

AIR HANDLING UNIT SCHEDULE					
AIR HANDLING UNIT		CON-AHU-101			
QTY		1			
LOCATION		HVAC ROOM			
TYPE		HORIZONTAL WITH MIXING BOX			
FAN DISCHARGE POSITION		TOP DISCHARGE			
SITE ALTITUDE ABOVE SEA LEVEL		1685 M			
QTY		1			
OUTDOOR AIR DB / WB		50 / 25 °C			
SUPPLY FAN		1 FAN AND 2 ELECTROMOTORS(ON AS STANDBY)			
TYPE		CENTRIFUGAL BACKWARD CURVED, DWDI			
SUPPLY AIR		6415 L/S			
FRESH AIR		1939 L/S			
EXTERNAL STATIC PRESSURE		400 PA			
TOTAL PRESSURE DROP		600 PA (*)			
COOLING COIL		R134a			
ENTERING DB / WB		32.3 / 19.0 °C			
LEAVING DB / WB		13.4 / 12.2 °C			
COOLING CAPACITY		135.8 KW			
SENSIBLE LOAD		119.2 KW			
TUBE MATERIAL		SEAMLESS COPPER			
FIN MATERIAL		ALUMINUM			
COATING		ANTI CORROSION			
HEATING COIL		HOT WATER			
ENTERING DB		13.7 °C			
LEAVING DB		21 °C			
HOT WATER TEMP (IN/OUT)		82 / 71 °C			
TOTAL LOAD		158.4 MBH			
TUBE MATERIAL		SEAMLESS COPPER			
FIN MATERIAL		ALUMINUM			
COATING		ANTI CORROSION			
ELECTRICAL HUMIDIFIER		-			
TYPE		-			
CAPACITY		-			
INPUT POWER		-			
FILTER		ALUMINUM-WASHABLE EFFICIENCY % 30			
1ST BED		PLEATED EFFICIENCY % 45-50			
2ND BED		BAG EFFICIENCY % 90			
3RD BED		-			
TOTAL POWER CONSUMPTION		18.5 (*) KW			
VOLT/PHASE/HZ		400/3/50			
SUPPLY FAN ELECTRICAL MOTOR IP		55			
OPERATING WEIGHT		AHU 4500 (*) KG			

(*) THIS DATA SHALL BE FINALIZED BY VENDOR.

EXPANSION TANK SCHEDULE					
TAG No.	LOCATION	TYPE	VOLUME (LITR)	MAX. AVERAGE OPERATING TEMP.(°F)	REMARK
CON-C.EXT-01	STORE	CLOSED	1005	180	

(*) THIS DATA SHALL BE FINALIZED BY VENDOR.

INDOOR UNIT V.R.F														
DESIGNATION	QTY	SERVICE	TYPE	COOLING*			HEATING*		ELECTRICAL DATA		ASSOCIATED CONDENSING UNIT	WEIGHT* (KG)	MODEL	REMARK
				CAPACITY	EAT		CAPACITY	EAT	VOLTAGE	POWER				
				TOTAL (KW)	DB (°C)	WB (°C)	TOTAL (KW)	DB (°C)	PHASE HERTZ	INPUT* (W)				
CON-VRP.I-101	4	01-CONTROL ROOM	4 WAY CASSETTE	5.6	24	18	6.3	22	220/1/50	50	CON-VRP.O.-101A/B	21	-	-
CON-VRP.I-102	2	03-ENGINEERING ROOM	4 WAY CASSETTE	4.5	24	19	5.0	22	220/1/50	40	CON-VRP.O.-101A/B	20	-	-
CON-VRP.I-103	2	07-MANAGER OFFICE	4 WAY CASSETTE	4.5	24	19	5.0	22	220/1/50	40	CON-VRP.O.-101A/B	20	-	-
CON-VRP.I-104	1	08-SUPERVISER ROOM	4 WAY CASSETTE	7.1	24	18	8.0	22	220/1/50	60	CON-VRP.O.-101A/B	20	-	-
CON-VRP.I-105	1	09-ENGINEERING ROOM	4 WAY CASSETTE	7.1	24	18	8.0	22	220/1/50	60	CON-VRP.O.-101A/B	21	-	-

(*) THIS DATA SHALL BE FINALIZED BY VENDOR.
1. REFER TO MANUFACTURER FOR REFRIGERANT PIPE SIZE.
2. PROVIDE WITH CONDENSATE PUMP.

OUTDOOR UNIT V.R.F												
DESIGNATION	COOLING CAPACITY* (KW)	HEATING CAPACITY* (KW)	AMBIENT (°C)	ELECTRICAL DATA		OPERATING WEIGHT* (KG)	MODEL	TYPE	DIMENSION (MM)	HP*	REMARK	
				VOLTAGE PHASE HERTZ	POWER INPUT* (KW)							
				380/3/50	18.5							
CON-VRP.O.-101A/B	52.0	63	50	380/3/50	18.5	391	---	VRV IVS	---	25	-	

(*) THIS DATA SHALL BE FINALIZED BY VENDOR.
1. PROVIDE WITH R-410A REFRIGERANT.
2. CONDENSING UNIT CONSISTS OF THREE EQUALLY SIZED CONDENSERS.

CONDENSING BOILER UNIT SCHEDULE					
TAG No.	TYPE	QTY	LOCATION	CAPACITY (BTU/HR)	REMARK
CON-BO-101	CONDENSING	2	CONTROL BLDG. NO.2	500'000(EACH)	THE EXACT CAPACITY OF BOILER SHALL BE CONSIDERED BY VENDOR.
CON-BO-102	BOILER	(ONE AS STANDBY)	MECH ROOM		THE TEMPERATURE SENSOR FOR CALCULATING THE OUTDOOR TEMP. SHALL BE CONSIDERED BY VENDOR.

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EXHAUST FAN SCHEDULE												
TAG NO.	TYPE	SERVICE AREA	LOCATION	QTY.	AIR FLOW L/S	STATIC PRESSURE (PA)	ELECTRICAL CHARACTERISTICS					REMARKS
							WATT(*)	VOLT	PHASE	CYCLE	IP	
CON-EF-101A,B	CENTRIFUGAL BACKWARD UTILITY TYPE	BATTERY ROOM	ROOF	2(1+1)	285	215	550	380	3	50	55	FANS ARE EXPLOSION PROOF EXPLOSION PROOF CLASS: Exe IIC T3
CON-EF-102	CENTRIFUGAL BACKWARD UTILITY TYPE	W/C. SHOWER AND LOCKER ROOM	ROOF	1	1213	220	1500	380	3	50	55	-
CON-EF-103	CENTRIFUGAL BACKWARD UTILITY TYPE	PANTRY	ROOF	1	195	215	550	380	3	50	55	-
CON-EF-104	CENTRIFUGAL BACKWARD UTILITY TYPE	HVAC ROOM	ROOF	1	242	220	550	380	3	50	55	-

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AIR COOLED CONDENSER SCHEDULE												
TAG No.	TYPE	QTY	LOCATION	CAPACITY (TON.REF)	REFRIGERANT	ELECTRICAL CHARACTERISTIC					COMPRESSOR TYPE	REMARK
						KW(*)	PHASE	VOLT	HZ	IP		
CON-ACC-101A,B	AIR COOLED	2	ROOF	38.6	R134a	66.2	3	400	50	54	SEMI HERMETIC/REC.	ONE AS STAND BY

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PUMP SCHEDULE													
TAG No.	TYPE	QTY	LOCATION	SERVICE AREA	FLOW RATE (GPM)	TOTAL HEAD (FT.WG)	ELECTRICAL CHARACTERISTIC(*)					TYPE OF WATER	
							KW(*)	PHASE	VOLT	HZ	IP		
CON-PU-101 & CON-PU-102	CENTRIFUGAL IN-LINE	2x100%	MC ROOM	HW CIRCULATION FOR AHU&REHEAT COIL IN CONTROL BUILDING	20.1	34.2	1.02	1	230	50	54	2800	HOT WATER
CON-PU-103 & CON-PU-104	CENTRIFUGAL IN-LINE	2x100%	MC ROOM	HW CIRCULATION FOR AHU IN SUBSTATION BUILDING	20.6	52.2	1.02	1	230	50	54	2800	HOT WATER
CON-PU-105 & CON-PU-106	CENTRIFUGAL IN-LINE	2x100%	STORE	DHW CIRCULATION FOR DHWG	4.5	24	0.578	1	230	50	54	3SPEED	DOMESTIC HOT WATER
CON-PU-107 & CON-PU-108	CENTRIFUGAL IN-LINE	2x100%	STORE	DHWR CIRCULATION FOR HOT WATER RETURN	1.1	14	0.09	1	230	50	54	3SPEED	DOMESTIC HOT WATER

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DOMESTIC HOT WATER GENERATOR SCHEDULE									
TAG No.	TYPE	QTY	TANK CAP. (LITR)	HEATING CAP. (BTU/HR)	DOMESTIC WATER WATER INLET/OUTLET TEMP.(°F)	HOT WATER WATER INLET/OUTLET TEMP.(°F)	DOMESTIC WATER FLOW RATE (GPH)	HOT WATER FLOW RATE (GPM)	REMARK
CON-DHWG-101	WITH HOT WATER HEATING COIL	1	300	45'000	40/140	180/160	54	4.5	

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GENERAL NOTES

REFERENCE DOCUMENTS

DOC. NO.	DOC. NO.
Process Control Building No.03 HVAC Calculation	LRP-TNA-HV-19-CAL-0002
Process Control Building No.03 HVAC Equipment Data Sheets	LRP-TNA-HV-19-DSH-0002

LEGEND

KEY PLAN

Rev.	Date	Purpose of Issue	PRE'D.	CHK'D.	APR'D.
03					
02	24-JAN-24	Issued for construction	H.RASOOLI	H.RASOOLI	R.JAVADZADEH
01	22-SEP-23	Issued for Information	H.RASOOLI	H.RASOOLI	AR.AHOOEI
00	29-JUL-23	Issued for Information	H.RASOOLI	H.RASOOLI	AR.AHOOEI

Project
Completing the Remaining Documents of Design and Engineering Services for LAB2 Unit

P.O. No.:6258 SCALE : 1:100

Client:		Consultant:	
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DRAWING TITLE:
Process Control Building No.03 HVAC Equipment Schedule

OLD Doc. No.: -	Doc. No.: LRP-TNA-HV-19-LIS-0002
Size: A1	SHEET No. 1 OF 1 REV. 02