

AIR CONDITIONING UNITS (AC) DATA:			
TAG NO.:	FAHU 1	FAHU 2	
MAKE & MODEL:	1 x APACHE 46 FS 240	1 x APACHE 46 FS 240	
A/C UNIT TYPE:	FULL FRESH AIR, AIR HANDLING UNIT (INVERTER)	FULL FRESH AIR, AIR HANDLING UNIT (INVERTER)	
COOLING CAPACITY:	132.7 kW	95.6 kW	
AIR QTY.:	7500 l/s	4770 l/s	
FRESH AIR QTY REQ.:	7500 l/s	4770 l/s	
TOTAL POWER REQUIREMENTS PER PHASE:	380V 3PH 50Hz Run: --- A C/B: --- A	380V 3PH 50Hz Run: --- A C/B: --- A	

ATTENUATORS				
TAG No.	DIAMETER SIZE	LENGTH (mm)	PODDED	QTY.
ATT 1	ø 800	1200	PODDED	4
ATT 2	ø 710	1065	PODDED	2
ATT 3	ø 355	600	PODDED	2

EXTRACT AIR GRILLES - FIXED BLADE				
TAG No.	SIZE (mm)	AIR QTY. EACH (l/s)	SPECIAL REQUIREMENTS	QTY.
E 1	500 x 400	LISTED	NAT ANODISED C/W OBD	4
E 2	400 x 400	LISTED	NAT ANODISED C/W OBD	12
E 3	400 x 300	LISTED	NAT ANODISED C/W OBD	3
E 4	300 x 400	LISTED	NAT ANODISED C/W OBD	9

SUPPLY AIR GRILLES - DOUBLE DEF				
TAG No.	SIZE (mm)	AIR QTY. EACH (l/s)	SPECIAL REQUIREMENTS	QTY.
S 1	750 x 400	LISTED	NAT ANODISED C/W OBD	13
S 2	575 x 400	LISTED	NAT ANODISED C/W OBD	5
S 3	500 x 400	LISTED	NAT ANODISED C/W OBD	8
S 4	400 x 400	LISTED	NAT ANODISED C/W OBD	8
S 5	595 x 595	LISTED	P/C WHITE C/W OBD	3

DISC VALVES				
TAG No.	NECK SIZE (mm)	AIR QTY. EACH (l/s)	SPECIAL REQUIREMENTS	QTY.
E 7	ø 200	LISTED	NONE	7

DOOR GRILLS (DG)				
TAG No.	NECK SIZE (mm)	AIR QTY. EACH (l/s)	SPECIAL REQUIREMENTS	QTY.
D 1	400 x 400	VARIOUS	NAT ANODISED	2

FANS				
TAG No.	TYPE	SIZE (mm)	l/s @ Pa	QTY.
EF 1	AXIAL FAN WITH SPEED CONTROLLER	ø 800	4430 l/s @ 300 Pa	1
EF 2	AXIAL FAN WITH SPEED CONTROLLER	ø 710	2160 l/s @ 250 Pa	1
EF 3	AXIAL FAN WITH SPEED CONTROLLER	ø 800	3475 l/s @ 300 Pa	1
EF 4	TUBE FAN WITH SPEED CONTROLLER	ø 355	470 l/s @ 175 Pa	1

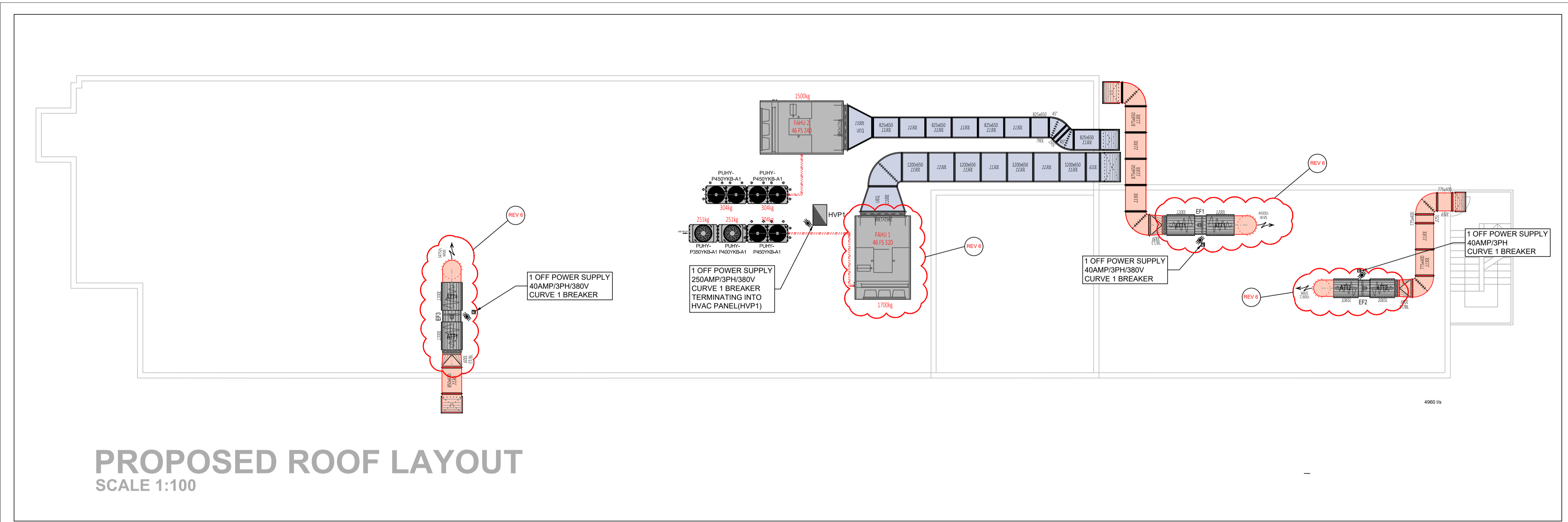
Revision			
Mark	Description	Date	By
0	HVAC PROPOSAL	11/06/2019	SB
1	HVAC PROPOSAL REVISED FUME CABINETS REVISED ELECTRICAL DETAILS ADDED	17/07/2019	SB
2	HVAC PROPOSAL REVISED FUME CABINETS REVISED ELECTRICAL DETAILS ADDED	14/08/2019	SB
3	POSITIONS REVISED FOR DROPPER DUCTS FAHU1 SUPPLY AIR REVISED IN CORRIDOR TO SUIT BEAM	17/07/2019	LF
4	HVAC CONDENSERS AND DETAIL ADDED	04/09/2019	SB
5	HVAC NEW DUCT PROPOSAL	12/09/2019	SB
6	PROPOSAL FOR SUPPLY AIR DUCTING / POSITION FOR EXTRACTION REVISED EXTRACTION FANS REVISED TO SUIT VENTILATION EXCLUDING FUME CABINETS FAHU 1 ROTATED	21/10/2019	LF

GENERAL NOTES

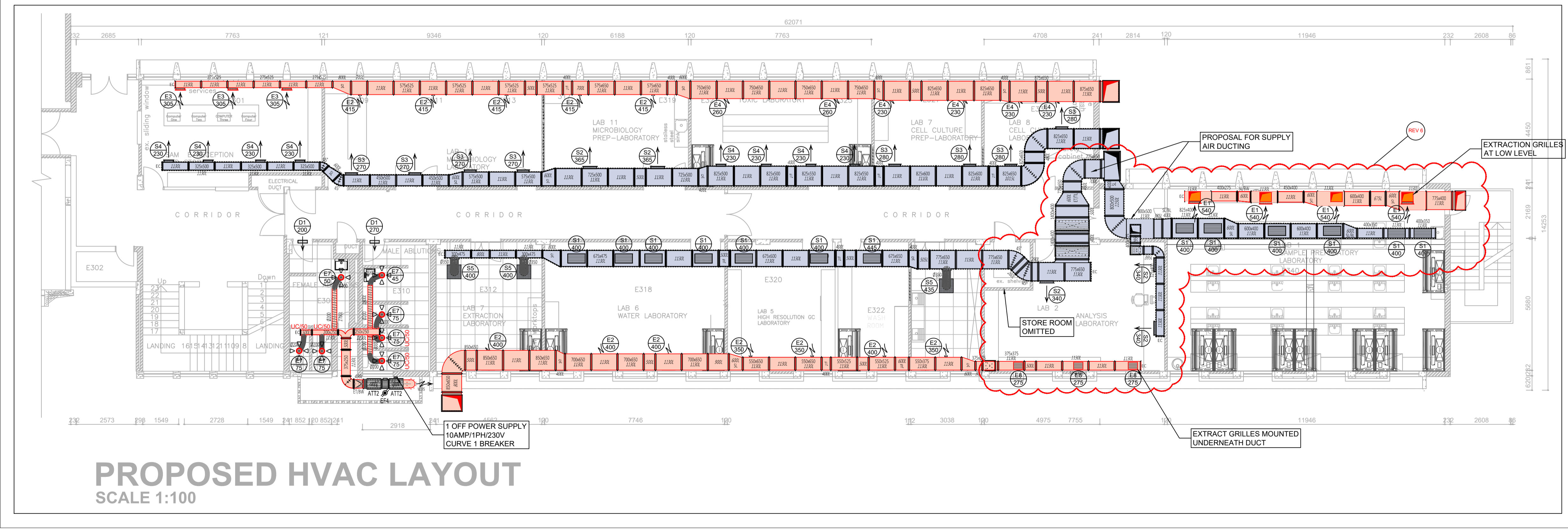
- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCING SETTING OUT, WORKSHOP DRAWINGS OR CONSTRUCTION.
- FIGURED DIMENSIONS ONLY TO BE USED.
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE REPORTED TO THE ARCHITECT AS SOON AS THEY BECOME EVIDENT.
- SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION.
- ALL SPECIFIED PRODUCTS ARE TO BE FITTED TO THE RESPECTIVE MANUFACTURERS SPECIFICATION.
- COPYRIGHT AND RIGHT OF REPRODUCTION OF THIS DRAWING OR ANY PORTION THEREOF IS RESERVED BY THE ARCHITECT.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTATION.
- DO NOT SCALE FROM THIS DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, SUPPLY AND INSTALLATION OF SUPPORTS, BRACKETING SYSTEMS AND SECONDARY STEELWORK SUPPORTS REQUIRED FOR THIS WORKS PACKAGE, UNLESS OTHERWISE STATED. THIS SHALL INCLUDE PERMANENT STEELWORK STRUCTURES TO FACILITATE ACCESS FOR MAINTENANCE, SUCH AS METAL GANTRIES, LADDERS AND STEPS.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PROJECT FIRE STRATEGY DRAWINGS AND PROVIDE FIRE DAMPERS/FIRE STOPPING WHEREVER SERVICES PENETRATE A FIRE BARRIER, UNLESS OTHERWISE SPECIFIED OR INSTRUCTED.

AC GENERAL NOTES

- ALL DUCTING TO BE MANUFACTURED IN ACCORDANCE WITH SABS 1238, 2005 Rev 2 STANDARDS.
- ALL DUCTING TO BE INSTALLED, PRESSURE TESTED AND BALANCED IN ACCORDANCE WITH S.A.B.S. 0173. (1980)
- ALL DIMENSIONS ARE EXPRESSED IN MILLIMETERS.
- ALL WEATHER LOUVERS & COWLS TO BE COVERED WITH WIRE MESH VERMIN SCREENS.
- ALL HVAC EQUIPMENT TO BE PROTECTED AGAINST VIBRATIONS BY MEANS OF ANTI-VIBRATION MOUNTINGS.
- ALL HVAC DUCTING SIZES SHOWN ARE SHEET METAL SIZES.
- WIRING BETWEEN CONTROL PANEL, ISOLATORS AND HVAC EQUIPMENT TO BE PART OF THE HVAC SCOPE OF WORKS.
- ALL SUPPLY, AND RETURN AIR DUCTING IS TO BE EXTERNALLY INSULATED WITH 25mm FRK 24 kg/m³.
- ALL BUILDER'S WORK OPENINGS AND MAKING GOOD FOR THE AIR CONDITIONING & VENTILATION EQUIPMENT TO BE DONE BY OTHERS.



PROPOSED ROOF LAYOUT
SCALE 1:100



PROPOSED HVAC LAYOUT
SCALE 1:100

Drawings
First Cool c.c.
CRK90-01928-23

32 Julbert Road
Beresford
JHB
Tel: (011) 624-2981

P.O.Box 1159
Maitland
2059
Fax: (011) 624-3126

Project: CSIR RENOVATIONS FOR THE DIOXIN FACILITY

Title: 3rd FLOOR Air Conditioning and Ventilation

Contractor: ---

Consultant: ---

RESPONSIBLE PROFESSIONAL			
DATE	NAME & SURNAME	SIGNATURE	PR. NUMBER
---	---	---	---

Designed	Drawn	Checked Quality	Passed Design	Date	Drawn Scale
---	SB			21/10/2019	1:100 (A1)

Project Number	Division	Service	Drawing Number	Revision
FC-CSIR	DF	AC	01	6