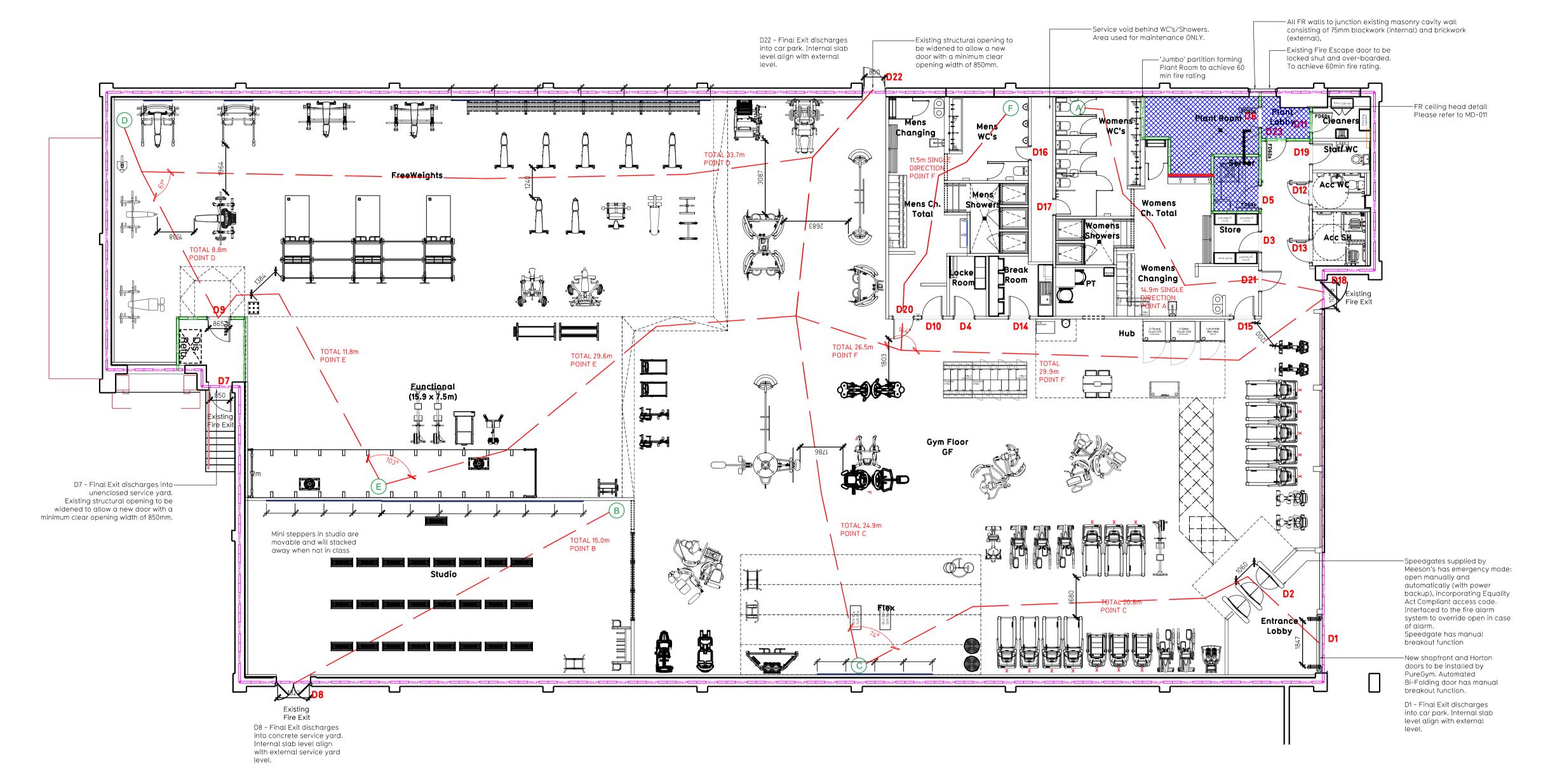


- Proposals must comply with all acoustic, fire & building regulation
- No dimensions are to be scaled from this drawing. The contractor is responsible for checking all dimensions on site



### Escape Distance and Angle of Divergence

# Position A Total escape to nearest Final Exit D18 = 14.9m

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

# Position B Total escape to nearest Final Exit D8 = 15.0m

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

## <u>Position C</u> Total escape distance to nearest Final Exit D1 = 20.5m

Distance before divergence is 0.0m A.O.D to be > (2.5 X <mark>0.0</mark> )+45 = <mark>45°</mark> Drawn A.O.D = <mark>74°</mark> thus complies.

<u>Position D</u> Total escape distance to nearest Final Exit D9 = 9.0m Distance before divergence is 1.9 m A.O.D to be > (2.5 X 1.9 )+45 = 49.75°

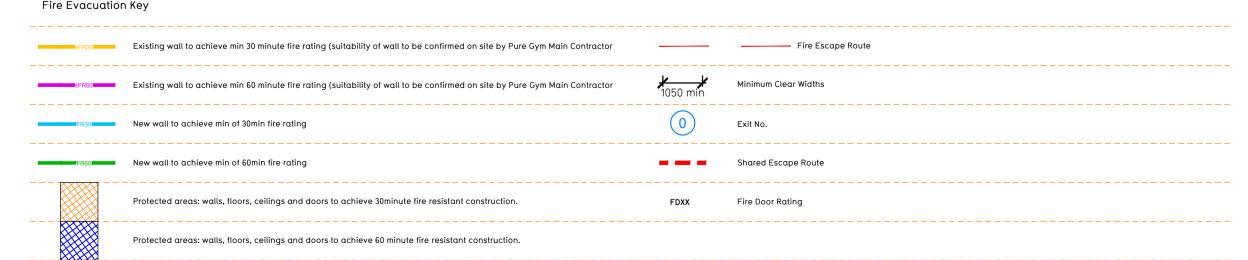
# Drawn A.O.D = $61^{\circ}$ thus complies.

<u>Position E</u> Total escape distance to nearest Final Exit D9 = 11.8m

# Distance before divergence is 0.0m A.O.D to be > (2.5 X 0.0) +45 = 45° Drawn A.O.D = 103° thus complies.

<u>Position F</u> Total escape distance to nearest Final Exit D22 = 26.5m

Distance before divergence is 11.5m A.O.D to be > (2.5 X 11.5 )+45 = 74° Drawn A.O.D = 164° thus complies.



### 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,

Aggregate Clear Opening Width of Escape Routes Calculation:
Final Fire Exit D1 clear opening width = 1847mm (allows 379 persons to escape) but is limited by D2 clear opening width = 1060mm (allows 222 persons to escape).

# Final Fire Exit D8 clear opening width = 1322mm (allows 274 persons to escape). Final Fire Exit D9 clear opening width = 867mm (allows 225 persons to escape) but is limited by D7 clear opening width = 850mm (allows 225

persons to escape).
Final Fire Exit D18 clear opening width = 1098mm (allows 229 persons to escape). Final Fire Exit D22 clear opening width = 850mm (allows 225 persons to escape).

## Total Aggregate Width for Floor (Less Largest Opening Width of 1322mm from Exit D8) = 3858mm Ground Floor Total Estimated Occupancy Capacity = 207 Persons

Ground Floor Maximum Occupancy Capacity = Total Aggregate Width for Floor (Less Largest Opening Width of 1322mm from Exit D8) = 3858mm / 5.3 = <mark>727</mark> people

### Ground floor maximum occupancy: TOTAL occupancy provision:

Combined Occupancy Provision

Based on PG existing occupancy data of 340+ Pure Gyms of comparable sites, Pure Gym Airdrie is designed for a peak occupancy of 207 people. his is smaller than the max. no of 727 persons (see calculation above). Therefore thought to meet with the Section 2.9 of Technical Handbook

It is also important to note that 207 people is the occupancy figure, Pure Gym Airdrie's average occupancy during everyday operation will likely

# 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

# 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

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. <u>Fire Stopping</u>
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

