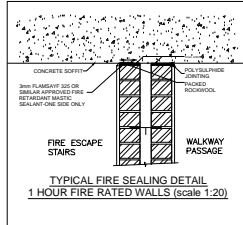


W:\SERVER\01 Projects\2021\21B09 - RPX 6000014614 SANS TENDER\8. DRAWINGS\MECH\FIRE\SIGNAGE\21B09-F-507 - BLOCK EF\PROPOSED FIRE SERVICES LAYOUT\_2022-06-28.dwg - FIRST STOREY - PROPOSED FIRE SERVICES LAYOUT\_2022-06-28.dwg - 2022-06-28 08:08:44 AM L5

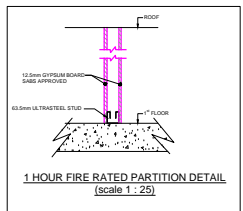
Local Authority stamp



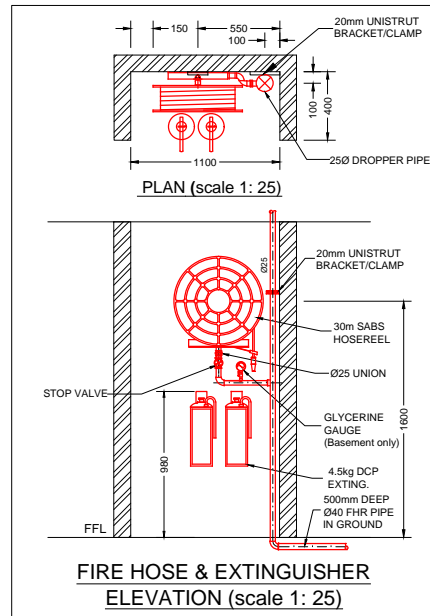
SITE LOCATION



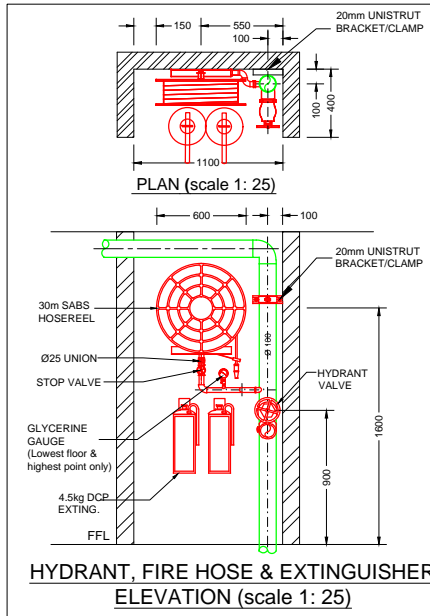
TYPICAL FIRE SEALING DETAIL  
1 HOUR FIRE RATED WALLS (scale 1:20)



1 HOUR FIRE RATED PARTITION DETAIL  
(scale 1:25)



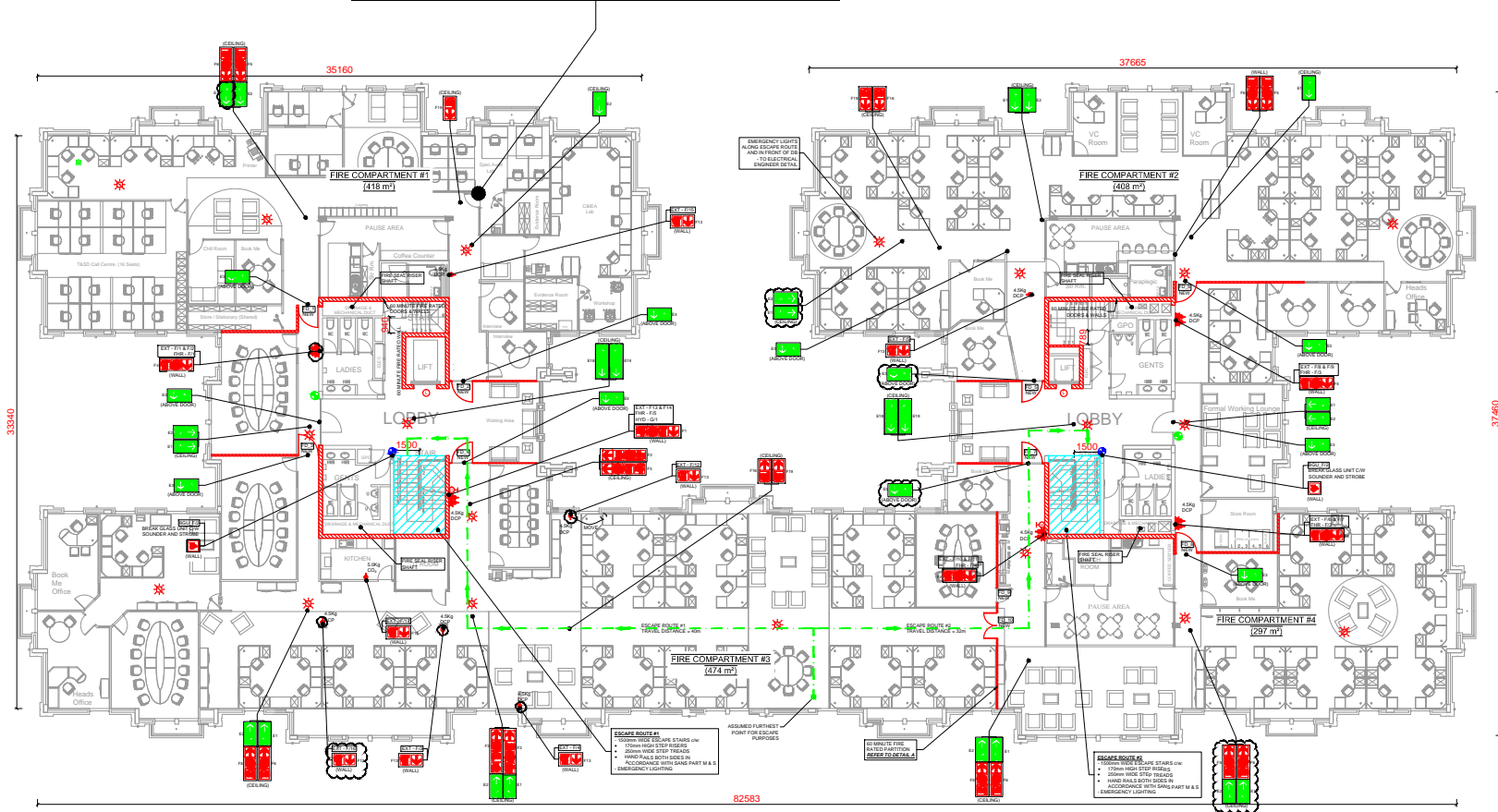
FIRE HOSE & EXTINGUISHER  
ELEVATION (scale 1:25)



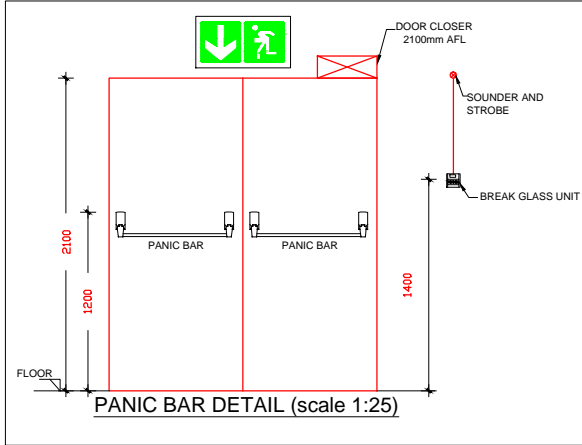
HYDRANT, FIRE HOSE & EXTINGUISHER  
ELEVATION (scale 1:25)

FIRE DOOR SCHEDULE									
DOOR TAG		DOOR SIZE		DOOR SCHEDULE		NORMAL DOOR		PANIC BAR	
SWING	FIRE RATING	WIDTH (mm)	HEIGHT (mm)	OPEN	CLOSED	PANIC BAR	DOOR CLOSER	HOLD OPEN	
FD 1	ONE WAY	60 minute	1100	2100	N/A	YES	NO	YES	YES
FD 2	ONE WAY	60 minute	1100	2100	N/A	YES	NO	YES	YES
FD 3	ONE WAY	60 minute	1200	2100	N/A	YES	NO	YES	YES
FD 4	ONE WAY	60 minute	1200	2100	N/A	YES	NO	YES	YES
FD 5	ONE WAY	60 minute	1200	2100	N/A	YES	NO	YES	YES
FD 6	ONE WAY	60 minute	1200	2100	N/A	YES	NO	YES	YES
FD 7	ONE WAY	60 minute	1200	2100	N/A	YES	NO	YES	YES
FD 8	ONE WAY	60 minute	1200	2100	N/A	YES	NO	YES	YES
FD 9	ONE WAY	60 minute	814	2100	N/A	YES	NO	YES	NO
FD 10	ONE WAY	60 minute	1500	2100	N/A	YES	NO	YES	YES

FIRE SERVICES DESIGN SUMMARY SCHEDULE			
1. OCCUPANCY INFORMATION			
1.1 FLOOR AREA:	2234	m <sup>2</sup>	OCCUPIED
1.2 OCCUPANCY CLASS:	G1		OFFICE
1.3 POPULATION:	1/3 SAT	373	NUMBER OF PEOPLE
1.4 ROUTES OF ESCAPE required:			2-off 1500m w/de
2. FIRE PROTECTION EQUIPMENT			
2.1 FIRE HYDRANT:	1/3000	m <sup>2</sup> = 2	REQUIRED, 90 METERS APART
2.2 FIRE HOSE REEL:	1/500	m <sup>2</sup> = 4	REQUIRED, WITH 30 METER LONG HOSES
2.3 EXTINGUISHERS:	1/200	m <sup>2</sup> = 11	REQUIRED, 4.5 KG DCP TYPE
2.4 SPRINKLER PROTECTIONS:	NO	NOT REQUIRED	
3. RELATED SERVICES			
3.1 FIRE DETECTION:	YES	THROUGHOUT THE BUILDING IN ACCORDANCE WITH SANS 10139:2012 (Category L1)	
3.2 SMOKE VENTILATION:	NO	COMPARTMENTALISED LESS THAN 300m <sup>2</sup>	



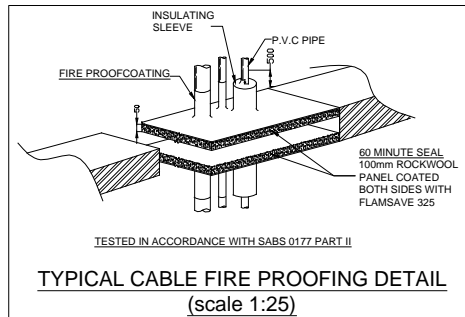
FIRST STOREY - PROPOSED FIRE SERVICES LAYOUT (Scale 1:200)



FIRE EQUIPMENT COUNT		
ITEM	DESCRIPTION	QTY
1	FIRE HYDRANT	2
2	FIRE HOSE REEL	5
3	FIRE EXTINGUISHER	1
3.1	CO2	1
3.2	DCP	16

CLOUDED INDICATES  
EXISTING EQUIPMENT

FIRE SIGNS & EQUIPMENT COUNT															
SYMBOL	E1	E2	E3	E18	E19	F13	F16	F19	F1	F2	F3	F4	F5	F6	F31
REFERENCE	10	10	11	2	2	7	2	3	1	1	1	5	5	5	2
QUANTITY	10	10	11	2	2	7	2	3	1	1	1	5	5	5	2



TYPICAL CABLE FIRE PROOFING DETAIL  
(scale 1:25)

- ### SCOPE OF WORKS CLARIFICATION
- FIRE CONTRACTOR**
    - SERVICE AND RE-USE EXISTING FIRE EXTINGUISHERS AND 5-OFF FIRE HOSE REELS.
    - SUPPLY & INSTALL 1-OFF NEW FIRE HYDRANT.
    - SUPPLY & INSTALL NEW FIRE SIGNAGE AS INDICATED ON PLAN.
    - NEW EVACUATION PLANS & PROCEDURES.
  - ELECTRICAL CONTRACTOR**
    - SUPPLY AND INSTALL EMERGENCY LIGHTING THROUGHOUT THE SPACE AS SHOWN ON PLAN, c/w BATTERY BACKUP.
  - BUILDER**
    - SUPPLY AND INSTALL PANIC BARS c/w WHITE ON GREEN "PUSH BAR TO OPEN" SIGN
    - PROVIDING PENETRATIONS THROUGH CEILINGS AND WALLS AND MAKING GOOD THEREOF.
    - FIXING OF EXTINGUISHER BACKING BOARDS TO WALLS SUPPLIED BY FIRE CONTRACTOR.
    - SUPPLY & INSTALL NEW FIRE DOORS C/W 25mm STEEL FRAME AND DOOR CLOSER.
    - FIRE SEALING OF PENETRATIONS THROUGH FIRE WALLS.

- ### FIRE INSTALLATION NOTES
- #### PORTABLE FIRE EXTINGUISHERS
- FIRE EXTINGUISHERS SHALL BE 4.5kg AND 9kg DRY CHEMICAL POWDER TYPE AND SHALL COMPLY WITH SABS 810. ALL FIRE EXTINGUISHERS SHALL BE MOUNTED ON WOODEN BACKING BOARDS.
- #### FIRE HOSE REELS
- FIRE HOSE REELS SHALL CONFORM TO SABS 543. ALL FIRE HOSE REELS SHALL BE COMPLETE WITH 30 METERS OF HOSE AND SHALL HAVE A MINIMUM FLOW RATE OF 0.5 l/s AT 300 kPa.
- #### FIRE HYDRANTS
- FIRE HYDRANTS SHALL COMPLY WITH SABS 543 AND HAVE A MINIMUM FLOW RATE OF 20 l/s AT 300 kPa.
- #### PIPING
- NO PIPEWORK TO BE EMBEDDED IN SCREED OR CONCRETE FLOORS. ALL PIPEWORK SHALL CONFORM TO SABS 62 (STEEL, MEDIUM). THE DISTANCE BETWEEN PIPE SUPPORT BRACKETS FOR THE HORIZONTAL & VERTICAL PIPEWORK, SHALL NOT EXCEED THE FOLLOWING:
- | NOMINAL DIAMETER | MAXIMUM SPACING |
|------------------|-----------------|
| < 65 MM          | 4M              |
| > 65MM < 100MM   | 6.1M            |
- PIPING SHALL BE PROPERLY CLEANED OFF SITE, FROM RUST & LOOSE MILL SCALE WITH A HARD WIRE, & DECREASED PRIOR TO APPLICATION OF A RED OXIDE PRIMER, FINAL COATS OF PAINT TO BE 2 OFF SIGNAL RED, HIGH GLOSS ENAMEL TO SABS 630. ALL BRACKETS, SUPPORTS & FITTINGS TO BE GALVANIZED. ALL SCREWED JOINTS TO COMPLY WITH BS 21 OR SIMILAR. SEALING OF JOINTS WILL BE WITH HEMP, STOGG OR PTFE TAPE. HYDRAULIC PRESSURE TESTING SHALL BE DONE TO 15 BAR FOR A PERIOD OF 30 HOURS.
- #### SYMBOLIC SAFETY SIGNAGE
- SYMBOLIC SAFETY SIGNAGE SHALL COMPLY WITH SABS 1186 PART V AND SHALL BE OF THE PHOTOLUMINESCENT TYPE. SIGNAGE SHALL BE INSTALLED SUCH AS TO CLEARLY INDICATE THE POSITIONS OF ALL FIRE EQUIPMENT AND ESCAPE ROUTES. EACH FLOOR LEVEL SHALL BE NUMBERED IN THE ESCAPE STAIRS. SIGNAGE ON DRAWING IS AN INDICATION OF SIGNAGE REQUIRED. FINAL SIGNAGE TO BE DETERMINED ON SITE. ADDITIONAL SIGNAGE TO BE ADDED SHOULD IT BE REQUESTED BY THE LOCAL AUTHORITIES. FINAL FIRE SIGNAGE IS TO BE DETERMINED ON SITE WITH THE COUNCIL'S FIRE OFFICER.
- #### FIRE DOORS
- FIRE DOORS OF THE RATING AND WIDTH AS INDICATED ON THE DRAWINGS, SHALL BE INSTALLED AND SHALL COMPLY WITH SANS 1253. ALL FIRE DOORS TO BE FITTED WITH SELF CLOSING MECHANISMS.
- #### FIRE ALARM / DETECTION
- FIRE DETECTION AND ALARM SYSTEM SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH SANS 10139.
- #### ESCAPE DOORS
- ALL ESCAPE DOORS SHALL BE COMPLETE WITH FIRE ESCAPE IRONMONGERY.
- #### FIRE ESCAPE ROUTES
- FIRE ESCAPE ROUTES, INCLUDING CORRIDORS AND STAIRWAYS SHALL HAVE MINIMUM WIDTH OF 1500mm UNLESS SHOWN OTHERWISE. ALL ESCAPE ROUTES SHALL HAVE A FIRE RESISTANCE AS INDICATED. ALL EMERGENCY ROUTES SHALL HAVE A FIRE RESISTANCE AS INDICATED ON THE DRAWINGS.

- ### FIRE SERVICES LEGEND
- BREAK GLASS UNIT
  - FIRE HYDRANT
  - DIRECTIONAL ARROW
  - 60MIN FIRE RATED LIFT LANDING DOOR
  - 60 MINUTE FIRE RATED WALL
  - HOSE REEL
  - 4.5kg DCP FIRE EXTINGUISHER
  - FIRE ESCAPE

FIRE DESIGN CONFIRMATION	
DEEMED TO SATISFY WITH SANS 10400	N/A
RATIONAL ASSESSMENT	YES
RATIONAL DESIGN EQUIVALENT OR SUPERIOR TO SANS 10400	N/A

REVISIONS				
No	Date	Description	Rev By	Ckd By
A	02/06/2021	ISSUED FOR INFORMATION	B.A	H.R
B	10/06/2021	DRAWING UPDATED W/ T - FIRE HYDRANT OMITTED - FIRE RATED WALL ADDED	S.M	H.R
C	11/06/2021	DRAWING UPDATED W/ T FIRE RATED PARTITION ADDED BETWEEN COMPARTMENT #3 & #4	S.M	H.R
D	2022/06/27	DRAWING UPDATED TO SUIT - NEW ARCHITECTURE	LS	H.R

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PROJECT: LAHAE LA SANS - BLOCK EF

DWG TITLE: FIRST STOREY - PROPOSED FIRE SERVICES LAYOUT

DWG NUMBER: 21B09-F-507-01 REV. D

DESIGNED BY: L.N SIBIYA SCALE: 1:200 @ A1

CHECKED BY: H.D ROUX ECSA NUMBER: 201070151

APPROVED BY: H.D ROUX ECSA NUMBER: 201070151

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ISSUE DATE: 2022-06-27  
FOR INFORMATION  
FOR APPROVAL  
FOR TENDER  
FOR CONSTRUCTION  
AS-BUILT