



ANDREW FIREBRACE PARTNERSHIP
STRUCTURAL AND CIVIL ENGINEERING CONSULTANTS

WATER NEUTRALITY STATEMENT

Andrew Firebrace Partnership Structural & Civil Engineering Consultants
Stable Barn, Park End, Swaffham Bulbeck, Cambridge, CB25 0NA.
Tel: 01223 811572 Fax: 01223 812 719 Email: info@afpconsult.co.uk

Quality Assurance

Site name: Cherry Gate Farm, Norwich Road, Mendlesham, Suffolk IP14 5NE

Client name: SuperSIPs Ltd

Type of report: Water Neutrality Statement

Job Reference: 237002

File Path: G:\2023 Jobs\237002 (CA) Cherrygate Farm, Mendlesham, Suffolk\10.0 Drainage

Prepared by: Chris Auber Bsc (Hons) IEng MICE

Position Associate Civil Engineer

Date October 2023

Checked by: Simon Nesbit Bsc (Hons) CEng MICE

Position Director

Date October 2023

Approved by: Paul Austin Bsc (Hons) CEng MStructE MICE

Position Director

Date October 2023

Rev	Date	Details	Prepared by	Checked by	Approved by
P1	October 2023	Draft issue for external review	CGA	SN	PA

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1 Introduction

- 1.1 Andrew Firebrace Partnership have been commissioned by SuperSIPs Ltd to prepare a Water Neutrality Statement in accordance with the National Planning Policy Framework (NPPF, July 2021) and the NPPF Technical Guidance document, Mid-Suffolk County Council Local Plan 1998 (Core Strategy Policy CS3), Water Resources Management Plan 2019 (WRMP19) and draft 2024 Water Resources Management Plan (dWRMP24). This statement will form part of the supporting information submitted for a detailed planning application (ref. DC/21/01048) for a change of use of land from poultry to structural insulated panels (SIPs) manufacturer development, comprising 12 existing buildings with an additional warehouse for the storage of robots associated with the manufacturing process.
- 1.2 The purpose of this report is to provide a statement of the proposed water consumption of the site and if this adversely affects the Hartismere Water Resource Zone (WRZ) in which the site is located.
- 1.3 The preparation of this Water Neutrality Statement required references to be made to the various sources including:
 - The Mid-Suffolk Local Plan (1998)
 - Water Resources Management Plan 2019
 - Water Resources East – Essex & Suffolk Water Perspective (NWG)
- 1.4 This document has been prepared for the titled project, or named part thereof, and should not be relied upon or used for any other project or part as the case may be, without an independent check being made on it. Andrew Firebrace Partnership shall not be liable for any third party data used in the production of this document or for the consequences of using this document other than for the purpose for which it was commissioned, and any user and any other person using or relying on this document for such other purpose, agrees and will be such use or reliance be taken to confirm this agreement to indemnify Andrew Firebrace Partnership for all loss or damage resulting therefrom.

2 Development Description and Location

Location

- 2.1 The site for the proposed development is located off Norwich Road (A140) to the south-east of the village of Mendlesham. Its boundary is shown in Figures 2.1 and 2.2 (centred on National Grid Reference: 611783, 264418; and the nearest postcode is: IP14 5NE).

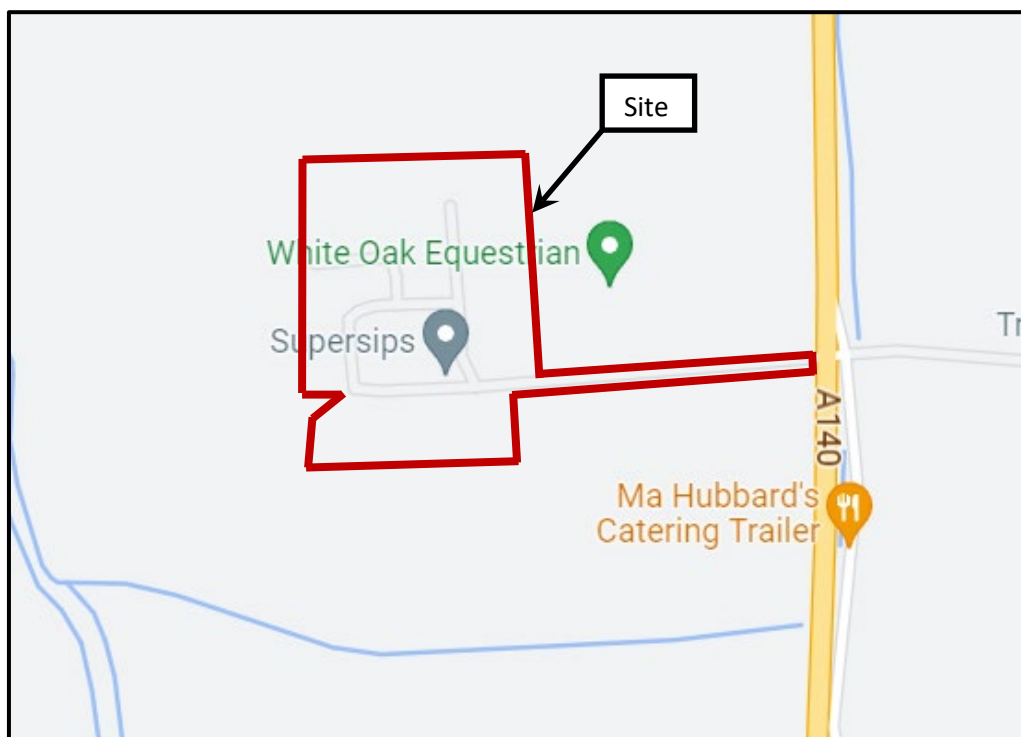


Figure 2.1 Small scale site location plan of the site

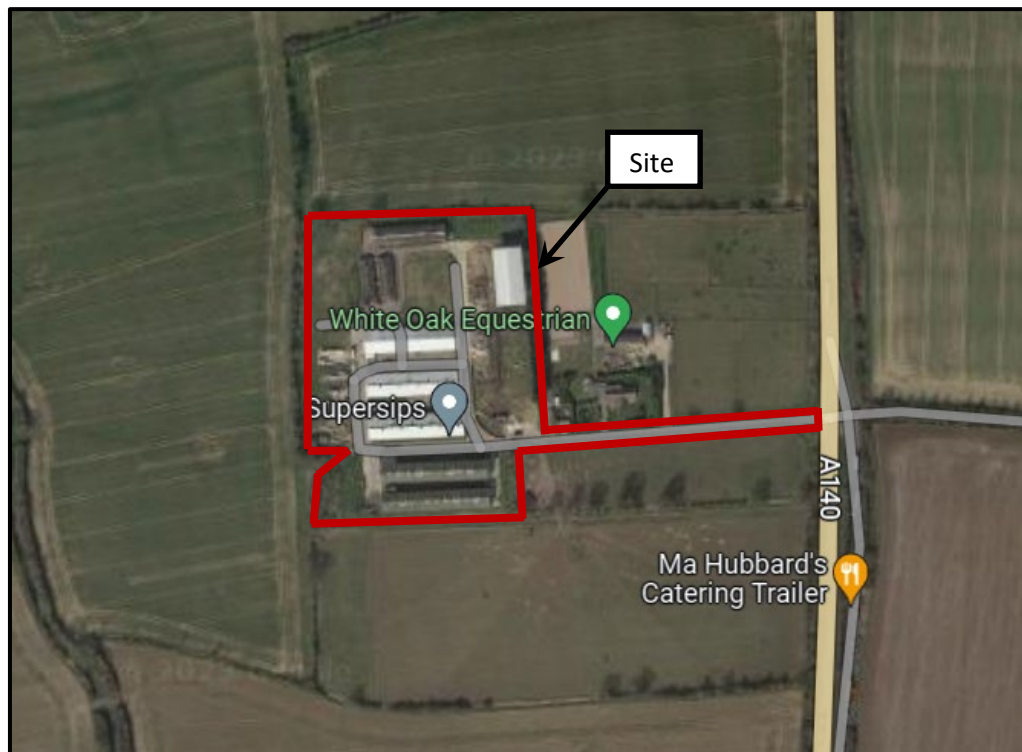


Figure 2.2 Aerial photo of the proposed development site

Existing Site Layout

- 2.2 The site boundary as identified in Figure 2.2 above encloses an area of approximately 3.1 ha and is bounded by agricultural farmland to the south, west and north with the Norwich Road (A140) to the east of the site. The boundary itself is defined by trees and hedgerows around the perimeter of the site.
- 2.3 There are 12 no. buildings on site of varying ages, scales, and forms. One of the buildings is permitted as a dwellinghouse (with agricultural tie) but it is understood that this building was used as an office ancillary to the current/historic use and has been for several years. A number of buildings are of poor condition but with investment can be repaired and brought back into use to support the proposed development.

Proposed Development

- 2.4 A small number of buildings require repair and minor alteration but such works could be undertaken pursuant to permitted development rights on implementation of the change of use and first operations taking place.

- 2.5 An additional warehouse building is proposed to contain the robots associated with the manufacturing process of the SIPs, as shown on the Proposed Development Details within Appendix 1 and Figure 2.3 below.

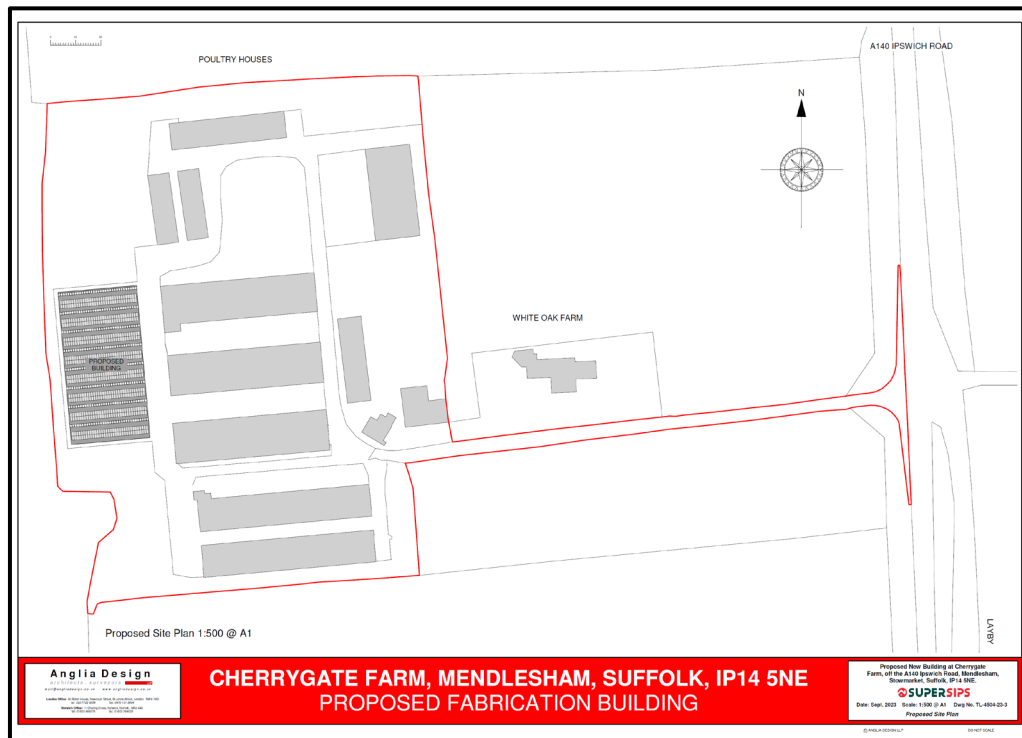


Figure 2.3 Proposed Development Layout

3 Water Supply Background

- 3.1 The Suffolk water supply area is split into 3 zones; Blyth WRZ, Hartismere WRZ and Northern Central WRZ with a mixture of surface and groundwater supplies consisting of 51% surface water and 49% groundwater, as shown in Figure 3.1 below.

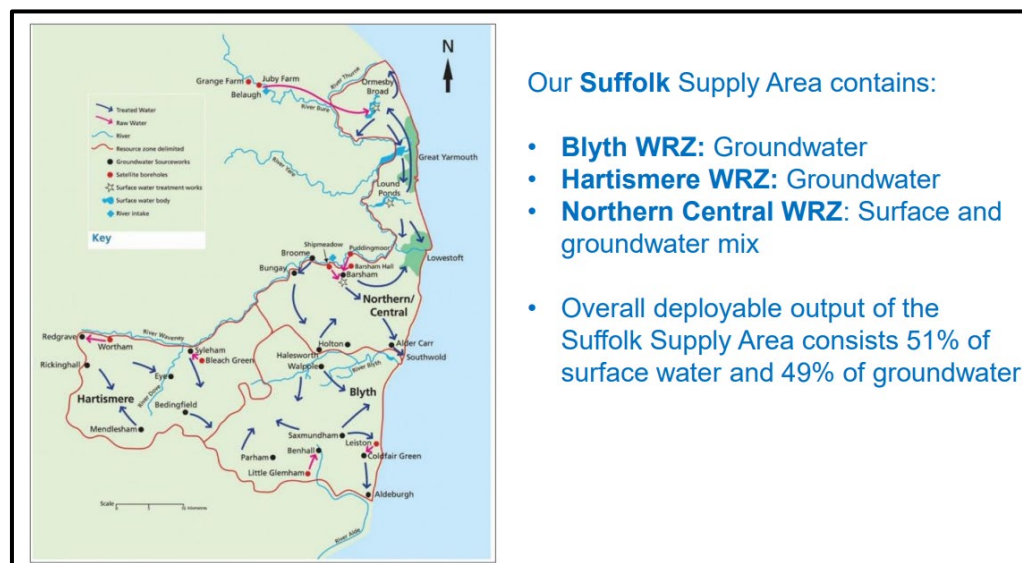


Figure 3.1 Suffolk Supply Area Water Resource Zones (WRZ) (Source: Water Resources East)

- 3.2 The Hartismere (WRZ) is an area in Suffolk that relies on groundwater for its water supply and covers the town on Eye and surrounding villages. The WRZ has been facing a water shortage due to climate change and sustainability reductions in its abstraction licenses. This has led to some restrictions on business growth and expansion in the area.
- 3.3 The Mid-Suffolk District Council is involved with the Water Resources East initiative which aims to develop a long-term water resources strategy for the region and has produced a Water Resources Management Plan 2019 which outlines it plans to ensure a secure and sustainable water supply for the district until 2045. The plan includes a significant demand management programme, such as leakage reduction, smart metering and water efficiency measures. The plan also includes some supply schemes, such as new strategic pipelines and a potential water reuse or winter storage reservoir in Suffolk.
- 3.4 Essex & Suffolk Water (E&SW) have also superseded this document with a new draft Water Resources Management Plan 2024 for consultation and forecasts supply and demand for the next 25 years and beyond and sets out how this demand will be met as they no longer have any supply headroom in this zone. Therefore, whilst E&SW can provide new connections for business use (e.g. staff wash basins, WC's

and kitchen sinks) subject to the application process, E&SW are unable to agree to provide any new non-domestic supplies for industrial use in the WRZ until new supply schemes are operational.

4 Existing and Proposed Water Supply Demand

- 4.1 The business currently employs 19 staff. It is understood via correspondence with SuperSIPs Ltd and shown in Appendix 2, that the implementation of the proposed development will not generate any further permanent staff onsite and/or new water supplies to the new warehouse building.
- 4.2 There are 4 no. WC's, 6 wash basins and 2 shower cubicles on the site for staff usage.
- 4.3 Therefore, the total water supply demand can be summarised in Table 4.1 below.

Type of Appliance	Number	kDU (assume congested use)	DU	Q (l/s)
WC's	4	1.0	2.5	3.2
Wash Basins	6	1.0	0.6	1.90
Showers	2	1.0	0.6	1.10
TOTAL				6.20

Table 4.1 Existing and Proposed Water Supply Demand (Based on BS EN 752-4 1998)

- 4.4 Therefore, the total flow rate is assumed to be 6.20 l/s with a total calculated volume of 535.7m³ over a 24 hour period, although in reality its unlikely to achieve this, as this would require 24 hours of constant water usage.

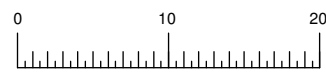
5 Overview

- 5.1 This Water Neutrality Statement has been prepared in accordance with the National Planning Policy Framework (NPPF, July 2021) and the NPPF Technical Guidance document, Mid-Suffolk County Council Local Plan 1998 (Core Strategy Policy CS3), Water Resources Management Plan 2019 (WRMP19) and draft 2024 Water Resources Management Plan (dWRMP24).
- 5.2 The report demonstrates that the development site:
- The Hartismere (WRZ) is an area in Suffolk that relies on groundwater for its water supply and covers the town on Eye and surrounding villages. The WRZ has been facing a water shortage due to climate change and sustainability reductions in its abstraction licenses. This has led to some restrictions on business growth and expansion in the area.
 - An additional warehouse building is proposed to contain the robots associated with the manufacturing process of the SIPs.
 - The business currently employs 19 staff. It is understood via correspondence with SuperSIPs Ltd, that the implementation of the proposed development will not generate any further permanent staff onsite and/or new water supplies to the new warehouse building.
 - Therefore, the total flow rate is assumed to be 6.20 l/s with a total calculated volume of 535.7m³ over a 24 hour period, although in reality its unlikely to achieve this, as this would require 24 hours of constant water usage.
- 5.3 Therefore, the proposed development is considered appropriate from a water neutrality perspective with no increase in water supply demand as a result of the new building.

Appendices

Appendix 1

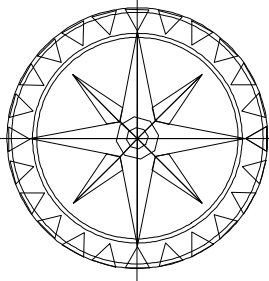
Proposed Development Details



POULTRY HOUSES

A140 IPSWICH ROAD

N



WHITE OAK FARM

PROPOSED
BUILDING

LAYBY

Proposed Site Plan 1:500 @ A1

Anglia Design

architects . surveyors **LLP**
mail@angliadesign.co.uk www.angliadesign.co.uk

London Office: 30 Robin House, Newcourt Street, St Johns Wood, London NW8 7AD
tel: 020 7722 9558 fax: 0870 131 3804

Norwich Office: 11 Charing Cross, Norwich, Norfolk, NR2 4AX
tel: 01603 696576 fax: 01603 794505

CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

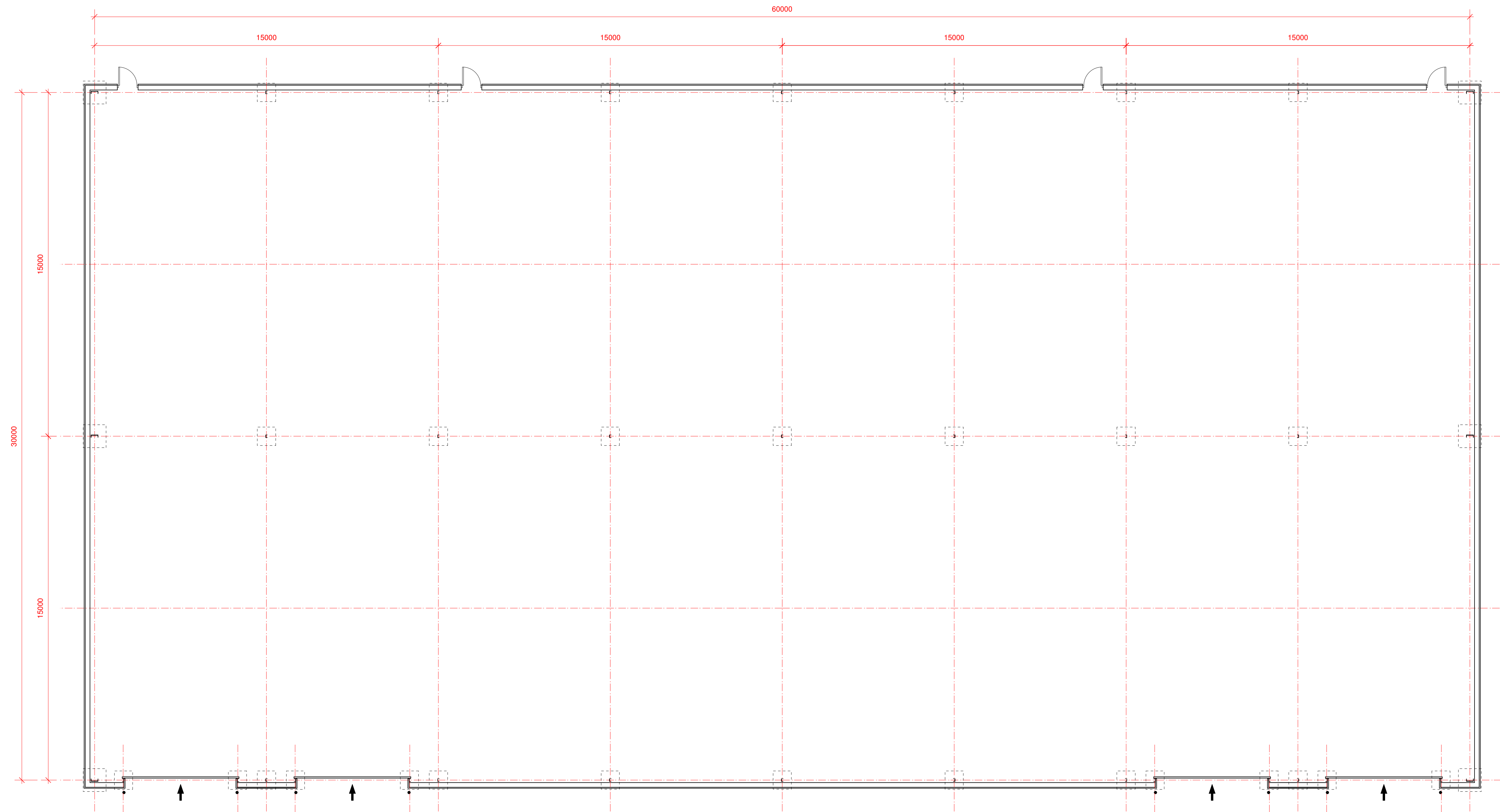
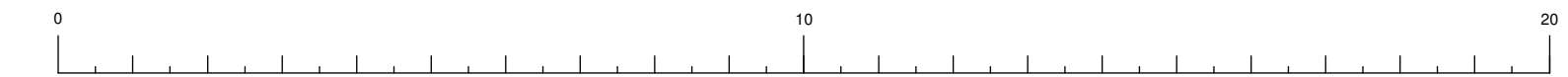
PROPOSED FABRICATION BUILDING

Proposed New Building at Cherrygate Farm, off the A140 Ipswich Road, Mendlesham, Stowmarket, Suffolk, IP14 5NE.



Date: Sept. 2023 Scale: 1:500 @ A1 Dwg No. TL-4504-23-3

Proposed Site Plan



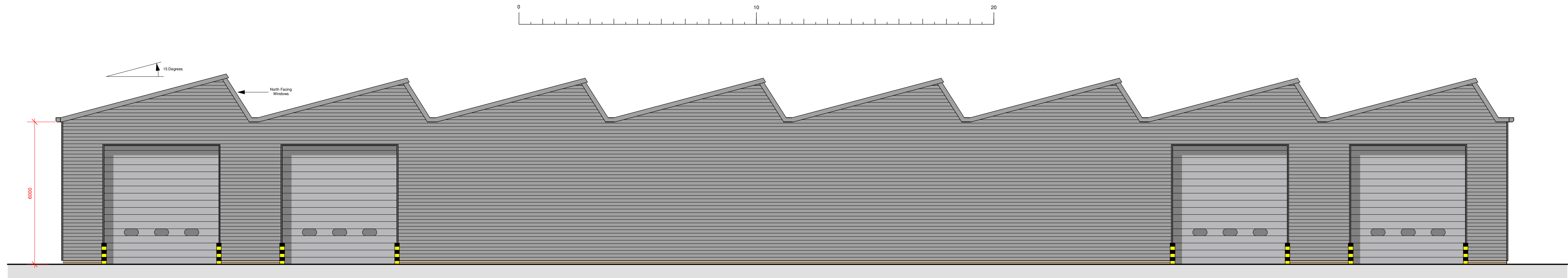
Proposed Layout Plan 1:100 @ A1

Anglia Design
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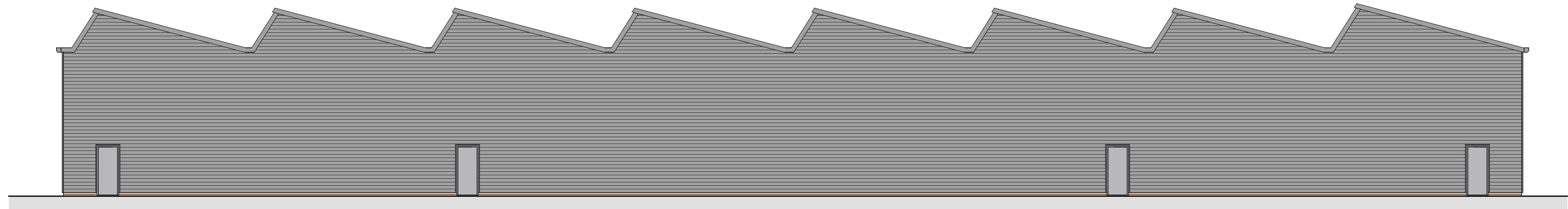
CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

PROPOSED FABRICATION BUILDING

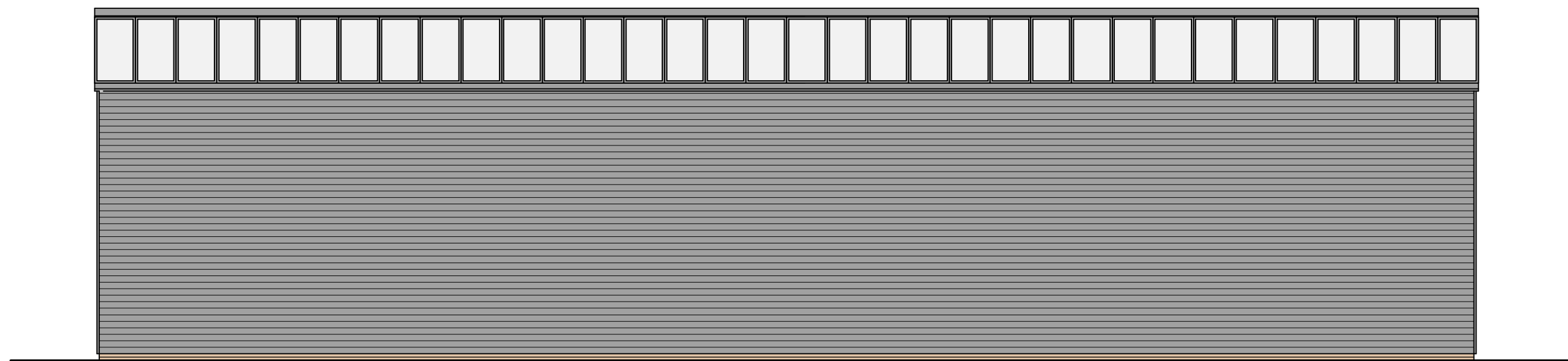
Proposed New Building at Cherrygate Farm, off the A140 Ipswich Road, Mendlesham, Stowmarket, Suffolk, IP14 5NE.
SUPERSIPS
Date: Sept. 2023 Scale: 1:100 @ A1 Dwg No. TL-4504-23-1
Proposed Floor Plan



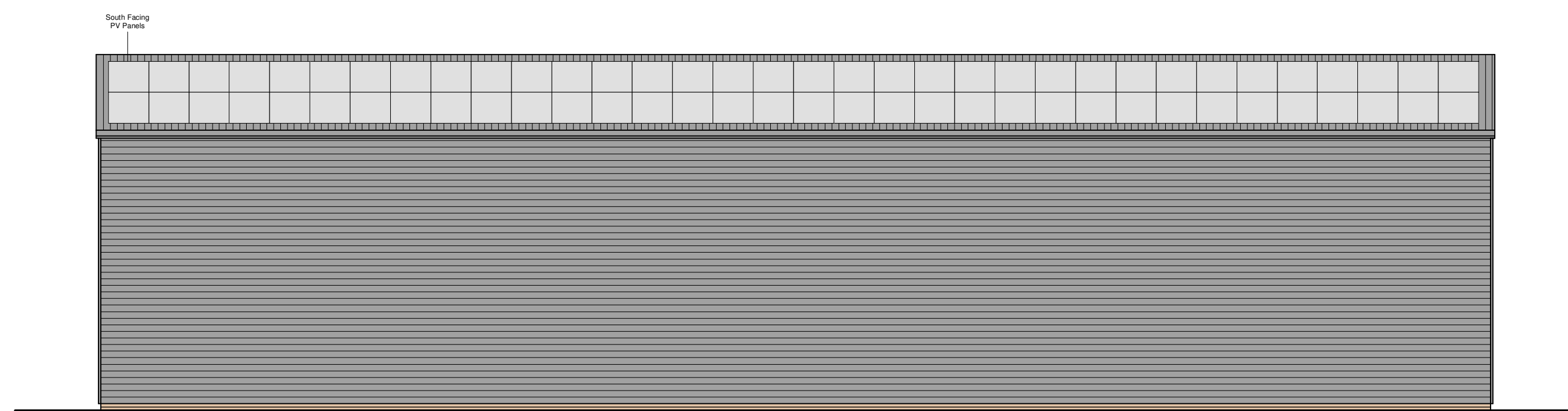
Proposed Front Elevation 1:100 @ A1



Proposed Rear Elevation 1:100 @ A1



Proposed North Elevation 1:100 @ A1



Proposed South Elevation 1:100 @ A1

Anglia Design
architects . surveyors **LLP**
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tel: 01603 696576 fax: 01603 794205

CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

PROPOSED FABRICATION BUILDING

Proposed New Building at Cherrygate
Farm, off the A140 Ipswich Road, Mendlesham,
Stowmarket, Suffolk, IP14 5NE.

SUPERSIPS

Date: Sept. 2023 Scale: 1:100 @ A1 Dwg No. TL-4504-23-2

Proposed Elevations

Appendix 2

SuperSIPs Ltd Correspondence

Chris Auber

From: Les Crossley <l.crossley@supersips.uk.com>
Sent: 05 October 2023 12:17
To: tim@angliadesign.co.uk
Cc: Chris Auber
Subject: RE: 237002 RE: CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

Hi Tim/Chris

Please see reply in red below

Kind Regards

Les Crossley



Address: Cherry Gate Farm, Norwich Road, Mendlesham, IP14 5NE ([SuperSIP's Collection Map](#))

What three words are: trouser.freezers.drain

T: 01473 736023

M: 07825840001

E: Mail l.crossley@supersips.uk.com

Web: supersips.uk.com

Company No: 7693421

From: Tim Linstead <mail@angliadesign.co.uk>
Sent: 05 October 2023 11:23
To: Les Crossley <L.Crossley@supersips.uk.com>
Subject: Fwd: 237002 RE: CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

Hi Les,
Can you answer the questions below please?

Best Regards,
Tim Linstead
01603 666576

For and on behalf of

Anglia Design LLP

London Office

30 Robin House

St John's Wood

NW8 7AD

Tel: 020 77229558

Norwich Office

11 Charing Cross

Norwich

NR2 4AX

01603 666576

www.angliadesign.co.uk

----- Forwarded message -----

From: **Chris Auber** <Chris.Auber@afpconsult.co.uk>

Date: Wed, 4 Oct 2023 at 17:02

Subject: RE: 237002 RE: CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

To: tim@angliadesign.co.uk <tim@angliadesign.co.uk>

Hi Tim,

It was good to talk to you earlier, just in order so that I can ascertain the extent of the work and possible issues that might arise from Mid-Suffolk Council, could the client please provide further details on:

- Existing and proposed usage of the site/development. **We have planning for 24hr production of structural insulated panels and it is our intension is just to increase the production volumes**
- Number of workers onsite **19** and existing toilet/wash down facilities.**4 no Toilets 6 sinks and 2 shower cubicles (All currently on site)**
- If there are any additional workers being employed, as a result of the proposed development. **Only drivers as the manufacturing will be done by robots**
- Current water demands (Essex & Suffolk Water Bill indicating volume(s) usage etc.) **The bills I have are all estimates for when I was a duck breeding farm (6000 ducks drinking every day) they have come out and read the meter and are in the process of working it out for me (Massive refund)**

Hope that's ok. Any problems please give me a call.

Kind Regards

Chris Auber

Associate Civil Engineer

BSc (Hons) IEng MICE

Tel: 01223 811572 Mob: 07816 891576

For and on behalf of Andrew Firebrace Partnership Ltd.

Registered Office :

Stable Barn, Park End

Swaffham Bulbeck, Cambridge. CB25 0NA.

Registration Number 5277907

The information in this email is confidential and may be legally privileged. It is intended solely for the addressee. Please do not disclose the contents to anyone. If you receive it in error please advise the sender and destroy it.

Thank you.

From: Tim Linstead <mail@angliadesign.co.uk>

Sent: Wednesday, October 4, 2023 9:21 AM

To: Chris Auber <Chris.Auber@afpconsult.co.uk>

Subject: Re: 237002 RE: CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

For and on behalf of Andrew Firebrace Partnership Ltd.

Registered Office :

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Thank you.

From: Tim Linstead <mail@angliadesign.co.uk>
Sent: Wednesday, October 4, 2023 9:21 AM
To: Chris Auber <Chris.Auber@afpconsult.co.uk>
Subject: Re: 237002 RE: CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

Hi Chris,

Can you have a quote please?

The building is a production shed with no facilities or toilets. The procedures being carried out in the shed do not require water. We are not proposing rainwater harvesting or green roofs unless specifically required!

The building is to be used for the manufacture of SIP's for use in the construction industry.

Best Regards,

Tim Linstead

01603 666576

For and on behalf of

Anglia Design LLP

London Office

30 Robin House

St John's Wood

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Tel: 020 77229558

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On Tue, 3 Oct 2023 at 17:57, Chris Auber <Chris.Auber@afpconsult.co.uk> wrote:

Hi Tim,

I was hoping to catch up with you at some point and left a message with your colleague late last week. May I ask who recommended me?

It's a strange one but I think we can help. I am actually starting with a new company at the moment and you will note that my details have changed below and I'm now working for Andrew Firebrace Partnership.

So, as I understand it Mid-Suffolk Council have restricted business growth development in line with water supply issues in the area of Ely (Hartismere) and as such have implemented 'water neutrality' rules to show that any new development will not contribute to the total water demand in the HWRZ, with that being said do you know what the building is to be used for? and will it have a water supply or an increase in demand on water supply to the farm?

Reviewing the issue has highlighted this BBC news article, in which a Farmer in the area has come across the same issue albeit he was developing six new chicken sheds but appears to have overcome it by implementing rainwater harvesting (reservoir) which could be the answer for this site?

[Suffolk water shortage may 'throttle back' firms' growth - BBC News](#)

Let me know what you think and if the Farmer has considered this?

Kind Regards

Chris Auber

Associate Civil Engineer

BSc (Hons) IEng MICE

Tel: 01223 811572 Mob: 07816 891576

For and on behalf of Andrew Firebrace Partnership Ltd.

Registered Office :

Stable Barn, Park End

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Registration Number 5277907

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privileged. It is intended solely for the addressee. Please do not disclose the contents to anyone. If you receive it in error please advise the sender and destroy it.

Thank you.

From: Tim Linstead <mail@angliadesign.co.uk>
Sent: Thursday, September 28, 2023 2:23 PM
To: Chris Auber <chris@auberconsulting.co.uk>
Subject: Fwd: CHERRYGATE FARM, MENDLESHAM, SUFFOLK, IP14 5NE

Hi Chris,

You have been recommended to us!!!

Attached are the drawings for a new building in Suffolk. To gain validation for the planning application the council has asked for the following:

Please provide a Water Neutrality Statement. Non-Domestic Development In The Hartismere Water Resource Zone If your proposal is for a non-domestic* use or

development within the Hartismere Water Resource Zone (HWRZ), we will require the application to be accompanied by a water neutrality statement. This should set out the strategy for achieving water neutrality** within the development. *Non-domestic use excludes schools and other activities where low-level water usage, normally limited to the provision of drinking water and toileting facilities for occupiers are provided. There is no universally accepted definition of water neutrality. For the purposes of application validation, it is taken to mean that for every new non-domestic development proposal the predicted increase in total water demand in the HWRZ will not be increased by reason of the proposed use and development. Please refer to guidance on our website.

Is there any chance you could give us a fee proposal to do the necessary work to satisfy the query raised?

Best Regards,

Tim Linstead

01603 666576

For and on behalf of

Anglia Design LLP

London Office

30 Robin House

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