132051
Local Authority:	Winchester City Council
Lead Local Flood Authority:	Hampshire County Council
Proposed Development:	The proposed development involves the extension of an existing single-storey bungalow to provide a new first floor, in addition to the construction of a new single-storey garage. The architectural development proposal is contained within **Appendix A**.
Site area:	930m^2 (0.093Ha)
Topography	J. Brotherton & Partners has undertaken a topographical survey at the site, dated April 2023. Levels are demonstrated as falling within the range of 90.63m AOD and 87.78m AOD, broadly falling in a south/south-westerly direction. Rosebery Road falls in a southerly direction, towards B3046.
Greenfield run-off rate:	The following greenfield run-off rates have been established in relation to the site area of 930m^2 (0.093Ha): Q_{BAR} = 0.0186 l/s 1 year = 0.0186 l/s 30 year = 0.0465 l/s 100 year = 0.0558 l/s The above figures are based on a pro-rata calculation utilsing HR Wallingford's greenfield run-off tool, which considers a minimum site area of 0.1Ha.
Brownfield run-off rate:	A brownfield run-off rate has been established in relation to the existing impermeable area at the site, which totals 305m^2. Based on a 'flat rainfall rate' methodology, with a rainfall intensity of 50mm an hour, the existing run-off from the site in its current use is 4.236 l/s.
Geology:	Reference has been made to the British Geological Survey (BGS) website, and specifically the Geology of Britain Viewer. This tool confirms the following: **Bedrock Geology:** Newhaven Chalk Formation - Chalk **Superficial Deposits:** None Mapping extracts are contained within **Appendix B**.
Site Specific Invesitgation:	The BGS provides records of historic onshore boreholes. Reference has been made to this tool in the absence of site-specific intrusive investigation.

	The nearest borehole where records are available is located c. 260m north-east of the site (Ref: SU53SE79). The records for this location do not state the encountered geology, however. Attempts have also been made to review logs c. 430m north of the site (SU53SE86), although these records are confidential and not publicly available. Mapping extracts and records are contained within **Appendix C**.
Aquifer Designation:	For the following four sections, reference has been made to the MAGIC website (www.magic.defra.gov.uk) which provides authoritive geographic information about the natural environment from across government, in an interactive mapping tool format. Mapping extracts are contained within **Appendix D**. **Bedrock:** Principal **Superficial Drift:** Unproductive
Groundwater Vulnerability Zone:	'High' with a 'Soluble Rock Risk' identified
Groundwater Source Protection Zone:	None
Drinking Water Safeguarding Zone (Surface Water and/or Groundwater):	None
Groundwater depth:	Groundwater investigation has not been undertaken at the site. The BGS borehole records reviewed in relation to SU53SE79 confirms a ground level of 314.15ft AOD (95.75m AOD), with a rest water level of 307ft AOD (93.57m AOD). Groundwater investigation should be undertaken on site to confirm accurate groundwater levels.
Soil infiltration rate:	Infiltration testing has not been undertaken at the site. An assumed infiltration rate of $1x10^{-6}$ has been used for preliminary design purposes, in accordance with the typical figures provided in CIRIA 156, Table 4.4. Infiltration testing shall be undertaken to assist in the design of soakaways, post planning.
Nearby watercourses/rivers:	There are no ordinary watercourses within the immediate vicinity of the site.
Nearby surface water sewer:	Southern Water's public sewer records are contained within **Appendix E**. The records do not demonstrate any dedicated public surface water sewers within the vicinity of the site. A 100mm dia. public foul water sewer is located beneath Rosebery Road, which is shown to flow in a southerly direction, communicating with a 150mm dia. public foul water sewer beneath B3046, flowing in a westerly direction.
Additional drainage features	Rosebery Road is drained by traditional road gullies, located along the western channel line. It is assumed that these gullies discharge to a dedicated highway drainage system, although it has not been possible to confirm this at this stage.
Proposed method of disposal and reason:	The proposed development involves the construction of a first-floor extension to the existing single-storey bungalow, in addition to the construction of a new single-storey garage. The existing property will continue to drain as existing, although the client has expressed an interest in utilising a simple rainwater recycling system. There is to be no increase in the footprint / roof area associated with the existing bungalow further to the extension being implemented, therefore no increase in the drained area or catchment. The proposed garage will drain to a dedicated soakaway, serving the roof catchment of $22m^2$, subject to ground investigation and infiltration testing. If infiltration is found to be unviable for whatever reason, the garage will drain as per the existing arrangement of the existing bungalow.
Design storms considered:	1:10 Year (in accordance with Building Regulations, Approved Document H (H3, 3.2.7)

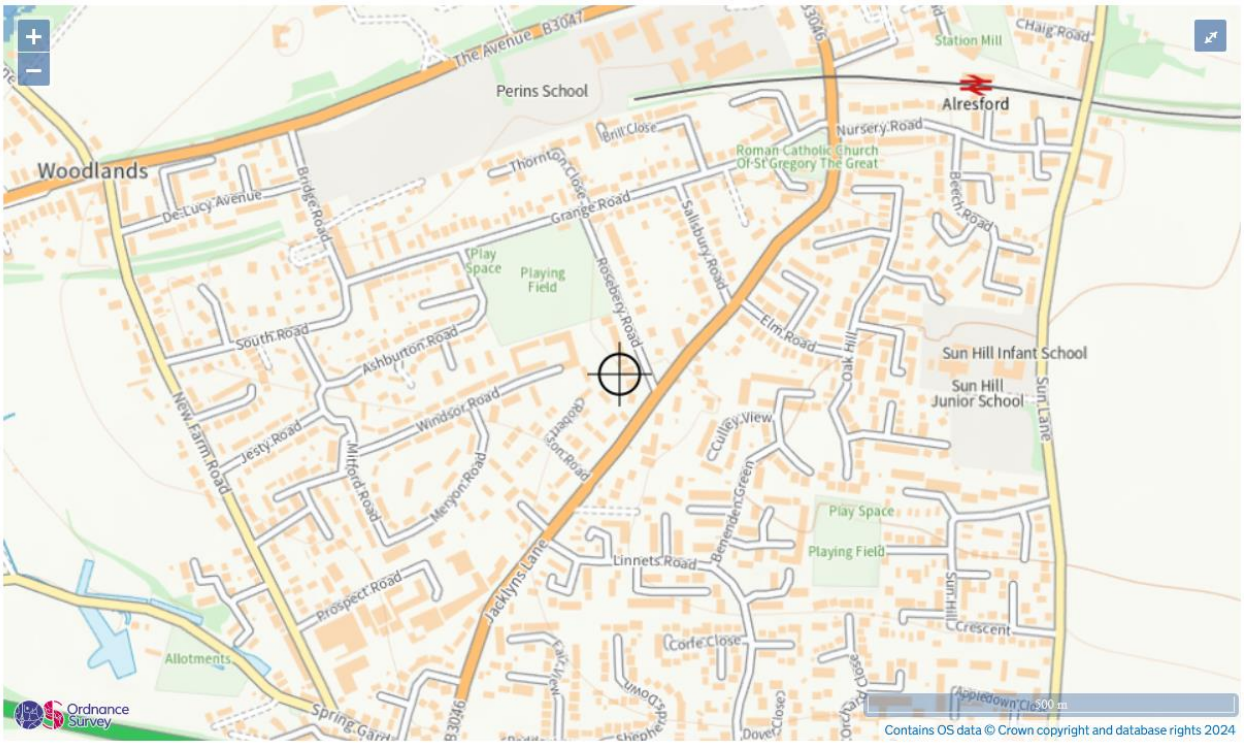
	The design considers the proposed new garage; the roof area associated with the existing bungalow is not increasing in view of the proposed development.
Climate change:	45% The design considers the proposed new garage; the roof area associated with the existing bungalow is not increasing in view of the proposed development.
Urban creep:	10% An allowance of 10% has been made for the potential future impacts of urban creep.
Proposed catchment areas:	Garage: 22m^2 There will be no change to the drained area or catchment associated with the existing bungalow in view of the proposed development. The proposal concerns construction of a first-floor on the existing bungalow.
Proposed discharge rate:	An assumed infiltration rate of 1x10^{-6} has been used for preliminary design purposes, in accordance with the typical figures provided in CIRIA 156, Table 4.4. Infiltration testing shall be undertaken to assist in the design of soakaways, post planning.
Flow control method:	N/A
Volume of storage provided and method:	Storage will be provided in the form of a cellular soakaway (10.500m x 1.000m x 0.400m based on the assumed infiltration rate of 1x10^{-6}).
Offsite works:	None.

Flood Risk Summary

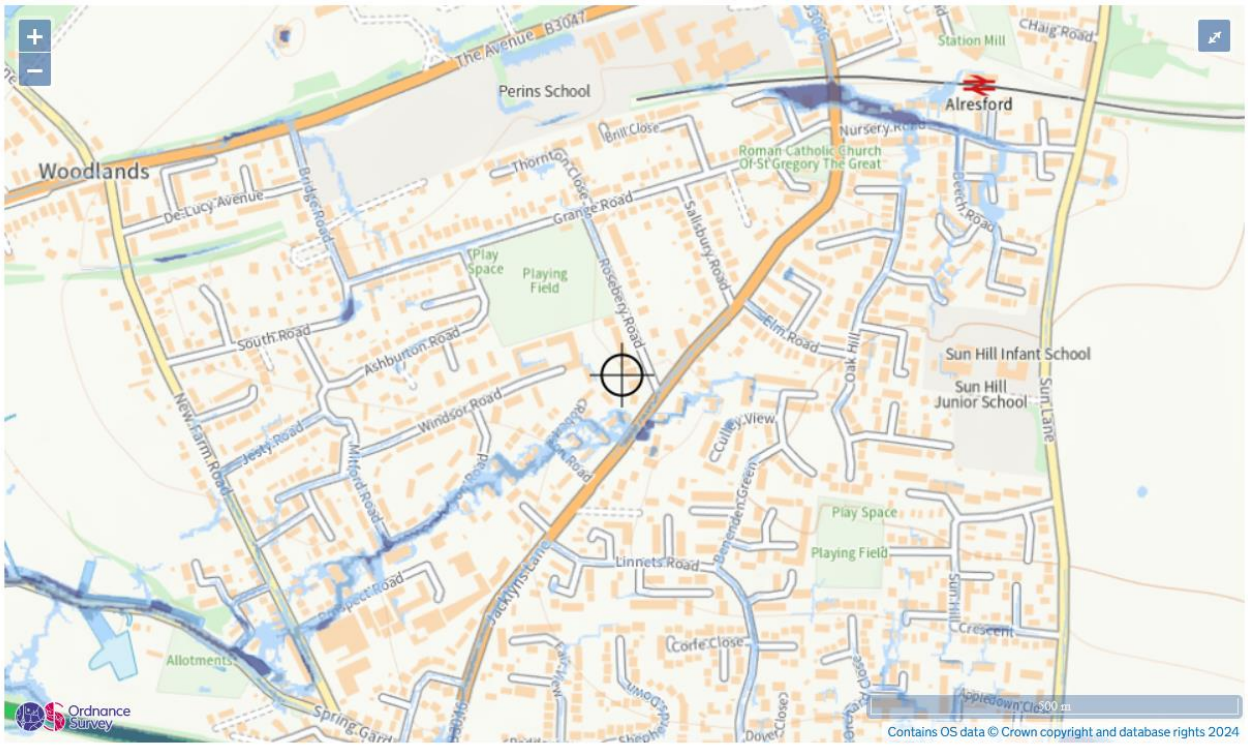
Flood Zone Classification:	Flood Zone 1



Rivers or the Sea:	Upon review of the Long-Term Flood Risk Map for Rivers or the Sea, the site is not identified as being at risk of flooding from such sources.



Surface Water:	The site is identified as being at 'Very Low' risk of surface water flooding, according to the Long-Term Flood Risk Map for Surface Water. An overland flow route is identified to the south / south-west of the site with an associated risk of surface water flooding ranging from 'Low' to 'Medium'. The site itself is not identified as being at risk in relation to this flow route.



Extent of flooding from surface water

High Medium Low Very low Location you selected

Reservoirs:	None. The site is not identified as being at risk of flooding from such sources.
 Maximum extent of flooding from reservoirs: when river levels are normal when there is also flooding from rivers Location you selected	
Groundwater:	Groundwater investigation and/or monitoring has not been undertaken on site, therefore groundwater levels relative to the site itself have not been confirmed. At present, the risk of groundwater flooding is considered to be 'Very Low'.
Historic Flooding	No instances of historic flooding have been identified at the site, from the sources of information reviewed and assessed in the undertaking of this report.

Foul Water Drainage Strategy

Number of properties:	1 No. existing dwelling
Method of discharge:	Southern Water's public sewer records identify a 100mm dia. public foul water sewer located beneath Rosebery Road, which is shown to flow in a southerly direction, communicating with a 150mm dia. public foul water sewer beneath B3046, flowing in a westerly direction. The existing bungalow drains to this sewer.
Point of discharge:	The site will continue to drain to Southern Water's public foul water sewer located beneath Rosebery Road.
Off-site works:	None. The existing connection to the public sewer network will be retained.

DRAWINGS

Ground

-SITE LOCATION PLAN-
Area - 930m^2 (0.093Ha)

ROSEBERY ROAD

B3046

Makins Court

1 to 17

LB

NOTES

A3

1. This drawing is to be read in conjunction with all other BP 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.
2. BP Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. 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.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. BP Civils logos and company information must be removed from copies if information is re-used.
7. Where used, this map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of His Majesty's Stationary Office (c) Crown Copyright. Licence number: 100022432. BP Civils accept no liability for any inaccuracies with the data.

Rev.	Date	Amendments
-	29/01/2024	Original Issue

BP CIVILS

Infrastructure Design and Transport Planning Consultants
2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF
Tel: 0333 358 3260
www.bpcivils.co.uk enquiries@bpcivils.co.uk

Drawing Status: PLANNING
NOT FOR CONSTRUCTION

Client: Mr & Mrs J Phare

Project: 30 Rosebery Road, New Alresford, Winchester SO24 9HQ

Drawing Title: Site Location Plan

Scale at A3	Date	Drawn By	Checked By	Project No.
1:250	Jan. '24	SPB	LDF	D2234

Drawing No.: 000-BPC-WD-ZZ-D-C-001
Rev.: -

-TOPOGRAPHICAL SURVEY CONTOURS-

90.000 CONTOUR (WITH LEVEL)

A3

NOTES

1. This drawing is to be read in conjunction with all other BP 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.
2. BP Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. 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.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. BP Civils logos and company information must be removed from copies if information is re-used.
7. Where used, this map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of His Majesty's Stationary Office (c) Crown Copyright. Licence number: 100022432. BP Civils accept no liability for any inaccuracies with the data.

Rev.	Date	Amendments
-	29/01/2024	Original Issue

BP CIVILS

Infrastructure Design and Transport Planning Consultants
2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF
Tel: 0333 358 3260
www.bpcivils.co.uk enquiries@bpcivils.co.uk

Drawing Status: PLANNING
NOT FOR CONSTRUCTION

Client: Mr & Mrs J Phare

Project: 30 Rosebery Road,
New Alresford, Winchester SO24 9HQ

Drawing Title: Topographical Survey Contours

Scale at A3	Date	Drawn By	Checked By	Project No.
1:250	Jan. '24	SPB	LDF	D2234

Drawing No.	Rev.
000-BPC-WD-ZZ-D-C-002	-

NOTES

A3

1. This drawing is to be read in conjunction with all other BP 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.
2. BP Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. 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.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. BP Civils logos and company information must be removed from copies if information is re-used.
7. Where used, this map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of His Majesty's Stationary Office (c) Crown Copyright. Licence number: 100022432. BP Civils accept no liability for any inaccuracies with the data.

Rev.	Date	Amendments
-	29/01/2024	Original Issue

BP CIVILS

Infrastructure Design and Transport Planning Consultants
2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF
Tel: 0333 358 3260
www.bpcivils.co.uk enquiries@bpcivils.co.uk

Drawing Status
PLANNING
NOT FOR CONSTRUCTION

Client
Mr & Mrs J Phare

Project
30 Rosebery Road,
New Alresford, Winchester SO24 9HQ

Drawing Title
Impermeable Areas

Scale at A3	Date	Drawn By	Checked By	Project No.
1:250	Jan. '24	SPB	LDF	D2234

Drawing No.
000-BPC-WD-ZZ-D-C-003

Rev.
-

-DRAINAGE STRATEGY-

90.000 CONTOUR (WITH LEVEL)

EXISTING BUILDING CATCHMENT

PROPOSED GARAGE CATCHMENT

PROPOSED SURFACE WATER DRAIN

PROPOSED SURFACE WATER INSPECTION CHAMBER

PROPOSED SOAKAWAY

Soakaway designed subject to ground investigation and infiltration testing. Assumed rate of $1x10^{-5}$ utilised for preliminary design purposes.

10.50m x 1.00m x 0.400m (Base Level: 87.000) Designed in Accordance with Building Regulations, Approved Document H (H3, 3.2.7).

Soakaways to be located at least 10.00m away from buildings in CHALK ground.

Existing roof catchment unchanged. Existing drainage methods will continue to be utilised.

Architect to consider patio drainage requirements as part of detailed design.

Proposed garage catchment 22m².

Existing driveway to continue to drain as existing.

Rosebery Road

26

22

32

Tree Details

NOTES

A3

1. This drawing is to be read in conjunction with all other BP 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.
2. BP Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. 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.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. BP Civils logos and company information must be removed from copies if information is re-used.
7. Where used, this map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of His Majesty's Stationary Office (c) Crown Copyright. Licence number: 100022432. BP Civils accept no liability for any inaccuracies with the data.

Rev.	Date	Amendments
-	29/01/2024	Original Issue

BP CIVILS

Infrastructure Design and Transport Planning Consultants
2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF
Tel: 0333 358 3260
www.bpcivils.co.uk enquiries@bpcivils.co.uk

Drawing Status: PLANNING
NOT FOR CONSTRUCTION

Client: Mr & Mrs J Phare

Project: 30 Rosebery Road, New Alresford, Winchester SO24 9HQ

Drawing Title: Proposed Surface Water Drainage Strategy

Scale at A3	Date	Drawn By	Checked By	Project No.
1:250	Jan. '24	SPB	LDF	D2234

Drawing No.: 000-BPC-WD-ZZ-D-C-004

Rev.: -

APPENDICES

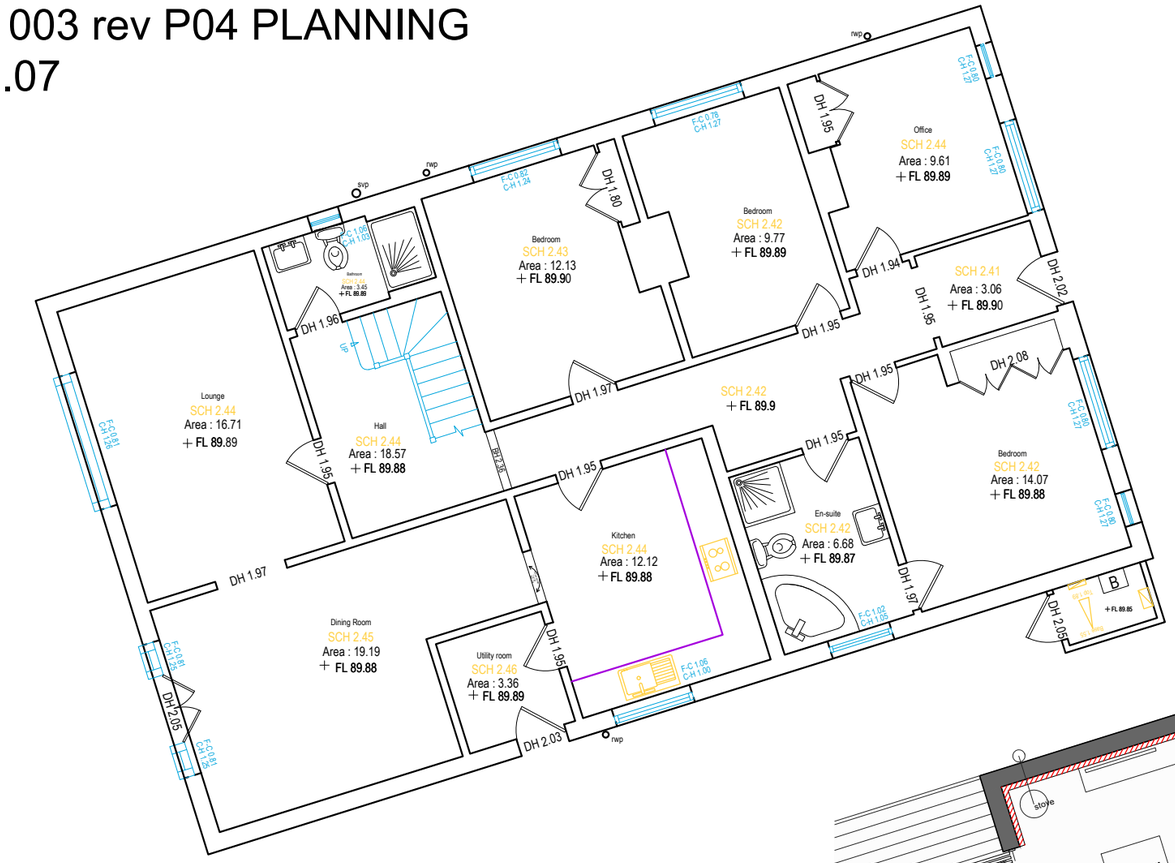
APPENDIX A – Development Proposals

30 Rosebery Road, New Alresford
site plan
1:200 at A3

drawing 002 rev P03 PLANNING
2024.01.07

30 Rosebery Road, New Alresford
floor plans - ground floor
1:200 at A3

drawing 003 rev P04 PLANNING
2024.01.07



existing ground floor

proposed ground floor

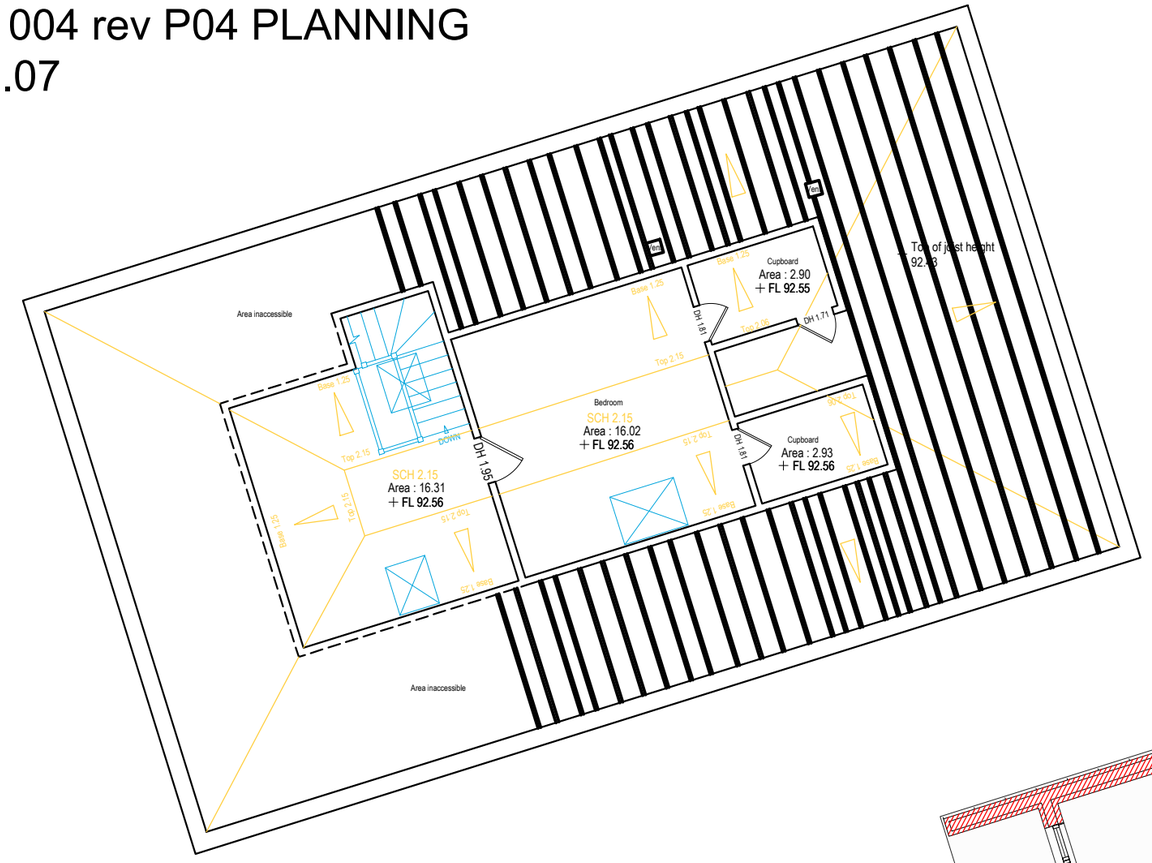
Plans 1:100 @ A3

1 0 1 2 3 4 5 6 7 8 9m

1:100

30 Rosebery Road, New Alresford
floor plans - first floor
1:200 at A3

drawing 004 rev P04 PLANNING
2024.01.07



existing first floor

proposed first floor

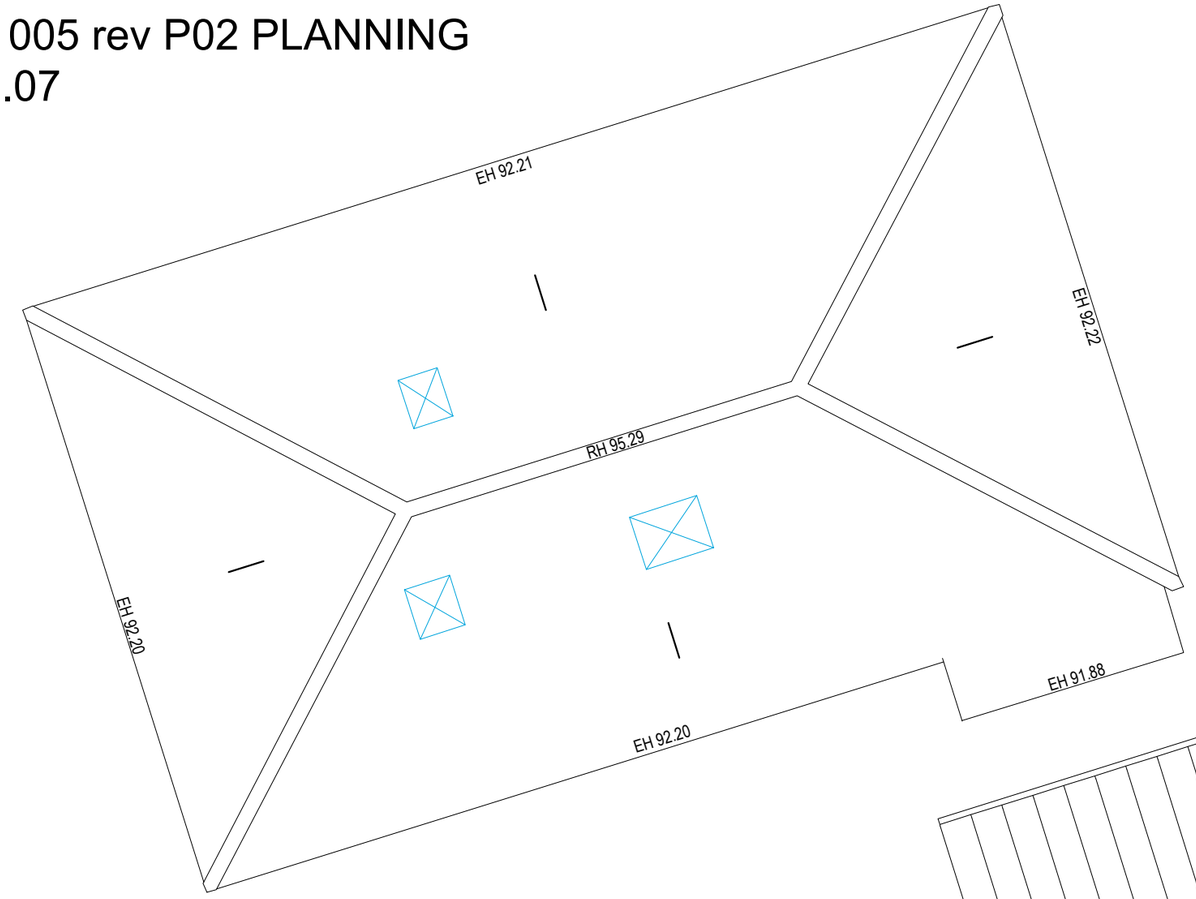
Plans 1:100 @ A3

1 0 1 2 3 4 5 6 7 8 9m

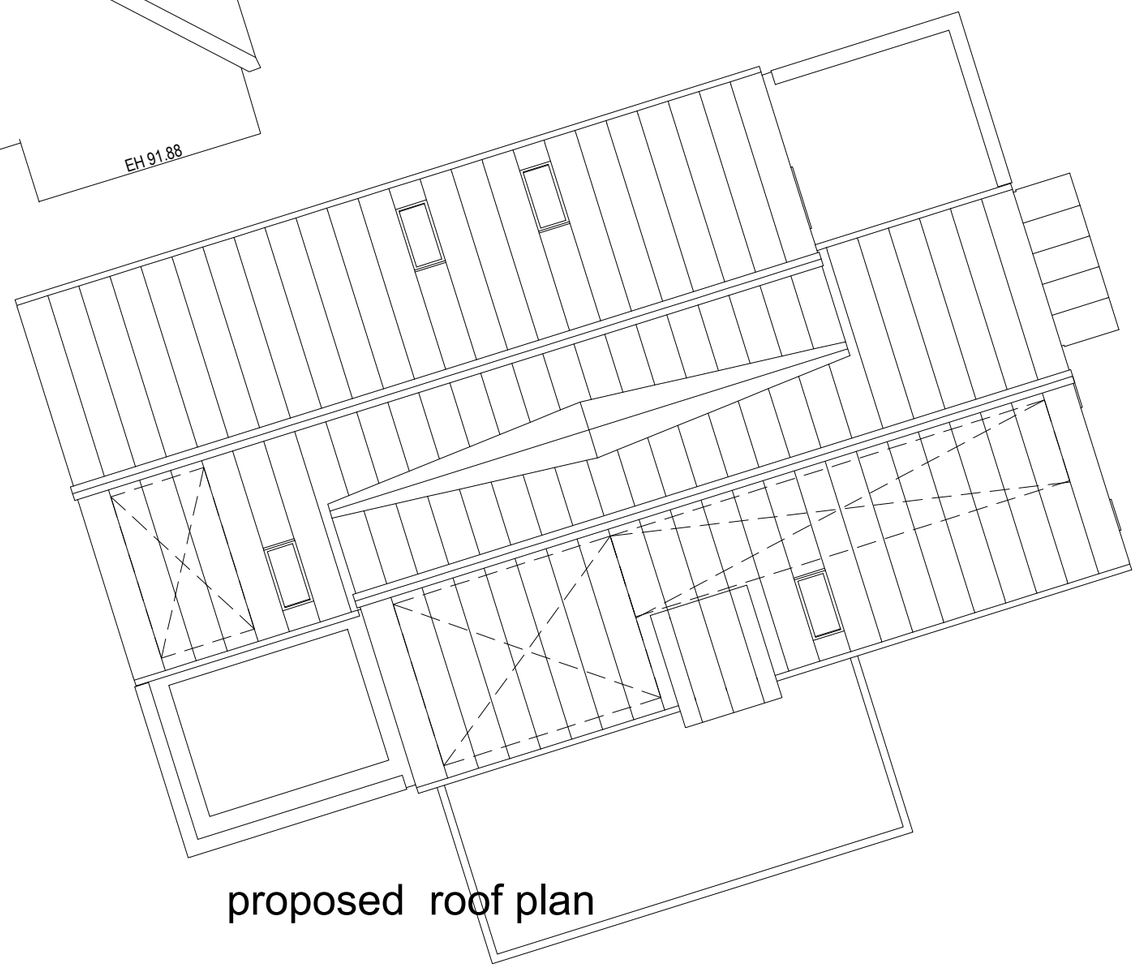
1:100

30 Rosebery Road, New Alresford
floor plans - roof plan
1:200 at A3

drawing 005 rev P02 PLANNING
2024.01.07



existing roof plan



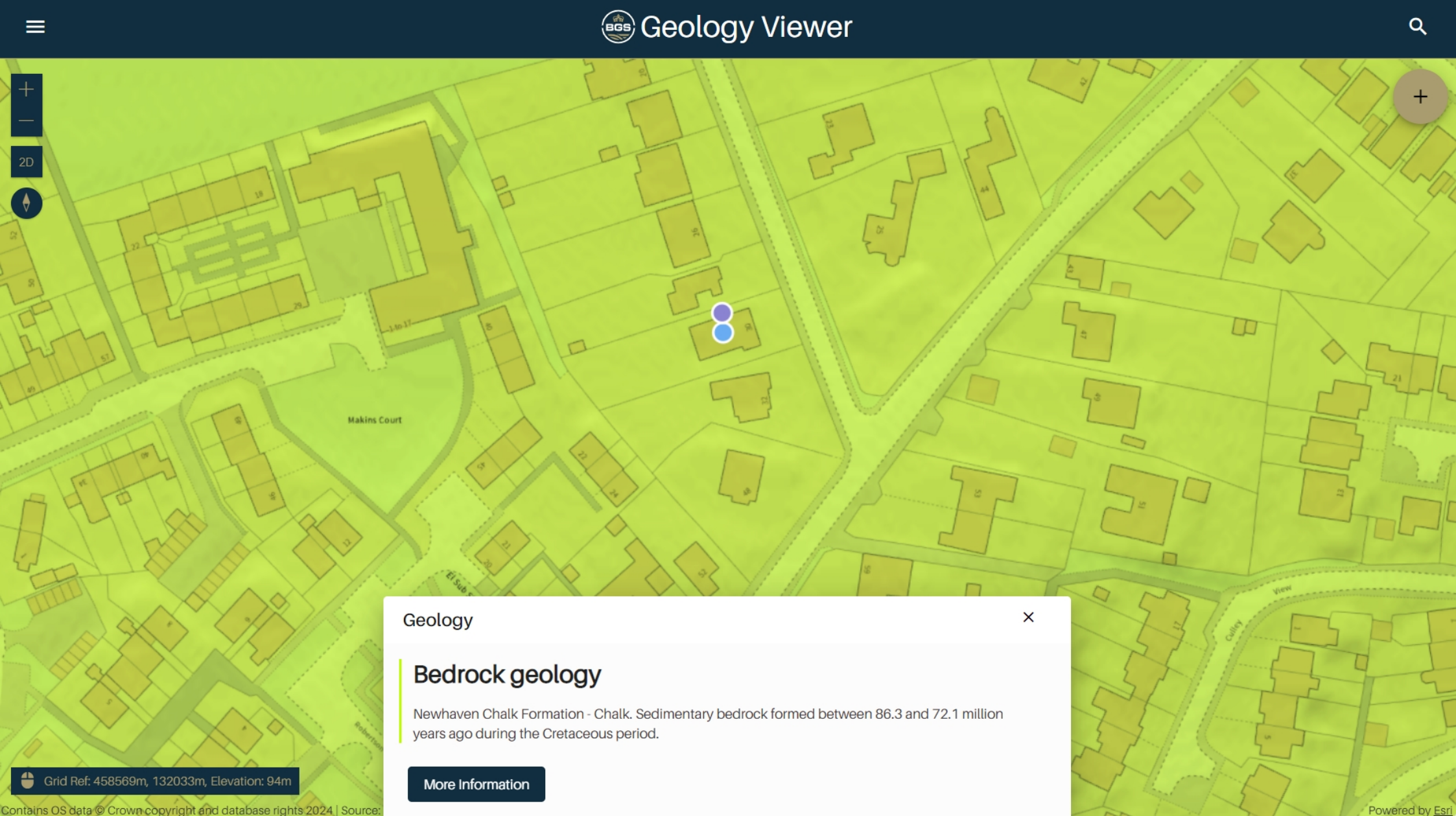
proposed roof plan

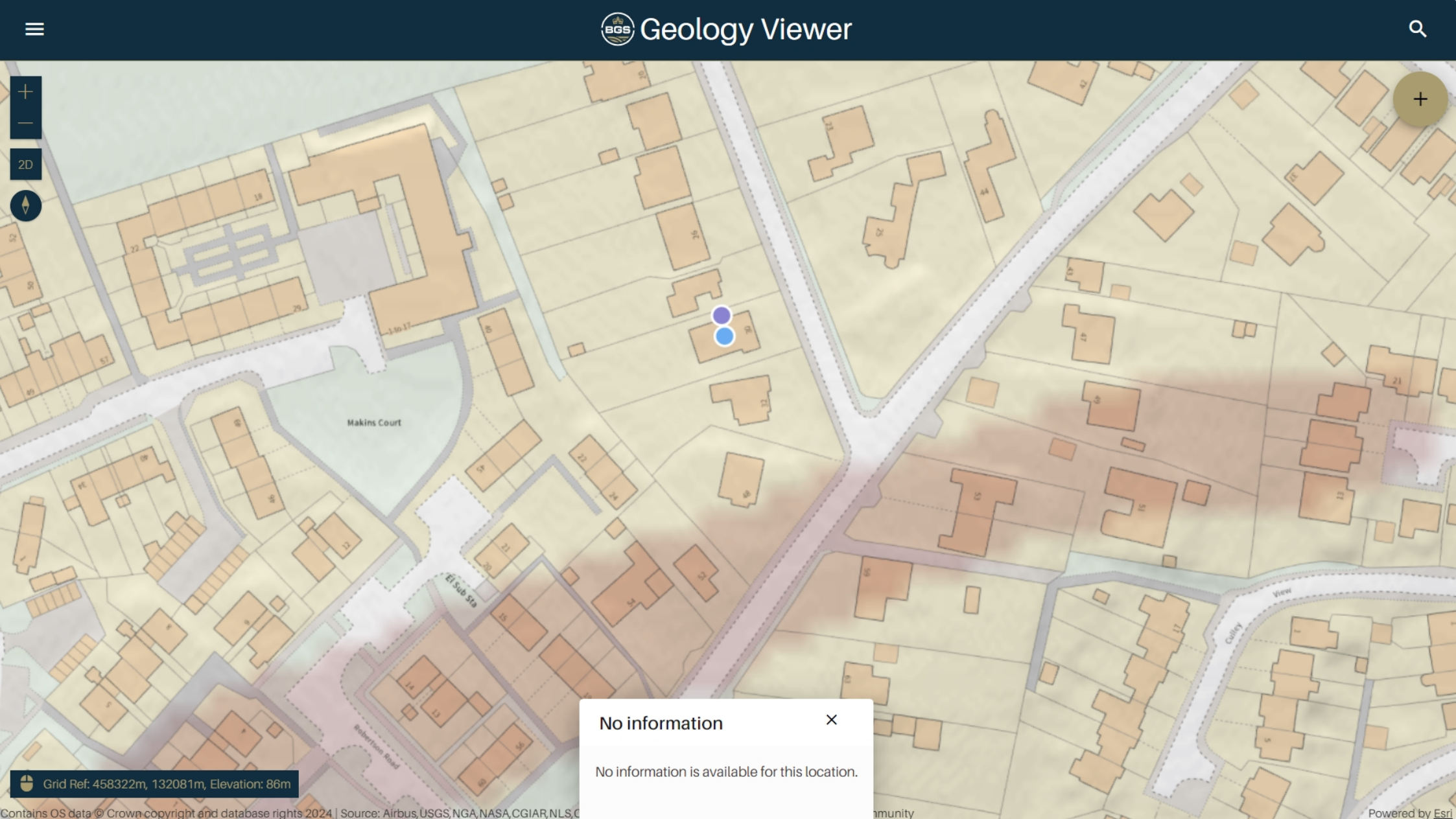
Plans 1:100 @ A3

1 0 1 2 3 4 5 6 7 8 9m

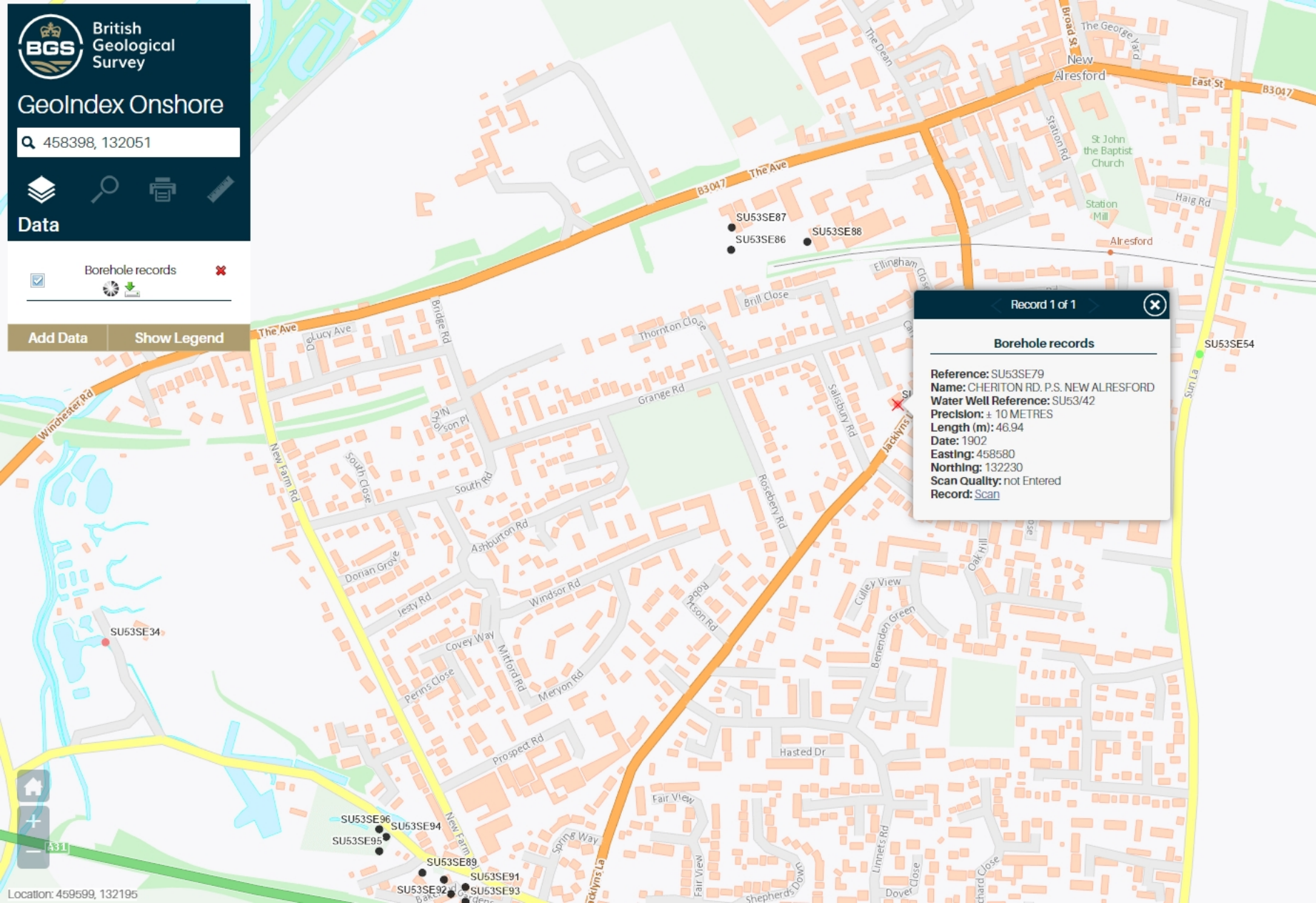
1:100

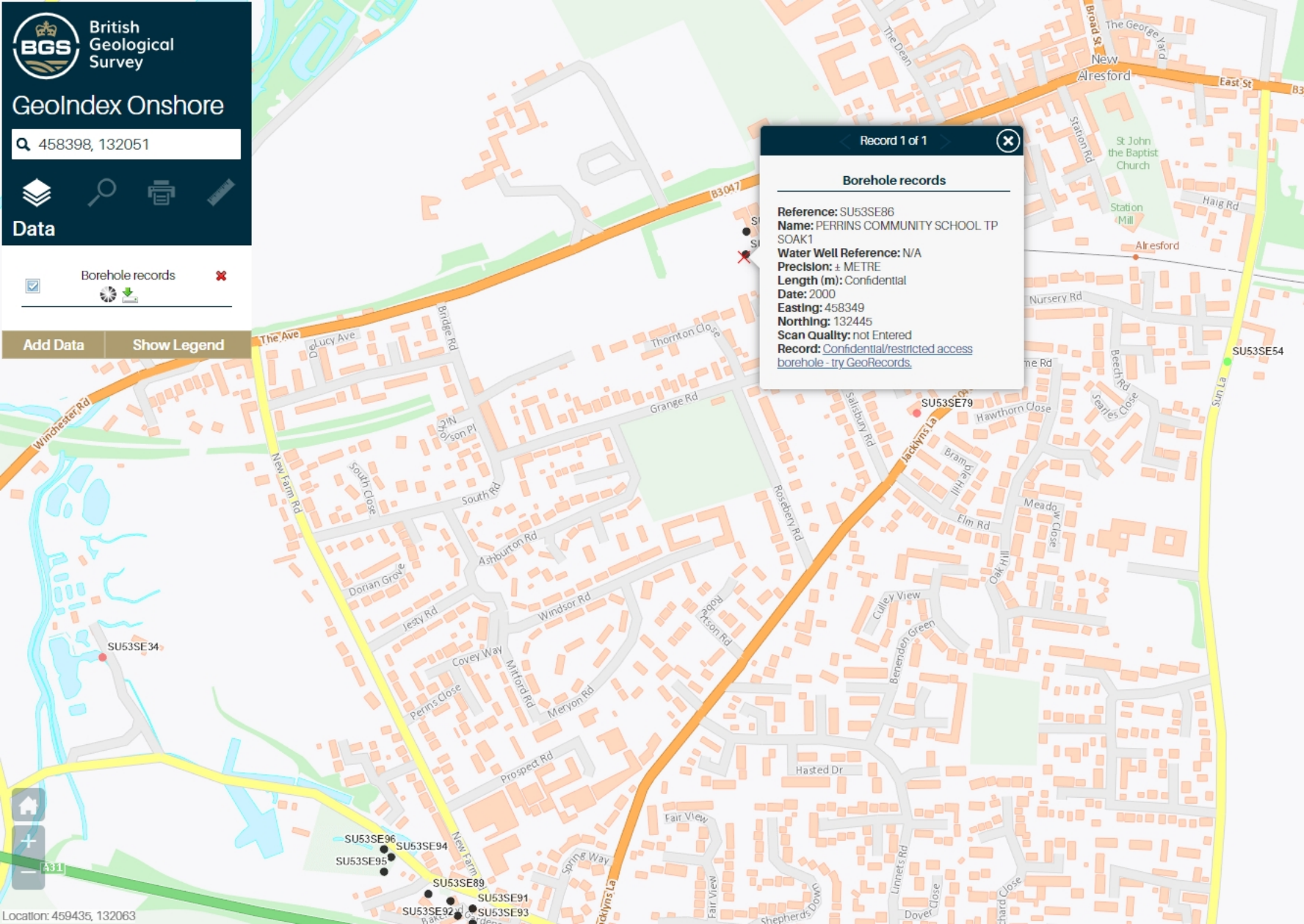
APPENDIX B – BGS Maps


Geology Viewer
2D
Makins Court
Geology
Bedrock geology
Newhaven Chalk Formation - Chalk. Sedimentary bedrock formed between 86.3 and 72.1 million years ago during the Cretaceous period.
More Information
Grid Ref: 458569m, 132033m, Elevation: 94m
Contains OS data © Crown copyright and database rights 2024 | Source:
Powered by Esri


Geology Viewer
2D
Makins Court
El Sub Sta
Robertson Road
Culley
View
No information
No information is available for this location.
Grid Ref: 458322m, 132081m, Elevation: 86m
Contains OS data © Crown copyright and database rights 2024 | Source: Airbus, USGS, NGA, NASA, CGIAR, NLS, C
mmunity
Powered by Esri

APPENDIX C – BGS Borehole Records


British Geological Survey
GeoIndex Onshore
458398, 132051
Data
Borehole records
Add Data
Show Legend
Record 1 of 1
Borehole records
Reference: SU53SE79
Name: CHERITON RD. P.S. NEW ALRESFORD
Water Well Reference: SU53/42
Precision: ± 10 METRES
Length (m): 46.94
Date: 1902
Easting: 458580
Northing: 132230
Scan Quality: not Entered
Record: Scan
SU53SE87
SU53SE86
SU53SE88
SU53SE54
SU53SE34
SU53SE96
SU53SE94
SU53SE95
SU53SE89
SU53SE91
SU53SE92
SU53SE93
The Ave
B3047
East St
New Alresford
Alresford
Windsor Rd
Grange Rd
South Rd
Ashburton Rd
Prospect Rd
Hasted Dr
Fair View
Location: 459599, 132195


British Geological Survey
GeoIndex Onshore
458398, 132051
Data
Borehole records
Add Data
Show Legend
Record 1 of 1
Borehole records
Reference: SU53SE86
Name: PERRINS COMMUNITY SCHOOL TP SOAK1
Water Well Reference: N/A
Precision: ± METRE
Length (m): Confidential
Date: 2000
Easting: 458349
Northing: 132445
Scan Quality: not Entered
Record: Confidential/restricted access borehole - try GeoRecords.
SU53SE79
SU53SE54
SU53SE34
SU53SE96
SU53SE94
SU53SE95
SU53SE89
SU53SE91
SU53SE92
SU53SE93
B3047
A31
Location: 459435, 132063

NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET SU53SE

BH REGISTRATION NUMBER 71-81

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

300/110 Winchester R.D.C., Pumping Station, Cheriton Road, New Alresford.

SU53/42

(Filled in)

Surface +314. Shaft 110; rest bore 18 in. Water struck at +307.

R.W.L. +307. c. 1902.

Suction +204. Recovered to R.W.L. in 5 min. Yield 3,500 g.p.h; 8 h.p.d.

Hardness: P. 45, T. 195. 1935. Yield 3,500 g.p.h., 10 h.p.d. Apr. 1941.

R.W.L. +206. P.W.L. +197. Yield 10,000 g.p.h. Oct. 1950. R.W.L. +203.

P.W.L. +197. Yield 3,333 g.p.h. Mar. 1953.

UCk	...	...	154	154

Estimated

No details known.

pp. C.P. Thomas

9-1-69.

W.P.87.

SU53/42

300/110

Inland Water Survey for Great Britain.

Name or Description of Authority or Undertaking ALRESFORD WATER COMPANY, LTD.

Postal Address East Street, Alresford, Hants

Alresford RDC from 1953. Parish: New Alresford

now disused. WG correspondence REA Hants 42 NW/W

(A) OVER-GROUND WATER. SU 5858 3223

(I) (*a*) Do you take systematic records of levels of water in :—

(1) rivers ... ...

(2) streams ... ...

(3) reservoirs ... ...

(4) lakes ... ...

(5) canals or navigable rivers ... ...

(*b*) If so, please give a short description of the method used.

(*c*) How often are the readings taken?

U Ck - 154 feet. O.P.T. 9/1/69.

(*d*) Exact points at which the records are taken. (A map or sketch would be helpful.)

42

Hants/N.W.(W).

Station by Mr. R.V. Hewett of the Alresford Water Co.

Details as enclosed, except that pumping is now for about 10 hours daily

A.S.B. 7.4.71

(*e*) Have the levels been related to Ordnance Datum Level or to some other standard (in the latter case please specify standard)?

(*f*) Are all the levels (*e.g.*, highest and lowest) covered satisfactorily by the records taken?

(*g*) Are arrangements made for extra readings during rise and fall of floods, etc.?

WG letter 31 May 1954

Winchester R.D.C. Taken over Oct. 1952

Now Disused. SWS 14/7/54

(II) What types of systematic records of discharge other than records of levels are kept as regards :—

(1) rivers ... ... No trace of ..... presumably

Pumping station demolished

(2) streams ... ... & well presumably filled in.

Visited RCD.

(3) reservoirs 4-9-62

(4) lakes WG/300/VAM

Winchester R.D.C. say well filled in.

(5) canals or navigable waterways ... ... 10.12.65.

Form K268 (7/3/35) (921) Wt. 12798/8631 5M 6/35 S.E.R. Ltd. Gp. 662.

(III) (*a*) Have measurements been made from which the data for levels can be converted to records of discharge of :—

(1) rivers and streams ... ...

(2) reservoirs ... ...

(3) lakes ... ...

(4) canals or navigable waterways ... ...

(*b*) If so, how have these measurements been made (*e.g.*, by current meters, velocities of floats, surveys of sections, calibration of weirs, records of water used for locking, etc.)?

(IV) (*a*) Are records kept in the case of springs breaking overground of the amount of water yielded?

(*b*) If so, what form of recording is used?

(*c*) How often are readings taken?

(*d*) Exact location of the spring. (A map or sketch would be helpful.)

(V) Since when have the records under I, II, III and IV been kept?

(VI) Are past records available?

(VII) Remarks.

(Please indicate here any further information or particulars which may be thought likely to assist in the survey.)

300 SU53/42
110

(B) UNDERGROUND WATER—(WELLS AND BORINGS).

(In each case please state whether a well and/or boring is in question.)

I. GENERAL.

1. Exact site of well or boring ... ... Cheriton Road and Grange Road, New Alresford, Hants
(A map or sketch showing position would be useful.)

2. Surface level of ground above Ordnance Datum ... ... 314,15 ft.

3. Date of construction ... ... About 1902

WELLS.

4. Depth of well from surface level of ground (*i.e.*, 2 above). If top of well is below the surface level of the ground (*i.e.*, 2 above) state how much ... ... 110 ft.

5. Depth of floor of galleries at site of well: also dimension and direction of galleries ... ... No galleries Only boring ft.

BORINGS.

6. Depth of boring from surface level of ground (*i.e.*, 2 above). If boring is in bottom of well, state depth of well ... ... Well 110 ft.
Boring 44 "
154 feet

7. (*a*) Diameter of top of boring ... ... 18 in.

(*b*) Diameter of bottom of boring... ... ... 18 in.

8. Tubed from top of boring to ... ... No tubing Solid chalk ft.

9. Lining tubes perforated at depths of ... ... -------- ft.

10. Water struck during boring at depths of ... ... Before boring 7 ft.

11. What was rest level on completion of boring? ... ... 7 ft.

WELLS AND BORINGS.

12. Is the water raised by pump or air lift? ... ... Pump

13. Depth from top of well or boring to bottom of suction pipe ... 110 ft.

3

II. If systematic measurements of water levels are made, state whether these include :—

(a) Pumping levels ..... Yes ..... (b) Rest levels ... Yes .....

(c) Time of recovery to rest level on cessation of pumping ... ... Five minutes.....

(d) Changes in pumping level, if rate of pumping is altered. ... ... No changes .....

Also state : (e) at what intervals records are taken (*i.e.*, daily, weekly, etc.) ... ... Weekly .....

Please furnish a specimen graph of records taken over as long a period as available (up to 1 year). Very little variation. Averaging from 6 to 10 feet according to season.

III. If measurements are made only occasionally, please indicate what is, or has been, done in this respect and furnish examples of any graphs or figures available.

IV. YIELDS.

(1) Number of gallons pumped per hour ... ... 3500 .....

(2) Is pumping continuous? ... ... No. .....

(3) If not, how many hours pumping per day? ... ... 8 hours ..... 10 hours per day. 7.4.41

(4) Maximum daily yields available ... ... As many hours pumping as required

Estimated ... ...

Based on actual tests .....

V. If a section or record of strata can be given please attach to this form.

VI. (1) If a chemical analysis can be given please attach.

(2) If not state hardness ... ... 19.5 temp. 4.5 perm.

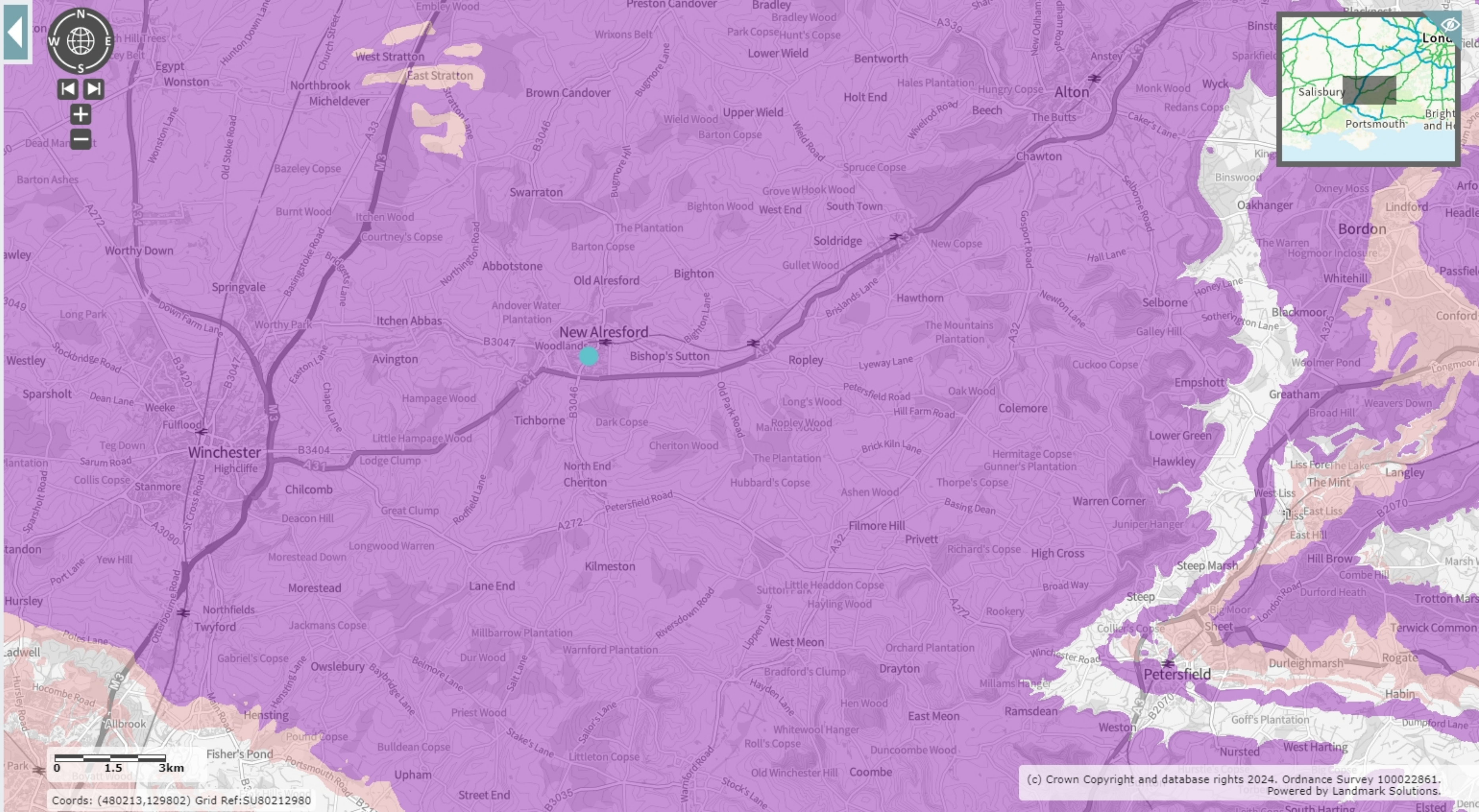
(3) For what purpose is the water used? ... ... Domestic generally. Trade slightly.

Data Bank

APPENDIX D – MAGIC Maps

Table of Contents

- Habitats and Species
- Land Based Schemes
- Landscape
  - Geology and Soils
    - Aquifer Designation Map (Bedrock) (England)
      - Principal
      - Secondary A
      - Secondary B
      - Secondary (undifferentiated)
      - Unproductive
    - Aquifer Designation Map (Superficial Drift) (England)
    - Groundwater Vulnerability Map (England)
    - Geological Places to Visit (England)
    - Geological Descriptions (England)
    - Soilscape (England)
  - Landscape Classifications
- Marine
- Aerial Photography
- Background Mapping
- Base Map
- OS Black and White Mapping
- OS Colour Mapping



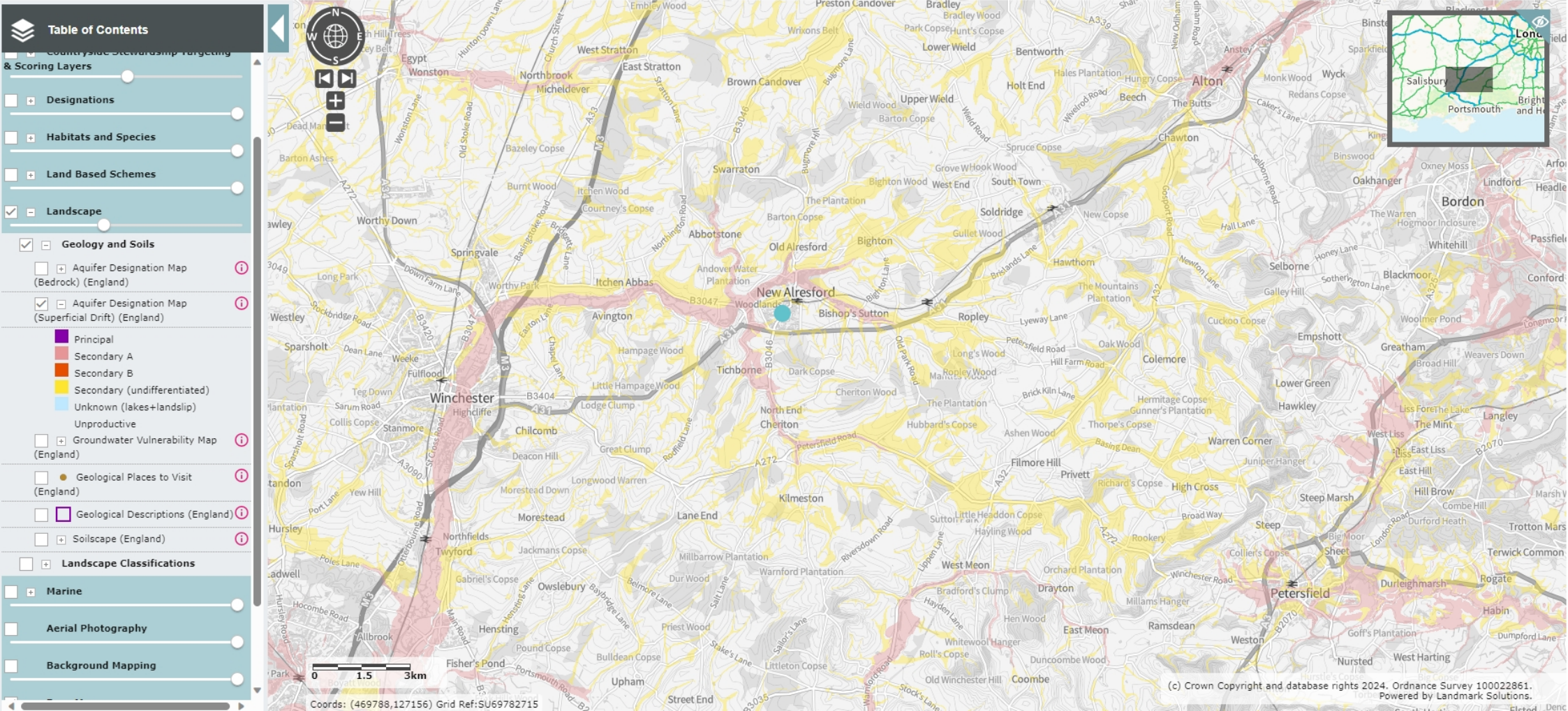


Table of Contents
& Scoring Layers
Designations
Habitats and Species
Land Based Schemes
Landscape
Geology and Soils
Aquifer Designation Map (Bedrock) (England)
Aquifer Designation Map (Superficial Drift) (England)
Principal
Secondary A
Secondary B
Secondary (undifferentiated)
Unknown (lakes+landslip)
Unproductive
Groundwater Vulnerability Map (England)
Geological Places to Visit (England)
Geological Descriptions (England)
Soilscape (England)
Landscape Classifications
Marine
Aerial Photography
Background Mapping
New Alresford
Winchester
Alton
Petersfield
Bordon
Salisbury
Portsmouth
0 1.5 3km
Coords: (469788,127156) Grid Ref:SU69782715
(c) Crown Copyright and database rights 2024. Ordnance Survey 100022861.
Powered by Landmark Solutions.

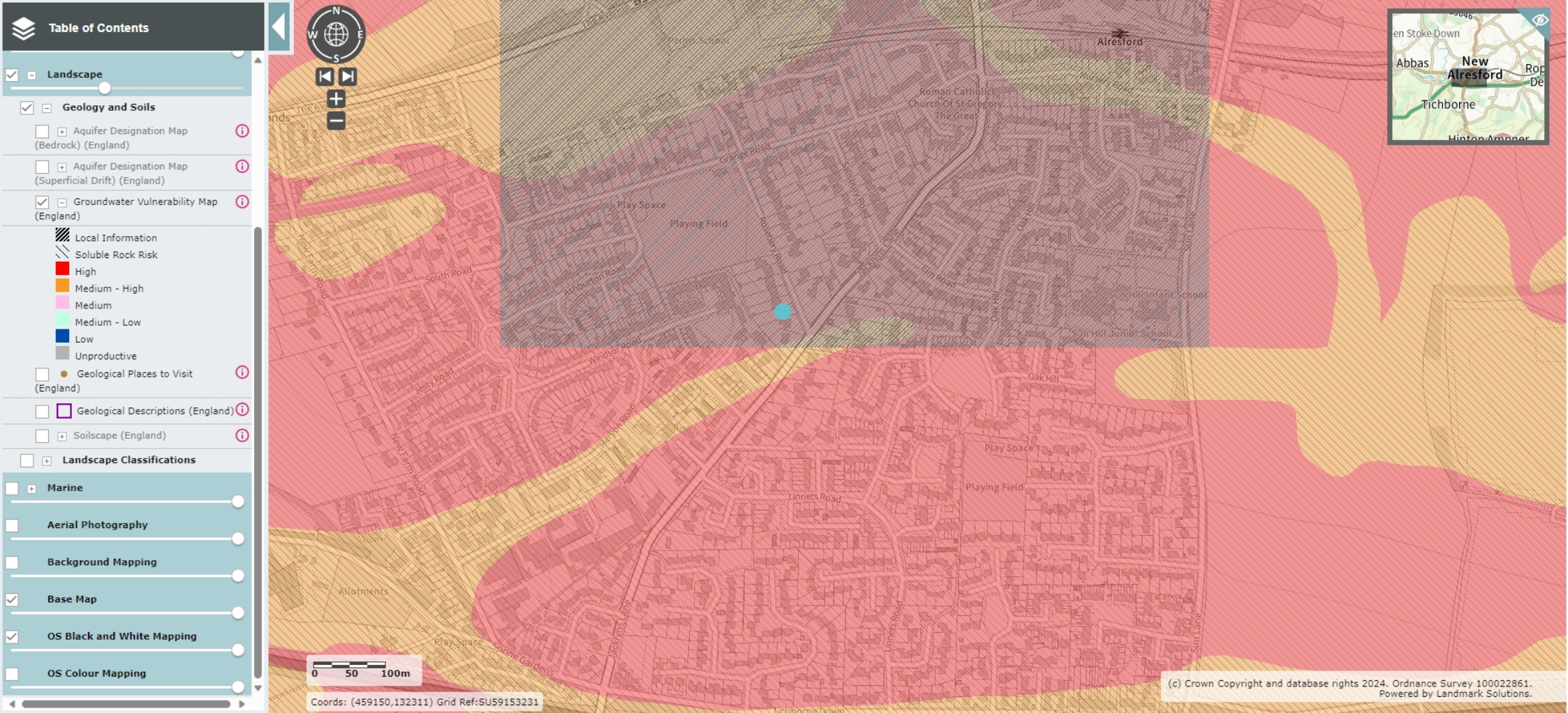


Table of Contents
Landscape
Geology and Soils
Aquifer Designation Map (Bedrock) (England)
Aquifer Designation Map (Superficial Drift) (England)
Groundwater Vulnerability Map (England)
Local Information
Soluble Rock Risk
High
Medium - High
Medium
Medium - Low
Low
Unproductive
Geological Places to Visit (England)
Geological Descriptions (England)
Soilscape (England)
Landscape Classifications
Marine
Aerial Photography
Background Mapping
Base Map
OS Black and White Mapping
OS Colour Mapping
Alresford
New Alresford
Tichborne
Abbas
Roman Catholic Church Of St Gregory The Great
Play Space
Playing Field
Granes Road
Salisbury Road
Rookery Road
Ashburton Road
Jacklyns Lane
Elm Road
Oak Hill
Sun Lane
Sun Hill Infant School
Sun Hill Junior School
Windsor Road
South Road
New Farm Road
Jesty Road
Linnets Road
Allotments
Spring Gardens
0 50 100m
Coords: (459150,132311) Grid Ref:SU59153231
(c) Crown Copyright and database rights 2024. Ordnance Survey 100022861.
Powered by Landmark Solutions.

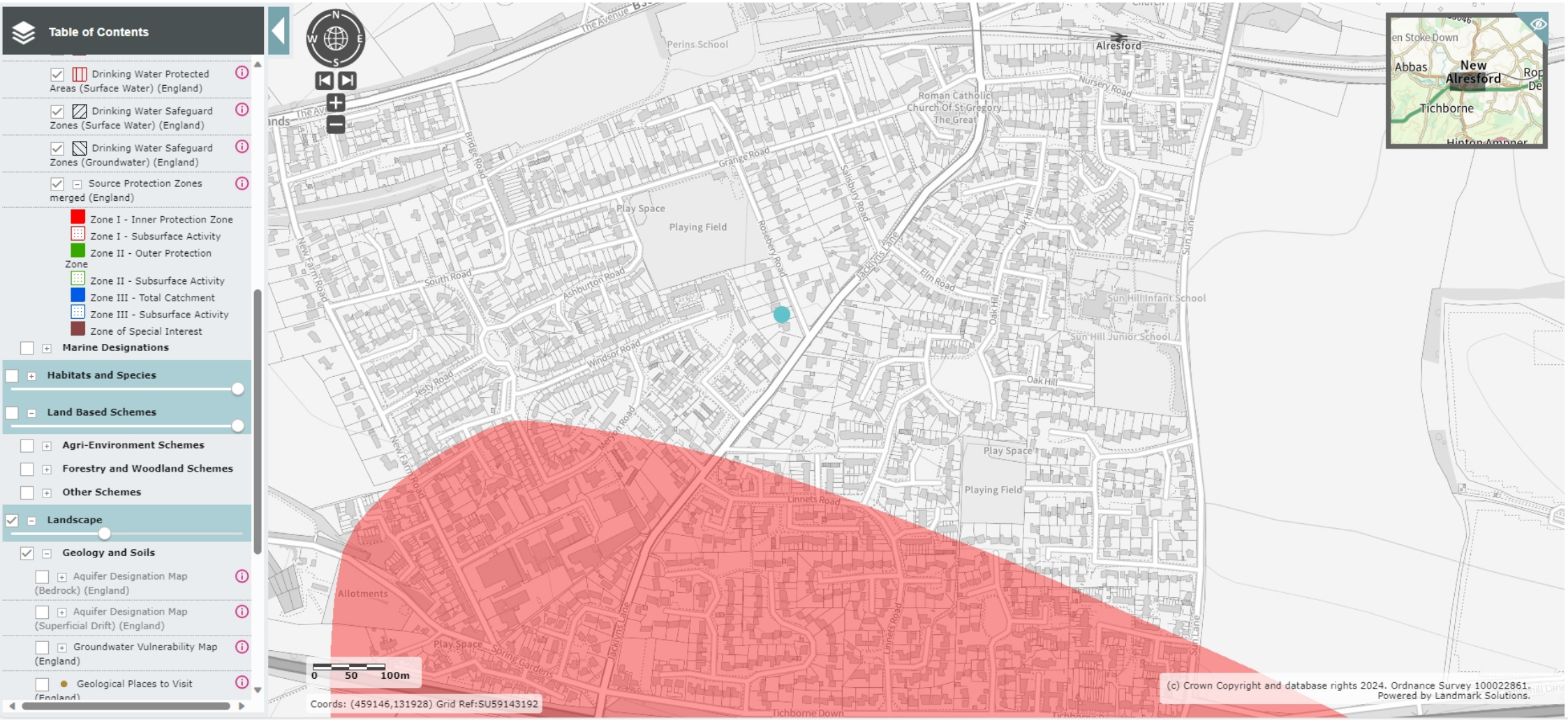


Table of Contents
Drinking Water Protected Areas (Surface Water) (England)
Drinking Water Safeguard Zones (Surface Water) (England)
Drinking Water Safeguard Zones (Groundwater) (England)
Source Protection Zones merged (England)
Zone I - Inner Protection Zone
Zone I - Subsurface Activity
Zone II - Outer Protection Zone
Zone II - Subsurface Activity
Zone III - Total Catchment
Zone III - Subsurface Activity
Zone of Special Interest
Marine Designations
Habitats and Species
Land Based Schemes
Agri-Environment Schemes
Forestry and Woodland Schemes
Other Schemes
Landscape
Geology and Soils
Aquifer Designation Map (Bedrock) (England)
Aquifer Designation Map (Superficial Drift) (England)
Groundwater Vulnerability Map (England)
Geological Places to Visit (England)
Perins School
Alresford
Roman Catholic Church Of St Gregory The Great
Nursery Road
Bridge Road
Grange Road
Play Space
Playing Field
Salisbury Road
Jackyns Lane
Oak Hill
Elm Road
Sun Lane
Sun Hill Infant School
Sun Hill Junior School
Rosebery Road
New Farm Road
South Road
Ashburton Road
Windsor Road
Jesty Road
Linnets Road
Allotments
Play Space
Spring Gardens
Tichborne Down
New Alresford
Abbas
Tichborne
0 50 100m
Coords: (459146,131928) Grid Ref:SU59143192
(c) Crown Copyright and database rights 2024. Ordnance Survey 100022861.
Powered by Landmark Solutions.

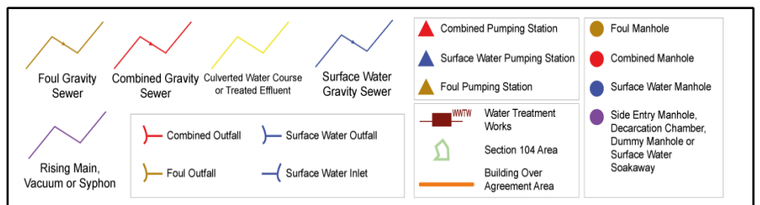
APPENDIX E – Public Sewer Records

(c) Crown copyright and database rights 2024 Ordnance Survey 100031673 | Date: 29/01/24 | Scale: 1:1250 | Map Centre: 458398,132051 | Data updated: 21/11/23 | Our Ref: 1380432 - 1 | Wastewater Plan A3

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2024 Ordnance Survey 100031673 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.



searches@bpcivils.co.uk

30 Rosebery Road

WATER for LIFE from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
1002	F	82.23	0.00	
1004	F	0.00	0.00	
1005	F	0.62	0.00	
1006	F	0.00	0.00	
1007	F	0.00	0.00	
1103	F	0.00	0.00	
1107	F	0.00	0.00	
1108	F	0.00	0.00	
1109	F	0.00	0.00	
1110	F	0.00	0.00	
1111	F	0.00	0.00	
1112	F	0.00	0.00	
1113	F	0.00	0.00	
1114	F	0.00	0.00	
1901	F	80.55	79.13	
1903	F	79.90	78.50	
1904	F	81.44	80.19	
2001	F	0.00	0.00	
2002	F	84.94	82.66	
2003	F	82.94	81.36	
2004	F	0.00	0.00	
2901	F	79.08	76.62	
2902	F	81.13	79.31	
2903	F	79.65	77.40	
2906	F	78.60	75.87	
2907	F	0.00	0.00	
2909	F	0.00	0.00	
2910	F	0.00	0.00	
2911	F	0.00	0.00	
3001	F	0.00	0.00	
3002	F	0.00	0.00	
3003	F	0.00	0.00	
3004	F	0.00	0.00	
3005	F	0.00	0.00	
3101	F	92.47	90.67	
3903	F	85.57	83.66	
3904	F	83.75	80.92	
3905	F	83.30	80.78	
3906	F	81.68	80.75	
3907	F	0.00	0.00	
4001	F	87.23	85.01	
4002	F	87.37	85.14	
4003	F	91.95	90.06	
4004	F	92.07	90.04	
4005	F	91.64	89.80	
4901	F	86.35	84.32	
4902	F	85.96	84.38	
4903	F	85.96	83.67	
4904	F	89.30	87.74	
4905	F	89.30	87.80	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
5001	F	93.65	91.13	
5002	F	94.62	92.30	
5101	F	95.61	93.87	
5102	F	95.90	93.80	
5103	F	95.95	94.12	
5104	F	96.05	94.08	
5901	F	98.12	0.00	
5902	F	94.47	0.00	
6001	F	97.09	95.14	
6101	F	96.92	95.22	
6103	F	97.04	96.34	
6104	F	0.00	0.00	
6105	F	0.00	0.00	
6902	F	98.19	96.62	
6903	F	101.35	99.85	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

APPENDIX F – Wallingford Greenfield Run-off Calculations

Greenfield runoff rate estimation for sites

www.uksuds.com | Greenfield runoff tool

Calculated by:	Stuart Burnett
Site name:	30 Rosebery Road
Site location:	

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013) , the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Site Details

Latitude:	51.08480° N
Longitude:	1.16764° W
Reference:	863370005
Date:	Jan 29 2024 12:15

Runoff estimation approach

IH124

Site characteristics

Total site area (ha): 0.1

Methodology

Q_{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Soil characteristics

	Default	Edited
SOIL type:	1	1
HOST class:	N/A	N/A
SPR/SPRHOST:	0.1	0.1

Hydrological characteristics

	Default	Edited
SAAR (mm):	825	825
Hydrological region:	7	7
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited

Q_{BAR} (l/s):	0.02	0.02
1 in 1 year (l/s):	0.02	0.02
1 in 30 years (l/s):	0.05	0.05
1 in 100 year (l/s):	0.06	0.06
1 in 200 years (l/s):	0.08	0.08

APPENDIX F – Causeway Flow Hydraulic Calculations

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.500
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	Cover Level (m)	Depth (m)
Garage Soakaway	0.002	88.000	1.000

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0
Summer CV	1.000	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	1.000	Drain Down Time (mins)	1440	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
2	45	10	0
10	0	0	0
10	45	10	0

Node Garage Soakaway Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00360	Invert Level (m)	87.000	Depth (m)	0.400
Side Inf Coefficient (m/hr)	0.00360	Time to half empty (mins)	4404	Inf Depth (m)	0.400
Safety Factor	2.0	Pit Width (m)	10.500	Number Required	1
Porosity	0.95	Pit Length (m)	1.000		

Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	Garage Soakaway	156	87.035	0.035	0.1	0.3518	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
240 minute winter	Garage Soakaway	Infiltration	0.0

Results for 2 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	Garage Soakaway	312	87.073	0.073	0.1	0.7354	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
480 minute winter	Garage Soakaway	Infiltration	0.0

Results for 10 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	Garage Soakaway	375	87.069	0.069	0.1	0.6891	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
600 minute winter	Garage Soakaway	Infiltration	0.0

Results for 10 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	Garage Soakaway	420	87.119	0.119	0.1	1.1937	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
600 minute winter	Garage Soakaway	Infiltration	0.0