WATSON BATTY ARCHITECTS

# WM Morrisons – Spalding Abattoir

Brunel Road, Pinchbeck, Spalding PE11 3YY

## New Vacuum Pumps Plant Room and Air Handling Units Plant Deck

## Design Statement
## March 2023

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# 1.0 Introduction

This Design Statement is to support a full application for the erection of a new plant room to house vacuum pumps and a plant deck for Air Handling Units, at the Morrisons / Woodhead Brothers Spalding Abattoir site in Pinchbeck.

The Spalding abattoir is meat processing plant part of the Woodhead Brothers group, a wholly owned subsidiary of Wm Morrison Supermarket Limited.

# 2.0 Project Details

## 2.1 Background

Recent operational and H&S reviews of the current facilities have identified the requirement to erect a new plant room on the Eastern elevation of the site. The plant room and plant deck above will house vacuum pumps relocated from the second floor, and air handling units relocated from the roof void.
The vacuum pumps are essential equipment for the packaging of the meat produced by the abattoir and are currently located in two small plant rooms internally. Internal H&S reviews have identified a risk for the site maintenance engineers due to the cramped conditions and reduced access in the plant rooms. In addition, the heat produced by the pumps result in excessive temperatures and high energy demands for cooling.
There is no other areas internally to relocate the pumps which would offer the required footprint and an external location is preferred to provide the necessary ventilation and avoid the need for cooling.



*Photos of current conditions in existing vacuum pumps plant rooms*

There are two air handling units currently housed in the roof space above the beef boning hall which are at the end of their useful life and require replacement. The access to the roof void for maintenance and repairs is difficult and involves operatives walking with parts and materials over insulated ceiling panels with limited load capacity. Fire escape from the void has been raised as a H&S concern due to increased distances to the nearest exit. It has been identified that in order to comply with fire and CDM regulations, the replacement AHUs need to be relocated to an external location for improved access. This will also facilitate any future replacement of the units which will be able to be lifted in and out without having to access the roof void.





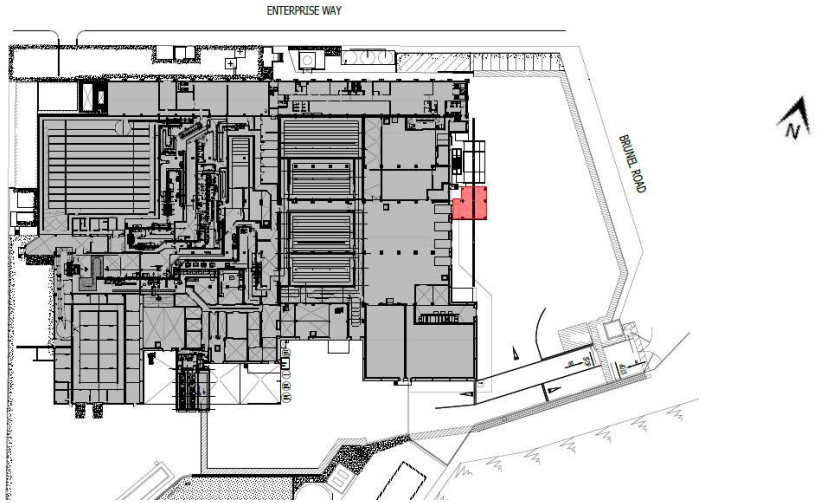
*Air handling units in the roof void*

## 2.2 Proposals

The proposals are to install a new plant room above the loading bays on the Eastern elevation of the building, facing the main yard. The plant room is to be raised on galvanised steel columns to maintain the access to loading bays for HGVs and linked to a gantry to the existing adjacent Air Handling Units on the same elevation.

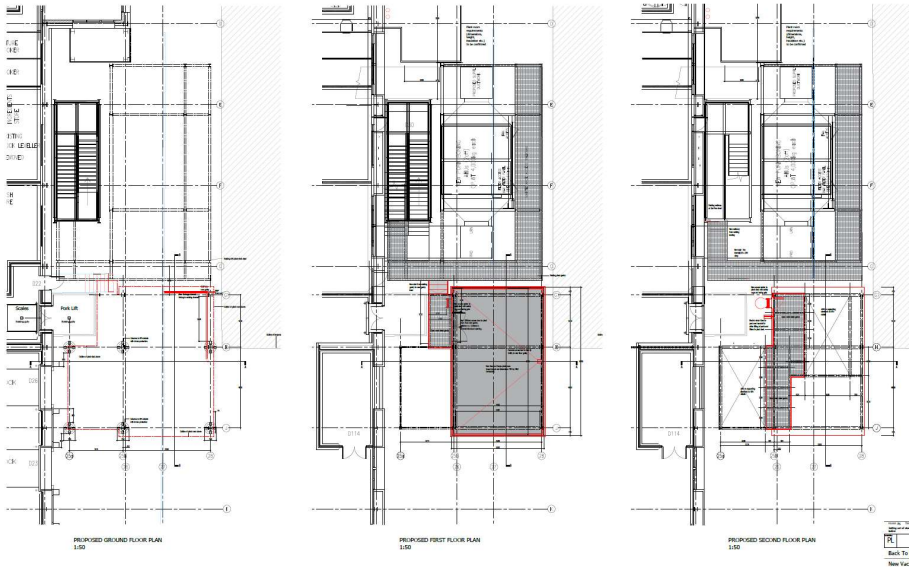



*Photo showing the area of the proposed works and existing AHUs adjacent*

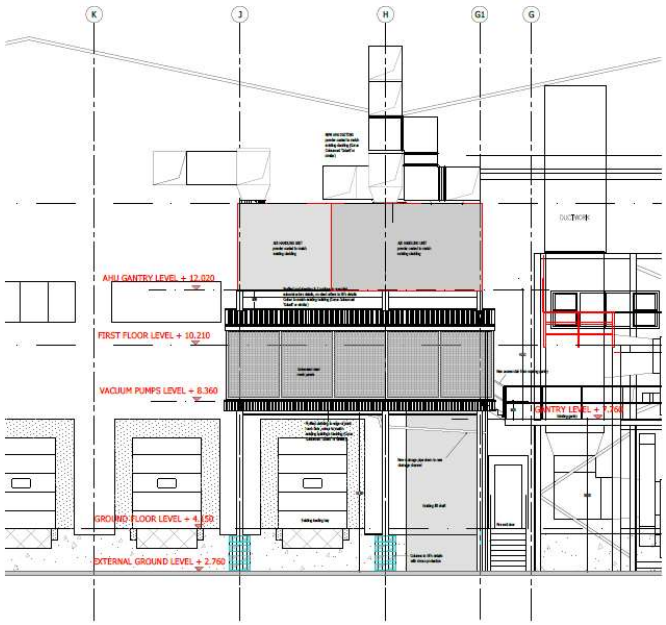



*Location Plan*

The plant room will be spread over two levels, one level will be enclosed and house the relocated vacuum pumps with gantry access; the next level above will be an open deck for the two air handling units, accessed via a Cat ladder and a gantry between the AHUs.
Ducts will be installed from the air handling units back to the building, including one run which will be installed above the roof within the valley to the penetrate back into the building at the required location to feed internal ventilation ducts. This will be kept below the level of the roof ridge so will not be visible from the highway.




The vacuum pump plant room is to be enclosed with galvanised mesh panels. The roof will be a single ridge metal profiled roof with colour-coated aluminium box gutters and edge trims. The floor is a concrete screed on a beam-and-block floor supported by galvanised steel beams, and the edge of the floor will be finished with profiled cladding. The roof, edge cladding, air handling units and ducts will be colour-coated to match the blue cladding of the main building.
All the steelwork, mesh flooring to the gantries and key-clamp handrails will be left with a galvanised finish. This is in keeping with the existing adjacent plant and steelwork.




*Proposed Elevation*

The top plant deck will be open mesh flooring so will naturally drain to the level below. The roof to the vacuum pumps plant room will be served by a new rainwater pipe which will connect to a new drainage channel at yard level, linked to an existing drainage channel.
There will also be a gulley in the floor of the pumps plant room to pick up any rainwater and potential oil spills from the pumps. The yard is fitted with a fuel interceptor so any oil entering the drains will be separated prior to the connection with public sewers.