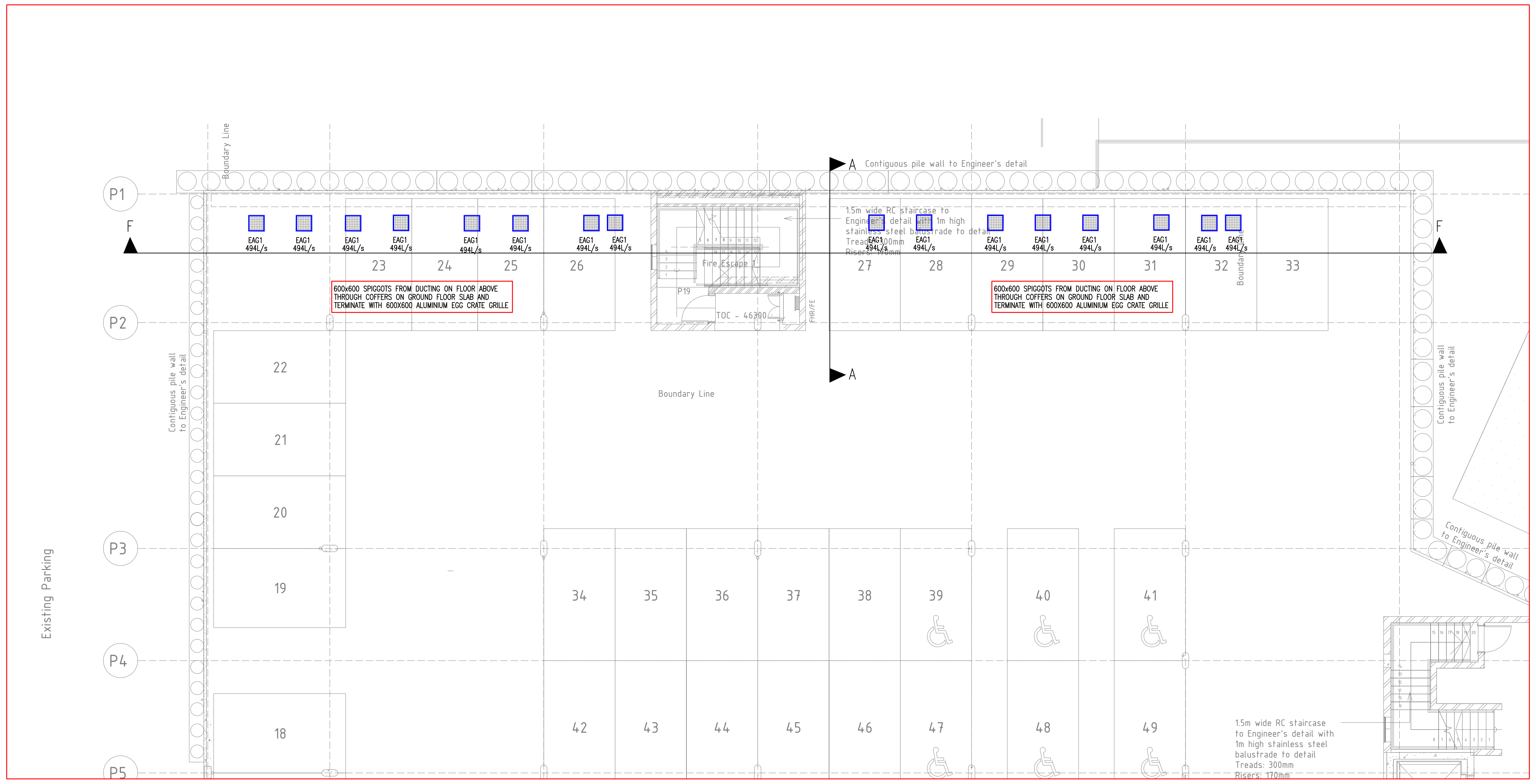
P1
P2
P3
P4
P5
F
A
Contiguous pile wall to Engineer's detail
EAG1 494L/s
600x600 SPIGGOTS FROM DUCTING ON FLOOR ABOVE THROUGH COFFERS ON GROUND FLOOR SLAB AND TERMINATE WITH 600X600 ALUMINIUM EGG CRATE GRILLE
Fire Escape
TOC - 46300
Boundary Line
Existing Parking
15m wide RC staircase to Engineer's detail with 1m high stainless steel balustrade to detail
Treads: 300mm
22
21
20
19
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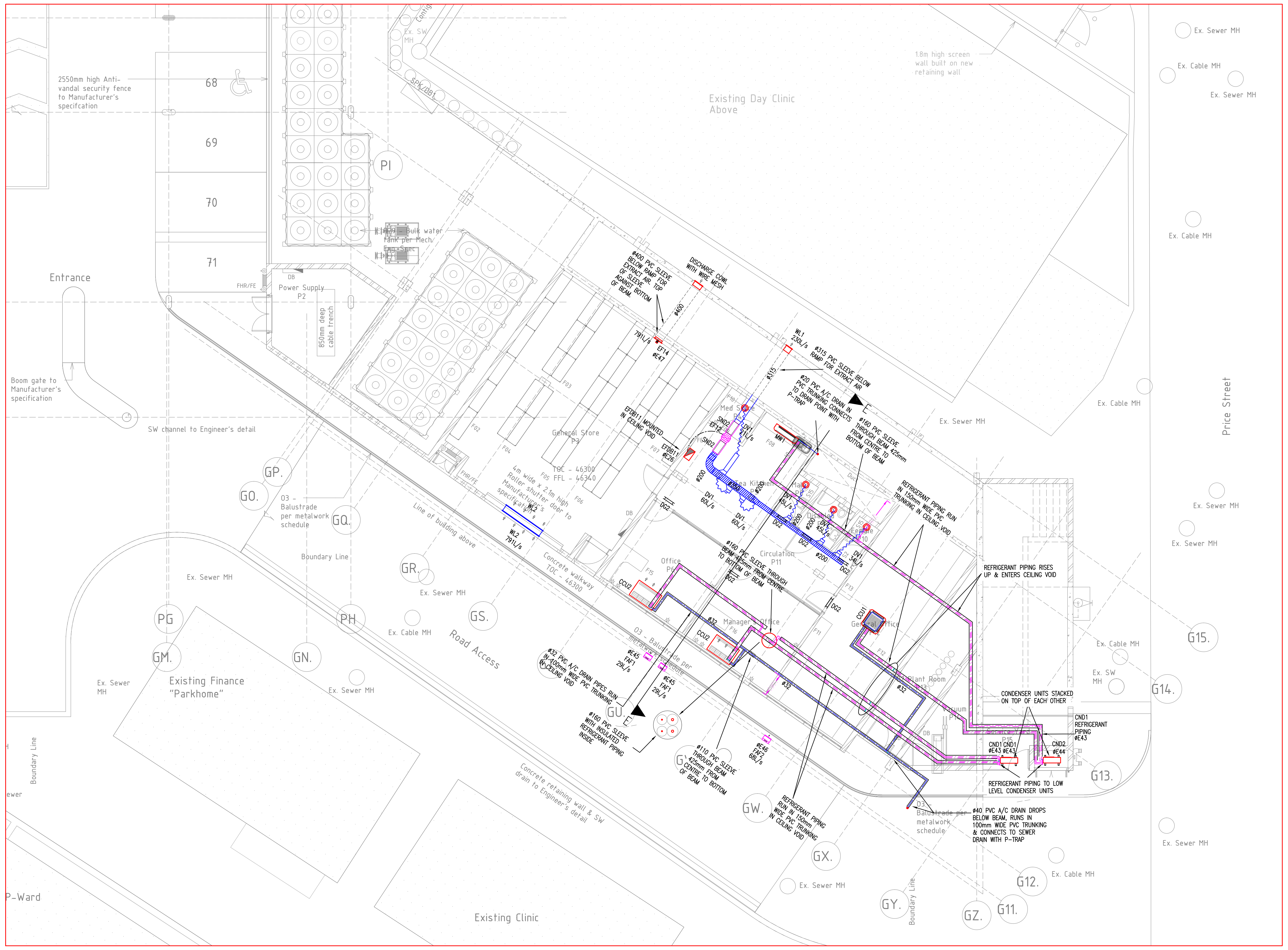
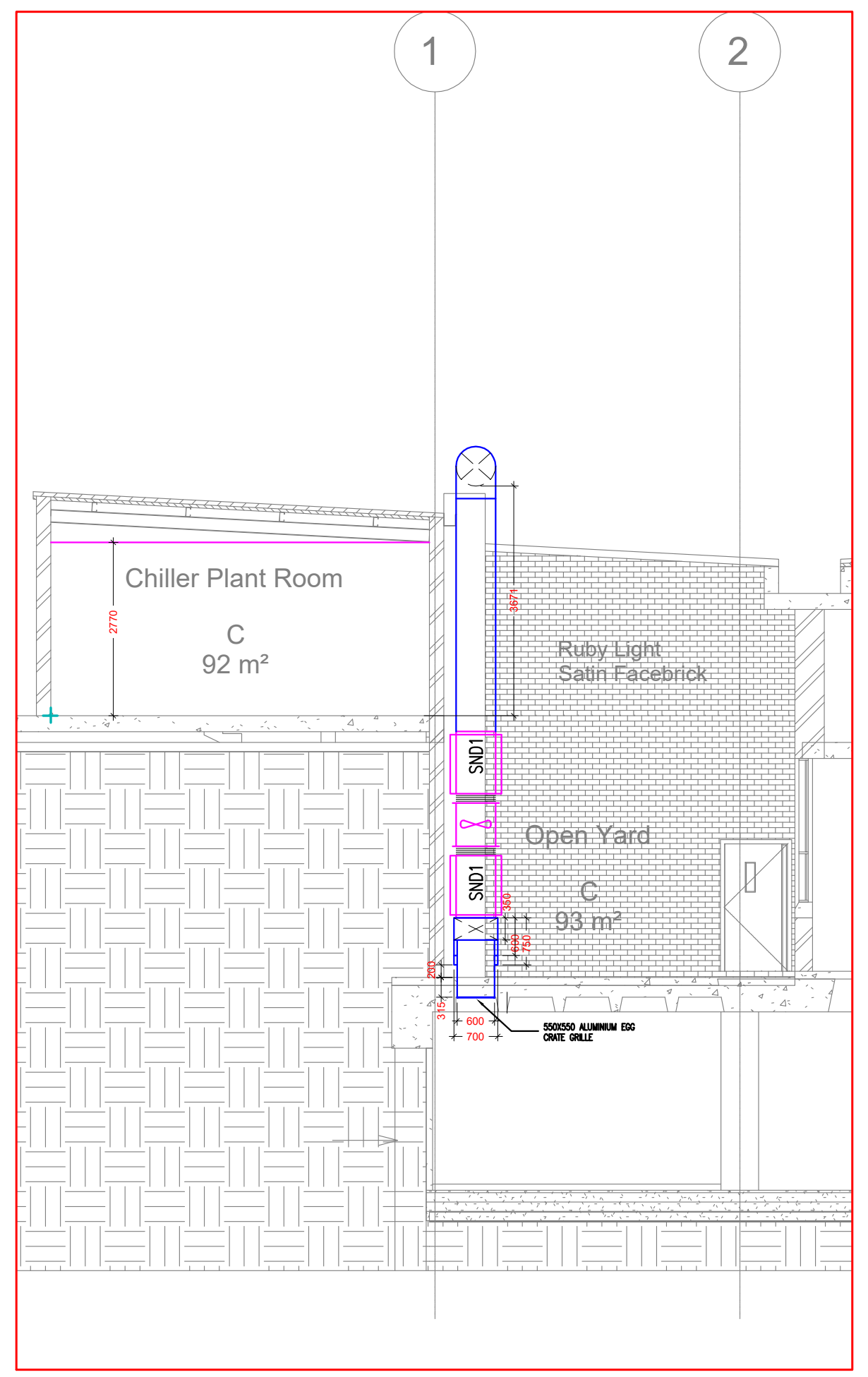
PARKING LEVEL

SCALE 1 : 100


2550mm high Anti-vandal security fence to Manufacturer's specification
68
69
70
71
Entrance
Boom gate to Manufacturer's specification
SW channel to Engineer's detail
Existing Day Clinic Above
Existing Finance "Parkhome"
Existing Clinic
Road Access
Price Street
Boundary Line
REFRIGERANT PIPING RISES UP & ENTERS CEILING VOID
CONDENSER UNITS STACKED ON TOP OF EACH OTHER
REFRIGERANT PIPING TO LOW LEVEL CONDENSER UNITS
#40 PVC A/C DRAIN DROPS BELOW BEAM, RUNS IN 100mm WIDE PVC TRUNKING & CONNECTS TO SEWER DRAIN WITH P-TRAP
Ex. Sewer MH
Ex. Cable MH
GP.
GQ.
GR.
GS.
GT.
GU.
GW.
GX.
GY.
GZ.
G11.
G12.
G13.
G14.
G15.
PG
PH
PI
GM.
GN.
GO.

PARKING LEVEL

SCALE 1 : 100



SECTION A-A

SCALE 1 : 100

Calulations for Smoke Exhaust Rates

Area : Parking level

m=(1.88 x P x y^(3/2)			
Heat Release=	(Qs)		400 (kW/m2)
Perimeter of fire	p		12 m
Height of clear layer	y		2.4 m
mass flow of smoke	m		8.39
Ta (ambient temp.)	deg C		30 Deg C
Ta (ambient temp.)	Ta		303 Deg K
Temp rise of smoke	Tr	Qs/m.c	47.1 Deg C
Temp of Smoke	Ts	Ta+Tr	77.1 Deg C
Abs. Temp smoke	Ts		350.1 Deg K
Volume extract			
m/1.22* (Ts/Ta)	V	=	7.94 m^3/s

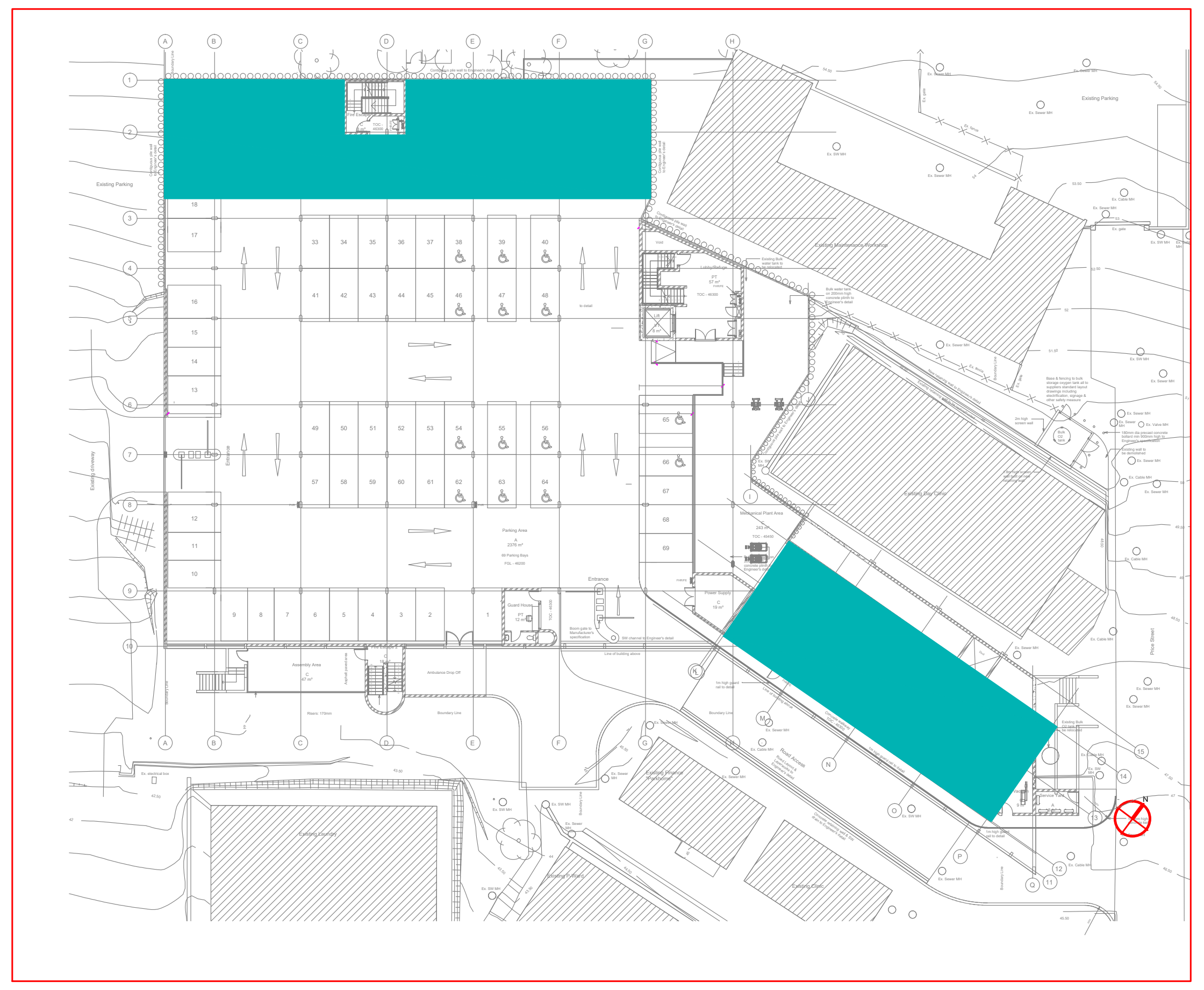
NOTES

- UNLESS OTHERWISE INDICATED, DUCTING TO BE GALVANISED SHEETMETAL.
- ALL ROUND DUCTING SHALL BE GALVANISED SHEET METAL.
- AIR CONDITIONING AND VENTILATION FLEXIBLE DUCTING SHALL BE OF THE ATTENUATOR TYPE WITH FOIL-FACED MINERAL WOOL INSULATION.
- ALL DUCTING DIMENSIONS ARE TO SHEETMETAL.
- ALL AIRCONDITIONING DUCTING TO BE EXTERNALLY LINED, UNLESS STATED OTHERWISE, WITH 50mm THICK FOIL FACED MINERALWOOL INSULATION
- BOTH LIQUID AND GAS LINES TO BE INDIVIDUALLY INSULATED
- ALL BOLTS, SCREWS, WASHERS, ETC., TO BE EITHER ALLOY COATED (EG. OXISEAL) OR STAINLESS STEEL GRADE 304.
- ALL REFRIGERANT AND DRAIN PIPING TO BE RUN IN GALVANISED CABLE TRAY IN ROOF VOID AND IN GALVANISED & PAINTED TRUNKING WHERE EXPOSED.
- CABLE TRAY TO BE SUPPORTED OF ROOF MEMBERS BY HANGER RODS.
- ALL DUCTING, FAN, EVAPORATOR, ETC. TO BE SUPPORTED FROM ROOF MEMBERS.
- ALL DUCTING MUST BE SUPPROTED WITH GALVANIZED TRAPEZE TYPE HANGERS AND THREADED RODS
- ALL AIRCONDITIONING OUTLETS IN ROOF VOID SHALL BE INSULATED.

PROVISIONAL ELECTRICAL REQUIREMENTS TO BE PROVIDED BY ELECTRICIAN

AIR CONIDITIONING INSTALLER SHALL VERIFY AND COORDINATE SPECIFICATIONS
AND POSITIONS OF POWER POINTS WITH ELECTRICIAN

	ESSENTIAL					NON-ESSENTIAL							
REF.	VOLTS	FLA	kW	PHASE	QTY	VOLTS	FLA	kW	PHASE	QTY	LOCATION	DESCRIPTION	FIRE SIGNAL
E1	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU1	YES
E2	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB2 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU2	YES
E3	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB3 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU3	YES
E4	400	–	2.5	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB4 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU4	YES
E5	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB5 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU5	YES
E6	400	–	1.5	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB6 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU6	YES
E7	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB7 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU7	YES
E8	400	–	3.8	3	1	400	–	24	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB8 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU8	YES
E9	400	–	3.8	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB9 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU9	YES
E10	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB10 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU10	YES
E11	400	–	4.4	3	1	400	–	18	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB11 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU11	YES
E12	400	–	4.4	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB12 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU12	YES
E13	400	–	17	3	1	–	–	–	–	1	MECH PLANTROOM	POWER SUPPLY TO HPDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY PLUMBING CONTRACTOR FOR HOT WATER DB	NO
E14	–	–	–	–	–	400	–	296	3	1	CHILLER PLANTROOM	POWER SUPPLY TO CHDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CHILLER PLANT	NO
E15	–	–	–	–	–	230	–	0.2	1	1	GROUND FLR ADMIN	POWER SUPPLY TO EFDB/13 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF1 ON 24/7 TIMER	NO
E16	–	–	–	–	–	400	–	0.57	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF2 ON 24/7 TIMER	NO
E17	–	–	–	–	–	400	–	0.2	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/2 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF3 ON 24/7 TIMER	NO
E18	–	–	–	–	–	400	–	0.57	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/3 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF4 ON 24/7 TIMER	NO
E19	–	–	–	–	–	230	–	0.3	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/4 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF5 ON 24/7 TIMER	NO
E20	–	–	–	–	–	400	–	0.2	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/5 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF6 ON 24/7 TIMER	NO
E21	–	–	–	–	–	400	–	0.57	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/6 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF7 ON 24/7 TIMER	NO
E22	–	–	–	–	–	230	–	0.3	1	1	GRND FLR CEILING VOID	POWER SUPPLY TO EFDB/7 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF8 ON 24/7 TIMER	NO
E23	–	–	–	–	–	400	–	0.75	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/8 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF9 ON 24/7 TIMER	NO
E24	–	–	–	–	–	400	–	0.55	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/9 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF10 ON 24/7 TIMER	NO
E25	–	–	–	–	–	230	–	0.3	1	1	GRND FLR CEILING VOID	POWER SUPPLY TO EFDB/10 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF11 ON 24/7 TIMER	NO
E26	–	–	–	–	–	230	–	0.18	1	1	BASEMENT FLR CEILING	POWER SUPPLY TO EFDB/11 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF12 ON 24/7 TIMER	NO
E27	–	–	–	–	–	230	–	0.36	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/12 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF13 ON 24/7 TIMER	NO
E28	400	–	4.2	3	1	–	–	–	–	–	GRND FLR OPEN YARD	POWER SUPPLY TO FDB/1 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF1	YES
E29	400	–	4.2	3	1	–	–	–	–	–	GRND FLR OPEN YARD	POWER SUPPLY TO FDB/2 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF2	YES
E30	230	16	–	1	1	–	–	–	–	–	1st FLOOR LIFT LOBBY	POWER SUPPLY TO FDB/3 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF3	YES
E31	400	–	5.6	3	1	–	–	–	–	–	1st FLR MAIN FOYER	POWER SUPPLY TO FDB/4 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF4	YES
E32	400	–	0.37	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/5 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF5	YES
E33	400	–	0.56	3	1	–	–	–	–	–	1st FLOOR OFFICE	POWER SUPPLY TO FDB/6 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF6	YES
E34	400	–	0.56	3	1	–	–	–	–	–	1st FLOOR OFFICE	POWER SUPPLY TO FDB/7 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF7	YES
E35	400	–	0.56	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/8 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF8	YES
E36	400	–	0.56	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/9 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF9	YES
E37	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/10 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF10	YES
E38	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/11 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF11	YES
E39	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/12 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF12	YES
E40	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/13 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF13	YES
E41	230	–	3	1	1	–	–	–	–	–	1ST FLR FEM ABLUTIONS	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR ACS/1	NO
E42	–	–	–	–	–	230	–	3	1	1	1ST FLR FEM ABLUTIONS	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR ACS/1	NO
E43	–	–	–	–	–	230	–	2.5	1	3	BASEMENT OFFICE	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CND1	NO
E44	–	–	–	–	–	230	–	4	1	1	BASEMENT OFFICE	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CND2	NO
E45	–	–	–	–	–	230	–	0.03	1	2	BASEMENT OFFICE CEILING	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF1, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	YES
E46	–	–	–	–	–	230	–	0.03	1	1	BASEMENT OFFICE CEILING	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF2, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	YES
E47	–	–	–	–	–	230	–	0.14	1	1	BASEMENT STORE	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF14, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E48	–	–	–	–	–	230	–	0.03	1	2	ACUTE MALE HIGH LEVEL	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF15, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E49	–	–	–	–	–	230	–	0.6	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/14 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF16 ON 24/7 TIMER	NO
E50	–	–	–	–	–	230	–	0.06	1	1	GRND FLR CEILING VOID	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF17, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E51	–	–	–	–	–	230	–	0.06	1	1	FIRST FLR CEILING VOID	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF18, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	NO
E52	–	–	–	–	–	230	–	0.03	1	3	STAIRCASE	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF3, FED FROM ELECTRICAL CONTRACTORS DB	NO
E53	–	–	–	–	–	230	–	0.03	1	1	STAIRCASE	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF4, FED FROM ELECTRICAL CONTRACTORS DB	NO
E54	–	–	–	–	–	230	–	0.06	1	1	SERVICE FLOOR	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF17, FINAL CONNECTION BY AC CONTRACTOR FOR EF17 ON 24/7 TIMER.	NO
E55						230	0.2		1	1	GUARD HOUSE	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF19, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	NO



KEY PLAN

NOTE:
"WHERE BRAND NAMES ARE MENTIONED IN THIS DRAWING, ALTERNATE MAKES WHICH ARE EQUAL AND APPROVED TO THAT SPECIFIED WILL BE ACCEPTABLE PROVIDED APPROVAL WAS OBTAINED PRIOR TO TENDER SUBMISSION"

General Notes:

1. Any discrepancies or unclear information must immediately be reported to the Mechanical Engineer prior to any commencement of work.
   MKA will not be held responsible for any remedial work if above procedure is not adhered to.
2. Onus is on the sub-contractor to ensure installation is completed to the Mechanical Engineers specification.
3. For construction purposes do not scale this drawing .

EQUIPMENT SCHEDULE:

REF	DESCRIPTION
AHU1	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU2	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU3	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU4	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU5	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU6	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU7	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU8	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU9	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU10	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU11	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU12	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
CCU1	30000 BTU COOLING CAPACITY 4-WAY BLOW CEILING CASSETTE SPLIT UNIT
CCU2	12000 BTU COOLING CAPACITY 1-WAY BLOW CEILING CASSETTE SPLIT UNIT
MW1	12000 BTU COOLING CAPACITY MID-WALL SPLIT UNIT
MW2	18000 BTU COOLING CAPACITY MID-WALL SPLIT UNIT
D1	ø200 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D2	ø250 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D3	ø300 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D4	ø400 TROX TYPE VDL SWIRL CONSTANT VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
DG1	300x300 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG2	250x250 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG3	400x400 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG4	450x450 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DV1	ø200 PLASTIC EXHAUST AIR DISC VALVE
DV2	ø100 PLASTIC SUPPLY AIR DISC VALVE
EAG1	550x550 EXTRACT AIR GRILLE, EGG CRATE TYPE, ALUMINIUM ANODIZED C/W OBD TO ARCHITECTS COLOUR
EAG2	1000x300 EXTRACT AIR GRILLE TROX TYPE AT FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
EAG3	600x600 EXTRACT AIR GRILLE TROX TYPE AT FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
EF1	VORTICE LINEO 200 VO INLINE EXTRACT AIR FAN FOR 252L/s, 73Pa
EF2	ø400 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 22° ANGLE, FOR 828L/s, 108Pa
EF3	ø560 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 960RPM, 8 BLADE 14° ANGLE, FOR 836L/s, 90Pa
EF4	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 18° ANGLE, FOR 930L/s, 125Pa
EF5	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 16° ANGLE, FOR 643L/s, 120Pa
EF6	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 486L/s, 93Pa
EF7	ø400 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 22° ANGLE, FOR 828L/s, 110Pa
EF8	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 330L/s, 114Pa
EF9	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 14° ANGLE, FOR 1025L/s, 138Pa
EF10	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 16° ANGLE, FOR 720L/s, 125Pa
EF11	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 504L/s, 120Pa
EF12	VORTICE LINEO 250 VO INLINE EXTRACT AIR FAN FOR 230L/s, 105Pa
EF13	VORTICE LINEO 250 VO INLINE EXTRACT AIR FAN x2 IN SERIES FOR 146L/s, 497Pa
EF14	DONKIN HC35 WALL MOUNTED PLATE FAN C/W DISCHARGE COWL
EF15	VORTICE VARIO 230/9 AR WINDOW/WALL MOUNTED FAN FOR EXTRACT AIR, 133L/s
EF16	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN x2 IN SERIES FOR 213L/s, 557Pa
EF17	VORTICE LINEO 150 VO INLINE EXTRACT AIR FAN FOR 60L/s, 113Pa
EF18	VORTICE LINEO 150 VO INLINE EXTRACT AIR FAN FOR 166L/s, 100Pa
EF19	VORTICE VARIO 150/6 ARI EXTRACT AIR FAN BUILT-IN WALL
HPF1	610Hx610Wx150D HEPA FILTER COMPLETE WITH FILTER HOUSING
SF1	ø630 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 21° ANGLE, 4000L/s
SF2	ø630 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 21° ANGLE, 4000L/s
SF3	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 28° ANGLE, 4300L/s
SF4	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, 2700L/s
SF5	ø315 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 32° ANGLE, FOR 517L/s, 70Pa
SF6	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF7	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF8	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF9	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF10	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF11	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF12	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF13	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
FAF1	VORTICE VARIO 150/6 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR
FAF2	VORTICE VARIO 230/9 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR
FAF3	VORTICE VARIO 150/6 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR, C/W MOTION SENSOR
FAF4	VORTICE LINEO 100 VO INLINE FAN FOR FRESH AIR, C/W MOTION SENSOR
MD1	ø200 QUADRANT TYPE MANUAL DAMPER
MD2	ø250 QUADRANT TYPE MANUAL DAMPER
MD3	ø300 QUADRANT TYPE MANUAL DAMPER
MD4	450x350 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD5	700x450 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD6	450x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD7	700x600 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD8	600x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD9	ø400 QUADRANT TYPE MANUAL DAMPER
MD10	450x450 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD11	700x500 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD12	ø350 QUADRANT TYPE MANUAL DAMPER
MD13	600x500 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD14	700x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD15	800x550 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD16	300x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD17	400x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD18	700x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD19	800x650 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD20	500x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD21	500x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD22	800x700 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD23	650x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD24	350x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD25	500x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD26	450x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD27	250x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD28	300x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
FD1	700x600 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD2	800x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD3	700x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD4	600x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD5	800x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD6	600x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD7	700x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD8	700x700 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD9	800x550 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD10	700x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD11	800x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD12	800x700 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD13	800x650 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD14	800x800 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD15	500x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD16	400x250 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD17	450x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD18	550x350 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD19	650x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD20	800x550 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD21	900x600 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD22	350x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD23	300x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD24	400x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD25	200x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD26	450x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD27	500x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD28	500x250 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD29	500x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD30	300x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD31	500x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD32	650x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD33	300x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD34	ø400 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD35	ø500 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD36	ø350 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD37	500x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD38	1000x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD39	900x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD40	ø200 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD41	450x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD42	500x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD43	500x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD44	200x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD45	350x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
PPG1	500x350 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG2	550x400 PERFORATED PLATE SUPPLY GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG3	850x600 PERFORATED PLATE SUPPLY GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG4	650x450 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG5	750x550 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG6	900x650 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG7	1000x700 PERFORATED PLATE SMOKE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG8	1050x750 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG9	400x300 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG10	300x300 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG11	850x500 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
RAG1	600x600 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
RAG2	1200x600 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
RAG3	600x480 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
SAG1	1200x600 SUPPLY AIR GRILLE TROX TYPE AH FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
SND1	ø630 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND2	ø250 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 600mm LONG
SND3	ø315 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 500mm LONG
SND4	ø400 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND5	ø150 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 315mm LONG
SND6	ø200 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 315mm LONG
SND7	ø500 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND8	ø560 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
TRG1	1000x300 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK, GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG2	1000x500 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG3	2400x500 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG4	1000x650 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
WL1	400x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL2	2000x300 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL3	650x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL4	550x550 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL5	1000x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL6	500x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL7	1500x800 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL8	300x300 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL9	1200x600 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL10	650x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL11	500x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL12	800x500 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL13	850x850 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL14	850x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL15	1200x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL16	1200x500 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL17	100x100 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL18	600x600 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR

AC/ VENTILATION PLAN

FOR TENDER

0	ISSUED FOR TENDER	OM	11.07.2025
REV	DESCRIPTION	BY	DATE
REVISION			

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health
Department:
Health
PROVINCE OF KWAZULU-NATAL

KWAZULU-NATAL PROVINCE
PUBLIC WORKS
REPUBLIC OF SOUTH AFRICA

SOUTHERN REGION

Project

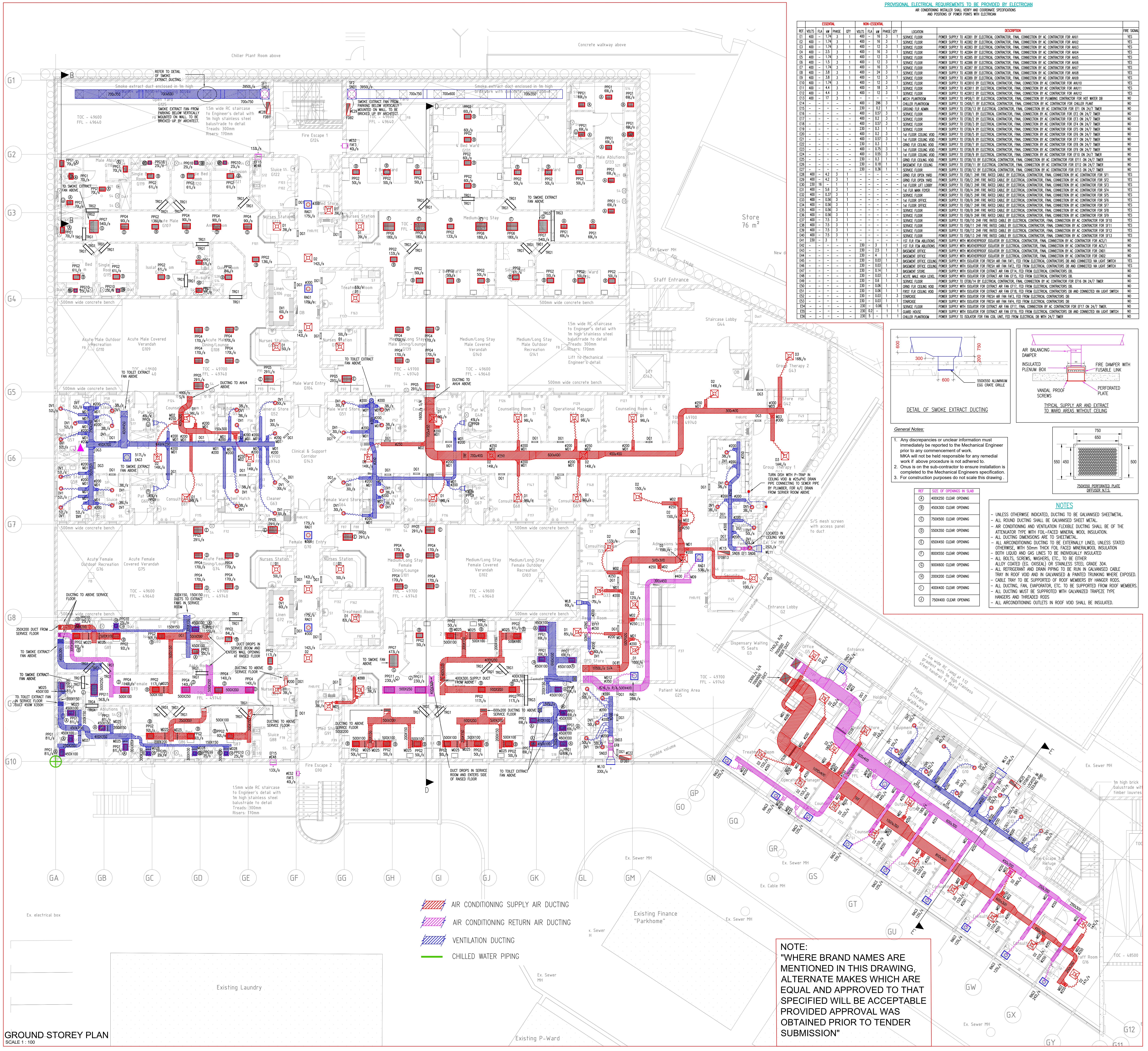
DEPARTMENT OF HEALTH INSTITUTION
NEW PSYCHIATRIC WARD PORT SHEPSTONE
HOSPITAL

Drawing Description

AIRCONDITIONING & VENTILATION PARKING
LEVEL FLOOR PLAN LAYOUT

Drawn AS
Date 27/09/2021
Scale/s 1:100
Consultant Drawing number
M652/AC/01 Rev.0
DOPW Drawing number
WIMS NO/044044/A01
Stamped by Plans Approval Committee

AC/ VENTILATION PLAN



DETAIL OF SMOKE EXTRACT DUCTING

TYPICAL SUPPLY AIR AND EXTRACT TO WARD AREAS WITHOUT CEILING

750X550 PERFORATED PLATE DIFFUSER N.T.S.

GROUND STOREY PLAN
SCALE 1 : 100

▨	AIR CONDITIONING SUPPLY AIR DUCTING
▨	AIR CONDITIONING RETURN AIR DUCTING
▨	VENTILATION DUCTING
—	CHILLED WATER PIPING

NOTE:
"WHERE BRAND NAMES ARE MENTIONED IN THIS DRAWING, ALTERNATE MAKES WHICH ARE EQUAL AND APPROVED TO THAT SPECIFIED WILL BE ACCEPTABLE PROVIDED APPROVAL WAS OBTAINED PRIOR TO TENDER SUBMISSION"

PROVISIONAL ELECTRICAL REQUIREMENTS TO BE PROVIDED BY ELECTRICIAN

AIR CONIDITIONING INSTALLER SHALL VERIFY AND COORDINATE SPECIFICATIONS
AND POSITIONS OF POWER POINTS WITH ELECTRICIAN

	ESSENTIAL					NON-ESSENTIAL							
REF.	VOLTS	FLA	kW	PHASE	QTY	VOLTS	FLA	kW	PHASE	QTY	LOCATION	DESCRIPTION	FIRE SIGNAL
E1	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU1	YES
E2	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB2 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU2	YES
E3	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB3 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU3	YES
E4	400	–	2.5	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB4 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU4	YES
E5	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB5 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU5	YES
E6	400	–	1.5	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB6 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU6	YES
E7	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB7 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU7	YES
E8	400	–	3.8	3	1	400	–	24	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB8 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU8	YES
E9	400	–	3.8	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB9 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU9	YES
E10	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB10 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU10	YES
E11	400	–	4.4	3	1	400	–	18	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB11 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU11	YES
E12	400	–	4.4	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB12 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU12	YES
E13	400	–	17	3	1	–	–	–	–	1	MECH PLANTROOM	POWER SUPPLY TO HPDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY PLUMBING CONTRACTOR FOR HOT WATER DB	NO
E14	–	–	–	–	–	400	–	296	3	1	CHILLER PLANTROOM	POWER SUPPLY TO CHDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CHILLER PLANT	NO
E15	–	–	–	–	–	230	–	0.2	1	1	GROUND FLR ADMIN	POWER SUPPLY TO EFDB/13 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF1 ON 24/7 TIMER	NO
E16	–	–	–	–	–	400	–	0.57	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF2 ON 24/7 TIMER	NO
E17	–	–	–	–	–	400	–	0.2	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/2 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF3 ON 24/7 TIMER	NO
E18	–	–	–	–	–	400	–	0.57	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/3 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF4 ON 24/7 TIMER	NO
E19	–	–	–	–	–	230	–	0.3	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/4 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF5 ON 24/7 TIMER	NO
E20	–	–	–	–	–	400	–	0.2	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/5 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF6 ON 24/7 TIMER	NO
E21	–	–	–	–	–	400	–	0.57	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/6 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF7 ON 24/7 TIMER	NO
E22	–	–	–	–	–	230	–	0.3	1	1	GRND FLR CEILING VOID	POWER SUPPLY TO EFDB/7 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF8 ON 24/7 TIMER	NO
E23	–	–	–	–	–	400	–	0.75	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/8 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF9 ON 24/7 TIMER	NO
E24	–	–	–	–	–	400	–	0.55	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/9 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF10 ON 24/7 TIMER	NO
E25	–	–	–	–	–	230	–	0.3	1	1	GRND FLR CEILING VOID	POWER SUPPLY TO EFDB/10 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF11 ON 24/7 TIMER	NO
E26	–	–	–	–	–	230	–	0.18	1	1	BASEMENT FLR CEILING	POWER SUPPLY TO EFDB/11 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF12 ON 24/7 TIMER	NO
E27	–	–	–	–	–	230	–	0.36	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/12 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF13 ON 24/7 TIMER	NO
E28	400	–	4.2	3	1	–	–	–	–	–	GRND FLR OPEN YARD	POWER SUPPLY TO FDB/1 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF1	YES
E29	400	–	4.2	3	1	–	–	–	–	–	GRND FLR OPEN YARD	POWER SUPPLY TO FDB/2 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF2	YES
E30	230	16	–	1	1	–	–	–	–	–	1st FLOOR LIFT LOBBY	POWER SUPPLY TO FDB/3 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF3	YES
E31	400	–	5.6	3	1	–	–	–	–	–	1st FLR MAIN FOYER	POWER SUPPLY TO FDB/4 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF4	YES
E32	400	–	0.37	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/5 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF5	YES
E33	400	–	0.56	3	1	–	–	–	–	–	1st FLOOR OFFICE	POWER SUPPLY TO FDB/6 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF6	YES
E34	400	–	0.56	3	1	–	–	–	–	–	1st FLOOR OFFICE	POWER SUPPLY TO FDB/7 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF7	YES
E35	400	–	0.56	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/8 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF8	YES
E36	400	–	0.56	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/9 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF9	YES
E37	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/10 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF10	YES
E38	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/11 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF11	YES
E39	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/12 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF12	YES
E40	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/13 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF13	YES
E41	230	–	3	1	1	–	–	–	–	–	1ST FLR FEM ABLUTIONS	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR ACS/1	NO
E42	–	–	–	–	–	230	–	3	1	1	1ST FLR FEM ABLUTIONS	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR ACS/1	NO
E43	–	–	–	–	–	230	–	2.5	1	3	BASEMENT OFFICE	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CND1	NO
E44	–	–	–	–	–	230	–	4	1	1	BASEMENT OFFICE	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CND2	NO
E45	–	–	–	–	–	230	–	0.03	1	2	BASEMENT OFFICE CEILING	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF1, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	YES
E46	–	–	–	–	–	230	–	0.03	1	1	BASEMENT OFFICE CEILING	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF2, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	YES
E47	–	–	–	–	–	230	–	0.14	1	1	BASEMENT STORE	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF14, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E48	–	–	–	–	–	230	–	0.03	1	2	ACUTE MALE HIGH LEVEL	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF15, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E49	–	–	–	–	–	230	–	0.6	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/14 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF16 ON 24/7 TIMER	NO
E50	–	–	–	–	–	230	–	0.06	1	1	GRND FLR CEILING VOID	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF17, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E51	–	–	–	–	–	230	–	0.06	1	1	FIRST FLR CEILING VOID	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF18, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	NO
E52	–	–	–	–	–	230	–	0.03	1	3	STAIRCASE	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF3, FED FROM ELECTRICAL CONTRACTORS DB	NO
E53	–	–	–	–	–	230	–	0.03	1	1	STAIRCASE	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF4, FED FROM ELECTRICAL CONTRACTORS DB	NO
E54	–	–	–	–	–	230	–	0.06	1	1	SERVICE FLOOR	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF17, FINAL CONNECTION BY AC CONTRACTOR FOR EF17 ON 24/7 TIMER.	NO
E55	–	–	–	–	–	230	0.2	–	1	1	GUARD HOUSE	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF19, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	NO
E56	–	–	–	–	–	230	5	–	1	1	CHILLER PLANTROOM	POWER SUPPLY TO ISOLATOR FOR FAN COIL UNIT, FED FROM ELECTRICAL DB WITH 24/7 TIMER	NO

General Notes:

1. Any discrepancies or unclear information must immediately be reported to the Mechanical Engineer prior to any commencement of work. MKA will not be held responsible for any remedial work if above procedure is not adhered to.
2. Onus is on the sub-contractor to ensure installation is completed to the Mechanical Engineers specification.
3. For construction purposes do not scale this drawing .

REF	SIZE OF OPENINGS IN SLAB
Ⓐ	400X250 CLEAR OPENING
Ⓑ	450X300 CLEAR OPENING
Ⓒ	750X500 CLEAR OPENING
Ⓓ	550X350 CLEAR OPENING
Ⓔ	650X450 CLEAR OPENING
Ⓕ	800X550 CLEAR OPENING
Ⓖ	900X600 CLEAR OPENING
Ⓗ	200X200 CLEAR OPENING
Ⓘ	400X400 CLEAR OPENING
Ⓙ	750X400 CLEAR OPENING

NOTES

- UNLESS OTHERWISE INDICATED, DUCTING TO BE GALVANISED SHEETMETAL.
- ALL ROUND DUCTING SHALL BE GALVANISED SHEET METAL.
- AIR CONDITIONING AND VENTILATION FLEXIBLE DUCTING SHALL BE OF THE ATTENUATOR TYPE WITH FOIL-FACED MINERAL WOOL INSULATION.
- ALL DUCTING DIMENSIONS ARE TO SHEETMETAL.
- ALL AIRCONDITIONING DUCTING TO BE EXTERNALLY LINED, UNLESS STATED OTHERWISE, WITH 50mm THICK FOIL FACED MINERALWOOL INSULATION
- BOTH LIQUID AND GAS LINES TO BE INDIVIDUALLY INSULATED
- ALL BOLTS, SCREWS, WASHERS, ETC., TO BE EITHER ALLOY COATED (EG. OXISEAL) OR STAINLESS STEEL GRADE 304.
- ALL REFRIGERANT AND DRAIN PIPING TO BE RUN IN GALVANISED CABLE TRAY IN ROOF VOID AND IN GALVANISED & PAINTED TRUNKING WHERE EXPOSED.
- CABLE TRAY TO BE SUPPORTED OF ROOF MEMBERS BY HANGER RODS.
- ALL DUCTING, FAN, EVAPORATOR, ETC. TO BE SUPPORTED FROM ROOF MEMBERS.
- ALL DUCTING MUST BE SUPPROTED WITH GALVANIZED TRAPEZE TYPE HANGERS AND THREADED RODS
- ALL AIRCONDITIONING OUTLETS IN ROOF VOID SHALL BE INSULATED.

EQUIPMENT SCHEDULE:

REF	DESCRIPTION
AHU1	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU2	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU3	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU4	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU5	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU6	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU7	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU8	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU9	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU10	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU11	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU12	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
CCU1	30000 BTU COOLING CAPACITY 4-WAY BLOW CEILING CASSETTE SPLIT UNIT
CCU2	12000 BTU COOLING CAPACITY 1-WAY BLOW CEILING CASSETTE SPLIT UNIT
MW1	12000 BTU COOLING CAPACITY MID-WALL SPLIT UNIT
MW2	18000 BTU COOLING CAPACITY MID-WALL SPLIT UNIT
D1	ø200 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D2	ø250 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D3	ø300 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D4	ø400 TROX TYPE VDL SWIRL CONSTANT VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
DG1	300x300 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG2	250x250 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG3	400x400 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG4	450x450 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DV1	ø200 PLASTIC EXHAUST AIR DISC VALVE
DV2	ø100 PLASTIC SUPPLY AIR DISC VALVE
EAG1	550x550 EXTRACT AIR GRILLE, EGG CRATE TYPE, ALUMINIUM ANODIZED C/W OBD TO ARCHITECTS COLOUR
EAG2	1000x300 EXTRACT AIR GRILLE TROX TYPE AT FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
EAG3	600x600 EXTRACT AIR GRILLE TROX TYPE AT FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
EF1	VORTICE LINEO 200 VO INLINE EXTRACT AIR FAN FOR 252L/s, 73Pa
EF2	ø400 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 22° ANGLE, FOR 828L/s, 108Pa
EF3	ø560 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 960RPM, 8 BLADE 14° ANGLE, FOR 836L/s, 90Pa
EF4	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 18° ANGLE, FOR 930L/s, 125Pa
EF5	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 16° ANGLE, FOR 643L/s, 120Pa
EF6	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 486L/s, 93Pa
EF7	ø400 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 22° ANGLE, FOR 828L/s, 110Pa
EF8	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 330L/s, 114Pa
EF9	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 14° ANGLE, FOR 1025L/s, 138Pa
EF10	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 16° ANGLE, FOR 720L/s, 125Pa
EF11	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 504L/s, 120Pa
EF12	VORTICE LINEO 250 VO INLINE EXTRACT AIR FAN FOR 230L/s, 105Pa
EF13	VORTICE LINEO 250 VO INLINE EXTRACT AIR FAN x2 IN SERIES FOR 146L/s, 497Pa
EF14	DONKIN HC35 WALL MOUNTED PLATE FAN C/W DISCHARGE COWL
EF15	VORTICE VARIO 230/9 AR WINDOW/WALL MOUNTED FAN FOR EXTRACT AIR, 133L/s
EF16	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN x2 IN SERIES FOR 213L/s, 557Pa
EF17	VORTICE LINEO 150 VO INLINE EXTRACT AIR FAN FOR 60L/s, 113Pa
EF18	VORTICE LINEO 150 VO INLINE EXTRACT AIR FAN FOR 166L/s, 100Pa
EF19	VORTICE VARIO 150/6 ARI EXTRACT AIR FAN BUILT-IN WALL
HPF1	610Hx610Wx150D HEPA FILTER COMPLETE WITH FILTER HOUSING
SF1	ø630 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 21° ANGLE, 4000L/s
SF2	ø630 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 21° ANGLE, 4000L/s
SF3	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 28° ANGLE, 4300L/s
SF4	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, 2700L/s
SF5	ø315 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 32° ANGLE, FOR 517L/s, 70Pa
SF6	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF7	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF8	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF9	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF10	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF11	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF12	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF13	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
FAF1	VORTICE VARIO 150/6 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR
FAF2	VORTICE VARIO 230/9 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR
FAF3	VORTICE VARIO 150/6 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR, C/W MOTION SENSOR
FAF4	VORTICE LINEO 100 VO INLINE FAN FOR FRESH AIR, C/W MOTION SENSOR
MD1	ø200 QUADRANT TYPE MANUAL DAMPER
MD2	ø250 QUADRANT TYPE MANUAL DAMPER
MD3	ø300 QUADRANT TYPE MANUAL DAMPER
MD4	450x350 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD5	700x450 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD6	450x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD7	700x600 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD8	600x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD9	ø400 QUADRANT TYPE MANUAL DAMPER
MD10	450x450 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD11	700x500 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD12	ø350 QUADRANT TYPE MANUAL DAMPER
MD13	600x500 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD14	700x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD15	800x550 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD16	300x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD17	400x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD18	700x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD19	800x650 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD20	500x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD21	500x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD22	800x700 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD23	650x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD24	350x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD25	500x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD26	450x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD27	250x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD28	300x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
FD1	700x600 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD2	800x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD3	700x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD4	600x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD5	800x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD6	600x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD7	700x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD8	700x700 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD9	800x550 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD10	700x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD11	800x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD12	800x700 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD13	800x650 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD14	800x800 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD15	500x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD16	400x250 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD17	450x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD18	550x350 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD19	650x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD20	800x550 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD21	900x600 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD22	350x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD23	300x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD24	400x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD25	200x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD26	450x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD27	500x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD28	500x250 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD29	500x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD30	300x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD31	500x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD32	650x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD33	300x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD34	ø400 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD35	ø500 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD36	ø350 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD37	500x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD38	1000x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD39	900x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD40	ø200 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD41	450x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD42	500x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD43	500x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD44	200x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD45	350x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
PPG1	500x350 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG2	550x400 PERFORATED PLATE SUPPLY GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG3	850x600 PERFORATED PLATE SUPPLY GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG4	650x450 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG5	750x550 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG6	900x650 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG7	1000x700 PERFORATED PLATE SMOKE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG8	1050x750 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG9	400x300 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG10	300x300 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG11	850x500 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
RAG1	600x600 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
RAG2	1200x600 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
RAG3	600x480 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
SAG1	1200x600 SUPPLY AIR GRILLE TROX TYPE AH FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
SND1	ø630 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND2	ø250 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 600mm LONG
SND3	ø315 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 500mm LONG
SND4	ø400 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND5	ø150 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 315mm LONG
SND6	ø200 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 315mm LONG
SND7	ø500 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND8	ø560 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
TRG1	1000x300 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK, GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG2	1000x500 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG3	2400x500 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG4	1000x650 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
WL1	400x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL2	2000x300 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL3	650x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL4	550x550 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL5	1000x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL6	500x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL7	1500x800 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL8	300x300 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL9	1200x600 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL10	650x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL11	500x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL12	800x500 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL13	850x850 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL14	850x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL15	1200x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL16	1200x500 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL17	100x100 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL18	600x600 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR

FOR TENDER

REV	DESCRIPTION	BY	DATE
0	ISSUED FOR TENDER	OM	11.07.2025

REVISION

ARCHITECT:

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health
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Health
PROVINCE OF KWAZULU-NATAL

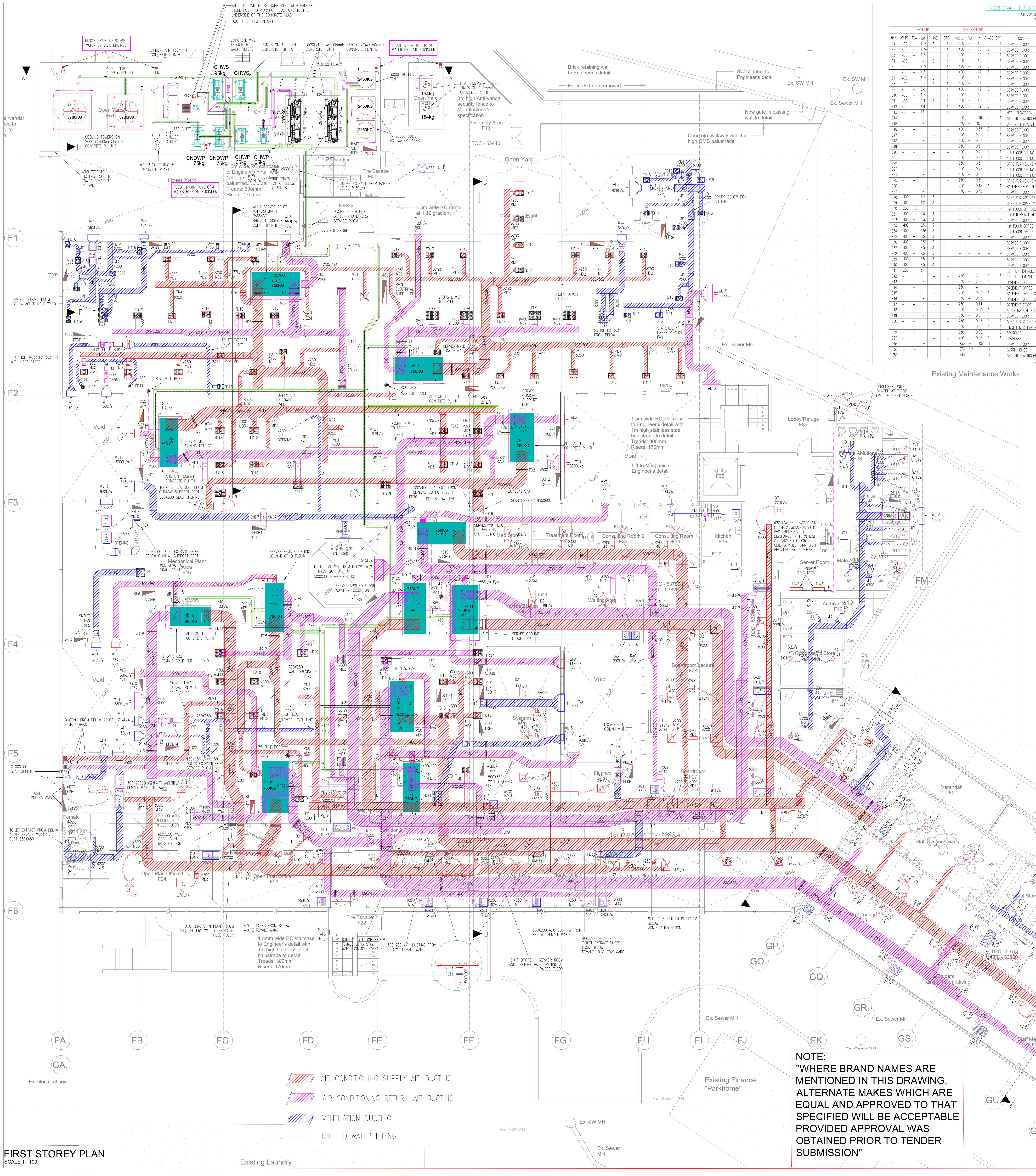
KWAZULU-NATAL PROVINCE
PUBLIC WORKS
REPUBLIC OF SOUTH AFRICA

SOUTHERN REGION

Project
DEPARTMENT OF HEALTH INSTITUTION
NEW PSYCHIATRIC WARD PORT SHEPSTONE
HOSPITAL

Drawing Description
AIRCONDITIONING & VENTILATION GROUND FLOOR PLAN LAYOUT

Drawn AS
Date 27/09/2021
Scale/s 1:100
Consultant Drawing number M652/AC/02 Rev.0
DOPW Drawing number WIMS NO/044044/A01
Stamped by Plans Approval Committee



FIRST STOREY PLAN
SCALE 1 : 100

▨ AIR CONDITIONING SUPPLY AIR DUCTING
▨ AIR CONDITIONING RETURN AIR DUCTING
▨ VENTILATION DUCTING
— CHILLED WATER PIPING

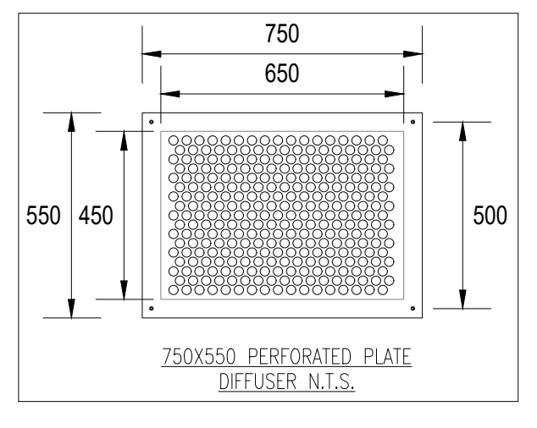
NOTE:
"WHERE BRAND NAMES ARE MENTIONED IN THIS DRAWING, ALTERNATE MAKES WHICH ARE EQUAL AND APPROVED TO THAT SPECIFIED WILL BE ACCEPTABLE PROVIDED APPROVAL WAS OBTAINED PRIOR TO TENDER SUBMISSION"

PROVISIONAL ELECTRICAL REQUIREMENTS TO BE PROVIDED BY ELECTRICIAN

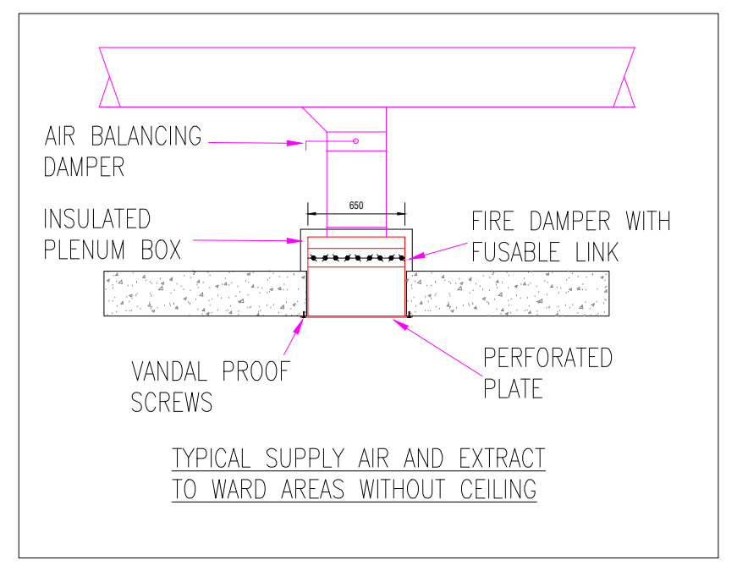
AIR CONIDITIONING INSTALLER SHALL VERIFY AND COORDINATE SPECIFICATIONS AND POSITIONS OF POWER POINTS WITH ELECTRICIAN

	ESSENTIAL					NON-ESSENTIAL							
REF.	VOLTS	FLA	kW	PHASE	QTY	VOLTS	FLA	kW	PHASE	QTY	LOCATION	DESCRIPTION	FIRE SIGNAL
E1	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU1	YES
E2	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB2 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU2	YES
E3	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB3 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU3	YES
E4	400	–	2.5	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB4 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU4	YES
E5	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB5 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU5	YES
E6	400	–	1.5	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB6 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU6	YES
E7	400	–	1.74	3	1	400	–	16	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB7 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU7	YES
E8	400	–	3.8	3	1	400	–	24	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB8 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU8	YES
E9	400	–	3.8	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB9 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU9	YES
E10	400	–	1.74	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB10 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU10	YES
E11	400	–	4.4	3	1	400	–	18	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB11 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU11	YES
E12	400	–	4.4	3	1	400	–	12	3	1	SERVICE FLOOR	POWER SUPPLY TO ACDB12 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR AHU12	YES
E13	400	–	17	3	1	–	–	–	–	1	MECH PLANTROOM	POWER SUPPLY TO HPDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY PLUMBING CONTRACTOR FOR HOT WATER DB	NO
E14	–	–	–	–	–	400	–	296	3	1	CHILLER PLANTROOM	POWER SUPPLY TO CHDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CHILLER PLANT	NO
E15	–	–	–	–	–	230	–	0.2	1	1	GROUND FLR ADMIN	POWER SUPPLY TO EFDB/13 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF1 ON 24/7 TIMER	NO
E16	–	–	–	–	–	400	–	0.57	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/1 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF2 ON 24/7 TIMER	NO
E17	–	–	–	–	–	400	–	0.2	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/2 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF3 ON 24/7 TIMER	NO
E18	–	–	–	–	–	400	–	0.57	3	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/3 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF4 ON 24/7 TIMER	NO
E19	–	–	–	–	–	230	–	0.3	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/4 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF5 ON 24/7 TIMER	NO
E20	–	–	–	–	–	400	–	0.2	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/5 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF6 ON 24/7 TIMER	NO
E21	–	–	–	–	–	400	–	0.57	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/6 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF7 ON 24/7 TIMER	NO
E22	–	–	–	–	–	230	–	0.3	1	1	GRND FLR CEILING VOID	POWER SUPPLY TO EFDB/7 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF8 ON 24/7 TIMER	NO
E23	–	–	–	–	–	400	–	0.75	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/8 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF9 ON 24/7 TIMER	NO
E24	–	–	–	–	–	400	–	0.55	3	1	1st FLOOR CEILING VOID	POWER SUPPLY TO EFDB/9 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF10 ON 24/7 TIMER	NO
E25	–	–	–	–	–	230	–	0.3	1	1	GRND FLR CEILING VOID	POWER SUPPLY TO EFDB/10 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF11 ON 24/7 TIMER	NO
E26	–	–	–	–	–	230	–	0.18	1	1	BASEMENT FLR CEILING	POWER SUPPLY TO EFDB/11 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF12 ON 24/7 TIMER	NO
E27	–	–	–	–	–	230	–	0.36	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/12 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF13 ON 24/7 TIMER	NO
E28	400	–	4.2	3	1	–	–	–	–	–	GRND FLR OPEN YARD	POWER SUPPLY TO FDB/1 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF1	YES
E29	400	–	4.2	3	1	–	–	–	–	–	GRND FLR OPEN YARD	POWER SUPPLY TO FDB/2 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF2	YES
E30	230	16	–	1	1	–	–	–	–	–	1st FLOOR LIFT LOBBY	POWER SUPPLY TO FDB/3 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF3	YES
E31	400	–	5.6	3	1	–	–	–	–	–	1st FLR MAIN FOYER	POWER SUPPLY TO FDB/4 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF4	YES
E32	400	–	0.37	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/5 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF5	YES
E33	400	–	0.56	3	1	–	–	–	–	–	1st FLOOR OFFICE	POWER SUPPLY TO FDB/6 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF6	YES
E34	400	–	0.56	3	1	–	–	–	–	–	1st FLOOR OFFICE	POWER SUPPLY TO FDB/7 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF7	YES
E35	400	–	0.56	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/8 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF8	YES
E36	400	–	0.56	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/9 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF9	YES
E37	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/10 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF10	YES
E38	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/11 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF11	YES
E39	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/12 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF12	YES
E40	400	–	7.5	3	1	–	–	–	–	–	SERVICE FLOOR	POWER SUPPLY TO FDB/13 2HR FIRE RATED CABLE BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR SF13	YES
E41	230	–	3	1	1	–	–	–	–	–	1ST FLR FEM ABLUTIONS	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR ACS/1	NO
E42	–	–	–	–	–	230	–	3	1	1	1ST FLR FEM ABLUTIONS	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR ACS/1	NO
E43	–	–	–	–	–	230	–	2.5	1	3	BASEMENT OFFICE	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CND1	NO
E44	–	–	–	–	–	230	–	4	1	1	BASEMENT OFFICE	POWER SUPPLY WITH WEATHERPROOF ISOLATOR BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR CND2	NO
E45	–	–	–	–	–	230	–	0.03	1	2	BASEMENT OFFICE CEILING	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF1, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	YES
E46	–	–	–	–	–	230	–	0.03	1	1	BASEMENT OFFICE CEILING	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF2, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	YES
E47	–	–	–	–	–	230	–	0.14	1	1	BASEMENT STORE	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF14, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E48	–	–	–	–	–	230	–	0.03	1	2	ACUTE MALE HIGH LEVEL	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF15, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E49	–	–	–	–	–	230	–	0.6	1	1	SERVICE FLOOR	POWER SUPPLY TO EFDB/14 BY ELECTRICAL CONTRACTOR, FINAL CONNECTION BY AC CONTRACTOR FOR EF16 ON 24/7 TIMER	NO
E50	–	–	–	–	–	230	–	0.06	1	1	GRND FLR CEILING VOID	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF17, FED FROM ELECTRICAL CONTRACTORS DB.	NO
E51	–	–	–	–	–	230	–	0.06	1	1	FIRST FLR CEILING VOID	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF18, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	NO
E52	–	–	–	–	–	230	–	0.03	1	3	STAIRCASE	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF3, FED FROM ELECTRICAL CONTRACTORS DB	NO
E53	–	–	–	–	–	230	–	0.03	1	1	STAIRCASE	POWER SUPPLY WITH ISOLATOR FOR FRESH AIR FAN FAF4, FED FROM ELECTRICAL CONTRACTORS DB	NO
E54	–	–	–	–	–	230	–	0.06	1	1	SERVICE FLOOR	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF17, FINAL CONNECTION BY AC CONTRACTOR FOR EF17 ON 24/7 TIMER.	NO
E55	–	–	–	–	–	230	0.2	–	1	1	GUARD HOUSE	POWER SUPPLY WITH ISOLATOR FOR EXTRACT AIR FAN EF19, FED FROM ELECTRICAL CONTRACTORS DB AND CONNECTED VIA LIGHT SWITCH	NO
E56	–	–	–	–	–	230	5	–	1	1	CHILLER PLANTROOM	POWER SUPPLY TO ISOLATOR FOR FAN COIL UNIT, FED FROM ELECTRICAL DB WITH 24/7 TIMER	NO

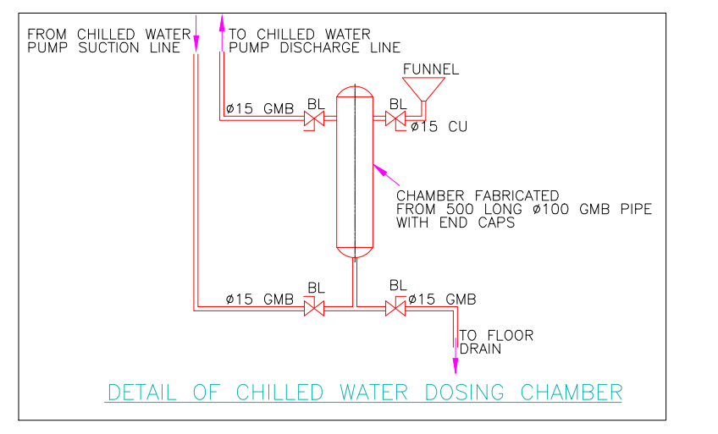
Existing Maintenance Works



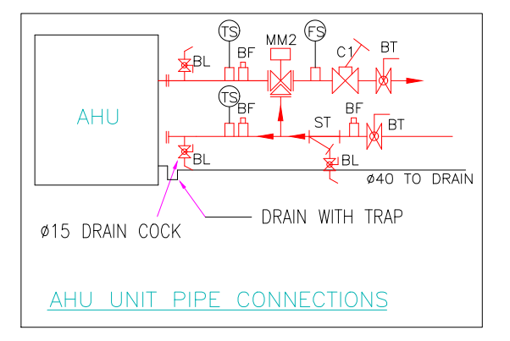
750X550 PERFORATED PLATE DIFFUSER N.T.S.



TYPICAL SUPPLY AIR AND EXTRACT TO WARD AREAS WITHOUT CEILING


FROM CHILLED WATER PUMP SUCTION LINE
TO CHILLED WATER PUMP DISCHARGE LINE
FUNNEL
CHAMBER FABRICATED FROM 500 LONG ø100 GMB PIPE WITH END CAPS
ø15 GMB
BL
TO FLOOR DRAIN

DETAIL OF CHILLED WATER DOSING CHAMBER



AHU UNIT PIPE CONNECTIONS

NOTES

- UNLESS OTHERWISE INDICATED, DUCTING TO BE GALVANISED SHEETMETAL.
- ALL ROUND DUCTING SHALL BE GALVANISED SHEET METAL.
- AIR CONDITIONING AND VENTILATION FLEXIBLE DUCTING SHALL BE OF THE ATTENUATOR TYPE WITH FOIL-FACED MINERAL WOOL INSULATION.
- ALL DUCTING DIMENSIONS ARE TO SHEETMETAL.
- ALL AIRCONDITIONING DUCTING TO BE EXTERNALLY LINED, UNLESS STATED OTHERWISE, WITH 50mm THICK FOIL FACED MINERALWOOL INSULATION
- BOTH LIQUID AND GAS LINES TO BE INDIVIDUALLY INSULATED
- ALL BOLTS, SCREWS, WASHERS, ETC., TO BE EITHER ALLOY COATED (EG. OXISEAL) OR STAINLESS STEEL GRADE 304.
- ALL REFRIGERANT AND DRAIN PIPING TO BE RUN IN GALVANISED CABLE TRAY IN ROOF VOID AND IN GALVANISED & PAINTED TRUNKING WHERE EXPOSED.
- CABLE TRAY TO BE SUPPORTED OF ROOF MEMBERS BY HANGER RODS.
- ALL DUCTING, FAN, EVAPORATOR, ETC. TO BE SUPPORTED FROM ROOF MEMBERS.
- ALL DUCTING MUST BE SUPPROTED WITH GALVANIZED TRAPEZE TYPE HANGERS AND THREADED RODS
- ALL AIRCONDITIONING OUTLETS IN ROOF VOID SHALL BE INSULATED.

General Notes:

1. Any discrepancies or unclear information must immediately be reported to the Mechanical Engineer prior to any commencement of work. MKA will not be held responsible for any remedial work if above procedure is not adhered to.
2. Onus is on the sub-contractor to ensure installation is completed to the Mechanical Engineers specification.
3. For construction purposes do not scale this drawing .

EQUIPMENT SCHEDULE:

REF	DESCRIPTION
AHU1	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU2	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU3	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU4	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU5	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU6	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU7	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU8	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU9	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU10	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU11	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
AHU12	AIR HANDLING UNIT, SEE SPECIFICATION DOCUMENT
CCU1	30000 BTU COOLING CAPACITY 4-WAY BLOW CEILING CASSETTE SPLIT UNIT
CCU2	12000 BTU COOLING CAPACITY 1-WAY BLOW CEILING CASSETTE SPLIT UNIT
MW1	12000 BTU COOLING CAPACITY MID-WALL SPLIT UNIT
MW2	18000 BTU COOLING CAPACITY MID-WALL SPLIT UNIT
D1	ø200 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D2	ø250 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D3	ø300 BRIAN RICKARD TYPE VSW SWIRL VARIABLE VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
D4	ø400 TROX TYPE VDL SWIRL CONSTANT VOLUME DIFFUSER EPC TO ARCHITECTS COLOUR
DG1	300x300 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG2	250x250 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG3	400x400 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DG4	450x450 NON-VISION DOOR GRILLE TROX TYPE AGS ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
DV1	ø200 PLASTIC EXHAUST AIR DISC VALVE
DV2	ø100 PLASTIC SUPPLY AIR DISC VALVE
EAG1	550x550 EXTRACT AIR GRILLE, EGG CRATE TYPE, ALUMINIUM ANODIZED C/W OBD TO ARCHITECTS COLOUR
EAG2	1000x300 EXTRACT AIR GRILLE TROX TYPE AT FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
EAG3	600x600 EXTRACT AIR GRILLE TROX TYPE AT FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
EF1	VORTICE LINEO 200 VO INLINE EXTRACT AIR FAN FOR 252L/s, 73Pa
EF2	ø400 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 22° ANGLE, FOR 828L/s, 108Pa
EF3	ø560 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 960RPM, 8 BLADE 14° ANGLE, FOR 836L/s, 90Pa
EF4	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 18° ANGLE, FOR 930L/s, 125Pa
EF5	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 16° ANGLE, FOR 643L/s, 120Pa
EF6	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 486L/s, 93Pa
EF7	ø400 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 22° ANGLE, FOR 828L/s, 110Pa
EF8	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 330L/s, 114Pa
EF9	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 8 BLADE 14° ANGLE, FOR 1025L/s, 138Pa
EF10	ø500 DONKIN MAJAX-2 AXIAL FLOW EXTRACT AIR FAN, 1440RPM, 4 BLADE 16° ANGLE, FOR 720L/s, 125Pa
EF11	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN FOR 504L/s, 120Pa
EF12	VORTICE LINEO 250 VO INLINE EXTRACT AIR FAN FOR 230L/s, 105Pa
EF13	VORTICE LINEO 250 VO INLINE EXTRACT AIR FAN x2 IN SERIES FOR 146L/s, 497Pa
EF14	DONKIN HC35 WALL MOUNTED PLATE FAN C/W DISCHARGE COWL
EF15	VORTICE VARIO 230/9 AR WINDOW/WALL MOUNTED FAN FOR EXTRACT AIR, 133L/s
EF16	VORTICE LINEO 315 VO INLINE EXTRACT AIR FAN x2 IN SERIES FOR 213L/s, 557Pa
EF17	VORTICE LINEO 150 VO INLINE EXTRACT AIR FAN FOR 60L/s, 113Pa
EF18	VORTICE LINEO 150 VO INLINE EXTRACT AIR FAN FOR 166L/s, 100Pa
EF19	VORTICE VARIO 150/6 ARI EXTRACT AIR FAN BUILT-IN WALL
HPF1	610Hx610Wx150D HEPA FILTER COMPLETE WITH FILTER HOUSING
SF1	ø630 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 21° ANGLE, 4000L/s
SF2	ø630 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 21° ANGLE, 4000L/s
SF3	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 28° ANGLE, 4300L/s
SF4	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, 2700L/s
SF5	ø315 DONKIN FUMAX FLAME PROOF FAN, 1440RPM, 8 BLADE 32° ANGLE, FOR 517L/s, 70Pa
SF6	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF7	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF8	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF9	ø315 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 16° ANGLE, FOR 540L/s, 125Pa
SF10	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF11	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF12	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
SF13	ø500 DONKIN FUMAX FLAME PROOF FAN, 2880RPM, 4 BLADE 24° ANGLE, FOR 3800L/s
FAF1	VORTICE VARIO 150/6 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR
FAF2	VORTICE VARIO 230/9 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR
FAF3	VORTICE VARIO 150/6 AR WINDOW/WALL MOUNTED FAN FOR FRESH AIR, C/W MOTION SENSOR
FAF4	VORTICE LINEO 100 VO INLINE FAN FOR FRESH AIR, C/W MOTION SENSOR
MD1	ø200 QUADRANT TYPE MANUAL DAMPER
MD2	ø250 QUADRANT TYPE MANUAL DAMPER
MD3	ø300 QUADRANT TYPE MANUAL DAMPER
MD4	450x350 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD5	700x450 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD6	450x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD7	700x600 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD8	600x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD9	ø400 QUADRANT TYPE MANUAL DAMPER
MD10	450x450 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD11	700x500 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD12	ø350 QUADRANT TYPE MANUAL DAMPER
MD13	600x500 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD14	700x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD15	800x550 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD16	300x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD17	400x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD18	700x300 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD19	800x650 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD20	500x400 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD21	500x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD22	800x700 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD23	650x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD24	350x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD25	500x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD26	450x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD27	250x200 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
MD28	300x100 MANUAL HEAVY DUTY DUCT MOUNTED OPPOSED BLADE DAMPER
FD1	700x600 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD2	800x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD3	700x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD4	600x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD5	800x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD6	600x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD7	700x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD8	700x700 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD9	800x550 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD10	700x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD11	800x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD12	800x700 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD13	800x650 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD14	800x800 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD15	500x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD16	400x250 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD17	450x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD18	550x350 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD19	650x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD20	800x550 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD21	900x600 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD22	350x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD23	300x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD24	400x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD25	200x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD26	450x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD27	500x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD28	500x250 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD29	500x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD30	300x150 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD31	500x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD32	650x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD33	300x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD34	ø400 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD35	ø500 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD36	ø350 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD37	500x500 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD38	1000x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD39	900x400 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD40	ø200 DUCT MOUNTED CIRCULAR FIRE DAMPER WITH FUSABLE LINK
FD41	450x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD42	500x300 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD43	500x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD44	200x200 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
FD45	350x450 DUCT MOUNTED FIRE DAMPER WITH FUSABLE LINK
PPG1	500x350 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG2	550x400 PERFORATED PLATE SUPPLY GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG3	850x600 PERFORATED PLATE SUPPLY GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG4	650x450 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG5	750x550 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG6	900x650 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG7	1000x700 PERFORATED PLATE SMOKE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG8	1050x750 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG9	400x300 PERFORATED PLATE RETURN GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG10	300x300 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
PPG11	850x500 PERFORATED PLATE EXTRACT GRILLE GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
RAG1	600x600 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
RAG2	1200x600 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
RAG3	600x480 RETURN AIR GRILLE TROX TYPE AR FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
SAG1	1200x600 SUPPLY AIR GRILLE TROX TYPE AH FIXED BLADE ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
SND1	ø630 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND2	ø250 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 600mm LONG
SND3	ø315 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 500mm LONG
SND4	ø400 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND5	ø150 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 315mm LONG
SND6	ø200 DONKIN SONAX CIRCULAR SOUND ATTENUATOR 315mm LONG
SND7	ø500 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
SND8	ø560 DONKIN SILAX CIRCULAR SOUND ATTENUATOR 1.5D LONG
TRG1	1000x300 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK, GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG2	1000x500 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG3	2400x500 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
TRG4	1000x650 PERFORATED PLATE TRANSFER GRILLE, 2mm THICK COUNTERSUNK GALVANISED MILD STEEL POWDER COATED TO ARCHITECTS COLOUR
WL1	400x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL2	2000x300 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL3	650x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL4	550x550 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL5	1000x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL6	500x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL7	1500x800 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL8	300x300 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL9	1200x600 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL10	650x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL11	500x400 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL12	800x500 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL13	850x850 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL14	850x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL15	1200x650 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL16	1200x500 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL17	100x100 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR
WL18	600x600 WEATHER LOUVRE TROX TYPE AWK C/W WIRE MESH SCREEN, ALUMINIUM ANODIZED TO ARCHITECTS COLOUR

AC/ VENTILATION PLAN

FOR TENDER

REV	DESCRIPTION	BY	DATE
0	ISSUED FOR TENDER	OM	11.07.2025

REVISION

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health
Department:
Health
PROVINCE OF KWAZULU-NATAL

KWAZULU-NATAL PROVINCE
PUBLIC WORKS
REPUBLIC OF SOUTH AFRICA

SOUTHERN REGION

Project
DEPARTMENT OF HEALTH INSTITUTION
NEW PSYCHIATRIC WARD PORT SHEPSTONE
HOSPITAL

Drawing Description
AIRCONDITIONING & VENTILATION FIRST FLOOR PLAN LAYOUT

Drawn AS
Date 27/09/2021
Scale/s 1:100
Consultant Drawing number
M652/AC/03 Rev.0
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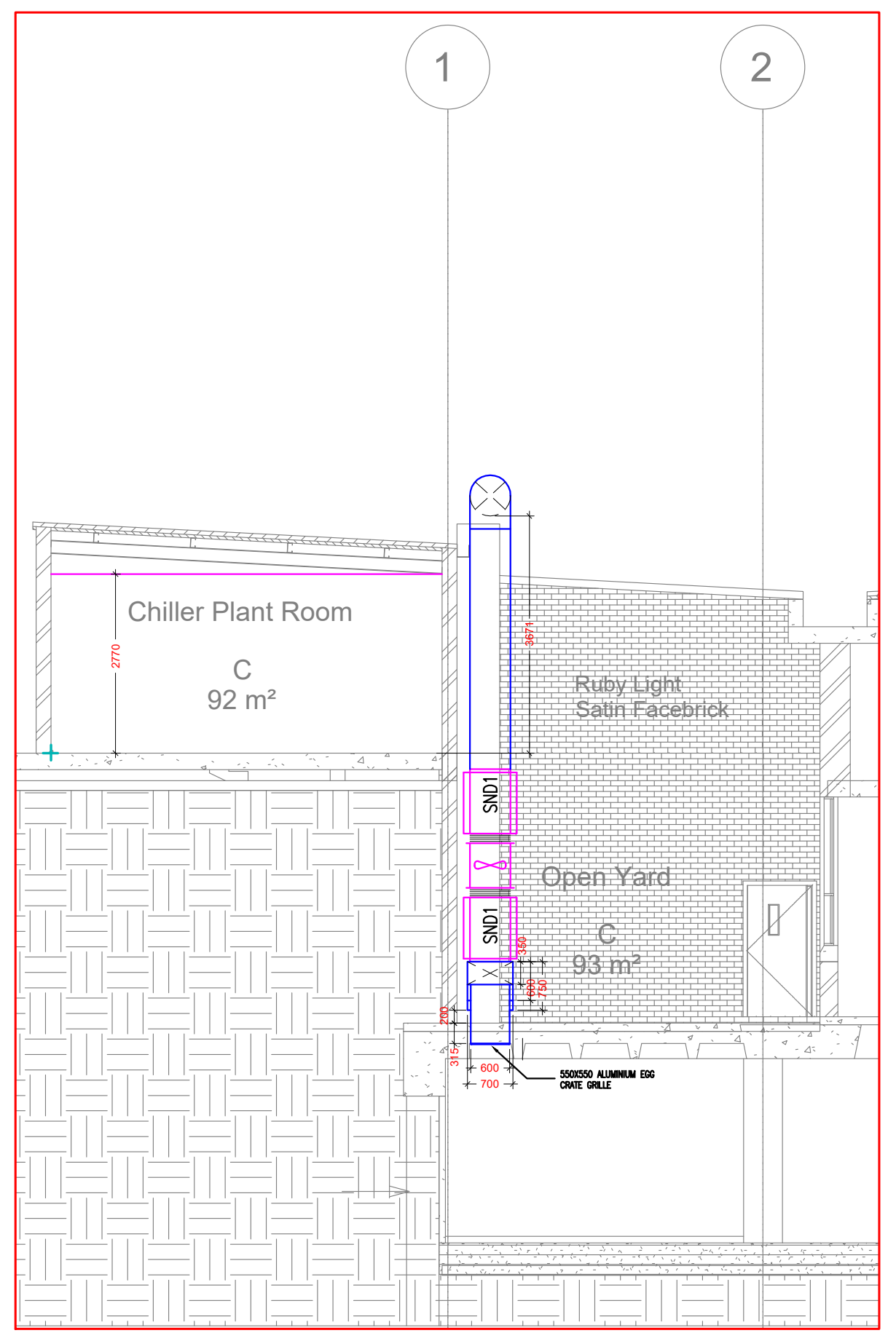
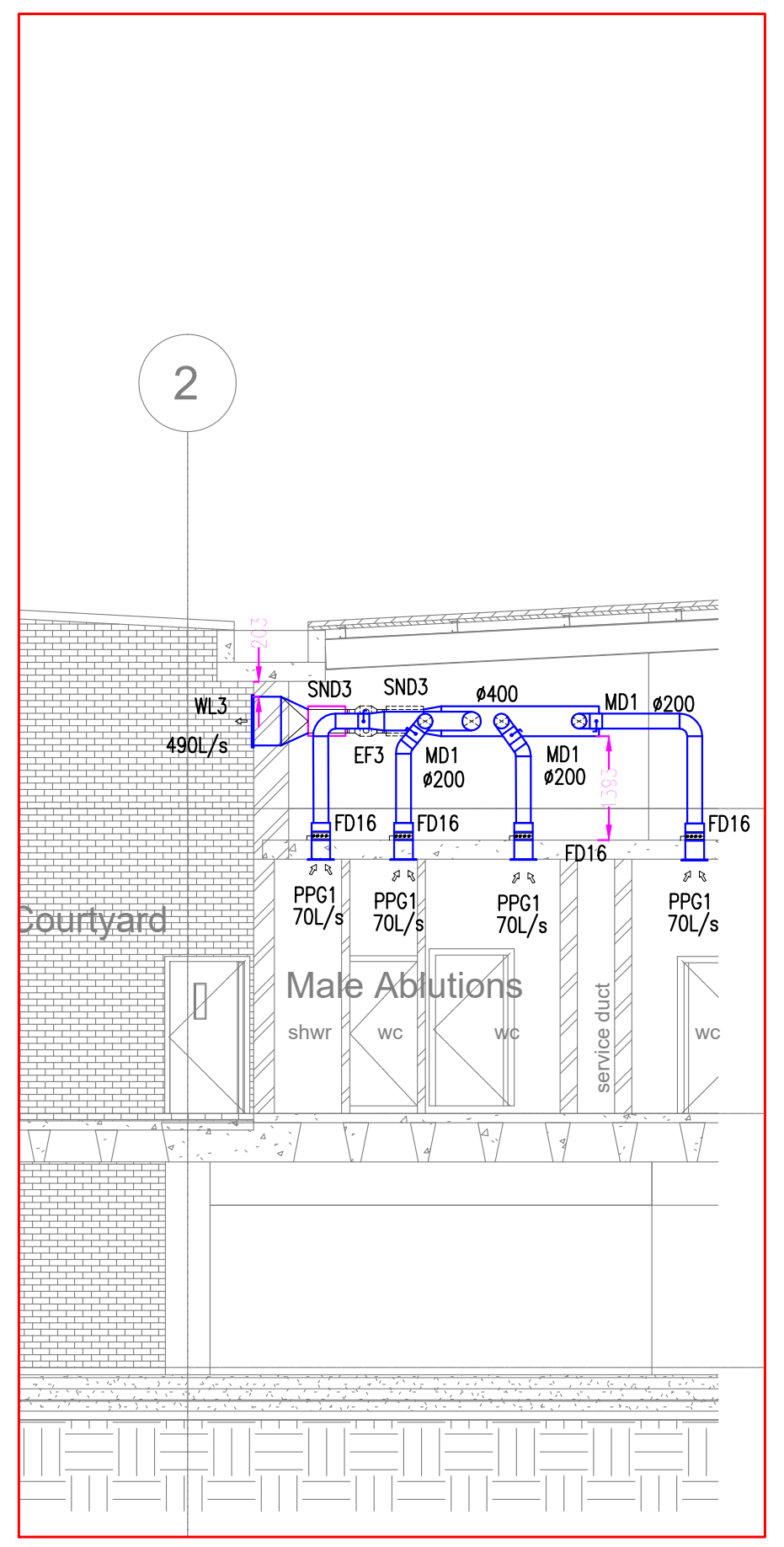
WIMS NO/044044/A01
Stamped by Plans Approval Committee



SECTION A-A
SCALE 1 : 100



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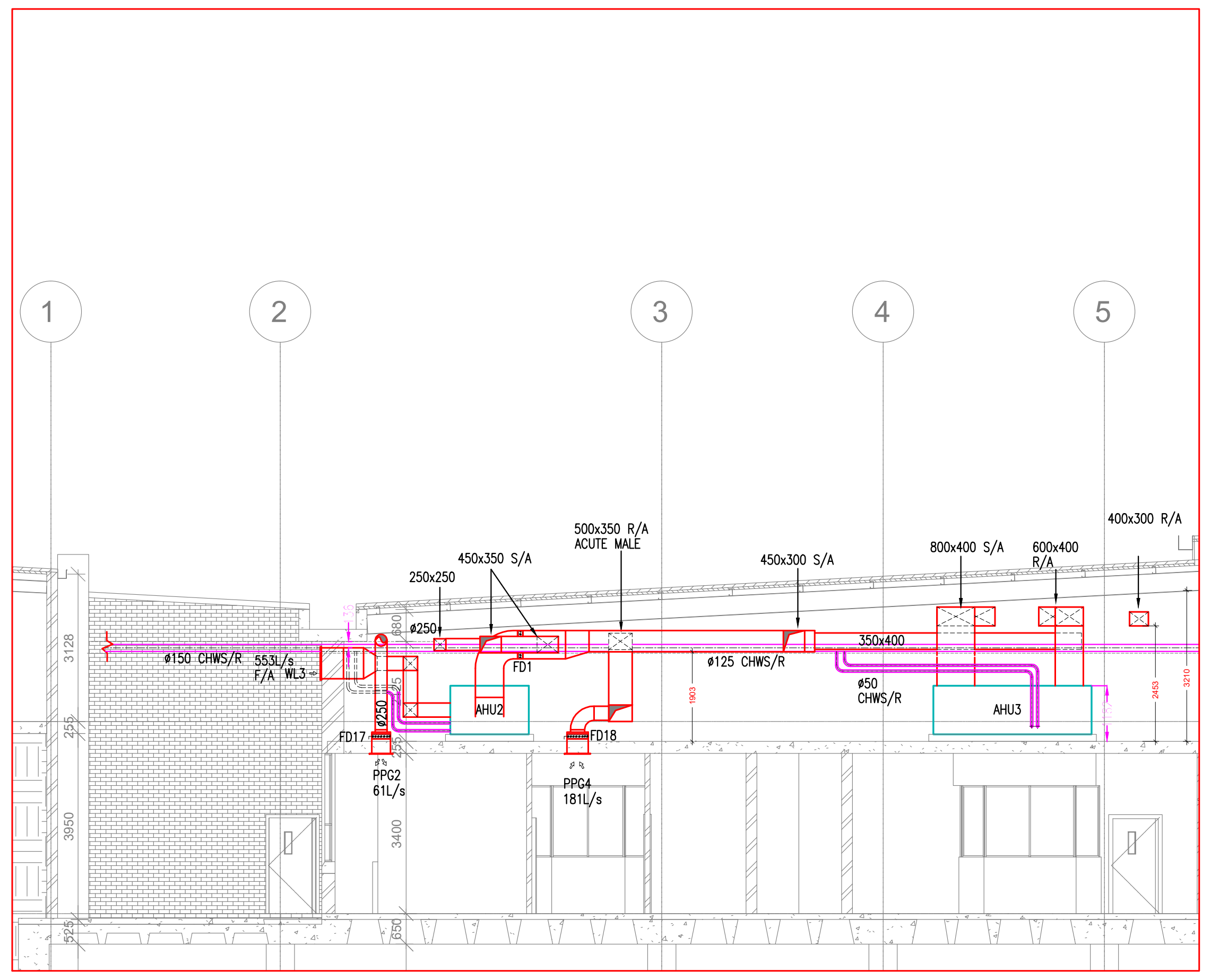
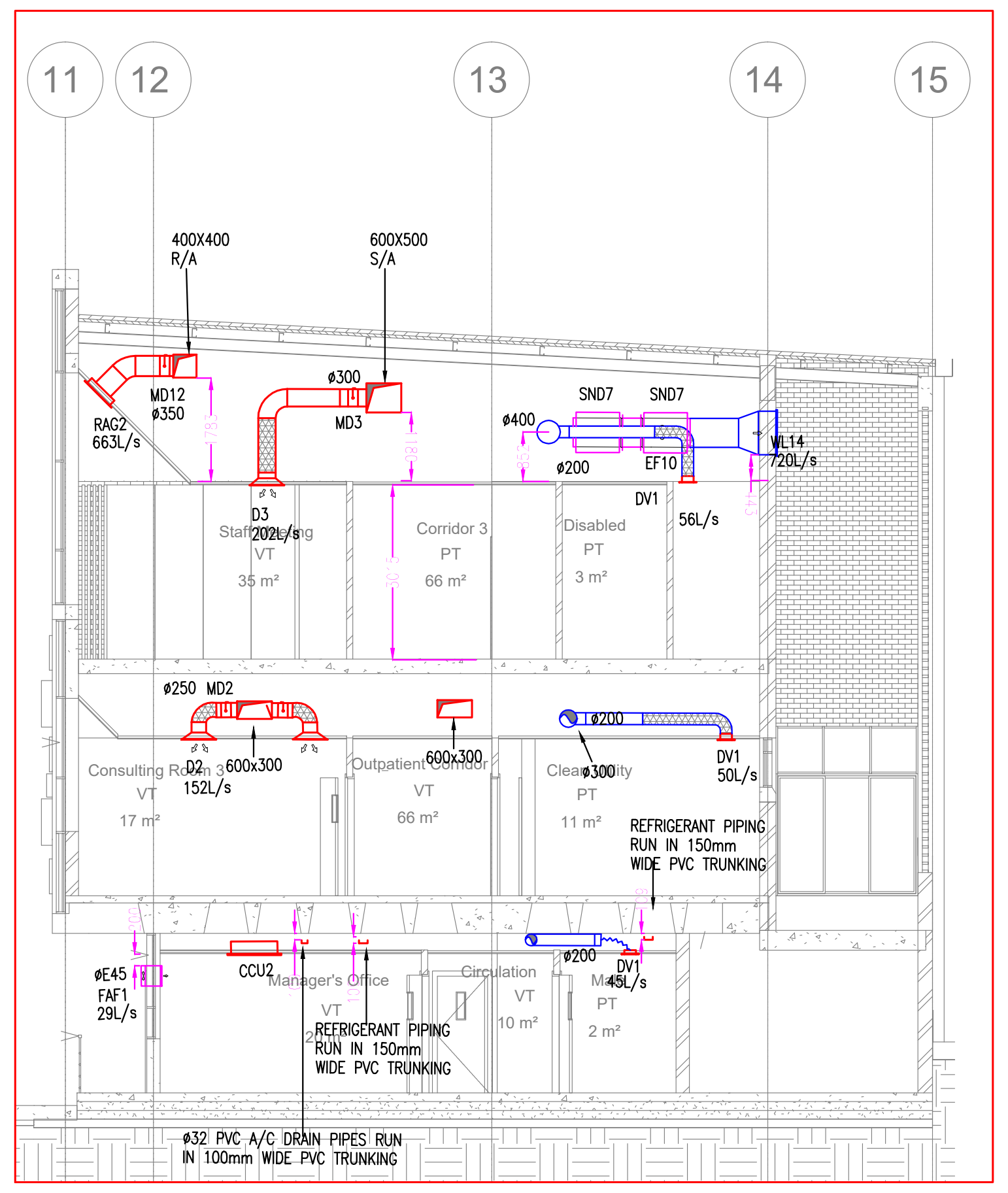
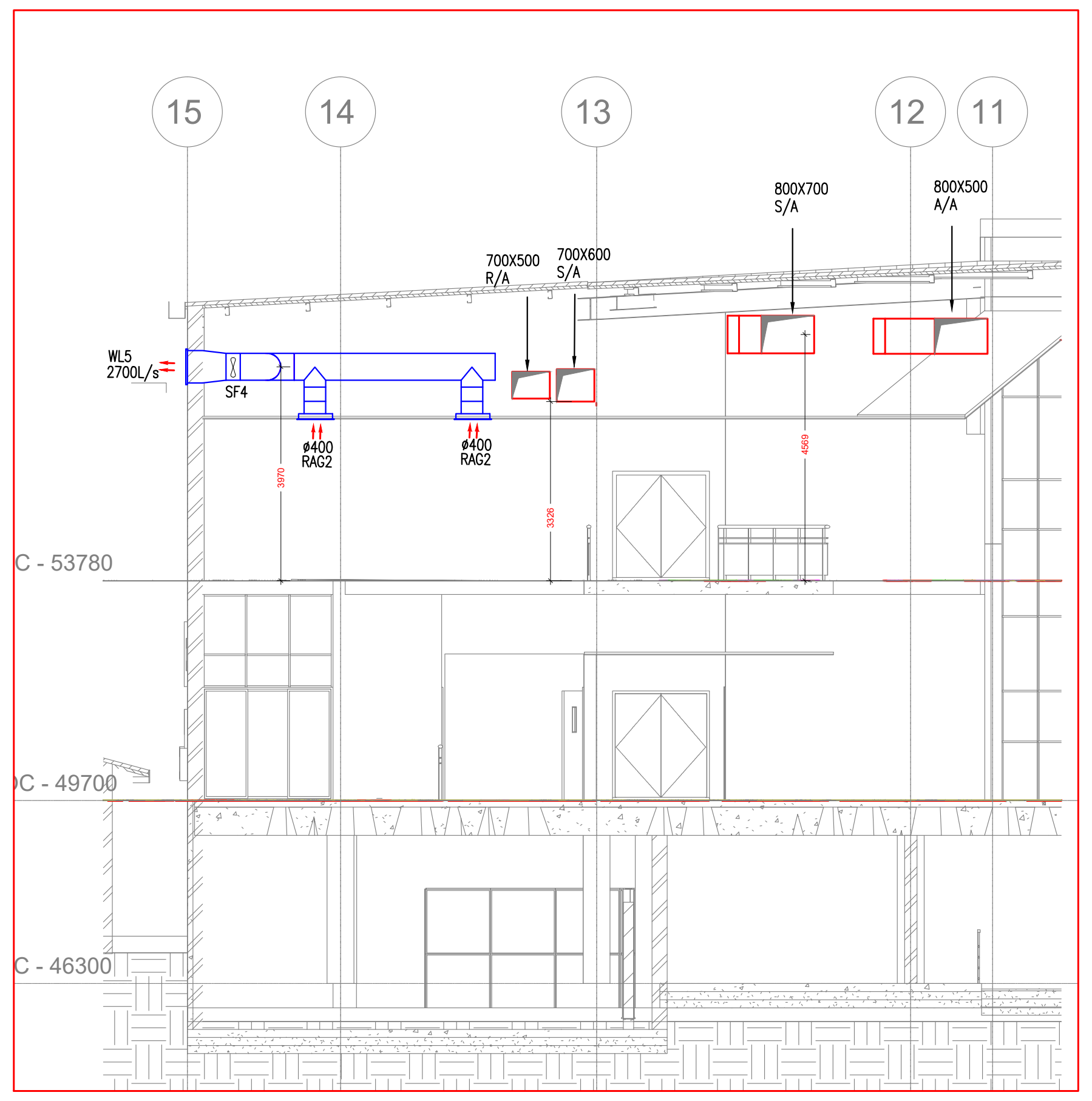


SECTION C-C
SCALE 1 : 100



SECTION E-E
SCALE 1 : 100



SECTION D-V
SCALE 1 : 100

NOTES

- UNLESS OTHERWISE INDICATED, DUCTING TO BE GALVANISED SHEETMETAL.
- ALL ROUND DUCTING SHALL BE GALVANISED SHEET METAL.
- AIR CONDITIONING AND VENTILATION FLEXIBLE DUCTING SHALL BE OF THE ATTENUATOR TYPE WITH FOIL-FACED MINERAL WOOL INSULATION.
- ALL DUCTING DIMENSIONS ARE TO SHEETMETAL.
- ALL AIRCONDITIONING DUCTING TO BE EXTERNALLY LINED, UNLESS STATED OTHERWISE, WITH 50mm THICK FOIL FACED MINERALWOOL INSULATION
- BOTH LIQUID AND GAS LINES TO BE INDIVIDUALLY INSULATED
- ALL BOLTS, SCREWS, WASHERS, ETC., TO BE EITHER ALLOY COATED (EG. OXISEAL) OR STAINLESS STEEL GRADE 304.
- ALL REFRIGERANT AND DRAIN PIPING TO BE RUN IN GALVANISED CABLE TRAY IN ROOF VOID AND IN GALVANISED & PAINTED TRUNKING WHERE EXPOSED.
- CABLE TRAY TO BE SUPPORTED OF ROOF MEMBERS BY HANGER RODS.
- ALL DUCTING, FAN, EVAPORATOR, ETC. TO BE SUPPORTED FROM ROOF MEMBERS.
- ALL DUCTING MUST BE SUPPROTED WITH GALVANIZED TRAPEZE TYPE HANGERS AND THREADED RODS
- ALL AIRCONDITIONING OUTLETS IN ROOF VOID SHALL BE INSULATED.

General Notes:

1. Any discrepancies or unclear information must immediately be reported to the Mechanical Engineer prior to any commencement of work.
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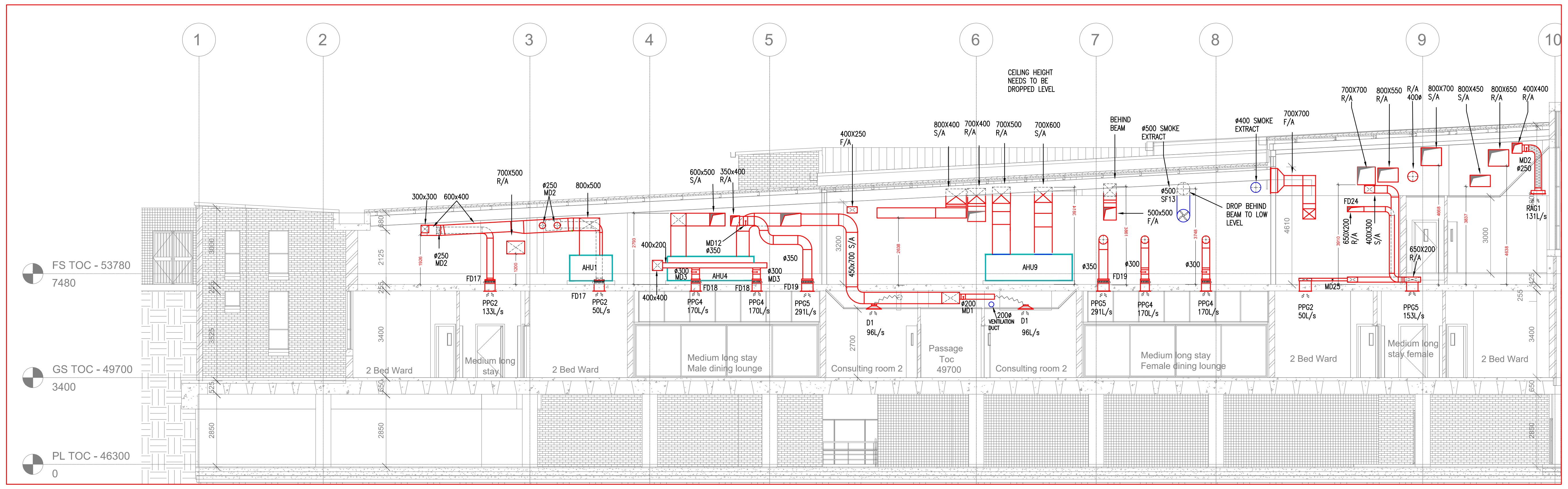
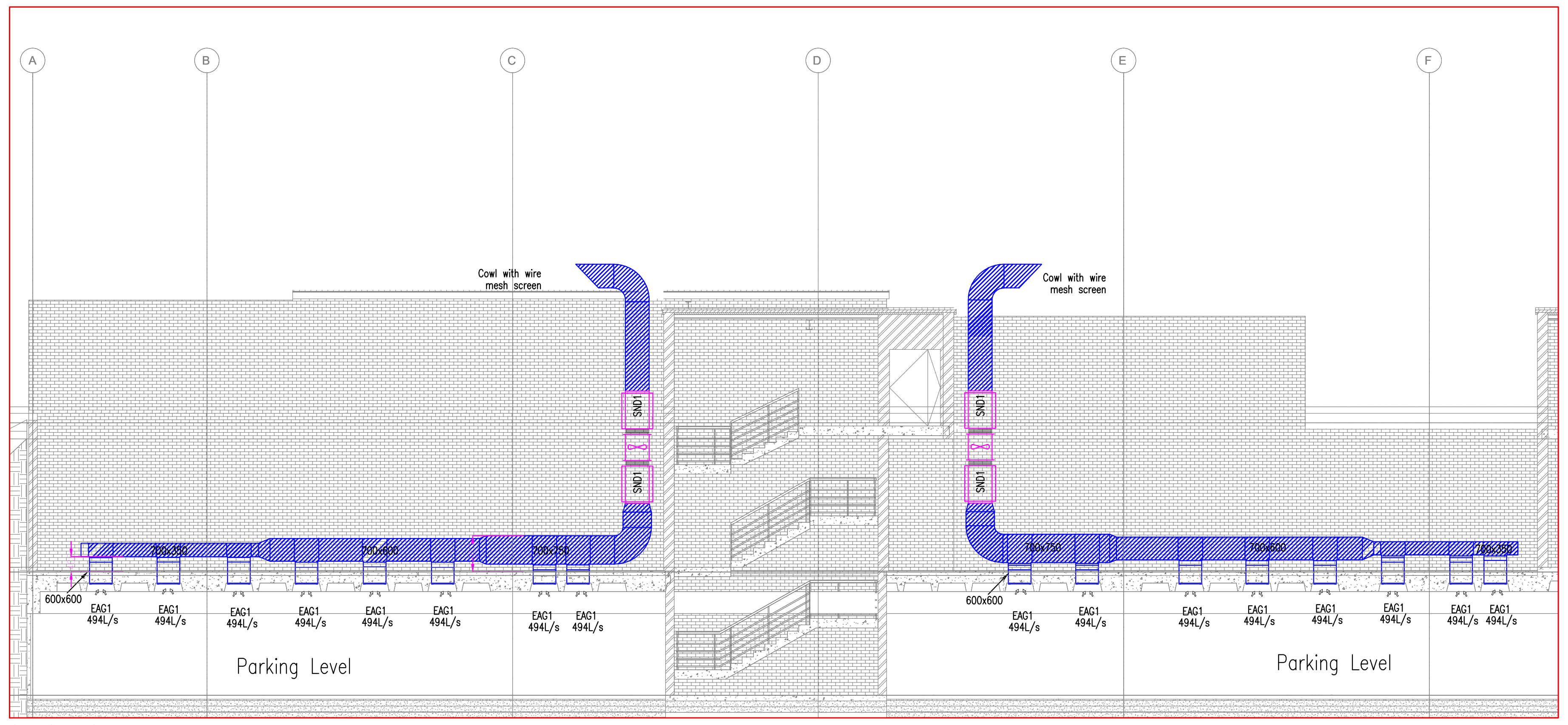
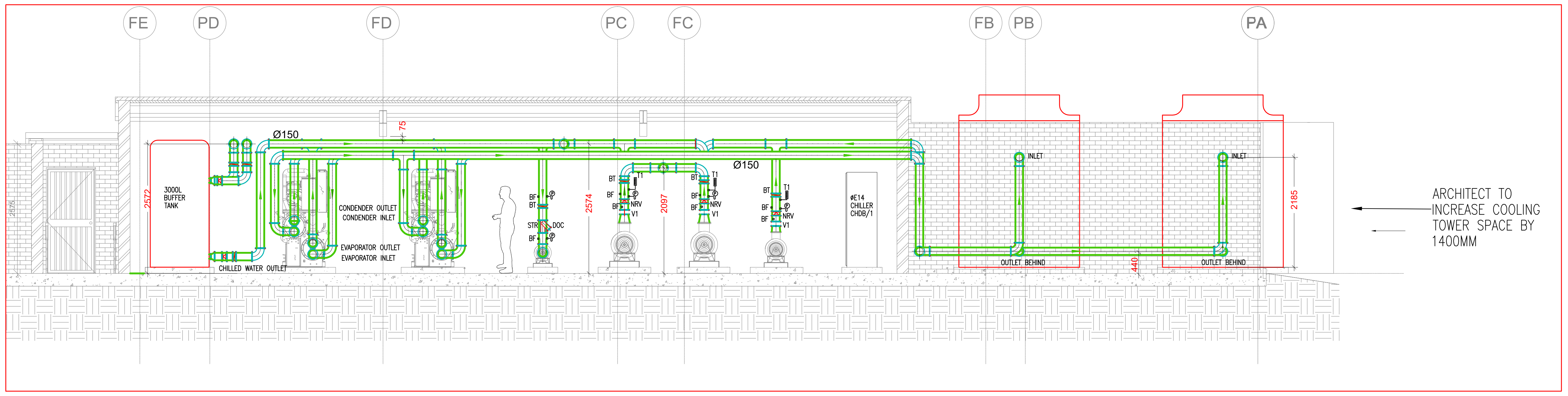
2. Onus is on the sub-contractor to ensure installation is completed to the Mechanical Engineers specification.
3. For construction purposes do not scale this drawing .



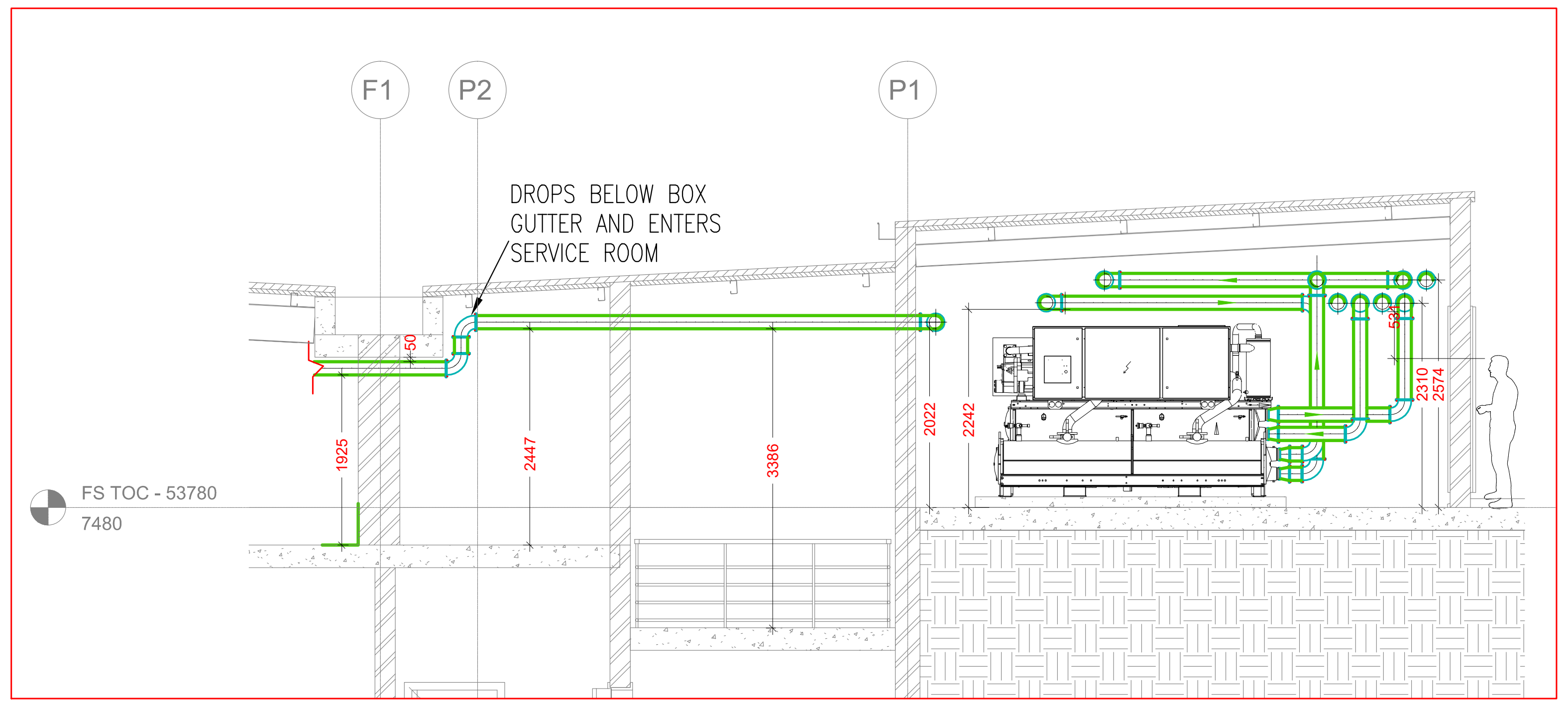
SECTION D-D
SCALE 1 : 100



SECTION F-F
SCALE 1 : 100



SECTION G-G
SCALE 1 : 50



SECTION H-H
SCALE 1 : 50

AC/ VENTILATION PLAN

FOR TENDER

0	ISSUED FOR TENDER	OM	11.07.2025
REV	DESCRIPTION	BY	DATE

REVISION

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KWAZULU-NATAL PROVINCE
PUBLIC WORKS
REPUBLIC OF SOUTH AFRICA

SOUTHERN REGION

Project

DEPARTMENT OF HEALTH INSTITUTION
NEW PSYCHIATRIC WARD PORT SHEPSTONE
HOSPITAL

Drawing Description

AIRCONDITIONING & VENTILATION
SECTION PLAN

Drawn AS
Date 27/09/2021
Scale/s 1:100
Consultant Drawing number
M652/AC/05 Rev.0
DOPW Drawing number
WIMS NO/044044/A01
Stamped by Plans Approval Committee

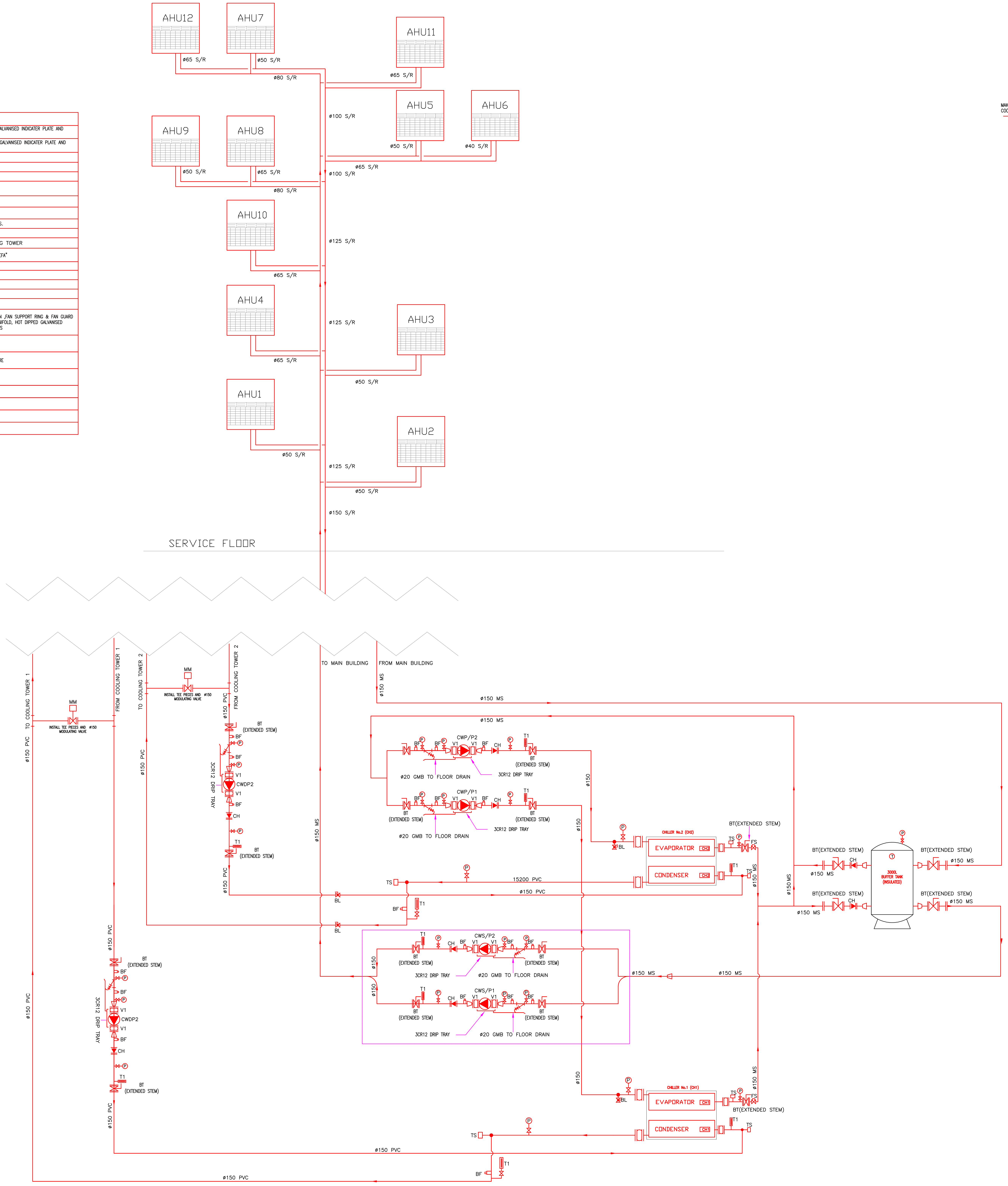
NOTE:
"WHERE BRAND NAMES ARE MENTIONED IN THIS DRAWING, ALTERNATE MAKES WHICH ARE EQUAL AND APPROVED TO THAT SPECIFIED WILL BE ACCEPTABLE PROVIDED APPROVAL WAS OBTAINED PRIOR TO TENDER SUBMISSION"

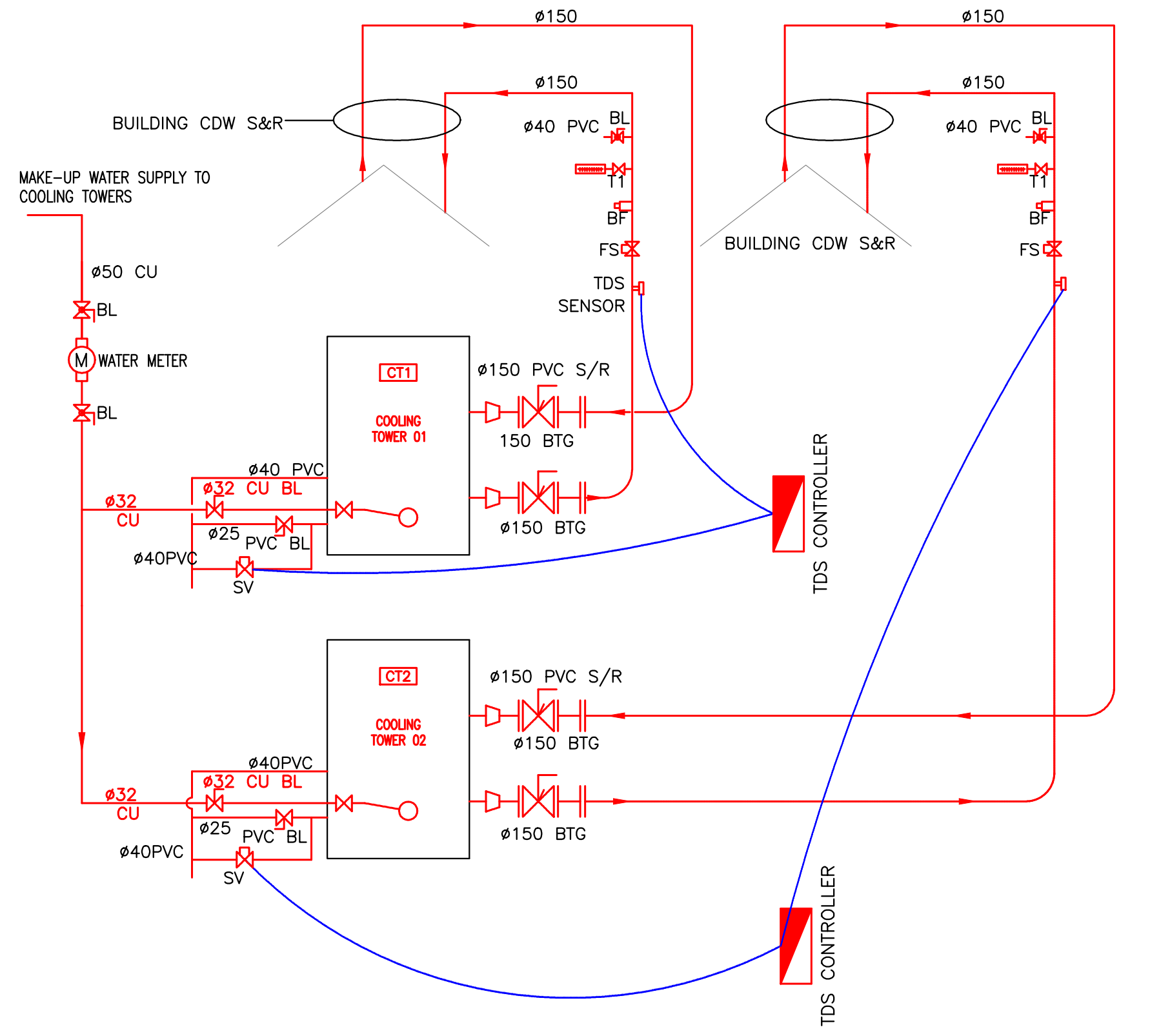
PIPING LEGEND

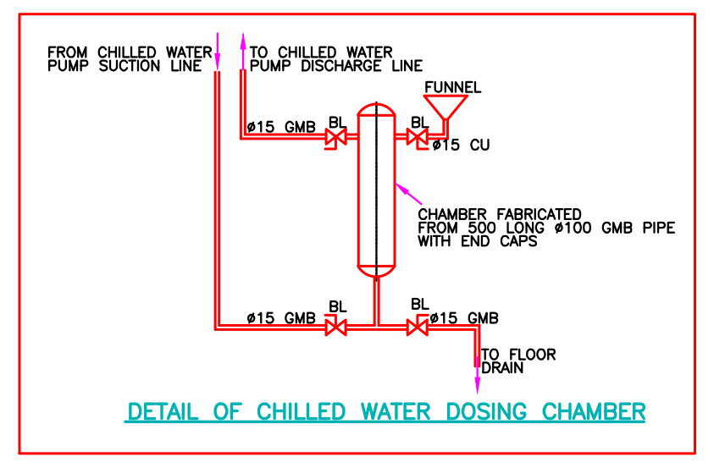
	GENERAL PURPOSE BALANCING VALVE–MAKE: UNIFLO
	Y–TYPE STRAINER MAKE: UNIFLO
	REDUCER
P	GLYCERINE FILLED PRESSURE GUAGE
	BINDER FITTING
⋈	DRAIN VALVE
	FLEXIBLE CONNECTION
◁	NON RETURN VALVE
TS	TEMPERATURE SENSOR
—	NEW PIPING

LEGEND:

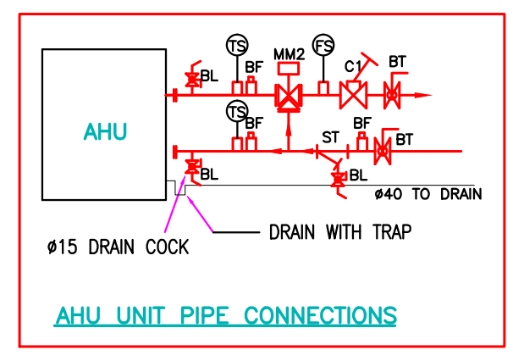
BT	BUTTERFLY VALVE WITH WRENCH–CAST IRON BODY & HANDLE WITH GALVANISED INDICATER PLATE AND STAINLESS STEEL SHAFT
BTG	BUTTERFLY VALVE –GEAR OPERATED–CAST IRON BODY & HANDLE WITH GALVANISED INDICATER PLATE AND STAINLESS STEEL SHAFT
BL	BALL VALVE WITH EXTENDED WRENCH
P	DIAL PRESSURE GUAGE (BLANES) WITH COCK
T	THERMOMETER
TS	IMMERSION TEMP. SENSOR WITH STAINLESS STEEL TUBE
C1	DYNAMIC FLOW BALANCING VALVE "FLOWCON"
V1	VIBROFLEX ANTI–VIBRATION CONNECTION
M	IMPULSE WATER METER FOR 1000kPa WORKING PRESS.
CH	WAFER CHECK VALVE
SV	ø25 SOLENOID VALVE FOR AUTO PURGING ON COOLING TOWER
MM	MOTORISED CHILLED WATER MODULATING VALVE "LANDIS & GYR OR STAEFA"
GT	GATE VALVE – "COBRA"
GL	GLOBE VALVE – CAST IRON FOR CHILLED WATER
BF	"BINDER" FITTING WITH STEAM SOCKET
FS	FLOW SWITCH
AV	AUTOMATIC AIR VENT – "SPIRAX AE550"
CT 1 & 2	TEKTOWER EWK RANGE WITH REINFORCED FIBREGLASS HOUSING & BASIN ,FAN SUPPORT RING & FAN GUARD IN STAINLESS STEEL. ALSO WITH PVC DISTRIBUTION PIPING & INLET MANIFOLD, HOT DIPPED GALVANISED BASEFRAME FOR SUSPENDED MOUNTING & FAN ACCESS SAFETY LADDERS
CWP/P 1 & 2	CHILLED WATER PRIMARY PUMP SET – SEE SPECIFICATION ELSEWHERE
CWS/P 1 & 2	CHILLED WATER SECONDARY PUMP SET – SEE SPECIFICATION ELSEWHERE
CND/P 1 & 2	CONDENSER WATER PUMP SET – SEE SPECIFICATION ELSEWHERE
MS	MEDIUM BLACK STEEL PIPE TO SANS 62
GMB	GALVANISED MEDIUM BLACK STEEL PIPE
uPVC	uPVC PIPING
TDS	TOTAL DISSOLVED SOLIDS






FROM CHILLED WATER PUMP SUCTION LINE
TO CHILLED WATER PUMP DISCHARGE LINE
FUNNEL
ø15 GMB
BL
ø15 CU
CHAMBER FABRICATED FROM 500 LONG ø100 GMB PIPE WITH END CAPS
TO FLOOR DRAIN

DETAIL OF CHILLED WATER DOSING CHAMBER



AHU UNIT PIPE CONNECTIONS

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AC/ VENTILATION PLAN

FOR TENDER

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Project
DEPARTMENT OF HEALTH INSTITUTION
NEW PSYCHIATRIC WARD PORT SHEPSTONE
HOSPITAL

Drawing Description
AIRCONDITIONING & VENTILATION CHILLED
WATER PIPING SCHEMATIC DIAGRAM

Drawn AS Date 27/09/2021
Scale/s 1:100
Consultant Drawing number
M652/AC/04 Rev.0
DOPW Drawing number
WIMS NO/044044/A01
Stamped by Plans Approval Committee