



PROJECT:

GCB Cocoa Factory
Glemsford

DOCUMENT TITLE:

Flood Risk Assessment

PREPARED FOR:

Guan Chong Berhad



Fernwood Business Park, 14 Halifax Court, Newark, Nottinghamshire, NG24 3JP. t: +44 (0) 1636 850500 www.bedesign.co.uk

Document Details

Project Ref:	NWK 200063
Document Ref:	GCB-BED-ST-XX-RP-C-0050
Revision:	P01
Written by:	Ben Johnson
Reviewed by:	Stephen Oakden
Date:	Dec 2020

Revision	Date	By	Description
P01	11/12/20	BJ	First issue

This document has been prepared by BE Design at the instruction of, and for use by, our Client in connection with the project. No other party may copy, make use of or reproduce the contents of this document other than for the purpose for which it was originally commissioned and prepared. The report may not be copied or used without the prior written agreement of BE Design.

Any information supplied by the Client or third parties and used in this document has not been verified by BE Design and BE Design has no responsibility or liability for it.

Contents

1	INTRODUCTION	4
2	DEVELOPMENT DESCRIPTION	5
2.1	Site Location.....	5
2.2	Existing Site	5
2.3	Proposed Development.....	6
3	PLANNING POLICY	7
3.1	National Planning Practice Framework (NPPF).....	7
4	FLOOD RISK ASSESSMENT	9
4.1	Flooding from Rivers (Fluvial) and Sea (Tidal)	9
4.2	Flooding from Surface Water (Pluvial)	9
4.3	Flooding from Sewers.....	10
5	CONCLUSION	11
	APPENDIX A: PROPOSED SITE LAYOUT PLAN	12

1 INTRODUCTION

BE Design have been commissioned by Guan Chong Berhad to prepare a Flood Risk Assessment in support of a planning application to be submitted as part of the proposed re-development of an existing production facility. The proposed development is located at the former Philips Avent manufacturing facility in Glemsford, Sudbury. The National Ordnance Survey (OS) Grid Reference for the approximate centre of the site is TL835465. The Proposed Site Layout Plan is shown in Appendix A.

The objective of this report is to provide the Local Planning Authority (LPA) and the Environment Agency (EA) with sufficient information to consider flood risk during the planning process.

This report is written to comply with the requirements set out in Section 14 'Meeting the challenge of climate change, flooding and coastal change' of the National Planning Policy Framework (NPPF, dated March 2012) and the associated Planning Practice Guidance (PPG).

This report will assess the risk of flooding from different sources to the development to ensure that there is no increase in flood risk to the wider catchment.

2 DEVELOPMENT DESCRIPTION

2.1 Site Location

The site is located at the former Philips Avent facility, off Lower Road, Glemsford, Sudbury and is approximately 1 km southeast of the town of Glemsford.

A location plan with an approximate red line boundary is shown in Figure 1



Figure 1 – Location Plan

2.2 Existing Site

The existing site is approximately 6.1 hectares. The site is predominately occupied by two existing industrial buildings which are surrounded by hardstanding areas, access roads and car parks. The site is bordered to the north by Lower Road and farmland, and to the east, south and west by woodland. The River Stour runs beyond the site boundary to the south and east of the site through the woodland. There are two small areas of residential properties to the east and west of the site on Lower Road.

The site has a general fall from north-west to south-east with levels ranging between 38m AOD and 34m AOD across the site. All of the buildings and hardstanding areas are on a similar level, with earth embankments providing the necessary level changes across the site.

2.3 Proposed Development

The proposed development comprises the repurposing of the existing facility to suit a cocoa production plant. This includes the partial demolition and re-construction of the existing building, construction of a new building to the south-west of the site and modifications to the external hardstanding areas to suit the incoming and outgoing delivery operations.

It is proposed to re-use the existing surface water and foul water drainage, including the re-use of the existing flow control and detention basin located to the south-east of the site. Local modifications to the existing drainage network will be required to suit to suit the new proposals.

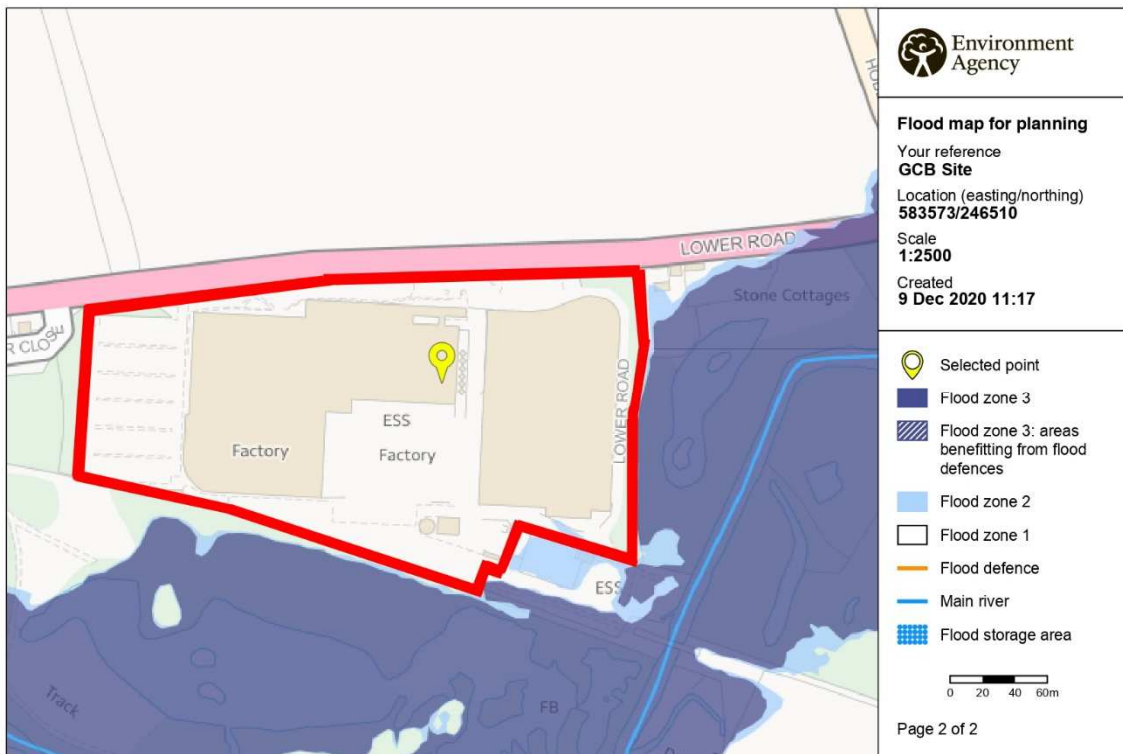
A copy of the site layout plan can be found in Appendix A.

3 PLANNING POLICY

3.1 National Planning Practice Framework (NPPF)

The flood maps provided by the Environment Agency (EA) locate most of the site within Flood Zone 1, i.e. land having a less than 1 in 1000 annual probability of river or sea flooding. Part of the site is indicated to be within Flood Zone 2 and Flood Zone 3. These areas are currently occupied by an existing substation and landscaping area, which will be retained for the proposed development. The areas that are proposed to be re-developed will be located wholly within Flood Zone 1.

The flood zone map with an approximate red line site boundary is provided in Figure 2 below.



© Environment Agency copyright and / or database rights 2018. All rights reserved. © Crown Copyright and database right 2018. Ordnance Survey licence number 100024198.

Figure 2 – Extract from the EA Showing Flood Zone Classification

Under the NPPF (2012), the preference is to steer new development to Flood Zone 1 areas with a low probability of river and sea flooding. As the proposed development is located within Flood Zone 1, this is ideal and there is no requirement to undertake a Sequential Test.

According to Table 2 and Table 3 of the Planning Practice Guidance: Flood Risk and Coastal Change, the proposed development is classed as 'Less Vulnerable' development. Extract of the tables are reproduced below:

More vulnerable

- Hospitals
- Residential institutions such as residential care homes, children’s homes, social services homes, prisons and hostels.
- Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels.
- Non-residential uses for health services, nurseries and educational establishments.
- Landfill* and sites used for waste management facilities for hazardous waste.
- Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.

Less vulnerable

- Police, ambulance and fire stations which are not required to be operational during flooding.
- Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the ‘more vulnerable’ class; and assembly and leisure.
- Land and buildings used for agriculture and forestry.
- Waste treatment (except landfill* and hazardous waste facilities).
- Minerals working and processing (except for sand and gravel working).
- Water treatment works which do not need to remain operational during times of flood.
- Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place.

Table 2 – Flood Risk Vulnerability Classification

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 †	x	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	x	x	x	✓*

Key:

✓ Development is appropriate

x Development should not be permitted.

Table 3 – Flood Risk Vulnerability and Flood Zone ‘Compatibility’

Based on the above, the proposed development is appropriate, and the Exception Test is not required.

4 FLOOD RISK ASSESSMENT

The NPPF requires the developer to consider the impact of runoff generated by the proposed development onto the downstream catchment and to assess the risk of runoff from the surrounding district impacting on the development’s footprint. This report considers the flood risk from all other sources and the following sections outline the various flood risk receptors and anticipated flood risk.

4.1 Flooding from Rivers (Fluvial) and Sea (Tidal)

As mentioned in Section 3, the site is located within Flood Zone 1, having a less than 1 in 1000 annual probability of river or sea flooding. Therefore, and in accordance with the guidance, the risk of flooding from rivers and sea is considered very low.



Figure 3 – Extract from EA Showing Flood Risk from Rivers or The Sea

4.2 Flooding from Surface Water (Pluvial)

The EA flood map for surface water (Figure 4 below) classifies the site as having a ‘Very Low’ risk of surface water flooding. Localised areas of ‘Low’ to ‘High’ risk surface water flooding are noted on the site from the available information.



Figure 4 - Extract from EA Showing Flood Risk from Surface Water

The areas of low and high risk are generally noted in the lower areas of the access roads and car park area.. The depths and flow velocities for these areas are also low.

It is likely that the poor maintenance of the existing surface water drainage system have contributed to the surface water flooding. Regular maintenance in accordance with best modern practice in these areas will alleviate ponding and flooding, and therefore reducing pluvial flood risk to a lower level.

4.3 Flooding from Sewers

Public sewer records do not indicate the presence of any public surface water or foul water sewers within the vicinity of the site. We have not been made aware of any sewer flooding during our enquiries. Therefore, the risk of sewer flooding to the site is considered low.

5 CONCLUSION

The site is predominantly on Brownfield land and the re-development area is located within Flood Zone 1. The report has identified the site as having low risk of flooding from tidal, fluvial, pluvial and sewer.

The surface water drainage strategy for the new development is to direct all surface water runoff to an existing attenuation system before ultimately out falling into the River Stour. Reference shall be made to Report GCB-BED-ST-XX-RP-C-0051 for further details of the surface water drainage strategy. No change to the existing impermeable area is proposed during the re-development. On this basis, the proposed re-development does not pose a greater flood risk to the site and the wider catchment.



APPENDIX A: PROPOSED SITE LAYOUT PLAN

NOTES:

1. If this drawing has been received electronically it is the recipients responsibility to print the document to the correct scale.
2. All dimensions are in millimetres unless stated otherwise. It is recommended that information is not scaled off this drawing.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.



Key

[Red dashed line]	Site Boundary
[Blue solid line]	Site Ownership Boundary

Site Address

GCB Cocoa UK Ltd
 Factory and Premises
 Glemford
 Sudbury
 CO10 7QS

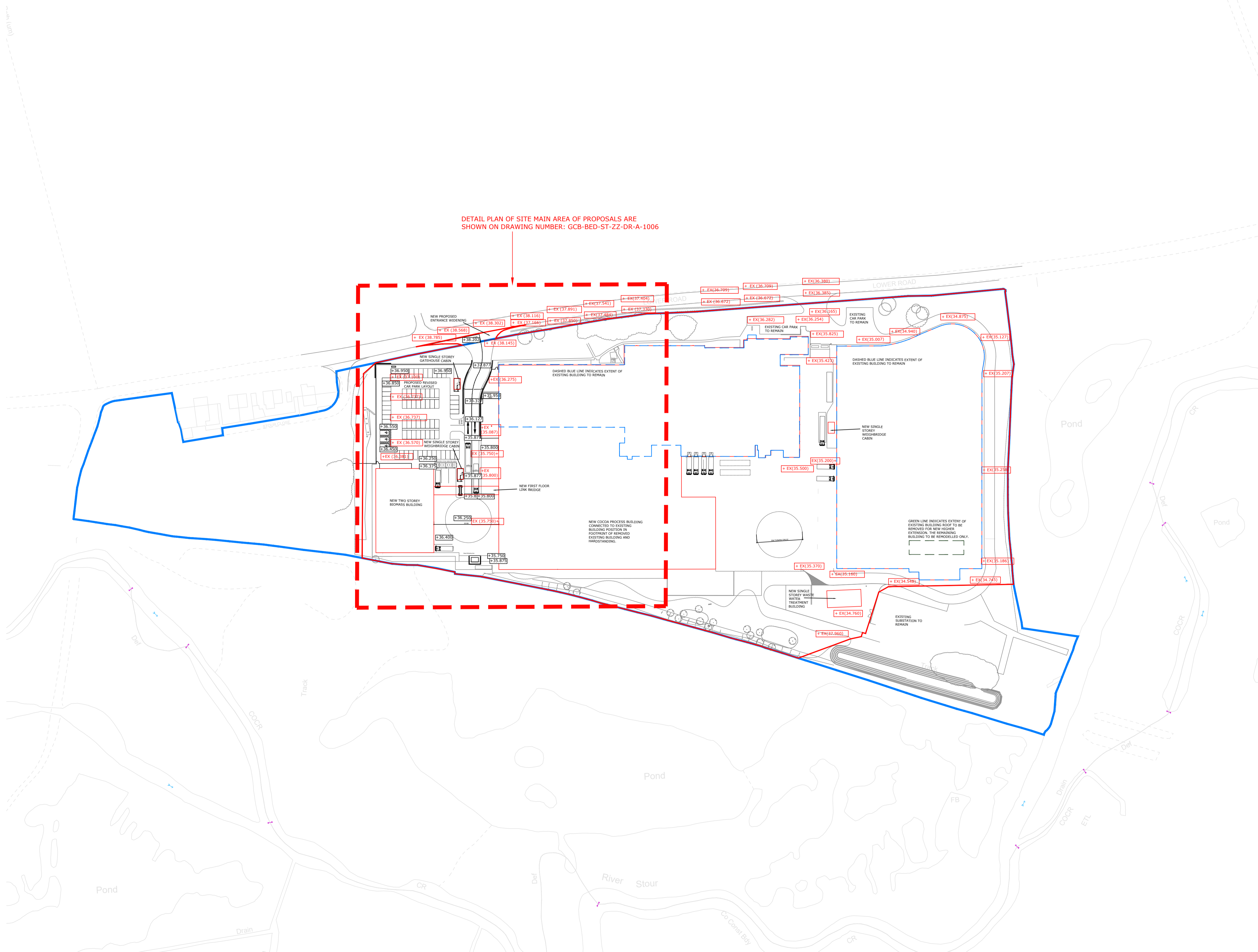
OS Map Reference

TL 8346NW
 X (Easting), Y (Northing)
 583573, 246510

Denotes Existing Levels **+EX (00.000)**

Denotes Proposed Levels **+00.000**

All levels in AOD (Above Ordnance Datum)



DETAIL PLAN OF SITE MAIN AREA OF PROPOSALS ARE SHOWN ON DRAWING NUMBER: GCB-BED-ST-ZZ-DR-A-1006

Proposed Site Plan
 (Scale 1:1000)

10m SCALE 1:1000

P01	TR	KB	KB	14/12/20
Planning Issue				
Rev	Drawn By:	Checked By:	Approved By:	Date:
Amendments				
Project: GCB Cocoa Facility				
Title: Proposed Site Plan				
Drawing Number:				
Identification / Location:		Sheet Number:		
Project Code:	Originator Code:	Vol / Zone:	Level:	Type: / Role: / Number:
GCB	BED	ST	ZZ	DR A 1002
Rev Description:	Status Code:	Model Ref:	Rev No:	
Preliminary	S1	N/A	P01	
Scale:	Sheet:	Discipline:	BED Project Number:	
1:1000	A1	Architectural	NWK 200063	
Client:				