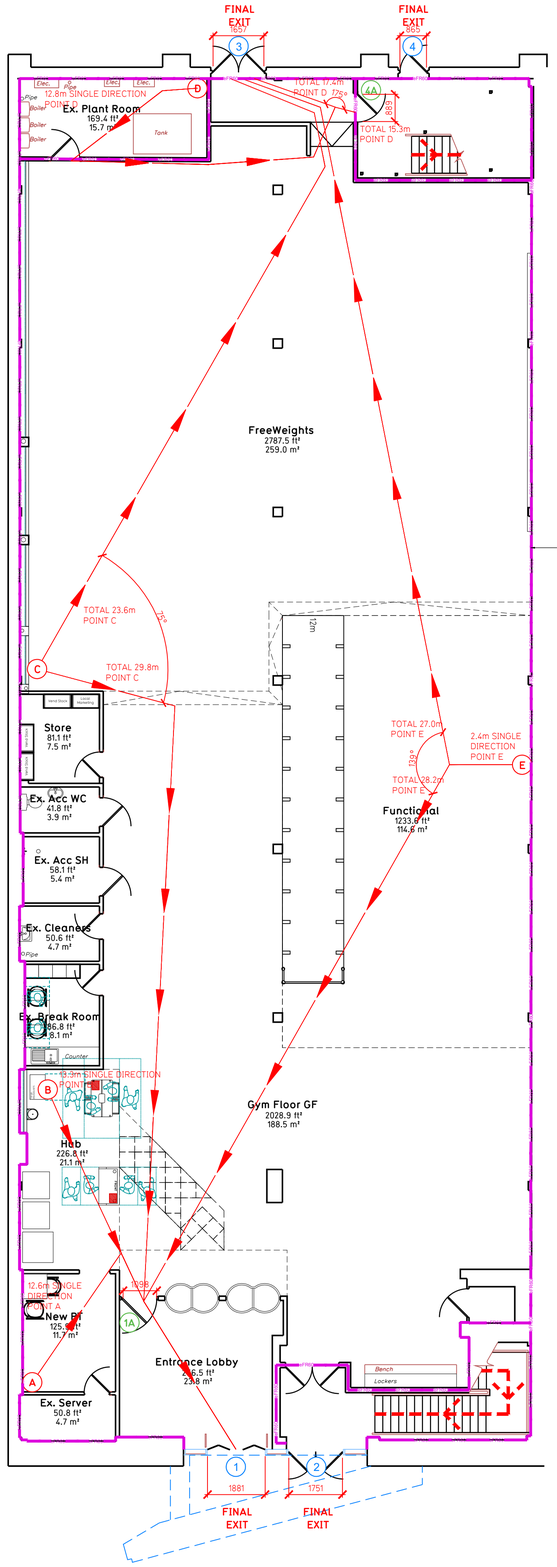
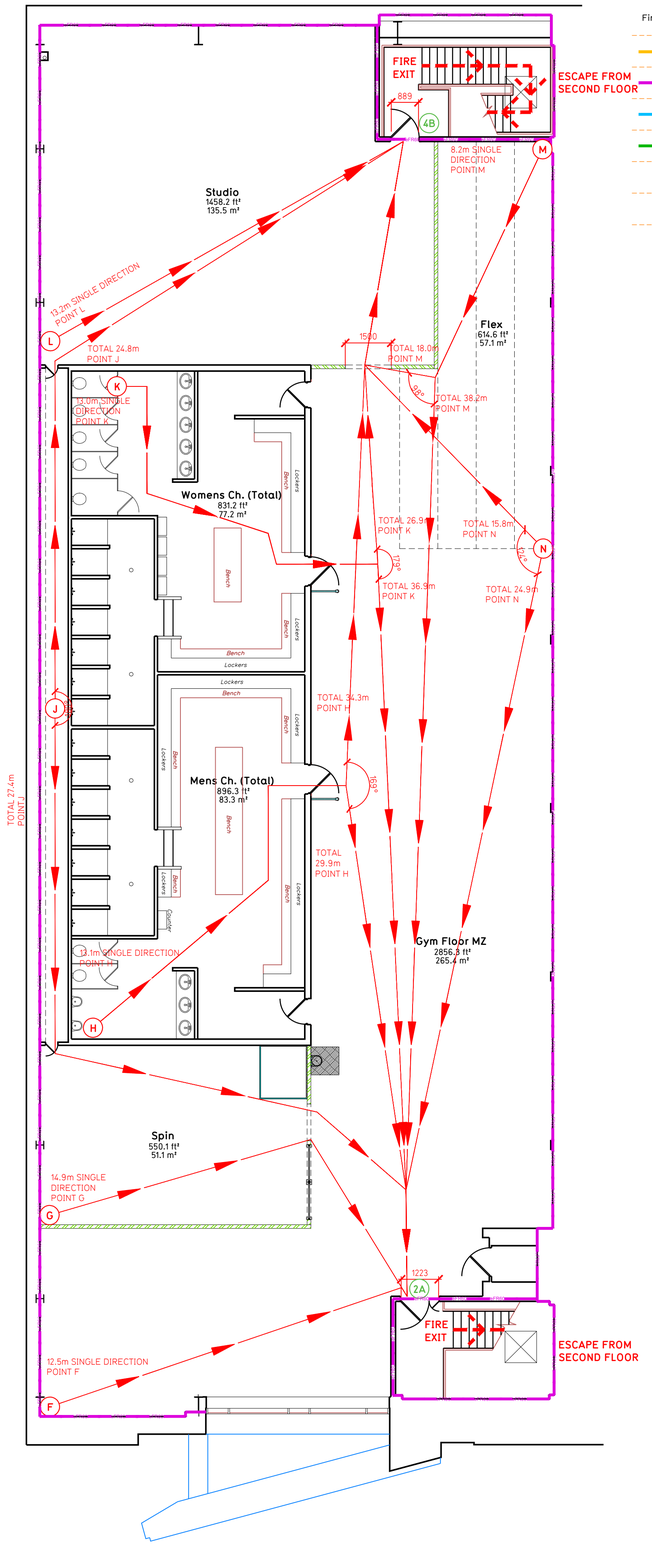
NOTE:

- 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



Proposed Ground Floor Plan



Proposed Mezzanine Floor Plan

Fire Evacuation Key

Existing wall to achieve min 30 minute fire rating (suitability of wall to be confirmed on site by Pure Gym Main Contractor		Fire Escape Route	
Existing wall to achieve min 60 minute fire rating (suitability of wall to be confirmed on site by Pure Gym Main Contractor		1050 min	Minimum Clear Widths
New wall to achieve min of 30min fire rating		0	Exit No.
New wall to achieve min of 60min fire rating			Shared Escape Route
Protected areas: walls, floors, ceilings and doors to achieve 30minute fire resistant construction.		FD30 / FD60	Fire Door Rating - 30min. / 60min.
Protected areas: walls, floors, ceilings and doors to achieve 60 minute fire resistant construction.		FDKS / AFDKC / FDKL	Fire Door Signage - Fire Door Keep Shut / Automatic Fire Door Keep Clear / Fire Door Keep Locked

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:
Final Fire Exit 1 clear opening width = 1881mm but is limited by 1A clear opening width = 1098mm
Final Fire Exit 3 clear opening width = 1657mm

Point D persons would most likely escape through Final Fire Exit 3 - therefore no merging flow calculation needed.

Total Aggregate Width for Ground Floor (Less Largest Opening Width at 1657mm from Final Fire Exit 3) = 1098mm
Ground Floor Maximum Occupancy Capacity = 225+ people (based on Scotland Building standards technical handbook 2022: non-domestic 2.9.8)

Mezzanine Floor

Aggregate Clear Opening Width of Escape Routes Calculation:
Final Fire Exit 2 clear opening width = 1751 but is limited by 2A clear opening width = 1223mm
Final Fire Exit 4 clear opening width = 865mm

Total Aggregate Width for Ground Floor (Less Largest Opening Width of 1223mm from 2A) = 865mm
Mezzanine Floor Maximum Occupancy Capacity = 225 people (based on Scotland Building standards technical handbook 2022: non-domestic 2.9.8)

Combined Occupancy Provision

Ground floor maximum occupancy: 225+ Persons
Mezzanine floor maximum occupancy: 225 Persons
Total occupancy provision: 450+ Persons

The Robroyston Pure Gym is designed for an average peak occupancy of 240 which is smaller than the max. no of 450+ persons (see calculation above). Therefore thought to meet with the Section 2.9 of Technical Handbook - Non Domestic.

It is important to note that 240 people is the peak occupancy figure, Pure Gym Robroyston's average occupancy during everyday operation will likely be approx. 50% lower than peak hour occupancy.

The average peak occupancy operational occupancy of 240 people derives from the vast amount of data collected via 340+ Pure Gyms of comparable size; data collection is conducted through access control ironmongery at turnstiles and can be viewed on Pure Gym app and website.

Escape Distance and Angle of Divergence

Position A
Total escape to nearest Final Exit 1 = 12.6m
The total escape distance is less than 15m and thus complies.

Position B
Total escape to nearest Final Exit 1 = 13.3m
The total escape distance is less than 15m and thus complies.

Position C
Total escape distance to nearest Final Exit 3 = 23.6m
Distance before divergence is 6m
A.O.D to be > (2.5 X 10)+45 = 47.5°
Drawn A.O.D = 75° thus complies

Position D
Total escape distance to nearest Final Exit 4A = 15.3m
Distance before divergence is 12.8m
A.O.D to be > (2.5 X 12.8)+45 = 77°
Drawn A.O.D = 175° thus complies

Position E
Total escape distance to nearest Final Exit 3 = 27m
Distance before divergence is 2.4m
A.O.D to be > (2.5 X 2.4)+45 = 51°
Drawn A.O.D = 139° thus complies

Position F
Total escape to nearest Final Exit 2 = 12.5m
The total escape distance is less than 15m and thus complies.

Position G
Total escape to nearest Final Exit 2 = 14.9m
The total escape distance is less than 15m and thus complies.

Position H
Total escape distance to nearest Final Exit 2 = 29.9m
Distance before divergence is 13.1m
A.O.D to be > (2.5 X 13.1)+45 = 78°
Drawn A.O.D = 169° thus complies

Position J
Total escape distance to nearest Final Exit 4 = 24.8m
Distance before divergence is 0m
A.O.D to be > (2.5 X 0)+45 = 47.5°
Drawn A.O.D = 180° thus complies

Position K
Total escape distance to nearest Final Exit 4 = 26.9m
Distance before divergence is 13m
A.O.D to be > (2.5 X 13)+45 = 77.5°
Drawn A.O.D = 173° thus complies

Position L
Total escape to nearest Final Exit 4 = 13.2m
The total escape distance is less than 15m and thus complies.

Position M
Total escape distance to nearest Final Exit 4 = 18m
Distance before divergence is 8.2m
A.O.D to be > (2.5 X 8.2)+45 = 65.5°
Drawn A.O.D = 98° thus complies

Position N
Total escape distance to nearest Final Exit 4 = 15.8m
Distance before divergence is 0m
A.O.D to be > (2.5 X 0)+45 = 47.5°
Drawn A.O.D = 124° thus complies

Sprinklers
System design and installed in compliance with BS EN 12845:2015 & LPC Technical Bulletins

Fire Alarm
Fire Alarm designed and installed to BS 5839, Smoke & heat detection / emergency lighting by specialist. Please refer to M&E engineer's drawings / specifications.

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.

Smoke Extract
Smoke Extract System to be designed and installed in accordance with BS 7346: Part 8. Please refer to M&E Engineer's drawings for final layout and specification.

Fire Stopping
All perimeter edges of mezzanine to be appropriately fire stopped to create compartment floor and protect mezzanine structure. All services/drainage penetrations passing through fire rated compartment floor to be fire collared/sealed.

Escape Signage and emergency lighting is CDP under the M&E specification. Details of contractors proposals to be provided to Building Control Approved Inspector and Fire Officer within the Contractors Proposals Package, Clause 1.4

Rev	Date	Description	Drawn/ Checked

PROJECT TITLE
Robroyston Refurb
Unit 8, Robroyston Retail Park, Glasgow G33 1AD

DRAWING TITLE
Fire Evacuation Plan
Ground and Mezzanine Floor Plans

DRAWN / CHECKED	DATE	SCALE	JOB No	DRAWING No	Rev
OT/JM	22.03.24	1:100 @ A1	0025	003-FEP	

DRAWING PURPOSE
CONSTRUCTION — C00

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