

Trade Package – Fire Protection

Job Title: 19002GA : SHURGARD – Croydon
Purley Way

Date: 3rd March 2020

Revision:

Reference: 19002GA-TP-Fire Protection

Scope of Works Reference Documents.

- Threesixty Architecture Design & Access Statement for contextual guidance.
- Threesixty Architecture Drawing Issue Register [Trade Package focused extract below]



Summary

1. Fire escape stairwell enclosures. [including electrical duct riser]:

Stair 1 & 2 are fire fighting / escape stair risers. Refer to Threesixty Architecture drawings 19002GA_24_1, 2, 3 & 4 for general arrangement and specification of each partition type, namely:

a. 2 hour fire resistant shaftwall partition:

Gypframe 90mm 'I' stud framework with Gyproc CoreBoard between studs, secured by Gypframe retaining channel. 3no. 15mm Gyproc Fireline Boards to non shaft side. Studs @ 600mm centres. Partition nominal Thickness: 139mm

System Reference: A306031



b. 2 hour fire resistance to smoke lobbies:

2 no. layers 12.5mm layers British Gypsum Fireline Board either side of 70mm 'C' studs @ 600mm centres.

System reference: A206079

c. 1/2 hour fire resistance between stairwell and smoke lobbies:

2 no. layers 12.5mm layers British Gypsum Wall Board either side of 70mm 'C' studs @ 600mm centres.



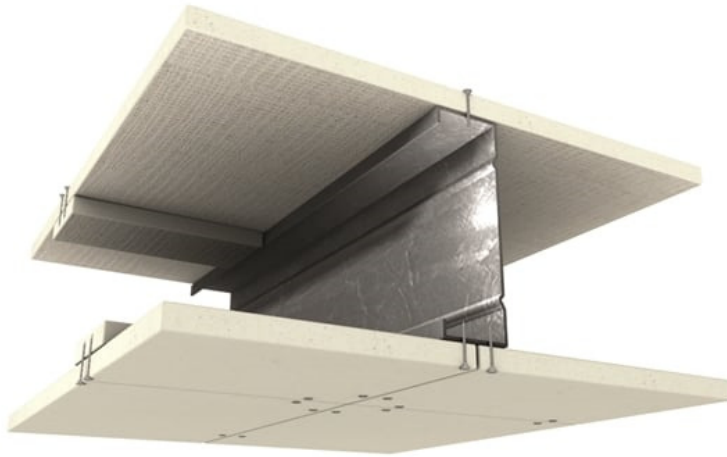
The fire ratings noted are minimum requirements. Double sheeted partitions are for robustness as much as fire resistance.

2. Compartment floor ceiling linings:

1 hour fire resistance is required to level 1, level 2, & level 3 compartment floors.

Generally: 15mm Promatect 250 ceiling linings only shall be secured to the underside of the metal floor joists as part of the fire protection trade package.

The metal floor joists and 38mm chipboard flooring shall be installed by others. The overall general assembly shall achieve the requisite fire rating without the need to individually protect the principal floor beams / joists.



3. Principal compartment wall sub-division:

1 hour fire resistance is required to the compartment wall located along grid line 'F'.

Assembly: 2 x 12.5mm thk. British Gypsum Fireline board either side of proprietary 70mm metal 'C' studs @ 600mm c.c.'s. secured to chipboard flooring and underside of the compartment floors & roof structure.

4. Structural steel fire protection:

a. Structural floor supporting Columns:

All Structural floor supporting Columns up to the underside of level 3 compartment floor shall be intumescently painted to achieve 1 hour fire protection, with the exception of the boundary condition wall noted in paragraph c, where the columns are protected up to roof eaves level.

NB: Finishing intumescent coating shall be white RAL 9010 to ALL steelwork.



b. 3rd floor compartment wall head supporting steel:

The roof beam member along grid line 'F' shall provide structural stability to the compartment wall head, and shall therefore be fire board protected either side as per Threesixty detail 19002GA_28_6.

c. 3rd floor boundary wall condition columns along grid line '4':

1 hour fire rated intumescent paint to columns supporting the 1 hour wall cladding panels facing the tram line.

5. Fire stopping / sealants [contractor choice]:

- a. 2 hour fire rated Intumescently coated rockwool batts to Head of stair core partitions / roof junctions.
- b. 1 hour fire rated Intumescently coated rockwool batts to Head of lift shaft / roof junction.
- c. 1 hour fire rated fire stopping around ventilation duct penetrations through all fire rated compartment elements namely:

[i] compartment walls

[ii] plant room walls

[iii] Stair lobby enclosures

[iv] electrical duct risers



- d. 1 hour fire rated intumescent mastic sealant:
 - [i] ceiling perimeters to all compartment floors.
 - [ii] column / ceiling penetrations.
 - [iii] compartment wall head / ceiling junctions

Threesixty Architecture drawing schedule 19002GA:

20 - series drawings – General Arrangement.

	Title	scale	size	
2	Block Plan	1:1250	A3	
3	Site Set Out Plan	1:200	A1	
4	Ground Floor Plan	1:125	A1	
5	1 st Floor Plan	1:125	A1	
6	2 nd Floor Plan	1:125	A1	
7	3 rd Floor Plan	1:125	A1	
8	Roof Plan	1:125	A1	
10	Elevations: sheet 1 of 2	1:100	A1	
11	Elevations: sheet 2 of 2	1:100	A1	
20	Section A-A and A1A1	Varies	A1	
21	Section B-B and B1B1	Varies	A1	
22	Section C-C	1:50	A1	
23	Cection D-D	1:50	A1	
24	Section E-E & F-F	Varies	A1	

21 - series drawings – External Wall Details.

	Title	scale	size	
1	Proposed Wall Sections 1&2	1:50	A3	
2	Proposed Wall Sections 3&4	1:50	A3	
3	Proposed Wall Sections 5&6	1:50	A3	
13	Typical Intermediate floor detail 02	1:10	A3	
14	Typical Intermediate Floor Detail 03	1:5	A3	
15	Typical Intermediate interface 04	1:5	A3	
16	Typical Base Detail 03	1:5	A3	
17	External Soffit Junction	1:10	A3	
18	Precast Component Layout	Varies	A0	
19	Vehiculat Canopy Details	1:5	A3	
20	Typical CW /Composite Panel Jamb detail	1:5	A3	
21	Typical CW / Pre-Cast Panel Jamb Detail	1:5	A3	

23 - series drawings – Floors.

	Title	scale	size	
5	Typical Mezzanine / compartment floor detail	Varies	A1	

24 - series drawings – Vertical Movement.


	Title	scale	size	
1	Stair No. 1 Layout	1:25	A1	
2	Stair No. 1 Sections	1:25	A0	
3	Stair No. 2 Layout	1:25	A1	
4	Stair No. 2 Sections	1:25	A0	
5	Lift 1&2 Plan and Details	1:25	A1	
6	Lift 1 Section 1	1:25	A1	

28 - series drawings – Fire Strategy.

	Title	scale	size	
1	Ground Floor Fire Strategy Plan	1:125	A1	
2	Level 1 Fire Strategy Plan	1:125	A1	
3	Level 2 Fire Strategy Plan	1:125	A1	
4	Level 3 Fire Strategy Plan	1:125	A1	
5	DETAIL: Fire Protection	1:10	A3	
6	DETAIL: Compartment wall / roof junction	1:10	A3	

35 - series drawings – Ceilings.

	Title	scale	size	
1	Ground Floor Ceiling Plan	1:125	A1	
2	Level 1 Ceiling Plan	1:125	A1	
3	Level 2 Ceiling Plan	1:125	A1	
4	Level 3 Ceiling Plan	1:125	A1	

 Denotes – for information only

- Refer to Woolgar Hunter & structural steel fabrication sub-contractor drawings / documentation with regard to all aspects associated with structural steel design.
- Refer to Butler Consulting; Mechanical & Electrical Engineer Services Drawing Issue Register / performance specification with regard to all aspects associated with M&E services routes and penetrations through fire rated construction.