

## Fire Evacuation Key

9FR30	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
eFR60	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
FR30	New wall to achieve min of 30min fire rating	0	Exit No.
FR60	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

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

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.

Aggregate Clear Opening Width of Escape Routes Calculation: Final Fire Exit 1 is restricted by Exit 1A clear opening width = 1060mm (allows 222 persons to escape) Final Fire Exit 2 clear opening width = 1052mm (allows 220 persons to escape)

Total Aggregate Width for Floor (Less Largest Opening Width of 1060mm from Exit 1A) = 1052mm
Ground Floor Total Estimated Occupancy Capacity = 100 Persons
Ground Floor Maximum Occupancy Capacity = Total Aggregate Width for Floor (Less Largest Opening Width of 1060mm from Exit 1A)
= 1052 / 5.3 = 198 people

Combined Occupancy Provision

Ground floor maximum occupancy: Total occupancy provision:

Based on PG existing occupancy data of comparable sites, the average total occupancy of a Pure Gym at this size will be unlikely to exceed 100 people, which sits in line with the proposed sanitary ware provision (section 3.12.5) and is smaller than the max. no of 198 persons (see calculation above). Therefore thought to meet with the Section 2.9 of Technical Handbook - Non Domestic.

Fire Alarm
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.

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

### Escape Distance and Angle of Divergence

Position A
Total escape distance to nearest Final Exit 2 = 31.1 m
Distance before divergence is 14.7m
A.O.D to be > (2.5 × 14.7)+45 = 81.75°

Drawn A.O.D = 111° thus complies

<u>Position B</u> Total escape distance to nearest Final Exit 2 = 21.9 m Distance before divergence is 4.7m A.O.D to be > (2.5 × 4.7)+45 = 56.75° Drawn A.O.D = 153° thus complies

# <u>Position C</u> Total escape to nearest Final Exit 1 = 12.4m

The total escape distance is less than 15m and thus complies.

Position D
Total escape to nearest Final Exit 1 = 14.7m

The total escape distance is less than 15m and thus complies.

<u>Position E</u> Total escape distance to nearest Final Exit 2 = 20.5m Distance before divergence is 0.0m

A.O.D to be > (2.5 x 0.0)+45 = 45° Drawn A.O.D = 117° thus complies

