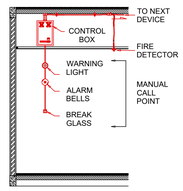
SYMBOLS

	FIRE HYDRANT - FH (65mm)		FIRE INSTALLATION		TWIN BOOSTER CONNECTION
	FIRE HOSE REEL - FHR (30m)		POTABLE WATER		PUMP
	FIRE EXTINGUISHER - FE (4.5kg DCP)		RISER (FIRE / POTABLE WATER)	P	PRESSURE GAUGE
	FIRE EXTINGUISHER - FE (CO_2)		DROPPER (FIRE / POTABLE WATER)		NON RETURN VALVE
	FIRE COMMUNICATION PHONE	CB	CLASS B FIRE DOOR		ISOLATION VALVE
FCP	FIRE CONTROL PANEL (FCP)	CE	CLASS E FIRE DOOR	M	METER
BREAK GLASS	MANUAL CALL POINT (MCP)	SD	SMOKE DETECTOR	SBR	SOUNDER BEACON, RED
	VERTICAL FIRE DETECTION (VFD)	HD	HEAT DETECTOR	SBR WP	SOUNDER BEACON, RED (WEATHER PROTECTED)

FIRE SIGNS

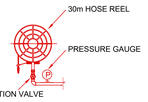
	190 x 190mm Fire Hydrant		190 x 380mm - FIRE EXIT Progress forward from here (indicating direction of travel).
	190 x 190mm Fire Hose Reel		190 X 380mm - FIRE EXIT Progress to the right from here (indicating direction of travel).
	190 x 190mm Fire Extinguisher		190 X 380mm - FIRE EXIT Progress to the left from here (indicating direction of travel).
	190 x 380mm Fire Hose Reel; Fire Extinguisher		190 X 380mm - FIRE EXIT Progress down to the right (indicating change of level).
	190 x 380mm Fire Hydrant; Fire Hose Reel		190 X 380mm - FIRE EXIT Progress down to the left (indicating change of level).
	190 x 570mm - Fire Hydrant; Fire Hose Reel; Fire Extinguisher		190 X 190mm - REFUGE AREA Waiting area for persons with disabilities.



DETAIL A

TYPICAL MANUAL CALL POINT / FIRE DETECTION LAYOUT

NOT TO SCALE



DETAIL B

TYPICAL PRESSURE GAUGE DETAIL

DETAIL C

TYPICAL RISER - HYDRANT - HOSE REEL DETAIL

NOT TO SCALE

FIRE INSTALLATION (ABOVE GROUND)

MATERIALS

1. ALL ABOVE GROUND FIRE WATER PIPING SHALL BE MILD STEEL, MEDIUM CLASS, CORROSION PROTECTED (PRIMER & SIGNAL RED) AS PER DIMENSIONS (NOMINAL BORE) ON LAYOUT.
2. MATERIALS, COMPONENTS, FITTINGS AND FIXTURES SHALL BE SO SELECTED THAT THEY ARE SUITABLE FOR THE EXPECTED CONDITIONS OF USE AND SHALL COMPLY WITH SANS 10252.
3. THE PROPOSED PUMP SPECIFICATIONS AND LAYOUT MUST BE SENT TO THE MECHANICAL ENGINEER, FOR APPROVAL PRIOR TO INSTALLATION.

INSTALLATION WORKS

1. THE INSTALLATION WORK SHALL BE DONE BY, OR UNDER THE ADEQUATE CONTROL OF A TRAINED PLUMBER AS DEFINED BY SANS 10400-A, A-18.
2. THE INSTALLATION WORK MUST BE CONFIRMED BY THE PLUMBER WITH THE APPOINTED MECHANICAL ENGINEER ON SITE, PRIOR TO COMMENCEMENT.
3. CONFLICTS, ERRORS OR DISCREPANCIES FOUND IN THIS LAYOUT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION IMMEDIATELY.
4. CERTIFICATE OF COMPLIANCE TO BE ISSUED PRIOR TO FINAL SIGN OFF BY ENGINEER.

GENERAL

1. FIRE DETECTION SYSTEM (INCLUDING BREAK GLASS, ALARM BELLS, WARNING LIGHTS & FIRE DETECTORS) TO BE INSTALLED BY SPECIALIST IN ACCORDANCE WITH SANS 10139 AND CERTIFICATE OF COMPLIANCE TO BE ISSUED.
2. ALL MECHANICAL VENTILATION, SMOKE EXTRACTION AND ELECTRICAL EQUIPMENT MUST INTEGRATE WITH THE FIRE DETECTION SYSTEM TO COMPLY WITH FIRE REGULATIONS.
3. WATER SUPPLY TO COMPLY WITH SANS 10400-W.
4. BACK-FLOW PREVENTION TO COMPLY WITH SANS 10252-1, 6.3.
5. INSPECTION AND TESTING TO COMPLY WITH SANS 10252-1, 9.2.
7. AREA OF REFUGE TO COMPLY WITH SANS 10400-T, 4.16.8 AND SANS 10400-S.
8. ALL HABITABLE ROOMS TO HAVE FIRE DOORS (AS SPECIFIED).
9. THESE DRAWINGS ARE FOR SUBMISSION PURPOSES AND IS SUBJECT TO THE REGULATIONS OF THE LOCAL AUTHORITY BYLAWS AND APPROVAL FROM THE LOCAL AUTHORITY.

FIRE SIGNAGE

1. THE MINIMUM SIGNAGE SHALL BE 190 x 190mm.
2. THE SIGNS SHALL BE FIXED TO THE WALLS WITH WALL FIXING SCREWS, RATED FOR THE TYPE OF WALL CONSTRUCTION; DOUBLE SIDED TAPE OR ANY FORM OF ADHESIVE SHALL NOT BE ALLOWED.
3. SUSPENDED SIGNS SHALL BE HUNG WITH PROPER LUGS AND STEEL CABLING AND TWISTED WIRES ARE NOT ACCEPTABLE.
4. THE SIGNAGE INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF SANS 1186.
5. FIRE FIGHTING AND INFORMATION SIGNAGE SHALL BE OF THE PHOTOLUMINESCENT OR ILLUMINATED TYPE.

OCCUPANCY CLASSIFICATION - A3

ISSUED FOR TENDER

CLIENT

KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

IMPLEMENTING AGENT

DBSA
DEVELOPMENT BANK OF SOUTHERN AFRICA

PROJECT MANAGER:

MPAMOT (Pty) Ltd
2nd Floor, South Wing, 147 Brom Fischer Drive
PO Box 3923, Randburg, 2125, South Africa
t +27 11 781 9710 f +27 11 781 9711
www.mpamot.co.za
Reg No: 1997/009813/07
CESA

MECHANICAL & FIRE ENGINEERING

THABILE ENGINEERING
Unit L2, Pinewood Office Park
33 Riley Road, Woodmead, 2157
t +27 (0)11 234 1418
www.thabileeng.co.za

Project

PROPOSED NEW MARITIME SCHOOL OF EXCELLENCE

Drawing Title

FIRE INSTALLATION LAYOUT (ABOVE GROUND)

FIRST STOREY

Date: 10.11.2021	Designed by	S.R.B
	Drawn by	R.B
	Checked by	S.R.B
Scale 1:200	Drawing No. MSE-FI-AG-F1-02	Rev. 02