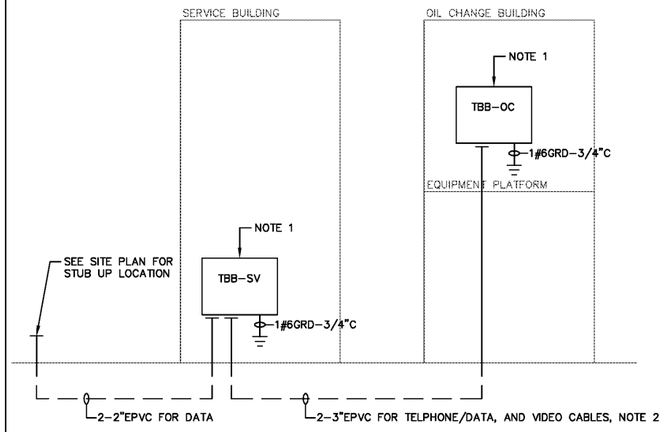
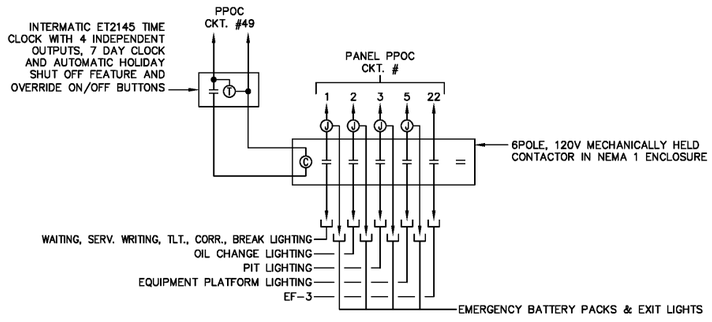
NOTES:

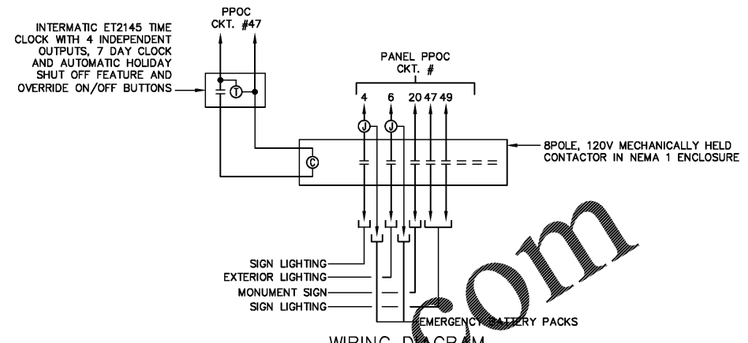
1. 48"x48" FREE STANDING TELEPHONE BACKBOARD. PROVIDE ACCESS AS REQUIRED BY CLEAR COM.
2. CONDUIT ELBOWS SHALL BE SWEEPING WITH NO HARD ANGLES.



SINGLE LINE DIAGRAM
AUXILIARY
NOT TO SCALE



WIRING DIAGRAM
CONTACTOR OC-1
NOT TO SCALE



WIRING DIAGRAM
CONTACTOR OC-2
NOT TO SCALE

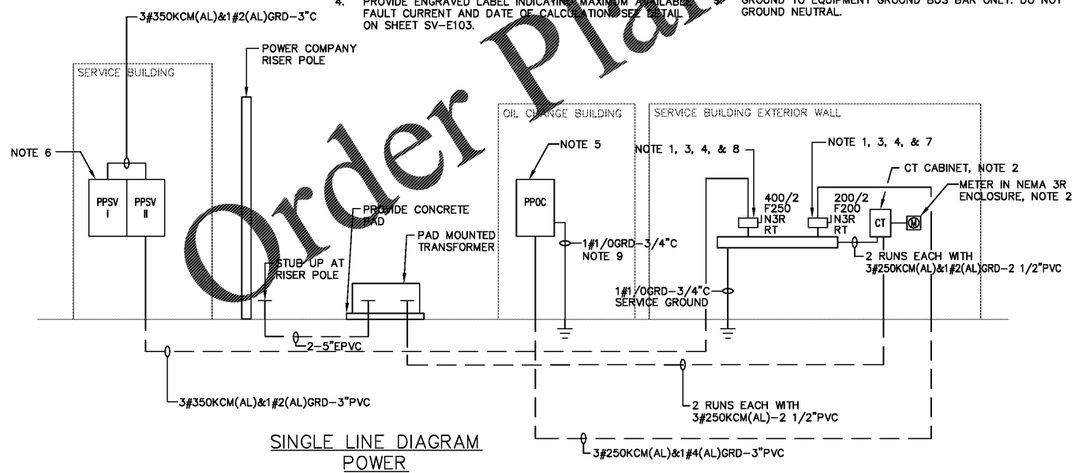
DETAIL
ARC FLASH HAZARD WARNING LABEL
NOT TO SCALE

GENERAL NOTES:

1. COORDINATE SECONDARY SERVICE REQUIREMENTS WITH POWER COMPANY BEFORE BID. PROVIDE PER POWER COMPANY REQUIREMENTS.
2. EQUIPMENT WITH ALUMINUM FEEDERS SHALL BE PROVIDED WITH DUAL RATED TERMINALS.

NOTES:

1. DISCONNECT SWITCH, NEMA 3R ENCLOSURE.
2. COORDINATE METERING WITH POWER COMPANY BEFORE ROUGHING IN.
3. SERVICE DISCONNECTS SHALL BE MOUNTED SUCH THAT CENTER OF OPERATING HANDLE SHALL NOT BE LESS THAN 4' AND NOT MORE THAN 6'-7" ABOVE GRADE.
4. PROVIDE ENGRAVED LABEL INDICATING MAXIMUM AVAILABLE FAULT CURRENT AND DATE OF CALCULATION. SEE DETAIL ON SHEET SV-E103.
5. PROVIDE LABEL INDICATING LOCATION OF SERVICE DISCONNECT "FED FROM SERVICE DISCONNECT # 1, LOCATED AT EXTERIOR OF OIL CHANGE BUILDING."
6. PROVIDE LABEL INDICATING LOCATION OF SERVICE DISCONNECT "FED FROM SERVICE DISCONNECT #2, LOCATED AT EXTERIOR OF SERVICE BUILDING."
7. PROVIDE LABEL "SERVICE DISCONNECT SWITCH #1 FOR OIL CHANGE BUILDING."
8. PROVIDE LABEL "SERVICE DISCONNECT SWITCH #2 FOR SERVICE BUILDING."
9. GROUND TO EQUIPMENT GROUND BUS BAR ONLY. DO NOT GROUND NEUTRAL.



SINGLE LINE DIAGRAM
POWER
NOT TO SCALE

PANEL LOAD SUMMARY

Panel: PPOC

Equipment	LIGHT	RCPT	O/M	CB SIZE	CIRCUIT #	PHASE A	PHASE B	CIRCUIT #	CB SIZE	LIGHT	RCPT	O/M	Equipment
WAITING/WRITING ETC. LTG.	480			20/1	1	1284		2	20/1	724			OIL CHANGE LIGHTING
PIT LIGHTING	540			20/1	3		840	4	20/1	300			SIGN LIGHTING
EQUIPMENT PLATFORM LTG.	320			20/1	5	445		6	20/1	125			EXTERIOR LIGHTING
WAITING ROOM RECEP.		200		20/1	7		400	8	20/1		200		PIT SUMP PUMP RECEP.
WAITING ROOM RECEP.		400		20/1	9	1080		10	20/1 (GFI)		600		PIT RECEPTACLE
SERVICE WRITING RECEP.		600		20/1	11		1200	12	20/1 (GFI)		600		PIT RECEPTACLE
WAITING/TOILET RECEPTACLE		600		20/1	13	900		14	20/1 (GFI)		200		PIT TABLE RECEPTACLE
SPARE				20/1	15		200	16	20/1 (GFI)		200		PIT TABLE RECEPTACLE
BREAK ROOM RECEPTACLE		400		20/1	17	600		18	20/1		400		TBB-OC RECEPTACLE
BREAK ROOM RECEPTACLE		200		20/1	19		200	20	20/1	100			MONUMENT SIGN
BREAK ROOM FRIDGE		200		20/1(GFI)	21	1656		22	20/1			1656	EF-3
MANAGER RECEPTACLE		800		20/1	23		817	24	20/1			17	RH-1
SPARE				20/1	25	17		26	20/1			17	RH-2
CORR/TOILET RECEPTACLE		600		20/1	27		700	28	20/1			100	EF-1
SPARE				20/1	29	100		30	20/1			100	EF-2
SPARE				20/1	31		1680	32	20/2			1680	CU-1
OIL CHANGE DESK RECEP.		200		20/1 (GFI)	33	1880		34				1680	
OIL CHANGE DESK RECEP.		200		20/1 (GFI)	35		3800	36	50/2			3600	AHU-1
OIL CHANGE DESK RECEP.		200		20/1 (GFI)	37	3800		38				3600	
OIL CHANGE DESK RECEP.		200		20/1 (GFI)	39		2450	40	25/2			2250	EWH
OIL CHANGE RECEPTACLE		600		20/1 (GFI)	41	2850		42				2250	
OIL CHANGE RECEPTACLE		600		20/1 (GFI)	43		800	44	20/1		200		EQUIP. PLATFORM RECEP.
OUTDOOR RECEPTACLE		800		20/1	45	800		46	20/1				SPARE
CONTACTOR OC-2	50			20/1	47		50	48	20/1				SPARE
CONTACTOR OC-1	50			20/1	49	50		50	20/1				SPARE
SPARE				20/1	51		0	52	20/1				SPARE
SPARE				20/1	53	400		54	20/1 (GFI)		400		DRINKING FOUNTAIN
Sub-Total	1440	6600	0			16002	13137			1248	2800	16950	Sub-Total

	TOTAL CONNECTED LOAD PER PHASE			DEMAND LOAD (VA)		
LOAD TYPE	Phase A	Phase B		DEMAND FACTOR	Phase A	Phase B
LIGHTING	1689.00	990.00		1.25	2123.75	1237.50
RECEPTACLES	8000.00	4800.00		*	5000.00	4606.00
MOTORS/OTHER	6303.00	7647.00		1.00	9303.00	7647.00
TOTAL	16002.00	13237.00			16426.75	13484.50

TOTAL CONNECTED LIGHTING LOAD	2.69	KVA
TOTAL CONNECTED RECEPTACLE LOAD	5.60	KVA
TOTAL CONNECTED MOTOR/OTHER LOAD	16.95	KVA
TOTAL CONNECTED LOAD	28.24	KVA

* Diversified per NEC Table 220.13.

WIRE SIZE CALCULATIONS			ENCLOSURE	NEMA 1
LARGEST PHASE DEMAND	16.43	KVA	MOUNTING	FLUSH
NO. OF PHASES	2.00		MAIN TYPE	MB
DEMAND LOAD	32.85	KVA	SIZE	200A
			FEED THRU	NO
TOTAL DEMAND LOAD	32.85	KVA	FEED	BOTTOM
SUPPLY VOLTAGE	240.00	V	BUS RATING	225A
			SERVICE RATED	NO
MINIMUM CCT AMPS	136.89	AMPS	MIN FULL EQUIP KAIC RATING	22
			TYPE	NQ OR EQUAL
			MANUFACTURER	SQ D, SIEMENS, G.E., EATON
			OTHER	TVSS
VOLTS	120/ 240		V 1 Phase , 3 Wire & Grd Bus Bar	

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PROFESSIONAL ENGINEER
8/27/2020

Express Oil Change & Tire Engineers
Right Hand Oil Change Building (Hurricane)
2265 O'Neal Lane
Baton Rouge, LA 70816

FINAL

No.	Description	Date

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Single Line Diagram & Panelboard Schedules

Project number	20025
Date	08/27/2020
Drawn by	TH
Checked by	NB
OC-E102	
Scale	NO SCALE

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