



# Operational Techniques, BAT Assessment & Monitoring Plan

for Etex Building Performance Ltd

19 June 2023

## Document Control

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# 1 Introduction

## 1.1 Overview

This Operational Techniques, BAT Assessment and Monitoring Plan (OTMP) has been prepared on behalf of Etex Building Performance Ltd (hereby referred to as the 'Operator') in support of a substantial permit variation application for its existing Installation located off Redland Avenue near Easton-In-Gordano in North Somerset.

The Operator wishes to expand its existing Facility and add a new plasterboard production line to the existing permitted activities. The new production line will be autonomous with the existing production process; however, it will have a symbiotic relationship with the existing warehouses in order to maintain efficiency across the site and in the distribution and transport of finished product off site.

The proposed new production line seeks to increase and double the capacity and production output of the existing Facility and will require new gas-fired burners to be installed to produce the direct heating energy requirement to support the additional plasterboard manufacturing processes.

The new production line will be located in a warehouse to be built adjacent to the existing facility. Construction work on the new development commenced in March 2022, with hot commissioning scheduled for June 2023.

The principal emissions from the newly proposed activities will be emissions to atmosphere from the new combustion plant and particulate matter from the gypsum process.

## 1.2 The Applicant

The existing Permit holder is Etex Building Performance Limited. The Limited Company was incorporated on 14 September 1987. Etex group is a global business based in Belgium. The Etex Group have two sites in the U.K., the larger of the two sites is located within the Royal Portbury Docks area of Bristol, with a second smaller site in Yorkshire. Etex Building Performance Limited is one of the three leading plasterboard manufactures within the UK (occupies around 30% of overall UK market). It leads in processing recycled gypsum primarily sourced from construction sites (processing ~65% of UK market). The Company's registered office address is Gordano House, Marsh Lane, Easton-In-Gordano, Bristol, England, BS20 0NE.

## 1.3 Scope and Objectives of Report

This OTMP has been prepared in answer to Questions Q1a and 3d within Part C2; and Questions Q3, 3a1, 3c, 4b, 6a, 6b, 6c, 6d, 6e of Part C3 of the Environment Agency's Application Forms.

The objectives of this OTMP are to:

- Part C2 Q1a: Describe in detail all changes or additions proposed to the existing activities;
- Part C2 Q3d: Provide a Summary of the Operator's existing Environmental Management Systems;
- Part C3 Q1: Provide details of all the activities listed in schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR) and all Directly Associated Activities (DAA's) that the applicant proposes to carry out at the installation;
- Part C3 Q2: Describe all point source emissions to be added to the permit;
- Part C3 Q3a: Summarise the main measures proposed to control the risks or hazards associated with the proposed new activities; provide details of any changes proposed to Operating

Techniques Documentation currently referenced within Table 1.2 of the permit; and describe how the techniques proposed meet Best Available Techniques (BAT);

- Part C3 Q3c & 6d: Describe all types and amounts of raw materials and provide justification for their use;
- Part C3 Q4b: Describe measures proposed for monitoring of emissions associated with newly proposed activities;
- Part C3 Q6a: Describe the basic measures proposed for improving energy efficient across the site;
- Part C3 Q6b: Provide a breakdown of any changes to the energy existing activities use / create;
- Part C3 Q6e: Describe how the Operator will comply with Council Directive 2008/98/EC on waste.

This report is restricted to Operational Techniques associated with the newly proposed activities only and does not describe existing Operational Techniques for activities that are already permitted. Existing activities are to remain unchanged as a result of this variation with the exception of the installation of a new ball mill within the existing main warehouse. Although the processes and techniques proposed are essentially the same, the techniques previously submitted to the Environment Agency have already undergone assessment and are authorised under current permit conditions, thus require no further review.

## 1.4 Relevant Legislation and Guidance

The existing installation's activities, as well as the proposed new activities, fall within the 'Combustion Activities' section of the Environmental Permitting (England and Wales) Regulations 2016, as amended (section 1.1 A1 (a)) as the aggregation of the appliances in which fuels are burned, exceeds 50MWth. However, the installation is not defined as 'Large Combustion Plant' (LCP) in accordance with the aggregation rules in the Industrial Emissions Directive (IED), as the largest appliance at the installation falls below the lower threshold and no combustion plant(s) greater than 15 MWth forms a common stack with an aggregated net rated thermal input exceeding 50 MWth. In any case, as the combustion plant are used for direct heating or drying, they are excluded under Article 28 (a) of the IED. As such, the emission limit values in Annex V of the IED and the BAT-AELs in the LCP BAT Conclusions do not apply.

Statutory Sector Guidance relevant to this application has been produced specifically for the Plaster Processes (Process Guidance Notes (PGN) 3/12). These guidance notes are currently being reviewed and are due to be updated, however the new guidance is not anticipated to be published until 2023/24 at the earliest. The sector permit template is also being updated; however, both the guidance and new template will not be made publicly available prior to this application being submitted.

BREF for LCP BAT Conclusions (published 12/2021) and other Horizontal BREFs have been considered as part of the supporting BAT Assessment (e.g., Energy Efficiency BREF). However, the principal BAT reference document remains the process guidance note specific to the plaster processing sector.

## 1.5 Enhanced Pre-application Dialogue

The Operator originally sought basic general pre-application advice from the Environment Agency in November 2021. Further enhanced pre-application advice was subsequently requested by the Operator, and a virtual meeting was held on 10 May 2022. The meeting was attended by representatives from the Environment Agency's National Permitting Team; Local Area Team; and the Sector Lead for Gypsum and Plasterboard Manufacturing Policy Team.

The scope of the variation application was discussed in detail, including agreement of the relevant Technical Guidance Notes & applicable standards relevant to this variation application, as well as the scope of all technical assessments and plans to be submitted in support of the application.

A copy of all pre-application correspondence is provided within Appendix A1 to this report.

## 1.6 Current Permitted Activities

The existing permit covers two Schedule 1 listed activities and two Directly Associated Activities (DAA's). The Schedule 1 listed activities are summarised as follows:

- **Activity A1:** Section 1.1 Part A(1)(a)(i) Burning any fuel in an appliance with a rated thermal input of >50MW (aggregation of all units);
- **Activity A2:** Section 3.5 Part B(a) Unless falling within Part A (1) or Part A (2) of any Section of this Schedule, the crushing, grinding or size reduction, other than the cutting of stone, or the grading, screening, or heating of any designated mineral or mineral product except where the operation of the activity is unlikely to result in the release into the air of particulate matter (plaster process);
- **Activity A3:** (DAA) reclamation of plasterboard and gypsum-based waste for use in the production process, including storage and screening; and
- **Activity A4:** DAA operation of condensate recovery systems.

The existing Environmental Permit was originally issued in September 2006. The permit has subsequently undergone a number of variations, the most recent having been issued in November 2019 (EPR/XP3036SZ/V007) which incorporated changes to existing activities as well as having regularised and consolidated the permit.

A copy of the current consolidated permit is provided within Appendix A2 to this report.

### 1.6.1 Process Description

The current installation manufactures plasterboard conforming to BS EN 520 and consists of the following principal stages:

- Delivery, offloading and storage of raw materials;
- Transfer and initial crushing of gypsum;
- Calcining and milling of gypsum;
- Forming of wet plasterboard;
- Drying of plasterboard;
- Cutting of plasterboard;
- Dispatch to customers;
- Waste management and recovery; and
- Utilities and ancillary operations.

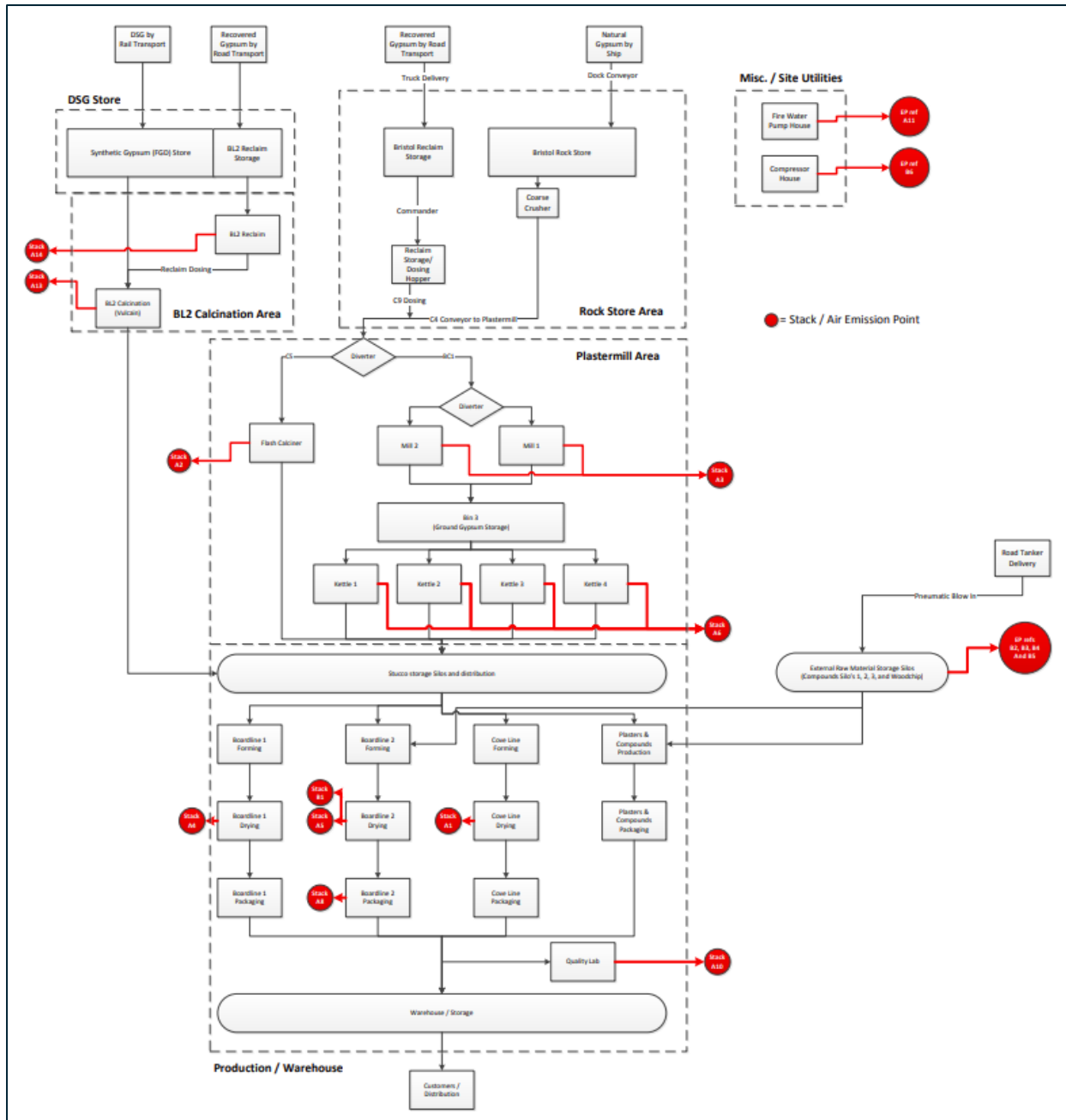
Gypsum rock and recovered plaster gypsum are the primary raw materials which are delivered to the site by ship and road and stored in an enclosed facility. The gypsum is then crushed, milled, and heated, or fed into a calciner and heated, to produce heated, dried gypsum plaster known as stucco. The stucco is combined with water and other additives to produce a slurry which is then extruded, cut, and dried to form plasterboard and coving. These materials are then temporarily stored on-site prior to dispatch to customers.

The process requires energy to dry/heat the raw materials. This energy requirement is provided by a number of direct fired natural gas dryers and other gas-fired burners in e.g., the calcination process. The principal emissions to air from the installation consequently comprise combustion gases from the combustion processes and particulate matter from the processing of gypsum.

There are no process effluent discharges to sewer or surface waters from the existing site, with the only discharge point to surface water constituting uncontaminated surface rainwater run-off from buildings and hardstanding areas.

A high-level overview of the existing plasterboard manufacturing process is illustrated within the Process Flow Diagram (PFD) illustrated in Figure 1-1 below. Appendix A3 provides a higher resolution version of the PFD.

**Figure 1-1 Bristol Facility Plasterboard Manufacturing Process**



Source: Etex Building Performance Ltd ©2022

## 2 Proposed Changes to the Permit

### 2.1 Listed Activities to be Added

The Operator is intending to expand their manufacturing facility in Bristol and requires a variation to the site's current permit.

The new activities to be added to Table S1.1 of the permit will be identical to those currently permitted; however, the new activities will constitute a Part A1 activity in their own right ( $\geq 50\text{MW}$  thermal input in aggregate). The new activities to be added to the permit are as follows:

- **New Activity:** Section 1.1 Part A(1)(a)(i) Burning any fuel in an appliance with a rated thermal input of  $>50\text{MW}$  (aggregation of all units);
- **New Activity:** Section 3.5 Part B(a) Unless falling within Part A (1) or Part A (2) of any Section of this Schedule, the crushing, grinding or size reduction, other than the cutting of stone, or the grading, screening, or heating of any designated mineral or mineral product except where the operation of the activity is unlikely to result in the release into the air of particulate matter (plaster process);
- **New Activity:** Directly Associated Activity (DAA) reclamation of plasterboard and gypsum-based waste for use in the production process, including storage and screening; and
- **New Activity:** DAA operation of condensate recovery systems.

The new production line will be installed in an area outside the existing permitted installation boundary. Consequently, the site boundary is to be extended to include an additional 11.4 hectares of land.

The new production line will be autonomous with the existing production process but will have a symbiotic relationship with the existing warehouses in order to maintain efficiency across the site and in the distribution and transport of finished product off site. The proposed new line seeks to increase and double the capacity of the existing operations at the site and will require new gas-fired burners to be installed to produce the energy required to manufacture the plasterboard.

The new production line will be located within a new warehouse to be constructed adjacent to the existing facility and will introduce a number of new point source emissions to atmosphere as well as an additional point source discharge of uncontaminated surface run-off to surface waters. The surface water drainage system serving the extended area will be independent of the existing drainage system but, like the existing drainage system, will contain multiple oil interceptors serving roadways and parking areas.

The main architectural elements of the proposed new development will include a new gatehouse and access control point; two new dedicated spur conveyors which will connect to Bristol Port Company's existing conveyors; links to the existing manufacturing facility; a new ball mill to be located within the existing installation warehouse; a new warehouse to house the new production line; offices above the plasterboard line; and a new gypsum store which will be fed from an extension from the existing conveyor belt, transferring gypsum from the port directly into the storage building.

The existing plasterboard activities currently operate 24 hours a day, with the new plasterboard production line also anticipated to operate 24 hours a day.

There are no changes proposed to the existing plasterboard manufacturing line with the exception of the new ball mill, however some of the Operational Techniques Documents currently referenced within Table 1.2 of the permit will be superseded as part of this variation. These include:

- Site Boundary and Layout Plan; and

- Site Drainage Plan.

Copies of all updated plans are provided within the drawings section of this application.

The additional land to be added to the permit is illustrated within Figure 2-1 below.

**Figure 2-1 Planned Expansion Area**

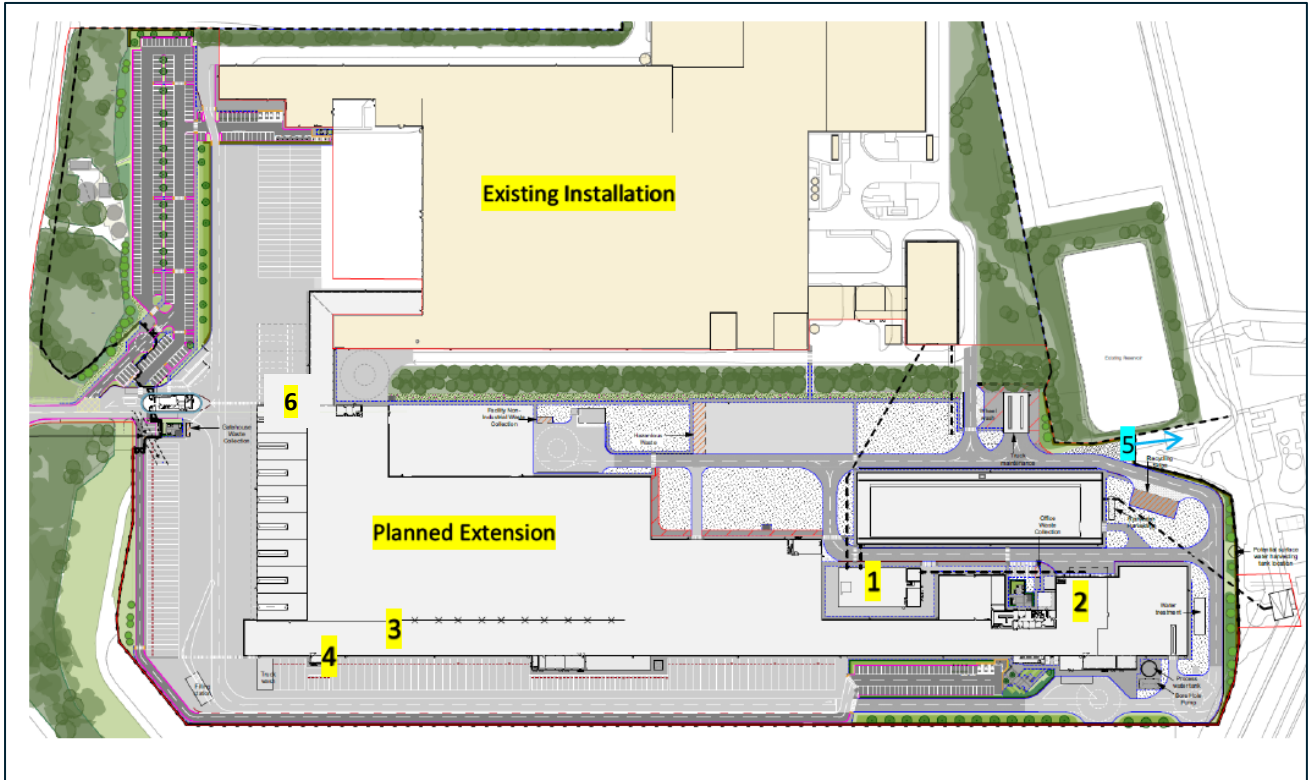


Image source: Etex Building Performance Ltd © 2022

**Key to Emission Points**

1. To atmosphere: combined combustion and particulate emissions, calcination plant.
2. To atmosphere: particulate emissions from multiple emission points from dust filter/collector, raw materials preparation station.
3. To atmosphere: combustion emissions, plasterboard dryer (main stack).
4. To atmosphere: combustion emissions from twin stacks, plasterboard from plasterboard dryer heat exchanger.
5. To surface water: surface water run-off to River Avon via Bristol Port Company discharge point (Environment Agency discharge consent reference: 012039).
6. To sewer: effluent discharge from truck wash bay connection point to sewer.

**2.2 Process Description of New Activities**

As per the process description described in section 1.6.1 for the existing processes, the new activities will consist of 9 principal stages:

- Delivery, offloading and storage of raw materials via existing and two newly constructed spur conveyors;
- Transfer and initial crushing of gypsum;
- New Ball Mill and BMA Workshop;



- Calcining and milling of gypsum;
- Forming of wet plasterboard;
- Drying of plasterboard;
- Cutting of plasterboard;
- Dispatch to customers;
- Waste management and recovery;
- Truck Wash Bay; and
- Utilities and ancillary operations.

As detailed above, the new production line will be autonomous with the existing production process; however, it will have a symbiotic relationship with the existing activities in order to maintain efficiency across the site and in the distribution and transport of finished product dispatched from site.

The new production process will include new natural gas-fired air heater burners, venting through three main stacks (two stacks for the two-stage plasterboard drier and heat exchanger at the dryer outlet / boardline and preparing area, and one stack for the calcination plant). The combined thermal output is approximately 51 MW (32 MW thermal input from the plasterboard dryer, and 19 MW thermal input from the calciner plant).

In addition, the new production process will also include several space extract stacks which will provide point sources of dust emissions. Each of these emission sources will be fitted with fabric filters. All these sources will emit less than 10 mg/m<sup>3</sup> of dust. All building extracts through dust filters will operate 100% of the time, as will the combustion processes.

The proposed expansion plans will require the operator to move to using larger ships for the import of natural gypsum rock. As a result, it will be necessary to berth the vessel at an alternative deep-water berth. The vessel will then be unloaded by a combination of existing conveyor systems (owned and operator by Bristol Port Company); a replacement for the Existing C1 conveyor; and a new spur conveyor leading into the new production line warehouse. All existing conveyors are owned and operated by Bristol Port Company and are currently permitted under an EPR Schedule 1 section 3.5 Part B activity issued by North Somerset Council to Bristol Ports Company (permit number; LAEP/B/BBHT1/21). This variation seeks to include the two spur conveyors which will be fed by an interface chute from the existing conveyors, as these newly constructed spur conveyors will be owned and operated by Etex. Technical drawings of the newly proposed spur conveyors are provided within Appendix A8 to this report.

The anticipated maximum operational throughput capacity of the two new spur conveyors are as follows:

- New C1 conveyor: 1,000 t/h;
- New rock store feeding conveyors; 3,000 t/h.

It is anticipated that ship deliveries of natural gypsum will occur at a frequency of every 3.5-4 weeks, with duration of transfer of gypsum to site over 2.5 days (across both sites / to both production lines). The conveyors would run (only one of the two) for 2.5 days every 3 to 4 weeks.

The sole purpose of these spurs will be to transfer dedicated gypsum to the Etex site. The new spurs will be the only sections of conveyor wholly owned and controlled by the operator. All existing conveyors are owned and operated by Bristol Port Company and are currently permitted and regulated under an EPR Schedule 1 section 3.5 Part B activity issued by North Somerset Council to Bristol Ports Company (permit number; LAEP/B/BBHT1/21).

The new production line will generate extra requirements for an accelerator product (BMA) used in the plasterboard manufacturing process. To increase the production capacity, a new workshop and bulk lorry

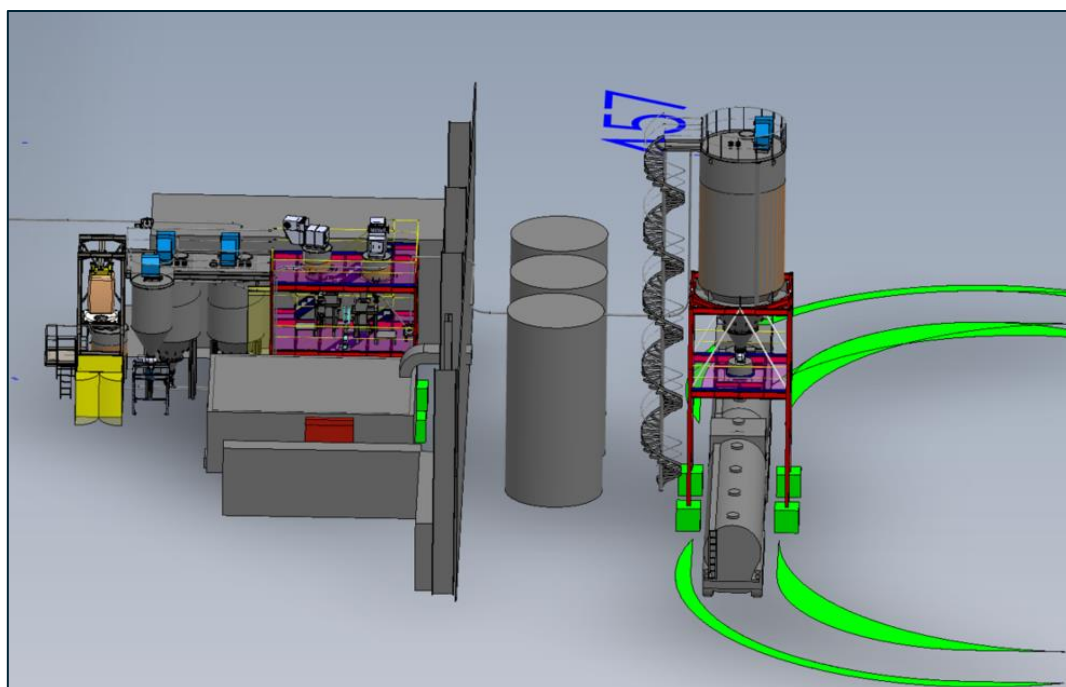


tanker filling station will be installed within/adjacent to the existing installation warehouse, to prepare BMA and to enable bulk deliveries to the newly proposed board line. The main operations to be executed within this workshop will be as follows:

- 1) Transport of ground gypsum from our current plaster mill to a storage silo close to the BMA workshop.
- 2) Bulk storage of ground gypsum, bulk bags of Lignosulphonate and BMA.
- 3) Accurate feed systems for feeding ground gypsum and Lignosulphonate into ball mill.
- 4) Sound proofed ball mill operation.
- 5) Transfer of BMA from ball mill to existing silo.
- 6) Big bag loading station for BMA.
- 7) Bulk lorry tanker filling station – being fed from the BMA silo.

An isometric image of the proposed new BMA workshop is illustrated within Figure 2-2 below.

**Figure 2-2** Isometric image of BMA Workshop / New Ball Mill Operation



Source: Etex Building Performance Ltd © 2023

The new Ball Mill and BMA Workshop area is to be located within the existing installation warehouse.

### 2.3 Planning Consent

A full planning application for the development of the newly proposed plasterboard manufacturing line was submitted to North Somerset Council in September 2020, with full permission granted on 9 April 2021. The approval was for:

- The erection of an extension to existing factory and warehouse premises; remodelling and expansion of vehicle parking and circulation areas; erection of a new gatehouse; and replacement and remodelling of conveyor structure to the north of the main site.

A copy of the planning permission is provided within Appendix A4.

## 2.4 New Point Source Emissions

The newly proposed production line will introduce new point source emissions to the permit. These include new point source emissions to air, an additional point source emission of clean, uncontaminated surface run-off to surface waters from the expansion area as well as a discharge to sewer from a newly proposed truck wash bay.

These new emission points will not replace existing emission points. All activities associated with the existing plasterboard production line are to remain unchanged.

Table 2-1, Table 2-2 and Table 2-3 below summarise the additional point source emissions to be included within Schedule 3 of the permit.

There are no other point source emissions associated with the newly proposed plasterboard production line.

**Table 2-1 New Point Source Emissions to Atmosphere**

Emission Point Reference and Location	Source of Emission	Emissions
A31	Exhaust Stack - Dryer Prezone	H <sub>2</sub> O
A32 and A52	Heat Exchanger	NO <sub>x</sub> , CO, H <sub>2</sub> O
A33	Dedusting System - Stucco Silo	PM <sub>10</sub>
A34	Dedusting System - Stucco Circuit	PM <sub>10</sub>
A35-A36, A38-A47	Dedusting (combined stack)	PM <sub>10</sub>
A37	Dedusting Dust Collector - Bulk Bag Unloading	PM <sub>10</sub>
A48	Dedusting Dust Collector - Mixer	PM <sub>10</sub>
A49	Main Exhaust Air Stack (Calcination Area)	NO <sub>x</sub> , CO, PM <sub>10</sub>
A50	Dedusting System Dividing Saw (Calcination Area)	PM <sub>10</sub>
A51	Emergency Stack (Calcination Area)	NO <sub>x</sub> , CO, PM <sub>10</sub>

**Table 2-2 New Point Source Emissions to Surface Waters**

Emission Point Reference and Location	Source of Emission	Emissions
W2	Site run-off from new plasterboard production line warehouse and surrounding area	Clean, uncontaminated surface water run-off only after passing through multiple interceptors

**Table 2-3**      **New Point Source Emissions to Sewer**

<b>Emission Point Reference and Location</b>	<b>Source of Emission</b>	<b>Emissions</b>
<b>F2</b>	Effluent run-off from Truck Wash Bay	Sulphates, suspended solids, Hydrocarbons

## 3 BAT Assessment

### 3.1 Scope of BAT Assessment

Statutory Sector Guidance relevant to this application has been produced specifically for the Plaster Processes (Process Guidance Notes (PGN) 3/12). These guidance notes are currently being reviewed and are due to be updated, however new guidance is not anticipated to be published until 2023/24 at the earliest.

The scope of this BAT assessment was discussed during pre-application dialogue, and the Operator was advised by the Environment Agency to use the draft plasterboard sector permit template as the basis for defining BAT, and for setting for emission limits and standards to all newly proposed point source emissions.

BREF for LCP BAT Conclusions (published 12/2021) and other Horizontal BREFs have been considered as part of the supporting BAT Assessment (e.g., Energy Efficiency BREF). However, the principal BAT reference document remains the process guidance note specific to the plaster processing sector.

In place of producing a standalone BAT assessment, BAT for the proposed new activities has been considered against each aspect identified within section 3.2 below.

#### 3.1.1 Cost Benefit Analysis (CBA)

Certain facilities, including new industrial installations or substantially refurbished facilities where the aggregated thermal input of combustion plant exceeds 20 MW, must meet the requirements of Schedule 24 of the EPR which incorporates the Energy Efficiency Directive (EED). Article 14(5)(c) of the EED requires applicants of new industrial installations to carry out a CBA to assess the costs and benefits of utilising the waste heat to satisfy economically justified demand, including through cogeneration, and of the connection of that installation to a district heating and cooling network. Article 14(5) clarifies that waste heat generated must be at a useful temperature level in order to satisfy economically justified demand.

As a measure to increase the energy efficiency of the installation, combustion air for the dryers will be pre-heated in a heat exchanger against the dryer flue gases. Post heat exchange, the dryer flue gases will have a temperature less than 75°C. This would represent a very low-grade heat source and would be too low for the useful production of hot water or for co-generation using steam Rankine cycles (SRC) or organic Rankine cycles (ORC). SRC typically requires a minimum waste heat temperature of 250°C, with ORC typically requiring a minimum waste heat temperature of 90°C. Research proposals have been made to develop low temperature waste heat to power conversion that would reduce the minimum temperature requirement to 75°C<sup>1</sup> but this could not yet be considered an available technique.

Consequently, the level of waste heat post heat exchange will not be at a useful temperature level, and under Article 14(5)(c), a cost-benefit analysis would not be required. Furthermore, Environment Agency guidance states that the need for a CBA is only required for a boiler, furnace, gas turbine or compression ignition engine, and does not explicitly reference dryers.

Given the above temperature limitations and CBA guidance, the need for a formal CBA to be completed in support of this application has been screened out.

#### 3.1.2 Fire Prevention Plan (FPP)

Although the site is permitted to bring in waste plasterboard, the Operator does not currently do so and there are no current plans to change this. All post-consumer secondary gypsum raw materials accepted at the Bristol facility are currently contractually obliged to conform to BSI PAS109 and consequently, meet the end of waste tests for recycled gypsum from waste plasterboard.

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<sup>1</sup> <https://gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/P510294/1>

The need for an FPP to be produced was discussed during pre-application dialogue and the Operator was advised that the Environment Agency currently have no intention to introduce the requirement for FPPs for gypsum sector permits, given the low combustion risk of wastes to be handled. A FPP has therefore been screened out as not required to support this application.

The Operator acknowledges that it is likely the Environment Agency will add a standard Fire Prevention Plan permit condition to the permit, to allow the site inspector to require the site to produce a plan if deemed necessary in the future.

In the absence of a standalone FPP, operational techniques and control measures to be implemented on site to reduce the risk of fires are addressed within the Operators Accident and Emergency Response Procedures, as detailed within Section 3.2.9 below.

## 3.2 Operational Techniques, Management & Control

### 3.2.1 Environmental Management System (EMS)

The Environment Agency relies heavily upon the use of effective Environmental Management Systems (EMS) as a driver for environmental compliance and continual improvement in performance.

The Operator currently implements a comprehensive Environmental Management System (EMS) which meets ISO14001:2015 standard.

A copy of the Operator's ISO Certification and Environmental Policy Statement is provided within Appendix A5 to this report.

The existing EMS's Standard Operating Procedures (SOPs) will be updated to include the Operations, Maintenance and Monitoring of the new production line. These existing procedures and systems will be adapted to govern the day-to-day operational activities for both the existing and new production lines. This will include the roll out of existing accident management and emergency procedures.

The existing EMS provides a framework through which the Operator's environmental performance can be monitored, controlled, and improved upon. The EMS sets out supporting information on plant technology and the appropriate level of information to provide:

- a mechanism for defining environmental responsibilities for all staff, helping them to understand the environmental impact of their activities and individual actions;
- ensures that all operations have procedures that minimise their impacts and strive towards high standards of environmental protection by preventing or minimising emissions;
- records environmental performance against set targets;
- can be audited; and
- will help the company identify opportunities to reduce waste and improve raw material consumption and energy efficiency.

The Operators existing EMS will be adopted and applied to the new production line facility.

It is considered that the above satisfies indicative BAT standards.

### 3.2.2 Staff Training

Staff employed at the new site will benefit from a training programme to improve their professional and technical knowledge. The Operator will ensure that any person performing tasks for it, or on its behalf, are competent, based on appropriate education, training, or experience, and will retain all associated training records. The Operators training programme will seek to maintain staff awareness of the site's Permit and EMS.

All new employees will be given full induction training by managerial staff or other appropriately qualified personnel. Records will be kept of all staff qualifications and training in relation to operation of the processes at the site, emergency procedures and the content and requirements of the environmental permit and its management plans.

Where works are contracted out, the successful contractor will have undergone an assessment during the procurement process to determine technical competency and to satisfy training standards required by the company.

It is considered that the above satisfies indicative BAT standards.

### **3.2.3 Site Maintenance**

Effective maintenance is a key component of operational control, particularly for ensuring emissions are minimised below required Emission Limit Values (ELVs), and energy efficiency is maximised. Maintenance activities are typically planned or reactive (i.e., in response to breakdowns or performance deterioration resulting from a fault). Routine maintenance and planned downtime reduce the risk of unexpected abnormal conditions or reactive maintenance issues arising.

All Planned Preventative Maintenance (PPM) will be carried out in accordance with predefined procedures and schedule by qualified technicians. Maintenance will be managed using a computerised maintenance management system (CMMS).

It is considered that the above satisfies indicative BAT standards.

### **3.2.4 Site Automated Control Systems**

A Supervisory Control and Data Acquisition (SCADA) software system will be deployed at the new production line, with individual plant operated automatically with supervision from the control centres via an on-line system. The SCADA software will operate continuously gathering and analysing real time data and will be directly linked to the wider manufacturers software system.

Alarms and faults will be communicated to the Operator via critical alarms, which will be relayed to dedicated personnel who will investigate and follow appropriate Operational or Emergency Procedures to resolve the issue.

It is considered that the above satisfies indicative BAT standards.

### **3.2.5 Energy Efficiency**

The new production line will consume electrical energy, but the main primary energy consumption will be associated with natural gas use in the gypsum calciner and dryers. Additionally, gas oil (diesel) will also be consumed in mobile plant e.g., forklift trucks etc.

The main measures incorporated into the design to optimise the energy efficiency of the dryers include pre-heating the combustion air using heat exchange against the dryer flue gases, use of an automatic control system, and pro-active maintenance to ensure that the burners are maintained and operating at optimal performance.

The following energy efficiency measures will also be incorporated into the design of the new production line process:

- Major plant will be sub-metered and part of a monitoring regime to trend energy consumption;
- Losses of thermal energy in plant ducting systems will be minimised through appropriate insulation;

- High efficiency motors will be installed and sized appropriately for their duty and, where appropriate, will be variable speed drive;
- Energy efficiency lighting e.g., LED, will be used where possible. Lighting in internal office areas and corridors will be equipped with time switches or motion sensors;
- All equipment will be controlled and monitored through an automated SCADA system;
- All internal doors, where space heating/air conditioning is provided, will be self-closing. All will be fully draft proofed with any external windows double glazed;
- Office areas, staff canteen areas and rest rooms will be operated under a control system that considers both internal and external temperatures to determine the heat / cooling demand, working times and occupancy.

It is considered that the above satisfies indicative BAT standards.

Details of the current annual energy consumption across the existing facility is summarised within Table 3-1 below. Data shown has been taken from 2021 records.

**Table 3-1 Annual Energy Consumption**

Energy Source <sup>2</sup>	Usage/year	Primary Energy MWh/year	Specific Usage MWh/tonne
Electricity (MWh)	33,981	88,352	0.1429
Natural Gas (MWh)	394,931	394,931	0.6390
Gas Oil (tonnes)	102.1	1,202	0.0019
<b>Total</b>		484,485	0.7839

### 3.2.6 Raw Material Consumption

A list of the raw materials processed at the existing facility is provided within Appendix A6 of this report. Existing annual consumption figures are also listed within the table. Once the new production line is fully commissioned, it is anticipated that raw material consumption will double.

All raw materials that are potentially polluting to the environment will be stored in suitable above ground tanks or containers and will benefit from the following pollution prevention techniques:

- Impermeable bunds with a capacity of 110% of the largest volume;
- Fill points provided with secondary containment (as appropriate);
- Be subject to regular visual inspection;
- Spill kits – materials suitable for absorbing and containing minor spillages will be readily available on site;

<sup>2</sup> Conversion factor for grid electricity to primary energy = 2.6; Gas Oil primary energy conversion factor = 10 kWh/litre; Gas Oil tonnage is based on relative density of 0.85kg/litre (ref: Digest of UK Energy Statistics)

- Any spills or leaks will be managed in accordance with the company's Emergency Protocols for Spillages; and
- In the unlikely event of an accident involving loss of containment, the surface water drainage system will be isolated allowing the contents of drainage stored in pipes and chambers to be tested prior to making a decision on whether the drainage is safe to be discharged. If this is not the case, the system will be discharged to a tanker for off-site disposal at a suitably licensed waste management facility. The outflow from the drainage system has to be pumped to a higher level from the final chamber. Hence, the site can be isolated in an accident scenario by stopping the pump.

It is considered that the above satisfies indicative BAT standards.

### **3.2.7 Avoidance, Recovery and Disposal of Wastes**

The types of waste generated in the extended facility, and measures to minimise the generation of waste, will be consistent with those generated by the existing permitted installation.

Waste plasterboard generated from the production process will be recycled and fed back into the process. Other wastes generated from the production line will be minimised where possible through efficient management and control procedures.

Wastes pending off-site recovery or disposal will be stored in suitable secure containers in defined areas of the facility with appropriate segregation and clearly labelled signage.

Any hazardous wastes removed from the Bristol facility will be removed by an appropriately permitted waste contractor and will be recovered (or disposed if a viable recovery route is not available) at a suitably authorised and permitted facility. As a waste producer, the Operator will receive consignee returns every quarter from their consignee dealing with their hazardous wastes. If returns are not automatically provided, the Operator will write to the consignee requesting copies.

The Operator recognises the need to implement the principles of the Waste Hierarchy wherever possible. Environmental Targets set within the Operators existing EMS will include auditing of wastes generated in order to identify opportunities for improvement.

It is considered that the above satisfies indicative BAT standards.

### **3.2.8 Annual Water Consumption**

Details of the current annual water consumption across the existing facility is summarised within Table 3-2 below. Data shown has been taken from 2021 records. It is anticipated that water consumption at the site will double once the new production line is fully operational. Measures to minimise water consumption will be consistent with those for the existing facility and the original application and variation should be consulted for details on such measures.

As per the existing permitted arrangements, water consumption will be reported annually to the Environment Agency.



**Table 3-2 Annual Water Consumption**

Energy Source	Usage m <sup>3</sup> /year	Specific Usage m <sup>3</sup> /tonne
Abstraction Water <sup>3</sup>	41,335	0.3586
Potable Mains Water	221,629	0.0668
<b>Total</b>	<b>262,964</b>	<b>0.4255</b>

### 3.2.9 Accident Prevention and Emergency Procedures

The Operator's existing Accident Management Plan (AMP) is implemented on site via a series of Emergency Procedures which form part of the manufacturing facility's Environmental management System (EMS). In combination with conforming to ISO14001 standards and as set out under EPR, these Emergency Procedures address significant environmental aspects for the installation including the following emergency scenarios:

- Spillages Procedure;
- Siren Emergency Procedure;
- Emergency Rescue Procedure;
- Flood Event Procedure;
- Fire Evacuation Procedure;
- Fire Response Team Procedure;
- Emergency Preparedness Process Flow Chart.

These existing procedures will be adopted at the new production line process. As the new activities are identical to those currently permitted at the existing manufacturing warehouse, it is not anticipated that the procedures will require any fundamental changes.

The Operator has designated high risk areas across the existing site as 'Environmental Critical Areas' (ECAs). These areas are inspected weekly and benefit from additional signage and extra spill kits to ensure any accidents can be responded to promptly.

A copy of the current Emergency Preparedness Process Flow Chart is provided within Appendix A7.

It is considered that the above satisfies indicative BAT standards.

### 3.2.10 Site Security

The Bristol Facility also has existing security measures in place which effectively prohibit unauthorised access. Access to the new warehouse will be via the Site's main Gatehouse entrance for both pedestrians and vehicles.

The Bristol Facility has security fencing around the perimeter of the site to prevent unauthorised access. The site is staffed 24 hours a day, thus there will always be staff attendance to monitor security and site access.

It is considered that the above satisfies indicative BAT standards.

<sup>3</sup> Borehole pumps restarted during May 2019

### 3.2.11 Techniques to control emissions

#### *Point source emissions to air*

Point source emissions to air will comprise combustion products from the new dryers and particulate matter emissions from the Gypsum process. These emissions will be controlled by effective process design (including specification of secondary, “end-of-pipe” techniques where required) and control and optimisation of the combustion conditions. Residual emissions will be reduced to levels below the relevant emission limit values prior to discharge to atmosphere.

The systems that will be provided to achieve these aims are summarised in Table 3-3.

**Table 3-3 Summary of emission control techniques for point source emissions to air**

Source of emission	Pollutant(s)	Main emission control technique(s)
Dryers	NO <sub>x</sub> , CO	Low-NO <sub>x</sub> burners; automated control system; pro-active maintenance
Gypsum process	Particulate matter	Fabric filter

The dryers will use a combination of primary emission reduction techniques i.e., use of low-NO<sub>x</sub> burners and an automated control system, to ensure emission limits can be met and to limit the impact on local residential receptors and habitat sites. Secondary NO<sub>x</sub> reduction techniques, such as selective catalytic reduction (SCR), which would provide further reductions in NO<sub>x</sub> emissions, have not been proposed for the following reasons:

- The temperature of the flue gases post heat exchange is lower than the optimum temperature range for SCR. This would require the flue gases to be re-heated to the optimum temperature range through supplementary firing of natural gas which will decrease the energy efficiency of the installation;
- SCR will result in emissions of ammonia, increasing nitrogen and acid deposition and associated impacts on habitat sites (the deposition velocity for ammonia is an order of magnitude greater than NO<sub>x</sub>);
- SCR will increase the consumption of resources (the catalyst uses metals) and waste generation (spent catalyst);
- The primary techniques can meet the emission limit in the current draft plasterboard sector permit template.

Several types of abatement technologies are available for the control of particulate matter in the flue gas:

- Cyclones or multi-cyclones;
- Electrostatic precipitators (ESPs);
- Fabric filters (or ‘bag filters’); and
- Wet scrubbing

Cyclones would not be considered to be the BAT on their own as they cannot attain the proposed emission limit in the draft plasterboard sector permit template with removal efficiencies reducing considerably to near zero for particles less than 2.5  $\mu\text{m}$ . Cyclones can generally achieve flue gas concentrations of no less than 200 – 300  $\text{mg}/\text{m}^3$ , although this can be decreased to 100 –150  $\text{mg}/\text{m}^3$  through the application of a multi-cyclone.

ESPs can either be operated in dry or wet form; the latter typically being used when dry ESPs are not suitable, including where the material collected is wet, sticky, flammable, or explosive. Modern ESPs, either dry or wet, will typically achieve removal efficiencies between 90 – 99%. ESPs consist of a series of high voltage electrodes and corresponding collector plate electrodes. The high voltage differential between the electrodes and collector plate causes the particulate matter to become charged and move towards the plate under the influence of the electric field. Periodically, the plate is cleaned by rapping, which dislodges the material before falling to a collection hopper for removal. ESPs are particularly suited for higher temperature applications with high flow rates, and have a lower pressure drop than fabric filters. The disadvantage is the high parasitic electrical load required by the unit. ESPs can achieve concentrations of 15-25  $\text{mg}/\text{m}^3$ , although this is still in excess of the proposed emission limit in the draft plasterboard sector permit template.

There are various different designs of wet scrubbers, with removal efficiencies ranging from 40 – 60% for a packed tower design and up to 95% for a venturi scrubber. They would not be considered to represent BAT for control of particulate matter since they cannot achieve the proposed emission limit in the draft plasterboard sector permit template, whilst also increasing the consumption of water. Furthermore, to maintain scrubbing efficiency, portions of the scrubbing liquor must be removed as wastewater. This wastewater must be treated (neutralisation, removal of heavy metals and suspended solids etc.) before being discharged and, consequently, requires the construction of a dedicated effluent treatment plant.

Fabric filters are proven technology and, in accordance with draft plasterboard sector permit template, are considered BAT for control of particulate matter emissions. Fabric filters are a barrier method, whereby the particulate matter collects on the surface of the filter bag. Over time, a filter ‘cake’ builds up on the surface of the filter media, further improving the collection efficiency. Research has demonstrated that removal efficiencies of 99.99% can be achieved, even for ultrafine particulate matter (generally defined as particulate matter with an aerodynamic diameter less than 0.1  $\mu\text{m}$ )<sup>4</sup>. The filter cake is periodically dislodged and collected in hoppers below the filter unit.

### *Fugitive emissions to air*

Control techniques for managing fugitive emissions from the extended area of the installation will be consistent with techniques currently used for the existing installation which have previously been determined as meeting the requirements in Process Guidance Note PG 3/12 by the Environment Agency. The original permit application and any subsequent variations provide more detail of these measures but, in summary, include a combination of, amongst others:

- Transfer of gypsum via conveyor belts is undertaken within suitably enclosed areas, which are constructed to be as air/dust tight and weatherproof (galvanised steel gantry housing);

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<sup>4</sup> Buonanno, G., Stabile, L., Scungio, M. and Tirler, W. (2011) ‘Ultrafine particle emission from incinerators: the role of the fabric filter’. Journal and Air and Waste Management Association, 62, 103-111

- Storing and handling of dusty material is undertaken suitably enclosed areas with extract ventilation to dust arrestment plant;
- Ensuring process buildings are made as air/dust tight as possible;
- Use of fast acting roller shutter doors in process and storage buildings;
- Regularly cleaning process buildings according to a written maintenance programme and maintaining a high standard of housekeeping;
- Regular cleaning of the site roadways as well as site access road by street sweeper;
- Dedicated wheel wash to be installed to remove dusty materials from wheels and undercarriages of vehicles prior to leaving site;
- All spillages which may give rise to dust emissions will be cleaned up promptly. If in an external area, this will use wet handling methods;
- Vehicles delivering dusty raw materials to site, or finished product from site, will be fully enclosed or, as a minimum, sheeted;
- Where dusty materials are loaded to/from lorries or other transportation methods, drop heights will be minimised;
- Storage silos will be fitted with an effective dust collecting system (fabric filters). Storage silos will be equipped with high level monitoring systems and audio or visual alarms to prevent the overfilling of the silo;
- Filter cake from the fabric filters will discharge to sealed hoppers directly below the filter unit. The filter cake will be loaded into enclosed collection vehicles using a sealed conveying system.

#### *Point source emissions to surface water, sewer, and groundwater*

The only emissions to sewer will be from domestic foul drainage from amenity areas (existing discharge point referenced as F1 on the site layout plan) as well as a small volume of effluent from a newly proposed truck wash bay.

Effluent from the truck washing activities will discharge via an oil interceptor, prior to connecting to the site's foul drainage system and subsequent discharging off site to the mains sewerage network system. Foul drainage from the site is sent to Portbury Wharf Sewage Treatment Works (STWs). This is a medium-sized treatment works which services a population of approximately 32,000 and can accept flow rates of up to 550l/s of sewage for treatment, prior to discharge into the Severn Estuary.

The principal emissions from the truck wash bay will be sulphates, suspended solids and hydrocarbons. The discharge point is referenced as F2 on the site layout and emissions plan.

The variation will also introduce a new point source emission to surface water. This will be for clean, uncontaminated surface water run-off only from the new plasterboard production line warehouse roof and surrounding hardstanding areas. The run-off will be collected in an independent sealed surface water drainage system containing multiple oil interceptors and storage chambers.

The integrity of surface water drainage system will be tested during commissioning and confirmed as watertight.

There will be no point source releases to groundwater.

#### *Fugitive emissions to surface water and sewer*

Potential fugitive releases to surface water, sewer or groundwater are only likely to occur as a result of an accident or incident involving the loss of containment and the Environmental Risk Assessment supporting the variation provides a risk assessment of these potential releases.

All storage infrastructure involving the storage of potentially polluting substances will be stored in an enclosed areas or in bunded areas that meet the requirements of CIRIA C736 *Containment systems for the prevention of pollution*. Other general measures to control fugitive emissions to surface water, sewer and groundwater include:

- Spill kits will be available for the clean-up of all materials, including chemicals, diesel, and dusty materials;
- All process areas will be located on impervious hardstanding and the integrity of these areas will be regularly checked as part of routine maintenance procedures established under the EMS;
- Regular cleaning of the site roadways as well as site access road by street sweeper to remove any mud / debris;
- Dedicated wheel wash to be installed to remove mud / debris from wheels and undercarriages of vehicles prior to leaving site;
- Drainage onto hard standing without specific directional flow to a drainage point will not be implemented;
- All fluids stored in vessels which have a potential impact on the environment will be provided with impermeable secondary containment. Bund capacities will be a minimum of 110% of the vessel volume or, if more than one vessel is located within a common bund, will be a minimum of 110% of the capacity of the largest vessel, or 25% of the total vessel storage capacity, whichever is greatest. The bunds will slope to a sump, such that the contents of the bund (or rainwater if outdoors) can be tested and pumped out to an appropriate point on the site drainage system (if uncontaminated), or to a tanker for off-site treatment and disposal.

#### *Control of odour emissions*

Under normal operations, there will be very minimal potential sources of odour from the proposed new production line and associated activities. The Environmental Risk Assessment supporting the variation provides further details of control measures to reduce odour emissions.

#### *Control of noise emissions*

A Noise Impact Assessment (NIA) was completed by Acoustical Control Engineering Consultants Ltd (ACEC) in July 2020 to assess the potential impact of noise and vibration from the proposed new plasterboard production line process on nearby noise sensitive receptors. The assessment has been prepared considering a number of relevant guidance documents, including BS4142:2014. A copy of the acoustic assessment is provided within Appendix A2 of the Environmental Risk Assessment.

Control measures to reduce the impact of noise emissions include:

- The Operator will maintain and enforce a site speed limit;
- Road surfaces within the installation boundary will be maintained in a good state of repair;
- Engines will be required to be switched off when not in use;

- Where possible, noise generating equipment will be installed within the new warehouse building or, where that is not possible, will be housed in suitable enclosures to provide additional attenuation;
- Equipment will be operated by suitably qualified and experienced staff;
- The Operator will implement an effective planned preventative maintenance regime to ensure equipment remains fit for purpose, equipment operates within optimum conditions, and minimises generation of noise and/or vibration.

Operational procedures will be in place to investigate and respond to any complaints received regarding noise (as also required under the planning consent). Records will be maintained on site.

## 4 Monitoring Plan

### 4.1 Emissions to Air Monitoring

The additional point source emissions to air associated with the newly proposed production line are listed within Table 4-1 below. These locations are illustrated on drawing titled “Existing & Expansion Permit Boundary & Emissions Location Drawing V7”. Table 4-1 also includes the proposed emission limits for each emission source and the proposed monitoring frequency and monitoring method based on the draft plasterboard sector permit template.

Emissions from the main exhaust air stack serving the calcination area, and the emergency stack serving the calcination area, will emit combustion products combined with particulates. Combustion products will also be emitted from the two heat exchanger stacks. All other emission points will emit particulate matter only. Although limits for sulphur dioxide (SO<sub>2</sub>) have been included in Table 4-1 to enable consistency with the draft plasterboard sector permit template, SO<sub>2</sub> emissions are expected to be negligible due to the use of natural gas and, consequently, SO<sub>2</sub> emissions have not been subject to detailed modelling in the air quality assessment.

Modern bag filter arrestment plant, capable of reducing emission limits to under 50mg/Nm<sup>3</sup> is currently considered BAT within the Sector Guidance Note for plasterboard processing.

Discharges from all stacks emitting particulate matter will pass through a bag filter prior to release to atmosphere. The abatement equipment (bag filters) will be designed to achieve emission limits of 10mg/Nm<sup>3</sup> which is considered BAT as per limits stated within the current draft sector permit template.

**Table 4-1 Proposed Emissions to Air Monitoring**

Emission Point Reference	Source of Emission	Emissions Parameter	Limit <sup>A</sup>	Anticipated Monitoring Frequency	Monitoring standard or Method
<b>A31</b>	Exhaust Stack - Dryer Prezone	-	-	-	-
<b>A32 &amp; A52</b>	Heat Exchangers	NOx	100 mg/Nm <sup>3</sup>	Quarterly	BS EN 14792
		SOx	50 mg/Nm <sup>3</sup>	Quarterly	BS EN 14791 or CEN/TS 17021
<b>A33</b>	Dedusting System - Stucco Silo	Particulate matter	10 mg/Nm <sup>3</sup>	In accordance with maintenance schedule	In accordance with maintenance schedule (permanent sampling access not required)
<b>A34</b>	Dedusting System – Stucco Circuit	Particulate matter	10 mg/Nm <sup>3</sup>	In accordance with maintenance schedule	In accordance with maintenance

Emission Point Reference	Source of Emission	Emissions Parameter	Limit <sup>A</sup>	Anticipated Monitoring Frequency	Monitoring standard or Method
					schedule (permanent sampling access not required)
<b>A35-A36, A38-A47</b>	Dedusting (combined stack)	Particulate matter	10 mg/Nm <sup>3</sup>	In accordance with maintenance schedule	In accordance with maintenance schedule (permanent sampling access not required)
<b>A37</b>	Dedusting Dust Collector - Bulk Bag Unloading	Particulate matter	10 mg/Nm <sup>3</sup>	In accordance with maintenance schedule	In accordance with maintenance schedule (permanent sampling access not required)
<b>A48</b>	Dedusting Dust Collector - Mixer	Particulate matter	10 mg/Nm <sup>3</sup>	In accordance with maintenance schedule	In accordance with maintenance schedule (permanent sampling access not required)
<b>A49</b>	Main Exhaust Air Stack (Calcination Area)	NOx	100 mg/Nm <sup>3</sup>	Quarterly	BS EN 14792
		SOx	50 mg/Nm <sup>3</sup>	Quarterly	BS EN 14791 or CEN/TS 17021
		Particulate matter	10 mg/Nm <sup>3</sup>	Continuous	BS EN 15267-3 and BS EN 14181
<b>A50</b>	Dedusting System Dividing Saw (Calcination Area)	Particulate matter	10 mg/Nm <sup>3</sup>	In accordance with maintenance schedule	In accordance with maintenance schedule (permanent sampling access not required)



Emission Point Reference	Source of Emission	Emissions Parameter	Limit <sup>A</sup>	Anticipated Monitoring Frequency	Monitoring standard or Method
A51	Emergency Stack (Calcination Area)	NOx	100 mg/Nm <sup>3</sup>	-	-
		SOx	50 mg/Nm <sup>3</sup>	-	-
		Particulate matter	10 mg/Nm <sup>3</sup>	-	-

<sup>A</sup> At reference conditions of 273K, 101.3 kPa, with no correction for moisture or oxygen

Monitoring of emissions to air will use a combination of continuous and periodic/extractive monitoring techniques in-line with the Environment Agency's Monitoring Certification Scheme (MCERTS).

All Continuous Emissions Monitoring Systems (CEMS) equipment will be MCERTS compliant, meeting the performance specifications in BS EN 15267-3 and holding QAL1 certification under BS EN 14181. The CEMS will be installed taking account of guidance in the *Environment Agency's Monitoring stack emissions: measurement locations* guidance (formerly Technical Guidance Note (Monitoring) M1), and the requirements of BS EN 15259, including the Environment Agency's Method Implementation Document (MID) for EN 15259. The exact analyser types have not been selected at this stage but will be based on the techniques described in the *Environment Agency's Monitoring stack emissions: techniques and standards for CEMS and automated batch samplers'* guidance (formerly Technical Guidance Note (Monitoring) M2).

The CEMS will be supported by a Data Acquisition and Handling System (DAHS) that will continuously log analogue and digital signals from the emission monitoring equipment. The system will have the capability to produce daily, monthly, and annual reports of validated emissions data, as well as having functionality for reporting QAL2 and QAL3 data under BS EN 14181. The DAHS will meet the performance requirements specified in the Environment Agency's *Quality and Performance Standards for Environmental Data Management Software* and/or BS EN 17255.

Periodic, extractive monitoring will be undertaken by a MCERTS accredited test team certified to BS EN ISO/IEC 17025. Prior to any periodic sampling being carried out, a site-specific protocol (SSP) will be developed by the test team under MCERTS requirements. The SSP and periodic monitoring reports will be provided to the Environment Agency as part of routine reporting.

## 4.2 Emissions to Surface Water and Sewer Monitoring

The additional point source emission to surface water from outdoor drainage areas surrounding the newly proposed production line warehouse is listed within Table 4-2 below. The location of the new discharge point is shown on drawing titled "*Existing & Expansion Permit Boundary & Emissions Location Drawing V7*". As this discharge will only contain uncontaminated surface run-off, no monitoring is proposed other than for the visible presence of oil and grease which may have passed through the interceptors.

Emissions parameters to be monitored and limits set are considered BAT as per the current draft sector permit template.

**Table 4-2 Proposed Emissions to Surface Water Monitoring**

<b>Emission Point Reference</b>	<b>Source of Emission</b>	<b>Emissions Parameter</b>	<b>Limit</b>	<b>Anticipated Monitoring Frequency</b>
<b>W2</b>	Clean, uncontaminated surface water run-off only from new plasterboard production line warehouse and surrounding area	Oil or Grease	None visible	Weekly

The Operator acknowledges that as part of this variation application the Environment Agency may take the opportunity to update the permit and incorporate additional emission limits and monitoring requirements for existing point source emissions to water.

### 4.3 Emissions to Sewer Monitoring

Run-off from the truck washing bay will pass through a full retention oil interceptor, prior to discharge to sewer. Portbury Docks has a Trade Effluent Consent (TEC) with Wessex Water which incorporates sewage discharged from Etex's site. Given the anticipated low volumes of discharge from the truck wash operations, monitoring is not currently proposed immediately downstream of the discharge point. The operator will undertake routine maintenance to ensure that the washing bay is operating correctly. The oil interceptor will also be regularly inspected and emptied as and when required.

**Table 4-3 Proposed Emissions to Sewer**

<b>Emission Point Reference</b>	<b>Source of Emission</b>	<b>Emissions Parameter</b>	<b>Limit</b>	<b>Anticipated Monitoring Frequency</b>
<b>F2</b>	Effluent run-off from Truck Wash Bay	Hydrocarbons	None Specified	-

### 4.4 Records and Reporting

As part of the site's existing ISO14001:2015 Environmental Management System, internal audits will be carried out on an annual basis to check that all activities are being undertaken in line with the requirements of the Environmental Permit, management procedures, and associated legislation.

Frequency of reporting monitoring data to the Environment Agency will be in accordance with conditions specified within the permit. Reports submitted will use the appropriate reporting forms as required by the regulator.

The Operator will ensure the following information is also recorded for both the existing and new activities proposed:

- Any changes to the as built design throughout the life of Operations at the new line;
- Annual hours of operation;
- Abnormal Events or Emergencies;
- Complaints and actions taken;
- Plant/equipment failure;
- Periods of Maintenance or Downtime;
- Any Incidents/accidents on site and actions taken;
- Security failures;
- Monitoring Data;
- Environment Agency Compliance Assessment Reports (CARs); and
- Reportable incidents in accordance with the Permit.

All records will be held in the site office and will be made available on request. Any records held electronically will be backed up on a regular basis.

Future reporting requirements are anticipated to include the parameters specified within Table 4-3 below as a minimum.

It is considered that the above satisfies indicative BAT standards.

**Table 4-4 Proposed Reporting Requirements for New Activities**

Parameter	Emission or Monitoring Point	Reporting Period
Emissions to Air Data	Emissions listed within Table 4-1 above	Monthly summary of continuous monitoring reported every 6 months 3 monthly extractive monitoring reported every 6 months
Emissions to Surface Waters Data	Emissions listed within Table 4-2 above	Every 6 months
Pollution Inventory Form	Installation	Every 12 months (following completion of calendar year)

## 5 Appendices

## A1 Pre-application Correspondence



Title:  
**Environmental Permit  
 Enhanced Pre-Application  
 Minutes of Meeting**

Location:  
**Virtual Teams Meeting**

Time and Date:  
**10 May 2022  
 10:30 – 11:40**

<b>Attendees:</b>	<u>Environment Agency:</u> <b>Simon Paterson; Mark Taylor; Paul Scotford; Leonie Morgan</b> <u>ETEX Building Performance Limited:</u> <b>Stephen Hemmings; Lee Townsend; Richard José</b> <u>Air Quality Consultants:</u> <b>Laurence Caird; Adam Clegg; Lucinda Hall</b> <u>Apologies:</u> <b>Reena Limm</b>
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No:	Topic:	Action:
1)	<b>Introductions</b> Introductions provided by all in attendance	
2)	<b>Project Introduction / Overview</b> Introduction to ETEX & proposed expansion project provided by Stephen Hemmings ETEX group is a global business based in Belgium. ETEX have two sites in UK, the larger of the two sites is located within the Royal Portbury Docks area of Bristol, with a second smaller site in Yorkshire. ETEX is one of the 3 leading plasterboard manufactures within the UK (occupies 30% of overall UK market). Leader in processing recycled gypsum primarily sourced from construction sites (processing ~65% of UK market). ETEX has not installed any new UK manufacturing capacity since 2007. Expansion plan proposed has secured £140m funding. The new installation line will create ~60 new jobs for the area and will increase site resilience within expanding market. ETEX has secured planning approval to extend the capacity of the current site by installing new production facilities to the south-east on land that had previously been used as a coal stockyard. Construction work commenced in March 2022.	
3)	<b>Regulatory Framework / Permit Approach</b> <b>i) Existing Permit</b> Existing Environmental Permit (EPR/XP3036SZ) was originally issued in September 2006. The permit has subsequently undergone a number of variations, the most recent having been issued in November 2019 - V007 (regularised & consolidated permit issued). The current installation manufactures plasterboard conforming to BS EN 520. The existing permit covers two Schedule 1 listed activities and two DAAs. The two Schedule 1 activities include a Section 1.1 Part A(1)(a)(i) combustion activity, covering the combustion units used in the heating of the raw material and drying of plasterboard and coving where the aggregated net rated thermal input of all combustion units exceeds 50 MW, and a Section 3.5 Part B(a) minerals activity covering the main plasterboard production process. <b>ii) Changes Proposed</b> The new activities to be added to the permit will be identical to those currently permitted but will constitute a Part A1 activity in their own right (>= 50MW thermal input). The new manufacturing facilities will be installed in an area outside the existing permitted installation boundary. Consequently, the site boundary is to be extended to include an additional 11.4 hectares of land.	



Title:  
**Environmental Permit  
 Enhanced Pre-Application  
 Minutes of Meeting**

Location:  
**Virtual Teams Meeting**

Time and Date:  
**10 May 2022  
 10:30 – 11:40**

	<p><b>iii) Type of Application</b></p> <p>When reviewing EA RGN08 guidance, we consider the proposed changes to be classified as substantial change &amp; therefore requiring a substantial variation application. EA have also indicated this as part of basic pre-app advice already provided to ETEX.</p>	
<p><b>4)</b></p>	<p><b>Technical Guidance Notes &amp; Applicable Standards</b></p> <p><b>i) BAT Hierarchy Requirements / BREFs</b></p> <p>The installation’s activities fall within the ‘Combustion Activities’ section of the Environmental Permitting (England and Wales) Regulations 2016, as amended (section 1.1 A1 (a)) as the aggregation of the appliances in which fuels are burned exceeds 50MW. However, the installation is not defined as ‘Large Combustion Plant’ in accordance with the aggregation rules as the largest appliance at the installation falls below the lower threshold. As such, the emission limit values in Annex V of IED and the BAT-AELs in the LCP BAT Conclusions do not apply.</p> <p>BREF for LCP BAT Conclusions (published 12/2021) and other Horizontal BREFs to be considered as part of BAT Assessment (E.g., Energy Efficiency BREF) however principal BAT will be process guidance note specific to plaster processing sector.</p> <p><b>ii) A.N.Other relevant sector specific guidelines</b></p> <p>Gov.uk - Statutory guidance: Plaster processes: process guidance notes 3/12 (Process Guidance Note (PGN))</p> <p>Aware EA’s local authority team has a new 18-month programme to update the Part B Guidance Notes – including PG 3/12 applying to plaster processes.</p> <p>LM confirmed LA resource has been allocated. New guidance has to go through consultation phase first, however anticipate new Guidance to be introduced over 2023/2024.</p> <p><b>iii) Sector Permit Template</b></p> <p>Sector Permit Template being updated – sector submitted comments on the draft template in March 2020.</p> <p>LM advised for existing plants any new limits will be phased in over 4 years, as per BAT AEL’s. For new plants &amp; variations EA will look to incorporate lower ELVs and monitoring standards into permit now. Recent Variation to Knauf Immingham permit incorporated these changes. Would look to follow same approach with ETEX permit variation.</p>	
<p><b>5)</b></p>	<p><b>Scope of Supporting Technical Assessments / Plans</b></p> <p>The principal emissions from the new activities will be emissions to atmosphere from the combustion processes and particulate matter from the gypsum process.</p> <p><b>i) Air Quality Assessment</b></p> <p>Application will include detailed air quality modelling and assessment. Aware EA have recently updated their on-line Risk Assessment Guidance (1 April 2022) Air Emission RA Guidance (29 April 2022).</p> <p>Assessment will consider the total installation-wide process contribution, i.e., the combined impact of existing and proposed emissions. The assessment will consider emissions of the following pollutants as a minimum:</p> <ul style="list-style-type: none"> <li>• particulate matter (PM10 and PM2.5);</li> <li>• oxides of nitrogen (NOx and NO2).</li> </ul>	

**ii) Noise Impact Assessment**

Noise impact assessment will be completed in line with the BS 4142:2014 standard.

**iii) Fire Prevention Plan**

ETEX permit does not currently require site to have a Fire Prevention Plan (FPP) in place, although permit does permit wastes to be accepted onto site. All post-consumer secondary gypsum materials accepted at the Portbury site are currently contractually obliged to conform to BSI PAS109 and, consequently, meet the end of waste tests for recycled gypsum from waste plasterboard.

Several discussions with the EA have been held at a national level, to discuss whether Fire Prevention Plans will apply to gypsum sector permits.

LM & MT advised no intention to introduce sector requirement for FPPs for gypsum sector permits, given the low combustion risk of wastes to be handled. Would consider risks on a site-by-site basis. Need for FPPs to be discussed and agreed at a local level with site regulating officer. Need to assess risk of potential combustible waste materials to be brought onto site, to determine if FPP is required.

ETEX / AQC to consider this as part of permit preparatory works, to establish if FPP can be screened out, or if FPP needs to be included within permit variation.

**iv) Cost Benefit Analysis (Schedule 24 of EPR / Article 14 of EED)**

Certain facilities, including new industrial installations or substantially refurbished facilities where the aggregated thermal input of combustion plant exceeds 20 MW, must also meet the requirements of Schedule 24 of the EPR which incorporates the Energy Efficiency Directive (EED). Article 14 of the EED requires applicants to carry out a Cost Benefit Analysis (CBA) to assess the cost and benefits of utilising waste heat generated for use in local district heating and cooling networks.

ETEX already aware that the flue gases from the two direct-fired dryers post heat exchange will not provide sufficient waste heat to be utilised.

SP agreed that full CBA not required, providing sufficient justification is provided within application to support screening out need for formal assessment.

**v) Site Condition Report**

Under Article 22(2) of the IED, requires a baseline SCR any new extension to an existing permitted installation boundary. The EA's H5 guidance SCR will be followed to produce a baseline SCR for additional footprint of land.

SP queried if existing conveyor to port dock will be located within site boundary line.

SH confirmed existing conveyor not currently within boundary line.

Discussion held on use of hydrogen – and potential opportunity to future proof site. Consideration given to hydrogen ready burners etc.

MT commented 3-4 cement manufactures have already started to trial use of hydrogen burners.

SH & LH advised consideration of switch to hydrogen burners premature – and will not form part of this variation application. Unlikely to be put into place until closer to 2030. Consideration will be given to site layout, to future proof for potential upgrade to hydrogen use in future.

ETEX / AQC

ETEX / AQC



	MT advised may wish to consider hydrogen electrolysis rather than hydrogen storage to avoid COMAH regs.	
6)	<p><b>Proposed Content of Permit Application</b></p> <ul style="list-style-type: none"> <li>• Non-technical Summary</li> <li>• Completed App Forms (A, C2, C3, F1) (use latest forms – some of which were updated Dec 2021 (C3))</li> <li>• SCR to cover additional footprint of land (11.4 hectares of land)</li> <li>• Environmental Risk Assessment (Identifying potential risks, screening out risks that are insignificant, detailed technical assessment for potential significant risks) Technical assessments to include: <ul style="list-style-type: none"> <li>○ Air Quality Assessment</li> <li>○ Noise Impact Assessment</li> </ul> </li> <li>• Operational Techniques, BAT Assessment &amp; Monitoring Plan (Will include EMS summary &amp; CBA screening &amp; justification as to why full CBA &amp; FPP not required) NB. current site EMS meets ISO 14001/9001 standards</li> <li>• Accident Management Plan</li> <li>• Drawings &amp; Process Flow Diagrams</li> </ul>	
7)	<p><b>Project Programme &amp; Permit Submission Timings</b></p> <ul style="list-style-type: none"> <li>• Target Submission to NPT July 2022</li> <li>• Commissioning scheduled June 2023</li> </ul> <p>Discussed current EA works queue delays. MT advised contingency provided within currently programme may be sufficient, however if required, applicants can submit request for application to be prioritised.</p> <p>MT advised once application is submitted to NPS in Sheffield, application will be allocated to him for delegation to a permitting officer for determination.</p> <p>ETEX/AQC to ensure MT, SP, LM &amp; PS are all copied into application submission – to ensure everyone is aware when application is formally submitted, so it can be suitably tracked.</p>	ETEX / AQC
8)	<p><b>Associated EA's Fees &amp; Charges</b></p> <p>EA Charging scheme updated 4 April 2022. No changes to charging tables relevant to this application. Application fee assumed to be calculated as follows:</p> <ul style="list-style-type: none"> <li>• Table 1.10 Combustion and power (1.10.1) Section 1.1 - combustion plant - rated thermal input of 50MWth or more. <b>£17,193.00</b> (Substantial variation)</li> <li>• Table 1.18 Charges common to more than one sector (1.18.2) Local authority activity - Part B activity including those which are also small waste incineration plant. <b>£1,650.00.</b></li> <li>• Habitats Assessment (Table 1.91.2) <b>£779.00</b></li> </ul> <p><b>Total Application Fee: £19,662.00</b></p> <p>(NB. Additional fee of £1,241.00 would apply if FPP to be submitted with application)</p> <p>SP to confirm fee.</p>	SP
9)	AOB	

## Lucinda Hall

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**From:** Paterson, Simon <simon.paterson@environment-agency.gov.uk>  
**Sent:** 18 May 2022 08:26  
**To:** Lucinda Hall  
**Cc:** Taylor, Mark; Limm, Reena; Morgan, Leonie; Scotford, Paul  
**Subject:** Pre Application Basic Advice ref: EPR/XP3036SZ/V008

**Site: Etex Building Performance, Bristol**  
**Operator: Etex Building Performance Limited**  
**Permit No: EPR/XP3036SZ/V008**

**RE: Enhanced pre-application advice**

Dear Lucinda

Thank you for your minutes of our pre-application meeting held on 10<sup>th</sup> May 2022 to discuss the proposed expansion project of the Etex plant in Bristol.

The minutes are acceptable. However, I would like to re-iterate and expand on the key points of the meeting:

### Key points

#### **1. Best Available Techniques (BAT)**

Etex should use the draft plasterboard sector template as the basis of their BAT for emission limits and standards. The Environment Agencies Local Authority Guidance unit will be issuing new BAT guidance for the manufacture of plasterboard which will use these limits, though it will go through review and consultation and so may be subject to change.

LCP BAT conclusions and chapter III of the IED,

The LCP BAT conclusions do not apply to the sector as it does not cover direct firing combustion activities, specifically the BAT conclusions states "These BAT conclusions do not address the following...combustion in process furnaces or heaters;" and it goes on to define "Process furnaces or heaters are: - combustion plants whose flue-gases are used for the thermal treatment of objects or feed material through a direct contact heating mechanism."

Chapter III of the IED also does not apply as article 28 states "This Chapter shall not apply to the following combustion plants: (a) plants in which the products of combustion are used for the direct heating, drying, or any other treatment of objects or materials ....."

However, if Etex wish to refer to aspects the BATc that they consider relevant, they may do so.

#### **2. Fire Prevention Plan**

Although the site is permitted to bring in waste plasterboard, the site does not currently do so and there are no plans too. The site currently brings in plasterboard that has passed the end of waste test. Consequently, the site does not require an FPP, nor is one required by the variation application as there is no change to the fire risk on site. It is likely the Environment Agency will add a standard FPP permit condition to the permit:

### **1.1 Fire prevention**

- 1.1.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

1.1.2 The operator shall:

- (1) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (2) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

which will allow the site inspector to require an FPP if needed (i.e. if the site starts to use waste plasterboard with paper on it). Even then the FPP wouldn't need to be too complicated as the risks are low.

### **3. Energy Efficiency Directive (Schedule 24 of EPR / Article 14 of EED)**

Whilst technically the EED does apply, we consider that the provision of justification as why it's not viable to recover further heat from the flue gases should be sufficient to meet the requirements of the EED. However, this will need to be reviewed at permit application as we have not seen the details yet.

### **4. Fees**

I agree with the proposed application fee of:

- Table 1.10 Combustion and power (1.10.1) Section 1.1 - combustion plant - rated thermal input of 50MWth or more. £17,193.00 (Substantial variation)
- Table 1.18 Charges common to more than one sector (1.18.2) Local authority activity - Part B activity including those which are also small waste incineration plant. £1,650.00.
- Habitats Assessment (Table 1.91.2) £779.00

**Total Application Fee: £19,662.00**

Other charges for plans and their assessments, such as fire prevention plan or noise management plans may be needed if these plans are required to be submitted.

### **Disclaimer**

The advice given is based on the information you have provided, and does not constitute a formal response or decision of the Environment Agency with regard to future permit applications. Any views or opinions expressed are without prejudice to the Environment Agency's formal consideration of any application. Please note that any application is subject to duly making and then full technical checks during determination, and additional information may be required based on your detailed submission and site specific requirements and the advice given is to address the specific pre-application request.

This advice covers installations only. Other permissions from the Environment Agency and/or other bodies may be required for associated or other activities.

Hope this addresses everything you need, feel free to call me to discuss anything further.

Although this email will be saved to our systems; when you submit the application, I suggest that you state that you have had pre-application advice from myself in the covering letter which will sign post the determining officer to talk to me.

If you are satisfied with the response please let me know and I can close out this pre-application advice request

Regards

*Simon Paterson* BSc CEng MChemE PER  
**Principal Permitting Officer**  
**National Permitting Service**  
**Part of Operations – Regulation, Monitoring and Customer**  
**Environment Agency**

**N.B. I work part time. Mornings only, 5 days a week.**

 **020 302 52888 (internal 32888)**  
 [simon.paterson@environment-agency.gov.uk](mailto:simon.paterson@environment-agency.gov.uk)

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## A2 Environmental Permit

# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

Etex Building Performance Limited

Etex Building Performance  
Redland Avenue  
Easton-in-Gordano  
Bristol  
BS20 0FB

### **Variation application number**

EPR/XP3036SZ/V007

### **Permit number**

EPR/XP3036SZ

# Etex Building Performance

## Permit number EPR/XP3036SZ

### Introductory note

#### This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The permit is varied by:

- Removing emission point A14 from table S3.1;
- Removing emission point W2 from table S3.2 to correct an error;
- Including revised monitoring locations for emissions to surface water in table S3.2; and
- Consolidating the previous variations into the permit.

No other changes are made and the installation operates as follows:

Etex Building Performance is located in Marsh Lane, Easton-in-Gordano, near Bristol, and is operated by Etex Building Performance Limited. The site centre is at Ordnance Survey grid reference 350750 176980. The installation is surrounded by land in industrial use, disused land and open farmland. The River Avon lies 600m to the north and east, and beyond, the River Severn estuary is 800m to the north.

The Installation comprises combustion plant to provide heat and power for the production of plasterboard and coving from gypsum. The Installation accepts gypsum rock and recovered plaster gypsum by ship and road as the main raw materials, which are stored in an enclosed facility. The gypsum is crushed and then milled and heated, or fed into a flash calciner and heated. Both routes lead to the production of stucco (heated, dried gypsum). The heated stucco is combined with additives and water to produce slurry. The slurry is extruded, cut and dried to form plasterboard and coving, which is stored and dispatched to the customer.

The waste gypsum recovery unit received wet and dry waste plaster scrap from on and off site, which was crushed, milled and calcined, or sent for use on the board lines. This unit is now decommissioned.

The main emissions from the Installation are to air, and comprise particulates from the gypsum process and combustion gases from the combustion processes. There are no process discharges to sewer or surface water. No disposal to land takes place at the Installation.

There are two European Habitats Sites within 10km; the Severn Estuary SPA and the Avon Gorge Woodlands SAC. There is also one SSSI (the Severn Estuary SSSI) within 2km of the installation.

The installation has an internal Environmental Management System (EMS) certified to ISO 14001.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application XP3036SZ	Duly made 04/04/2006	

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Request for further information made 10/05/2006	22/05/2006	
Permit determined	19/09/2006	
Variation application EPR/XP3036SZ/V002	Duly made 17/01/2012	
Variation determined EPR/XP3036SZ/V002	20/03/2012	
Application EPR/XP3036SZ/V003 (admin variation)	Duly made 10/12/2012	
Variation determined EPR/XP3036SZ/V003	07/01/2013	Varied permit issued.
Application EPR/XP3036SZ/V004 (variation and consolidation)	Duly made 30/05/2014	Application to vary permit to allow new calcining operations, refining plant and gypsum storage and existing operations to use just DSG and waste plasterboard.
Variation determined EPR/XP3036SZ	30/07/2014	Varied and consolidated permit issued in modern condition format.
Application EPR/XP3036SZ/V005 (variation and consolidation)	Duly made 20/10/2016	Application to vary permit to change the site address to Redland Avenue, conditions for emission monitoring in schedule 6 and emission requirements in Schedule 3 table S3.2.
Variation determined EPR/XP3036SZ	11/11/2016	Varied permit issued.
Notified of change of company name	09/01/2017	Name changed to Etex Building Performance Limited.
Variation issued EPR/XP3036SZ/V006	17/01/2017	Varied permit issued to Etex Building Performance Limited.
Variation application EPR/XP3036SZ/V007	Duly made 25/07/2019	Application to vary to remove emission points A14 and W2 and amend the monitoring location for emission point W1
Variation issued EPR/XP3036SZ/V007 (Billing reference PP3905PE)	04/11/2019	Varied and consolidated permit issued

End of introductory note



# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

### Permit number

**EPR/XP3036SZ**

### Issued to

**Etex Building Performance Limited** (“the operator”)

whose registered office is

**Gordano House  
Marsh Lane  
Easton-in-Gordano  
Bristol  
BS20 0NE**

company registration number **02163844**

to operate a regulated facility at

**Etex Building Performance  
Redland Avenue  
Easton-in-Gordano  
Bristol  
BS20 0FB**

to the extent set out in the schedules.

The notice shall take effect from 04/11/19.

<b>Name</b>	<b>Date</b>
<b>Claire Roberts</b>	<b>04/11/19</b>

Authorised on behalf of the Environment Agency

## **Schedule 1**

The following conditions were varied as a result of the application made by the operator:

Schedule 1, table S1.2, as referenced by conditions 2.3.1 and 2.3.2, is amended by adding additional operating techniques.

Schedule 3, table S3.1, as referenced by conditions 3.1.1, 3.5.1 and 3.5.4, is amended to remove emission point A14.

Schedule 3, table S3.2, as referenced by conditions 3.1.1, 3.5.1 and 3.5.4, is amended to remove emission point W2 and add details of alternative monitoring locations for emission point W1.

Schedule 4, table S4.1, as referenced by condition 4.2.3, is amended to remove emission point A14.

Schedule 7, as referenced by condition 2.2.1, is amended by replacing the site plans with an amended site plan.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/XP3036SZ**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/XP3036SZ/V007 authorising,

**Etex Building Performance Management Limited** (“the operator”),

whose registered office is

**Gordano House  
Marsh Lane  
Easton-in-Gordano  
Bristol  
BS20 0NE**

company registration number **02163844**

to operate an installation at

**Etex Building Performance**

**Redland Avenue  
Easton-in-Gordano  
Bristol  
BS20 0FB**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Claire Roberts	04/11/19

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

### 1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
- (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1, table S1.1 (the “activities”).

### **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2, table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2, table S2.2; and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

### **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1, table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, tables S3.1, and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
  - (a) point source emissions specified in tables S3.1, and S3.2.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3, tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
  - (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) off-site environmental effects; and
    - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

### **4.2 Reporting**

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production /treatment data set out in schedule 4, table S4.2; and
  - (c) the performance parameters set out in schedule 4, table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
  - (b) for the reporting periods specified in schedule 4, table S4.1 and using the forms specified in schedule 4, table S4.4 ; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

### 4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform the Environment Agency,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform the Environment Agency, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.



4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

## **4.4 Interpretation**

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

# Schedule 1 – Operations

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
A1	Section 1.1 A1 (a) (i)	Burning any fuel in an appliance with a rated thermal input >50MW (aggregation of all units).	From heating of prepared gypsum, production of slurry, extrusion into formers and drying of plaster board and coving. Operation of abatement
A2	Section 3.5 B (a)	Unless falling within Part A(1) or Part A(2) of any Section of this Schedule, the crushing, grinding or size reduction, other than the cutting of stone, or the grading, screening or heating of any designated mineral or mineral product except where the operation of the activity is unlikely to result in the release into the air of particulate matter (plaster process).	From receipt of gypsum and other raw materials on-site to drying of finished product, incorporating the directly associated activities below.
<b>Directly Associated Activity</b>			
A3	Directly associated activity	Reclamation of plasterboard and gypsum based waste for use in the production process including storage and screening	From the receipt of plasterboard and gypsum waste to its use in manufacture or disposal as waste.  Waste types as specified in table S2.2.
A4	Directly associated activity	Operation of condensate recovery systems	Receipt of moisture-laden air to return of condensate to the manufacturing process or its disposal as a waste.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	The response to section 2.1 and 2.2 in the Application.	04/04/06
Additional information to the application	Responses to questions 2, 4 and 5 detailing the condensate return system, the containment for wax and additive unloading areas, and the wax overflow point.	22/05/06
Variation Application EPR/XP3036SZ/V002	All documentation submitted in support of Application EPR/XP3036SZ/V002	09/12/11 and 17/01/12
Variation Application EPR/XP3036SZ/V003	Response to section 3 of part C3 of the application form, and sections 1, 3.2, 3.3, 4 and 7 of "Environmental Permit Report – Final, May 2014 Revised, 47066810.B002/LORP0001"	Duly made 30/5/14

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Variation application EPR/XP3036SZ/V007	Variation summary July 2019, Part B: Further Technical Information Response to question 3a in the Part C application form: Diagram July 2019 Site plan July 2019	22/07/19

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC1	The Operator shall review the adequacy of secondary containment around all external storage and delivery areas and identify improvements required, having regard to the Environment Agency draft Combustion Guidance Note, July 2005. The Operator shall submit a written report to the Environment Agency, identifying, for each area of external storage or delivery, the existing secondary containment, identified improvements and a timetable for carrying out the identified improvements.	Complete
IC2	The Operator shall establish a programme for testing the integrity of pollution prevention measures, having regard to the Environment Agency draft Combustion Guidance Note, July 2005. A written programme shall be submitted to the Environment Agency.	Complete
IC3	The Operator shall submit a written procedure to the Environment Agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.  The procedure shall be implemented by the Operator from the date of approval in writing by the Environment Agency.	Complete
IC4	The Operator shall develop a written flood management plan, which shall include details relating to measures in place to prevent pollution in the event of flood, storm surge, emergency overflow or the production of firewaters on site. The plan shall be submitted to the Agency in writing.	Complete
IC5	The Operator shall submit a proposal to the Environment Agency to carry out a programme to investigate CO and SO2 emission concentrations from all combustion sources, identify the causes of releases above benchmark values in Environment Agency draft Combustion Guidance Note, July 2005, and propose a programme of improvements to reduce emission levels. The proposal shall include a timetable to conduct tests and produce a report on the results.  On receipt of written agreement by the Environment Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Environment Agency a report of the results.	Complete
IC6	The Operator shall assess the viability of recovering condensate from the cove line and provide a written report on the assessment to the Agency, which shall included a timetabled programme for implementing viable options.	Complete

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC7	The Operator shall develop a written site closure plan, having regard to the Environment Agency draft Combustion Guidance Note, July 2005. The written plan shall be submitted in writing to the Environment Agency.	Complete
IC8	The Operator shall provide the Environment Agency with a written report containing six months' particulates monitoring data from points A2, A3 and A6. The report shall identify the causes of any exceedances above 50mg/m <sup>3</sup> , and propose techniques to reduce emissions below 50mg/m <sup>3</sup> .	Complete
IC9	The Operator shall review the design and operation of the burners in use, having regard to the Environment Agency draft Combustion Guidance Note, July 2005 Section 2.2 and shall submit a report in writing to the Environment Agency, detailing the potential for NO <sub>x</sub> reduction, the improvements required and a timescale for implementation, which shall be adhered to unless otherwise agreed in writing by the Environment Agency.	Complete
IC10	The operator shall provide a post commissioning report, providing monitoring results for the emissions of oxides of nitrogen, sulphur dioxide and particulates from emission points A13 and A14 listed in table S3.1.	Within 1 month of the completion of commissioning

## Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

Table S2.2 Permitted waste types and quantities for use in the production process	
Maximum quantity	Maximum annual process limit of 75,000 tonnes
Waste code	Description
<b>01 01</b>	<b>wastes from mineral excavation</b>
01 01 02	wastes from mineral non-metalliferous excavation
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07 (not containing dangerous substances)
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07 (not containing dangerous substances)
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07 (not containing dangerous substances)
<b>06 05</b>	<b>sludges from on-site effluent treatment</b>
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02 (not containing dangerous substances)
<b>06 06</b>	<b>wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurization processes</b>
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02 (not containing dangerous sulphides)
<b>10 01</b>	<b>wastes from power stations and other combustion plants (except 19)</b>
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
<b>10 12</b>	<b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>
10 12 03	particulates and dust
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
<b>10 13</b>	<b>wastes from manufacture of cement, lime and plaster and articles and products made from them</b>
10 13 01	waste preparation mixture before thermal processing
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 99	wastes not otherwise specified
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>

<b>Table S2.2 Permitted waste types and quantities for use in the production process</b>	
<b>Maximum quantity</b>	<b>Maximum annual process limit of 75,000 tonnes</b>
<b>Waste code</b>	<b>Description</b>
15 01 05	composite packaging
<b>16 03</b>	<b>off-specification batches and unused products</b>
16 03 04	inorganic wastes other than those mentioned in 16 03 03 (not containing dangerous substances)
<b>17 08</b>	<b>gypsum-based construction materials</b>
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01 (not containing dangerous substances)
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05

## Schedule 3 – Emissions and monitoring.

For the purposes of this Schedule, the following interpretations shall apply:

- For the continuous measurement systems fitted to the release points defined in Table S3.1, the validated hourly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval.
- The 95% confidence interval for dust releases of a single measured result shall be taken to be the measure of uncertainty calculated as given in Technical Guidance Note M2 Monitoring of Stack Emissions to Air.
- An invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing.
- Any day, in which more than three hourly average values are invalid shall be invalidated.

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1 [Point A1 on site plan in Schedule 7]	Cove line dryer	Particulates	No limit set	-	Daily	No permanent access required
A2 [Point A2 on site plan in schedule 7]	Flash calciner gas burner	Particulates	50 mg/m <sup>3</sup>	Validated daily average of validated hourly averages	Continuous	BS EN 13284-2
A3 [Point A3 on site plan in schedule 7]	Mill 1 & 2	Particulates	50 mg/m <sup>3</sup>	Validated daily average of validated hourly averages	Continuous	BS EN 13284-2
A4 [Point A4 on site plan in schedule 7]	Line 1 dryer	Particulates	No limit set	-	Daily	No permanent access required
A5 [Point A5 on site plan in schedule 7]	Line 2 dryer	Particulates	No limit set	-	Daily	No permanent access required
A6 [Point A6 on site plan in schedule 7]	Gas burners on kettles 1-4	Particulates	50 mg/m <sup>3</sup>	Validated daily average of validated hourly averages	Continuous	BS EN 13284-2

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A8 [Point A8 on site plan in schedule 7]	Boardline 2 dust abatement	Particulates	No limit set	-	Annual	No permanent access required
A13 [Point A13 on site plan in schedule 7]	Calciner process (gas fired burner, plus abated process emissions)	Particulates	50 mg/m <sup>3</sup>	Validated daily average of validated hourly averages	Continuous	BS EN 13284-2

<b>Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 <sup>Note 1</sup> emission to River Avon at NGR ST51167749	Uncontaminated surface water	No parameters set	No limit set	-	-	-
<p>Note 1 Sampling of the discharge shall take place at the following locations, as shown on site plan in schedule 7:</p> <ul style="list-style-type: none"> <li>S1: Grid reference: ST 50899 77173 – boardline 1 branch, north west side of the site</li> <li>S2: Grid reference: ST 50910 77178 – boardline 2 branch, south east side of the site</li> </ul>						



## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Particulates	A2, A3, A6, A13	Every 6 months	1 January

Parameter	Units
Plasterboard and coving	tonnes

Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh/tonne
Total raw material used	Annually	tonnes

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	23/07/14
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	25/07/06
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	25/07/06
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	25/07/06

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	
Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“mcr” means maximum continuous rating.

“natural gas” means naturally occurring methane with no more than 20% by volume of inert or other constituents.

“ncv” means net calorific value.

“notify without delay” / “notified without delay” means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

“year” means calendar year ending 31 December.

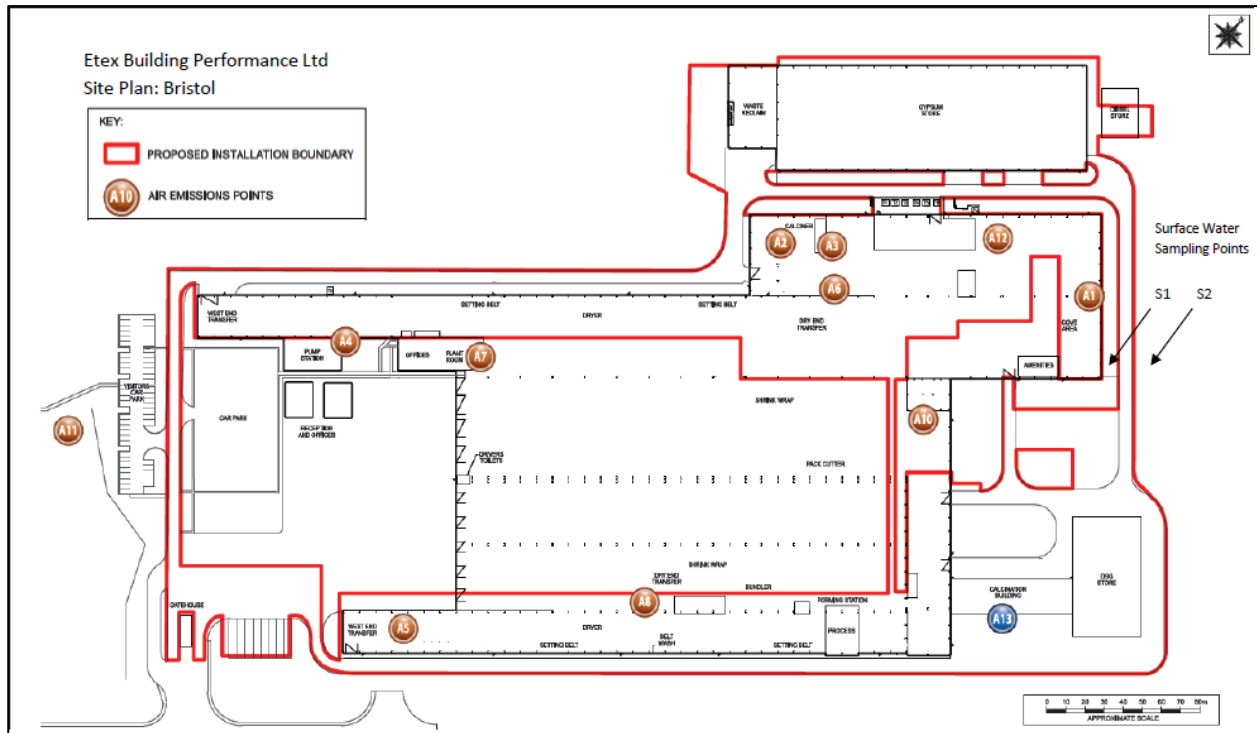
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to the manufacture of gypsum based products; an oxygen content of 18%, the concentration at a temperature of 273K, and at a pressure of 101.3 kPa, without correction for water vapour, for liquid and gaseous fuels; and/or

- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

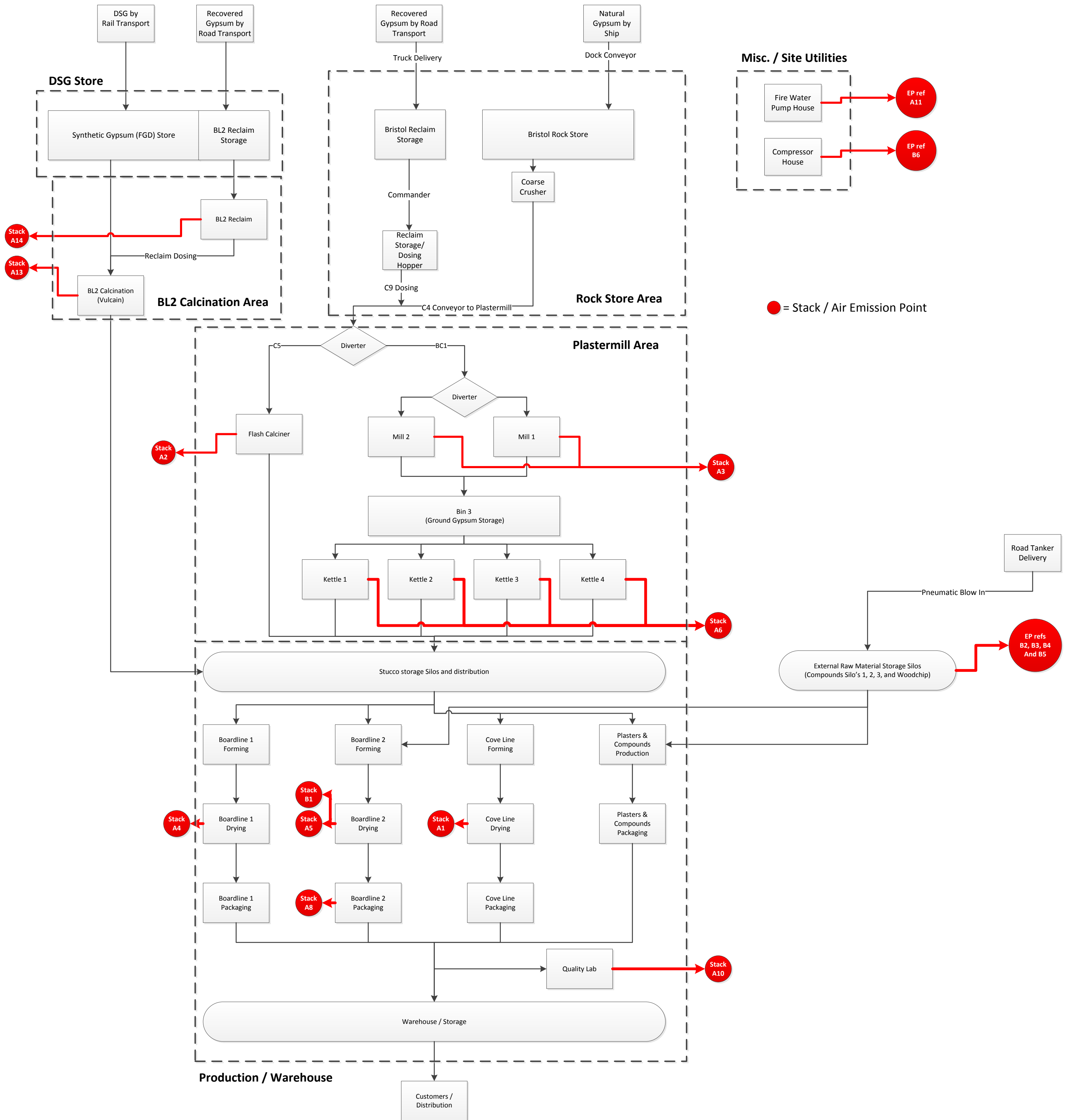
# Schedule 7 – Site



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END OF PERMIT

## A3 Plasterboard Manufacturing Process Flow Chart





## A4 Planning Consent

## NOTICE OF DECISION

Town And Country Planning Act 1990



Mr Mike Spurgeon  
Peacock and Smith  
8 Baltic Street  
Clerkenwell  
London  
EC1Y 0UP

Application Number: 20/P/2122/FUL

Category: Full application

**Application No:** 20/P/2122/FUL  
**Applicant:** Etex Building Performance Ltd  
**Site:** Etex Building Performance Ltd, Redland Avenue, Easton-in-Gordano,  
**Description:** Erection of an extension to existing factory and warehouse premises; remodelling and expansion of vehicle parking and circulation areas and erection of a new gatehouse; replacement and remodelling of conveyor structure to the north of the main site

North Somerset District Council in pursuance of powers under the above mentioned Act hereby **GRANTS PERMISSION** for the above development in accordance with the plans and particulars received and subject to the following conditions:

- 1 The development hereby permitted shall be begun before the expiry of three years from the date of this permission.

Reason: In accordance with the provisions of Section 91 of the Town and Country Planning Act 1990.

- 2 The development hereby permitted shall be carried out in accordance with the following approved plans and documents:

Plan numbers:

BL4-MAB-00-00-DR-A-00101 - S4/P11 - Location Plan;  
BL4-MAB-00-00-DR-A-00102 - S4/P11 - Block Plan;  
BL4-MAB-00-00-DR-A-00103 - S4/P09 - Existing Plan;  
BL4-MAB-00-00-DR-A-00104 - S4/P12 - Proposed Block Layout;  
BL4-MAB-00-00-DR-A-00105 - S4/P08 - Proposed Ground Floor Plan;  
BL4-MAB-00-01-DR-A-00106 - S4/P06 - Proposed First Floor Plan;  
BL4-MAB-00-02-DR-A-00107 - S4/P07 - Proposed Roof Plan;  
BL4-MAB-00-00-DR-A-00110 - S4/P06 - Gatehouse Proposal;  
BL4-MAB-00-00-DR-A-00150 - S4/P05 - Combined Constraints Plan;  
BL4-MAB-00-ZZ-DR-A-00131 - S4/P01 - Existing GA Elevations;  
BL4-MAB-00-ZZ-DR-A-00121 - SA/P11 - Proposed Elevations  
BL4-MAB-00-ZZ-DR-A-00135 - S4/P01 - Proposed GA SE Elevation  
BL4-MAB-00-ZZ-DR-A-00136 - S4/P01 - Proposed GA NW Elevation  
BL4-MAB-00-ZZ-DR-A-00137 - S4/P01 - Proposed GA SW & NE Elevations

BL4-MAB-00-ZZ-DR-A-00138 - S4/P01 - Proposed GA Calcination Workshop and Truck Maintenance Elevations  
 BL4-MAB-00-ZZ-DR-A-00139 - S4/P01 - Proposed GA Gypsum Store Elevations  
 BL4-MAB00-ZZ-DR-A-00122 - S4/P07 - Conveyor Alterations;  
 BL4-MAB-00-ZZ-DR-A-00123 - S4/P06P01 - GA Sections;  
 BL4-MAB-00-ZZ-DR-A-00155 - S4/P05 - Demolition Plan;  
 BL4-MAB-00-ZZ-DR-L-40000 S4/P08- Landscape Masterplan;  
 BL4-MAB-00-ZZ-DR-L-40001 - S4/P08 - Landscape GA Main Entrance;  
 BL4- MAB-00-ZZ-DR-L-40002 - S4/P08 - Landscape GA North Entrance;  
 BL4-MAB-00-ZZ-DR-L-40003 S4/P01- Indicative Kerb Strategy;  
 BL4-MAB-00-ZZ-DR-L40050 S4/P05- Site Cross Sections A and B;  
 BL4-MAB-00-ZZ-DR-L-40051 S4/P05- Site Cross Section C;  
 BL4-MAB-00-ZZ-DR-L-40201 S4/P07- Soft Landscape Main Entrance;  
 BL4-MAB-00-ZZ-DR-L-40202 S4/P07- Soft Landscape North Entrance;  
 BL4-MAB-00-ZZ-DR-L-40203 S4/P05- Planting Schedules;  
 BL4-MAB-00-ZZ-SP-L-40900 S4/P01- Outline Landscape Specification  
 BL4-AWP-ZZ-XX-DR-C-03002- S3/P07 - Surface Water Drainage Layout Site Wide  
 BL4-AWP-ZZ-XX-DR-C-03030 - S3/P01 - Winter Storm Flood Route Depths  
 BL4-AWP-ZZ-XX-DR-C-03031 - S3/P01 - Winter Storm Flood Route Depths 1 in 500yrs

Supporting Documents:

Acoustic Assessment (Acoustical Control);  
 Air Quality Assessment (Air Quality Consultants);  
 BREEAM Pre-Assessment;  
 Energy Assessment;  
 Lighting Assessment (Ramboll);  
 Design and Access Statement (Maber Architects);  
 Drainage Impact Assessment;  
 Flood Risk Assessment;  
 Flood Warning and Evacuation Plan May 2020;  
 Phase 1 Geo-Environmental Assessment;  
 Surface Water Drainage Strategy (Alan Wood & Partners);  
 Ecological Assessment dated September 2020 (The Landmark Practice)  
 Landscape & Visual Assessment (The Landmark Practice);  
 Planning Statement;  
 Health Impact Assessment (Peacock+Smith);  
 Transport Assessment (Markides Associates);  
 Workplace Travel Plan dated 22 February 2021 (Markides Associates)  
 Tree Survey & Arboricultural Impact Assessment (Hillside Trees)  
 Habitats Regulation Assessment final version 02 with comments from Natural England issued 01 April 2021(The Landmark Practice)  
 Highways Technical Note dated 2 December 2020

Reason: For the avoidance of doubt and in the interests of proper planning.

- 3 No external walls or roofs shall be constructed until samples of the walling and roofing materials to be used in the development have first been submitted to and approved, in

writing, by the Local Planning Authority. The development shall be carried out in the approved materials unless otherwise agreed in writing.

Reason: To ensure that the materials are acceptable in the interests of the appearance of the area and in accordance with policy CS12 of the North Somerset Core Strategy and policy DM32 of the North Somerset Sites and Policies Plan (Part 1).

For advice about providing samples of materials, please refer to [www.n-somerset.gov.uk/materialsconditions](http://www.n-somerset.gov.uk/materialsconditions)

- 4 The development hereby approved shall not be occupied until measures to generate 15% (less if agreed with the local planning authority) of the energy required by the use of the development (measured in kilowatt hours - kWh) through the use of micro renewable or low carbon technologies have been installed on site and are fully operational in accordance with details that have been first submitted to and approved in writing by the Local Planning Authority. Thereafter, the approved technologies shall be permanently retained unless otherwise first agreed in writing by the Local Planning Authority.

Reason: In order to secure a high level of energy saving by reducing carbon emissions generated by the use of the building(s) in accordance with policies CS1 and CS2 of the North Somerset Core Strategy.

For further advice on how to discharge this condition please refer to [www.n-somerset.gov.uk/energyconditions](http://www.n-somerset.gov.uk/energyconditions).

- 5 The proposed office and gatehouse hereby approved shall be constructed to a minimum BREEAM standard rating of very good and, prior to the first occupation of the development, a copy of a formal assessment, undertaken by a licensed BREEAM assessor and a copy of the assessor's report along with a copy of the certificate shall be submitted to the local planning authority, unless otherwise first agreed in writing by the local planning authority.

Reason: In the interests of promoting good design and sustainable construction in accordance with policies CS1 and CS2 of the North Somerset Core Strategy.

- 6 Prior to the commencement of development, details of any existing infrastructure below the adopted Highway to be stopped up (Redland Avenue) and any necessary wayleave agreement to enable access to this infrastructure by any relevant service provider shall be submitted to and approved in writing by the Local Planning Authority.

Reason: In the interest of highway safety and amenity in accordance with Policy DM24 of the North Somerset Sites and Policies Plan Part 1.

- 7 The development hereby permitted shall not be occupied until secure parking facilities for 50 bicycles have been provided on site in accordance with plans and

specifications that have first been submitted to and approved, in writing, by the Local Planning Authority. The approved facilities shall thereafter be permanently retained and kept available for the parking of bicycles at all times.

Reason: To ensure that secure cycle parking facilities are provided in order to encourage the use of more sustainable transport choices and in accordance with policies CS1 and CS11 of the North Somerset Core Strategy, policy DM28 of the North Somerset Sites and Policies Plan (Part 1) and the North Somerset Parking Standards SPD.

- 8 The development hereby permitted shall not be occupied until 20 Electric Vehicle Charging parking bays have been constructed in accordance with plans and specifications that have first been submitted to and approved in writing by the Local Planning Authority.

Reason: In order to secure sustainable modes of travel and in accordance with policies CS1 and CS10 of the North Somerset Core Strategy.

- 9 The development shall not take place except in accordance with the measures outlined in the submitted Travel Plan Statement dated February 2021 unless otherwise agreed in writing by the Local Planning Authority.

Reasons: In the interests of encouraging sustainable travel and reducing the need to travel by car to accord with Policy DM26 of the Sites and Policies Plan (Part 1) and the North Somerset Travel Plans SPD.

- 10 No development shall take place, including any works of demolition, until a Construction Management Plan has been submitted to, and approved in writing by, the Local Planning Authority. The approved Management Plan shall be adhered to throughout the construction period. The Construction Management Plan shall include but not be limited to:

- (a) HGV routing,
- (b) provision for staff car parking,
- (c) times of site operation,
- (d) volume of HGV movements throughout the day,
- (e) highway safety measures such as wheel washing facilities and mitigation measures for any remedial works required

It is likely that the construction of the proposed development will overlap with the MetroWest Phase 1, Portishead rail construction period, as well as the Hinkley Connection Project. The applicant will therefore need to consider any in combination effects of the construction phase of the proposed development and phase this to minimise any impact on the local and strategic highway network.

Reason: In order to preserve highway safety and amenity and in accordance with policy CS3 of the North Somerset Core Strategy and policy DM24 of the North Somerset Sites and Policies Plan (Part 1). The details are required prior to the commencement of development in order to ensure that construction works do not pose a threat to amenity, health or safety.

- 11 No development approved by this planning permission shall commence until a remediation strategy to deal with the risks associated with contamination of the site has been submitted to, and approved in writing by, the Local Planning Authority (LPA). This strategy will include the following components:
1. A preliminary risk assessment which has identified:
    - all previous uses;
    - potential contaminants associated with those uses;
    - a conceptual model of the site indicating sources, pathways and receptors; and
    - potentially unacceptable risks arising from contamination at the site.
  2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
  3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
  4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

Any changes to these components require the written consent of the LPA. The scheme shall be implemented as approved.

Reason: To ensure that the development does not contribute to, is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution and in accordance with Policy CS3 of the North Somerset Core Strategy.

- 12 Prior to any part of the permitted development being occupied a verification report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to, and approved in writing, by the LPA. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reason: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved verification plan have been met and that remediation of the site is complete and in accordance with Policy CS3 of the North Somerset Core Strategy.

- 13 If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the

Local Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to and approved in writing by the LPA. The remediation strategy shall be implemented as approved.

Reason: To ensure that the development does not contribute to, or is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site and in accordance with Policy CS3 of the North Somerset Core Strategy.

- 14 No development approved by this permission shall be commenced until a scheme for prevention of pollution during the construction phase has been approved by the Local Planning Authority. The scheme should include details of the following:

1. Site security.
2. Fuel oil storage, bunding, delivery and use.
3. How both minor and major spillage will be dealt with.
4. Containment of silt/soil contaminated run-off.
5. Disposal of contaminated drainage, including water pumped from excavations.
6. Site induction for workforce highlighting pollution prevention and awareness.

Invitation for tenders for sub-contracted works must include a requirement for details of how the above will be implemented.

Reason: To prevent pollution of the water environment and in accordance with Policy CS3 of the North Somerset Sites and Policies Plan.

NOTE: Measures should be taken to prevent the runoff of any contaminated drainage during the construction phase.

- 15 No infiltration of surface water drainage into the ground is permitted other than with the written consent of the Local Planning Authority. The development shall be carried out in accordance with the approved details.

Reason: To ensure that the development does not contribute to, or is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants and in accordance with Policy CS3 of the North Somerset Core Strategy.

- 16 Piling using penetrative methods shall not be carried out other than with the written consent of the LPA. The development shall be carried out in accordance with the approved details.

Reason: To ensure that the proposed development does not harm groundwater quality or resources and in accordance with Policy CS3 of the North Somerset Core Strategy.

- 17 Sound levels attributable to the development measured or calculated at 1m from the façade of dwellings at Portsvie Road should not exceed 34 dB LAeq, T (where T= 1 hour from 07:00-23:00, and T=15 minutes from 23:00-07:00). Compliance should be demonstrated through measurement or calculation in accordance with

BS4142:2014+A1:2019 (or as subsequently amended).

Reason: To protect the amenity of neighbouring residents and to accord with Policy CS3 of the North Somerset Core Strategy.

- 18 There shall be no changes to flue termination height from those shown on the approved plans unless agreed in writing by the Local Planning Authority.

Reason: In the interests of air quality and to accord with Policy CS3 of the North Somerset Core Strategy.

- 19 Notwithstanding the submitted details, no external lighting shall be installed, other than in accordance with details that are first submitted to and approved in writing by the Local Planning Authority.

Reason: In the interests of the character and amenity of the area and to protect biodiversity, in accordance with Policies CS3 and CS4 of the North Somerset Core Strategy and Policies DM8 and DM32 of the North Somerset Sites and Policies Plan Part 1.

- 20 The development shall not take place except in strict accordance with the measures outlined in the Ecological Appraisal dated September 2020 by The Landmark Practice. If amendments to the methodology are required, details of the changes must be submitted in writing and agreed by the Local Planning Authority before relevant works proceed. The development shall then be implemented in accordance with the agreed changes.

Reason: To ensure compliance with the Conservation of Habitats and Species Regulations 2017, the Wildlife and Countryside Act 1981 (as amended), policy CS4 of the North Somerset Core Strategy and policy DM8 of the North Somerset Sites and Policies Plan (Part 1).

For advice on discharging this condition, please refer to: [www.n-somerset.gov.uk/batroostconditions](http://www.n-somerset.gov.uk/batroostconditions)

- 21 A Construction Environmental Method Statement shall be submitted to and approved by the Local Planning Authority before works commence. This shall include details of the method of works, including siting and installation of services such as drainage. This shall also include measures for storage and disposal of waste. Measures to protected ecological features and trees during the construction phase shall also be detailed. Works shall be implemented in strict accordance to the approved methodology.

Reason: To comply with the Conservation of Habitats and Species Regulations 2017, the Wildlife and Countryside Act 1981 (as amended), the Natural Environment and Rural Communities Act 2006 and Policy C4 of the North Somerset Core Strategy and Policy DM8 of the North Somerset Sites and Policies Plan (Part 1). The details are required prior to commencement of development in order to ensure that protected species are not harmed during construction or site preparation.



Advice about discharging ecology conditions can be found at:  
[www.n-somerset.gov.uk/ecologyconditions](http://www.n-somerset.gov.uk/ecologyconditions)

- 22 Prior to the commencement of development, a Landscape Ecological Management (LEMP) shall be submitted to and approved in writing by the Local Planning Authority. The LEMP shall outline methods of establishment of ecological features and maintenance of the features including hedgerows and trees into the future. Hedge trimming should not be more frequent than every other year once established to allow flowering and fruiting to occur to benefit wildlife. Trimming should be undertaken outside the bird nesting season. The development shall be carried out in accordance with the approved details.

Reason: To ensure compliance with the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife and Countryside Act 1981 (as amended)], Protection of Badgers Act 1992 and the Wild Mammal Protection Act 1996; North Somerset's Core Strategy policy CS4 and Site and Policies Plan Part 1, Development Management policy DM8. All sites should achieve net ecological gain in accordance with the NPPF, UK Government 25 Year Environment Plan.

- 23 Prior to the commencement of development, details for the provision of 10 bat boxes and 10 bird boxes shall be submitted to and approved in writing by the Local Planning Authority. The development shall be implemented in accordance with the approved details.

Reason: To comply with the Conservation of Habitats and Species Regulations 2017, the Wildlife and Countryside Act 1981 (as amended), the Natural Environment and Rural Communities Act 2006 and Policy C4 of the North Somerset Core Strategy and Policy DM8 of the North Somerset Sites and Policies Plan (Part 1).

- 24 All species of wild birds, their eggs, nests and chicks are legally protected until the young have fledged. No site clearance shall be carried out on site between 1st March and 30th September inclusive in any year, unless a check has been carried out beforehand by a qualified ecologist following a methodology that has first been agreed, in writing, with the local planning authority.

Reason: To comply with the Wildlife and Countryside Act 1981 (as amended), policy CS4 of the North Somerset Core Strategy and policy DM8 of the North Somerset Sites and Policies Plan (Part 1).

- 25 All hard and soft landscape works shall be carried out in accordance with the approved details. The works shall be carried out prior to the occupation of any part of the development or in accordance with a programme of implementation that has first been submitted to and approved in writing by the Local Planning Authority. Trees, hedges and plants shown in the landscaping scheme to be retained or planted which, during the development works or a period of ten years following full implementation of the landscaping scheme, are removed without prior written consent from the Local Planning Authority or die, become seriously diseased or are damaged, shall be replaced in the first available planting season with others of such species and size as

the Authority may specify. All hard landscape works shall be permanently retained in accordance with the approved details unless otherwise agreed, in writing, by the Local Planning Authority.

Reason: To ensure a satisfactory landscaping scheme is implemented and maintained in the interests of the character and biodiversity value of the area, and in accordance with policies CS4, CS5, CS9 and CS12 of the North Somerset Core Strategy, policies DM8, DM9, DM10 and DM32 of the North Somerset Sites and Policies Plan (Part 1) and the North Somerset Biodiversity and Trees SPD.

- 26 The development hereby permitted shall not be carried out except in accordance with the approved Arboricultural Method Statement Report and Tree Protection Plan. Notwithstanding this, monthly monitoring of tree protection measures, during the construction phase, shall be undertaken by a qualified arboriculturist and a report shall be issued to the Local Planning Authority within 72 hours of the visit.

Reason: To ensure that the trees to be retained are not adversely affected by the development, in the interests of the character and biodiversity value of the area, and in accordance with Policies CS4 and CS9 of the North Somerset Core Strategy, Policies DM8, DM9, DM10 and DM19 of the North Somerset Sites and Policies Plan Part 1 and the North Somerset Biodiversity and Trees.

- 27 Prior to the occupation of the development, a site waste management plan shall be submitted to and approved in writing by the local planning authority. The development shall be implemented in accordance with the approved details.

Reason: The Local Planning Authority wishes to encourage sustainable disposal and recycling of waste in the interests of local amenity and sustainable waste management and in accordance with policies CS1, CS3 and CS7 of the North Somerset Core Strategy and policy DM32 of the North Somerset Sites and Policies Plan (Part 1).

- 28 No development shall take place until surface water drainage works have been implemented in accordance with details that have first been submitted to and approved in writing by the local planning authority. Before these details are submitted, an assessment shall be carried out of the potential for disposing of surface water by means of a sustainable drainage system in accordance with the principles set out in the National Planning Policy Framework, associated Planning Practice Guidance and the non-statutory technical standards for sustainable drainage systems, and the results of the assessment provided to the local planning authority. Where a sustainable drainage scheme is to be provided, the system shall be designed such that there is no flooding for a 1 in 30 year event and no internal property flooding for a 1 in 100 year event + 40% allowance for climate change. The submitted details shall:

i. provide information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site to agreed rates and volumes, taking into account long-term storage and the measures taken to prevent pollution of the receiving groundwater and/or surface waters; and

ii. include a timetable for its implementation.

Reason: To reduce the risk of flooding to the development from surface water/watercourses, and in accordance with the National Planning Policy Framework (notably paragraphs 17, 103 and sections 10 and 11), policy CS3 of the North Somerset Core Strategy policy and policy DM1 of the North Somerset Sites and Policies Plan Part 1 (Development Management Policies). The information is required before works start on site because it is necessary to understand whether the discharge rates and volumes are appropriate prior to any initial construction works which may prejudice the surface water drainage strategy.

For advice about discharging this condition please refer to [www.n-somerset.gov.uk/drainageconditions](http://www.n-somerset.gov.uk/drainageconditions)

- 29 No development shall take place until details of the implementation, maintenance and management of the approved sustainable drainage scheme have been submitted to and approved, in writing, by the local planning authority. The scheme shall be implemented and thereafter managed and maintained in accordance with the approved details.

The details to be submitted shall include:

- a) a timetable for its implementation and maintenance during construction and handover; and
- b) a management and maintenance plan for the lifetime of the development which shall include details of land ownership; maintenance responsibilities/arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable urban drainage scheme throughout its lifetime; together with a description of the system, the identification of individual assets, services and access requirements and details of routine and periodic maintenance activities.

Reason: To reduce the risk of flooding and to ensure that maintenance of the SUDs system is secured for the lifetime of the development, and in accordance with the National Planning Policy Framework (notably paragraphs 17, 103 and sections 10 and 11), policy CS3 of the North Somerset Core Strategy policy and policy DM1 of the North Somerset Sites and Policies Plan (Part 1- Development Management Policies). The information is required before works start on site because it is necessary to understand how the system will be maintained during construction works and before the hand over to a management company to prevent flooding downstream of the system.

For advice about discharging this condition please refer to [www.n-somerset.gov.uk/drainageconditions](http://www.n-somerset.gov.uk/drainageconditions)

#### **Advice Notes:**

- 1 The Environment Agency recommend that developers should:

- 1) Follow the risk management framework provided in Land Contamination: Risk Management page on GOV.UK (replaces CLR11, Model Procedures for the Management of Land Contamination, when dealing with land affected by contamination.
- 2) Refer to the Environment Agency Guiding principles for land contamination for the type of information that we required in order to assess risks to controlled waters from the site. The Local Authority can advise on risk to other receptors, such as human health.
- 3) Consider using the National Quality Mark Scheme for Land Contamination Management which involves the use of competent persons to ensure that land contamination risks are appropriately managed.
- 4) Refer to the contaminated land pages on GOV.UK for more information.

With regard to flood risk, this development is classified as 'less vulnerable' to flooding and is located in Flood Zone 1. However, we wish to draw the applicant's attention to potential inaccuracies in the calculation of potential future extreme sea levels, and recommend the proposed mitigation measures (including raised finished floor levels and the proposed Flood Warning and Evacuation Plan) are reviewed in light of an adjusted future climate change design flood level.

Planning practice guidance provides advice on what is considered to be the lifetime of the development in the context of flood risk and coastal change (see ref ID: 7-026-20140306). Our guidance 'Flood risk assessments: climate change allowances' provides allowances for future sea level rise, wave height and wind speed to help planners, developers and their advisors to understand likely impact of climate change on coastal flood risk.

In order to define appropriate future flood levels for coastal development including climate change, it is standard practice to calculate a sea level rise allowance using the above guidance and apply this to the present day 1 in 200 (0.5%) extreme sea level, as opposed to the Highest Recorded Tide used in the submitted Flood Risk Assessment. This would result in a higher potential future design flood level at the site, which may result in internal flooding of the proposed development in a design flood occurring towards the end of its proposed lifetime.

Any oil or chemical storage facilities should be sited in bunded areas. The capacity of the bund should be at least 10% greater than the capacity of the storage tank or, if more than one tank is involved, the capacity of the largest tank within the bunded area. Hydraulically inter-linked tanks should be regarded as a single tank. There should be no working connections outside the bunded area.

There shall be no discharge of foul or contaminated drainage from the site into either groundwater or any surface waters, whether direct to watercourses, ponds or lakes, or via soakaways/ditches.

In addition the environmental emissions from the manufacture of plasterboard by Etex Building Performance Limited at Redland Avenue, Easton-in Gordano is regulated by the Environment Agency under the Environmental Permitting Regulations.

The installation of an additional manufacturing line, associated gas heaters and

emission points would require the company to apply for a variation of their existing environmental permit reference no EPER/XP3036SZ

Details of the pre-application advice service can be found on the following link <https://www.gov.uk/government/publications/environmental-permit-pre-application-advice-form>

- 2 The developer is recommended to see National Grids advice on Design guidelines for development near pylons and high voltage overhead power lines. A copy of which has been forwarded to the applicant.
- 3 Highways England has advised that should the site occupier change in future, that Highways England are notified in order to consider the potential impacts on M5 Junction 19.
- 4 **Section 278**  
Should Redland Avenue not be stopped up prior to work commencing, the works within the highway in association with this development will require the developer to enter into a S278 Agreement (Highways Act 1980). The developer is advised to make early contact with the Highway Authority officer (Mr. W Hole 01934 426707) so that the processing of the order does not impede the implementation of planning consent. The developer will be required to agree to the specification of the works, meet the Council's costs in the drawing up of the order, provide a bond or cash equivalent and meet the Council's inspection charges.
- 5 The Health and Safety Executive (Explosives Directorate) advise the following regarding a licence in respect of hazardous substances:  
HSE has no comment with respect to relocation of the conveyor or with respect to the rearranged parking arrangements  
  
HSE has no comment with respect to the proposed Gatehouse providing that it is not of vulnerable construction.  
  
The proposed extension to the factory includes structures (including the Silo and Calcination Workshop) that would generally be considered to be vulnerable buildings that are within the SD3 distance from Berth 1 and the Railway Terminal as they appear on the Port's licence. If this development were to proceed as proposed HSE would expect to review the maximum quantity of explosives permitted to be present at those places. In the absence of a demonstration that the structures proposed are not vulnerable HSE would expect to reduce the quantity of explosive permitted to be present at those places.
- 6 The implementation of Sewerage Sector Guidance will allow Wessex Water to adopt more sustainable drainage features, therefore we would recommend that a discussion with Wessex Water takes place at an early stage.

**For advice about how to comply with the conditions above visit [www.n-somerset.gov.uk/planningconditions](http://www.n-somerset.gov.uk/planningconditions)**

Date: 9 April 2021  
Signed: Richard Kent  
Head of Planning

Please use our [online contact form](http://www.n-somerset.gov.uk/contactplanning) on our website at [www.n-somerset.gov.uk/contactplanning](http://www.n-somerset.gov.uk/contactplanning) if you require further information on this decision.

**IT IS IMPORTANT THAT YOU SHOULD READ THE NOTES ACCOMPANYING THIS NOTICE**

## NOTES RELATING TO A DECISION TO GRANT PLANNING PERMISSION

These notes are intended as helpful advice. PLEASE READ THEM CAREFULLY. Make sure everyone has a copy that needs it, including your builder or contractor.

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### Scope of this decision notice

This decision notice grants planning permission only. It should not be taken to imply that the scheme meets the requirements of any other agency that may be involved. Please make sure that you have obtained all the approvals you need before starting work. If you are in any doubt you should obtain professional advice.

### Building Regulations

Before you start construction work you need to obtain separate approval under Building Regulations. You can contact the team on 01275 884550 or submit your application on our [website](#).

### Conditions

This approval is subject to conditions. They are an integral part of the decision and are important because they describe how the council requires you to carry out the approved work or operate the premises. It is your responsibility to comply fully with them.

Please pay particular attention to those conditions that have to be met before work commences. There is a fee for requests for written confirmation that conditions have been complied with. Details of these fees can be found on our website at [www.n-somerset.gov.uk/planningconditions](http://www.n-somerset.gov.uk/planningconditions). When sending us information please include the decision reference number and relevant condition number. Depending on the complexity of the issues involved it can take up to 12 weeks for conditions to be discharged. It is therefore important that you submit any required details to us early.

### Appeals

If you are aggrieved by our decision to impose any of the conditions, then you can appeal to the Secretary of State for the Environment in accordance with the provisions of Town and Country Planning Act 1990. If you want to appeal against our decision then you must do so within 6 months [12 weeks if this is a decision to refuse planning permission for a shopfront proposal or a minor commercial application] of the date of this notice.

Appeals must be made using a form, which you can get from the Planning Inspectorate at Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN. Alternatively, your appeal can be submitted electronically using the Planning Portal at [www.gov.uk/appeal-planning-inspectorate](http://www.gov.uk/appeal-planning-inspectorate).

The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances that excuse the delay in giving notice of appeal. The Secretary of State need not consider an appeal if it seems to him that the Local Planning Authority could not have granted planning permission for the proposed development or could not have granted it without the conditions imposed, having regard to the statutory requirements, to the provisions of a Development Order or to directions given under it. In practice, the Secretary of State does not refuse to consider appeals solely because the local planning authority based their decision on a direction given by him.

### Prepare for floods

If the scheme to which this approval relates is at risk of flooding you should prepare a flood plan to help keep people safe and protect your property. You can find out if your property is at risk of flooding and how to prepare a flood plan on the [Government's website](#). You should also sign up for [flood warnings](#).

## **Works which affect a Public Highway**

Any works/events carried out by or for a developer which affects the public highway in any way must be co-coordinated in accordance with the New Roads and Street Works Act 1991 and the Traffic Management Act 2004 to minimize disruption to users. Developers are required to inform undertakers of their proposed works, to jointly identify any affected apparatus, and to agree diversion or protection measures and corresponding payment.

Developers are also required to liaise/seek permission of North Somerset Council's Street Works Section (01934 888802 or [streetworks@n-somerset.gov.uk](mailto:streetworks@n-somerset.gov.uk)) at least one month in advance of the works and this must be in line with the requirements of the NRSWA 1991 and TMA 2004. The developer must endeavor to ensure that undertaker connections/supplies are coordinated to take place whenever possible at the same times using the same traffic management. It should be noted that where road closures or formal restrictions are required to undertake works, a minimum of three months' notice will be required.

## **Public Rights of Way**

The grant of planning permission does not entitle developers to interfere or obstruct any public right of way (PROW). The obstruction of a PROW is an offence. If required an application can be made to North Somerset Council to divert the PROW and should be made well ahead of any development.

It is also an offence to drive a mechanically propelled vehicle without lawful authority on any PROW. The grant of planning permission should not be treated as a grant of lawful authority. Please contact the PROW Team for further advice on 01934 888802.

## **Changes to Plans**

Should you wish to change your plans for any reason, including the need to meet the requirements of other legislation (for example Building Regulations) it is important that you notify us (i.e. 'the planners') before carrying on with work. Amendments to your approved plans may require a fresh application and could even prove to be unacceptable. Details of how to seek formal approval of amendments to a planning approval can be found on our [website](#) or by visiting the planning portal.

## **Enforcement**

The council has powers to enforce compliance with planning permission and there are penalties for failure to comply. In cases where terms and conditions of planning permission are not adhered to and the Council finds it necessary to take enforcement action, it almost invariably results in delay and additional expense to the applicant. In extreme cases, it can mean that newly erected buildings have to be demolished.

If the applicant was the Local Authority and the application was made under regulation 3 of the Town and Country Planning General Regulations 1992 (as amended) then this permission enures only for the benefit of the Local Authority and such other person as was specified in the application.

## **Street Naming**

When you receive consent for the building of new a development(s)/property or creating additional flats/units within an existing dwelling, for reasons of public safety and for the allocation of an official postal address, please contact the Street Naming and Property Numbering Section, Town Hall, Weston-super-Mare, BS23 1UJ; Tel: 01275 888761; email: [strnames@n-somerset.gov.uk](mailto:strnames@n-somerset.gov.uk). Learn more on our [website](#).

## **Access to further information**

Further guidance on Planning and Building regulation information and services can be accessed on our website and on the Planning Portal at [www.planningportal.co.uk](http://www.planningportal.co.uk).



## A5 EMS Documents



# Etex Building Performance Ltd

**Gordano House, Marsh Lane, Easton-in-Gordano,  
Bristol BS20 0NE**

*The Environmental Management System in operation at the locations  
shown on the attached schedule covering the following  
scope of activities:*

***The manufacture and supply of gypsum  
plasterboard, supply of drywall products and supply  
of passive fire protection products***

*is certified to conform to the following environmental  
management system standard:*

***BS EN ISO 14001:2015***

*This Certificate is issued within the scope of the UKAS accreditation of CPC*

**Certificate No: CP E 00049 – Issue 5**

Colin Head  
Chief Executive

Date Authorised: 1 July 2020

Date of original certificate: 1 May 2016

**THIS CERTIFICATE IS VALID FROM 1 JULY 2020 TO 2 JANUARY 2023**

subject to continued compliance with the above standard as confirmed by routine surveillance. Confirmation of the current status of Certification may be obtained by enquiry to the CPC Central Records Office.

Construction Products Certification is an operating division of the Quality Scheme for Ready Mixed Concrete. A UKAS accredited certification body

1 Mount Mews  
High Street, Hampton  
Middlesex TW12 2SH  
Telephone: 020 8481 9640  
Facsimile: 020 8979 4558  
[www.qsrcmc.co.uk](http://www.qsrcmc.co.uk)



# Certificate Schedule

(attached to and forming part of Certificate No: CP E 00049 Issue 5)

## Environmental Management System Certification – BS EN ISO 14001:2015

### Etex Building Performance Ltd

Gordano House  
Marsh Lane  
Easton-in-Gordano  
Bristol BS20 0NE

<i>Location</i>	<i>Activity</i>
Etex Building Performance Ltd, Gordano House, Marsh Lane, Easton-in-Gordano, Bristol BS20 0FB	Head office functions, including Sales and Customer Service, Human Resources and Central Planning, Marketing, Technical Services and Product Development.
Etex Building Performance Ltd, Redland Avenue, Easton-in-Gordano, Bristol BS20 0FB	Manufacture and supply of gypsum plasterboard, including vapour and thermal laminates and gypsum cove. Supply of associated drywall products and passive fire protection products.
Etex Building Performance Ltd, Kirkhaw Lane, Knottingley, West Yorkshire WF11 8UL	Manufacture and supply of gypsum plasterboard. Supply of associated drywall products and passive fire protection products.

## Environmental Policy

**As a manufacturer of gypsum products and supplier of fire protection products and building systems associated with each, Etex Building Performance seeks to be a leader in dry construction. Environmental protection is reflected in our goal of zero harm and forms part of our core values of *Passion for Excellence, Pioneer to Lead and Connect & Care.***

We will prevent pollution, complying with all relevant legislation and other stakeholder requirements. Where feasible, we will integrate environmental considerations into our business processes, improving sustainability and product stewardship.

All employees and contractors are responsible for respecting this policy and their education and training will be provided. The company maintains an environmental management system (EMS) complying with EN ISO 14001 to ensure its environmental objectives are met. We will continuously improve our environmental performance:

- Maximising the efficient use of energy in our business and progressively reducing the climate impact of our activities;
- Minimising the use of non-renewable resources and, when feasible and safe, replacing them with secondary raw materials or alternative fuels;
- Minimising waste, re-using and recycling materials where possible, disposing of waste responsibly;
- Conserving water and minimising the risks of accidental releases to air, water and land;
- Respecting the natural environment surrounding our sites; limiting noise and progressively improving their visual aspect;
- Minimising the environmental risks to our employees and surrounding communities;
- Requiring our suppliers to adhere to similar environmental principles through our procurement processes;
- Adhering to environmental commitments defined by Etex Group and Etex Building Performance.

Senior management will set and review targets to further these objectives. Good stakeholder relations will be promoted through active engagement and communication. Employees play a key role in the implementation and success of this policy and internal communication will encourage their involvement and engagement.



Neil Shaw  
**Country Manager, Etex Building Performance Ltd**  
Issue 5.00 : June 2021

## A6 Raw Material Consumption

Material	Chemical Composition	Storage Location (at the existing and proposed new facility)	Existing Annual use (litres unless specified)	Toxicity / Environmental Harm	Risk of Environmental Harm
Klubersynth CH2-100	Ester Oil Vold	Oil Stores	11000	Do not allow product to reach groundwater, water course or sewage system	High
Brake Cleaner Aerosol 500ml	Naphtha (petroleum), hydrotreated light 25-50% Naphtha (petroleum), hydrotreated light 25-50% Cardon Dioxide 1-10% Propan-2-ol 20-30%	Engineering Stores	288	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment	High
Triflow Lubricant Aerosol 500ml	2-(Methoxymethylethoxy)-propanol 1-2.5% Butane 10-30% Naphtha (petroleum), hydrotreated heavy 2.5-10% Pentylacetate 1-2.5% Propane 10-30% White Spirit 10-30%	Engineering Stores	216	Harmful to aquatic organisms, may cause long- term effects in the aquatic environment R-Phases: R12, R65, R10, R66 and R51/53	High
Essolube XT 301 (Lubricating Oil)	Calcium alkyl Phenate Sulphide 1.1% Zinc alkyl dithiophosphate (Xi, R38 R41) 1.4%	Oil Stores	180	Inherently biodegradable. R51/53 is toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment. Other R-Phases: R41, R36 and R38	High

Material	Chemical Composition	Storage Location (at the existing and proposed new facility)	Existing Annual use (litres unless specified)	Toxicity / Environmental Harm	Risk of Environmental Harm
	Zinc alkyl dithiophosphate (N, R51/53) 1.3%				
Rocol Belt Dressing Spray (Lubricant) 300ml	Cyclopentane >60% Carbon Dioxide Aerosol Propellant 5-15%	Engineering Stores	151	Harmful to aquatic organisms, may cause long- term effects in the aquatic environment. Insoluble in water. Readily absorbed into soil. Only slightly biodegradable. R-Phases: R11	High
Aquarius SSEP (Water Miscible Cutting Fluid)	Boric Acid with 2,2' Iminobis Ethanol 5-15% Tall Oil Fatty Acids, Diethanolamide 5-15% Long-Chain Hydroxyalkenyl Alkanolamide 5- 15% Fatty Acids, Tall Oil with Diethanolamine 5- 15% Diethylene Glycol 1-5% Ethanol, 2-Butoxyethoxy 1-5% Alcohols, branched and linear ethoxylated <1 2-Propanol 1-(2-Butoxy-1-Methylethoxy) 1- 5%	Oil Stores	50	R-Phases: R36/38, R50 and R41 R50 - toxic to aquatic organisms (Alcohols, branched and linear ethoxylated <1)	High
Paraffin Wax Emulsion	Paraffin waxes and hydrocarbon waxes	Line 1 & 2 Tanks and Plasters Plant	1200 tonnes	Not toxic to the aquatic environment but may increase pH. H315 and H318.	Moderate

Material	Chemical Composition	Storage Location (at the existing and proposed new facility)	Existing Annual use (litres unless specified)	Toxicity / Environmental Harm	Risk of Environmental Harm
Potassium Sulphate	K <sub>2</sub> O <sub>4</sub> S	Plasters Plant, Line 1, 2 and Cove line tanks, Mezzanine Floor	710 tonnes	Nontoxic. Will cause harm to aquatic organisms in large quantities as is pH altering.	Moderate
Millifoam L (Tenace B)	Sodium alkyl sulphate	IBC Store, Line 1 & 2 Tanks	500 tonnes	H315, H318, H317 Irritant. Biodegradable. Do not release to surface waters. Some components are harmful to aquatic life.	Moderate
Texten 84 (foam)	Sodium alkyl sulphate	IBC Store	100 tonnes	H315, H318, H412 Irritant. Biodegradable. Do not release to surface waters. Harmful to aquatic life.	Moderate
Retarden Liquid	Calcium salt of polycondensed amino acid in solution	IBC store	48 tonnes	pH 12. Irritant. BOD loading	Moderate
Retarder Powder XCP	Calcium salt of polycondensed amino acid	Mezzanine floor and plasters plant	3 tonnes	pH 12. Irritant. BOD loading	Moderate
Fluplast 40	Calcium polydinaphthene methane sulfonate fluidiser (plasticiser)	Storage Tanks on Lines 1&2, IBC store and Mezzanine Floor	2100 tonnes	Non-toxic and not classified. Do not release to surface waters. Low hazard to aquatic life.	Moderate
Glue (Exoflex 2590/VB from EOC UK Ltd)	Polyvinyl Alcohol based adhesive	Plasters Plant	140 tonnes	Non-toxic and not classified. Do not release to surface waters. Not toxic to aquatic life. Contains biocide and svhc (boric acid)	Moderate



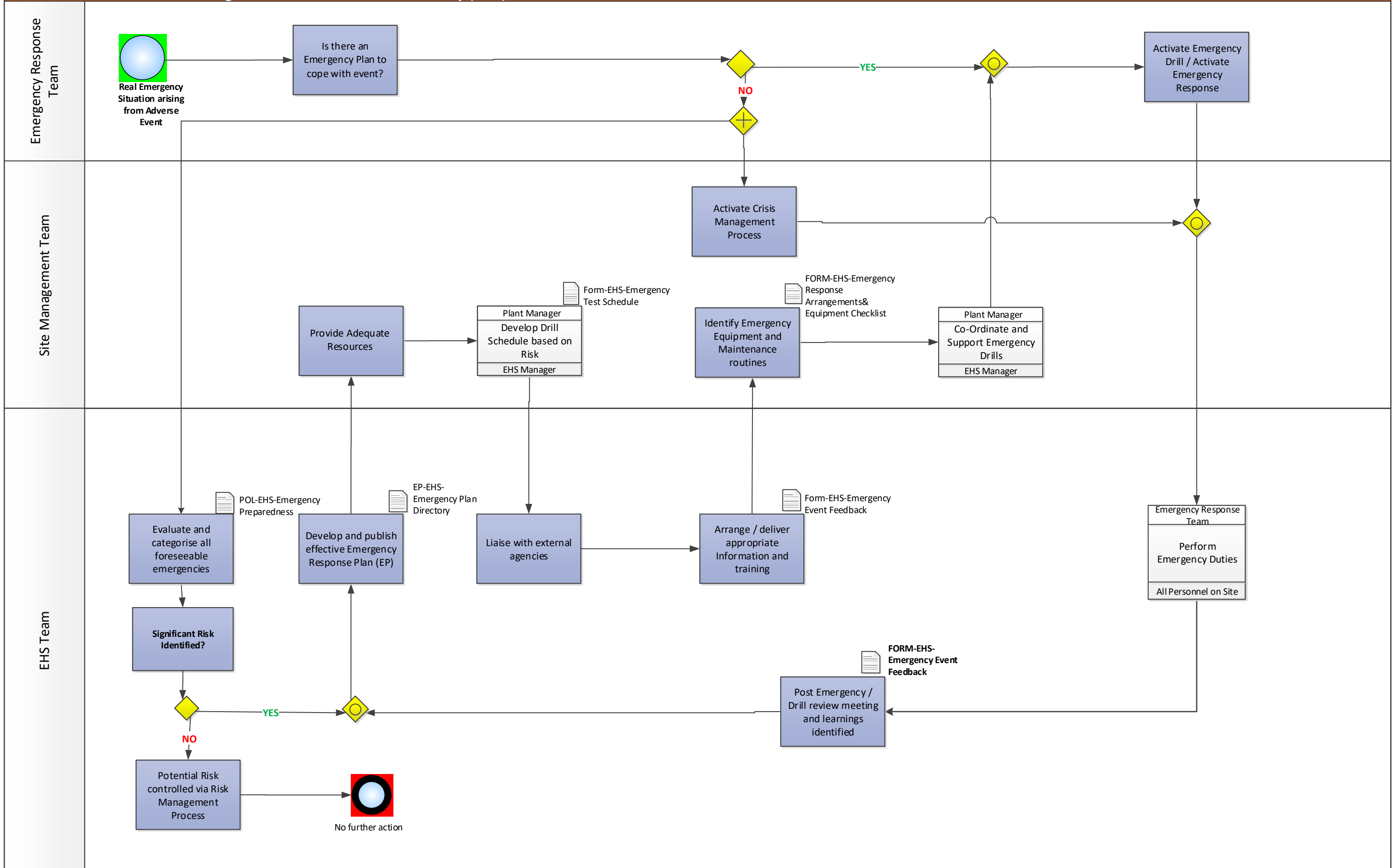
Material	Chemical Composition	Storage Location (at the existing and proposed new facility)	Existing Annual use (litres unless specified)	Toxicity / Environmental Harm	Risk of Environmental Harm
Diesel	Hydrocarbon	Diesel Storage Tanks	500,000	Do not release to surface waters.	Moderate
Nuto H 46	Hydraulic fluid	Oil Stores	2059	Non-toxic. Very low water solubility. No adverse effects expected on aquatic organisms. Unlikely to bioaccumulate.	Moderate
Spartan EP	Lubricating oil	Oil Stores	1305	Non- toxic. When released into the environment, absorption to sediment & soil will be the predominant behaviour. Very low water solubility.	Moderate
Stucco (gypsum)	Hydrated calcium sulphate	Gypsum store, plaster mill and plaster plant (as plaster)	450,000 tonnes	No associated risk phrases	Low
Starch	Amylose (20-30%), amylopectin (70-80%)	Line 1 & 2 silos & plasters plant	3000 tonnes	No associated risk phrases	Low
Vermiculite	Hydrated magnesium aluminium silicate	Plasters Plant	3000 tonnes: Intend to phase out use by end of 2023	No associated risk phrases	Low
Dextrose	Glucose (C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> )	Plasters Plant and Mezzanine Floor	250 tonnes	No associated risk phrases	Low

Material	Chemical Composition	Storage Location (at the existing and proposed new facility)	Existing Annual use (litres unless specified)	Toxicity / Environmental Harm	Risk of Environmental Harm
Unirex EP 2 (Lubricating Grease)	Zinc alkyl dithiophosphate (Xi, R38 R41) 1.5%	Engineering Stores	144 kilos	Ecotoxicity data indicates no adverse effects to aquatic organisms. Inherently biodegradable R- Phases: R38 and R41	Low
Millcot K68	No information. No reportable ingredients	Engineering Stores	225	Adverse effects to the aquatic environment not expected. Biodegradable. Bioaccumulation not expected.	Low

## A7 Emergency Preparedness Flow Chart

# ID : PF-EHS-12.7.4 Emergency Preparedness

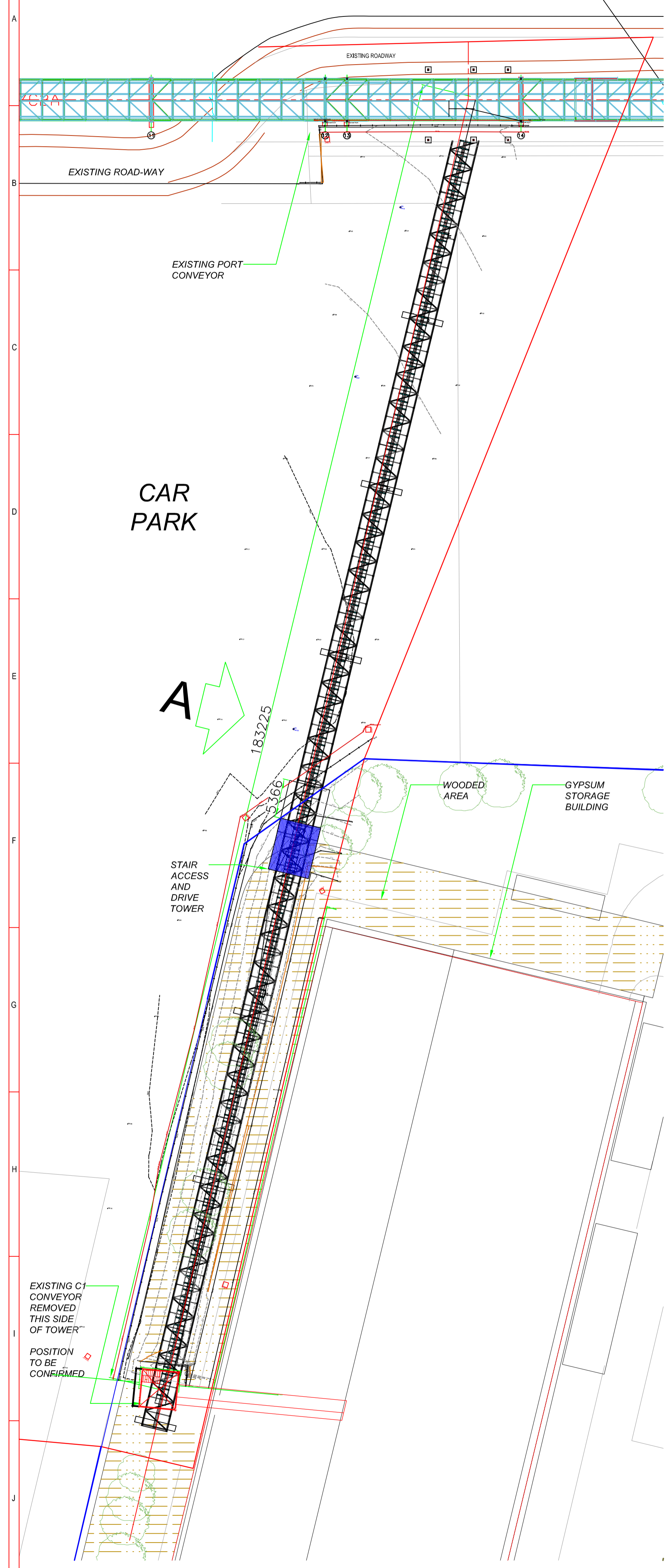
## Process Overview – 12.7 Manage Environmental Health & Safety (EHS)



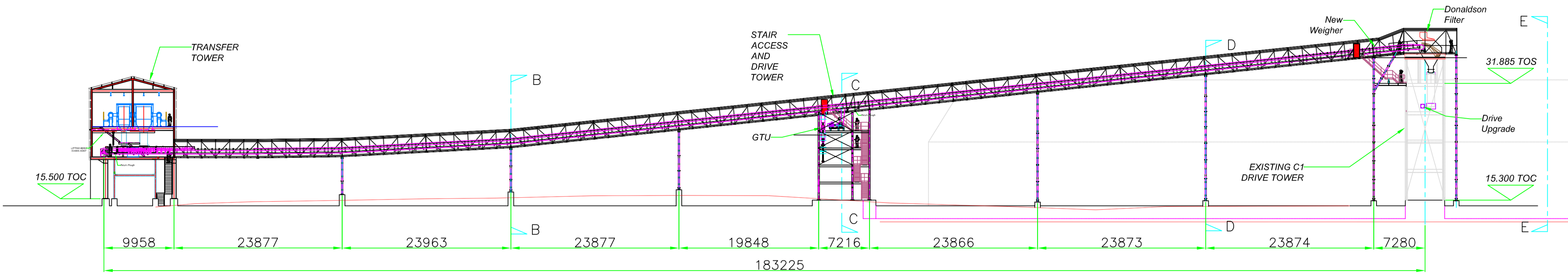
## A8 New Conveyor Spurs



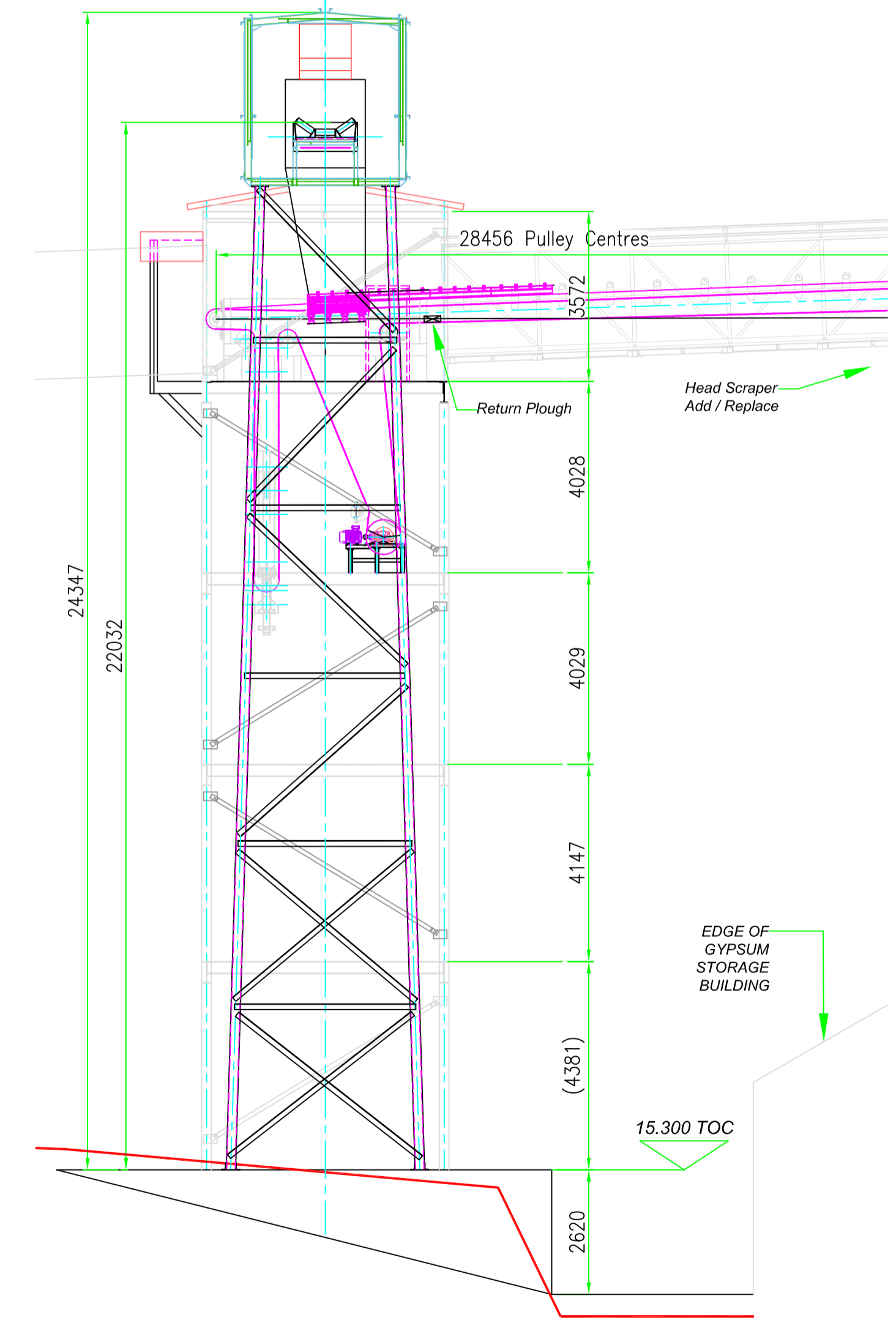
**PLAN VIEW**



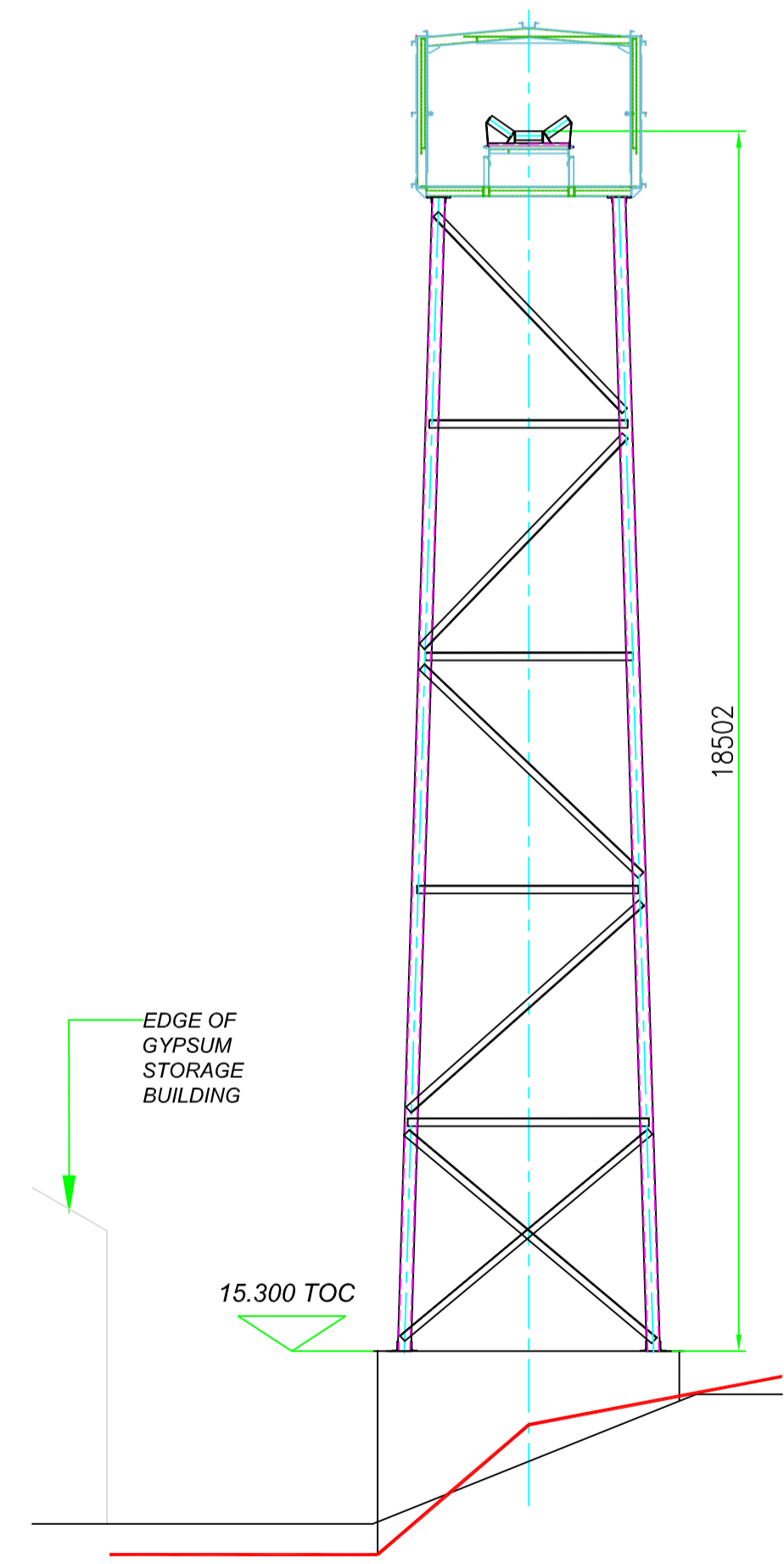
**VIEW ON "A"**



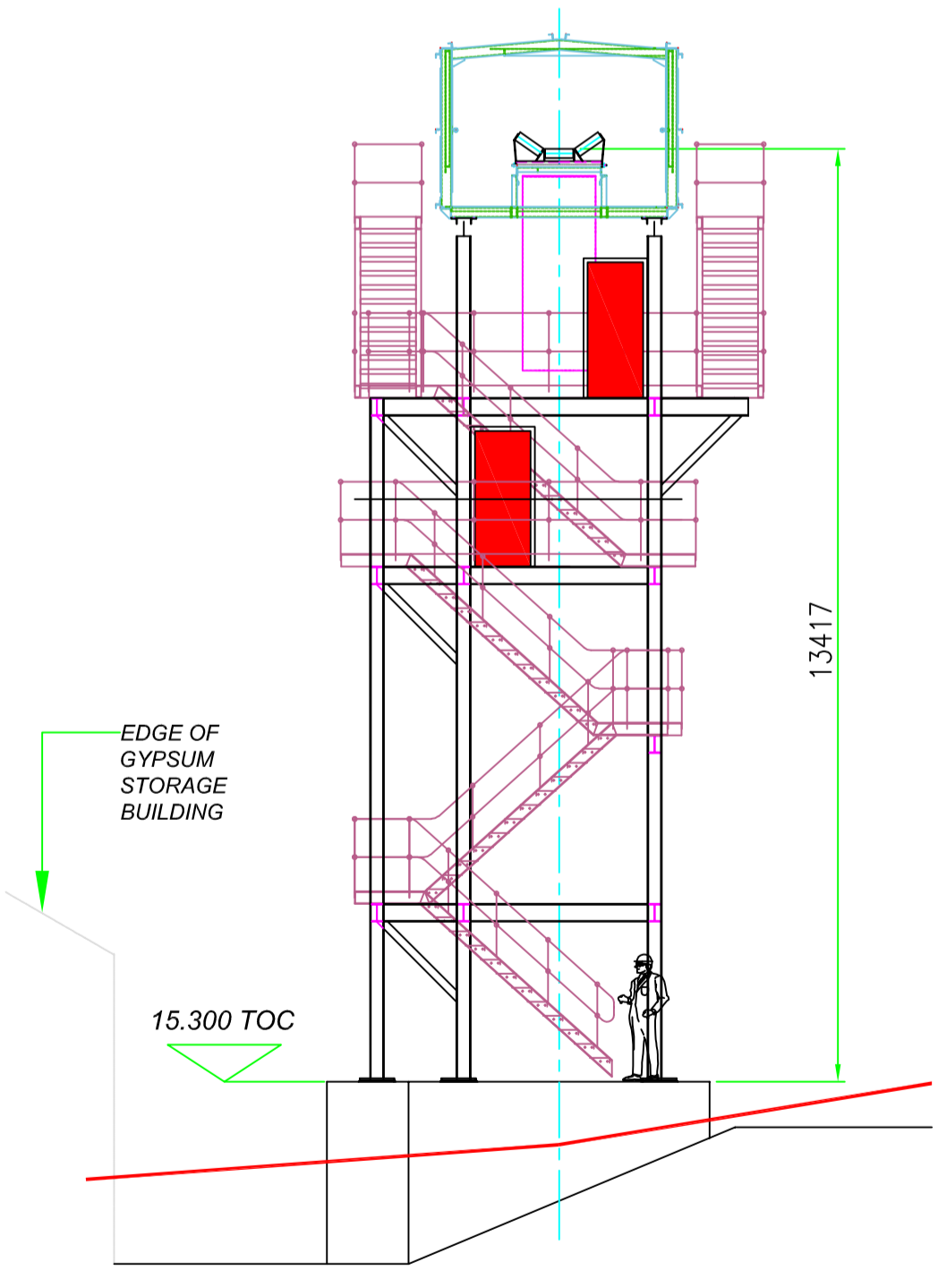
**VIEW ON E-E Scale 1:100**  
**EXISTING DRIVE TOWER**



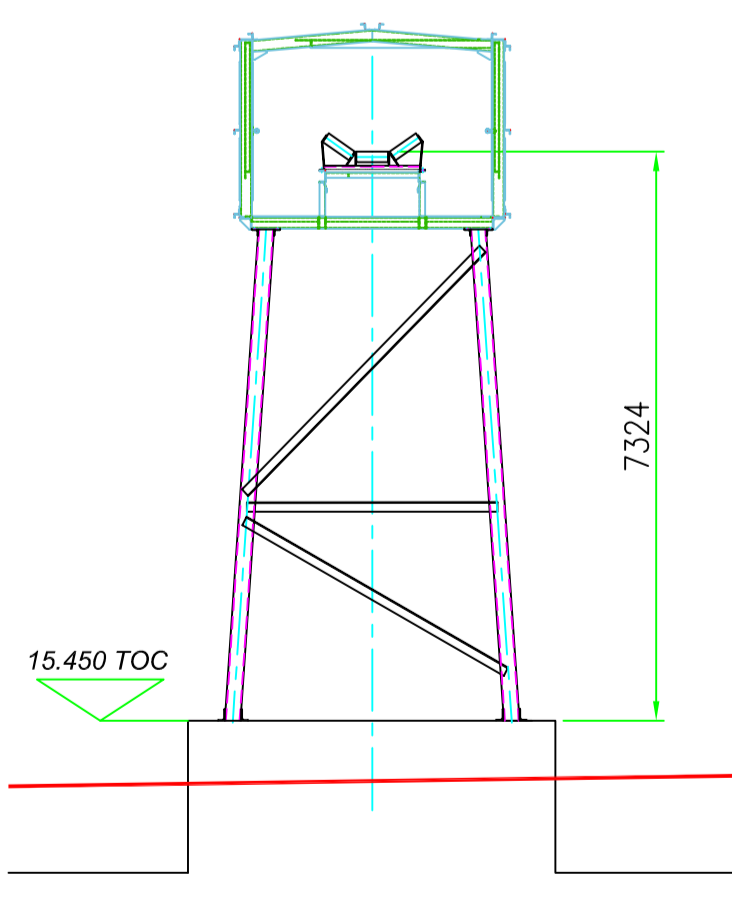
**SECTION D-D Scale 1:100**



**SECTION C-C Scale 1:100**



**SECTION B-B Scale 1:100**



**ENQUIRY - NOT FOR FABRICATION ISSUE**

NUMBER	BY	DATE	DESCRIPTION
D	DCz	24.10.22	Clients's comments: Support of C1A independent of transfer tower + lifting beam at tail
C	DCz	05.09.22	Supports re configured
B	DCz	22.07.22	Lay of the land represented by Red line
A	DCz	29.03.22	Belt width reduced to 1050mm, Drive now combined with mid escape tower

CLIENT	ETEX
CONTRACT NUMBER	E8227
SCALE	1:400 UOS
FRAME SIZE	A1
DRAWN	DCz
CHECKED	
DATE	14/02/2022
DRAWING NUMBER	E8227-001

**TITLE** NEW C1 CONVEYOR PROPOSAL

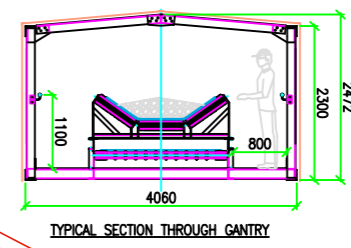
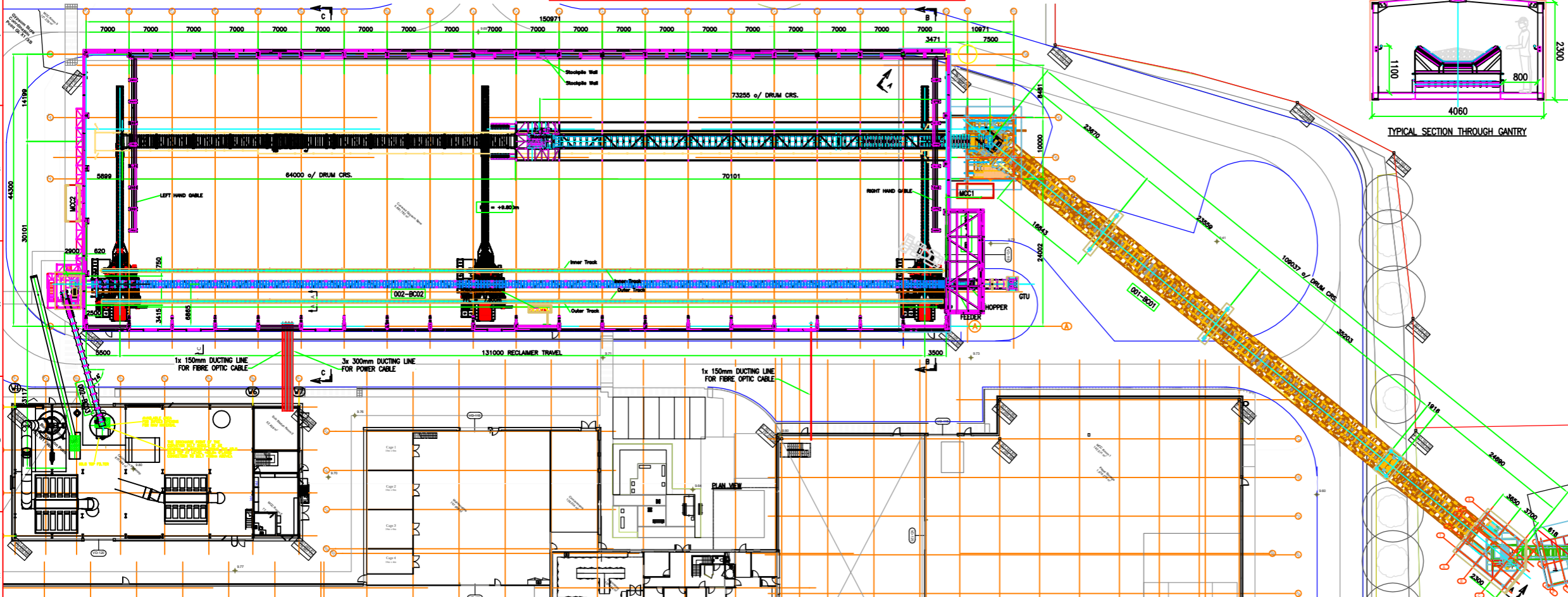
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E-mail: enquiries@wrighteng.co.uk



DO NOT SCALE - IF IN DOUBT ASK



**GENERAL NOTES**

TICKBOX

THIRD ANGLE PROJECTION     FIRST ANGLE PROJECTION

**WELDING SPECIFICATION:**  
ALL WELDS TO BE 6mm FILLET (THROAT) TO WPS, UNLESS STATED OTHERWISE

**WELD FINISH:**  
STRUCTURAL, AS LAID, GROUND SMOOTH WHERE MATING FACES.

**WELD TESTING:**  
ALL WELDS TO BE VISUALLY INSPECTED TO BS EN ISO 5817:2014 QUALITY LEVEL C - EXC 2   
ALL WELDS TO BE VISUALLY INSPECTED TO BS EN ISO 5817:2014 QUALITY LEVEL B - EXC 3   
ALL WELD TESTING TO BE IN ACCORDANCE TO BS EN 1090-2:2008+A1:2011 - TABLE 24 EXTENT OF SUPPLEMENTARY NDT UNLESS STATED OTHERWISE

**FIXINGS:**  
ALL HOLES  DIAMETER UNLESS STATED OTHERWISE.  
ALL BOLTS AND STUDDING TO BE GRADE 8.8 TO EN 15048 UNLESS STATED OTHERWISE.  
GALVANIZED FINISH   
BZP FINISH

**MATERIAL:**  
STEEL WORK GRADES ARE AS FOLLOWS:  
GENERAL STRUCTURAL SECTIONS & PLATES TO BS EN 10025:2 GRADE S275JR.  
UNLESS NOTED OTHERWISE

**FINISHES:**  
GALVANIZED IN ACCORDANCE TO BS EN ISO 1461:2009 - 85microns   
GALVANIZED IN ACCORDANCE TO BS EN ISO 1461:2009 - 140microns  (SHOTBLAST)  
PAINTED SEE SEPARATE SPECIFICATION.

**QUALITY CONTROL:**  
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.  
ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM UNLESS STATED OTHERWISE.  
ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH ISO 1090 BS EN 1090-2:2008 + A1:2011 - STRUCTURAL STEELWORK TO BS EN 10025:2004 AND IN ACCORDANCE WITH SPECIFICATION AND SPECIALIST DRAWINGS. FOR VERIFICATION OF ALL SETTING OUT DIMENSIONS AND LOCATION OF SERVICES OR FIXINGS REQUIRED IN THE STEEL AND CONCRETE WORKS.

**MANUFACTURE TOLERANCE:**  
GENERAL DIMENSION < 1000mm +/- 1mm 1000mm - 2500mm +/- 2mm > 2500mm +/- 3mm LOCATION OF WEB STIFFENERS +/- 5mm.  
ALL FABRICATION 'SHALL' BE TRUE SQUARE AND FREE FROM DISTORTION.  
ALL BURNT PROFILED PLATES TO HAVE 'TROUGHS' REMOVED FROM ALL EDGES ALL PLATE/CUT EDGES TO HAVE 'ARRISED' CORNERS TO APPROX 1.5 TO 2.5mm RADIUS ALL WELD SPATTER TO BE REMOVED DURING THE FABRICATION PROCESS AND CHECKED AGAIN AT THE FINAL COMPLETION.  
REMOVE ALL SHARP EDGES AND BURRS.  
DRILLED AND TAPPED CONNECTIONS INTO HOLLOW SECTIONS ARE TO BE AVOIDED.  
ALL CLOSED SECTIONS AND TROUGHS TO HAVE VENT AND DRAIN HOLES.

**WORKSHOP NOTE:**  
MAKE IT TO DRAWING - IF YOU SUSPECT A DRAWING ERROR STOP AND REPORT IT TO YOUR SUPERVISOR FOR IMMEDIATE REMEDY.

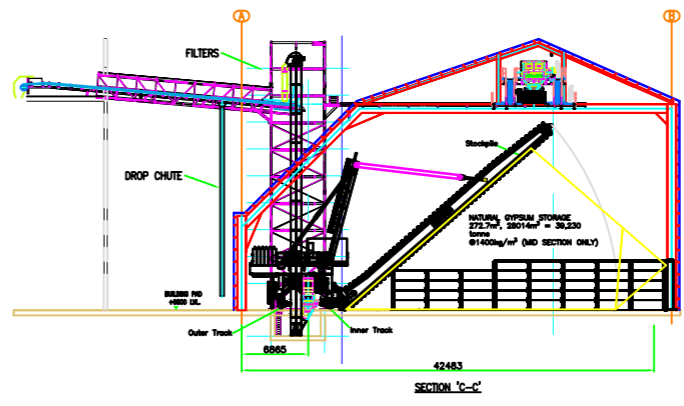
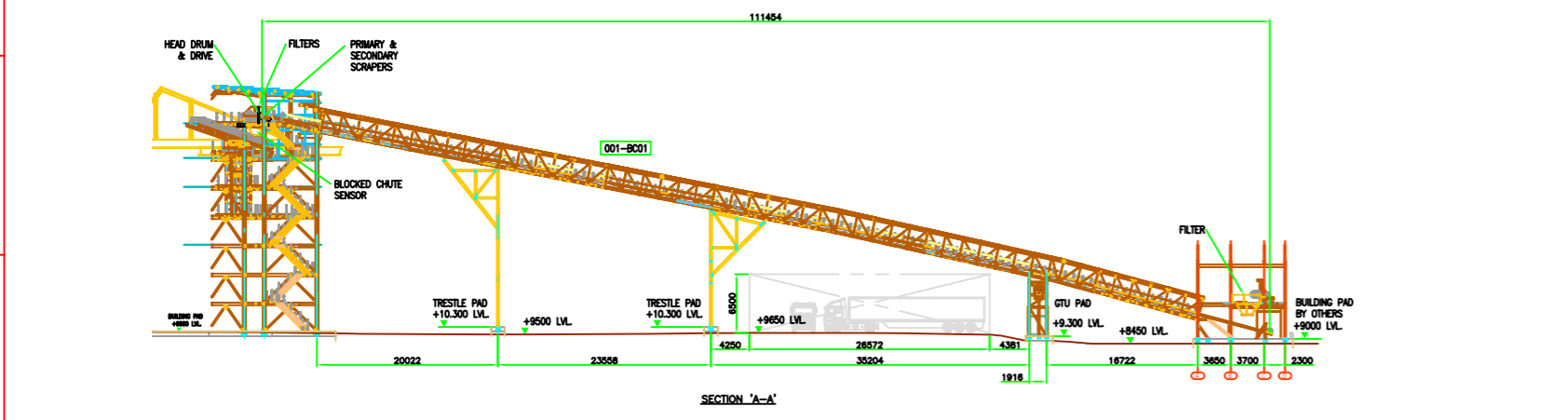
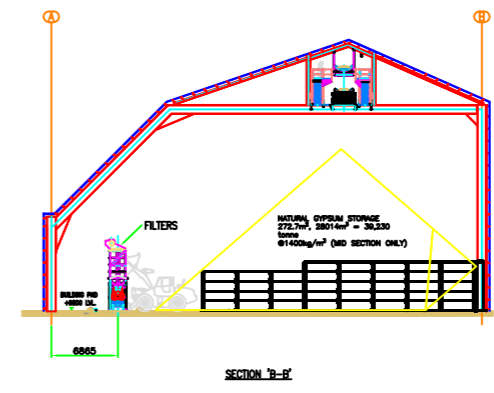
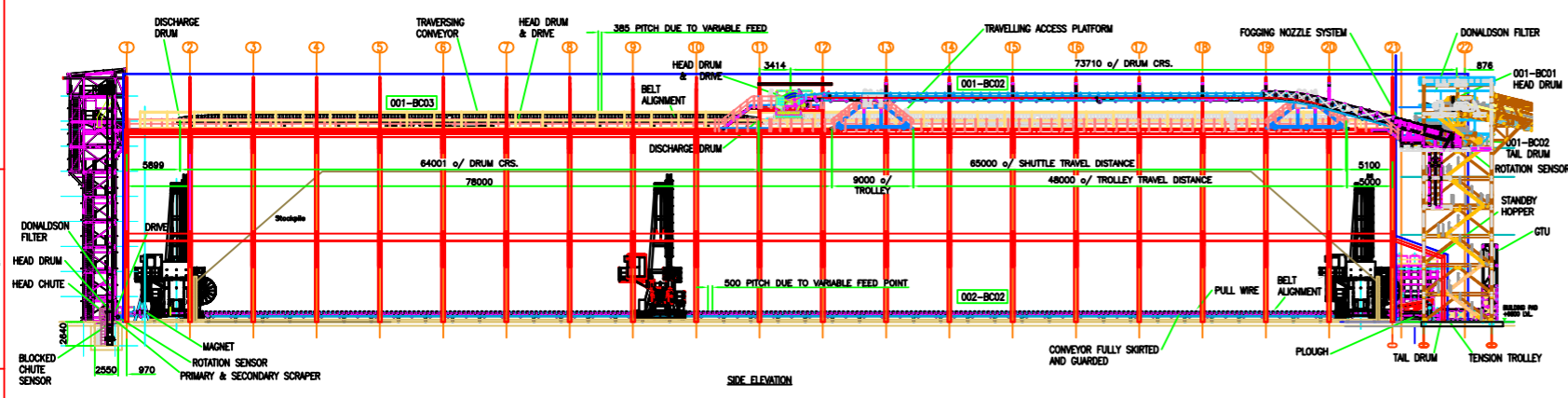
MARK NUMBERS TO BE CLEARLY MARKED WITH ITEM NUMBER PREFIXED BY DRAWING NUMBER.  
i.e. "CONTRACT NUMBER - DRAWING NUMBER - ITEM NUMBER".  
MARK NUMBERS TO BE LOCATED IN THE MIDDLE OF THE TOP FLANGE AREA OF THE FABRICATION.

ALL DETAIL IN ACCORDANCE WITH BS EN 1090-1:2009 - A1:2011

MANUFACTURE WPS  
DESIGN TO CLIENT DESIGN / WRIGHT ENGINEERING DESIGN TO

**NOTES UNLESS STATED OTHERWISE:**

ALL STRUCTURAL COMPONENTS TO BE FABRICATED IN ACCORDANCE TO BS EN ISO 1090-2:2018+A1:2011



NUMBER	BY	DATE	DESCRIPTION
J	JH	19/01/2023	001 BC01 GTU BASE LVL NOW +9.300
H	MW	06/09/2022	UPDATED TO SHOW LATEST RETAINING WALLS & STEEL POSITIONS
G	MW	09/06/2022	GRIDLINE B MOVED TO SUIT CHANGE IN STOCKPILE
F	JPM	25/03/2022	BC01 TRESTLE BASE LEVELS AMENDED
E	JH	16/03/2022	BC01 TRESTLE BASE LEVELS ADDED FOR APPROVAL
D	MW	11/01/2022	GRIDLINE B COLUMNS MOVED BY 2m & CLADDING MODIFIED TO SUIT
C	MW	14/12/2021	SURROUNDING AREA LAYOUT UPDATED (SUPPLIED BY ETEX)
B	MW	06/12/2021	UPDATED TO LATEST INFORMATION
A	MF	03/09/2021	LEVELS REVISED AND CIVILS SHOWN
0	SG	25/08/2021	FIRST ISSUE

REVISION

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E-mail: enquiries@wrighteng.co.uk

CLIENT: ETEX  
CONTRACT NUMBER: 7616  
SCALE: 1:275  
DRAWN: MW / DCz  
CHECKED: MF  
DATE: 25/08/2021  
DRAWING NUMBER: 7616-01-000

TITLE: FAITH BRISTOL GYPSUM HANDLING ARRANGEMENT  
FRAME SIZE: A0  
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REVISION: J