## PROJECT DESCRIPTION CHEMICAL SPARTANBURG, SC 29301

SHEET INDEX

WAREHOUSE & PARTIAL FRONT OFFICE POWER PLAN

SINGLE LINE DIAGRAM & PANEL SCHEDULES

SCOPE OF WORK:

INSTALL 3 PHASE 120/208V, 100A, 24 CIRCUITS PANEL-RP1 TO EXISTING PANEL -1LP.

- THIS DESIGN MAY BE USED FOR SECURING PERMITS, BID, PLANNING, THE COMPANY'S REVIEW OR SOME OTHER GOA
- THIS DESIGN IS NOT A COMPLETE SET OF CONSTRUCTION DRAWING OR SHOP DRAWINGS. THIS DESIGN REPRESENTS 28. WHEN EQUIPMENT IS BEING REMOVED/DEMO FROM THE FIELD, ALL WIRING ASSOCIATED WITH THE LOAD MUST BE DIAGRAMMATIC REPRESENTATION OF INTENDENT SCOPE OF WORK
- THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR
- ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE NATIONAL ELECTRICAL CODE, IECC, LIFE 30. PROVIDE SERVICE RECEPTACLE WITHIN 25 FEET OF EACH HVAC EQUIPMENT. SAFETY CODE, LOCAL BUILDING CODE, OSHA REGULATIONS, OCAL, STATE, FEDERAL AND AUTHORITY HAVING
- JURISDICTION CODES APPLICABLE AT THE TIME OF THE CONSTRUCTION. GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA I STANDARD FOR COMPLIANCE WITH ELECTRICAL CODE AND MANUFACTURER INSTALLATION REQUIREMENTS. GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION (ANSI)
- . ALL MATERIALS PROVIDED BY THE CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS, LISTED/LABELED FOR THE INTENDED PURPOSE BY UNDERWRITERS (UL) OR OTHER ORGANIZATION THAT IS ACCEPTABLE TO THE AHJ. THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS ARE INTENDED TO DESCRIBE AND ILLUSTRATE SYSTEMS WHICH WILL NOT INTERFERE WITH THE STRUCTURE OF THE BUILDING AND WHICH WILL FIT INTO THE AVAILABLE SPACES. THE CONTRACTOR IS RESPONSIBLE FOR CAREFULLY LAYING OUT ALL WORK TO CONFORM TO NATIONAL ELECTRICAL 33. PANEL BOARDS SHALL BE MANUFACTURED BY SQUARE-D, EATON, GENERAL ELECTRIC, OR SIMILAR, MEETING U.L.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE WITH DRAWINGS OF OTHER TRADES TO FIT THE ACTUAL SPACE CONDITIONS, HEADROOM AND SPACE CONDITION TO BE MAINTAINED.
- THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATION D. UPON THE COMPLETION OF THE WORK, THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED AND SHALL BE SHOWN TO
- BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEM READY FOR OPERATION AND INSPECTION TEST AND INSPECT ALL WIRING AND EQUIPMENT INSTALLED UNDER THIS SECTION OF SPECIFICATIONS. ALL WIRING MUST
- BE FREE SHORTS AND BROKEN WIRE. LEAVE ALL MATERIALS AND APPARATUS IN PROPER AND SATISFACTORY 36. CONDUIT SHALL BE SIZED TO COMPLY WITH NEC FOR NUMBER AND SIZE OF CONDUCTORS INSTALLED PER NEC. WORKING CONDITIONS. 12. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CORRECT PHASE SEQUENCE OF ALL THREE-PHASE FEEDERS
- 3. CONDUIT RUNS WHEN SHOWN ARE DIAGRAMMATICAL. FINAL LOCATION AND ROUTING SHALL BE ESTABLISHED BY THE 37. ALL CONDUIT AND RACEWAY SYSTEMS TO BE INSTALLED WITH SEPARATE GROUND CONDUCTOR. CONDUIT SYSTEM IS
- AND INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. 4. CONDUIT RUNS SHALL BE PARALLEL WITH OR AT RIGHT ANGELS TO WALLS AND CEILINGS. CONDUIT SHALL BE
- SUPPORTED BY APPROVED MEANS, ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A DRAG WIRE. 15. PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION
- 16. THE USE OF FLEXIBLE CONDUIT FROM LIGHTING FIXTURES TO JUNCTION BOX IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED WITH THE CONDUCTORS INSIDE FLEXIBLE CONDUIT. THE GROUND WIRE MUST BOND THE
- FIXTURE HOUSING TO THE JUNCTION BOX. MAXIMUM LENGTH SHALL BE 6'-O". . FLEXIBLE CONDUIT INSTALLED OUT OF DOORS, IN ANY MECHANICAL EQUIPMENT ROOMS, OR IN NORMALLY WET AREAS SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.
- 18. PROVIDE CONDUIT, WIRING, CIRCUITING AND REQUIRED CONNECTIONS TO ALL DEVICES, FIXTURES AND EQUIPMENT. CONNECT TO CIRCUITS AS INDICATED. CIRCUIT NUMBERS ARE FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED IN THE PANEL SCHEDULE DIRECTORY AND ON THE
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL MOUNTING HEIGHTS OF ALL DEVICES MOUNTED IN CASEWORK OR IN ABOVE COUNTERS WITH EXISTING EQUIPMENT.
- 20, UNLESS SPECIFICALLY DIRECTED OTHERWISE. FURNISH AND INSTALL EACH AND EVERY ITEM CONTAINED IN AND ASSOCIATED WITH, THE WORK INVOLVED AS SHOWN ON THE DRAWINGS AND/OR DESCRIBED IN THE ACCOMPANYING
- SPECIFICATIONS, TOGETHER WITH ALL APPURTENANCES, COMPONENTS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. CONTRACTOR SHALL PROVIDE CONDUIT, WIRING AND CABLING TO ALL DEVICES, FIXTURES AND ETC. FOR A COMPLETE WORKING SYSTEM BASED ON THE CIRCUITS NOTED 21. PROVIDE INDEPENDENT SUPPORT FOR DISCONNECT SWITCHES, CONTROL STATIONS, BOXES, PANELS, ETC. WHERE NO
- WALLS OR OTHER STRUCTURAL SURFACE EXISTS.
- 22. EQUIPMENT SIZED AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT
- 23. PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS REQUIRING ELECTRICAL CONNECTIONS, WHERE BRANCH CIRCUIT WIRING IS NOT SHOWN, CONNECT ITEMS TO CIRCUITS INDICATED. THE CONTRACTOR SHALL DETERMINE EXACT ROUTING OF CONDUITS AND WIRING. UNLESS INDICATED OTHERWISE, ALL BRANCH CIRCUITS SHALL BE MINIMUM #12 AWG.
- 24. PROVIDE JUNCTION BOX FOR ANY DEVICE WITH PIG TAIL SUCH AS SOLENOID VALVES, LIMIT SWITCHES, SMOKE DETECTORS AND ETC. FOR PROPER ELECTRICAL CONNECTION. PROVIDE ALL HARDMARE FOR MOUNTING OF JUNCTION
- 25. EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS. COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTORS. 26, WHEREVER THE INSTALLATION OF ELECTRICAL EQUIPMENT AS SHOWN ON THE DRAWINGS IS IMPRACTICAL DUE TO

LOCAL INTERFERENCE OR UNFORESEEN FIELD CONDITIONS, THE CONTRACTOR SHALL INSTALL THE EQUIPMENT AT NEW

- THIS DESIGN DOES NOT GUARANTEE THESE APPROVALS, NOR ARE THESE APPROVALS A REQUIREMENT FOR SERVICES 27. DESIGN IS BASED ON ALL CONDUCTORS TO BE THIN COPPER AND NO MORE THAN 4 CURRENT CARRYING CONDUCTORS IN THE SAME RACEWAY OR CONDUIT, UNLESS OTHERWISE NOTED.
- REMOVED FROM THE JUNCTION BOX OR THE CIRCUIT BREAKER. DO NOT LEAVE UNUSED CONDUCTORS IN THE FIELD SENERAL USE ON ALL PROJECTS, THEREFORE, NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST 29. PROVIDE DISCONNECT SWITCHES FOR ELECTRICAL HEATER, HVAC EQUIPMENT AND EXHAUST FANS WITHIN EYE SIGHT OF
  - 31. ELECTRICAL CONTRACTOR TO VERIFY ACTUAL INSTALLED EQUIPMENT ELECTRICAL NAME PLATE DATA BEFORE
  - 32, DISCONNECT SWITCHES SHALL BE HEAVY-DUTY, QUICK-MADE, QUICK-BREAK TYPE, NEMA I ENCLOSURE FOR INDOOR LOCATIONS (NEMA 3R FOR OUTDOOR LOCATIONS). SWITCHES SHALL BE AS MANUFACTURED BY SQUARE 'D', GENERAL
  - ELECTRIC, OR SIEMENS (I.T.E.). PROVIDE FUSES AS MANUFACTURED BY BUSSMAN, GOULD-SHAWMUT, OR LITTLE-FUSE. LL CONDUCTOR TERMINALS TO BE U.L, LISTED FOR A MINIMUM OF 75°C. SWITCHES USED AS SERVICE ENTRANCE PMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT.

NERGIZING THE CIRCUIT. CONFIRM ELECTRICAL DESIGN VALUES AND ACTUAL EQUIPMENT BEING INSTALLED ARE IN

- CODE CLEARANCES, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND SITE CONDITIONS, TO AVOID OBSTRUCTIONS AND STANDARDS 50 AND 67, WITH V.L. LABEL. PANELS USED AS SERVICE ENTRANCE EQUIPMENT TO BE V.L. LISTED AS "SER"
  - 34. BREAKERS: THERMAL, MAGNETIC TYPE, QUICK-MAKE, QUICK-BREAK, PLUG-IN TYPE FOR LOAD CENTERS AND BOLT IN TYPE FOR PANEL BOARDS AND SINGLE UNIT CONSTRUCTION, TWO POLE BREAKERS SHALL BE SINGLE UNIT COMMON TRIP TYPE. BREAKERS USED AS SWITCHES FOR IZOV LIGHTING CIRCUITS SHALL BE APPROVED FOR THAT USE AND MARKED "SWD". ALL BREAKERS FOR HVAC AND REFRIGERATION EQUIPMENT SHALL BE "HACR" RATED BREAKERS 35. GROUNDING SYSTEM: PERMANENTLY AND EFFECTIVELY GROUND ALL METALLIC CONDUIT, SUPPORTS, CABINETS, PANEL
  - BOARDS AND SYSTEM NEUTRAL CONDUCTORS, MAINTAIN CONTINUITY OF EQUIPMENT GROUND THROUGHOUT THE SYSTEM. GROUND OF AMPS SHALL BE APPROVED TYPE SPECIFICALLY DESIGNED FOR GROUNDING. WHERE GROUNDING CONDUCTOR IS ENCLOSED IN CONDUIT, GROUND CLAMP SHALL BE OF A TYPE WHICH GROUNDS BOTH CONDUCTOR AND CONDUIT. ALL CIRCUITS IN FLEXIBLE METAL OR PLASTIC CONDUIT SHALL INCLUDE A GROUND WIRE SIZED AND INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
  - PROVIDE SCHEDULE 40 PVC PLASTIC OR RIGID STEEL CONDUIT BELOW GRADE, MINIMUM 3/4". PROVIDE ELECTRICAL METAL TUBING (EMT) MEETING FS W-C563, FLEXIBLE METAL CONDUIT (IN LENGTHS 6' OR LESS) FOR INTERIOR INSTALLED IN ACCORDANCE WITH N.E.C., AND CAN NOT BE SUPPORTED FROM CEILING SUPPORT WIRES.
- CONTRACTOR BASED ON THE INSTALLATION CONDITIONS AND SHALL BE VERIFIED IN THE FIELD. ALL CONDUIT TYPES CONDUCTORS: INSULATED SOFT ANNEALED 98% PURE COPPER WITH COLOR CODING, B AND S GAGE, #10 AND
  - SMALLER TO BE SOLID. #8 AND LARGER TO BE STRANDED. MINIMUM #12 UNLESS OTHERWISE INDICATED. CONDUCTORS MAY NOT BE USED UNDERGROUND, AT SERVICE ENTRANCE, OUTSIDE, OR IN WET LOCATIONS. ALL INSULATION TO BE

#8 10 4/0: SERVICE ENTRANC OVER #4/0 ORDIN. OVER #4/0 MET OI WIRE THRU FLUORE	ARY SERVICE: R HOT SERVICE:	SE-RHW OR USE-RHW THHN OR XHHN XHHW	
OR WHITHIN OF HTO		THHN	
LL WIRING TO BE COLO	PR-CODED AS FOLLOWS	ı	
I20/208 VOLT SYS NEUTRAL: PHASE A OR LI: PHASE B OR L2: PHASE C OR L3:	WHITE BLACK	271/480 SYSTEM PHASE A: BROWN PHASE B: ORANGE PHASE C: YELLOW NEUTRAL: GRAY	

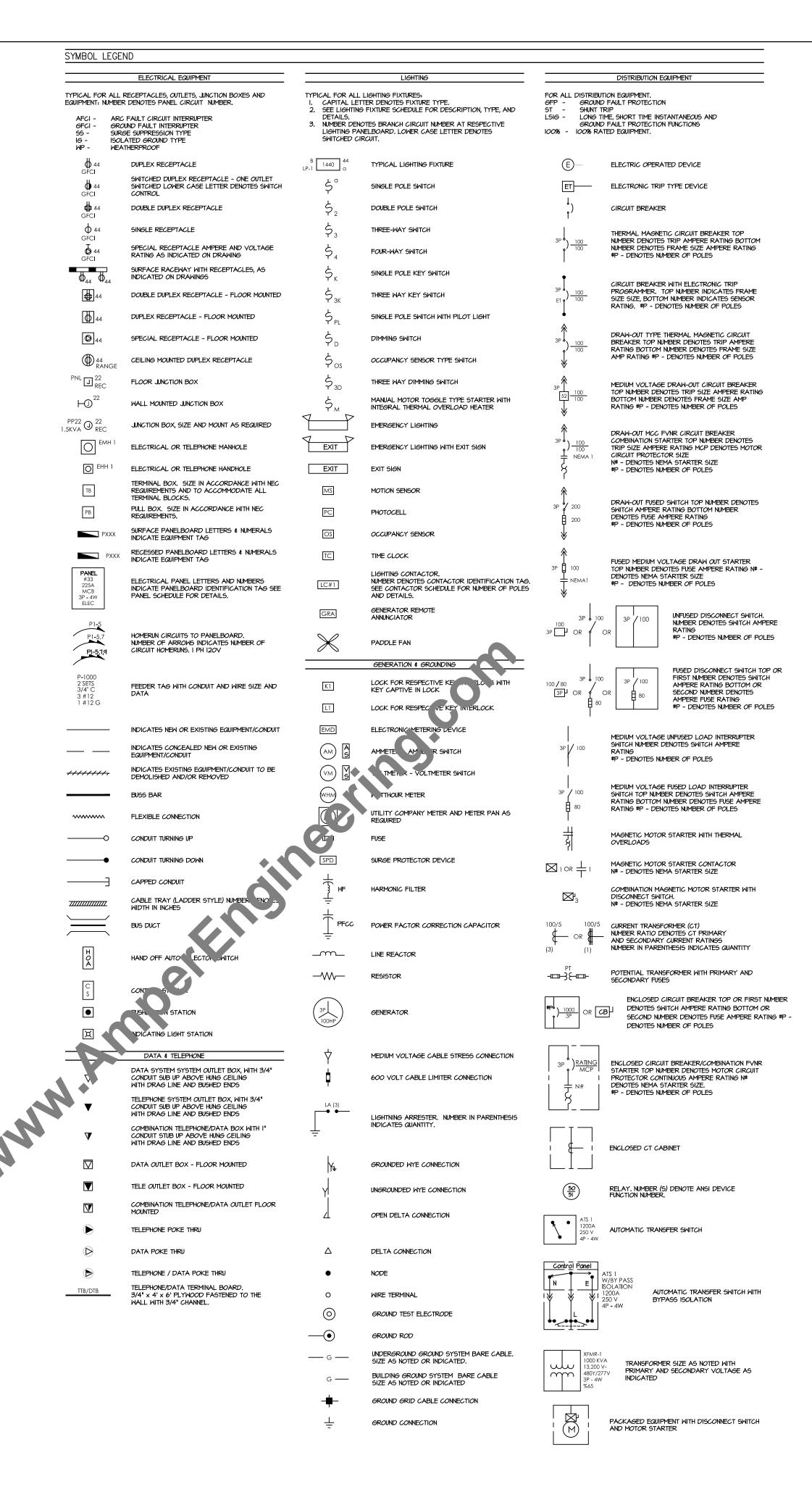
- 39. WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #8 AWG WIRE AND SMALLER AND EQUAL TO T & B "LOCK TIGHT" FOR #6 AWG AND LARGER.
- 40. LIGHT FIXTURES & LAMPS ARE FURNISHED BY CONTRACTOR EXCEPT AS NOTED ON THE LIGHT FIXTURE SCHEDULE. FIXTURE INSTALLATION SHALL BE BY THE ELECTRICAL CONTRACTOR ACCORDING TO LOCAL CODE AUTHORITY. 41. EMERGENCY LIGHTING SHALL HAVE A MINIMUM OF 40 MIN. BATTERY BACK-UP, OR AS REQUIRED BY LOCAL CODE AUTHORITY. PROVIDE LOCK-ON CIRCUIT BREAKERS FOR CIRCUITS SERVING EXIT SIGN FIXTURES AND EMERGENCY
- 42. LAYOUT BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS FOR MAXIMUM ECONOMY AND EFFICIENCY. INCREASE WIRE SIZE IF 100 FEET OF LENGTH IS EXCEEDED.
- 43. CONCEAL WIRING SYSTEM ABOVE SUSPENDED CEILINGS OR IN WALL OR FLOOR CONSTRUCTION WHERE POSSIBLE. NSTALL CONDUITS PARALLEL TO BUILDING LINES, AND TO CLEAR ALL OPENING, DEPRESSIONS, PIPES, DUCTS,
- 44. INSTALL CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN FOUR (4) 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS AND STEEL SUPPORTS AS REQUIRED. DO NOT SUPPORT CONDUIT FROM SUSPENDED CEILING GRID OR SUSPENSION WIRES, REAM CONDUIT ENDS BEFORE INSTALLATION AND THOROUGHLY CLEAN BEFORE INSTALLATION. OPENINGS SHALL BE PLUGGED OR COVERED TO KEEP CONDUIT CLEAN.

TERMINALS ON SMITCHES AND OUTLET SHALL NOT BE USED TO "FEED THRU" TO THE NEXT SMITCH OR OUTLET.

## STANDARD ABBREVIATIONS

LOCATIONS AS DIRECTED BY THE ENGINEER.

A AFF AFG AFI AFCI ASYMASY ATS AWG BKR C CB CCTV CKT CL CLG CNTL CPT CT CU D DIA DISC DN DP	AMPERE ABOVE FINISHED FLOOR ABOVE FINISHED ERADE ARC FLASH INTERRUPTER ARC FLASH CIRCUIT INTERRUPTER MMETRICAL AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE BREAKER CONDUIT CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION CIRCUIT CENTER LINE CEILING CONTROL CONTROL CONTROL POWER TRANSFORMER COPPER DEMOLISH DIAMETER DISCONNECT DOWN DISTRIBUTION PANEL BOARD	DIMIG E.C. EL ELEC EQUIPEQUII EXIST (e) FA FBO FDR FIXT FL G G.C. GEN GFCI HID HOA HP IC I/O JB		KV KVA KW KWH LCP LIS LP LTG MAX MCC MCS MDP MIN MSB MSG MTS NA NC NEC NO NTS P PH PNL	KILOVOLT KILOVOLT AMPERE KILOWATT KILOWATT HOUR LOCAL CONTROL PANEL LOAD INTERRUPTER SWITCH LIGHTING PANEL LIGHTING MAXIMUM MOTOR CONTROL CENTER MOLDED CASE SWITCH MAIN DISTRIBUTION PANEL MINIMUM MAIN SWITCHBOARD MAIN SWITCHBOARD MAIN SWITCHGEAR MANUAL TRANSFER SWITCH NON-AUTOMATIC NORMALLY CLOSED NATIONAL ELECTRIC CODE NORMALLY OPEN NOT TO SCALE POLE PHASE PANEL	SMGRSMI SYM TEL TYP U/G U.O.N. UNL V VA VFD M MHM WAT	POTENTIAL TRANSFORMER POWER PANEL POWER RECEPTACLE REVISION SHIELDED CABLE SPARE SURGE SUPRESSION TCHBOARD TCHGEAR SYMMETRICAL TELEPHONE TYPICAL UNDERGROUND ESS OTHERWISE NOTED VOLT OR VOLTAGE VOLT AMPERE VARIABLE FREQUENCY DRI WATTS TT HOUR METER WEATHERPROOF WIREWAY ANSFORMER
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SEAL & SIGNATURE:

NO ALTERATION PERMITTED **EXCEPT AS PROVIDED UNDER** DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

Evrim Ercan DN: c=US, st=New Jersey, I=Montclair, o=Durak DURAK EVRIM ERCAN P.E. Evrim Ercan, cn=Durak Evrim Ercan, email=info@AmperEngine ering.com Date: 2020.12.07 12:24:43

Digitally signed by Durak

O 12/04/2020 ISSUED FOR PERMIT APPLICATION REV. DATE DESCRIPTION CLIENT:

PROJECT: 

**CHEMICAL** 

ADDRESS:

ISSUE DATE:

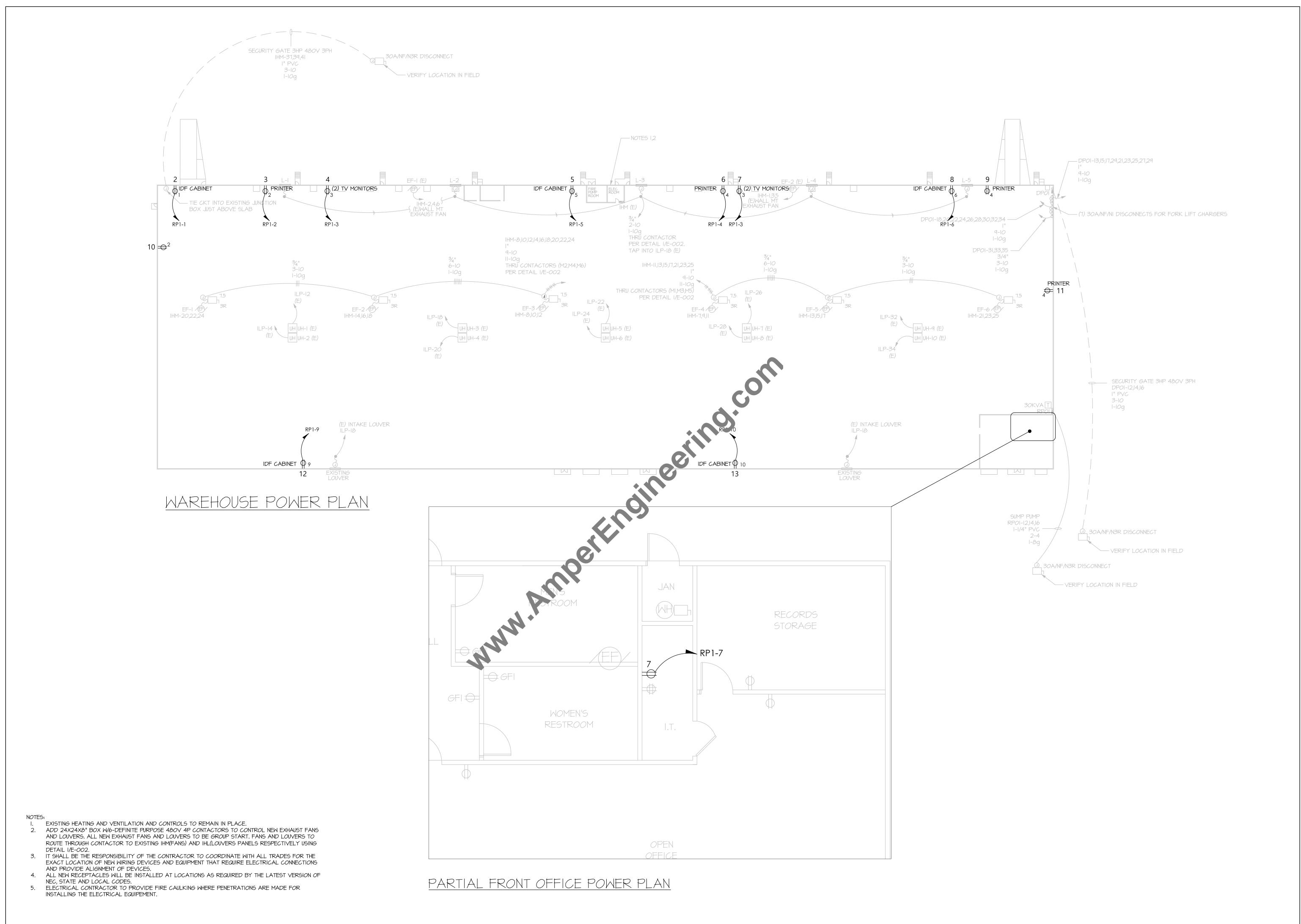
AKE RD. SPARTANBURG, SC

12/04/2020 PROJECT NUMBER: AE# 1241 SCALE: DRAWN BY: DEE NONE DESIGNED BY: CHECKED BY:

DRAWING TITLE: ELECTRICAL COVER SHEET, GENERAL NOTES AND SYMBOL LEGEND

DRAWING NO:

REVISION



PROFESSIONAL ENGINEERING: \$201-920-2899 Minfo@AmperEngineering.cc SEAL & SIGNATURE: NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. O 12/04/2020 ISSUED FOR PERMIT APPLICATION REV. DATE DESCRIPTION

PROJECT:

CHEMICAL

ADDRESS:

AKE RD.
SPARTANBURG, SC
29301

ISSUE DATE:
|2/04/2020
| PROJECT NUMBER:
|AE# |24|
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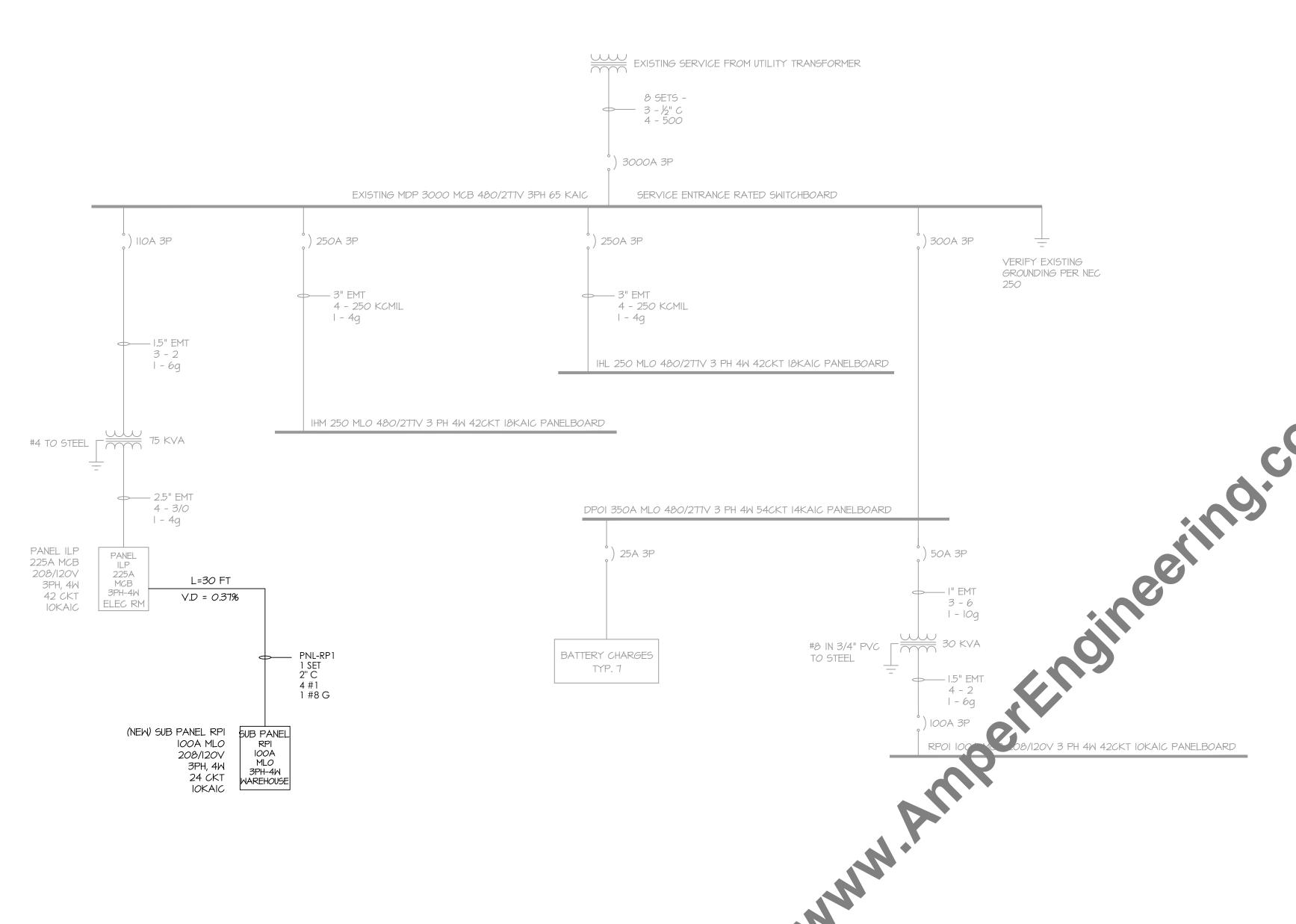
DRAWING TITLE:
WAREHOUSE & PARTIAL
FRONT OFFICE
POWER PLAN

DRAWING N

**E2** 

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REVISION:



SINGLE LINE DIAGRAM

MANUFACTURER: BUS RATING: 225 A TYPE/MODEL: MAIN: 225A MCB MOUNTING: SURFACE PANELID: (EXISTING) PANEL-1LP VOLTAGE: 208 /120V WIRING: 3 PH 4W **ENCLOSURE:** LOCATION: ELEC ROOM FEEDER SIZE: EXISTING TYPE: BOLT-ON AIC: 10k AIC FED FROM: MSB VIA XFMR ENTER CABINET: LOAD LOAD DESCRIPTION DESCRIPTION DOCK RECEP & TRUCK RESTRAINT 3 LIGHTING COTROLS 20 1 DOCK RECEP & TRUCK RESTRAINT 5 SACP (L) 20 1 DOCK RECEP & TRUCK RESTRAINT 20 1 DOCK RECEP & TRUCK RESTRAINT 20 1 BACKFLOW HEAT 20 1 UH-1 11 DOCK RECEP & TRUCK RESTRAINT 20 1 UH-2 20 1 MECH. LOUVER 20 1 UH-3 13 SPARE 17 SHIPPING OFFICE CONDENSING UNIT 20 1 UII-4 20 1 UH-5 20 1 UH-6 20 1 UH-7 20 1 UH-8 20 1 MECH. LOUVER 23 SHIPPING OFFICE AHU 27 SPARE 29 SPARE 31 SHIPPING OFFICE RECEPS 20 1 UH-9 20 1 UH-10 33 SPARE 35 SPARE 20 1 SHIPPING OFFICE WATER HEATER 20 1 SPARE 20 1 SPARE 37 (NEW) SUBPANEL RP1 20 1 SPARE TOTAL CONNECTED LOAD KVA: 46 TOTAL CONNECTED AMPS: 128 DEMAND LOAD KVA: 54 DEMAND LOAD AMPS: 149

EXISTING "PANEL ILP"

	MANUFACTURER:									T T	BUS RATING:	100	A			
	TYPE/MODEL:								MAIN: MLO							
	MOUNTING:	SURFA	CE		PANELID: (NEW) SUBPANEL-RP				NEL-R	RP1 VOLTAGE: 208 /120V						
	EN CLOSURE:						WIRING: 3 PH 4W									
	LOCATION:								FEEDER SIZE:	2"C (4	4) #1 AWG CU & (1) #8 GND					
	TYPE:	ON							AIC: 10k AIC							
	ENTER CABINET:	TOP									FED FROM: EXISTING PANEL 1LP					
KT	LOAD	NO.	СВ	CONDUCTOR	LOAD	KVA	PER PH.	ASE	LOAD	CONDUCTOR	СВ	NO.	LOAD	CK		
NO:	DESCRIPTION	POLES	AMPS	TYPE	KVA	Α	В	С	KVA	TYPE	AMPS	POLES	DESCRIPTION	NO		
1	RECEPTACLE FOR IDF CABINET	1	20	(2) #12 AWG CU & (1) #12 CU EGC	1.90	2.26	> <	> <	0.36	(2) #12 AWG CU & (1) #12 CU EGC	20	1	RECEPTACLES FOR PRINTERS	2		
3	RECEPTACLES FOR TV MONITORS	1	20	(2) #12 AWG CU & (1) #12 CU EGC	0.36	><	2.26	$>\!\!<$	1.90	(2) #12 AWG CU & (1) #12 CU EGC	20	1	RECEPTACLE FOR IDF CABINET	4		
5	RECEPTACLES FOR PRINTERS	1	20	(2) #12 AWG CU & (1) #12 CU EGC	0.54	><	> <	2.44	1.90	(2) #12 AWG CU & (1) #12 CU EGC	20	1	RECEPTACLE FOR IDF CABINET	6		
7	RECEPTACLE FOR SECURITY PANEL (I.T RM)	1	20	(2) #12 AWG CU & (1) #12 CU EGC	0.18	0.18	> <	> <	0.00		20	1	SPARE	8		
9	RECEPTACLE FOR IDF CABINET	1	20	(2) #12 AWG CU & (1) #12 CU EGC	1.90	> <	3.80	$>\!\!<$	1.90	(2) #12 AWG CU & (1) #12 CU EGC	20	1	RECEPTACLE FOR IDF CABINET	10		
11	SPARE	1	20		0.00	$\times$	$>\!\!<$	0.00	0.00		20	1	SPARE	12		
13	SPARE	1	20		0.00	0.00	$\times$	$>\!\!<$	0.00		20	1	SPARE	14		
15	SPARE	1	20		0.00	> <	0.00	> <	0.00		20	1	SPARE	16		
17	BLANK				0.00	> <	$>\!\!<$	0.00	0.00				BLANK	18		
19	BLANK				0.00	0.00	$>\!\!<$	><	0.00				BLANK	20		
21	BLANK				0.00	><	0.00	><	0.00				BLANK	22		
23	BLANK				0.00	> <	$\times\!\!<$	0.00	0.00				BLANK	24		
						2.4	6.1	2.4								
		ED		TOTAL CONNECTED LO	NECTED LOAD KVA:											
				TOTAL CON NECTE	TOTAL CONNECTED AMPS:											
				DEMAND LC	AD KVA:	13										
		DEMAND LOAD AMPS				37										

NEW "SUB PANEL RPI"

\$\square\$201-920-2899 \$\square\$info@AmperEngineering.com SEAL & SIGNATURE: NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

PROFESSIONAL ENGINEERING:

O 12/04/2020 ISSUED FOR PERMIT APPLICATION REV. DATE DESCRIPTION

PROJECT: **CHEMICAL** 

ADDRESS:

AKE RD. SPARTANBURG, SC 29301

ISSUE DATE: 12/04/2020 PROJECT NUMBER: AE# 1241 SCALE: DRAWN BY: NONE DESIGNED BY: CHECKED BY:

DRAWING TITLE: SINGLE LINE DIAGRAM & PANEL SCHEDULES

REVISION:

NOTE:

I. EXISTING ONE LINE EQUIPMENTS ARE SHOWN IN LIGHT COLORS.