



**Subject** Planning Condition 18 - Neutral Air Quality

Date 12 November 2018 Job No/Ref 4-05-01

## 1 Introduction

This report provides details on the NOx levels for the boilers to be provided as part of the 1 Triton Square project, to satisfy Planning Condition 18 – Air Quality Neutral.

Planning Condition	Subject	Condition Wording
18	Air Quality Neutral	Air Quality Neutral:  Prior to the commencement of superstructure works within: the commercial element; or the residential element of the development full details of the boiler plant and confirmation that the plant within that element meets the Mayor's air quality neutral requirements and meets the NOx emissions limit of 40mg/kWh shall be submitted to and approved by the local planning authority in writing.

The attached Technical Submittal has been provided by the Mechanical Sub-Contractor to the design team as the boiler they will be installing. The submittal has been provided with a Status 'A', no further comments by the design team.

Page 12 of this condition discharge document provides manufacturer information on the boiler module and indicates the NOx levels are 38.8mg/kWh, less than the planning restriction of 40mg/kWh. This therefore satisfies the requirements of Planning Condition 18.



# 1 Triton Square Boilers

**INCIDENT & INJURY FREE: The Lendlease Way** 

Revision	Revision Detail	Ву	Checked	Date
Rev P01	For Approval	JY	SM	19.10.18

## **Trade Contractor**



TClarke 45 Moorfields, London, EC2Y 9AE

#### Photograph Required (Mandatory)



This review considers the boiler itself but the pipework kit at the back of this techsub does not consider the required primary pumps and fittings. Please make another submittal for these parts.

## **Status Stamp**

**Technical Submittal Description:** (full description required)

## **Boilers**

Document Number and Title	246868-T_C-ZZ-B1-TS-XX-50004	Revision	P01	
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## **Technical Submittal Information:** (to be completed by Trade Contractor)

Trade Contractor:	TClarke
Works Package Number:	43111.01
Sample Title:	Boilers
Description:	Boilers
Manufacturer(s):	Hamworthy
Material:	As per data sheets
Size:	As per data sheets
Туре:	As per data sheets
Model Number:	As per data sheets
Manufacture Process:	As per data sheets
Drawing Reference(s):	246868-A_A-XX-B1-DR-MX-55010 T03 Layout
	246868-A-A-XX-B1-DR-MX-55721 T01 Layout
	246868-A_A-XX-XX-DR-MX-55804 LTHW Schematic 1 T04
Specification Reference(s):	246868-A_A-XX-XX-SP-MX-00002-M&PH Schedules T03
Finish/Texture/Pattern/Print:	Smooth Painted
Colour:	Blue
Other/Comments	See Summary Sheet
No. of physical Samples	N/A
EPD Certificate	N/A
ISO 14001	N/A
FSC	N/A
BES6001	N/A

## **Reviewer Record** (to be completed by Reviewers, and recorded on Aconex) **Lead Reviewer:**

Organisation	Name	Comments: (add below or refer to attachments as required)
Date	Signature	
Reviewed by:		
Organisation	Name	Approval Status / Comments:
Date	Signature	
Organisation	Name	Approval Status / Comments:
Date	Signature	
Organisation	Name	Approval Status / Comments:
Date	Signature	
Organisation	Name	Approval Status / Comments:
Date	Signature	

## **Summary**

**Equipment: Boilers** 

Location: Basement Level

Manufacturer: Hamworthy

References: B.1, B.2, B.3, B.4

Model: Wessex Modumax mk3 WM254/762V

Lead Time: 4 weeks

#### **Notes**

1. Units as specified.

## This includes

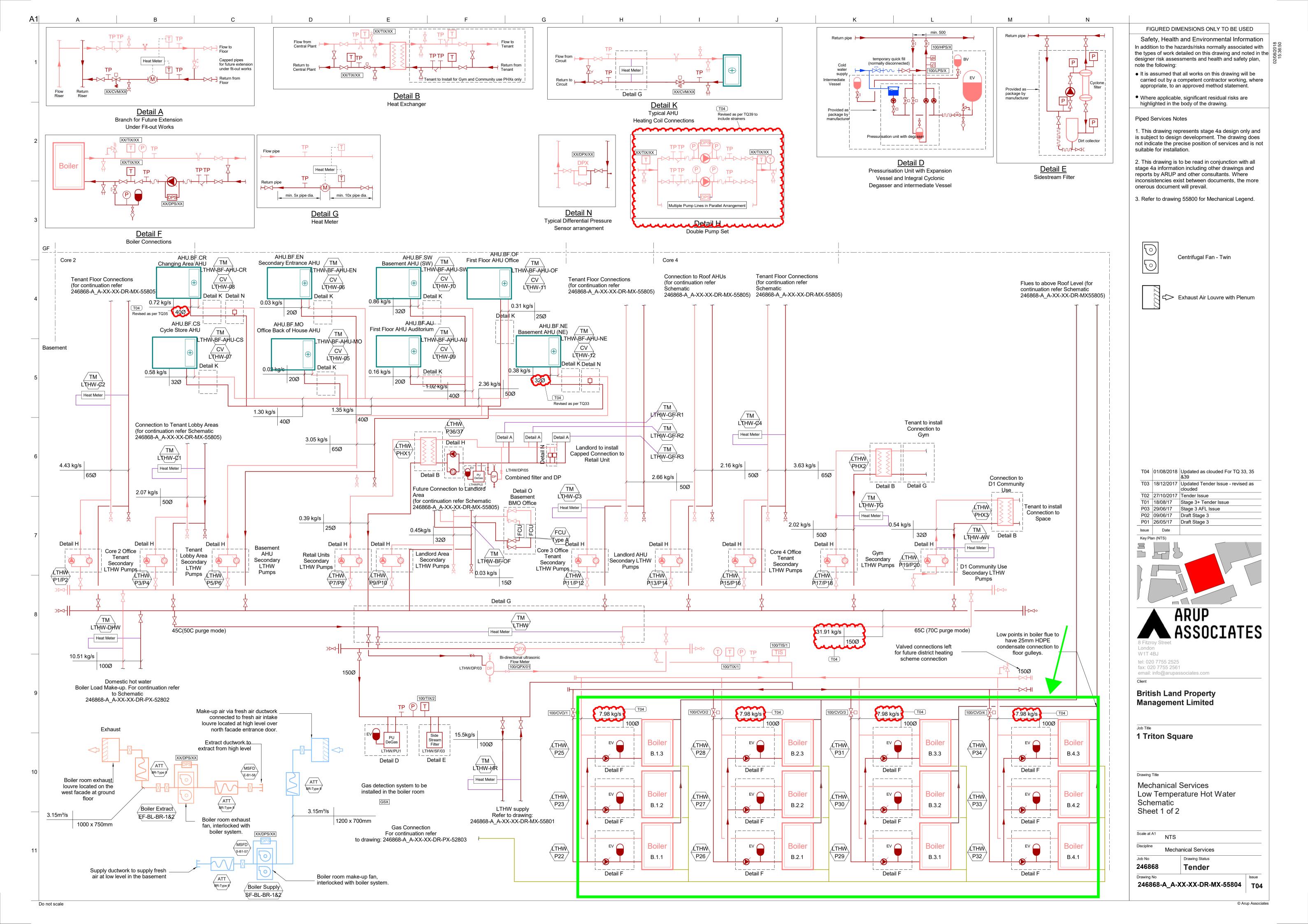
- Wessex ModuMax mk3 WM254/762Vcondensing boiler. Natural gas fired fully modulating low NOx boiler, optimized up to 40 degree C differential temperature. Three 254kW floor standing boilers stacked vertically. Total output 762kW at 50/30 C, 717kW at 80/60C United Kingdom specification.
- 3. Pipe kit. Wessex ModuMax 147/196/254 boilers.
  - Pre fabricated factory assembled and tested pipe kit for Wessex ModuMax triple stacked boilers. Complete with flexible boiler connections, isolating valves and 200mm flow and return headers.
- 4. Remote signal kit for indicating run and fault condition. Compatible with boilers using Siemens LMS controls platform.
- 5. LPB BUS clip in boiler communication module OCI345 compatible with boilers using Siemens LNS

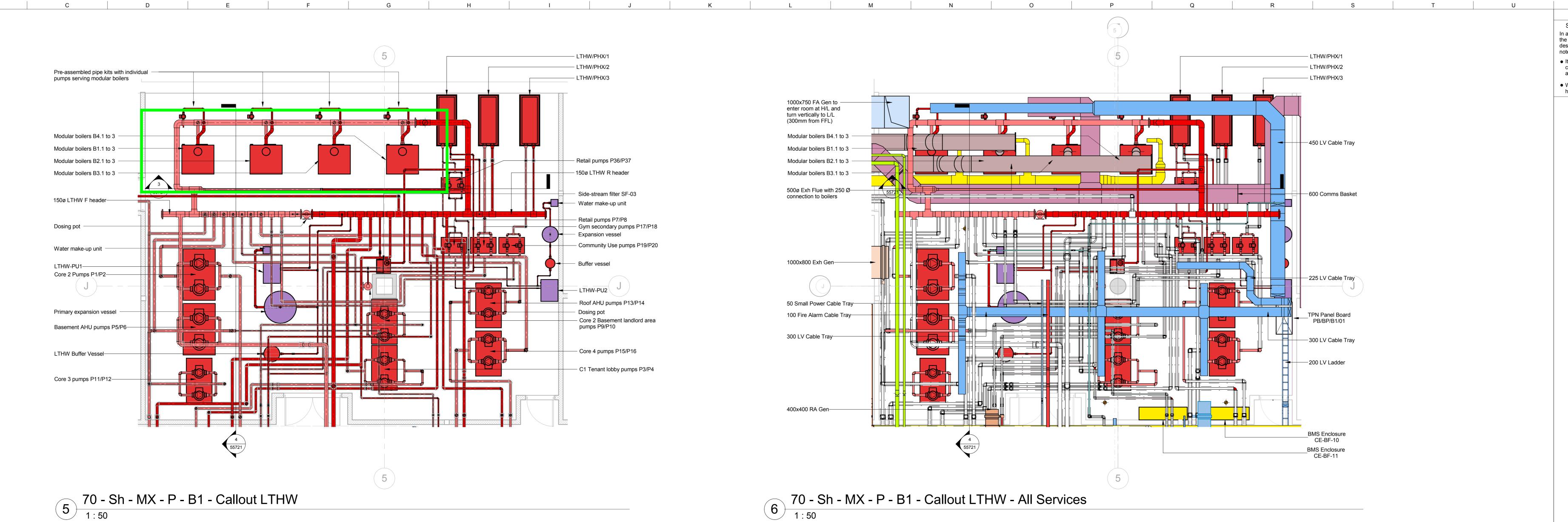
  -controls platform

  This is not required as sequencing controlled by BMS
- 6. Insertion flow sensor and pocket.
- 3. If using the prefab pipe-kit then it will be necessary to use the pre-fab pipe & pump kit to ensure there is a primary pump per boiler module. The pipe kit shown links the three boilers without showing any primary pumps?

If using manufacturer pre-fab pipe & Pump kit please submit manufacturer's schematic detail showing arrangement with IVs, NRV, pressure relief valve, temp sensors, strainer, DPS, flow switch and orifice plates for commissioning flow rates. Please update the schematic detail for the boiler to match on the overall schematic detail.

Please ensure all required sensors and pockets and BMS interfaces have been coordinated and agreed with the controls contractor.

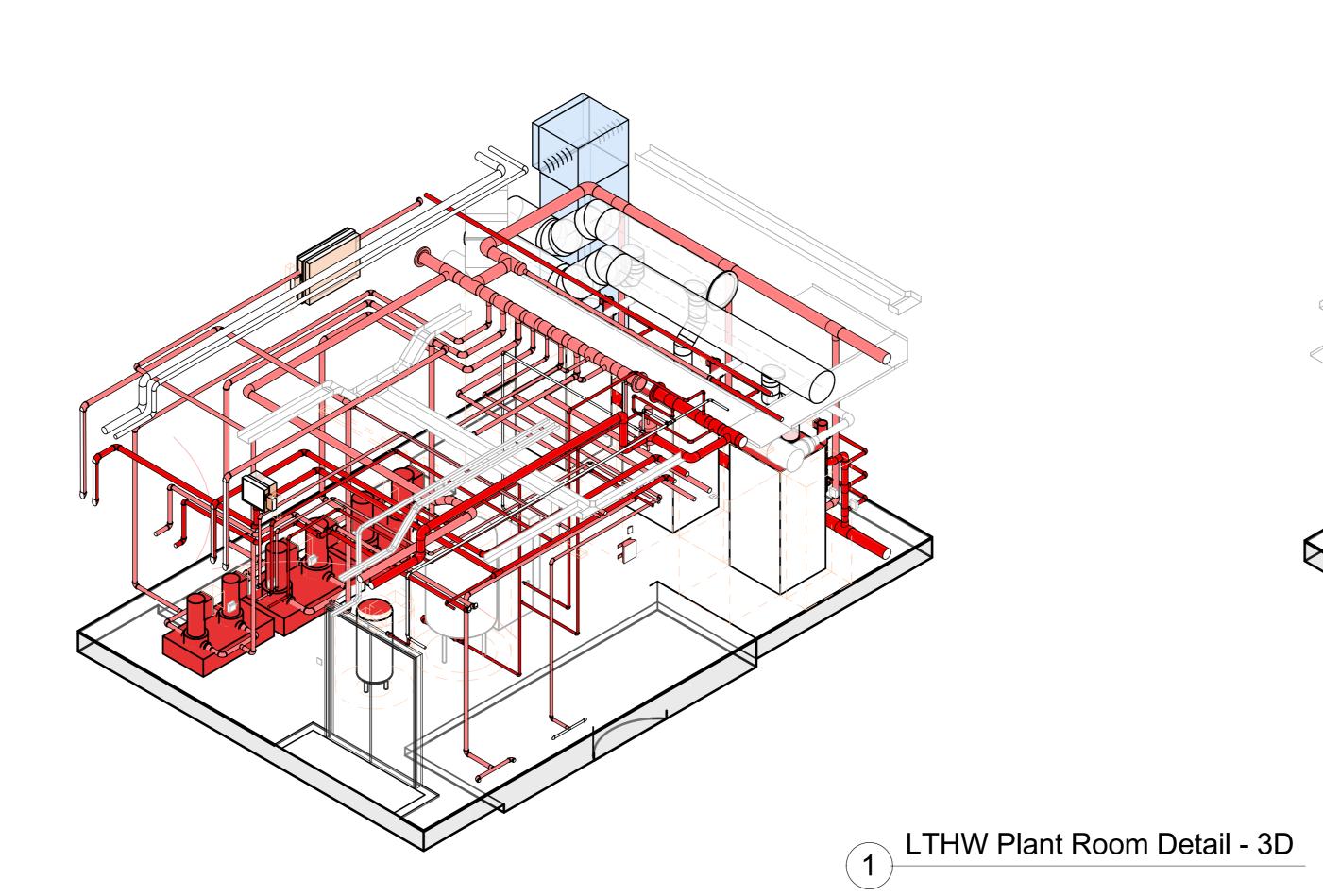


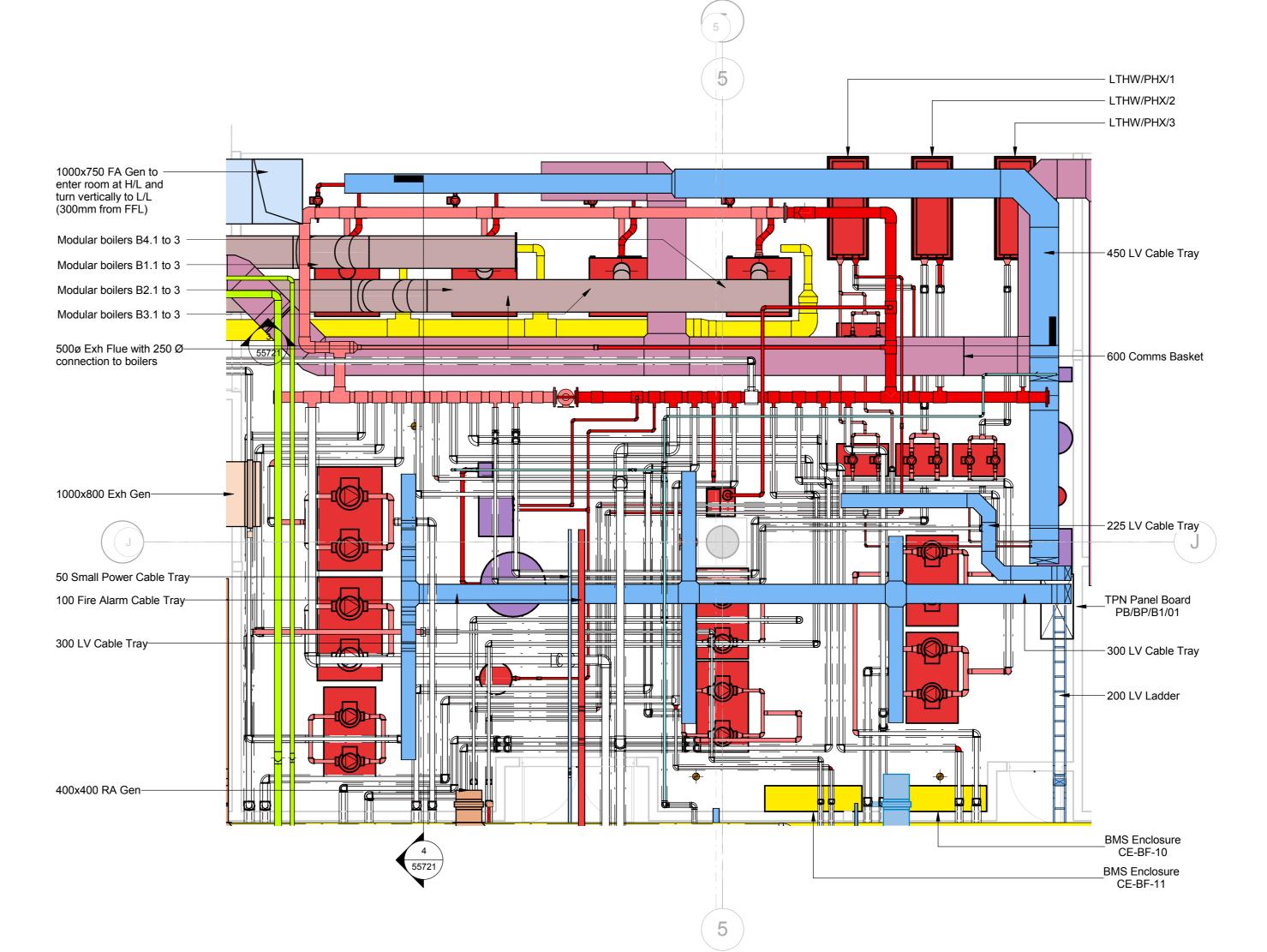


500ø Exh Flueconnection to boiler Modular boiler B1.1 to 3 Modular boiler B2.1 to 3 Modular boiler B3.1 to 3 Modular boiler B4.1 to 3 +23.000 m Level B1 Modular boiler B4.1 to 3

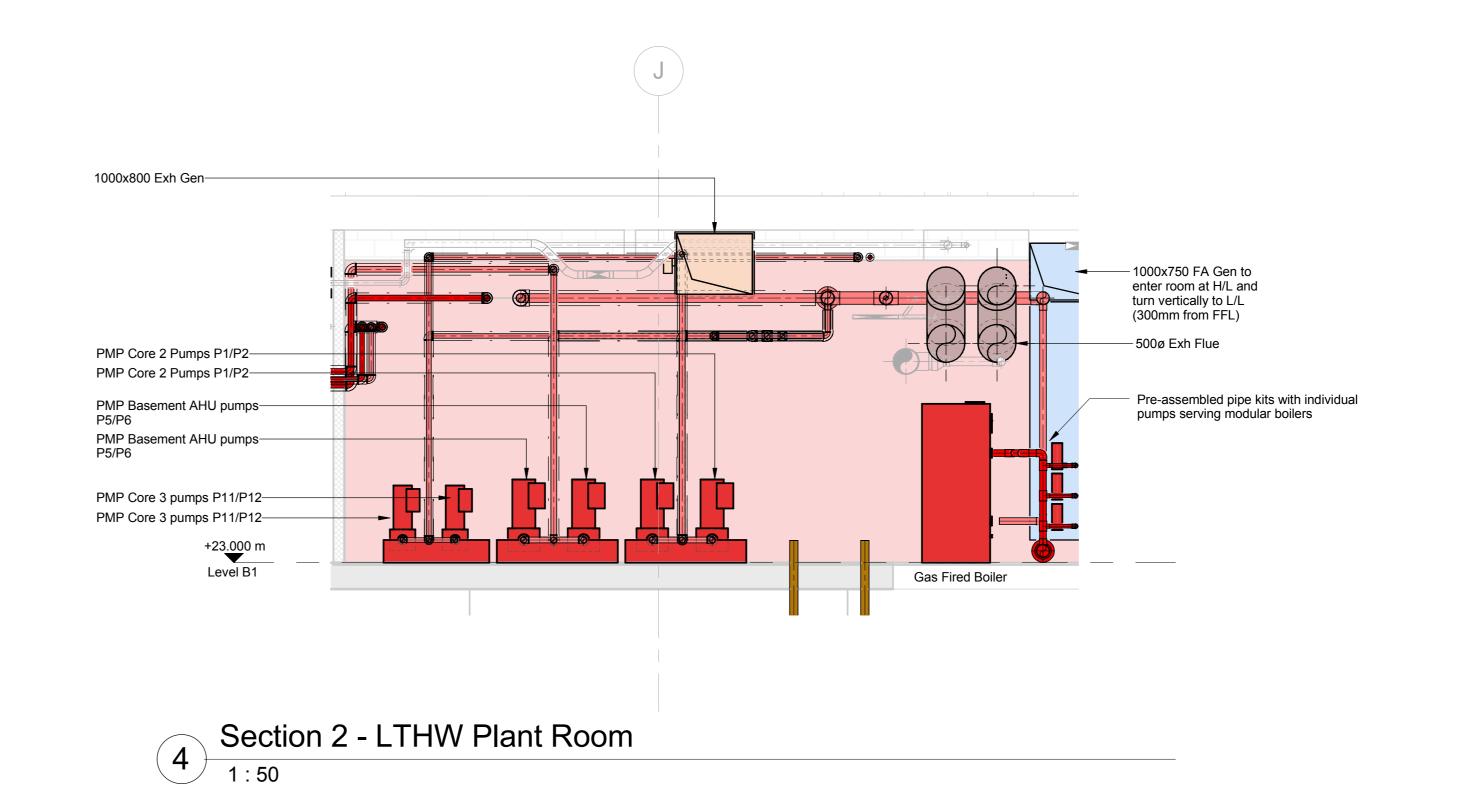
Section 1 - LTHW Plant Room

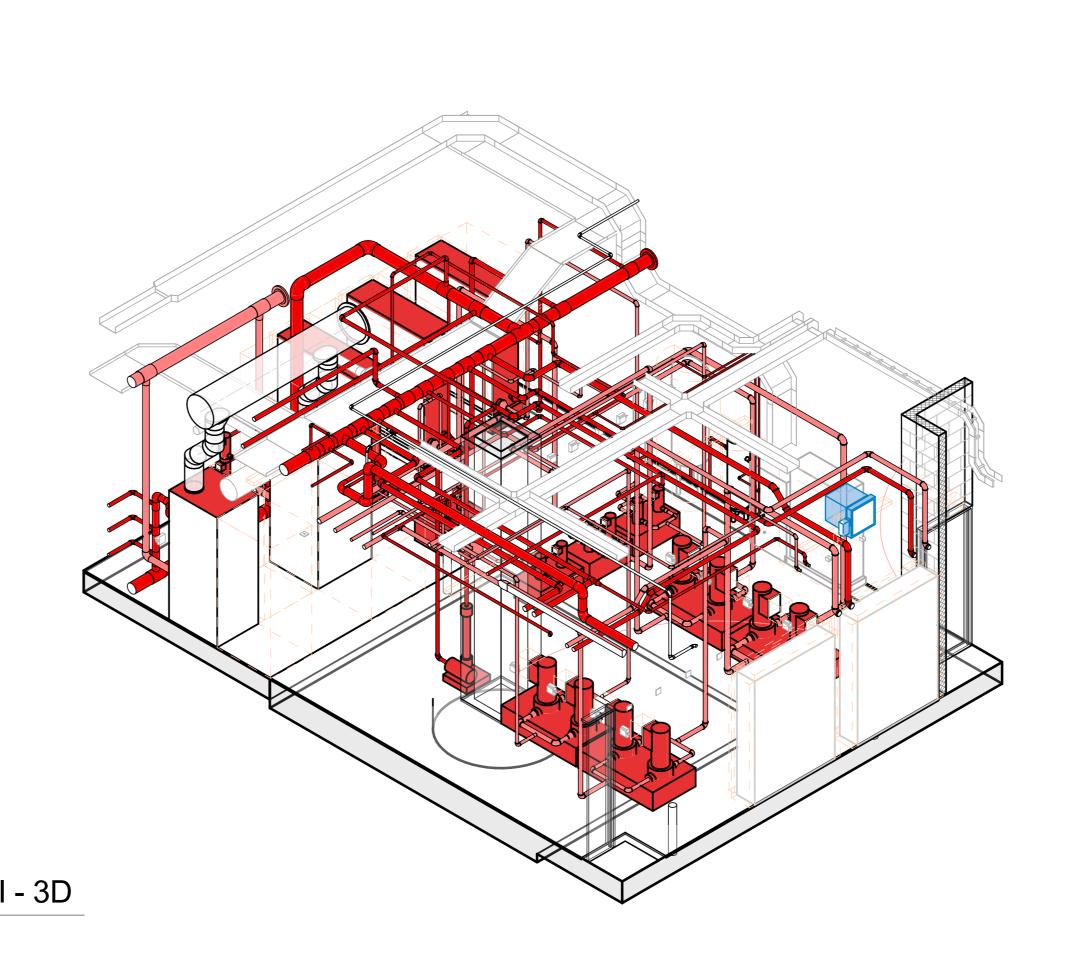
1:50





70 - Sh - MX - P - B1 - Callout LTHW - All Services





London W1T4BJ tel: 020 7755 2525 fax: 020 7755 2561 email: info@arupassociates.com British Land Property Management Limited 1 Triton Square Mechanical Services Pipework LTHW Plant Room

**Basement Layout** 

Mechanical Services

FIGURED DIMENSIONS ONLY TO BE USED

Safety, Health and Environmental Information

In addition to the hazards/risks normally associated with the types of work detailed on this drawing and noted in the designer risk assessments and health and safety plan,

It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an approved method statement.

Where applicable, significant residual risks are highlighted in the body of the drawing.

note the following: