



Project:

JD Phase 2 Pavilion Building, Bolton

Report Title:

Ventilation Statement

Client: JD Sports

Revision Date: 28/11/2025

Doc Ref: 250715-KRD-XX-XX-T-Z-0201

2 5 0 7 1 5 - K R D - X X - X X - T - Z - 0 2 0 1

Contents

1 Document History and Validation3

1.1 Revision History.....3

1.2 Document Validation (Latest Issue).....3

2 Introduction.....4

3 Ventilation Strategy5

3.1 General Strategy.....5

3.2 Acoustic Considerations5

4 Basis of Ventilation Design6

4.1 Air Permeability.....6

4.2 Ventilation Standards6

5 Conclusion.....7

6 Appendix A - Sketches8

1 Document History and Validation

1.1 Revision History

Revision	Issue Date	Reason for Issue
Rev-	28 November 2025	First Issue Planning Statement

1.2 Document Validation (Latest Issue)



Written By
IAN CROOK



Checked By
DILON HILTON



Verified By
DILON HILTON

2 Introduction

Kennedy Redford have been appointed by JD Sports, to provide MEP Engineering Consultancy in respect of a proposed new Pavillion building to be located on a brownfield site area within the existing Bolton headquarters development for JD Sports. The area forms part of the broader masterplan and has previously undergone partial development during Phase 1, which included the construction of access roads and a portion of the car parking infrastructure. These existing elements will be retained and integrated into the Phase 2 scheme, which aims to complete the currently undeveloped portion of the site.

The Pavilion will be a single storey building with an internal footprint of approximately 1,370 m². It will accommodate:

- A fully equipped gymnasium, including changing rooms and shower facilities.
- A canteen with a commercial grade catering kitchen, designed to support full meal preparation and service.

External site enhancements will include:

- Additional car parking bays to supplement existing provision.
- Multi-Use Games Area (MUGA) and Padel courts to support health and wellbeing initiatives.
- Soft and hard landscaping, designed to improve site aesthetics, accessibility, and environmental performance.

The purpose of this document is to outline the ventilation systems strategy and the basis of design that is under development, currently progressing a RIBA Stage 3 level of detail, as part of the Planning Application process.

3 Ventilation Strategy

The following section describes ventilation strategy to be adopted for the various areas within the Pavillion building. The building comprises two main areas, a Canteen with full catering kitchen, and a Gymnasium, both with associated welfare facilities. The Gymnasium shall be presented as a “white box” shell offering, which shall then be fitted out by a separate specialist contractor.

3.1 General Strategy

The new Pavillion building is a single storey construction, central plant is to be located typically within a screened external Plant Corral at the northern (rear) side of the building. Air handling units and fan units shall be located within the external Plant Corral, with ducted distributions passing into the building and distributing at high level to the required spaces.

- Gymnasium general area.
- Gymnasium shower and change areas.
- Canteen general seating / dining area.
- Canteen associated toilet provision.
- Canteen catering offering.

General ventilation shall consist of externally located, double stacked air handling units providing both supply of tempered and filtered fresh air and also general extract, with heat recovery by means of either thermal wheel or recuperator heat exchangers. Fresh air shall be heated initially by means of an electric frost coil, after heat recovery if beneficial, additional tempering shall be by means of direct expansion refrigerant coils, fed from local heat pump condenser units also located within the external Plant Corral. General supply air to the Canteen and Gymnasium shall be delivered at high level via swirl diffusers, as no ceilings will be installed in the two main occupied areas of the building. Additional air movement in both the Gym and Canteen Dining areas shall be provided by means of local cassette type AC units. The general supply air handling units shall also deliver make up air to the associated toilet and shower spaces within each half of the building.

Dirty air from the shower / change areas within the Gym and also from the Dining area toilets shall be provided by means of dedicated twin fan extract units, located within the external Plant Corral. Dirty extract from toilet and shower areas shall be via louver faced diffusers or extract valve terminals located at the suspended ceiling level.

General supply and extract distribution, and dirty extract from toilet and shower areas shall be in either spiral wound or rectangular ductwork to DW144.

Volume control dampers shall be provided where required, to facilitate effective balancing of the ventilation distribution systems.

Fire dampers shall be provided at all penetrations of defined fire compartment lines.

The catering kitchen shall be provided with tempered and filtered fresh air supply make up to suit the dictates of the extract which shall be provided from extract canopies located over the main heat producing kitchen equipment. Extract canopies shall be provided with local fire suppression (Ansul or water mist) and also

providing UV-C filtration locally within the extract canopy. Fire rated Kitchen extract fan(s) to suit the final canopy design shall be located within the external Plant Corral, and currently expected that discharges from the kitchen canopy extract systems shall be routed back into the building for final termination at roof level to help mitigate against any entrainment of kitchen extract air that could include food smells (irrespective of the UV-C filtration).

A bin store is located externally, adjacent to the Plant Corral. No other ventilation other than by natural means will be [provided to this area.

Two internal plant areas located at the building façade, adjacent to the Plant Corral (Electrical switchroom and DHWS Plantroom) will be provided with natural ventilation by means of a louvered door. Supplementary extract ventilation to augment the natural ventilation of these two plant areas shall be provided by means of local extract fans, operating under dictates of high temperature condition sensors.

3.2 Acoustic Considerations

Internally, ductwork distribution systems and terminal selections shall be designed with cognisance of the targeted internal acoustic levels. It is noted that without suspended ceilings in the main Gymnasium and Canteen dining areas, the spaces could have a reverberant acoustic profile.

Typically final terminal connections shall be kept below 2.5 m/s and general duct velocities kept below 4-5 m/s.

Kitchen extract ductwork shall consider a higher distribution velocity of 6 m/s to mitigate against potential grease drop out.

Acoustic treatment shall be considered at source, with attenuation provided to both atmosphere and system side supply and exhaust configuration. At this stage is not envisaged that the plant screen enclosing the external Plant Corral will need any specific acoustic rating, but that can be further reviewed as the design develops and final equipment selections can be reviewed.

4 Basis of Ventilation Design

4.1 Air Permeability

The new building shall be designed to meet an air tightness of 3 m³/s m² @ 50 Pa pressure differential. An air permeability leakage test shall be conducted as per BSRIA specifications, to meet te requirements of Approved Document Part L requirements.

4.2 Ventilation Standards

The general basis of ventilation design for the respective areas shall v=be as noted n the table below:

Area	Ventilation Provision	Comments
General Gymnasium Area	Minimum 10 L/s/p	TBC by Gym fit out specialist, but this will be the minimum fresh air supply rate as per industry standards and statutory levels and may be exceeded.
Gymnasium Shower and Change areas	10 AC/Hr with make up to maintain relative negative pressure	TBC by Gym fit out specialist.
Canteen Dining area	10 L/s/p based on maximum population levels.	Supplementary circulation of air volume within the space by the local AC Cassette units.
Dining area Toilets	10 AC/Hr with make up to maintain relative negative pressure	
Cleaners Store	3 AC/Hr extract only	Fire dampers to suit Store fire rating.
Kitchen	TBC by Catering specialist Consultant, for plant area considerations, initial allowance at 40 AC/Hr for the Kitchen cooking areas.	Catering specialist Consultant final advice shall be based on the thermal plume of the defined equipment and the capture velocity of the requisite defined extract canopies.
Bin Store	No ventilation – external space	
Plant Corral	No ventilation – external space	
Switchroom and DHWS Plantroom	Natural ventilation by Louvre door. Supplementary extract boost ventilation to achieve 3 AC/Hr	

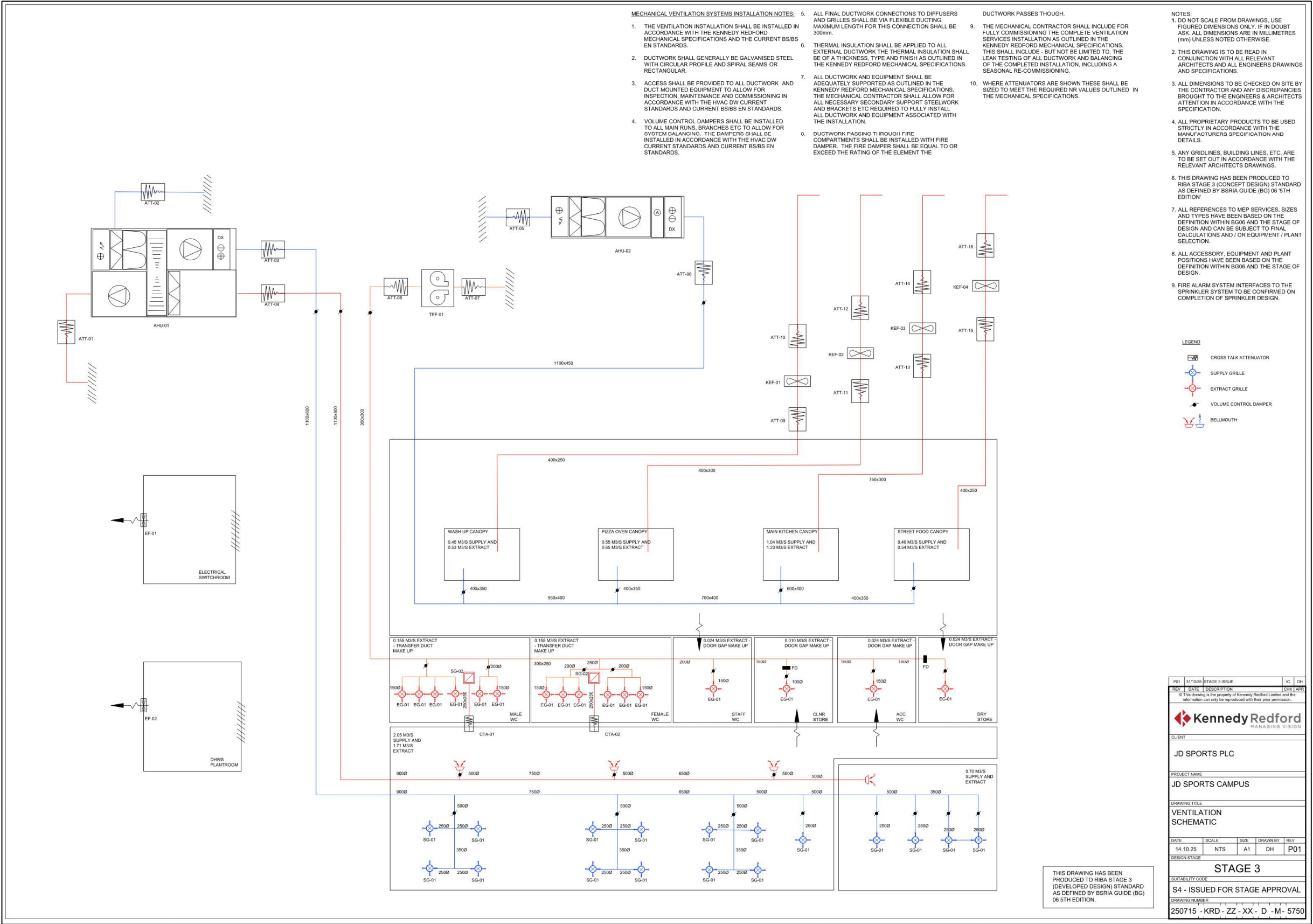
5 Conclusion

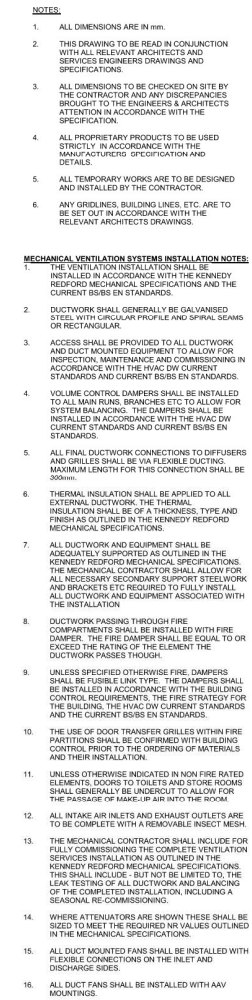
The report details the considered ventilation strategies and design levels, that meet the requirements of statutory considerations and good working practices. The design shall develop further through the RIBA design stages, but the design proposals described in this report show that the scheme would be compliant with the requirements of Building regulations Part F and Part L.

Any negative impact of ventilation systems on adjoining buildings within the Client development area, or neighbouring sites will be mitigated by:

- Ensuring ventilation systems do not discharge either direct onto or where entrainment to neighbouring buildings or accommodation where people are likely to be present.
- Providing the best thermal performance of the building by considering a sealed façade with managed fresh air ventilation.
- Providing noise attenuation mechanisms at source to comply with acoustic criteria defined by the specialist Acoustic Consultant.
- Installing grease filters (UV-C) to mitigate against migration of catering odours to the external environment.

6 Appendix A - Sketches





REV	REV	DATE	DESCRIPTION	DR	APP
PREV	1	27/12/2018	ISSUED FOR STAGE 3		
It is the intention of the planners of Kennedy Redford Limited and/or its subsidiaries that the information on only be reproduced with their prior permission.					
 Kennedy Redford REAL ESTATE SOLUTIONS					
CLIENT					
JD STORES PLC					
PROJECT NAME					
PHASE 2 PAVILLION					
DRAWING TITLE					
VENTILATION LAYOUT GROUND FLOOR					
DATE	SCALE	SHEET	DESIGNED BY	REV	
07/10/25	AS SHOWN	A0	DH	P01	
DESIGN STAGE					
STAGE 3					
SUITABILITY CODE					
S-4 - ISSUED FOR STAGE APPROVAL					
DRAWING NUMBER					
250715 - KRDP - ZZ - 00 - DR - M - 5700					