

## Appendix E – Other Supporting Information

- E.1 Delta Simons Phase I Environmental Assessment (Report Ref: 15-0754.07)
- E.2 Baynham Meikle FRA & Outline Drainage Strategy (Report Ref:13023-R102-Rev 5.0)
- E.3 Borehole Logs – Applied Geology

# Langstone Park

## Masterplan

### Flood Risk Assessment & Outline Drainage Strategy Report

Project Ref: **13023**

Report Ref: **R102**

Rev 5.0

January 2023

Client

**XLB Property Ltd**

Baynham Meikle  
Partnership Limited



8 Meadow Road

Edgbaston

Birmingham

B17 8 BU

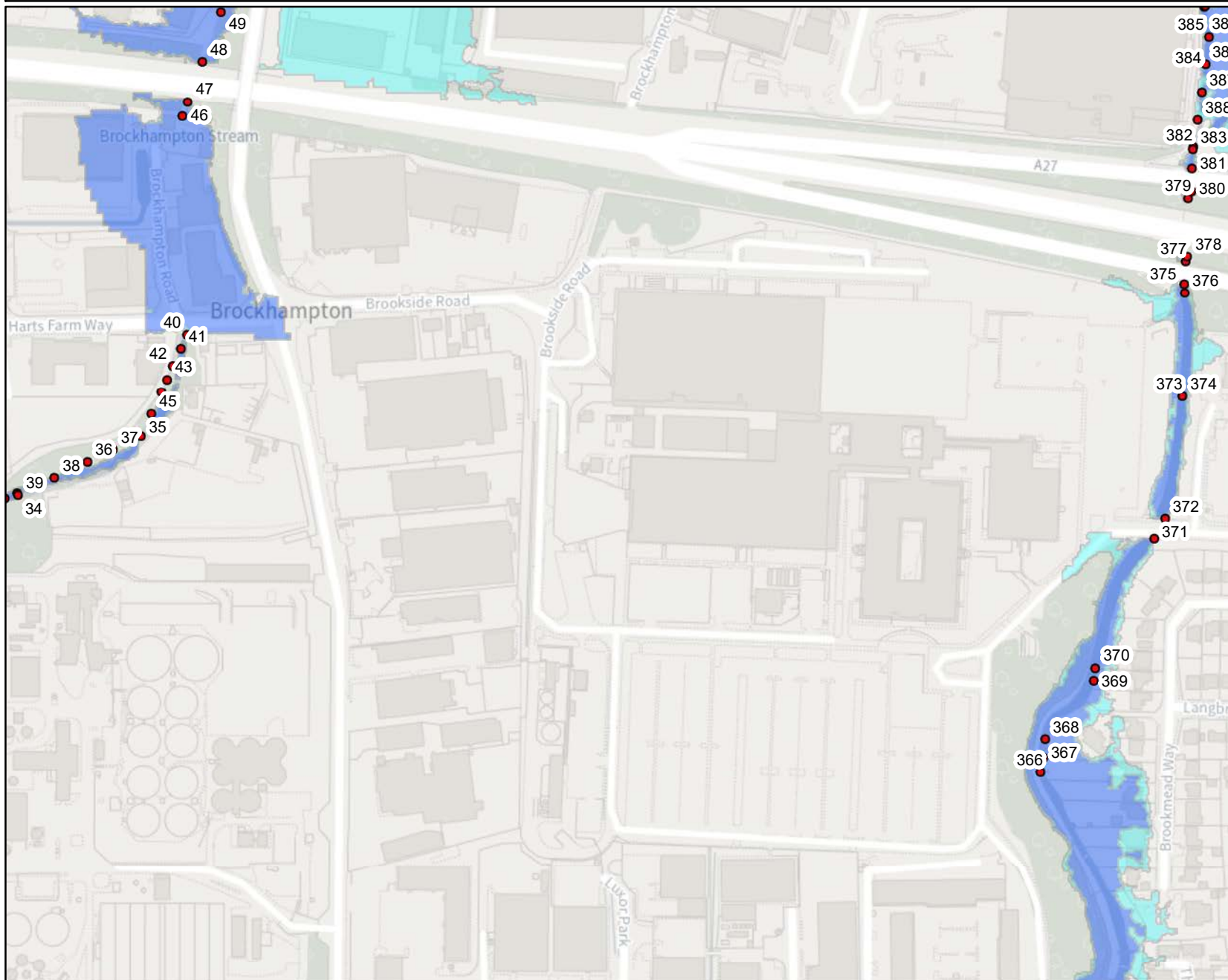
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## Appendix E – EA Updated River Levels and EA Coastal Design Sea Levels.

# Modelled 1D Flood Levels in mAOD Centred on Langstone Technology Park - Created 4 August 2022



## Legend

- Lavant & Hermitage 1D Levels
- Lavant & Hermitage 100Yr (Flood Zone 3)
- Lavant & Hermitage 1000Yr (Flood Zone 2)

## Flood Map Areas (assuming no defences)

### Flood Zone 3

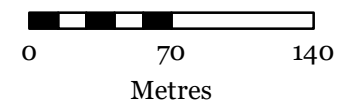
Shows the area that could be affected by flooding:  
- from the sea with an 1 in 200 or greater chance of happening each year.  
- or from a river with a 1 in 100 or greater chance of happening each year.

### Flood Zone 2

Shows the extent of an extreme flood from rivers of the sea with up to a 1 in 1000 chance of occurring each year.

1:3,730 \*

\*when printed at A4.



| ID  | EASTING | NORTHING | 100yr<br>Level | 100yr<br>Level No<br>Dam | 1000yr<br>Level | 1000yr<br>Level No<br>Dam |
|-----|---------|----------|----------------|--------------------------|-----------------|---------------------------|
| 31  | 470736  | 105719   | 2.799          | 1.784                    | 2.799           | 2.366                     |
| 32  | 470713  | 105706   | 2.8            | 1.784                    | 2.801           | 2.366                     |
| 33  | 470739  | 105721   | 2.826          | 1.784                    | 2.844           | 2.366                     |
| 34  | 470747  | 105724   | 2.832          | 1.784                    | 2.853           | 2.366                     |
| 35  | 470830  | 105762   | 3.328          | 1.79                     | 3.417           | 2.378                     |
| 36  | 470794  | 105745   | 3.276          | 1.785                    | 3.359           | 2.368                     |
| 37  | 470811  | 105753   | 3.302          | 1.787                    | 3.388           | 2.372                     |
| 38  | 470772  | 105735   | 3.232          | 1.784                    | 3.308           | 2.366                     |
| 39  | 470748  | 105723   | 3.154          | 1.784                    | 3.216           | 2.366                     |
| 40  | 470860  | 105830   | 3.532          | 1.798                    | 3.627           | 2.391                     |
| 41  | 470856  | 105821   | 3.496          | 1.796                    | 3.588           | 2.387                     |
| 42  | 470851  | 105809   | 3.447          | 1.792                    | 3.534           | 2.382                     |
| 43  | 470847  | 105800   | 3.406          | 1.792                    | 3.491           | 2.379                     |
| 44  | 470843  | 105792   | 3.37           | 1.792                    | 3.457           | 2.38                      |
| 45  | 470836  | 105777   | 3.338          | 1.792                    | 3.427           | 2.38                      |
| 46  | 470857  | 105975   | 4.667          | 1.755                    | 4.698           | 2.282                     |
| 47  | 470861  | 105984   | 4.669          | 1.783                    | 4.701           | 2.363                     |
| 48  | 470870  | 106011   | 4.848          | 1.783                    | 4.87            | 2.363                     |
| 49  | 470882  | 106044   | 4.852          | 1.782                    | 4.876           | 2.363                     |
| 366 | 471426  | 105539   | 4.704          | 5.195                    | 4.894           | 9.513                     |
| 367 | 471428  | 105549   | 4.715          | 5.194                    | 4.902           | 9.515                     |
| 368 | 471429  | 105561   | 4.722          | 5.194                    | 4.907           | 9.517                     |
| 369 | 471461  | 105600   | 4.766          | 5.192                    | 4.967           | 9.522                     |
| 370 | 471462  | 105609   | 4.768          | 5.192                    | 4.972           | 9.522                     |
| 371 | 471501  | 105694   | 4.88           | 5.191                    | 5.119           | 9.533                     |
| 372 | 471509  | 105708   | 4.947          | 5.19                     | 5.247           | 9.535                     |
| 373 | 471520  | 105789   | 5.112          | 4.837                    | 5.425           | 8.988                     |
| 374 | 471520  | 105789   | 5.112          | 5.221                    | 5.425           | 9.537                     |
| 375 | 471521  | 105863   | 5.333          | 4.885                    | 5.527           | 9.007                     |
| 376 | 471522  | 105857   | 5.308          | 4.882                    | 5.576           | 9.017                     |
| 377 | 471522  | 105879   | 5.421          | 4.885                    | 5.709           | 8.987                     |
| 378 | 471523  | 105882   | 5.439          | 4.884                    | 5.737           | 8.982                     |
| 379 | 471524  | 105920   | 5.522          | 4.853                    | 5.891           | 9.074                     |
| 380 | 471526  | 105925   | 5.526          | 4.867                    | 5.897           | 9.11                      |
| 381 | 471526  | 105940   | 5.603          | 5.024                    | 6.024           | 9.388                     |
| 382 | 471527  | 105954   | 5.893          | 4.939                    | 6.386           | 9.113                     |
| 383 | 471527  | 105953   | 5.65           | 4.939                    | 6.034           | 9.113                     |
| 384 | 471538  | 106028   | 6.269          | 4.829                    | 6.539           | 8.951                     |
| 385 | 471538  | 106028   | 6.269          | 4.835                    | 6.539           | 8.963                     |
| 386 | 471536  | 106009   | 6.162          | 4.851                    | 6.517           | 9.141                     |
| 387 | 471533  | 105991   | 6.098          | 4.868                    | 6.504           | 9.567                     |
| 388 | 471530  | 105972   | 6.029          | 4.862                    | 6.487           | 11.814                    |

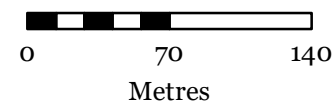
## Defences Centred on Langstone Technology Park - Created 4 August 2022



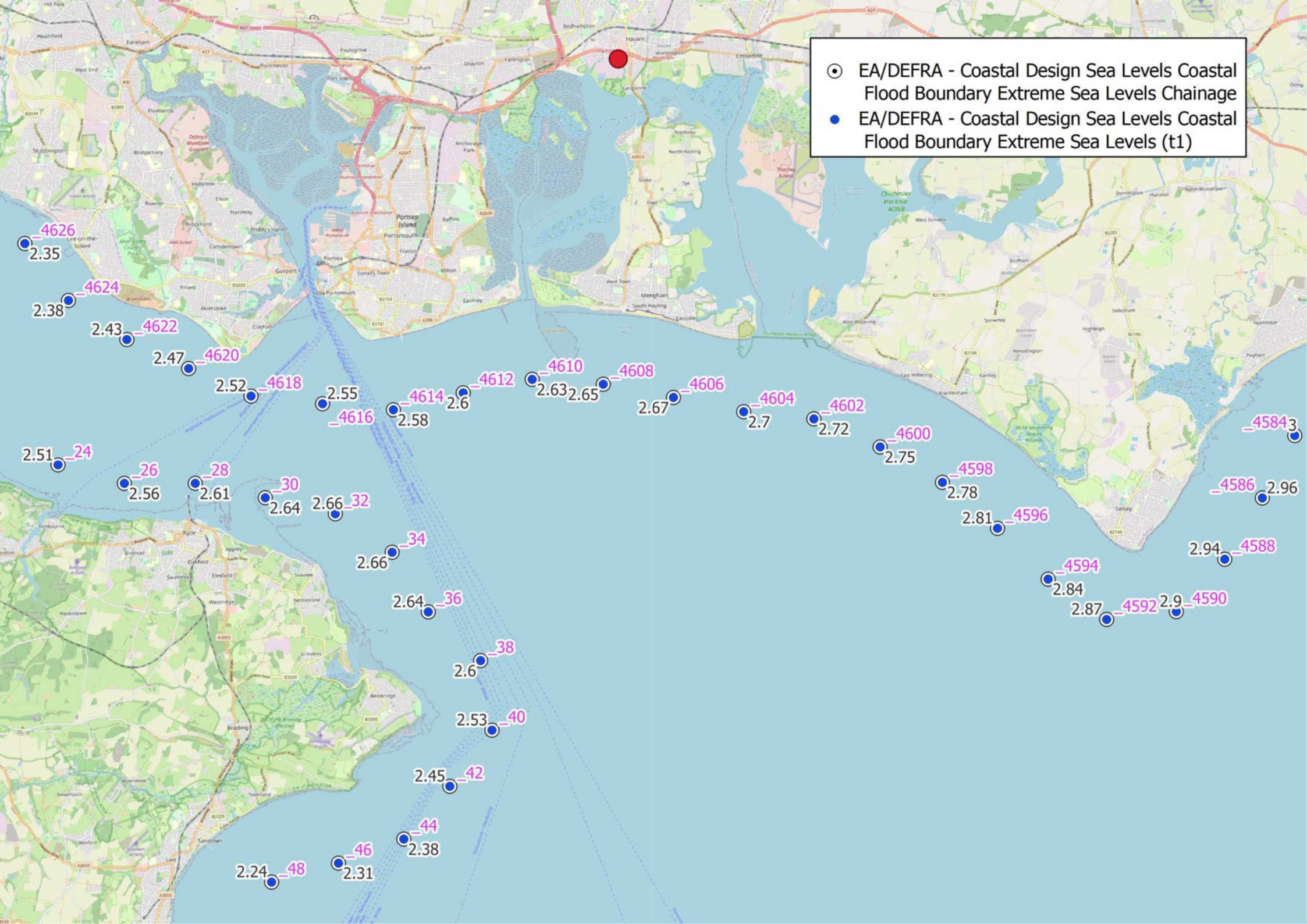
### Legend

| asset_id |       |       |
|----------|-------|-------|
|          | 22853 |       |
| 23400    |       | 22854 |
| 49555    |       | 23309 |
| 104218   |       | 23310 |
| 104219   |       | 23402 |
| 113661   |       | 49053 |
| 113663   |       | 49054 |
| 119545   |       | 49553 |
| 171803   |       | 49554 |
| 18839    |       | 49982 |
| 19072    |       | 49983 |
| 19073    |       | 97827 |

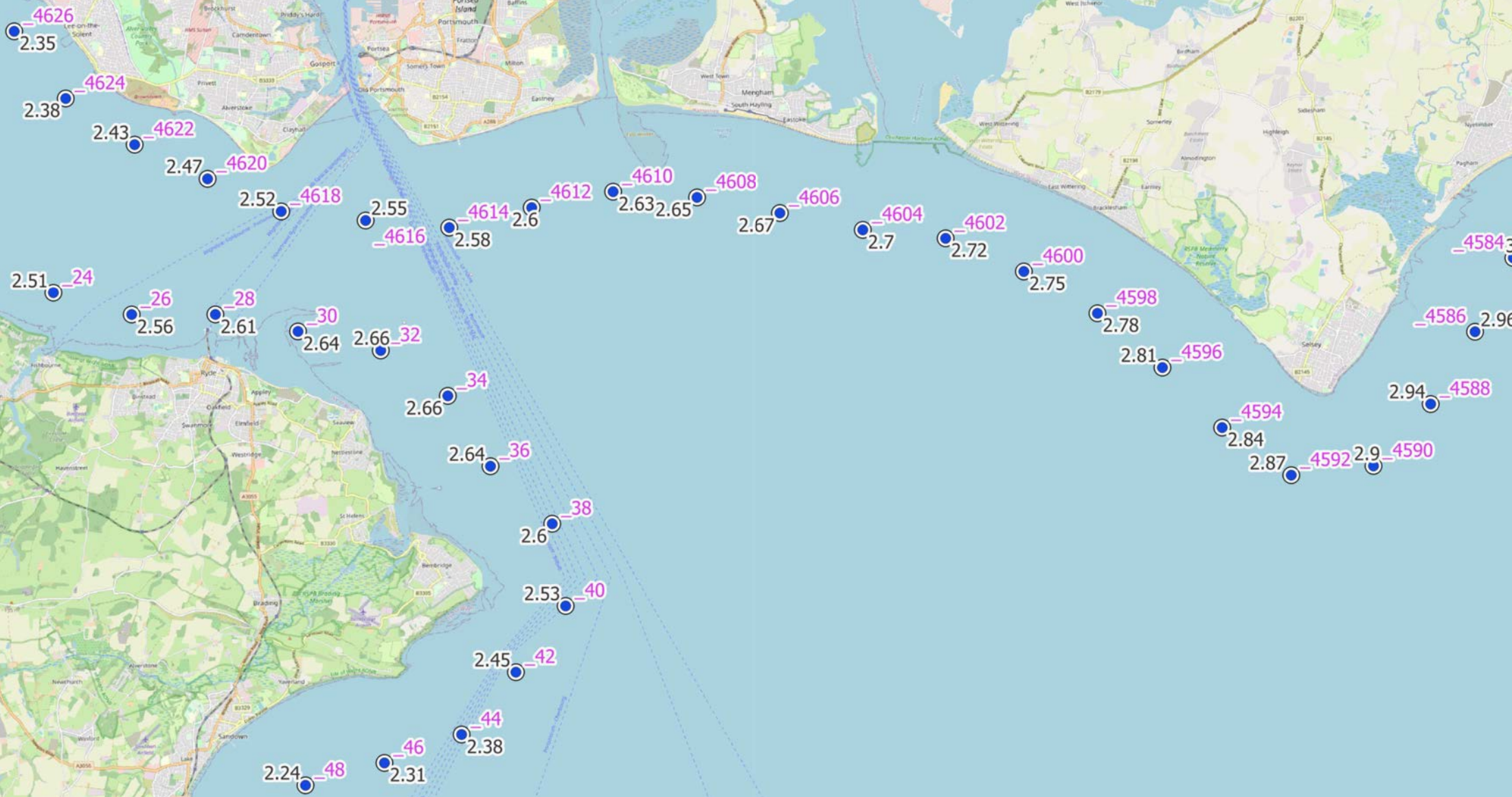
1:3,730 \*  
\*when printed at A4.



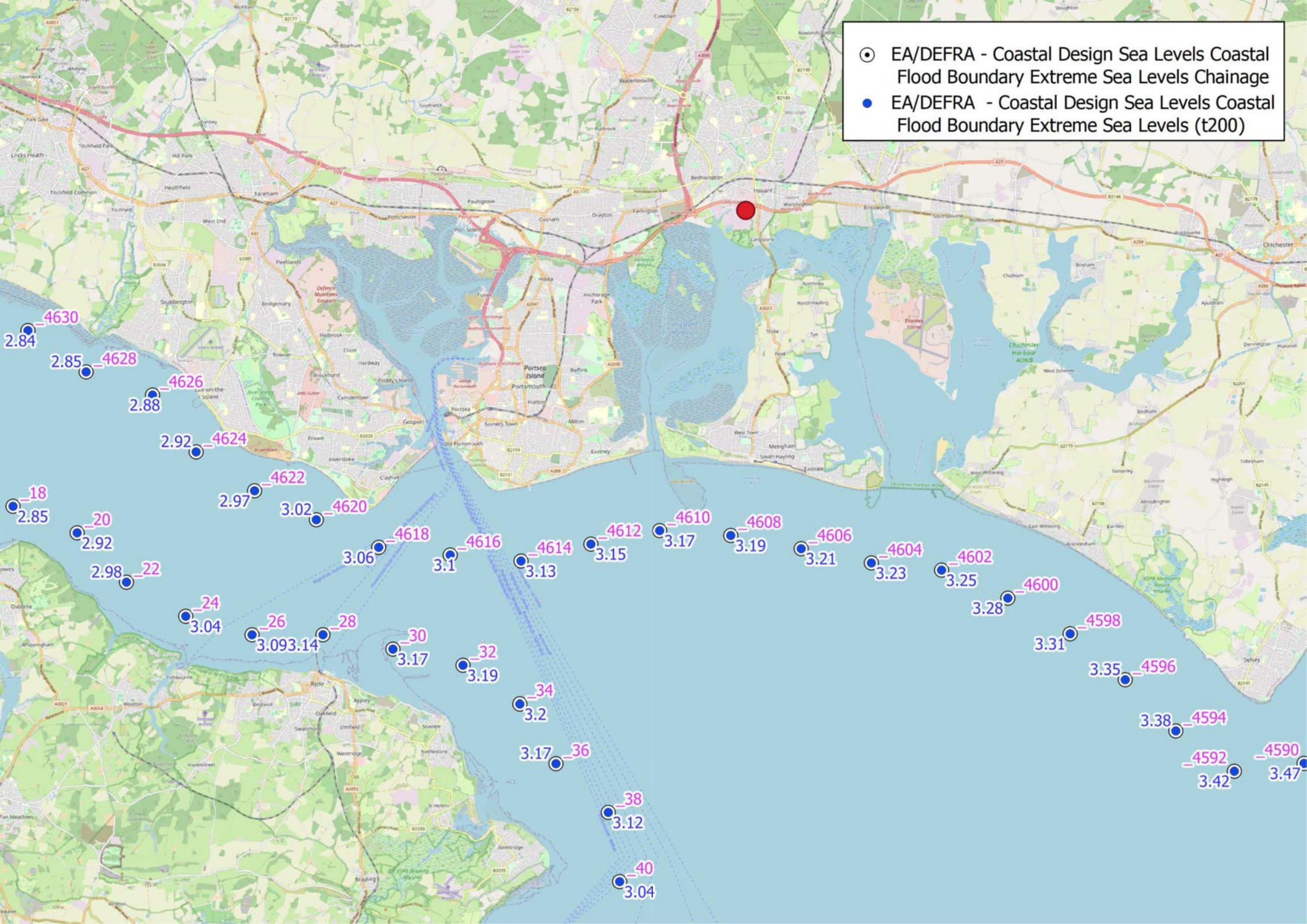
| Asset ID | Asset sub-type      | Length | Maintainer                             | Current condition | Standard of Protection | Date of last inspection |
|----------|---------------------|--------|----------------------------------------|-------------------|------------------------|-------------------------|
| 23400    | Simple Culvert      | 72.33  | Private individual, Company or Charity |                   | 1:40                   | 01/06/2022              |
| 49555    | Simple Culvert      | 57.46  | Private individual, Company or Charity |                   | 1:40                   | 31/05/2022              |
| 97827    | Natural High Ground | 159.75 | Private individual, Company or Charity |                   | 1:40                   | 31/05/2022              |
| 49054    | Natural High Ground | 49.45  | Unknown                                |                   | 1:40                   | 31/05/2022              |
| 49982    | Natural High Ground | 13.35  | Unknown                                |                   | 1:40                   | 01/07/2022              |
| 113663   | Natural High Ground | 384.67 | Private individual, Company or Charity |                   | 1:20                   | 31/05/2022              |
| 23402    | Natural High Ground | 54.56  | Unknown                                |                   | 1:40                   | 31/05/2022              |
| 49053    | Natural High Ground | 141.82 | Private individual, Company or Charity |                   | 1:40                   | 01/06/2022              |
| 49553    | Natural High Ground | 11.91  | Private individual, Company or Charity |                   | 1:40                   | 31/05/2022              |
| 19073    | Natural High Ground | 85.8   | Private individual, Company or Charity |                   | 1:40                   | 31/05/2022              |
| 18839    | Natural High Ground | 19.98  | Unknown                                |                   | 1:40                   | 01/07/2022              |
| 104218   | Natural High Ground | 907.14 | Private individual, Company or Charity |                   | 1:40                   | 01/07/2022              |
| 104219   | Natural High Ground | 933.13 | Private individual, Company or Charity |                   | 1:40                   | 01/07/2022              |
| 171803   | Natural High Ground | 44.15  | Unknown                                |                   | 1:40                   | 01/07/2022              |
| 22853    | Natural High Ground | 109.52 | Private individual, Company or Charity |                   | 1:40                   | 01/07/2022              |
| 119545   | Embankment          | 84.76  | Private individual, Company or Charity |                   | 1:40                   | 31/05/2022              |
| 23310    | Natural High Ground | 10.33  | Unknown                                |                   | 1:40                   | 31/05/2022              |
| 49554    | Wall                | 150.85 | Private individual, Company or Charity |                   | 1:40                   | 31/05/2022              |
| 49983    | Natural High Ground | 350.8  | Private individual, Company or Charity |                   | 1:40                   | 01/07/2022              |
| 113661   | Natural High Ground | 382.89 | Private individual, Company or Charity |                   | 1:20                   | 31/05/2022              |
| 19072    | Natural High Ground | 148.86 | Private individual, Company or Charity |                   | 1:40                   | 01/06/2022              |
| 22854    | Natural High Ground | 205.99 | Unknown                                |                   | 1:40                   | 01/07/2022              |
| 23309    | Natural High Ground | 41.94  | Unknown                                |                   | 1:40                   | 01/06/2022              |

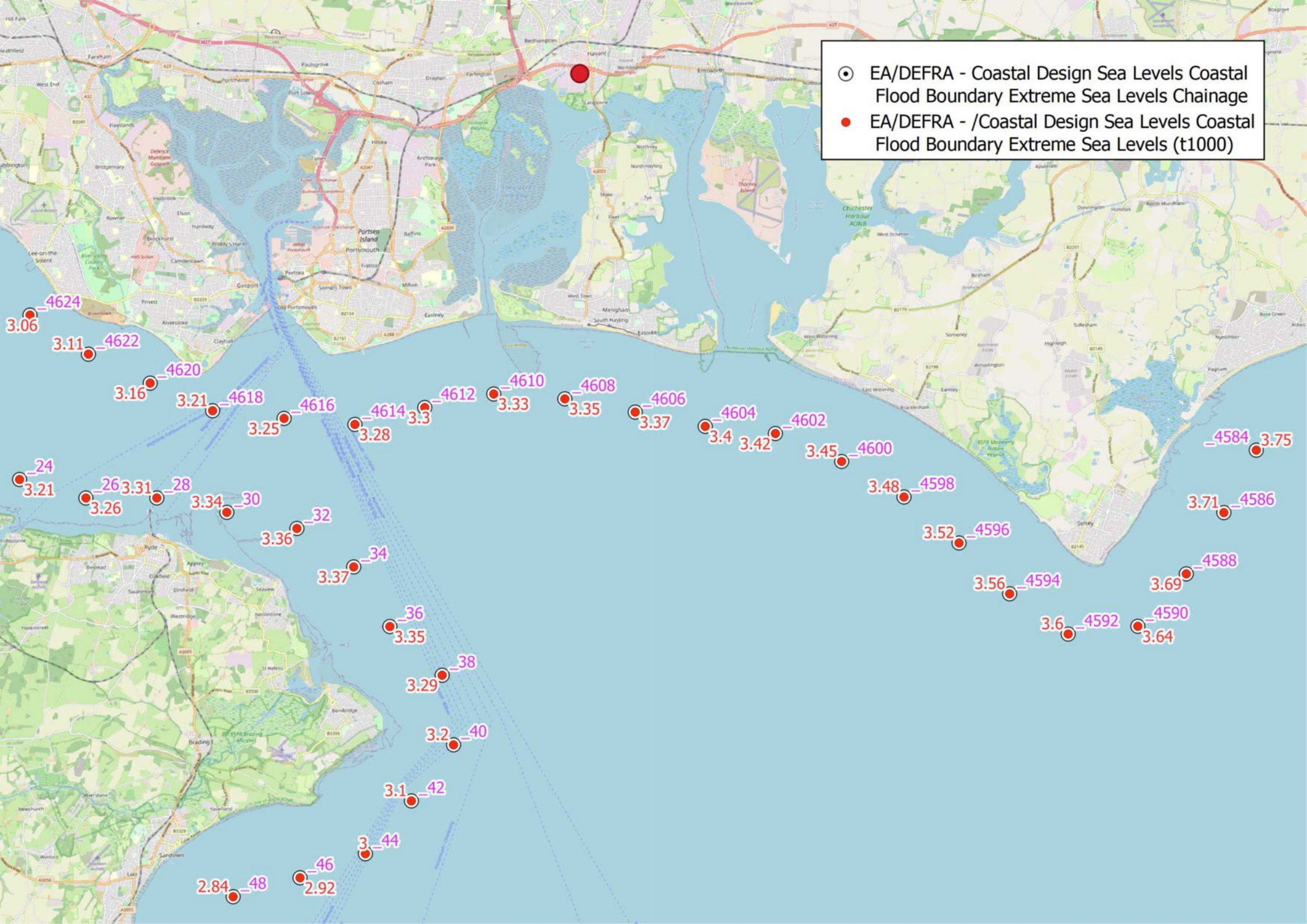


- EA/DEFRA - Coastal Design Sea Levels Coastal Flood Boundary Extreme Sea Levels Chainage
- EA/DEFRA - Coastal Design Sea Levels Coastal Flood Boundary Extreme Sea Levels (t1)



- EA/DEFRA - Coastal Design Sea Levels Coastal Flood Boundary Extreme Sea Levels Chainage
- EA/DEFRA - Coastal Design Sea Levels Coastal Flood Boundary Extreme Sea Levels (t200)







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## Appendix F – Flood Response Plan.

Langstone Park  
Masterplan

Flood Response Plan

**Project Ref: NSB/8317**

October 2022

Client  
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## Flood Response Plan

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| 1.4 | <i>Emergency Notification System</i>                     |
| 1.5 | <i>Action Prior to Implementation of the Plan</i>        |
| 1.6 | <i>Plan Maintenance and Review</i>                       |

# 1.0 Introduction

- 1.1 The flood response plan has been prepared for monitoring and responding to emergency conditions arising from high water levels on the Mill Stream in line with Environment Agency emergency response plan requirements. The plan considers a variety of stages and is triggered by information provided by The Environment Agency.

## **Aim**

- 1.2 The aim of the plan is to prevent loss of life, and to minimize damage to and loss of property resulting from flooding due to high water levels on the above EA Main River.

## **Plan Implementation Phases**

### **Pre- Flooding Activities**

- 1.3 The implementation of the Flood Response Plan may be triggered by observed rising water, snow survey reports, weather forecasts, and/or Environment Agency reports.

All tenants are to be required to sign up the Environment Agency 'Flood Warning Direct' Service. This can be done by telephoning to register with the local Environment Agency office, or using the EA website.

The EA Floodline number is: 0845 988 1188.

Their website is: [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

All occupants must have a designated person to notify staff; and if possible, visitors to the site, if known.

### **Advance Warnings**

Warnings of potential flooding and flood levels can be obtained from the Environment Agencies Website. (See above)

### **Flood Watch Level**

Based on specific water and/or warnings. Flooding at low-lying land and roads can be expected in the Area. Members of the public are reminded to be prepared.

All tenants, occupants and visitors to the site should be aware of media coverage of potential flood events.

They should all be given to appropriate contact telephone numbers to check travel arrangements for any journey during periods of potential flooding events.

### **Flood Warning Level**

This is the next stage up. Flooding of homes and business as expected in the area and occupiers of the buildings should maintain regular contact with Local Authorities, and the Environment Agency to be appraised of any local flooding around the development, and national / local media news channels.

Tenants should make employees and visitors aware of the contact telephone numbers above. The designated person should regularly remind all personnel of these requirements.

## **Severe Flood Warning**

If severe flooding is expected in the area of the development, then before travelling to visit for work or other business to the site should check on the contact number prior to travel.

There is extreme danger to life and property, so if people can be warned not to travel then this should be the first choice. Not travelling is the safe option at the early stages.

If people are on site during a severe event, the occupiers should advise all to vacate as soon as they receive the Flood Warning. The safe egress route will be via the site entrance and public roads prior to an event and during early stages of an event.

If people are on site during a severe event and do not leave when the Flood Warning is given then they should be advised to take safe refuge at first floor level.

If people are stranded, they or the occupiers should alert the emergency services and await rescue. They should not attempt to leave in unsafe conditions. The safe egress in very severe conditions may be with the assistance of the emergency services.

## **All Clear**

Flood Watch or Warnings are no longer in force in this area.

## **Emergency Notification**

- 1.4 Upon receipt of a flood warning, it is the responsibility of the designated official to notify their staff, and impending emergency procedures.

An Emergency Notification List and Emergency Public Information Plan is to be provided to all occupiers of the building units.

## **Action Prior to Implementation of The Plan**

- 1.5 When a flood hazard exists, employees should take such action(s) as required to protect lives and property in their building.

It is the responsibility of the owners of the development to ensure that the new on-site surface water drainage system is maintained and operational in line with the maintenance regime identified within the Flood Risk Assessment Document.

## **Plan Maintenance and Review**

- 1.6 This plan will be reviewed annually and /or after any flood warning event where necessary, revised by a meeting(s) and liaison with the Environment Agency.

It is the responsibility of each person, agency, service, or department named within this emergency plan to notify the Administrative Officer forthwith, of any revisions or administrative changes.

- Plan indicating safe refuge points and route of safe access and egress.
- Environment Agency flood line telephone number:  
0845 988 1188
- Environment Agency website address:  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

## BOREHOLE LOG - CABLE PERCUSSION

CP01

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

1 of 2

Start 03/11/2023

Coordinates E 471262.31 N 105607.54

Scale

1:50

End 06/11/2023

Ground Level 4.64m AOD

Total Depth

16.90m

| Sample / Test Type | Depth (m) | Result    | Casing Depth (m) | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                    | Legend | GW | Install |
|--------------------|-----------|-----------|------------------|--------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
| D                  | 0.15      | PID = 0.0 |                  | 4.49         | (0.15)                       | Asphalt.                                                                                                                                                 |        |    |         |
| ES                 | 0.20      |           |                  |              | 0.15                         | (MADE GROUND)                                                                                                                                            |        |    |         |
| PID                | 0.20      |           |                  |              |                              | Grey slightly clayey slightly sandy coarse subangular to angular GRAVEL of limestone.                                                                    |        |    |         |
| D                  | 0.60      |           |                  |              | (0.85)                       | (MADE GROUND - SUBBASE)                                                                                                                                  |        |    |         |
| D                  | 1.10      | N = 22    | 1.20             | 3.64         | 1.00                         | Medium dense brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to rounded flint.                                              |        |    |         |
| C                  | 1.20      |           |                  |              |                              | (MADE GROUND)                                                                                                                                            |        |    |         |
| D                  | 1.70      |           |                  |              | (1.20)                       |                                                                                                                                                          |        |    |         |
| C                  | 2.00      | N = 15    | 1.50             | 2.44         | 2.20                         | Firm light grey slightly gravelly sandy SILT/CLAY. Sand is medium to coarse subrounded chalk. Gravel is medium to coarse subangular to rounded flint.    |        |    |         |
| D                  | 2.30      |           |                  |              |                              | (ALLUVIUM)                                                                                                                                               |        |    |         |
| D                  | 2.80      | N = 18    | 3.00             |              | (1.30)                       |                                                                                                                                                          |        |    |         |
| S                  | 3.00      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 3.50      |           |                  | 1.14         | 3.50                         | Light greyish cream silty sandy GRAVEL. Gravel is fine to coarse subangular to subrounded cream chalk with occasional flint.                             |        |    |         |
| B                  | 3.60      |           |                  |              | (0.60)                       | (RIVER TERRACE DEPOSITS)                                                                                                                                 |        |    |         |
| C                  | 4.10      | N = 14    | 4.10             | 0.54         | 4.10                         | Structureless CHALK composed of cream silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is cream. Grade Dc. |        |    |         |
| D                  | 4.30      |           |                  |              |                              | (UNDIFFERENTIATED CHALK)                                                                                                                                 |        |    |         |
| UT                 | 4.40      | (20)      |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 5.00      | N = 15    | 5.00             |              |                              |                                                                                                                                                          |        |    |         |
| S                  | 5.00      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 6.00      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 6.50      | N = 21    | 6.00             |              |                              | At 6.50m bgl: coarse gravel of flint.                                                                                                                    |        |    |         |
| S                  | 6.50      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| B                  | 6.95      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 8.00      | N = 28    | 8.00             |              |                              |                                                                                                                                                          |        |    |         |
| S                  | 8.00      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 9.00      |           |                  |              |                              |                                                                                                                                                          |        |    |         |
| D                  | 9.40      | N = 31    | 9.00             |              |                              |                                                                                                                                                          |        |    |         |
| S                  | 9.40      |           |                  |              | (11.10)                      |                                                                                                                                                          |        |    |         |

Continued next sheet

| Chiselling |    |                  | Groundwater Strikes |         |         |       |        | Drilled: TS<br>Logged: EY<br>Checked: AS |
|------------|----|------------------|---------------------|---------|---------|-------|--------|------------------------------------------|
| From       | To | Duration (hh:mm) | Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
|            |    |                  | 4.00                | 1.80    |         | 3.80  |        |                                          |

**Remarks:** Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 3.00m bgl.

**Installation:** 50mm diameter standpipe installed to 6.00m bgl.

**Diameter:** 150mm to 16.90m

Exploratory hole logs should be read in conjunction with key sheets

**APPLIED GEOLOGY**



## BOREHOLE LOG - CABLE PERCUSSION

CP02

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

1 of 2

Start 02/11/2023

Coordinates E 471335.45 N 105499.92

Scale

1:50

End 03/11/2023

Ground Level 4.33m AOD

Total Depth

17.29m

| Sample / Test Type | Depth (m) | Result    | Casing Depth (m) | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                                        | Legend | GW | Install |
|--------------------|-----------|-----------|------------------|--------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
| D                  | 0.15      | PID = 0.0 |                  | 4.18         | (0.15)                       | Asphalt.                                                                                                                                                                     |        |    |         |
| ES                 | 0.20      |           |                  |              | 0.15                         | (MADE GROUND)                                                                                                                                                                |        |    |         |
| PID                | 0.20      |           |                  |              | (0.45)                       | Brownish grey slightly clayey slightly sandy medium to coarse subangular to angular GRAVEL of limestone.                                                                     |        |    |         |
| D                  | 0.60      |           |                  | 3.73         | 0.60                         | (MADE GROUND - SUBBASE)                                                                                                                                                      |        |    |         |
|                    |           |           |                  |              | (0.50)                       | Brown very sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded flint, brick, concrete and rare ash.                                                          |        |    |         |
| D                  | 1.10      | N = 26    | 1.20             | 3.23         | 1.10                         | (MADE GROUND)                                                                                                                                                                |        |    |         |
| C                  | 1.20      |           |                  |              | (0.50)                       | Brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to subrounded flint.                                                                            |        |    |         |
| D                  | 1.50      |           |                  | 2.73         | 1.60                         | (MADE GROUND)                                                                                                                                                                |        |    |         |
| B                  | 1.60      |           |                  |              |                              | Medium dense brown slightly sandy medium to coarse subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are rounded flint.                              |        |    |         |
| C                  | 2.10      | N >50     | 2.00             |              |                              | (RIVER TERRACE DEPOSITS)                                                                                                                                                     |        |    |         |
| B                  | 2.30      |           |                  |              |                              | At 2.30m to 2.50m bgl: flint cobble.                                                                                                                                         |        |    |         |
| B                  | 2.50      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| B                  | 3.00      | N = 26    | 3.00             |              | (2.70)                       |                                                                                                                                                                              |        |    |         |
| C                  | 3.00      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| C                  | 4.00      | N = 19    | 4.00             |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 4.10      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 4.30      |           |                  | 0.03         | 4.30                         | Structureless CHALK composed of yellowish cream silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is yellowish cream. Grade Dc. |        |    |         |
| D                  | 4.60      | N = 18    | 4.60             |              | (1.10)                       | (UNDIFFERENTIATED CHALK)                                                                                                                                                     |        |    |         |
| S                  | 4.60      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 5.40      | N = 21    | 5.50             | -1.07        | 5.40                         | Structureless CHALK composed cream silty GRAVEL. Clasts are extremely weak cream with occasional black speckles and brown staining. Matrix is cream. Grade Dc.               |        |    |         |
| D                  | 5.80      |           |                  |              |                              | (UNDIFFERENTIATED CHALK)                                                                                                                                                     |        |    |         |
| S                  | 5.80      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 6.60      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 7.30      | N = 24    | 7.30             |              |                              |                                                                                                                                                                              |        |    |         |
| S                  | 7.30      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 8.40      | N = 27    | 8.00             |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 8.60      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| S                  | 8.60      |           |                  |              |                              |                                                                                                                                                                              |        |    |         |
| D                  | 9.50      |           |                  |              | (8.60)                       |                                                                                                                                                                              |        |    |         |
| D                  | 10.00     |           |                  |              |                              | Continued next sheet                                                                                                                                                         |        |    |         |

| Chiselling |      |                  | Groundwater Strikes |         |         |       |        | Drilled: TS<br>Logged: EY<br>Checked: AS |
|------------|------|------------------|---------------------|---------|---------|-------|--------|------------------------------------------|
| From       | To   | Duration (hh:mm) | Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
| 2.30       | 2.50 | 01:00            | 1.60                | 1.40    |         | 1.50  |        |                                          |

**Remarks:** Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 1.60m bgl.

**Installation:** 50mm diameter standpipe installed to 5.00m bgl.

**Diameter:** 150mm to 17.29m

Exploratory hole logs should be read in conjunction with key sheets

**APPLIED GEOLOGY**



## BOREHOLE LOG - CABLE PERCUSSION

CP03

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

1 of 2

Start 31/10/2023

Coordinates E 471346.91 N 105559.39

Scale

1:50

End 01/11/2023

Ground Level 4.66m AOD

Total Depth

17.20m

| Sample / Test Type | Depth (m) | Result    | Casing Depth (m) | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                             | Legend | GW | Install |
|--------------------|-----------|-----------|------------------|--------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
| D                  | 0.20      | PID = 0.0 |                  | 4.46         | (0.20)                       | Asphalt.                                                                                                                                                          |        |    |         |
| ES                 | 0.20      |           |                  |              | 0.20                         | (MADE GROUND)                                                                                                                                                     |        |    |         |
| PID                | 0.20      |           |                  | 4.16         | (0.30)                       | Reddish brown slightly clayey slightly sandy GRAVEL. Gravel is medium to coarse subangular to angular igneous.                                                    |        |    |         |
| D                  | 0.50      |           |                  |              | 0.50                         | (MADE GROUND - SUBBASE)                                                                                                                                           |        |    |         |
| D                  | 1.00      | N = 14    | 1.20             |              | (0.70)                       | Medium dense brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to rounded flint with rare fine subangular brick.                       |        |    |         |
| C                  | 1.20      |           |                  | 3.46         | 1.20                         | (MADE GROUND)                                                                                                                                                     |        |    |         |
|                    |           |           |                  |              | (0.60)                       | Medium dense brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to rounded flint.                                                       |        |    |         |
| B                  | 1.80      |           |                  | 2.86         | 1.80                         | (MADE GROUND)                                                                                                                                                     |        |    |         |
| D                  | 1.80      | N = 24    | 2.00             |              |                              | Medium dense brown slightly sandy GRAVEL with low cobble content. Gravel is medium to coarse angular to subrounded flint. Cobbles are rounded flint.              |        |    |         |
| C                  | 2.00      |           |                  |              |                              | (RIVER TERRACE DEPOSITS)                                                                                                                                          |        |    |         |
| B                  | 2.10      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| B                  | 3.00      | N = 31    | 3.00             |              |                              |                                                                                                                                                                   |        |    |         |
| C                  | 3.00      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              | (3.30)                       |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| B                  | 4.00      | N = 25    | 4.00             |              |                              |                                                                                                                                                                   |        |    |         |
| C                  | 4.00      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 5.10      | N = 20    | 5.00             | -0.44        | 5.10                         | Structureless CHALK composed of cream slightly silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is cream. Grade Dc. |        |    |         |
| D                  | 5.20      |           |                  |              |                              | (UNDIFFERENTIATED CHALK)                                                                                                                                          |        |    |         |
| S                  | 5.20      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 6.00      | N = 17    | 6.50             |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 6.50      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| S                  | 6.50      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 7.50      | N = 22    | 8.00             |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 8.00      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| S                  | 8.00      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 9.00      | N = 28    | 9.50             |              |                              |                                                                                                                                                                   |        |    |         |
| D                  | 9.50      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
| S                  | 9.50      |           |                  |              |                              |                                                                                                                                                                   |        |    |         |
|                    |           |           |                  |              |                              |                                                                                                                                                                   |        |    |         |

Continued next sheet

| Chiselling |    |                  | Groundwater Strikes |         |         |       |        | Drilled: TS<br>Logged: EY<br>Checked: AS |
|------------|----|------------------|---------------------|---------|---------|-------|--------|------------------------------------------|
| From       | To | Duration (hh:mm) | Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
|            |    |                  | 2.20                | 2.20    |         | 1.50  |        |                                          |

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 7.20m bgl.

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Diameter: 150mm to 17.20m

Exploratory hole logs should be read in conjunction with key sheets

**APPLIED GEOLOGY**

## BOREHOLE LOG - CABLE PERCUSSION

CP03

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

2 of 2

Start 31/10/2023

Coordinates E 471346.91 N 105559.39

Scale

1:50

End 01/11/2023

Ground Level 4.66m AOD

Total Depth

17.20m

| Sample / Test Type | Depth (m) | Result | Casing Depth (m) | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                                                      | Legend | GW | Install |
|--------------------|-----------|--------|------------------|--------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
| D                  | 10.50     |        |                  |              |                              | Structureless CHALK composed of cream slightly silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is cream. Grade Dc. (UNDIFFERENTIATED CHALK) |        |    |         |
| D                  | 11.00     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| S                  | 11.00     | N = 37 | 11.00            |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 12.00     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 12.00     |        |                  | -7.34        | 12.00                        | CHALK recovered as cream silty GRAVEL and COBBLES. Gravel is very weak cream with brown staining. Matrix is cream. (UNDIFFERENTIATED CHALK) (RIVER TERRACE DEPOSITS)                       |        |    |         |
| S                  | 12.60     | N = 50 | 12.60            |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 13.50     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 14.20     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| S                  | 14.20     | N = 50 | 14.20            |              | (5.20)                       |                                                                                                                                                                                            |        |    |         |
| D                  | 15.30     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 15.70     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| S                  | 15.70     | N > 50 | 15.70            |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 16.60     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| D                  | 16.80     |        |                  |              |                              |                                                                                                                                                                                            |        |    |         |
| S                  | 16.80     | N > 50 | 16.80            |              |                              |                                                                                                                                                                                            |        |    |         |
|                    |           |        |                  | -12.54       | 17.20                        | End of Borehole at 17.20m                                                                                                                                                                  |        |    |         |

| Chiselling |    |                  | Groundwater Strikes |         |         |       |        | Drilled: TS<br>Logged: EY<br>Checked: AS |
|------------|----|------------------|---------------------|---------|---------|-------|--------|------------------------------------------|
| From       | To | Duration (hh:mm) | Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
|            |    |                  | 2.20                | 2.20    |         | 1.50  |        |                                          |

**Remarks:** Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 7.20m bgl.

**Installation:** 50mm diameter standpipe installed to 5.00m bgl.

**Diameter:** 150mm to 17.20m

Exploratory hole logs should be read in conjunction with key sheets

**APPLIED GEOLOGY**

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS01

Project

Langstone Technology Park, Havant

Client

Havant S.a.r.l.

Start

01/11/2023

End

01/11/2023

Coordinates

E 471372.35 N 105525.53

Ground Level

4.77m AOD

Project No.

AG3544-23

Sheet

1 of 2

Scale

1:25

Total Depth

5.45m

| Sample / Test Type | Depth (m) | Result | Dia./ Rec. | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                        | Legend | GW | Install |
|--------------------|-----------|--------|------------|--------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
| ES                 | 0.40      |        |            | 4.67         | (0.10)                       | Asphalt.                                                                                                                                                     |        |    |         |
|                    |           |        |            |              | 0.10                         | (MADE GROUND)                                                                                                                                                |        |    |         |
|                    |           |        |            | 4.52         | (0.15)                       | Grey slightly clayey slightly sandy GRAVEL. Gravel is coarse angular limestone.                                                                              |        |    |         |
|                    |           |        |            |              | 0.25                         | (MADE GROUND - SUBBASE)                                                                                                                                      |        |    |         |
|                    |           |        |            |              |                              | Brown slightly clayey medium to coarse subangular to rounded GRAVEL of flint and occasional fragments of brick.                                              |        |    |         |
|                    |           |        |            |              |                              | (MADE GROUND)                                                                                                                                                |        |    |         |
|                    |           |        |            |              | (1.15)                       |                                                                                                                                                              |        |    |         |
| C                  | 1.20      | N = 14 |            |              |                              |                                                                                                                                                              |        |    |         |
| B                  | 1.40      |        |            | 3.37         | 1.40                         | Medium dense greyish brown very clayey GRAVEL with low cobble content. Gravel is medium to coarse subangular to rounded flint. Cobbles are subrounded flint. |        |    |         |
|                    |           |        | 116mm /80% |              | (0.45)                       | (RIVER TERRACE DEPOSITS)                                                                                                                                     |        |    |         |
| D                  | 1.80      | N = 17 |            | 2.92         | 1.85                         | Soft light brown to cream slightly sandy very gravelly CLAY. Gravel is fine to coarse subangular to subrounded flint and chalk.                              |        |    |         |
| B                  | 2.00      |        |            | 2.77         | (0.15)                       | (RIVER TERRACE DEPOSITS)                                                                                                                                     |        |    |         |
| C                  | 2.00      |        |            |              | 2.00                         | Medium dense light brown slightly sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded flint and occasional chalk.                         |        |    |         |
|                    |           |        |            |              |                              | (RIVER TERRACE DEPOSITS)                                                                                                                                     |        |    |         |
|                    |           |        |            |              |                              |                                                                                                                                                              |        |    |         |
| D                  | 2.50      | N = 18 | 101mm /70% |              | (1.60)                       |                                                                                                                                                              |        |    |         |
| C                  | 3.00      |        |            |              |                              |                                                                                                                                                              |        |    |         |
|                    |           |        |            |              |                              |                                                                                                                                                              |        |    |         |
| D                  | 3.50      | N = 19 | 101mm /80% | 1.17         | 3.60                         | Firm cream slightly sandy slightly gravelly SILT. Gravel is subangular chalk and flint. (UNDIFFERENTIATED CHALK)                                             |        |    |         |
|                    |           |        |            |              |                              |                                                                                                                                                              |        |    |         |
| D                  | 3.90      |        |            |              |                              |                                                                                                                                                              |        |    |         |
| C                  | 4.00      | N = 16 |            |              | (1.40)                       |                                                                                                                                                              |        |    |         |
|                    |           |        |            |              |                              |                                                                                                                                                              |        |    |         |
|                    |           |        | 101mm /50% |              |                              |                                                                                                                                                              |        |    |         |
| S                  | 5.00      |        |            | -0.23        | 5.00                         | Continued next sheet                                                                                                                                         |        |    |         |

Installation: 50mm diameter standpipe installed to 2.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

| Groundwater Strikes |         |         |       |        | Drilled: DH<br>Logged: EY<br>Checked: AS |
|---------------------|---------|---------|-------|--------|------------------------------------------|
| Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
| 2.10                | 2.10    |         |       |        |                                          |

# DCS01

**Project No.** AG3544-23

Sheet 2 of 2

Scale 1:25

**Total Depth** 5.45m

[illegible]

**Installation:** 50mm diameter standpipe installed to 2.00m bgl.

**Remarks:** Hand dug service inspection pit excavated to 1.20m bgl.

| Groundwater Strikes |         |         |       |        | <b>Drilled: DH</b><br><br><b>Logged: EY</b><br><br><b>Checked: AS</b> |
|---------------------|---------|---------|-------|--------|-----------------------------------------------------------------------|
| Depth Strike        | Rose to | Remarks | Cased | Sealed |                                                                       |
| 2.10                | 2.10    |         |       |        |                                                                       |

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS02

Project

Langstone Technology Park, Havant

Client

Havant S.a.r.l.

Start

01/11/2023

End

01/11/2023

Coordinates

E 471270.18 N 105549.66

Ground Level

4.45m AOD

Project No.

AG3544-23

Sheet

1 of 2

Scale

1:25

Total Depth

5.45m

| Sample / Test Type | Depth (m) | Result | Dia./ Rec. | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                                                                           | Legend | GW | Install |
|--------------------|-----------|--------|------------|--------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
| ES                 | 0.20      | N = 18 | 116mm /80% | 4.35         | (0.10)<br>0.10               | Asphalt.<br>(MADE GROUND)<br>Reddish brown slightly clayey slightly sandy GRAVEL. Gravel is coarse angular limestone.<br>(MADE GROUND - SUBBASE)                                                                |        |    |         |
| D                  | 0.60      |        |            | 3.75         | 0.70                         | Brown slightly sandy very gravelly CLAY. Gravel is fine to coarse subangular to rounded flint and rare brick fragments.<br>(MADE GROUND)                                                                        |        |    |         |
| D                  | 0.90      |        |            | 3.45         | 1.00                         | Soft dark grey mottled orangish brown slightly sandy slightly gravelly SILT. Gravel is fine to medium subrounded flint.<br>(POSSIBLE BURIED TOPSOIL)                                                            |        |    |         |
| D                  | 1.10      |        |            | 3.25         | 1.20                         | Firm brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium subrounded chalk and flint.<br>(POSSIBLE BURIED TOPSOIL)                                                                             |        |    |         |
| C                  | 1.20      | N = 18 | 101mm /70% | 3.00         | 1.45                         | Light brown slightly sandy very clayey GRAVEL with low cobble content. Gravel is fine to coarse subangular to rounded flint. Cobbles are subangular to rounded flint.<br>(RIVER TERRACE DEPOSITS)               |        |    |         |
| D                  | 1.30      |        |            | 2.40         | 2.05                         | Light brown slightly sandy slightly clayey GRAVEL. Gravel is medium to coarse subangular to subrounded flint.<br>(RIVER TERRACE DEPOSITS)                                                                       |        |    |         |
| B                  | 1.50      |        |            | (1.35)       |                              |                                                                                                                                                                                                                 |        |    |         |
| C                  | 2.00      |        |            | 1.05         | 3.40                         | Soft light grey slightly sandy slightly gravelly SILT. Gravel is fine rounded chalk.                                                                                                                            |        |    |         |
| D                  | 2.20      | N = 14 | 92mm /80%  | 0.50         | 3.95                         | Structureless CHALK composed of slightly sandy slightly gravelly cream SILT. Gravel is fine to coarse subangular extremely weak cream chalk with occasional black specks. Grade Dm.<br>(UNDIFFERENTIATED CHALK) |        |    |         |
| D                  | 3.60      |        |            | (1.50)       |                              |                                                                                                                                                                                                                 |        |    |         |
| C                  | 4.00      |        |            |              |                              |                                                                                                                                                                                                                 |        |    |         |
| D                  | 4.20      |        |            |              |                              |                                                                                                                                                                                                                 |        |    |         |
| D                  | 4.80      | N = 19 |            |              |                              |                                                                                                                                                                                                                 |        |    |         |
| S                  | 5.00      |        |            |              |                              |                                                                                                                                                                                                                 |        |    |         |

Installation: 50mm diameter standpipe installed to 2.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

| Groundwater Strikes |         |         |       |        | Drilled: DH<br>Logged: EY<br>Checked: AS |
|---------------------|---------|---------|-------|--------|------------------------------------------|
| Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
| 2.30                | 2.10    |         |       |        |                                          |

# DCS02

Project No. AG3544-23

Sheet 2 of 2

**Scale** 1:25

**Total Depth** 5.45m

| Sample / Test Type | Depth (m) | Result | Dia./ Rec. | Level (mAoD) | Strata Depth (thickness) (m) | Description of Strata                                                                                                                                                                                        | Legend | GW | Install |
|--------------------|-----------|--------|------------|--------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|
|                    |           |        |            | -1.00        | 5.45                         | Structureless CHALK composed of slightly sandy slightly gravelly cream SILT. Gravel is fine to coarse subangular extremely weak cream chalk with occasional black specks. Grade Dm. (UNDIFFERENTIATED CHALK) |        |    |         |
|                    |           |        |            |              |                              | End of Borehole at 5.45m                                                                                                                                                                                     |        |    |         |

**Installation:** 50mm diameter standpipe installed to 2.00m bgl.

**Remarks:** Hand dug service inspection pit excavated to 1.20m bgl.

| Groundwater Strikes |         |         |       |        | <b>Drilled: DH</b><br><br><b>Logged: EY</b><br><br><b>Checked: AS</b> |
|---------------------|---------|---------|-------|--------|-----------------------------------------------------------------------|
| Depth Strike        | Rose to | Remarks | Cased | Sealed |                                                                       |
| 2.30                | 2.10    |         |       |        |                                                                       |

# DCS03

**Project No.** AG3544-23

Sheet 1 of 1

Scale 1:25

**Total Depth** 0.40m

# Draft

| Groundwater Strikes |         |         |       |        | <b>Drilled:</b> DH<br><b>Logged:</b> EY<br><b>Checked:</b> AS |
|---------------------|---------|---------|-------|--------|---------------------------------------------------------------|
| Depth Strike        | Rose to | Remarks | Cased | Sealed |                                                               |
|                     |         |         |       |        |                                                               |

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS3A

Project

Langstone Technology Park, Havant

Project No.

AG3544-23

Client

Havant S.a.r.l.

Sheet

1 of 2

Start

02/11/2023

Coordinates

E 471378.00 N 105591.00

Scale

1:25

End

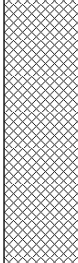
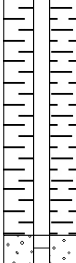
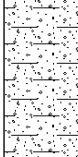
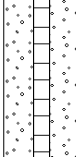
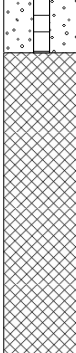
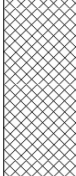
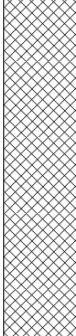
02/11/2023

Ground Level

4.99m AOD

Total Depth

5.45m

| Sample / Test Type | Depth (m) | Result     | Dia./ Rec.  | Level (mAoD) | Strata Depth (thickness) (m)                                                                                                                                | Description of Strata                                                                                                                                                   | Legend                                                                                | GW                                                                                                                                                                                                              | Install                                                                              |                                                                                      |                                                                                     |
|--------------------|-----------|------------|-------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| ES                 | 0.15      | N = 14     |             | 4.79         | (0.20)<br>0.20                                                                                                                                              | Grass over soft brown very sandy slightly gravelly CLAY with frequent roots and rootlets. Gravel is fine to coarse subrounded flint. (MADE GROUND/TOPSOIL)              |    |                                                                                                                                                                                                                 |   |                                                                                      |                                                                                     |
| D                  | 0.60      |            |             |              | (0.90)                                                                                                                                                      | Soft brown very gravelly slightly sandy CLAY with low cobble content. Gravel is fine to coarse subrounded to rounded flint. Cobbles are rounded flint. (MADE GROUND)    |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |   |  |
| D                  | 1.20      |            |             |              | 3.89                                                                                                                                                        | 1.10                                                                                                                                                                    |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| C                  | 1.20      | 116mm /80% | 3.69        | 1.30         | Medium dense light brownish cream very clayey slightly gravelly coarse SAND. Gravel is fine to coarse subangular to rounded flint. (RIVER TERRACE DEPOSITS) |                                                                                      |    |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| B                  | 1.30      |            |             | (0.55)       |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| D                  | 1.80      |            |             | 3.14         | 1.85                                                                                                                                                        |                                                                                                                                                                         |                                                                                       | Medium dense light brown slightly clayey slightly sandy GRAVEL with low cobble content. Gravel is fine to coarse subangular to rounded flint. Cobbles are subangular to rounded flint. (RIVER TERRACE DEPOSITS) |  |  |                                                                                     |
| C                  | 2.00      | N = 15     |             |              |                                                                                                                                                             |                                                                                    |  |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| D                  | 2.10      |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| B                  | 2.20      |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
|                    |           | N = 14     | 101mm /80%  |              | (1.75)                                                                                                                                                      | Firm cream sandy gravelly SILT/CLAY. Gravel is fine to coarse subangular to subrounded chalk and flint. (UNDIFFERENTIATED CHALK)                                        |  |                                                                                                                            |                                                                                      |                                                                                      |                                                                                     |
| C                  | 3.00      |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
|                    |           |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| D                  | 3.80      | N = 15     | 101mm /80%  | 1.39         | 3.60                                                                                                                                                        | Structureless CHALK composed of cream slightly silty GRAVEL and COBBLES. Clasts are extremely weak cream chalk with occasional black specks. Matrix is cream. Grade Dc. |  |                                                                                                                            |                                                                                      |                                                                                      |                                                                                     |
| C                  | 4.00      |            |             |              | (1.10)                                                                                                                                                      |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
|                    |           |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
|                    |           | N = 18     | 101mm /100% | 0.29         | 4.70                                                                                                                                                        |                                                                                                                                                                         |  |                                                                                                                            |                                                                                      |                                                                                      |                                                                                     |
| D                  | 4.80      |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |
| S                  | 5.00      |            |             |              |                                                                                                                                                             |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                 |                                                                                      |                                                                                      |                                                                                     |

Draft

Continued next sheet

Installation: 50mm diameter standpipe installed to 2.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

| Groundwater Strikes |         |         |       |        | Drilled: DH<br>Logged: EY<br>Checked: AS |
|---------------------|---------|---------|-------|--------|------------------------------------------|
| Depth Strike        | Rose to | Remarks | Cased | Sealed |                                          |
| 2.20                | 2.10    |         |       |        |                                          |



# TRIAL PIT LOG

SA01

**Project** Langstone Technology Park, Havant

Project No. AG3544-23

**Client** Havant S.a.r.l.

Sheet 1 of 1

**Date** 23/10/2023

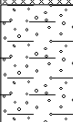
**Scale** 1:25

**Ground Level** 4.82m AOD

Coordinates E 471321.58 N 105599.43

### Total Depth

1.20m

| Sample / Test Type | Depth (m) | Result                                                                                                                         | Level (mAoD)                                                                        | Strata Depth (thickness) (m) | Ease of Dig               | Description of Strata                                                               | Legend                                                                              | GW |                                                                                                                  |
|--------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------|
| ES                 | 0.60      |                                                                                                                                | 4.64                                                                                | (0.18)                       |                           | Asphalt.<br>(MADE GROUND)                                                           |  |    |                                                                                                                  |
|                    |           |                                                                                                                                |                                                                                     | 0.18                         |                           | Grey slightly sandy coarse angular GRAVEL of quartzite.<br>(MADE GROUND - SUBBASE)  |                                                                                     |    |                                                                                                                  |
|                    |           |                                                                                                                                |                                                                                     | (0.37)                       |                           |  |                                                                                     |    |                                                                                                                  |
|                    |           |                                                                                                                                |                                                                                     | 4.27                         |                           |                                                                                     | 0.55                                                                                |    | Soft to firm brown very gravelly CLAY. Gravel is fine to medium subangular to subrounded flint.<br>(MADE GROUND) |
|                    |           |                                                                                                                                |                                                                                     | (0.25)                       |                           |                                                                                     |                                                                                     |    |                                                                                                                  |
| 4.02               | 0.80      | Very soft light brown very clayey GRAVEL. Gravel is fine to coarse subangular to subrounded flint.<br>(RIVER TERRACE DEPOSITS) |  |                              |                           |                                                                                     |                                                                                     |    |                                                                                                                  |
| (0.40)             |           |                                                                                                                                |                                                                                     |                              |                           |                                                                                     |                                                                                     |    |                                                                                                                  |
|                    |           | 3.62                                                                                                                           | 1.20                                                                                |                              | End of Trial Pit at 1.20m |                                                                                     |                                                                                     |    |                                                                                                                  |
| Draft              |           |                                                                                                                                |                                                                                     |                              |                           |                                                                                     |                                                                                     |    |                                                                                                                  |

**Method:** Wheeled backhoe excavator

**Groundwater:** Groundwater standing at 1.20m bgl.

**Stability:** Stable.

**Remarks:** Trial pit terminated at 1.20m bgl as deemed not suitable for soakaway test due to high groundwater level. Trial pit backfilled with arisings on completion.

**Length:** 2.10m

**Width:** 0.60m

Logged: EY

Checked: AS

| Sample / Test Type | Depth (m) | Result | Level (mAoD) | Strata Depth (thickness) (m) | Ease of Dig | Description of Strata                                                                                                                   | Legend | GW |
|--------------------|-----------|--------|--------------|------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------|----|
|                    |           |        |              | (0.18)                       |             | Asphalt.                                                                                                                                |        |    |
|                    |           |        | 4.20         | 0.18                         |             | (MADE GROUND)                                                                                                                           |        |    |
|                    |           |        | 4.14         | (0.07)                       |             | Grey slightly sandy coarse angular GRAVEL of limestone.                                                                                 |        |    |
|                    |           |        | 4.04         | 0.25                         |             | (MADE GROUND - SUBBASE)                                                                                                                 |        |    |
|                    |           |        |              | (0.10)                       |             | Firm to soft dark brown slightly gravelly SILT. Gravel is fine to medium subrounded flint.                                              |        |    |
|                    |           |        | 3.88         | 0.35                         |             | (MADE GROUND)                                                                                                                           |        |    |
|                    |           |        | 3.78         | (0.15)                       |             | Soft brown very gravelly CLAY with low cobble content. Gravel is fine to coarse subangular to rounded flint. Cobbles are rounded flint. |        |    |
|                    |           |        |              | 0.50                         |             | (MADE GROUND)                                                                                                                           |        |    |
|                    |           |        |              | (0.10)                       |             | CONCRETE.                                                                                                                               |        |    |
|                    |           |        |              | 0.60                         |             | (MADE GROUND)                                                                                                                           |        |    |
|                    |           |        |              |                              |             | At 0.60m bgl: concrete obstruction encountered.                                                                                         |        |    |
|                    |           |        |              |                              |             | End of Trial Pit at 0.60m                                                                                                               |        |    |

| Sample / Test Type | Depth (m) | Result | Level (mAoD) | Strata Depth (thickness) (m) | Ease of Dig | Description of Strata                                                                                  | Legend | GW |
|--------------------|-----------|--------|--------------|------------------------------|-------------|--------------------------------------------------------------------------------------------------------|--------|----|
| ES                 | 0.30      |        | 4.25         | (0.12)                       |             | Asphalt.                                                                                               |        |    |
|                    |           |        |              | 0.12                         |             | (MADE GROUND)                                                                                          |        |    |
|                    |           |        | 4.17         | (0.08)                       |             | Grey slightly sandy coarse angular GRAVEL of limestone.                                                |        |    |
|                    |           |        |              | 0.20                         |             | (MADE GROUND - SUBBASE)                                                                                |        |    |
|                    |           |        |              |                              |             | Soft brown very gravelly slightly sandy CLAY. Gravel is fine to coarse subangular to subrounded flint. |        |    |
|                    |           |        |              | (0.70)                       |             | (MADE GROUND)                                                                                          |        |    |
|                    |           |        |              |                              |             |                                                                                                        |        |    |
|                    |           |        | 3.47         | 0.90                         |             | Soft dark greyish brown slightly gravelly SILT. Gravel is fine to coarse subrounded flint.             |        |    |
|                    |           |        |              | (0.20)                       |             | (MADE GROUND)                                                                                          |        |    |
|                    |           |        | 3.27         | 1.10                         |             | Brown slightly clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to subrounded flint.  |        |    |
|                    |           |        |              | (0.20)                       |             | (RIVER TERRACE DEPOSITS)                                                                               |        |    |
|                    |           |        | 3.07         | 1.30                         |             | End of Trial Pit at 1.30m                                                                              |        |    |

Method:

Wheeled backhoe excavator

Groundwater:

Groundwater standing at 1.30m bgl.

Stability:

Stable.

Remarks:

Trial pit terminated at 1.30m bgl as deemed unsuitable for soakaway test due to groundwater. Trial pit backfilled with arisings on completion.

Length:

1.90m

Width:

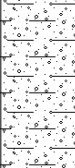
0.60m

Logged:

EY

Checked:

AS

| Sample / Test Type | Depth (m) | Result | Level (mAoD) | Strata Depth (thickness) (m) | Ease of Dig | Description of Strata                                                                                                                                      | Legend                                                                              | GW |
|--------------------|-----------|--------|--------------|------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|
| D                  | 0.90      |        | 4.44         | (0.09)                       |             | Asphalt.                                                                                                                                                   |  |    |
|                    |           |        |              | 0.09                         |             | (MADE GROUND)                                                                                                                                              |                                                                                     |    |
|                    |           |        | 4.33         | (0.11)                       |             | Grey slightly sandy coarse angular GRAVEL of limestone.                                                                                                    |                                                                                     |    |
|                    |           |        |              | 0.20                         |             | (MADE GROUND - SUBBASE)                                                                                                                                    |                                                                                     |    |
|                    |           |        |              |                              |             | Soft brown very gravelly CLAY. Gravel is fine to coarse subrounded to subangular flint.                                                                    |                                                                                     |    |
|                    |           |        |              | (0.60)                       |             | (MADE GROUND)                                                                                                                                              |                                                                                     |    |
|                    |           |        | 3.73         | 0.80                         |             | Soft dark brown slightly gravelly SILT. Gravel is fine to coarse subangular to subrounded flint.                                                           |  |    |
|                    |           |        |              | (0.20)                       |             | (MADE GROUND)                                                                                                                                              |                                                                                     |    |
|                    |           |        | 3.53         | 1.00                         |             | Grey slightly sandy slightly clayey GRAVEL with low cobble content. Gravel is fine to coarse subangular to subrounded flint. Cobbles are subrounded flint. |                                                                                     |    |
|                    |           |        |              |                              |             | (RIVER TERRACE DEPOSITS)                                                                                                                                   |  |    |
|                    |           |        |              | (0.60)                       |             |                                                                                                                                                            |                                                                                     |    |
| B                  | 1.50      |        | 2.93         | 1.60                         |             | End of Trial Pit at 1.60m                                                                                                                                  |                                                                                     |    |

Method:

Wheeled backhoe excavator

Groundwater:

Groundwater seepage at 1.60m bgl.

Stability:

Stable.

Remarks:

Soakaway test undertaken within trial pit, see separate results sheet for details. Trial pit backfilled with 20mm single sized gravel and standpipe installed to allow soakaway test to be undertaken.

Length:

1.90m

Width:

0.60m

Logged:

EY

Checked:

AS

| Sample / Test Type | Depth (m) | Result | Level (mAoD) | Strata Depth (thickness) (m) | Ease of Dig | Description of Strata                                                                                                                                                                | Legend                                                                                | GW |
|--------------------|-----------|--------|--------------|------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----|
| ES                 | 0.40      |        | 4.12         | (0.14)                       |             | Asphalt.<br>(MADE GROUND)                                                                                                                                                            |    |    |
|                    |           |        |              | 0.14                         |             | Grey slightly sandy coarse angular GRAVEL of limestone.                                                                                                                              |    |    |
|                    |           |        | 3.96         | (0.16)                       |             | (MADE GROUND - SUBBASE)                                                                                                                                                              |    |    |
| D                  | 0.70      |        |              | 0.30                         |             | Firm brown slightly sandy very gravelly CLAY. Gravel is fine to coarse subrounded flint.<br>(MADE GROUND)                                                                            |    |    |
|                    |           |        |              | (0.60)                       |             |                                                                                                                                                                                      |                                                                                       |    |
|                    |           |        | 3.36         | 0.90                         |             | Soft dark greyish brown slightly sandy slightly gravelly SILT. Gravel is fine to medium subrounded to rounded flint.                                                                 |    |    |
| D                  | 1.50      |        | 3.21         | (0.15)                       |             | (MADE GROUND)                                                                                                                                                                        |    |    |
|                    |           |        |              | 1.05                         |             | Light brown to cream slightly clayey slightly sandy medium to coarse subangular to subrounded GRAVEL of flint with low cobble content. Gravel is chalk and flint. Cobbles are flint. |    |    |
|                    |           |        |              |                              |             | (RIVER TERRACE DEPOSITS)                                                                                                                                                             |    |    |
| D                  | 2.00      |        |              | (1.25)                       |             |                                                                                                                                                                                      |                                                                                       |    |
|                    |           |        |              |                              |             |                                                                                                                                                                                      |                                                                                       |    |
|                    |           |        |              |                              |             |                                                                                                                                                                                      |                                                                                       |    |
|                    |           |        | 1.96         | 2.30                         |             | End of Trial Pit at 2.30m                                                                                                                                                            |  |    |

Method: Wheeled backhoe excavator

Groundwater: Groundwater at 2.28m bgl.

Stability: Stable.

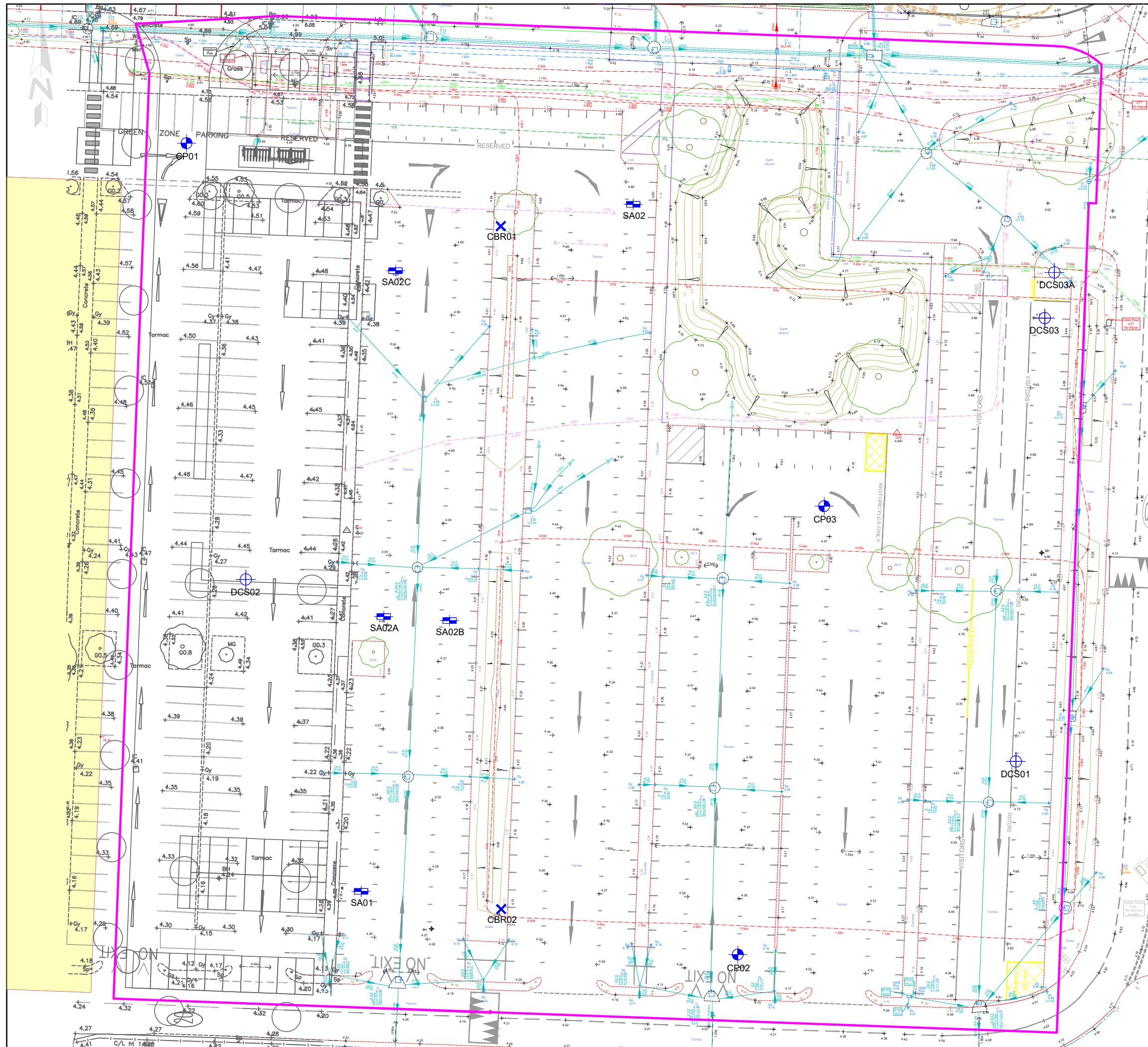
Remarks: Soakaway test undertaken within trial pit, see separate results sheet for details. Trial pit backfilled with 20mm single sized gravel and standpipe installed to allow soakaway test to be undertaken.

Length: 2.10m

Width: 0.60m

Logged: EY

Checked: AS



Key:

-  Cable Percussion Borehole
-  Driven Continuous Sampling Borehole
-  Soakaway Test
-  CBR Test
-  Site boundary

Drawing based on Greenhatch Group drawing No. 38869D\_T Rev 1 dated 13.09.2023 and Baynham Meikle drawing No. 114 Rev P1 dated 09.06.2023.

## APPLIED GEOLOGY

The Old Barn  
Church Farm  
Fulbrook Lane  
Sherbourne  
Warwick  
CV34 8AR

Tel: 02476 511822  
email: [admin@appliedgeology.co.uk](mailto:admin@appliedgeology.co.uk)

Client:  
HAVANT S.A.R.L

Project:  
LANGSTONE TECHNOLOGY PARK,  
HAVANT

Title:  
EXPLORATORY HOLE LOCATION PLAN

|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Drawn by:<br>KM             | Checked by:<br>EY   | Paper Size:<br>A3 |
| Scale:<br>1:500             | Date:<br>21/11/2023 |                   |
| Drawing No:<br>AG3544-23-02 | Revision:<br>0      |                   |