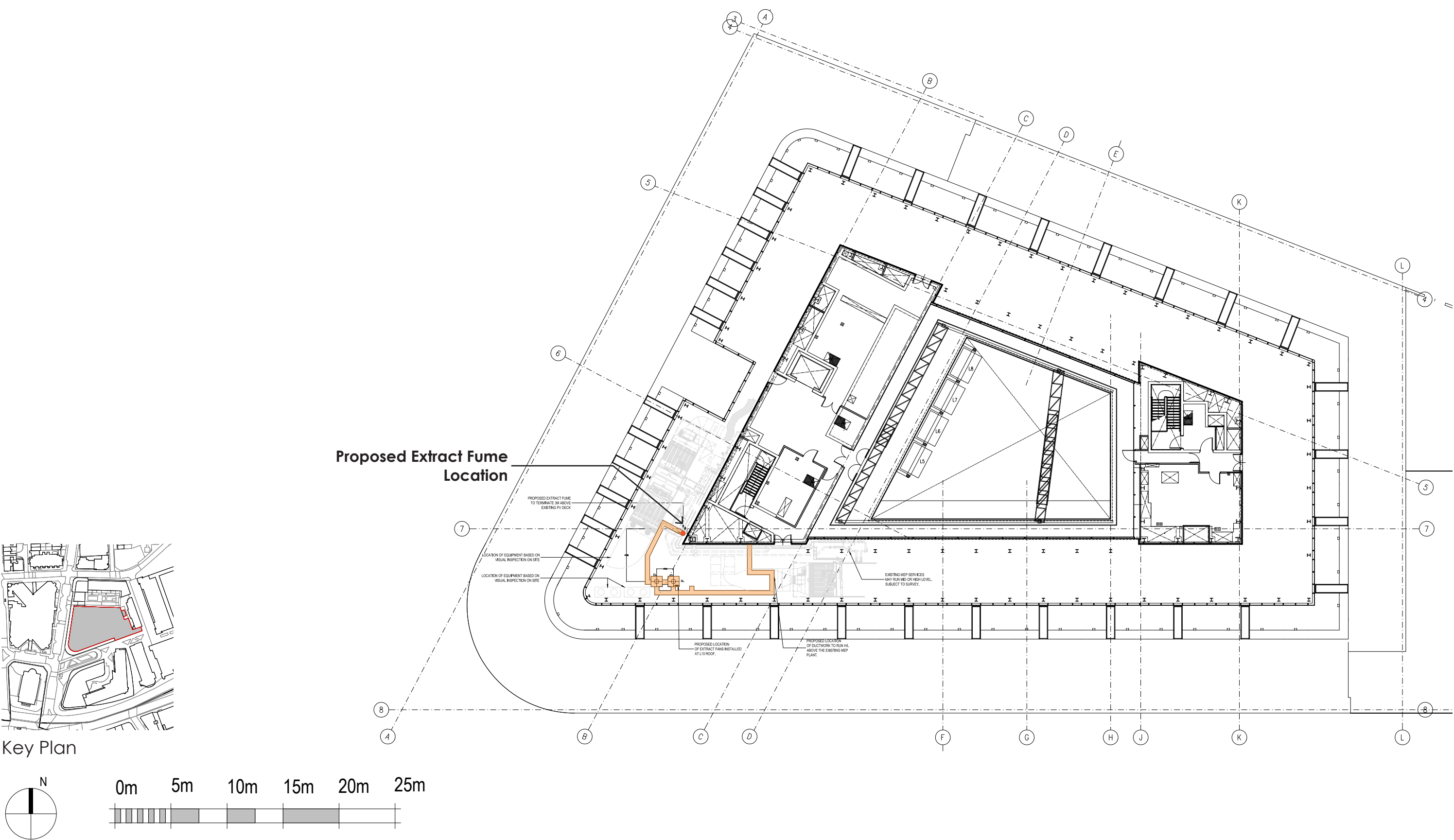


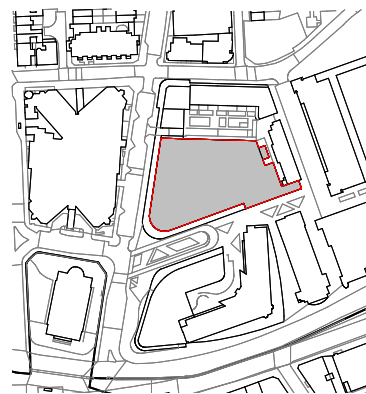
# Plant GA Plan

## Level 10 - Proposed Extract Fume Location

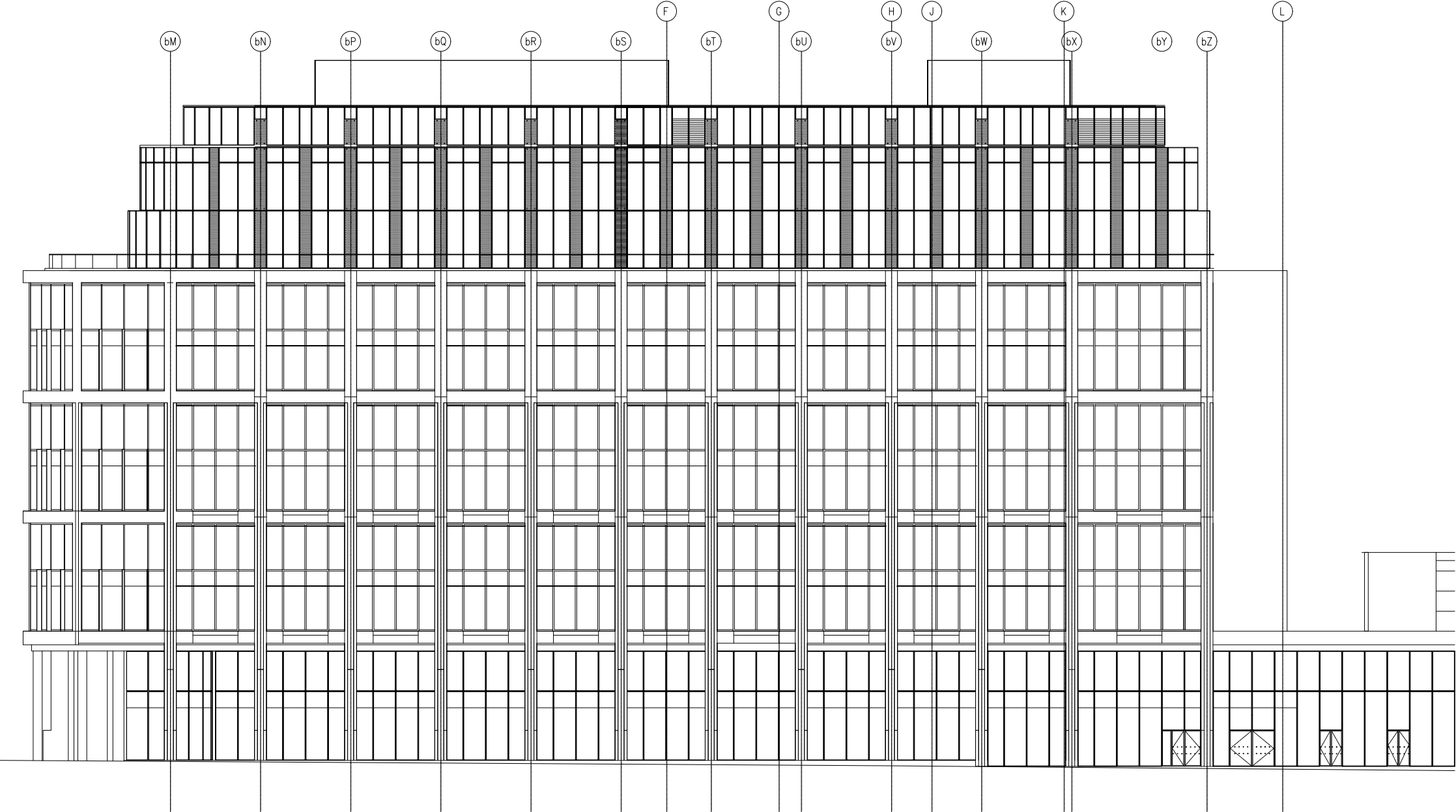
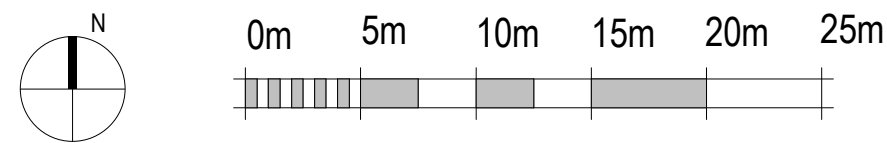


# South Elevation

Existing



Key Plan

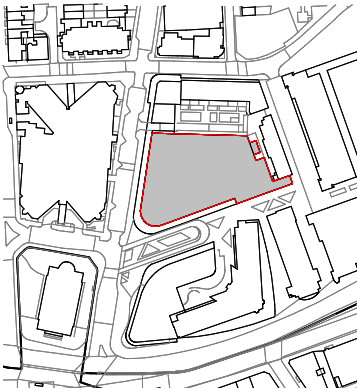
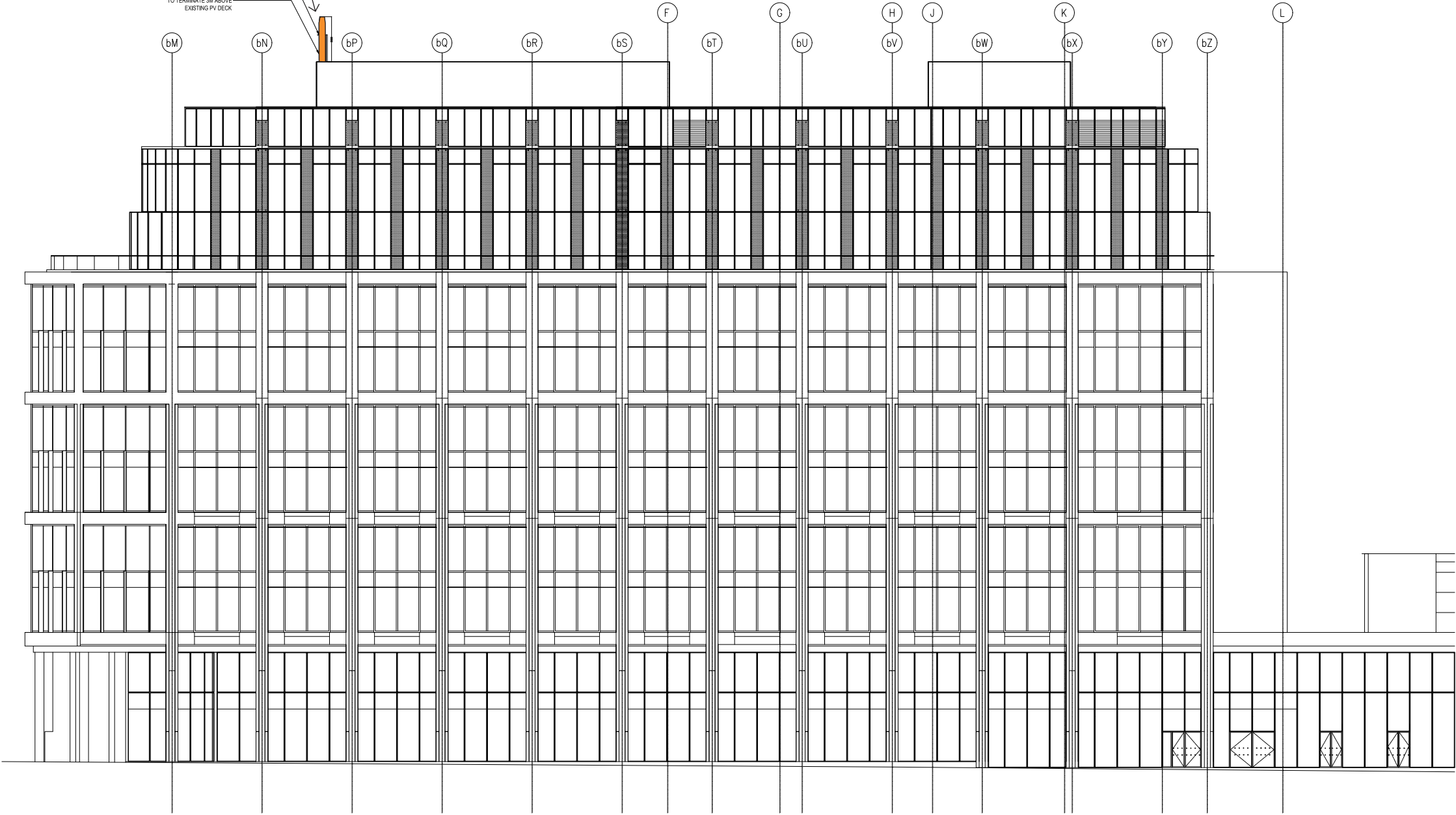


# South Elevation

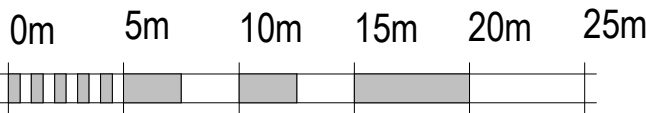
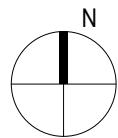
Proposed

Proposed Extract Fume  
3m above the highest  
roof point

SUPPORT STRUCTURE FIXED  
ONTO TO THE SIDE  
PROPOSED EXTRACT FUME  
TO TERMINATE 3M ABOVE  
EXISTING PV DECK

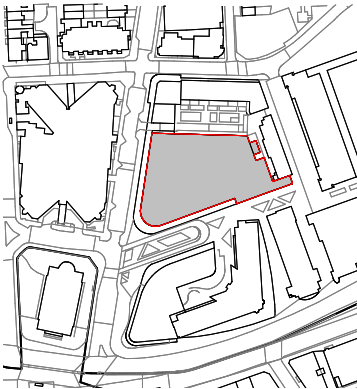


Key Plan

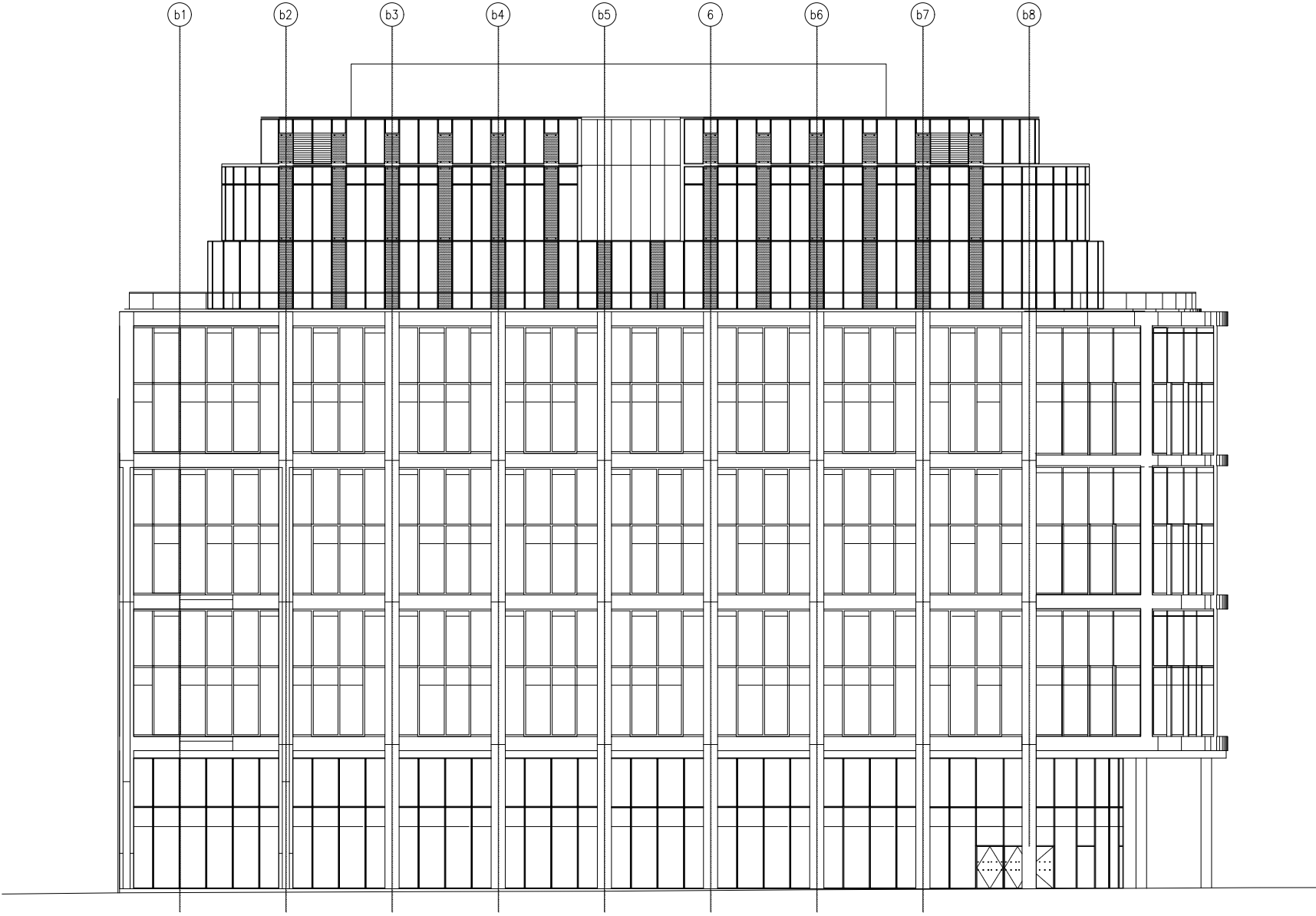
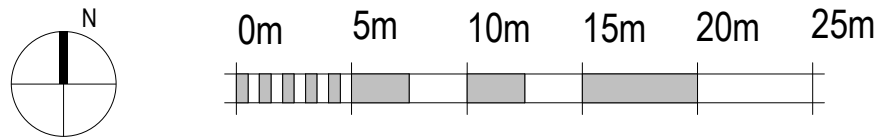


# West Elevation

Existing



Key Plan



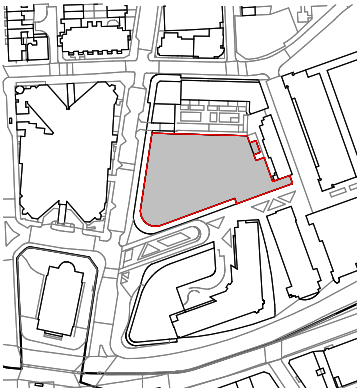
# West Elevation

Proposed

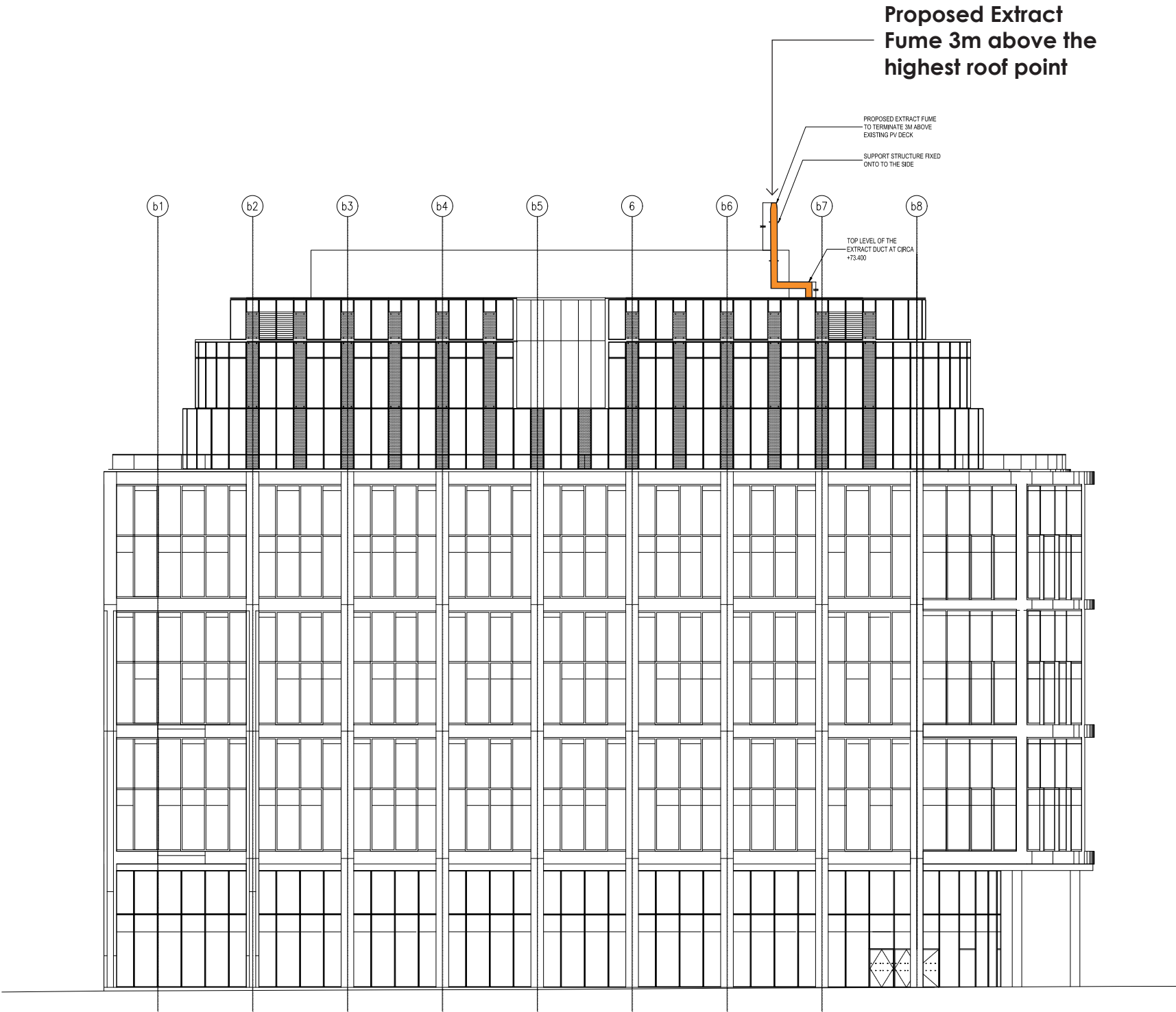
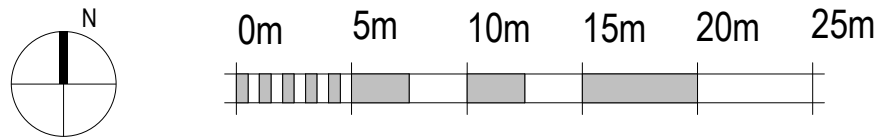


Look & Feel

- Chemically resistant PVC/PP ductwork
- Light Grey colour



Key Plan



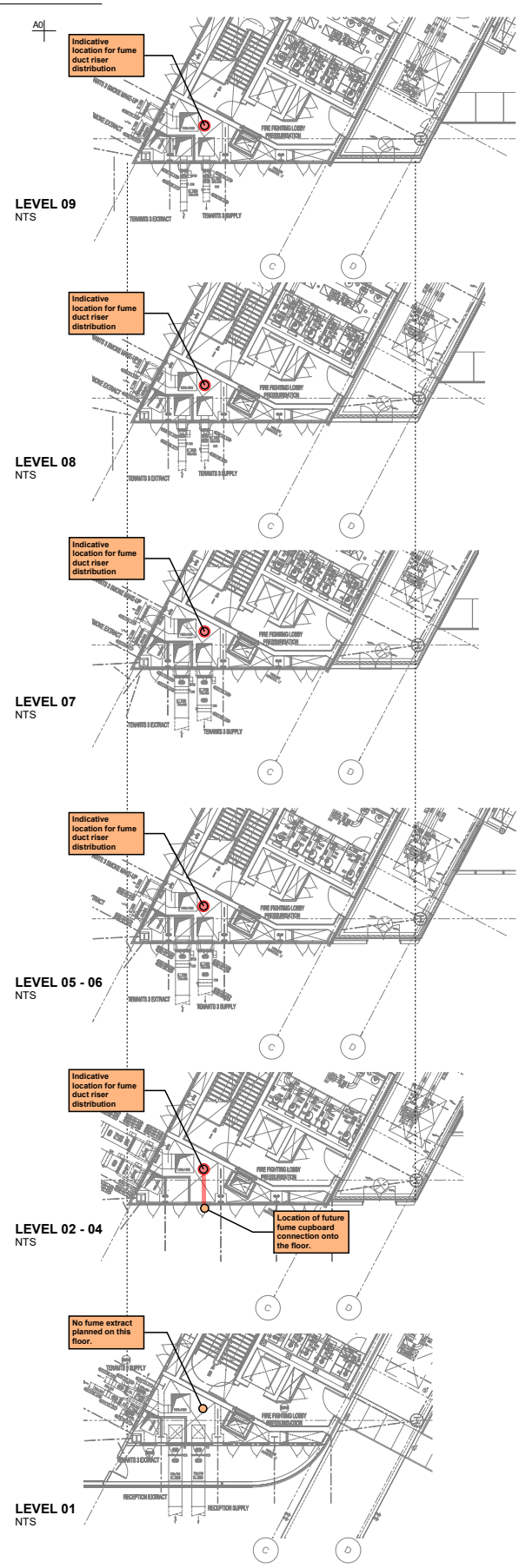
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# Technical Summary



# Fume Hood

## MEP



- Notes:
1. Sketch information was prepared to support planning application for a new fume extract system at 20 Triton Street.
  2. Sketch information is for information only. Additional level of detail will be provided as part of detailed design activities (including any strip out, alterations required to existing services impacted by planned works).
  3. Do not scale from this sketch drawing.
  4. The following design assumptions were allowed for at this stage:
    - A new fume extract system shall be provided
    - 1x fume cupboard shall be allowed for (per floor)
    - 3x fume cupboards allowed for (total - for the fume extract system)
    - No operational diversity was allowed for at this stage. All three fume cupboards are assumed to be operational simultaneously at any given time.
    - The system shall operate 24h / 7 days a week
    - An allowance was made for a standard 1200mm wide fume cupboard to be installed (1000mm internal dimension assumed for volumetric airflow calculations).
    - Min / Max sash position assumed on fume cupboards installed is 100mm / 500mm.
    - A face velocity of 0.5 m/s is assumed for the purposes of volumetric airflow calculations.
    - Min / Max volumetric airflow rate for each fume cupboard is assumed to be 50 / 250 l/s.
    - Min / Max volumetric airflow rate for the total fume extract system is assumed to be 150 - 750 l/s.
    - Final plant selected will have an additional 10% allowance in capacity to allow for commissioning purposes.
    - Fume cupboard installation provided is to be of a Variable Air Volume system type.
    - Air velocities within the ducts should not exceed 7.5 m/s.
    - A Ø400 fume extract duct is to be provided throughout the building (~6.6 m/s @ 750 l/s)
    - A fresh air bypass damper shall be provided as part of the installation to maintain a fixed efflux velocity from the system.
    - Discharge velocities from the system should be at around 10 m/s.
    - Prior to system discharging to atmosphere, Ø400 duct is to have a conical termination Ø315 in diameter (10.6 m/s @ 750 l/s)
    - Point of discharge from the fume extract system is assumed to be terminating 3m above the existing steel deck, where PV panels are installed.
    - Chemically resistant PVC / PP ductwork to be used throughout.

