

ELECTRICAL SPECIFICATIONS

- I. THE ELECTRICAL DRAWINGS WILL CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR WORK COMPLETE AND PERFECT IN EVERY RESPECT, WILL BE INCLUDED AT NO ADDITIONAL EXPENSE TO THE OWNER.
- . ALL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE CURRENT NATIONAL ELECTRIC CODE, AND ALL APPLICABLE STATE AND LOCAL CODES
- ALL WIRING SHALL BE IN CONDUIT AS FOLLOWS:
- RIGID GALVANIZED: ALL BELOW GRADE AND EXTERIOR CONDUITS, AND ALL CONDUITS IN COOLERS/FREEZERS, AND OTHER WET OR DAMP LOCATIONS. ALL EXPOSED CONDUITS ABOVE GRADE AND ALL CONDUITS CONCEALED IN WALLS OR CEILINGS PVC SCHEDULE 40: BELOW GRADE, UNDER CONCRETE SLAB IN TRENCH ONLY LIQUIDTITE FLEX: FLEXIBLE CONNECTIONS TO VIBRATING EQUIPMENT EXTERIOR, IN COOLERS/FREEZERS, OR IN WET
- OR DAMP ENVIRONMENTS ROMEX OR MC CABLE: MAY BE USED AS PERMITTED BY NEC
- WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA " STANDARD OF INSTALLATION" ALL MATERIAL AND WORKMANSHIP WITH THE EXCEPTION OF EXPENDABLE ITEMS SUCH AS LAMPS, SHALL BE GUARANTEED FOR ONE YEAR.
- ALL WIRE SHALL BE A MINIMUM OF 12 AWG UNLESS OTHERWISE NOTED, RATED AT 600 VOLTS, ALL CONDUCTORS SHALL BE COPPER ONLY WITH TYPE THHN INSULATION
- PANELBOARDS TO HAVE PANEL SCHEDULES. TYPED

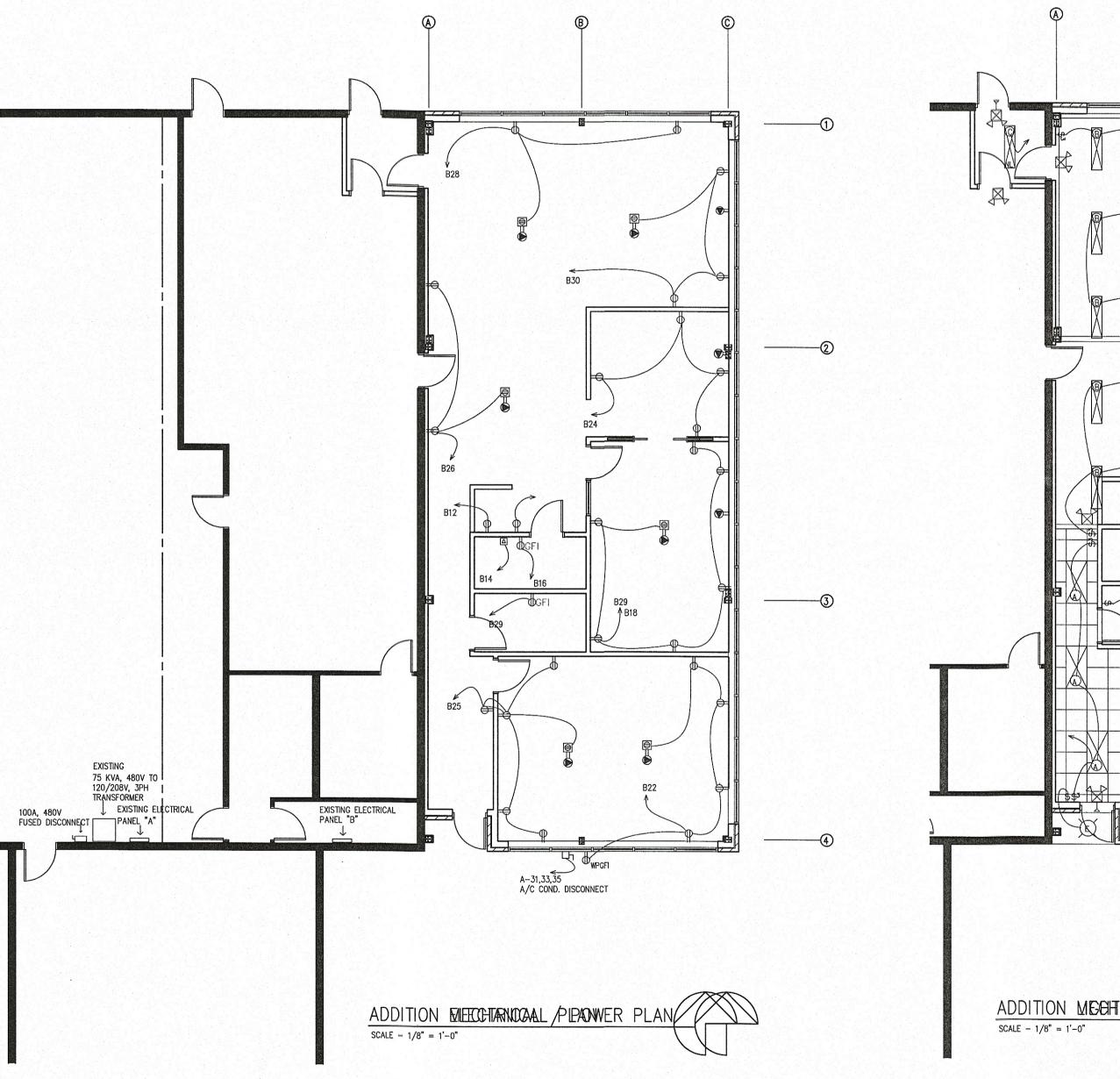
DIRECTORIES SHALL BE FURNISHED AND INSTALLED IN ALL PANELS UPON COMPLETION OF THE JOB.

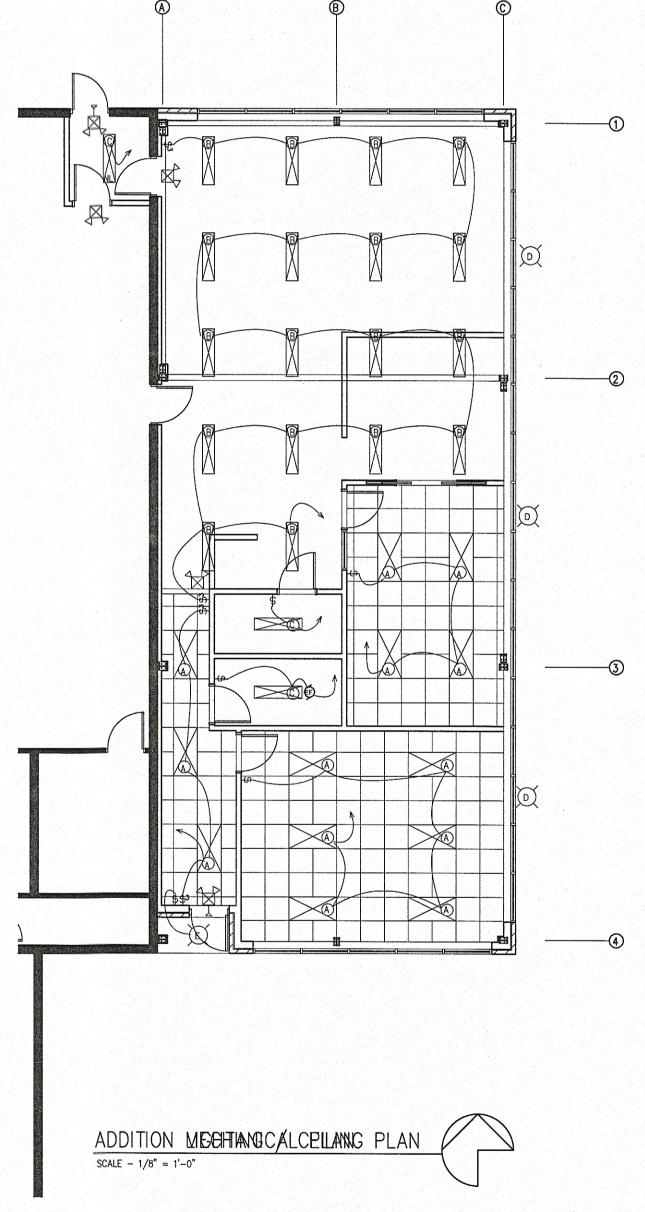
- WIRING DEVICES: 20 AMP SPECIFICATION GRADE
- 8. DISCONNECT SWITCHES: NEMA 1, FUSIBLE OR NON-FUSIBLE AS INDICATED. ON ROOF OR OUTDOORS,
- 9. LIGHTING FIXTURES SHALL BE FURNISHED AND INSTALLED BY E.C. AND SHALL BE LITHONIA, KEENE, METALUX OR APPROVED
- 10. PANELS, SWITCHES, TRANSFORMERS, ETC. SHALL BE G.E., SQUARE D, SIEMENS-ITE, CUTLER-HAMMER OR WESTINGHOUSE
- 11. GENERAL NOTES
- A. EC SHALL CAREFULLY REVIEW DRAWINGS AND EXISTING INSTALLATION DETAILS PRIOR TO BIDDING. ALL NEW EQUIPMENT FURNISHED SHALL BE COMPATIBLE WITH EXISTING SYSTEMS AND SHALL BE INSTALLED AND WIRED TO OPERATE IN AN IDENTICAL FASHION.
- B. PLACEMENT OF DEVICES (LOCATION, MOUNTING HEIGHTS) SHALL BE IDENTICAL TO THOSE IN EXISTING SPACES.
- C. EC SHALL WSIT SITE TO DETERMINE EXACT EXISTING CONDITIONS PRIOR TO BIDDING. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / ENGINEER. DURING BIDDING AN ADDENDUM WILL BE ISSUED TO CORRECT ANY PROBLEMS SO THAT ALL BIDDERS MAY HAVE THE SAME INFORMATION. WITH THE SUBMISSION OF BID, EC CERTIFIES HE HAS INSPECTED EXISTING CONDITIONS AND HAS INCLUDED ALL LABOR, PREMIUM AND OTHERWISE, AND ALL MATERIALS / EQUIPMENT REQUIRED TO COMPLETE THE INTENT OF THE DRAWINGS.
- D. ALL MISCELLANEOUS SYSTEMS SHOWN ON THE DRAWINGS ARE INCLUDED IN THE ELECTRICAL CONTRACT AND SHALL BE FURNISHED, INSTALLED AND/OR EXTENDED TO MATCH THE EXISTING INSTALLATIONS.
- E. IDENTIFICATION TAGGING IS REQUIRED ON ALL PANELBOARDS, DISCONNECT SWITCHES, STARTERS, CONTROL PANELS, PUSHBUTTONS AND MISC. ELECTRICAL DEVICES INSTALLED BY THE ELECTRICAL CONTRACTOR USE ENGRAVED LAMACOID LABEL, 1" WIDE x 2" LONG MIN. BLACK w/ WHITE LETTERS, MIN 3/4" HIGH
- F. ALTERNATE ELIMINATE HALF OF THE CEILING FIXTURES IN THE GARAGE AREA

Existing Circuit Existing Circuit	1 3 5 7 9 1 1 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		Amps/Poles	*			Amps/Poles		2	Existing Circuit
Existing Circuit	5 7 9 1				767					
Existing Circuit	7 9 1 3			•					4	Existing Circuit
Existing Circuit	1 3					*				Existing Circuit
Existing Circuit Existing Circuit Existing Circuit Existing Circuit Existing Circuit Existing Circuit	1 3				1,000				8	Existing Circuit
Existing Circuit : Existing Circuit : Existing Circuit : Existing Circuit :	3		P 1 / 10	107 100	*	100		and Maria	10	Existing Circuit
Existing Circuit : Existing Circuit : Existing Circuit :	_			19.117		*			12	Existing Circuit
Existing Circuit :	5					11.0	1000	15 /4 /4	14	Existing Circuit
Existing Circuit		10.00			*	4.15	17 1		16	Spare
	7	100				*	70 M 160		18	Existing Circuit
	9	1		*					20	Existing Circuit
New A/C	1 4	4440	50/2	graden.	*				22	Existing Circuit
New A/C	3 4	4440	50/2			*	1000	31.56	24	Existing Circuit
Spare	5			*					26	Spare
Existing Circuit	7	. 4.4		1.8,800					28	Existing Circuit
Existing Circuit	9		10 to		17.7%	*			30	Existing Circuit
Existing Circuit	1			*				100/2	32	1 PH Subpanel
A/C for Offices	3 4	4440	50/2	-V , 5 "	11 * 1	Tayler.		100/2	34	1 PH Subpanel
A/C for Offices	5 4	4440	50/2			*		50/2	36	North Welder Receptacle Unused
Panel B	7 4	4080	100/3	*	All to a			50/2	38	North Welder Receptacle Unused
Panel B	9 4	4800	100/3		1124 🛊 154			50/2	40	South Welder Receptacle Unused
Panel B	1 5	5040	100/3			*		50/2	42	South Welder Receptacle Unused
Fotal VA per phase added Fotal Amps per phase added				8520 71	4800	9480				Panel Designation
Total VA = Existing+Additional				15960	14160	16320				Main Lugs Only Main Breaker (225 Amps)
Total Amps = Existing+Additional				133	118	136			_	Solid Neutral
NEMA 1	7			1.55	110	1 150				Isolated Ground Bus
NEMA 3R	\dashv									Flush Cover
Phase	3								-	Surface Cover

	#	VA	Amps/Poles	Α	В	C	Amps/Poles	VA	#	Description
Existing Circuit	1		20/1	*			20/1		2	Existing Circuit
Existing Circuit	3		20/1		*	17.50	20/1	e v ur jar	4	Existing Circuit
Existing Circuit	5		20/1	1.5 4970			20/1		6	Existing Circuit
Existing Circuit	7		20/1	*	Militar I	1	20/1	47.594.	8	Existing Circuit
Existing Circuit	9		20/1				20/1		10	Existing Circuit
Existing Circuit	11		20/1		18-12	*	20/1	370	12	Water Fountain
Existing Circuit	13	1000	20/1	*	1 1 2 X 1 X 1		20/1	1440	14	Furnace
Existing Circuit	15		20/1		* *		20/1	180	16	Utility Room
Existing Circuit	17	the title	20/1	3-1/2 N		*	20/1	1080	18	Office
Existing Circuit	19		20/1	*		1 1 1 1 1	20/1		20	Spare
lghting	21	1608	20/1		*		20/1	1080	22	Conference Room
pare	23		20/1				20/1	720	24	Small Office
Conference Room	25	1080	20/1	*	W1577	To the	20/1	360	26	North Side Large Office Area
Water Fountain	27	370	20/1		*	178.00	20/1	360	28	East Side Large Office Area
Bathroom Receptacle	29	1200	20/1			*	20/1	540	30	South Side Large Office Area
	31			*			100		32	
	33			100		175 175			34	
	35			14. 75. 1					36	
	37	in the first		*	0.347				38	
	39	4.77			•	14.5%	4.1	Tarrier 1	40	
	41					•			42	
				2880	3598	1 2010			_	
Total VA per phase Total Amps per phase additional				2880	3598	3910]		_	Panel Designation Main Lugs Only
Total VA = Existing+ Additional				4080	4800	5040			<u> </u>	Main Eugs Only Main Breaker
Total Amps=Existing + Additional				34	40	42				Solid Neutral
NEMA 1	X					4				Isolated Ground Bus
NEMA 3R	\vdash								Х	Flush Cover
Phase	3									Surface Cover
									4	Wires

ELECTRICAL	L SCHEDULE
SYMBOL	DESCRIPTION
A	MOBERN RG24-232 OR OWNER APPROVED EQUAL. w/MAXLITE L16.5T8SE440-G10 OR EQUAL LAMPS - 16.5W, 2200 LUMEN LED LAMP UL LISTED. ALTERNATE - Maxilte L17T8DF440 CEILING RECESS MOUNTED
\bigcirc	WAREHOUSE LIGHTING GC-ME-332 OR OWNER APPROVED EQUAL W/MAXLITE L16.5T8SE440-G10 OR EQUAL LAMPS - 16.5W, 2200 LUMEN LED LAMP UL LISTED, ALTERNATE - Maxlite L17T8DF440 CEILING SUSPENDED
	MOBERN 772-217 OR OWNER APPROVED EQUAL w/MAXLITE L16.5T8SE440-G10 OR EQUAL LAMPS - 16.5W, 2200 LUMEN LED LAMP UL LISTED, ALTERNATE - Maxite L17T8DF440 CEILING SURFACE MOUNTED
	ECONOLIGHT #E-WP10L08CX, 120-277 SURFACE MOUNT WALL PACK w/ - LED - 87 WATTS TOTAL - OR RELOCATED EXISTING
Ĭ	HALO / JUNO OR EQUAL #HICT WRL460WH8499K, 120V INTEGRAL TRIM RING, CEILING RECESS MOUNTED
	CLS #02CLP 120/277 EXIT / EMERGENCY LIGHT COMBINATION LED LIGHTPIPE w/ BATTERY BACKUP, WIRE AHEAD OF SWITCH w/ECONOLIGHT # E-XHL2Wg DOUBLE REMOTE EXTERIOR HEAD (2 WATTS TOTAL)
\nearrow	CLS #02CLP 120/277 EXIT / EMERGENCY LIGHT COMBINATION LED LIGHTPIPE w/ BATTERY BACKUP, WIRE AHEAD OF SWITCH
<u>_</u>	NUTONE QTXEN80 CEILING RECESS MOUNTED 80 CFM EXHAUST FAN 6" DUCT THROUGH SIDE WALL
\$	HUBBELL #1221, 20A., SP SWITCH
93	HUBBELL #1223, 20A., 3-WAY SWITCH
<u></u> \$4	SWITCH & OCCUPANCY SENSOR FOR EXHAUST FANS
-	HUBBELL #5362, 20A., 125V., DUPLEX RECEPTACLE, GROUNDING TYPE 42" AFF
GF Ф	PASS AND SEYMOUR #1591, 15A., 125V., DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE, 42" AFF IN GARAGE
GF ₩P	PASS AND SEYMOUR #1591/4502, 15A., 125V., DUPLEX GROUND FAULT INTERRRUPTER TYPE RECEPTACLE W/ #4502 WEATHPROOF COVER & GASKET
0	JUNCTION BOX, STANDARD 4" SQUARE OR OCTOGON BOX W/ COVER. LOCATE & CONNECT AS DIRECTED





OFFICE ADDITION to: Martin Pallet Inc. 1414 INDUSTRIAL DRIVE, S.W. MASSILLON, OHIO 44647

Studer Architects LLC Milton Studer lisc. # 8308 8725 N. Slalom Ln. expires 12/31/17 Minerva, Ohio 44657 (330) 895—7777 JOB # M15053 July 10, 2017

