3 - 6 Spring Place

Spring Place Ltd

Ventilation Strategy

MTT

September 2016

9 Kingsway
London WC2B 6XF

Telephone
+44(0)20 78361133

info@mtt-limited.com
www.mtt-limited.com

CONTENTS

1.0 INTRODUCTION

This report has been produced to outline the ventilation strategy in support of the planning application for the proposed demolition of existing buildings and structures and erection of a new (up to) six storey building (plus basement) to provide flexible office floorspace (Use Class B1) with ground floor flexible café, restaurant (Use Class A1 / A3) and event space (Sui Generis) and other associated works.

The provision for ventilation has been considered within the design of the development in order to ensure suitable removal of odours and CO_2 from the occupied spaces. The provision is based on the technical requirements allowed under Approved Document F of the Building Regulations and best practice guidance and also to minimise any impacts on neighbouring properties.

The majority of the new development is to be designed for office and events space. However the development also contains ventilation systems for basement areas, toilet and store areas and a kitchen. Mechanical ventilation systems of varying types shall be installed into the development to achieve this.

The report has been prepared solely and exclusively for Spring Place Limited; no liability is accepted in respect of opinions expressed herein so far as other parties are concerned.

2.0 GENERAL VENTILATION

The building shall be provided with several different ventilation systems as outlined below based on different space types and uses.

The proposed office floors will be mechanically ventilated via the use of floor by floor air handling units (AHU's) complete with heat recovery that provide supply and extract air to the office space in an energy efficient manner. The AHU's will comply with the non-domestic building services compliance guide and Approved Document Part L requirements for energy efficiency. Air shall be distributed throughout the floor plate via a ductwork system mounted at high level within the office space.

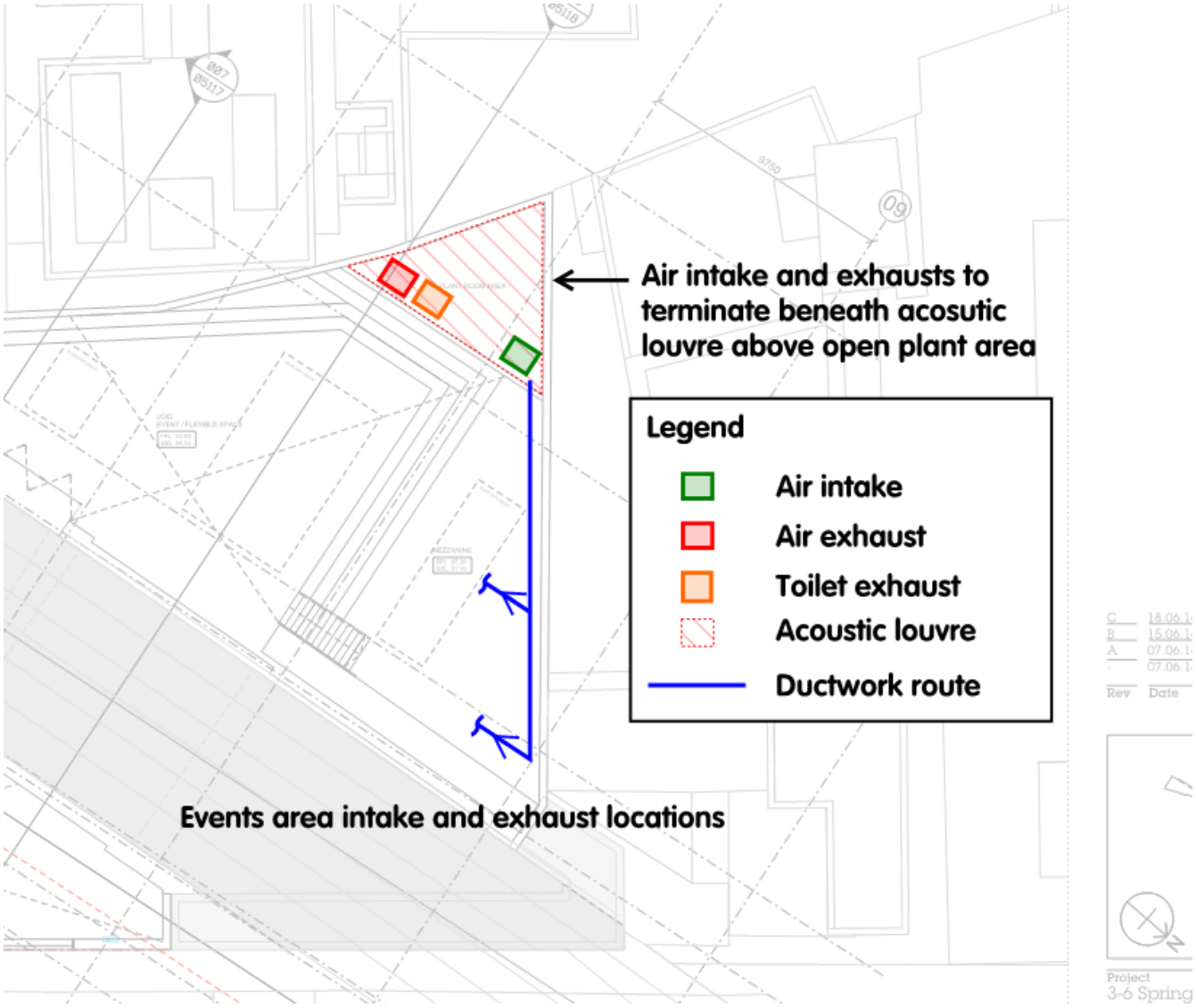
Air intake for the main office will be from façade integrated louvres and exhaust air from the office will be via façade integrated louvres on a separate elevation or at a separation distance maximised to reduced potential for recirculation. See below for indicative locations of the air intake and exhaust locations within the façade.

Typical office floor air intake and exhaust locations

Air intake and exhaust for the west events space shall be from roof level on the most western point of the site above the plant area. The toilet extract from the ground floor toilets shall also exhaust at this location. The exhausts shall be placed as to maximise the distance away from the nearest residential window. An AHU shall be used to provide outside air and extract air from the events space. Air shall be distributed throughout the event space via a ductwork system mounted at high level to ensure sufficient distribution and mixing.

The plant area shall have an acoustic louvre above it as per requirement outlined in the acoustic report.

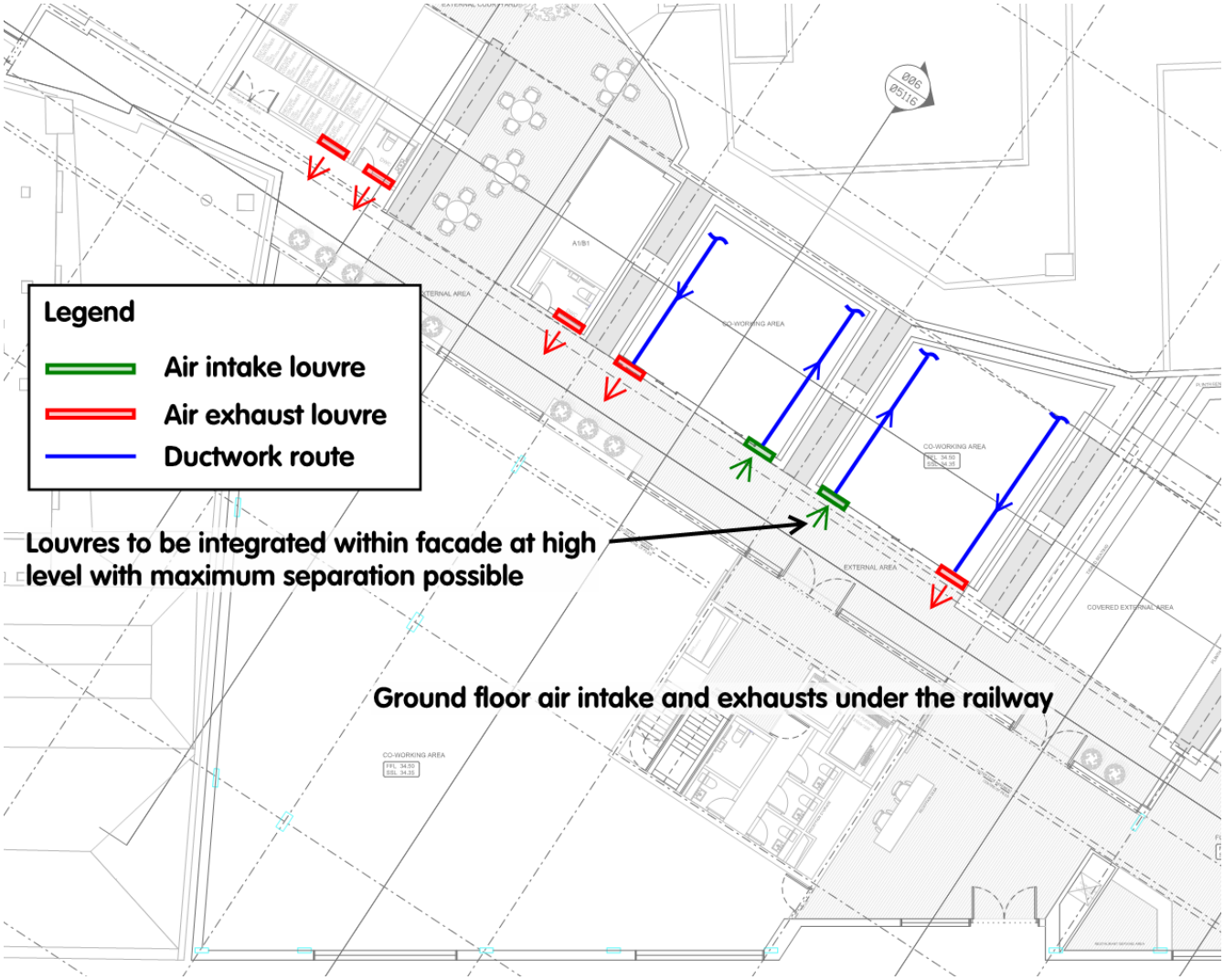
Separation between intake and exhaust locations shall be maximised within the plant enclosure.



The entrance area is a transient space and therefore shall be naturally ventilated via the front doors and openable doors to the external walkway by the railway.

Air intake and exhaust for proposed self-contained pods under the arches shall be from the uncovered walkway adjacent to each pod. It is not possible, due to location of the pods and the uncovered nature of the walk way, to have the air intake from the roof. Air shall be introduced and exhausted from the pods via ductwork to ensure sufficient distribution and mixing.

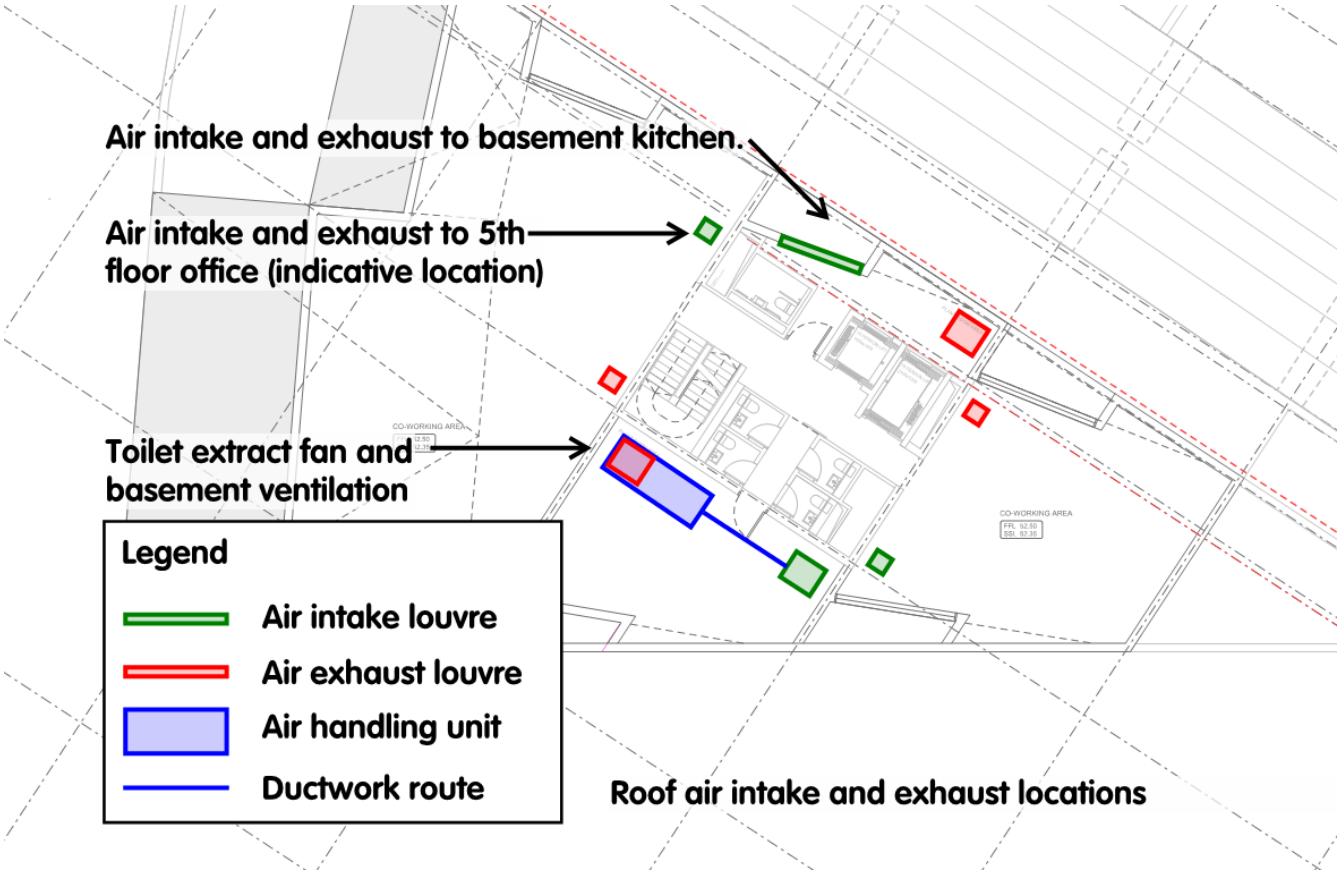
Toilets on the west side of the railway and under the southern arches will be provided with local toilet extract fans which shall discharge into outside air in the most exposed location available. The toilets within the southern arches shall be exhausted to the uncovered walkway area at high level. The toilets at ground floor on the west side of the railway will be exhausted at the height of the west roof.



Extract from toilet cores in the main office will connect to a riser from ground floor to roof level where the toilet extract fan shall be located. Exhaust shall be located at the perimeter of the building away from any air intake locations. Air shall be extracted from each toilet cubicle and ducted to roof level where the fan is located.

Exhaust locations from the roof are provided at such a distance as not to cause an impact on the amenity of the surrounding buildings, including residential windows.

The basement shall be provided with a supply and extract ventilation system which shall be located on the roof. It shall not be used for smoke clearance as this is not required. Air shall be distributed via a ductwork system at high level within the basement.



Suitable noise attenuation (including silencers or acoustic insulation where required) shall be provided to each ventilation system to comply with the requirements as outlined within the environmental noise survey to satisfy planning authority requirements.

No impact on the amenity of surrounding properties will be caused by the installation of the kitchen extract system.

3.0 KITCHEN VENTILATION

The kitchen within the basement of the proposed development shall be provided with a dedicated ventilation system. The proposed ventilation strategy allows for kitchen exhaust to be made at the highest point of the development to minimise any potential impact on adjacent buildings to the west of the site.

The kitchen extract will be ducted from the kitchen in the basement through the building to roof level where the fans shall be mounted within a dedicated plantroom enclosure. The exhaust shall be directed away from the building to the west at the highest level of the building.

The exhaust location is above and away from adjacent buildings to maximise the dilution of odours within the air stream. The exhaust air shall ejected to atmosphere at a minimum of 12m/s to ensure full mixing.

Suitable access shall be provided to the kitchen extract duct and fans within the riser for cleaning and maintenance as per HVCA DW 172.

Suitable noise attenuation shall be provided to the kitchen ventilation system to comply with the requirements as outlined within the environmental noise survey and to satisfy local authority planning requirements.

No impact on the amenity of surrounding properties will be caused by the installation of the kitchen extract system.

4.0 CONCLUSION

The report outlines the requirement for ventilation within the proposed development before outlining the proposed systems to achieve the requirements.

The ventilation strategy for the proposed development has been considered as part of the design process and sufficient allowance has been made within based on the strategies outlined within this report.

Consideration has been given to the location of the intake and exhausts to minimise air recirculation based on the constraints present on the site. No impact on the amenity of surrounding properties will be caused by the installation of the kitchen extract system.