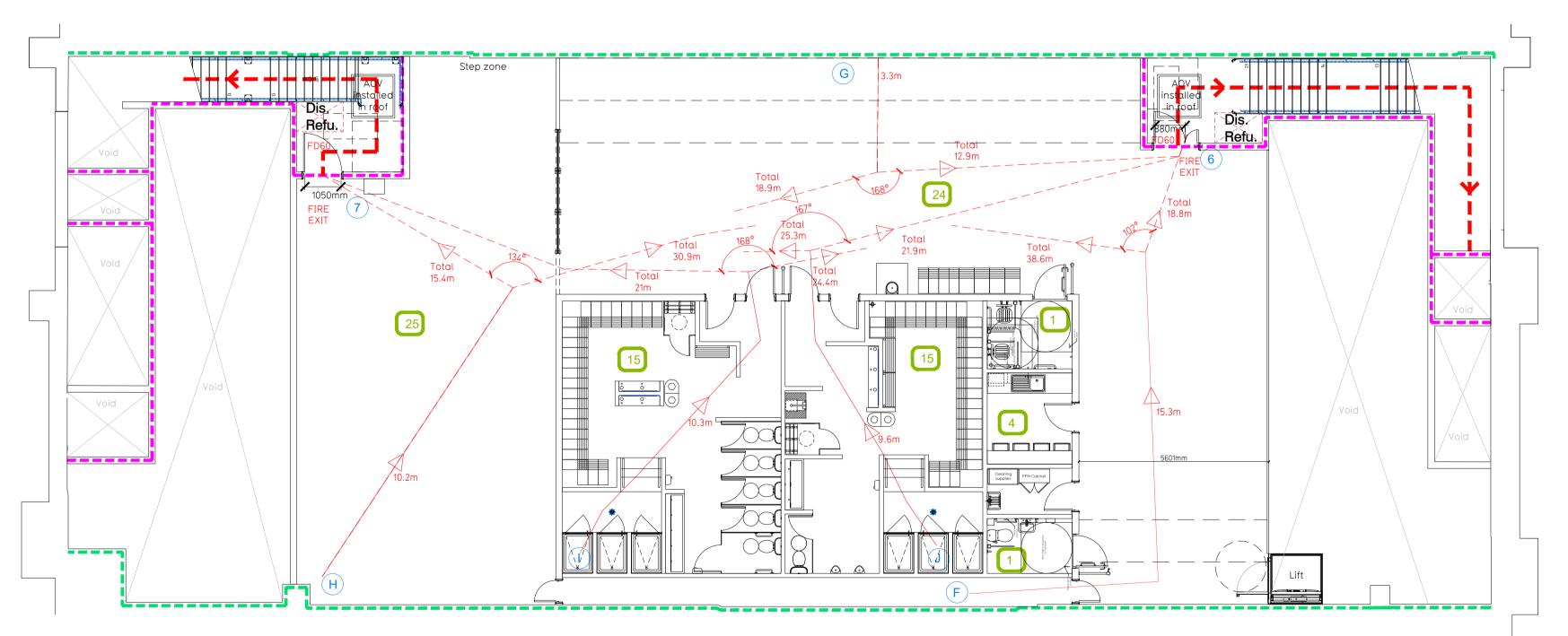


Ground Floor Plan Scale - 1:100



Mezzanine Floor Plan Scale - 1:100

Fire Evacuation Key

Fire Escape Route Protected areas: walls, floors, ceilings and doors to achieve 60 minute fire resistant construction.

Fire Alarm L1 Fire Alarm designed and installed to BS 5839. Smoke & heat detection / emergency lighting by specialist. Please refer to M&E engineer's Escape Lighting
Emergency escape lighted designed and installed in accordance with BS 5266: Part 1. Please refer to M&E Engineer's drawings for final layout and specification.

NOTE:

- · Proposals must comply with all acoustic, fire & building regulation requirements
- No dimensions are to be scaled from this drawing. The contractor is responsible for checking all dimensions on site
 - All proposals to be confirmed following site visit

Escape Route Widths

In line with Section 2.9.8 of the Technical Handbook - Non Domestic, the aggregate unobstructed width in mm of all escape routes from a room, or storey, should be at least 5.3 x the occupancy capacity of the room or storey.

Ground Floor

Aggregate Clear Opening Width of Escape Routes Calculation: Exit 1 = not classed as means of escape (not included) Exit 2 = 950mm Serves Exit 3 and is wider (not included) Exit 3 = 880mm

Exit 4 = 990mm Exit 5 = 1050mm Serves exit 4 and is wider (not included)

Total Aggregate Width for Storey 1,870mm (Less Largest Opening Width 1050mm) = 880mm

Ground Floor Maximum Occupancy Capacity = 880 / 5.3 = 166 people

First Floor

Aggregate Clear Opening Width of Escape Routes Calculation: Exit 2 = 950mm-GF Serves Exit 6 and is wider (not included) Exit 4 = 990mm GF Exit 6 = 880mm

Exit 7 = 1050mm Serves Exit 4 and is wider (not included)

Total Aggregate Width for Storey 1,870mm (Less Largest Opening

Width 990mm) = 880mm First Floor Maximum Occupancy Capacity = 880 / 5.3 = 166 people

the maximum escape capacity of the combined floors = 332. The target occupancy of the gym is 170 people based on the sanitary provision, and is therefore thought to be meet with Section 2.9.8 of the Technical Handbook.

Escape Distance and Angle of Divergence

Position A Total escape distance to Exit 3 and 2 = 13.0m

Distance before divergence is 6.2m A.O.D to be > (2.5 X 6.2)+45 = 60.5° Drawn A.O.D = 112° thus complies

Position B Total escape to Exit 3 and 2 = 24.3m

Distance before divergence is 6.7m A.O.D to be > (2.5 X 6.7)+45 = 61.75° Drawn A.O.D = 139° thus complies

Position C Total escape to Exit 3 and 2 = 27.7m A.O.D to be > (2.5 X 27.7)+45 = 114.3°

Drawn A.O.D = 146° thus complies

Position D Total escape to Exit 5 and 4 = 10.6m Distance before divergence is 4.9m A.O.D to be > (2.5 X 10.6)+45 = 71.5° Drawn A.O.D = 77° thus complies $\frac{\text{Position E}}{\text{Total escape to Exit 3 and 2 = 20.1m}}$

A.O.D to be > (2.5 X 20.1)+45 = 95.3° Drawn A.O.D = 104° thus complies Position F Escape to Exit 6 and 2 = 16.6m

Distance before divergence is 15.3m A.O.D to be > $(2.5 \times 15.3) + 45 = 83.2^{\circ}$

Escape to Exit 6 and 2 = 12.9m Distance before divergence is 3.3m

Drawn A.O.D = 102° thus complies

A.O.D to be > (2.5 X 3.3)+45 = 53.3° Drawn A.O.D = 168° thus complies Position H Total escape to Exit 7 and 4 = 15.4m

Distance before divergence is 10.2m A.O.D to be > (2.5 X 10.2)+45 = 70.5° Drawn A.O.D = 125° thus complies

<u>Position I</u> Total escape to Exit 7 and 4 = 20.7m Distance before divergence is 10m

A.O.D to be > $(2.5 \times 10) + 45 = 70^{\circ}$ Drawn A.O.D = 1° thus complies

 $\frac{\text{Position J}}{\text{Total escape to Exit 7 and 4 = 15.4m}}$ Distance before divergence is 10.2m A.O.D to be > $(2.5 \times 10.2) + 45 = 70.5^{\circ}$ Drawn A.O.D = 167° thus complies

