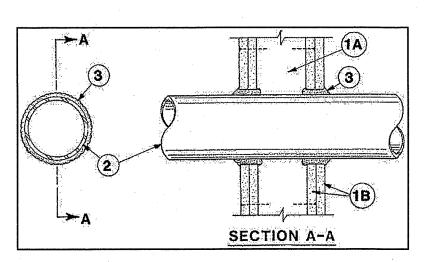
F Ratings -- 1, 2, 3 and 4 Hr (See items 2 and 3)

T Ratings -- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient — less than 1 CFM/sq ft

L Rating At 400 F — less than 1 CFM/sq ft



1. Wall Assembly -- The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs -- Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Gypsum Boards -- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The avosum wallboard type, thickness, number of lavers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in.

2. Through-Penetrant -- One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit, or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe -- Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe -- Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit -- Nom 6 in. diam (or smaller) steel conduit or nom 4 in. diam (or smaller) steel electrical metallic tubing.

D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier)

F. Through Penetrating Products -- Flexible Metal Piping --The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor

OMEGA FLEX INC

2. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

GASTITE, DIV OF TITEFLEX

3. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG LLC

Fill, Void or Cavity Materials -- Caulk or Sealant -- Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In	F RATING Hr	T RATING Hr			
1	1 or 2	0+, 1 or 2			
1	3 or 4	3 or 4			
4	1 or 2	0			
6	3 or 4	0			
12	1 or 2	0			

+When copper pipe is used, T Rating is 0 hr.

3M COMPANY -- CP 25WB+ or FB-3000 WT.

*Bearing the UL Classification Mark

DIVISION 16 - ELECTRICAL PART 1 - GENERAL

1.1 DESCRIPTION OF THE WORK A. Work under this section includes, but is not necessarily

limited to, furnishing and installing the following: 1. Electrical service and service equipment. 2. Lighting and power distribution system.

2.8 CONDUIT

3.3 MOTORS

3.4 NOT USED

3.6 NOT USED

3.7 NOT USED

3.9 PULL WRE

3.10 NOT USED

3.5 EQUIPMENT LABELING

PART 3 - EXECUTION

3.1 CIRCUIT GROUNDING

A. PVC conduit will be allowed where N.E.C. approved.

device or enclosure at the other end.

nut on the convenience outlet or switch.

or exposed to the elements or hazardous conditions.

3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES

B. All service conduit shall be rigid where exposed below 8'-0" AFF

A. All circuits shall contain an insulated, green, copper grounding

conductor, sized in accordance with Table 250-95 of the NEC.

bus in panelboard and securely attached and grounded to the

Grounding conductors shall be connected to equipment grounding

A. Outlets and switches shall be solidly grounded to equipment grounding

A. All motors shall be connected to conduit system with short length

A. Provide permanent name plates for all panelboards, safety switches, wiring troughs, etc., for identification of equipment controlled.

attached to equipment with stainless steel screws. Nameplates shall

B. All switch plates, receptacle plates and outlet covers shall be labeled

with machine printed vinyl labels identifying the circuit(s) within.

services, etc. Nameplates shall be securely and permanently

include the name of the equipment and where it is fed from.

A. Boxes shall be installed where necessary to avoid excessive runs

A. All grounding shall be in accordance with Article 250 of the NEC.

1. Grounding conductors shall be installed as to permit the

2. Equipment ground continuity shall be maintained through

shortest and most direct path from equipment to ground

3. All wiring devices equipped with grounding connection shall be

4. The frame of all lighting fixtures shall be securely grounded

5. All equipment enclosures, and non-current-carrying metallic

6. All equipment enclosures, and non-current-carrying metallic

effectively and adequately bonded to ground.

effectively and adequately bonded to ground.

A. PLUMBING WORK: The Electrical Contractor shall furnish

and install switches and devices as shown and electrically

required will be performed by the PLUMBING CONTRACTOR.

connect electric water heaters, etc. All other electrical work

Contractor shall provide all disconnect switches, starters, and

associated hardware for the equipment furnished including all line and

be by the HVAC contractor. All control wiring will be accomplished by

load side wiring and conduit. Final connections to the equipment will

the HVAC contractor. Coordinate all work associated with the HVAC

3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK

B. HEATING AND AIR CONDITIONING WORK: The Electrical

A. During construction, keep the site clean of debris. Upon

completion, and before final inspection, clean up

additional cost to the Owner.

the premises to remove all evidence of work. In addition

A. Guarantee all materials and labor included in the electrical work

for a period of one year from date of final acceptance by the

Owner. Any part or parts of the work or equipment which prove to

be defective during the guarantee period shall be replaced at no

upon completion of construction leave equipment clean.

contractor.

3.13 CLEAN UP

3.14 GUARANTEE

solidly grounded to ground system with grounding conductors.

to the equipment ground system with grounding conductors.

parts of electrical equipment, raceway systems, etc., shall be

parts of electrical equipment, raceway systems, etc., shall be

All connections to grounding conductors shall be accessible.

In addition, the following requirements shall be met:

C. All empty conduit runs shall be identified and indicated

D. Provide typewritten directory in each panelboard to

clearly identify each circuit, service, etc.

and/or too many bends between outlets.

A. Leave pull wire in each empty conduit run.

flexible metal conduit.

3.8 JUNCTION AND/OR PULL BOXES

(minimum length 24" and maximum length 36") of flexible liquidtight

system with a green colored insulated conductor. Electrical connections

shall be continuous from equipment ground bus in panelboard to the hex

3. Provide lighting fixtures selected by owner with lamps to match. 4. Wiring devices, boxes, cover plates, etc.

5. Source of power for all items of equipment. Grounding.

7. Other requirements and/or systems where shown. B. All work shall be complete and items, equipment, etc.,

shall be electrically connected for proper and correct C. All work under this contract shall be installed in accordance

with the latest edition of the following codes and standards insofar as they apply: 1. The 2017 National Electrical Code.

2. The National Electrical Safety Code. 3. Underwriter's Laboratories, Inc., Standards and

approved listings. 4. Electrical Testing Labatories standards.

5. North Carolina Building Code, Latest Edition and Revisions. 6. All local codes and ordinances. D. The Electrical Contractor shall be licensed in the State of

North Carolina and have all local licenses required for the work. E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical

inspector having jurisdiction prior to acceptance of the work. F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming

B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWINGS

A. Shop drawings shall be submitted for panels and service equipment, lighting, wiring devices, and cover plates. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 - PRODUCTS AND MATERIALS

2.1 GENERAL A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacturer of the required type of equipment and the manufacturer's latest

1. Boxes installed in concealed locations shall be set flush with

the finished surfaces. 2. Provide rated boxes in all fire barriers & walls installed per code.

2.2 NOT USED

2.3 CONDUCTORS

A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be: Standard Practice.

B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.

C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.

D. Conductors shall be spliced and taped as follows: 1. Size #10 and #12, use Ideal "Wing Nuts" or T&B

"Piggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures. 2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and shaped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall

be UL approved. 3. No split-bolt type connectors may be used. E. All branch wire and connections shall be copper and sized per

National Electric Code. F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in

panelboard cabinets, safety switches, etc. G. All wiring in mechanical spaces shall be plenum rated.

H. Provide GFI protection within 6'-0" of any sink. I. All multi—wire branch circuits shall comply with 2017 NEC, 210.4(B).

2.4 PANELBOARDS, SAFETY SWITCHES

A. Panelboards shall comply with NEMA Standard PB 1 - Latest Edition and as manufactured by Square D or ITE-Siemens.

J. All wiring at medical facilities shall comply with 2017 NEC, 517.1.

B. The contractor shall be responsible for correctly phasing the

circuits in the panelboards. C. Safety switches shall be general duty type, size and rating as required for lead service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

2.5 NOT USED

2.6 WIRING DEVICES A. Wiring devices shall be commercial grade by Bryant, Leviton, or approved equal. With matching cover. Color by Architect.

B. Wiring devices installed under a Kitchen Hood shall have stainless steel covers.

C. Wiring devices installed over counters shall comply with ANSI A117.1. 2.7 NOT USED

GENERAL NOTES

1 ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL

ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.

2 ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE-SIZE CONDUCTERS AND CONDUIT PER NEC.)

3 ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID

4 ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.

5 CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.

CONDUIT IS REQUIRED WHERE EXPOSED BELOW 8'-0" A.F.F.

6 ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.

7 THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS. ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.

8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.

9 THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.

10 ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.

11 IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.

12 PROVIDE BOXES, JACKS, WIRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.

13 ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURES RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.

14 THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE ELECTRICAL LEGEND

LIGHT FIXTURE: LETTER DENOTES FIXTURE TYPE (REFER TO LIGHTING PLAN AND FIXTURE SCHEDULE). O_{x} NL = NIGHT LIGHT (NOT SWITCHED/ALWAYS ON) DUPLEX RECEPTACLE - 120V; MOUNT 18" TO CENTER AFF UNLESS NOTED OTHERWISE: 'WP' INDICATES WEATHER PROOF, 'GFI' INDICATES GROUND FAULT CURRENT INTERRUPT PROTECTED. 'U' INDICATES RECEPTACLE WITH (2) USB PORTS. QUADRAPLEX RECEPTACLE - 120V FLOOR OR CEILING OUTLET (AS NOTED) - 120V SPECIAL PURPOSE RECEPTACLE - REFER TO POWER PLAN AND PANEL SCHEDULE LIGHT SWITCH SWITCH WITH INTEGRAL PIR/US MOTION SENSOR FOR AUTOMATIC SHUT-OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY. DIMMABLE LIGHT SWITCH MOTOR RATED SWITCH JUNCTION BOX TELE/DATA OUTLET - PROVIDE JUNCTION BOX WITH CONDUIT BACK TO MTP. PROVIDE (1) TELEPHONE JACK AND (1) CAT 5 DATA JACK SINGLE-POLE HOMERUN TO PANELBOARD TWO-POLE OR 3-POLE HOMERUN TO PANELBOARD **EXIT LIGHT** EMERGENCY EGRESS FIXTURE **PHOTOCELL** BRANCH CIRCUIT WIRING ---- SWITCH LEG GROUND CONNECTION DISTRIBUTION PANELBOARD

DISCONNECTING MEANS AS REQUIRED BY CODE

3 HOUR FIRE BARRIER

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE) **ELECTRICAL SUMMARY**

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance X Energy Cost Budget

Lighting Schedule

lamp type required in fixture number of lamps in fixture ballast type used in fixture number of ballasts in fixture total wattage in fixture total interior wattage specified vs. allowed total exterior wattage specified vs. allowed NA

Additional Prescriptive Compliance 506.2.1 More Efficient Mechanical Equipment

506.2.2 Reduced Lighting Power Density 506.2.3 Energy Recovery Ventilation Systems 506.2.4 Higher Efficiency Service Water Heater 506.2.5 On-Site Supply of Renewable Energy 506.2.6 automatic Daylighting Control System

- ELECTRICAL EQUIPMENT - EVEN WITH FRONT EDGE OF FOUIPMENT - DEDICATED ELECTRICAL EQUIP. WORKING CLEARANCE THIS FIGURE ILLUSTRATES THE WORKING EQUIPMENT REQUIRED BY SECTION 110-16 OF THE N.E.C.

- STRUCTURAL CEILING

- SUSPENDED CEILING

ELECTRICAL CLEARANCES

ELECTRICAL EQUIPMENT WORKING CLEARANCE PER ARTICLE 110-26 OF N.E.C.

30" MINIMUM OF WIDTH OF EQUIP

WORKING CLEARANCES MIN. CLEAR DISTANCE IN FEET VOLTAGE TO GROUND NOMINAL CONDITION: 1 3-1/2

WHERE THE CONDITIONS ARE AS FOLLOWS:

EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF

WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OF INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS. 2 EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.

EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

IO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL PENETRATE THIS ZONE. -SPACE CONTINUES THRU SUSPENDED CEILING. LAY-IN CEILING - ELECTRICAL EQUIPMENT SPACE SHALL BE NOT LESS THAN THE WIDTH AND DEPTH OF THE EQUIPMENT. DEDICATED ELECTRICAL SPACE-ABOVE AND BELOW FLOOR

> ELECTRICAL EQUIPMENT DEDICATED SPACE PER ARTICLE 110.26.F.1 OF N.E.C.

DEDICATED SPACE

H26 17

REVISIONS

BY

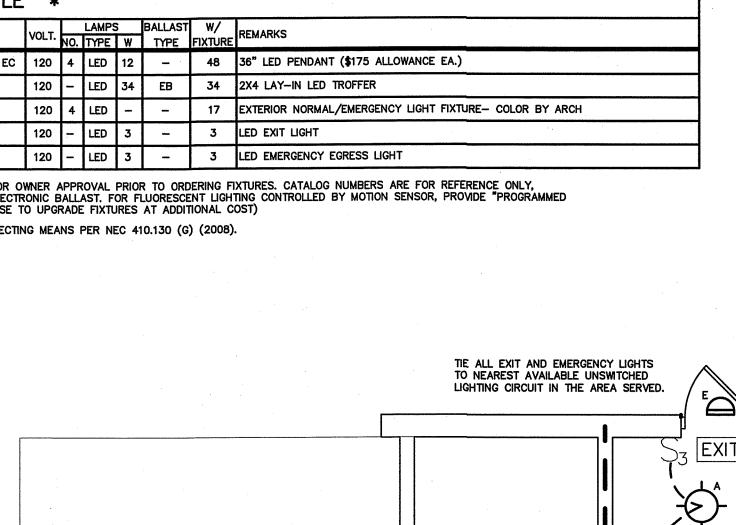
9625 ANGI

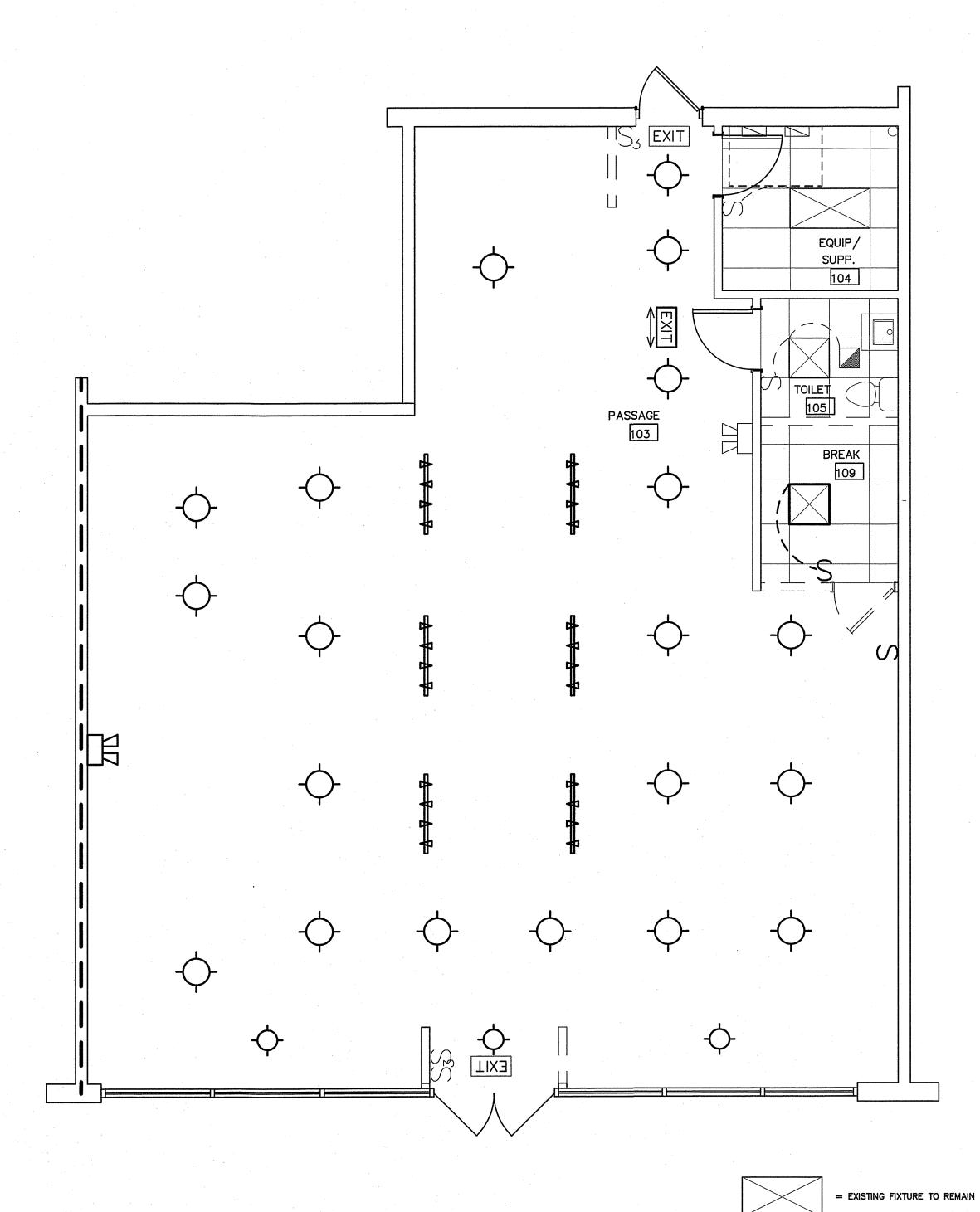
CHECKED BY: BEB 07/26/19 1/4" = 1'-0"JOB NO.

LIGHTING SCHEDULE * VOLT. LAMPS BALLAST W/
NO. TYPE W TYPE FIXTURE REMARKS MARK MANUFACTURER CATALOG NO. A SELECTED BY OWNER/ARCHITECT, PROVIDED BY EC 48 36" LED PENDANT (\$175 ALLOWANCE EA.) 34 2X4 LAY-IN LED TROFFER LJT24-35LWG-FSA12F-EDU E DUAL-LITE 17 EXTERIOR NORMAL/EMERGENCY LIGHT FIXTURE— COLOR BY ARCH EXT DUAL-LITE 120 - LED 3 - 3 LED EXIT LIGHT DUAL-LITE LZ15-03L 120 - LED 3 - 3 LED EMERGENCY EGRESS LIGHT

OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY. 'EB' DENOTES ELECTRONIC BALLAST. FOR FLUORESCENT LIGHTING CONTROLLED BY MOTION SENSOR, PROVIDE "PROGRAMMED RAPID START" BALLASTS. (TENANTS MAY CHOOSE TO UPGRADE FIXTURES AT ADDITIONAL COST)

** VERIFY FIXTURE HAS INTEGRAL LOCAL DISCONNECTING MEANS PER NEC 410.130 (G) (2008).

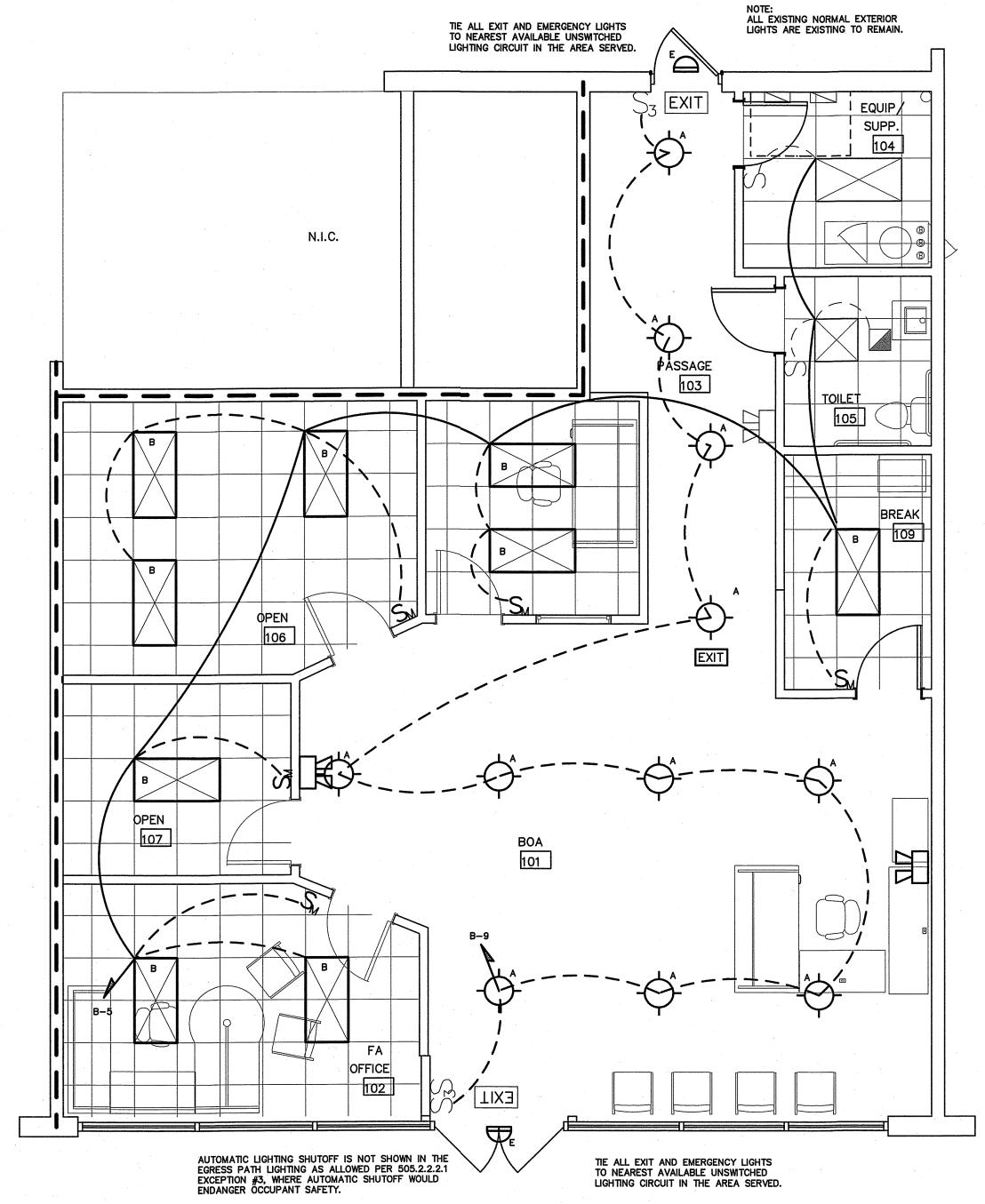




EXISTING LIGHTING PLAN
SCALE: 1/4" = 1'-0"

NOTE:
THE INFORMATION SHOWN ON THIS DRAWING IS FROM A FIELD INVESTIGATION.
THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION.
THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER
OF ANY DISCREPANCIES NOTED.

= EXISTING FIXTURE TO BE RELOCATED/REMOVED



= EXISTING FIXTURE TO REMAIN = NEW/RELOCATED FIXTURE

2 REVISED LIGHTING PLAN
SCALE: 1/4" = 1'-0"

CHECKED BY: BEB DATE 07/26/19 1/4" = 1'-0"

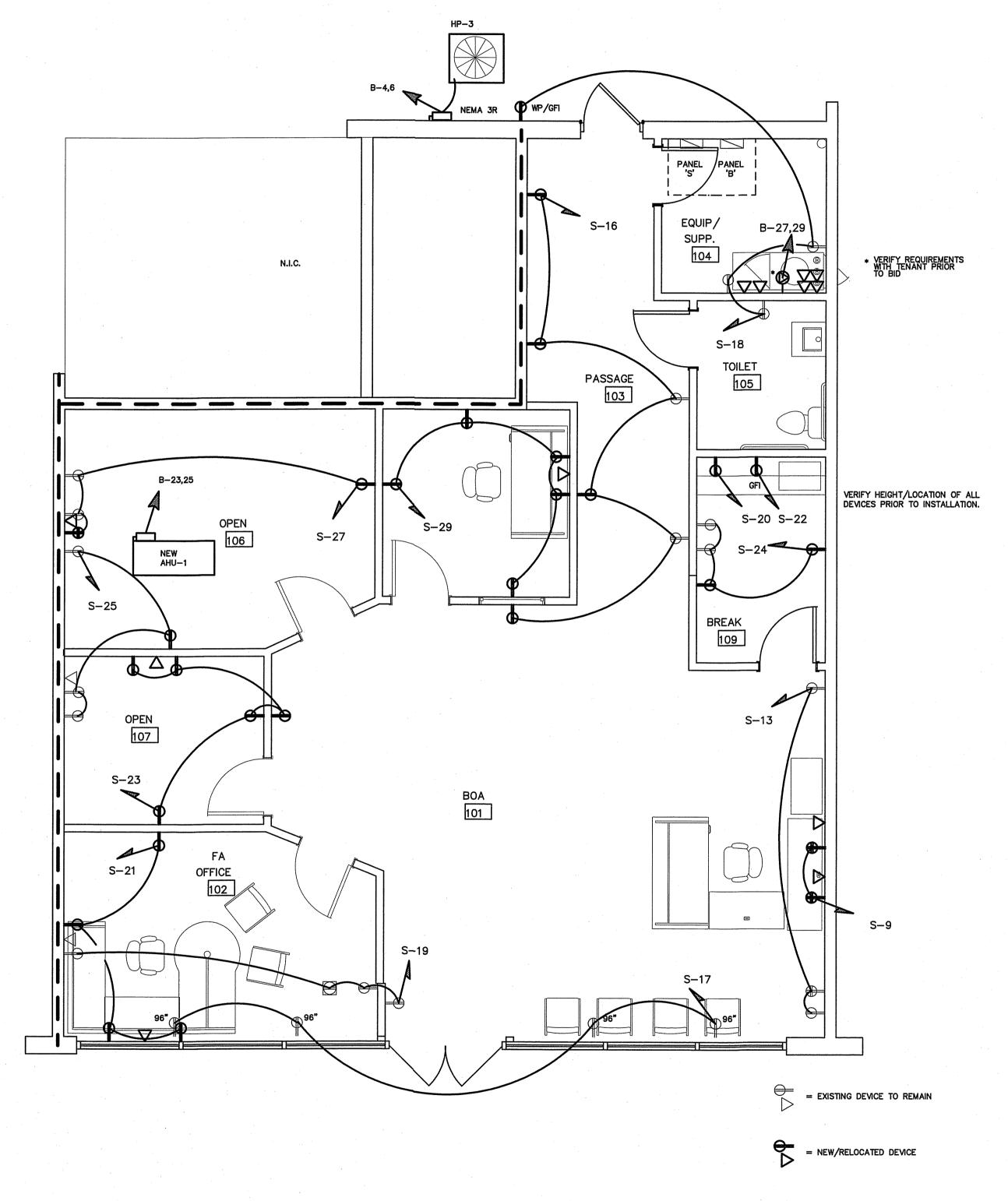
EDWA

9625 BITTER I ANGIER, NC

7/26/19

REVISIONS

NOTE:
THE INFORMATION SHOWN ON THIS DRAWING IS FROM A FIELD INVESTIGATION.
THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION.
THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER
OF ANY DISCREPANCIES NOTED.



= EXISTING DEVICE TO REMAIN = EXISTING DEVICE TO BE RELOCATED/REMOVED

1 EXISTING POWER PLAN
SCALE: 1/4" = 1'-0"

2 REVISED POWER PLAN
SCALE: 1/4" = 1'-0"

7/26 117

REVISIONS

DATE 07/26/19 9CAE 1/4" = 1'-0"

EDWA

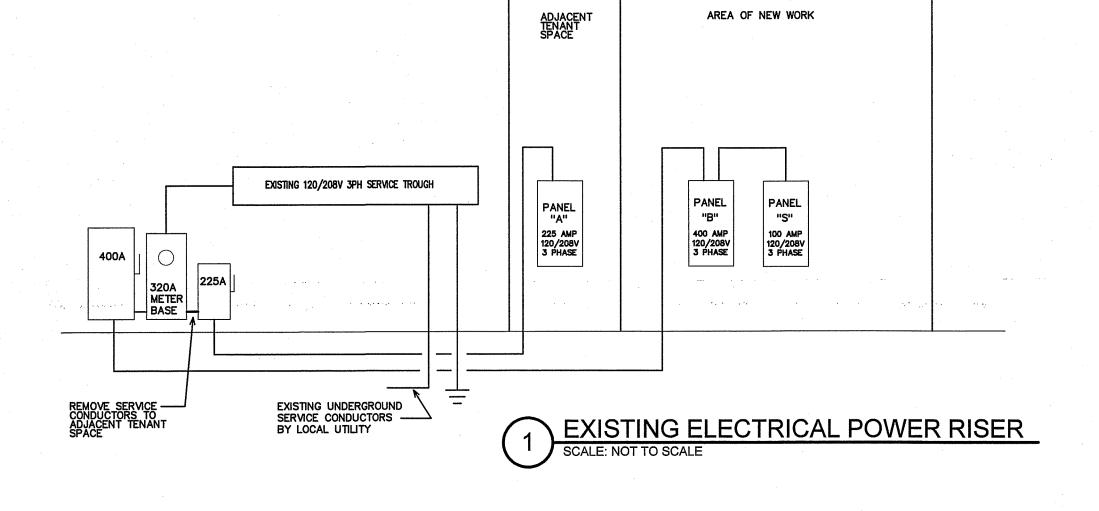
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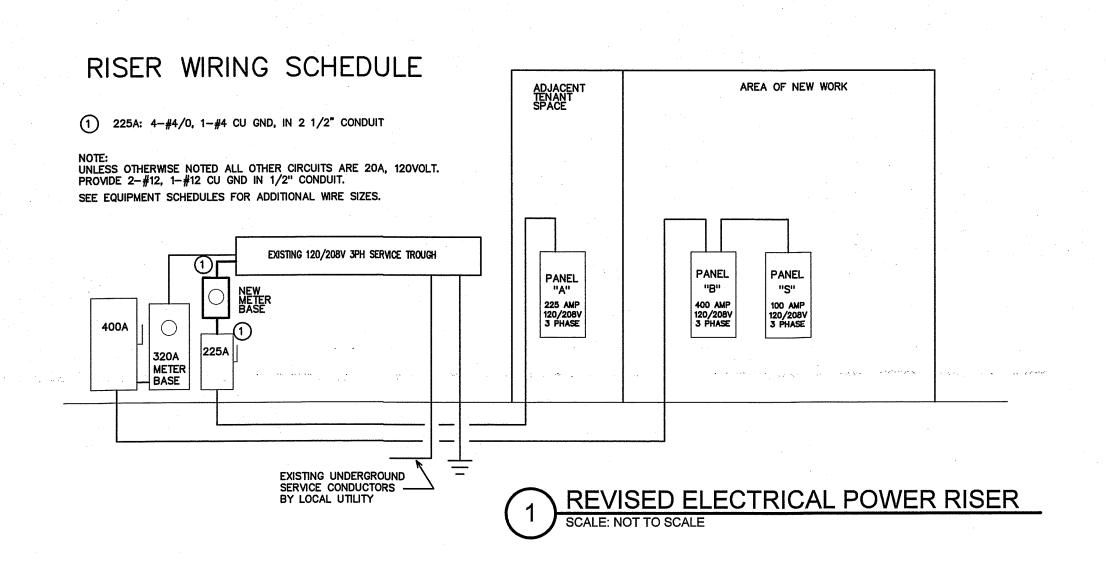
EXISTING PANEL—	'B' MAKE: _ TYPE: _		HAMM	N	OUNTIN	208/120V 3 G: FLUSH AIC: <u>VERIF</u>		E <u>4</u> WIR	_ EQU	MLO_MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUSXYES □NO SERVICE ENTRY RATED□YES XNO					
LOAD	CKT				CKT	NEUTRAL	CKT	<u> </u>		PER PHASE		LOAD			
SERVICE	BRKR	A	В	С	NO	ABC	NO	A	В	С	BRKR				
_TS: 106-112	20A				1 1		2					FURNACE			
SPARE	20A				3		4				50A	CONDENSING UNIT			
_TS: 101-103,105	20A				5		6					<u>•</u>			
_TS: 101	20A			<u> </u>	7		8				20A	REC: 101			
LTS & REC: FRONT	20A				9		10				20A	REACH-IN FREEZER			
WASHER	20A				11		12					Annania and the superior and the superio			
DRYER	30A				13		14					SPARE			
•					15		16					RESTROOM & ICE CREAM FREEZER			
# 7?	20A				17		18				. 20A	REC: OFFICE			
SPARE	20A				19		20				20A	REC: DISP. AREA			
FURNACE	20A				21		22		1		20A	SPARE			
CONDENSING UNIT	FOA				23		24				20A	REC			
•	50A				25	\sim	26				20A	REACH-IN REFRIGERATOR			
REACH-IN FREEZER	20A				27	\cap	28				20A	PRODUCE COOLER			
•	20A				29		30				ZUA				
SPARE	20A				31		32				20A	REACH-IN FREEZER			
REACH-IN REFRIGERATOR	20A				33		34				ZUA				
REC: WINDOW	20A				35		36					SHUNT TRIP			
REC: WINDOW	20A				37		38					PANEL 'S'			
REC: WINDOW	20A				39		40				100A	•			
LOTTO	20A				41		42								
NOTES :	SUB-TOTALS 'B'				$\otimes\!\!\!\otimes\!\!\!\otimes$	_400A_	BUS				SUB-	TOTALS 'A'			
							LUGS				SUB-	TOTALS 'B' TOTAL CONNECTED LOAD			
							FEED				GRANI	O TOTAL CONNECTED LOAD			
							SIZE	A	A	A	AMPS	/PHASE			

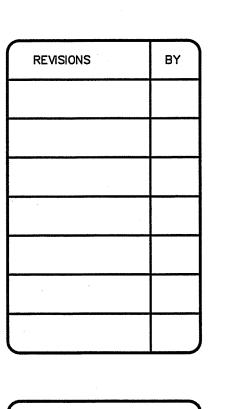
Edword & Jones E4	MAKE:	CUTLER	HAMM	ER RA	TING: 2	208/120V	3 PHASE	4 WIR	F MI	O MA	N CIRC	UIT BREAKE	R		
REVISED PANEL- 'B'				3: FLUSH	0 1 111101		•			ID BUS		G □NO			
		•		AIC: VERI	SERVICE EI					YES					
LOAD	СКТ	WATTS	PER F		СКТ	NEUTRAL	СКТ	WATTS	S PER I	PHASE	CKT		LOAD		
SERVICE	BRKR	Α	В	C	NO	ABC	NO	Α	В	С	BRKR		SERVIC	Ε	
SPARE	20A				1		7 2				20A	SPARE			
SPARE	20A				3		1 4		2870		504	HP-1			
_TS: 101-103,105	20A			534	5	\cap	6			2870	50A	COMP: 26.	4A, FAN:	1.2A	
SPARE	20A				7		8				20A	SPARE			
TS & REC: FRONT	20A		528		9		10				20A	SPARE			
SPARE	20A				11		12				ZUA				
SPARE	704				13		14				20A	SPARE			
	30A				15		16				20A	SPARE			
SPARE	20A				17		18				20A	SPARE	-	-	
SPARE	20A				19		20				20A	SPARE			
SPARE	20A				21		22				20A	SPARE			
AHU−1	00.			4389	23		24				20A	SPARE			
MOTOR: 6A, HEAT: 36.2A	60A	4389			25		26				20A	SPARE			
SPECIAL RECEPTACLE			1960		27		28				201	SPARE			***************************************
	20A			1960	29		30				20A				
SPARE	20A				31		32				20A	SPARE			
SPARE	20A			·	33		34				ZUA				
SPARE	20A				35		36					SPACE			
SPARE	20A				37		38	2980				PANEL 'S'			
SPARE	20A				39		\ 40		4420		100A				
SPARE	20A				41		42			3780					
NOTES SUB-	-TOTALS 'B'				\bowtie	400A	BUS				SUB-	TOTALS 'A'			
						400A LU(SUE		TOTALS 'B'	OTALS 'B' TOTAL CONNECTE		\ IO
* VERIFY REQUIREMENTS WITH TENANT PRIOR						400A	FEED				GRANI	D TOTAL		LO	
TO BID			,		<u>verify</u> SIZE -				A	A	AMPS	/PHASE			
NEC ALLOWABLE DEMAN	ND FACTO	RS	D	VERSI	FIED	LOAD SUN	MARY								
1 DEMAND FACTORS PER N				LOAD	TYP		DEMAND FACTOR ①	Α	В	С	TOTAL DIVERSIFIED LOAD				
2 LARGEST OF: NEC TABLE CONNECTED LOAD	220.12 OR			IERAL L		2	125%		660	668		1328			
(3) NEC TABLE 220.56				ICK LIGH			125% 10KVA 0 100%	2980	3510	3510		10000			
(4) NEC 220.51				EPTACL			10KVA 0 50%		455	135		590			
(5) NEC 220.43A, 200 VA/LII		TORS AN JIPMENT		L OTHERS	125% 100%	900	3960 2104	3960 2824		8820 4928					
6 NON-COINCIDENT LOADS,	WA'	TER HEA	TERS		125%										
OF THE TWO LOADS IS CO		CHEN EC			100% 100%	4344		4344		8688					
	SHO	OW WIND			125%										
			SIG				125% 100%							-	
	MIS				OTAL VA)		10689	15441		34354					
			L			111700 (11	JINE TO	OLL !	10000			XLT AMPS		TOTAL	

EXISTING PANEL— 'S'	MAKE: _ Type: _		HAMM	M	OUNTIN	208/120V 3 G: FLUSH AIC: <u>VERIF</u>	E <u>4</u> WRI	E MLO_MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUSXYES □NO SERVICE ENTRY RATED□YES ⊠NO						
LOAD SERVICE	CKT WATTS PER PHASE BRKR A B C				CKT NO	NEUTRAL A B C			S PER B	PHASE C	CKT BRKR	- 1		
REC: BACK WALL ICE CREAM FREEZER	20A 20A				3		2				20A	REACH-IN	FREEZER	
REC: BACK WALL	20A				5		6				20A	SPARE		
REFRIGERATOR	20A				7		8				20A	SPARE		
SPACE					9		10				20A	SPARE		
REFRIGERATOR	20A				11		12				20A	SPARE		
SPACE					13		14				20A	PRODUCE COOLER LTS & FAN		
REC:	20A				15		16					SPACE		
SPACE					17		18					SPACE		
SPACE					19		20				L	SPACE		
SPACE					21		22					SPACE		
SPACE					23		24					SPACE		
SPACE					25		26					LTS: STOR	AGE	
SPACE					27		28					REC: STOR		
SPACE					29		30				20A	REC: STOR	AGE	
NOTES SUB-TO	OTALS 'B'				\bowtie	_100A	BUS				SUB-	TOTALS 'A'		
							LUGS				SUB-	TOTALS 'B'	TOTAL CONNECTED LO	
						_100A	FEED				GRAN	D TOTAL	IOIAL COMMEDIED LO	
						VERIFY	SIZE	A	A	A	AMPS	/PHASE		

REVISED PANEL— 'S'		MINIMUM AIC: VERIFY									EQUIPMENT GROUND BUSXYESNO SERVICE ENTRY RATED YES XNO						
LOAD SERVICE	CKT BRKR	WATTS	PER F	C C	CKT NO	NEUTRA A B C	L CKT NO	WATT	S PER B	PHASE C	CKT BRKR		LOAD SERVICE				
SPARE	20A				1	$\overline{}$	\bigcirc 2				004	SPARE	-				
SPARE	20A				3	\cap	\bigcirc 4				20A						
SPARE	20A				5	\cap	\bigcap 6				20A	SPARE					
SPARE	20A				7	\cap	<u> </u>				20A	SPARE					
REC: 101			720		9	\cap	\bigcirc 10				20A	SPARE					
SPARE	20A				11	\cap	○ 12				20A	SPARE					
REC: 101		720			13	\cap	14				20A	SPARE					
SPARE	20A				15		\bigcirc 16		1080			REC: 103					
REC: 101,102				720	17	\cap	∩ 18			540		REC: 104,1	105				
REC: 101,102		720			19	\cap	○ 20	1000				REC: 109		• .			
REC: 102			720		21	\cap	○ 22		1000			REC: 109					
REC: 107				900	23	\cap	○ 24			720		REC: 109		•			
REC: 106,107		720			25	\cap	<u> </u>			·	20A	SPARE					
REC: 107			900		27	\cap	<u> </u>				20A	SPARE					
REC: OFFICE				900	29	$\overline{\Box}$	○ 30				20A	SPARE					
NOTES SUB-TO	TALS 'B'	2160	2340	2520	\bowtie	_100A	BUS	1000	2080	1260	SUB-	TOTALS 'A'					
						_100A	LUGS	2160	2340	2520	SUB-	TOTALS 'B'	TOTAL CONNEC	TED LOAD			
						_100A	FEED	3160	4420	3780	GRANI	D TOTAL	TOTAL CONNEC	HED LUND			
						VERIFY	SIZE	26A	37A	32A	AMPS	/PHASE					
NEC ALLOWABLE DEMAND	FACTO	RS	DI	VERSI	FIED I	LOAD SU	JMMARY	,									
① DEMAND FACTORS PER NEC				LOAD	TYPE	.	DEMAND FACTOR	A .	В	С	TOTAL	DIVERSIFIE	ED LOAD				
2 LARGEST OF: NEC TABLE 2: CONNECTED LOAD	20.12 OR			IERAL L		2	125%										
I ~				CK LIGH IERAL U			125% ≤10KVA 9 100%										
1 ~			REC	EPTACL	ES		>10KVA@50%	3160	3420	3420		10000					
(4) NEC 220.51	AD ET			TORS AN		RGEST	125%		500	180		680					
(5) NEC 220.43A, 200 VA/LINE. (6) NON-COINCIDENT LOADS, LA				JIPMENT TER HEA		L OTHERS	100% 125%										
OF THE TWO LOADS IS COU	KIT	CHEN E	QUIPMEN		100%					****							
		ELEC.															
	SIG		OH LIG	HTS 😥	125%	 	 ===	===									
·			MIS	MISC 100% -													
						PHASE (TOTAL VA		3920	3600	VOLT AMBQ TOTAL						
<u> </u>							TOTAL AMPS	25A	33A	30A	VOT.	TS X 1.732	- 29A AM	PS			









07/26/19 3CALE 1/4" = 1'-0"