



**STAR RADCLIFFE ACADEMY**

**ADDITIONAL TEMPORARY  
ACCOMODATION (TEMPS 2)  
FLOOD RISK AND DRAINAGE  
TECHNICAL NOTE**

Project No: 2303-02

January 2025

Rev: P03

FS1013-REN-XX-XX-T-C-0165

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                      **MEng**

Date              **08.01.2025**

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Date              **08.01.2025**

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| Rev. | Description         | Author      | Checked      | Date       |
|------|---------------------|-------------|--------------|------------|
| P01  | Issued for comment  | H Wilkinson | P Whitesmith | 08.01.2025 |
| P02  | Issued for planning | H Wilkinson | P Whitesmith | 10.01.2025 |
| P03  | Updated for comment | J Bullough  | P Whitesmith | 15.01.2025 |

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## 1. INTRODUCTION

### *1.1 Purpose of this Report*

This Site-Specific Flood Risk Assessment and Drainage Strategy Technical Note has been produced to support a prior approval application for additional temporary school accommodation to be installed in relation to Star Radcliffe Academy known as Temps 2.

The assessment includes a summary of the flood risk associated with the proposed development in accordance with the National Planning Policy Framework (NPPF) and supporting Planning Practice Guidance and provides details of the proposed drainage strategy.

This technical note should be read in conjunction with the previously approved drainage reports for the permanent Star Radcliffe Academy development:

- renaissance Star Academy Flood Risk Assessment – FS1013-REN-XX-XX-T-C-0160
- renaissance Star Academy Drainage Strategy – FS1013-REN-XX-XX-T-C-0161

## 2. THE SITE

### 2.1 Site Location

The proposed development site is located off Spring Lane, Radcliffe.

The site location is described below:

- Post Code M26 2SZ
- OS X (Easting) 378714
- OS Y (Northing) 407606
- Nat. Grid SD 787076

The site location is illustrated in Figure 2.1 below. The approximate overall planning boundary for the temporary accommodation associated with Star Radcliffe Academy is shown in red with the development boundary for Temps 2 indicated in purple.



Imagery ©2022 Bluesky, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, Map Data ©2022

**Figure 2.1: Indicative Site Location**

### 2.2 Site Description

The additional temporary accommodation site is circa 0.23 hectares. The site was historically occupied by a school (Spring Lane School) and leisure centre which were both demolished in 2024 to allow for the installation of the existing temporary accommodation block with associated foul and surface water drainage networks (refer to Appendix A for the final construction drainage plan of the existing temporary accommodation).

The topographical survey indicates that the site lies approximately between 70.450m AOD to the wester site boundary and 70.100 AOD at the south-eastern boundary.

### 2.3 Proposed Development

The erection of two-storey temporary school buildings alongside associated site infrastructure. Refer to proposed development plans in Appendix B for details.

### 3. FLOOD RISK ASSESSMENT

#### 3.1 Flood Risk Vulnerability

The Flood Risk Vulnerability Classification has been determined in accordance with Planning Practice Guidance, Flood Risk and Coastal Change. For multi-occupancy sites, the Flood Risk Vulnerability should be based upon the most vulnerable part of the site. The Flood Risk Vulnerability Classification is therefore 'More Vulnerable', which includes 'Non-residential uses for health services, nurseries and educational establishments'.

#### 3.2 Flood Zone Compatibility

The Flood Zone Compatibility has been reviewed in accordance with Planning Practice Guidance, Flood Risk and Coastal Change, paragraph 079.

| FLOOD ZONES | FLOOD RISK VULNERABILITY CLASSIFICATION |                         |                         |                 |                  |
|-------------|-----------------------------------------|-------------------------|-------------------------|-----------------|------------------|
|             | Essential infrastructure                | Highly vulnerable       | More Vulnerable         | Less Vulnerable | Water Compatible |
| Zone 1      | ✓                                       | ✓                       | ✓                       | ✓               | ✓                |
| Zone 2      | ✓                                       | Exception Test Required | ✓                       | ✓               | ✓                |
| Zone 3a     | Exception Test Required                 | ✗                       | Exception Test Required | ✓               | ✓                |
| Zone 3b     | Exception Test Required                 | ✗                       | ✗                       | ✗               | ✓*               |

*Table 3.1: Flood Risk Vulnerability and Flood Zone Compatibility Key*

Key:

✓ Development is appropriate

✗ Development should not be permitted

According to the Environment Agency (EA) indicative flood maps for planning, the development site holds a Flood Zone 1 classification, i.e., land assessed as having less than 1 in 1,000 annual probability of flooding in any given year (refer to Figure 3.1 for map). Therefore, the proposal is considered appropriate in accordance with Planning Practice Guidance.

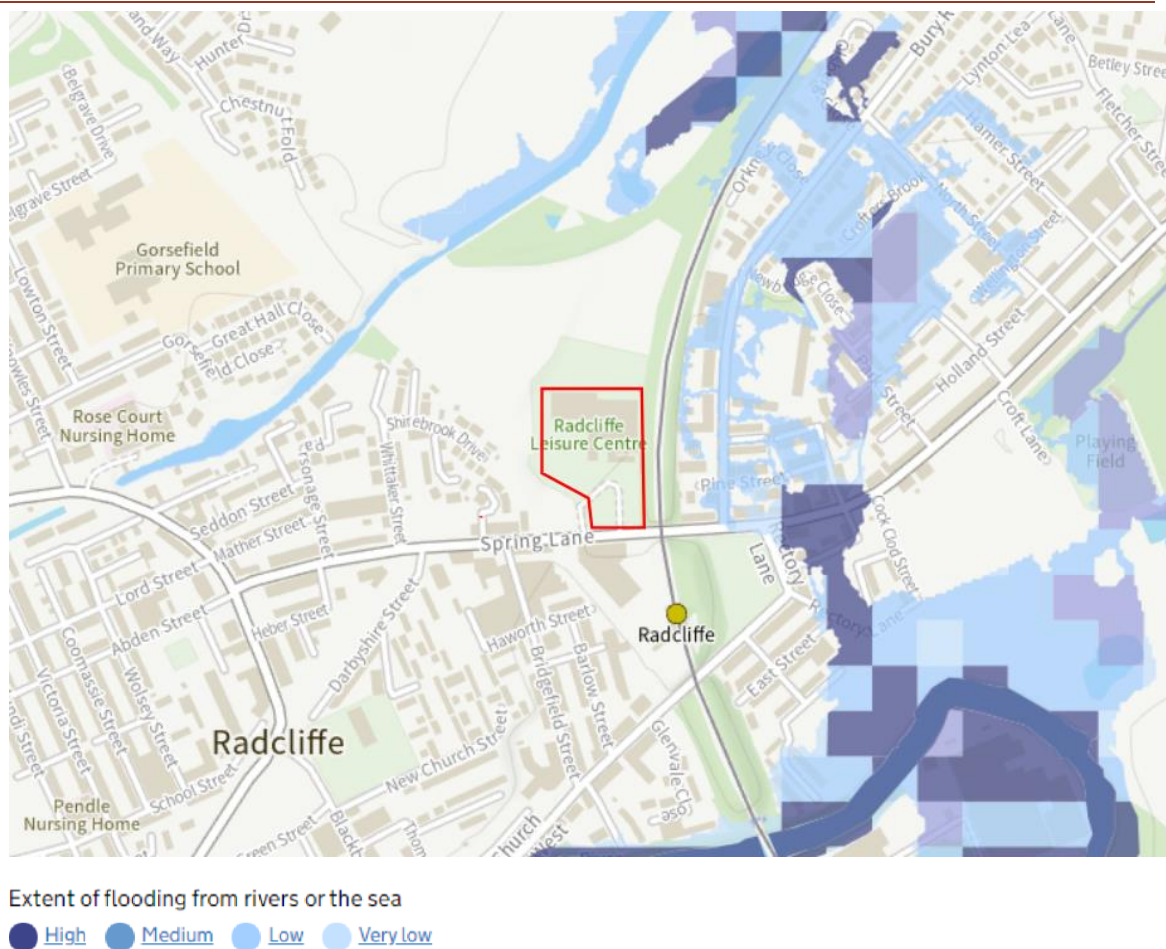


**Figure 3.1: The EA's Indicative 100-year Fluvial Floodplain Map**

### 3.3 Flood Map for Planning (Rivers and Seas)

Fluvial flooding occurs when high flows exceed the capacity of the river channel and spill out onto the floodplain, usually after a period of prolonged or heavy rainfall.

The EA Flood Map for planning (rivers and sea) has been reviewed (Figure 4.1). The site falls wholly within Flood Zone 1. The risk of flooding from Rivers and Sea across the site is very low. It means that each year the land is assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).



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**Figure 3.2: Risk of flooding from Rivers and Seas**

### 3.4 Flooding from Land (Pluvial Flooding)

The Environment Agency Map showing risk of flooding from surface water is presented in Figure 4.2. This type of flooding can be difficult to predict, much more so than river or sea flooding as it is hard to forecast exactly where or how much rain will fall in any storm.

As illustrated in figure 4.2, the site is typically at very low (<0.1%) risk of surface water flooding with small areas of medium (0.1%-1%) - to high (>3%)-risk towards the southern area of the site in the existing car park areas.

This map is not definitive and is based on the best information available to the Environment Agency, such as ground levels and drainage.

To mitigate any risk associated with surface water flooding, appropriate falls are to be adopted to mitigate any issues. In the proposed development, the ground is to be reprofiled with gullies/channel drains to ensure that surface water can flow freely into the drainage network.



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**Figure 3.3: Risk of Flooding from Surface Water**

### 3.5 Flooding from Groundwater

Groundwater flooding tends to occur sporadically in both location and time. When groundwater flooding does occur, it tends to mostly affect low-lying areas, below surface infrastructure and buildings (for example, tunnels, basements, and car parks) underlain by permeable rocks (aquifers).

A review of the record searches carried out as part of the phase I geo-environmental survey for the site shows that the site is within a low vulnerability area for groundwater flooding. However, investigations have shown that there is a relatively high water table in parts of the site. To mitigate against this, the external levels are to be developed to ensure that these are not reduced from the existing situation in areas of high groundwater.

Based on the above, the site is not considered to be at risk from groundwater flooding.

### 3.6 Flooding from Sewers

Sewer flooding occurs when urban drainage networks become overwhelmed and maximum capacity is reached. This can occur if there is a blockage in the network causing water to back up behind it or if the sheer volume of water draining into the system is too great to be handled. This type of flooding tends to occur sporadically in both location and time. The majority of sewers are built to the guidelines within Sewers for Adoption. These sewers have a design standard to the 1 in 30-year flood event and therefore it is likely that most sewer systems will surcharge during rainstorm events with a return period greater than 30 years.

Greater Manchester Combined Authority records for Bury Council show no incidents of flooding on the site because of surcharging of public sewers.

The development proposals also intend to reduce the rate of surface water discharge from the site and accommodate the balance of flows up to and including the 1 in 100-year critical event plus climate change allowance. This restriction will have a positive impact on the surrounding existing drainage and hence work to mitigate the long-term risk of flooding from sewers.

### 3.7 Flooding from Reservoirs

The Environment Agency Reservoir flood risk map indicates the site to be outside of the maximum flood extent of a breach to any local reservoir.



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**Figure 3.4: Risk of Flooding from Reservoirs**

### 3.8 Summary of Flooding Risks

Based on the above review the site is in Flood Zone 1.

The risk of flooding from pluvial, surface water, groundwater, sewers, and reservoirs are all considered to be low.

## 4. OUTLINE DRAINAGE STRATEGY

Refer to Appendix C for the Below Ground Drainage General Arrangement drawing

### 4.1 Surface Water System

The development will have a dedicated surface water network that is to collect the rainwater from the proposed building roof, and impermeable external areas. The system will then discharge under gravity into the existing temporary accommodation drainage network which re-uses the previous permanent school/leisure centre connection into the 2300mm diameter surface water culvert to the south of the site.

The drainage network serving the existing temporary accommodation discharges into the culvert at an unrestricted rate as approved as part of the planning application for this element of the works on site (planning reference 70002 25/10/2023). The unrestricted rate was agreed based on the reduction in impermeable areas from the historic wider site and the associated construction works required to attenuate a restricted flow given the short timeframe the temporary accommodation will be used for.

The combined area of the existing and additional temporary accommodation blocks is 1.47 Ha which represents a 0.51 Ha (26%) reduction from the historic 1.98 Ha of impermeable area discharging into the culvert through the permanent school/leisure centre drainage network.

Since the additional temporary accommodation will be in use for a similar amount of time to the previously approved existing block and the total impermeable area remains a reduction from the historic drained area it is proposed that the drainage network for the additional temporary accommodation follows the same principles with an unrestricted discharge rate.

The surface water connection will be subject to a approval with Bury Council LLFA.

The surface water drainage network is to be designed in accordance with Building Regulations Part H, BS EN 752 and Code for Adoption. In addition, the following requirements will also be adopted in accordance with the Non-Statutory Technical Standards for Sustainable Drainage:

- The below ground drainage system will be designed to ensure flooding does not occur on site for the 1 in 30 year and no internal flooding for the 1 in 100-year rainfall events
- The surface water system is to be designed to accommodate the 1, 2, 30 and 100 year return events with 40% and 45% climate change allowances for the 30 and 100 year events respectively. The system will be designed for a maximum storm duration of 6 hours.

### 4.2 Foul Water System

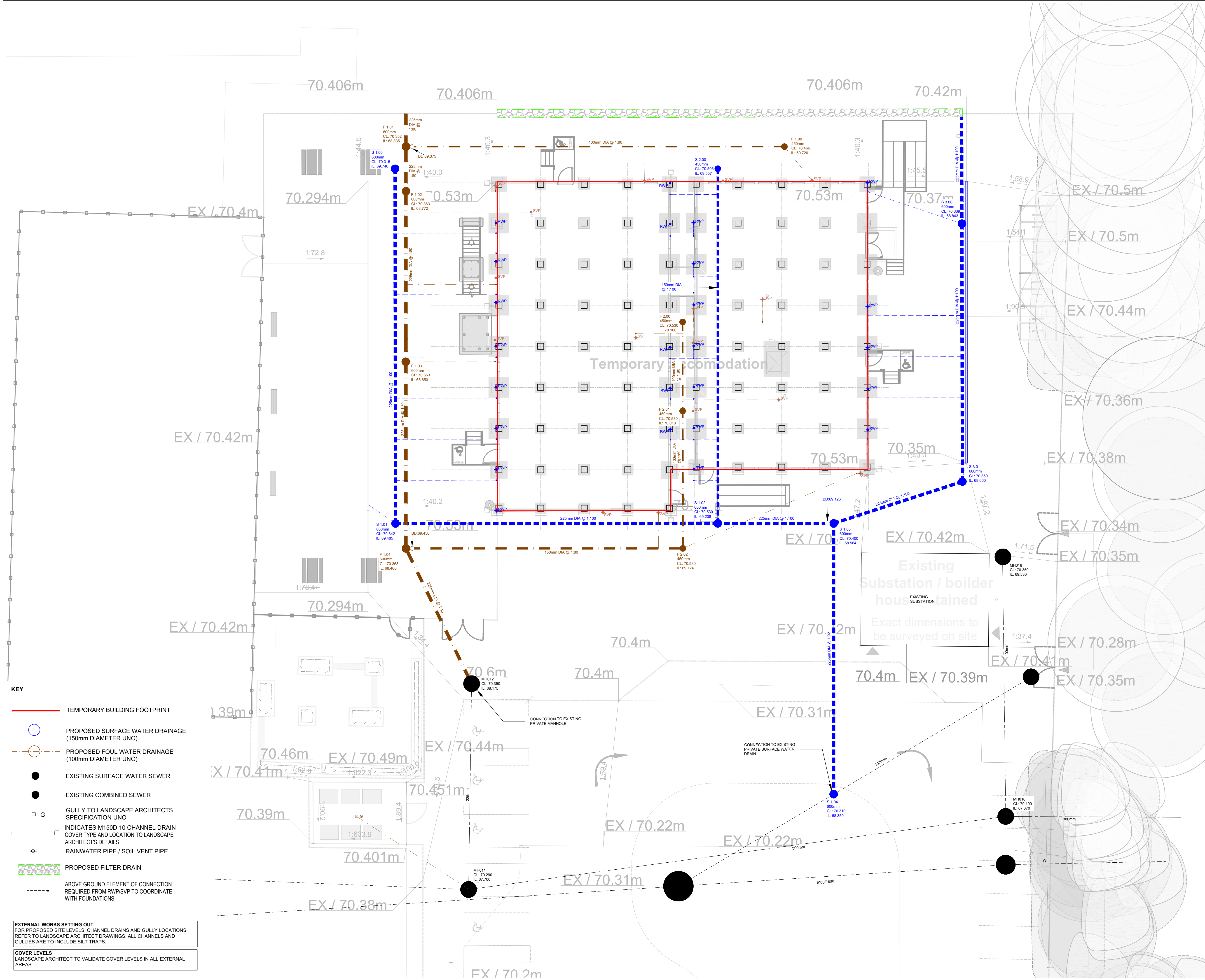
The site will have a dedicated foul water drainage network that will collect the foul water associated with the development. The system will then discharge into the existing temporary accommodation drainage network which re-uses the previous permanent school/leisure centre connection into the United Utilities sewer to the east of the site within Bury Road.

The new foul water drainage connection will be subject to a separate Section 106 application with United Utilities.

The drainage system is to be designed in accordance with Building Regulations Part H, BS EN 752 and Codes for Adoption.

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**APPENDIX A**  
**EXISTING TEMPORARY ACCOMODATION DRAINAGE NETWORK**



- NOTES
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RENAISSANCE, ARCHITECTS, LANDSCAPE ARCHITECTS AND BUILDING SERVICES ENGINEERS DRAWINGS.
  - FOR ALL ABOVE GROUND DRAINAGE AND ASSOCIATED PUMPS REFER TO BUILDING SERVICES AND ARCHITECT'S DRAWINGS.
  - ALL BELOW GROUND DRAINAGE WORKS TO BE IN ACCORDANCE WITH RELEVANT BUILDING REGULATIONS AND SEWER SECTOR GUIDANCE APPENDIX C - DESIGN AND CONSTRUCTION GUIDANCE. IF DISCREPANCIES ARE NOTED BETWEEN SSG AND DRAWINGS THESE SHOULD BE BROUGHT TO THE ATTENTION OF RENAISSANCE FOR REVIEW.
  - RWPs, SVPs, SSs AND FLOOR GULLEYS ARE TO HAVE RODDABLE ACCESS POINTS ABOVE GROUND FLOOR TO BUILDING SERVICES DETAILS. ALL FLOOR GULLEYS AND RWPs ARE TO BE TRAPPED.
  - ALL GULLY AND CHANNEL DRAIN LOCATIONS ARE INDICATIVE. REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR SETTING OUT AND SPECIFICATION.
  - ALL FOUL AND SURFACE WATER DRAINAGE TO BE 150mm DIA UNLESS NOTED OTHERWISE.
  - SEWERS TO BE LAID IN CLASS S BEDDING (150mm GRANULAR BED AND SURROUND), WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN: 1.2m IN HIGHWAYS OR VERGES, OR LESS THAN 0.9m IN PEDESTRIAN AREAS, THEN A 150mm CONCRETE SLAB SHOULD BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND.
  - THE CONTRACTOR IS TO UNDERTAKE A FULL CCTV SURVEY AT COMPLETION OF THE PROJECT TO DEMONSTRATE THAT THE DRAINAGE IS CLEAN. ANY DEFECTS ARE TO BE CORRECTED BY THE CONTRACTOR PRIOR TO HANDOVER OF THE SYSTEM TO THE CLIENT.
  - DURING THE WORKS ALTERATIONS TO THE DRAINAGE LAYOUT ARE TO BE MARKED UP BY THE CONTRACTOR AND AGREED WITH RENAISSANCE IN WRITING.
  - THE CHAMBER SIZE OF PCC MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
  - ALL INTERNAL MANHOLE COVERS TO BE RECESSED AND TRIPLE SEALED.
  - COVER SLABS MUST CARRY THE BSI KITEMARK, WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING REDUCING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO REQUIRED SIZE.
  - ALL SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01)
  - ALL CONCRETE PIPES TO BE TO ES EN 1916 CLASS 120 (54kN/m).
  - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2).
  - IF PLASTIC PIPES ARE TO BE USED THEN THE FOLLOWING MUST APPLY:  
A. BSI KITEMARK (CERTIFIED TO BS EN 13476-1 AND WIS 4-35-01)  
B. PIPES LESS THAN OR EQUAL TO 500mm DIA  
C. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2)
  - THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m.
  - THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE CLASS 120 TO EN 1916/BS5911-1 2002. PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
  - SEWER PIPES TO BE LAID IN MAXIMUM 3 METER LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER PIPES, AND THIS IS AGREED BY THE CONTRACTOR WITH THE PIPE MANUFACTURER.
  - RAINWATER PIPE LOCATIONS ARE INDICATIVE AND SUBJECT TO CONFIRMATION FROM THE ARCHITECT/ BUILDING SERVICES ENGINEER. THIS MAY IMPACT PIPE SIZES SUBJECT TO LOCATIONS.
  - ALL FOUL AND SURFACE WATER BELOW GROUND SYSTEMS ARE TO BE VENTED WITHIN THE ABOVE GROUND DRAINAGE TO THE BUILDING SERVICES ENGINEERS DETAILS.

|      |                                          |          |     |       |
|------|------------------------------------------|----------|-----|-------|
| C04  | FINAL CONSTRUCTION ISSUE                 | 08.08.24 | HW  | PW    |
| C03  | INVERT LEVELS UPDATED TO AS BUILT LEVELS | 21.06.24 | HW  | PW    |
| C02  | COVER LEVELS UPDATED                     | 06.06.24 | SA  | PW    |
| C01  | ISSUE FOR CONSTRUCTION                   | 20.05.24 | SA  | PW    |
| Rev: | Description:                             | Date:    | By: | Chkd: |



Project: **STAR RADCLIFFE ACADEMY BURY**

Drawing Title: **TEMPORARY SCHOOL ACCOMMODATION BELOW GROUND DRAINAGE PLAN**

Status: **FINAL CONSTRUCTION** **A5**

|       |        |           |              |             |
|-------|--------|-----------|--------------|-------------|
| Size: | Date:  | Drawn by: | Designed by: | Checked by: |
| A1    | NOV'23 | SA        | SA           | PW          |

|                                                               |       |             |         |
|---------------------------------------------------------------|-------|-------------|---------|
| Scale:                                                        | 1:125 | Project No: | 2303-02 |
| Project - Originator - Volume - Level - Type - Role - Number: |       |             |         |

FS1013-REN-EX-00-D-C-5215 C04

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**APPENDIX B**  
**ADDITIONAL TEMPORARY ACCOMODATION DEVELOPMENT**  
**PLANS**

This drawing is the property of Portakabin Limited. It must not be copied or reproduced or divulged to anyone without written permission.

Do not scale off this drawing. All discrepancies to be reported to Portakabin Limited.

Elevation titles are indicative, not representative of orientation on site

| Rev | Revision Description                                                               | Date     | By  |
|-----|------------------------------------------------------------------------------------|----------|-----|
| A   | Layout amended in accordance with MS feedback. Kitchen separated from main block.  | 18/11/24 | WEH |
| B   | Internal amendments made from group discussion.                                    | 21/11/24 | WEH |
| C   | Productive meeting with MS / FM with a few amendments to help with site logistics. | 22/11/24 | WEH |
| D   | Feedback from D.R. - IT Hub removed, science made larger. Office added to FF       | 26/11/24 | WEH |
| E   | Feedback from Principal                                                            | 27/11/24 | WEH |
| F   | Tea point amended, drawing issued to furniture company.                            | 03/12/24 | WEH |
| G   | PE Store removed, lab furniture clarified                                          | 11/12/24 | LDI |



2 First Floor  
1 : 100



1 Ground Floor  
1 : 100

Standard floor loading is 3kN/m². Any loading imposed on a floor that is greater than 3kN/m² may require strengthening. Please contact your hire centre if you expect to exceed 3kN/m².

Any fire strategy shown on this drawing is subject to Fire Officer and Building Control approval

Please note that this and any accompanying drawing(s) are for illustrative purposes only and as such, the building shown may vary from the actual finished building on site.

The position of windows, external doors and electrical fixtures (if shown) are dependent on stock availability at time of order.

#### EXTERNAL COLOUR SCHEME | Ultima

**Walls** - Goosewing Grey - nearest BS ref 10 A 05  
**Vertical wall trim** - Goosewing Grey - nearest BS ref 10 A 05  
**Bottom wall trims** - White - nearest BS ref 00 E 55  
**Long wall fascias (covering wall)** - Goosewing Grey - nearest BS ref 10 A 05  
**Long wall fascia (covering beam)** - White - nearest BS ref 00 E 55  
**Short wall composite fascia** - Goosewing Grey - nearest BS ref 10 A 05  
**Roof** - White - nearest BS ref 00 E 55  
**External Skirt** - Goosewing Grey - nearest BS ref 10 A 05  
**Columns, external corners** - Grey - BS 4800 00 A 05  
**Columns, intermediate** - Grey - BS 4800 00 A 05  
**Windows** - Blue Grey - nearest BS 4800 18 B 29  
**Doors (insulated door)** - Slate grey - nearest BS 18 B 25

**Internal Portakabin Note**  
For connection details please see drawing DQ0539



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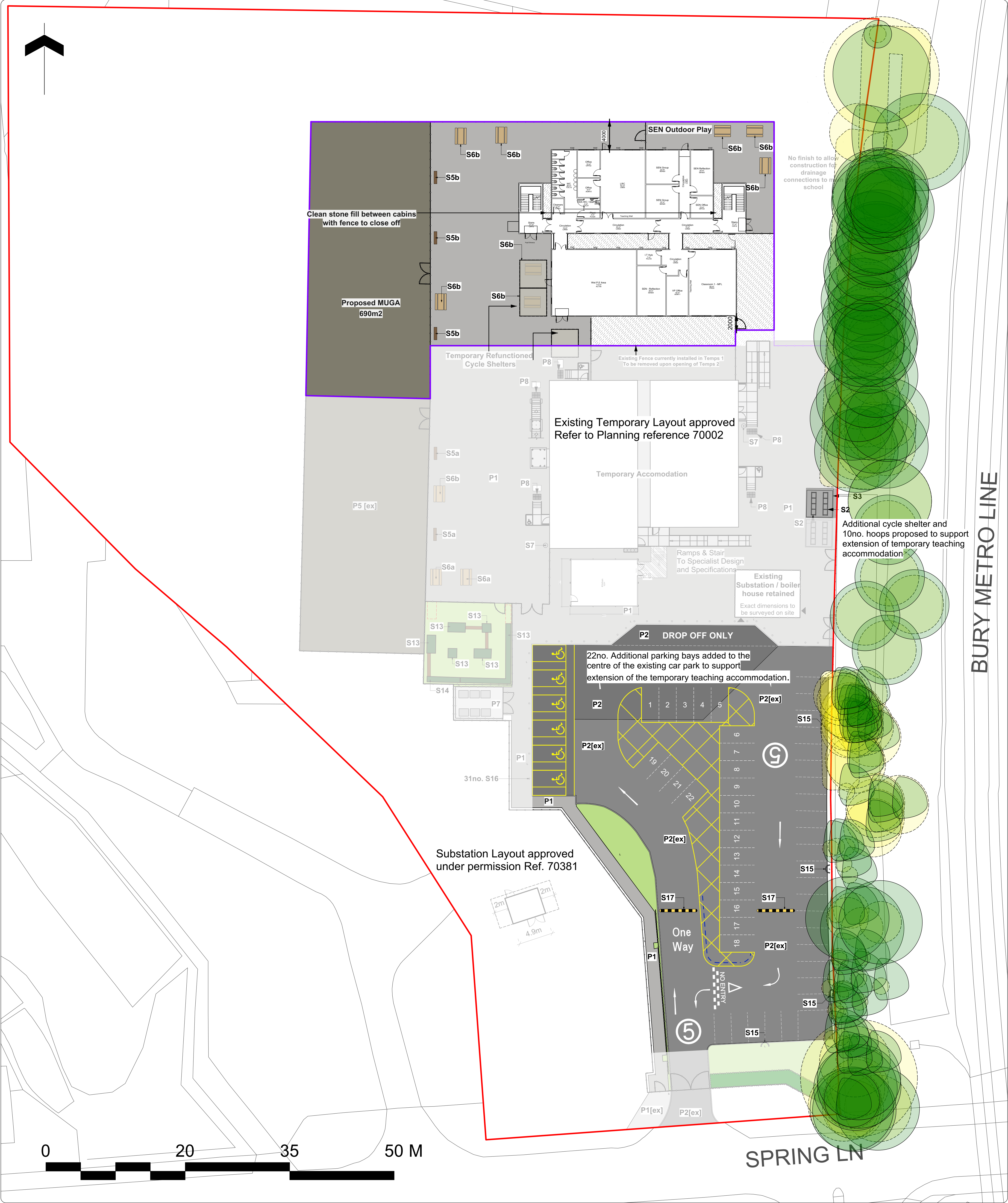
[portakabin.co.uk](http://portakabin.co.uk)

|                 |          |                                                                                  |  |
|-----------------|----------|----------------------------------------------------------------------------------|--|
| Client:         |          | Morgan Sindall                                                                   |  |
| Project:        |          | Star Radcliffe School                                                            |  |
| Title:          |          | LAYOUT - 7 on 7 UK123 linked to 8 on 8 UK093 - Stair / Lift Pod - Ultima Modules |  |
| Scale @ A1:     | Date:    | Drawn By:                                                                        |  |
| 1 : 100         | 27/11/24 | WEH                                                                              |  |
| Drawing Number: | Rev:     |                                                                                  |  |
| HD/14073/01     |          | G                                                                                |  |

Fire Strategy to be confirmed. Subject to Fire/building officer approval. Max compartment size to be confirmed when location of nearest existing (functional) hydrant is known. If found to be more than 100m from the proposed buildings (where a hose can run), upgraded 60min wall construction or full redesign may be required to reduce compartments to 280m2. Alternatively additional hydrant(s) could be installed as per building regs requirements

Total Floor Area - 1250m²

- 99mm Single Skin Partition
- 124mm Double Skin Partition
- Indicates where 30 min fire rating to be maintained
- Indicates where 60 min fire rating to be maintained



**Note**

1. Do not scale from this drawing

2. To be read in conjunction with Project Risk Register REF: FS1013-ALA-EX-XX-T-L-0002

3. To be read in conjunction with all other Landscape Architect's drawings

4. To be read in conjunction with Outline Landscape Specification REF: FS1013-ALA-EX-XX-SPL-0001

|    |                                                                              |                                                                     |            |
|----|------------------------------------------------------------------------------|---------------------------------------------------------------------|------------|
| 1. | Falling on stairs and ramps.                                                 | Stairways and ramps to be designed by specialists.                  | 16.11.2023 |
| 2. | Collision between pedestrians and vehicles in car park                       | Pedestrian barrier, kerbs, road markings to clearly denote parking. | 16.11.2023 |
| 3. | Collision between pedestrians and cyclist accessing cycle storage facilities | School to manage speed on site Clear wayfinding to be developed     | 16.11.2023 |
| 5. | Collision pedestrians / windows                                              | Windows unopenable.                                                 | 16.11.2023 |

| ID                     | RISK | MITIGATION | DATE MITIGATED |
|------------------------|------|------------|----------------|
| RESIDUAL PROJECT RISKS |      |            |                |

**KEY**

**Site**

Temporary Accommodation Extension Area

Planning Application Boundary

Proposed Building

Existing Building to be demolished

Existing Tree Retained

Root Protection Area (RPA)

**Planting**

Details refer to Planting Plan

Existing Grass Area to be Overseeded

Proposed Hedge Planting

**Hard Surfaces**

P1 Proposed Pedestrian Macadam To Engineer's Specification

P1 [ex] Existing Pedestrian Macadam Retained

P2 Proposed Vehicular Macadam To Engineer's Specification

P2 [ex] Existing Vehicular Macadam Retained

P7 Proposed Concrete Surfacing To Engineer's Specification

P5 Existing MUGA Permeable Surface Retained

P8 Corduroy Tactile Paving

P10 Loose Stone Aggregate

**Furniture**

S2 Cycle Stands To be Reused in Permanent Scheme

S3 Cycle Shelter To be Reused in Permanent Scheme

S4 Door Protection Barrier To be Reused in Permanent Scheme

S5 Seating Bench To be Reused in Permanent Scheme

S6 Picnic Table To be Reused in Permanent Scheme

S7 Litter Bin To be Reused in Permanent Scheme

S13 Existing Raised Planter and Seating To be retained and refined as part of Temporary Scheme

S14 Proposed Raised Planter and Seating To be repurposed from demolished raised planters

S15 Lighting Column Protection Barriers Contractor's Choice

S16 Bollards to Temporary Scheme Contractor's Choice

S17 75mm Speed Bump for Road Calming Contractor's Choice

S19 Eurobins By Others

**Fencing and Structures**

Existing Fencing

Temporary Vehicle Barriers Contractor's Choice

Proposed Fencing & Gates

**Others**

Proposed Column For illustrative purposes only. Refer to engineer's drawings for exact location and specification

Existing Gas Cannisters Indicative - For illustrative purposes only

Proposed Substation To provide power for both Temp 1 & 2

NOTE: Furniture and Fencing to be reused in permanent scheme

D/E DESIGN DELIVERABLE REF :

n/a

DATE

REV

DESCRIPTION OF REVISION

DRAWN BY

APPROVED BY

REVISIONS

STATUS :

S4 - LAP Authorisation

**ares**  
LANDSCAPE ARCHITECTS

Ares Landscape Architects LTD  
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51 Eyre Lane  
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e: hello@aresdesign.co.uk  
w: ares.eu.com

CLIENT :

Morgan Sindall

PROJECT TITLE :

Star Radcliffe Academy, Bury

DRAWING TITLE :

Temps 2 Illustrative Masterplan

DRAWING SCALE :

1:250

PAPER SIZE :

A1

DRAWING NUMBER :

FS1013-ALA-EX-ZZ-D-L-0120

STATUS :

S4

DRAWN BY :

CH

APPROVED BY :

RS

DRAWN DATE :

28/11/2024

ALA PROJECT CODE :

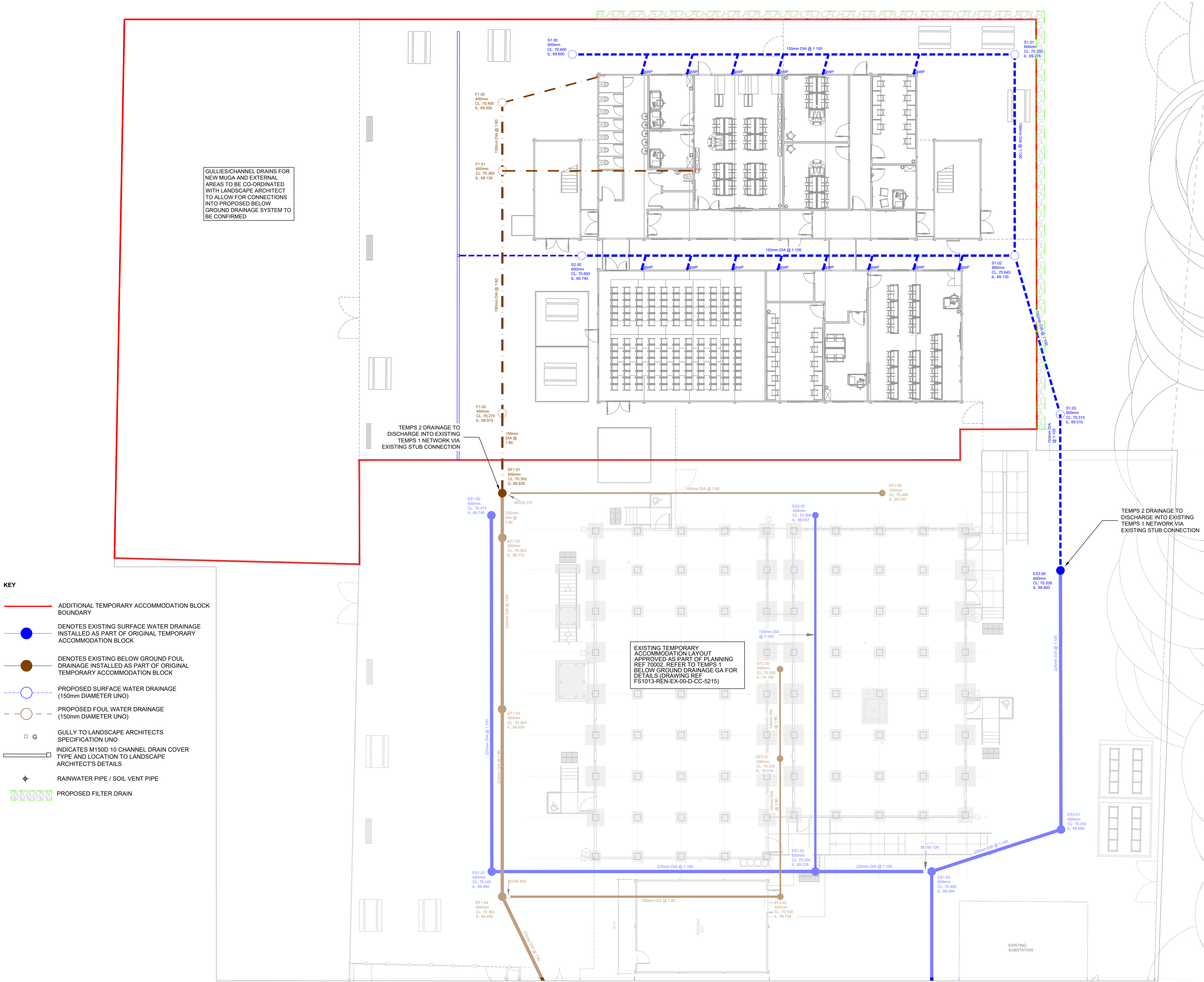
ALA805

REVISION :

P01

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**APPENDIX C**  
**ADDITIONAL TEMPORARY ACCOMODATION BELOW GROUND**  
**DRAINAGE PLAN**



- NOTES
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  - THE CONTRACTOR IS TO UNDERTAKE A FULL CCTV SURVEY AT COMPLETION OF THE PROJECT TO DEMONSTRATE THAT THE DRAINAGE IS CLEAN. ANY DEFECTS ARE TO BE CORRECTED BY THE CONTRACTOR PRIOR TO HANDOVER OF THE SYSTEM TO THE CLIENT.
  - DURING THE WORKS ALTERATIONS TO THE DRAINAGE LAYOUT ARE TO BE MARKED UP BY THE CONTRACTOR AND AGREED WITH RENAISSANCE IN WRITING.
  - THE CHAMBER SIZE OF PCC MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
  - ALL INTERNAL MANHOLE COVERS TO BE RECESSED AND TRIPLE SEALED.
  - COVER SLABS MUST CARRY THE BSI KITEMARK. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING REDUCING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO REQUIRED SIZE.
  - ALL SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01).
  - ALL CONCRETE PIPES TO BE TO ES EN 1916 CLASS 120 (54kN/m).
  - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2).
  - IF PLASTIC PIPES ARE TO BE USED THEN THE FOLLOWING MUST APPLY:  
A. BSI KITEMARK (CERTIFIED TO BS EN 13476-1 AND WIS 4-35-01)  
B. PIPES LESS THAN OR EQUAL TO 500mm DIA  
C. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2)
  - THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m.
  - THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE CLASS 120 TO EN 1916/BS5911-1 2002. PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
  - SEWER PIPES TO BE LAID IN MAXIMUM 3 METER LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER PIPES, AND THIS IS AGREED BY THE CONTRACTOR WITH THE PIPE MANUFACTURER.
  - RAINWATER PIPE LOCATIONS ARE INDICATIVE AND SUBJECT TO CONFIRMATION FROM THE ARCHITECT/ BUILDING SERVICES ENGINEER. THIS MAY IMPACT PIPE SIZES SUBJECT TO LOCATIONS.
  - ALL FOUL AND SURFACE WATER BELOW GROUND SYSTEMS ARE TO BE VENTED WITHIN THE ABOVE GROUND DRAINAGE TO THE BUILDING SERVICES ENGINEERS DETAILS.

**EXTERNAL WORKS SETTING OUT**  
FOR PROPOSED SITE LEVELS, CHANNEL DRAINS AND GULLY LOCATIONS, REFER TO LANDSCAPE ARCHITECT DRAWINGS. ALL CHANNELS AND GULLIES ARE TO INCLUDE SILT TRAPS.

**COVER LEVELS**  
LANDSCAPE ARCHITECT TO VALIDATE COVER LEVELS IN ALL EXTERNAL AREAS.

|      |                          |          |     |       |
|------|--------------------------|----------|-----|-------|
| P02  | UPDATED TO SUIT COMMENTS | 15.01.25 | JB  | PW    |
| P01  | ISSUED FOR PLANNING      | 10.01.25 | HW  | PW    |
| Rev: | Description:             | Date:    | By: | Chkd: |



Project:  
**STAR RADCLIFFE ACADEMY BURY**

Drawing Title:  
**ADDITIONAL TEMPORARY ACCOMMODATION DRAINAGE PLAN**

Status:  
**STAGE 3**

|       |        |           |              |             |
|-------|--------|-----------|--------------|-------------|
| Size: | Date:  | Drawn by: | Designed by: | Checked by: |
| A1    | JAN 25 | HW        | HW           | PW          |

|                                                               |       |             |         |
|---------------------------------------------------------------|-------|-------------|---------|
| Scale:                                                        | 1:125 | Project No: | 2303-02 |
| Project - Originator - Volume - Level - Type - Role - Number: |       |             |         |

**FS1013-REN-EX-00-D-C-5235**

**S4**

**P02**