5/8/2026 12:11:00 PM

PANELBOARD: MDP

NEW

LOCATION:
SUPPLY FROM: ATS
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 208/120V-3PH,4W
PHASES: 3
WIRES: 4

A.I.C. RATING: FULLY (7)
MAINS TYPE: M.L.O.
MAINS RATING: 800 A
REQUIREMENTS: GROUND BAR

NOTES:
INTEGRAL SPD

CKT	Circuit Description	Trip	Poles	Wire	A (kVA)		B (kVA)		C (kVA)		Wire	Poles	Trip	Circuit Description	CKT
1	L1 (8)	100	3		7.90	8.53					4	3	80	RTU-1	2
3	--	--	--	--			10.31	8.53			--	--	--	--	4
5	--	--	--	--					9.56	8.53	--	--	--	--	6
7	L2 (8)	400	3		31.76	3.84					8	3	50	RTU-2	8
9	--	--	--	--			28.65	3.84			--	--	--	--	10
11	--	--	--	--					29.65	3.84	--	--	--	--	12
13	LM (8)	200	3		12.14	--					--	1	--	SPACE	14
15	--	--	--	--			13.48	--			--	1	--	SPACE	16
17	--	--	--	--					11.81	--	--	1	--	SPACE	18
19	SPACE	--	1	--	--	--					--	1	--	SPACE	20
21	SPACE	--	1	--			--	--			--	1	--	SPACE	22
23	SPACE	--	1	--					--	--	--	1	--	SPACE	24
		Total Load:			64161 VA		64801 VA		63396 VA						
		Total Amps:			536 A		541 A		528 A						

Load Classification	Connected Load	Demand Factor	Demanded Load	Panel Totals	
HVAC	69576 VA	100.00%	69576 VA		
LIGHTS	10236 VA	125.00%	12795 VA	**Total Conn. Load:**	192357 VA
MOTORS	1000 VA	125.00%	1250 VA	**Total Feeder Load:**	195035 VA
NON-CONTINUOUS	92791 VA	100.00%	92791 VA	**Total Connected Current:**	534 A
Other	180 VA	100.00%	180 VA	**Total Feeder Current:**	541 A
RECEPTS	10260 VA	98.73%	10130 VA		
WELD	8320 VA	100.00%	8320 VA		

(XX-X) EP ONE-LINE FEEDER SCHEDULE

FEEDER TYPE	COPPER FEEDER
100-4	1 - 1 1/4"C, 4#3, 1#8GR
200-4	1 - 2"C, 4#3/0, 1#6GR
400-4	2 - 2"C, 4#3/0, 1#3GR EACH
855-4	3 - 2 1/2"C, 4-300KCMIL, 1#1/0GR EACH
S855-4	3 - 3"C, 4-300KCMIL EACH

GROUND WIRE SIZING CHART

BRKR AMPS		WIRE SIZE				
15-20	PHASE	12	10	8	6	4
	GROUND	12	10	8	6	4
25-30	PHASE	10	8	6	4	3
	GROUND	10	8	6	4	3
35-50	PHASE	8	6	4	3	2
	GROUND	10	8	4	4	4
60	PHASE	6	4	3	2	1
	GROUND	10	6	6	4	4
70	PHASE	6	4	3	2	1
	GROUND	8	4	4	3	2
80-90	PHASE	4	3	2	1	1/0
	GROUND	8	6	4	4	3
100	PHASE	3	2	1	1/0	2/0
	GROUND	8	6	4	4	3

PER NEC 250.122(B)

CONDUIT SIZED BASED ON CONDUCTOR PROPERTIES LISTED IN THE CURRENT NEC EDITION, CHAPTER, 9, TABLES 5 AND 5A, AND CONDUIT AREAS LISTED CHAPTER 9, TABLE 4 FOR EMT WITH 40% FILL. OTHER CONDITIONS MAY REQUIRE A LARGER CONDUIT, SUCH AS UNDERGROUND PVC, SIZED FOR NEC.

COORDINATE LUG SIZE, TYPE, AND AMOUNT WITH EQUIPMENT MANUFACTURER PRIOR TO FEEDER INSTALLATION.

PANELBOARD NOTES (#)

NOTE IS IN CIRCUIT DESCRIPTION IN PARENTHESIS

1.	TERMINATE GROUND ON ISOLATED GROUND BUS.
2.	INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-OFF FOR MAINTENANCE).
3.	INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-ON FOR CRITICAL LOAD).
4.	GFI BREAKER FOR PERSONNEL PROTECTION (5 mA).
5.	GFI BREAKER FOR EQUIPMENT PROTECTION (30 mA).
6.	CONDUCTOR SIZE SHOWN IN PANEL SCHEDULE HAS BEEN INCREASED FOR VOLTAGE DROP. SIZE EQUIPMENT GROUNDING CONDUCTOR PROPORTIONALLY PER NEC. REFERENCE GROUND WIRE SIZING CHART.
7.	REFER TO ONE-LINE DIAGRAM FOR AVAILABLE FAULT CURRENT FOR INTERRUPT RATINGS.
8.	REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES.
9.	FACTORY WIRED TO LOAD.
10.	THRU CONTACTOR FOR TIMED CONTROL.
11.	LOAD IS EXISTING TO REMAIN.
12	SHUNT TRIP BREAKER
13	EXISTING LOAD IS RELOCATED TO NEW PANEL
(E)	EXISTING TO REMAIN
(N)	NEW CIRCUIT

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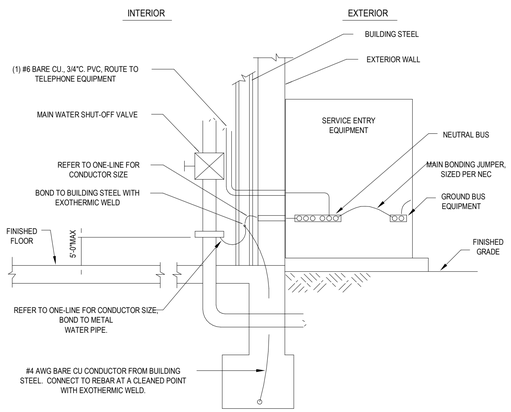


Notes:

1. GROUNDING ELECTRODE SYSTEM INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH LOCAL CODES AND/OR AUTHORITY HAVING JURISDICTION.
2. EXTERIOR SWITCHGEAR SHOWN AS AN EXAMPLE AND MAY NOT APPLY. SAME WIRING SHALL APPLY TO INTERIOR SWITCHGEAR OR SERVICE ENTRY EQUIPMENT.

3 GROUNDING ELECTRODE DETAIL
NTS

EQUIPMENT LABELS

ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A LABEL APPLIED TO WARN OF POTENTIAL ARC FLASH HAZARDS, REFER TO ARC FLASH DETAIL.

WARNING

ARC FLASH AND SHOCK HAZARD. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED.

NOTES:

A. ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A COMMERCIALLY PRODUCED PERMANENT LABEL APPLIED, SIMILAR TO THE ABOVE, TO WARN OF POTENTIAL ARC FLASH HAZARDS, IN ACCORDANCE WITH NEC 110.16 AND NFPA 70E.

B. LABELING MAY BE COMPLETED BY EQUIPMENT MANUFACTURER, EQUIPMENT VENDOR/SUPPLIER, OR THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT ALL SWITCHBOARDS AND PANELBOARDS ARE PROPERLY LABELED IN THE FIELD.

2 ARC FLASH DETAIL
NTS

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL SERVICE AND METERING REQUIREMENTS AND SPECIFICATIONS WITH UTILITY COMPANY PRIOR TO BID AND SHALL BE RESPONSIBLE FOR ALL MATERIAL, WORK, AND FEES ASSOCIATED WITH IT. ANY TEMPORARY CONSTRUCTION SERVICES SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR AS NECESSARY.

COORDINATE ALL NECESSARY WORK, FINAL LOCATIONS, AND RESPONSIBILITY WITH UTILITY COMPANY FOR TRANSFORMER, METER, AND CT INSTALLATION. GROUND METER PER UTILITY REQUIREMENTS.

PROVIDE LABEL AT SERVICE ENTRANCE EQUIPMENT IDENTIFYING THE MAXIMUM AVAILABLE FAULT CURRENT PER NEC 110.24. A LABEL SHOULD ALSO IDENTIFY THE SOURCE OF SUPPLY FOR EACH PANEL PER NEC 408.4

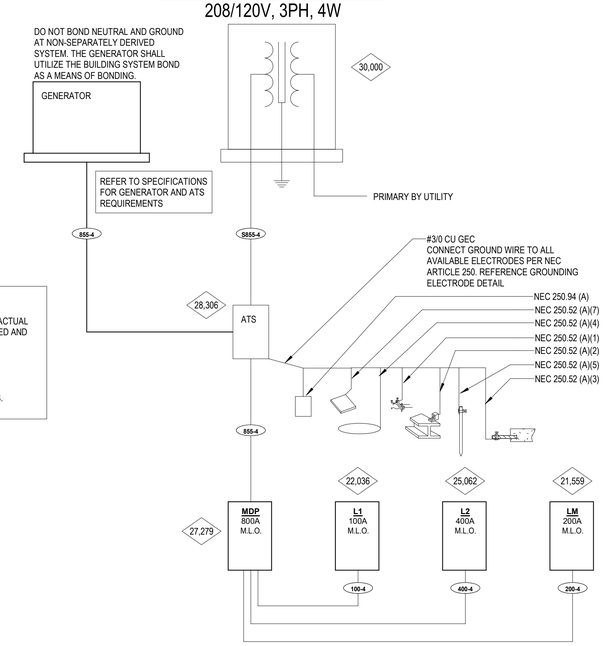
PROVIDE 4" HIGH FORMED CONCRETE HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED ELECTRICAL GEAR.

XX,XXX — REPRESENTS THE AVAILABLE FAULT CURRENT IN RMS SYMMETRICAL AMPERES AT THE RESPECTIVE TRANSFORMER, PANELBOARD, OR EQUIPMENT. CONFIRM ACTUAL NUMBERS FROM UTILITY ONCE SERVICE HAS BEEN PLANNED AND ADJUST EQUIPMENT AIC RATINGS ACCORDINGLY.

FAULT CURRENT CALCULATIONS ARE BASED ON AVAILABLE FAULT CURRENT OF 42,500 AMPS AT SECONDARY TERMINALS OF TRANSFORMER USING AN INFINITE PRIMARY AND ASSUMED TRANSFORMER RATINGS.

NEW UTILITY TRANSFORMER
208/120V, 3PH, 4W

DO NOT BOND NEUTRAL AND GROUND AT NON-SEPARATELY DERIVED SYSTEM. THE GENERATOR SHALL UTILIZE THE BUILDING SYSTEM BOND AS A MEANS OF BONDING.



1 ELECTRICAL ONE-LINE DIAGRAM
NTS

ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES

E3.0

BID SET
05/08/2026 **25078**