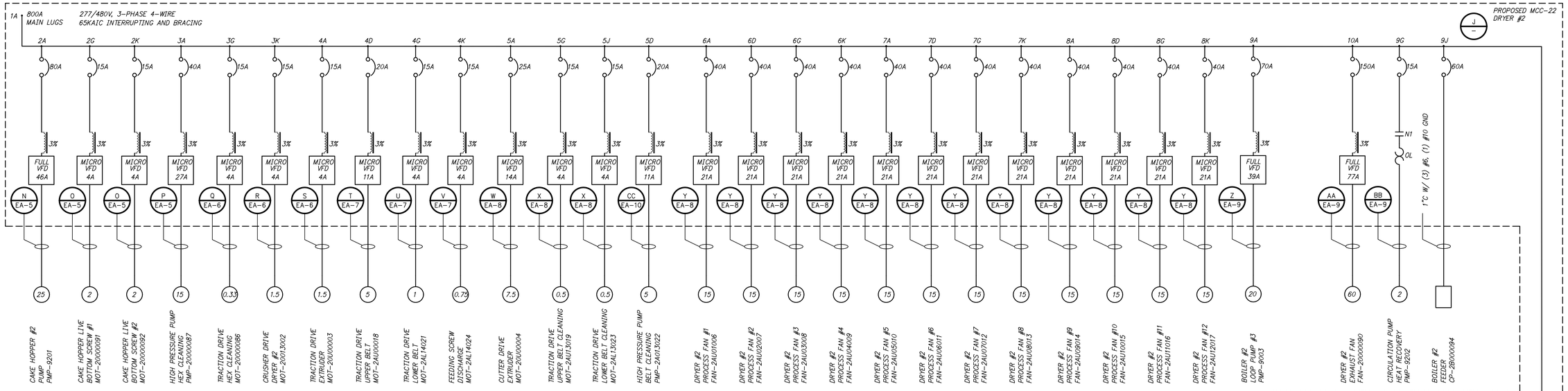
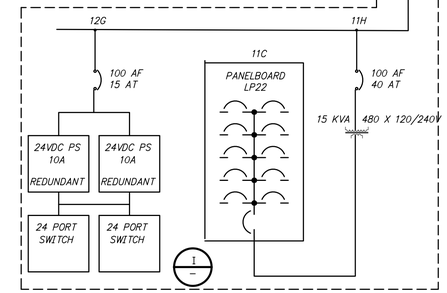


DRYER #2 MCC-22
ONE-LINE DIAGRAM

DETAIL H
NTS EA-1



PANEL LP22 – MCC BUCKET 11C

CKT #	DESCRIPTION	WIRE (GND)	CB	CONDUIT	LOAD AMPS PHASE A CONNECTED	LOAD AMPS PHASE A DEMAND	LOAD AMPS PHASE B CONNECTED	LOAD AMPS PHASE B DEMAND	CONDUIT	CB	WIRE (GND)	DESCRIPTION	CKT #
1	DRYER 2 PLC16 01 EBH21CP001	#6 (#10)	60	1"	32	32				20		SPARE –	2
3	FROST PROT HTR 01 EBM25AH001	#12 (#12)	20	CT,3/4"			13	13	CT,3/4"	20	#12 (#12)	CAKE HOPPER CP 01 EBA20CP001	4
5	SPARE –		20		–	–	15	15		20		SPARE –	6
7	SPARE –		20				–	–		20		SPARE –	8
9	SPACE –				–	–	–	–				SPACE –	10
11	SPACE –						–	–				SPACE –	12
13	SPACE –				–	–	–	–				SPACE –	14
15	SPACE –						–	–				SPACE –	16
17	SPACE –				–	–	–	–				SPACE –	18
			TOTAL CONNECTED		32			28					
			TOTAL DEMAND			32	28						

TYPE: LIGHTING AND APPLIANCE
VOLTS: 120/240, SINGLE PHASE, THREE WIRE
MAIN: 80A MAIN BREAKER
BUS: 100 AMP
RATING: 10 KAIC
MOUNTING: MCC INTERIOR
ENCLOSURE RATING: NEMA 1
BRANCH BREAKERS: BOLT-ON

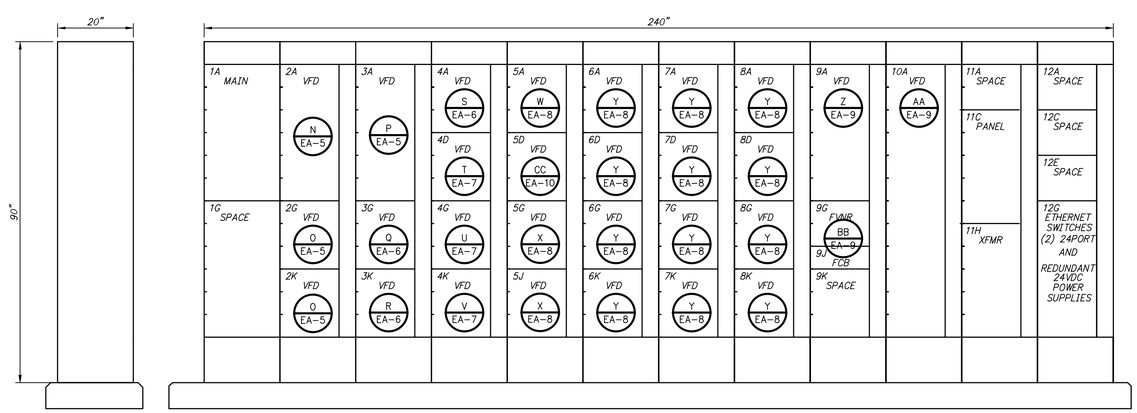
CONNECTED KVA: 4
DEMAND KVA: 4
DESIGN KVA: 15

DRYER #2 MCC-22
PANEL LP22 SCHEDULE

DETAIL I
NTS –

GENERAL NOTES

1. VFD RATINGS ARE CONTINUOUS OUTPUT AMPS. DO NOT SIZE BY MOTOR HORSEPOWER. A MICRO VFD IS COMMONLY REFERRED TO AS MACHINE DRIVE. A FULL SIZE VFD IS COMMONLY REFERRED TO AS A PROCESS DRIVE.
2. ALL VFD MCC BUCKETS SHALL INCLUDE CONTROL DIAGRAMS AS INDICATED ON THE RISER DIAGRAM DETAILS REFERENCED IN THE ONE-LINE DIAGRAM. SEVERAL UTILIZE EXTERNAL HOA CONTROL STATIONS, WHILE OTHERS WILL UTILIZE AN MCC BASED HOA SWITCH. IN GENERAL, INCLUDE A CONTROL POWER TRANSFORMER, SPEED POTENTIOMETER, GREEN VFD RUNNING PILOT LIGHT, RED VFD FAULTED PILOT LIGHT, AND ETHERNET IP COMMUNICATION CARD. AUTO OPERATION SHALL BE VIA ETHERNET IP. HAND OPERATION WILL UTILIZE THE VFD DISCRETE AND ANALOG I/O TERMINALS.
3. ALL FVNR MCC BUCKETS SHALL USE NEMA RATED STARTERS, SIZE AS INDICATED, WITH ETHERNET ENABLED OVERLOAD RELAYS, WHICH SHALL PROVIDE I/O AS INDICATED ON THE CONTROL DIAGRAMS FOR OPERATION OF THE STARTER. THE BUCKET SHALL INCLUDE A CONTROL POWER TRANSFORMER, GREEN RUNNING PILOT LIGHT, RED OVERLOAD PILOT LIGHT, AND ELAPSED TIME METER.
4. THE MCC SHALL INCLUDE REDUNDANT 24VDC 10A POWER SUPPLIES, WITH INPUT POWER OF 480VAC THREE PHASE OR 120VAC SINGLE PHASE. THE MCC SHALL INCLUDE TWO (2) 24 PORT ETHERNET SWITCHES WITH DUAL 24VDC POWER INPUT AND AUTOMATIC SWITCHING. PROVIDE ALL ETHERNET CABLING IN THE MCC TO EACH BUCKET.
5. MAINTAIN THE BUCKET LAYOUT AS SHOWN IN THE DRAWINGS TO THE EXTENT POSSIBLE, WITH THE MAIN LUG ENTRY ON THE RIGHT OF THE LINEUP.
6. SEE MCC SPECIFICATION 16480 FOR ALL DETAILS.



DRYER #2 MCC-22
ELEVATION AND LAYOUT

DETAIL J
NTS –

1"
ONE INCH AT FULL SIZE
IF NOT ONE INCH SCALE ACCORDINGLY

REVISION	DATE

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STATE OF ARKANSAS PROFESSIONAL ENGINEER No. 9848 Scott Weir 8/26/24

HAWKINS-WEIR ENGINEERS, INC.
BLACK & VEATCH

ROGERS, ARKANSAS
ROGERS POLLUTION CONTROL FACILITY (PCF)
SOLIDS HANDLING IMPROVEMENTS, PHASE II

DRYER #2 MCC-22
ONE-LINE DIAGRAM, ELEVATION, AND SCHEDULE

FOR: ROGERS WATER UTILITIES

DATE: AUGUST 2024
SCALE: NTS
DESIGNED BY: LSM
DRAWN BY: LSM
HWEI NO.: 2020043
FILENAME: EA-03

SHEET NO.
EA-3

Z:\20\2020043 ROGERS SOLIDS HANDLING IMPROVEMENTS, PH 2\DRAWINGS\CONSTRUCTION DRAWINGS\WWTP\EA-03.DWG, 8/26/2024 11:14 AM, MATT WEIR, LAYOUT1