

─ HOMERUN ARROW XX PLAN NOTE MARK

 $\left(\begin{array}{c} XX \\ XX \end{array}\right)$ SHEET REFERENCE MARK

MECHANICAL EQUIPMENT NOTE MARK (xx)SHOP EQUIPMENT NOTE MARK

KITCHEN EQUIPMENT NOTE MARK

XX FEEDER MARK

[+ XX"] STANDARD MOUNTING HEIGHT TO CENTER UNLESS OTHERWISE NOTED ON DRAWINGS

LINETYPE LEGEND

_ _ UNDER GROUND

ABOVE GROUND, IN WALL, CEILING, ETC

NEW EQUIPMENT (TYPICAL)

□ □ □ □ DEMOLISHED EQUIPMENT (TYPICAL)

EXISTING EQUIPMENT (TYPICAL)

ABBREVIATIONS EXISTING TO REMAIN (F) FUTURE **EXISTING TO BE RELOCATED** EXISTING TO BE DEMOLISHED ALTERNATING CURRENT A, AMP AMPERES AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE AFI ARC FAULT CIRCUIT INTERRUPTER AHJ AUTHORITY HAVING JURISDICTION AIC EQUIPMENT SHORT CIRCUIT INTERRUPT RATING ALUMINUM ATS **AUTOMATIC TRANSFER SWITCH** AUX **AUXILIARY** AWG AMERICAN WIRE GAUGE CONDUIT CIRCUIT BREAKER CKT CIRCUIT CO CARBON MONOXIDE CR CONTROLLED RECEPTACLE CURRENT TRANSFORMER CU DC COPPER DIRECT CURRENT DISC DISCONNECT DIA DIAMETER DMX DIGITAL MULTIPLEX DWG DRAWING EF EXHAUST FAN EM **EMERGENCY** EMT ELECTRICAL METALLIC TUBING **ENCL** ENCLOSURE FA FIRE ALARM FAA FIRE ALARM ANNUNCIATOR FBO FURNISHED BY OTHERS FC FOOT CANDLES FULL LOAD AMPERES FSD FIRE & SMOKE DAMPER GEN GENERATOR GFCI GROUND FAULT CIRCUIT INTERRUPTER

GROUND FAULT EQUIPMENT PROTECTION

GFEP

GND

HTR

HP

IG

INV

KCM KW

KVA

LTG

LCP

MB

MCA

MDP

MIN

MLO

NAC

NEC

NTS

OFCI

OFOI

PH, Ø

OS

PNL

SDP

TEL

TK

TVSS

TYP

UC

UPS

USB

VFD

WP

XFMR

NEMA

GROUND

HEATER

INFRARED

INVERTER

LIGHTING

MINIMUM

PHASE

PANEL

TELEPHONE

UNDERCABINET

VOLT-AMPERES

WEATHERPROOF

TRANSFORMER

TYPICAL

VOLTS

WATT

MAIN BREAKER

MAIN LUGS ONLY

NOT TO SCALE

OCCUPANCY SENSOR

TOE KICK MOUNTED

UNIVERSAL SERIAL BUS

VARIABLE FREQUENCY DRIVE

SUB DISTRIBUTION PANEL

HORSEPOWER

ISOLATED GROUND

THOUSAND WATTS

THOUSAND CIRCULAR MILS

THOUSAND VOLT-AMPERES

LIGHTING CONTROL PANEL

MINIMUM CIRCUIT AMPERES

NOTIFICATION APPLIANCE CIRCUIT

NATIONAL ELECTRICAL MFGR'S ASSOCIATION.

OWNER FURNISHED, CONTRACTOR INSTALLED

TRANSIENT VOLTAGE SURGE SUPPRESSION

UNINTERRUPTIBLE POWER SUPPLY

OWNER FURNISHED, OWNER INSTALLED

NATIONAL ELECTRICAL CODE

MAIN DISTRIBUTION PANEL

DATA OUTLET 1-PORT [+ 18"] DATA OUTLET 2-PORT [+ 18"] DATA OUTLET 3-PORT [+ 18"] DATA OUTLET 4-PORT [+ 18"] DATA OUTLET FOR WIRELESS NODE 1-PORT [+ 96"] **▼▼▼▼** [ABOVE COUNTER]

VOLUME CONTROL [+ 45"] AUDIO/VISUAL OUTLET [+ 18"]

ANALOG CLOCK [+ 96"]

CALL BUTTON

DISTRIBUTION & EQUIPMENT

FLUSH ELECTRICAL PANEL

SURFACE ELECTRICAL PANEL FLUSH CONTROL PANEL

SURFACE CONTROL PANEL TRANSFORMER

ABOVE GROUND JUNCTION BOX

METER AND SOCKET SERVICE ENTRANCE POWER POLE

POWER DEVICES

SINGLE RECEPTACLE DUPLEX RECEPTACLE

DOUBLE DUPLEX RECEPTACLE ① ① [FLUSH IN FLOOR]

USB DUPLEX RECEPTACLE

ISOLATED GROUND RECEPTACLES

 $\bigoplus_{\bullet} \bigoplus_{\bullet} \bigoplus_{\bullet} \mathsf{GFCI}$, USB/GFCI, ISOLATED/GFCI

POWER/DATA BOX [RECESSED IN FLOOR]

POWER/DATA POLE

SPECIAL PURPOSE POWER RECEPTACLE

ELECTRICAL EQUIPMENT CONNECTION

MAGNETIC STARTER VARIABLE FREQUENCY DRIVE

SAFETY SWITCH

FUSED SAFETY SWITCH

ELECTRICAL MOTOR CONNECTION SINGLE POINT ELECTRICAL CONNECTION

JUNCTION BOX

JUNCTION BOX [IN FLOOR]

JUNCTION BOX WITH EMERGENCY CIRCUIT

PUSH BUTTON CONTROL

UP/DOWN/STOP PUSH BUTTON CONTROL

WALL HEATER

TELECOMMUNICATION DEVICES

SIGNAL DEVICES

MICROPHONE OUTLET [+ 18"]

TIME CLOCK/SWITCH ANALOG CLOCK & SPEAKER [+ 96"]

12:00 DIGITAL CLOCK

12:00 S DIGITAL CLOCK & SPEAKER [+ 96"]

SPEAKER [IN CEILING]

SPEAKER-WALL MOUNTED [+ 84"]

THERMOSTAT [+ 45"] DMX CONTROL OUTLET

BUZZER

FIRE ALARM DEVICES

PULL STATION [+ 45"]

STROBE [+ 88"]

F

HORN [+ 88"] HORN / STROBE [+ 88"]

SPEAKER / STROBE [+ 88"]

[IN CEILING]

HEAT DETECTOR DUCT SMOKE DETECTOR

IONIZATION TYPE SMOKE DETECTOR PHOTO ELECTRIC TYPE SMOKE DETECTOR

PHOTO ELECTRIC TYPE SMOKE & CO DETECTOR

FIRE/SMOKE DAMPER FIRE DOOR RELEASE

IR SMOKE DETECTOR TRANSMITTER

IR SMOKE DETECTOR RECEIVER SPRINKLER FLOW SWITCH

SPRINKLER TAMPER SWITCH

KNOX BOX

MAGNETIC DOOR HOLDER CONTROL MODULE

ALARM MODULE

IONIZATION TYPE SMOKE DETECTOR W/ INTEGRAL HORN & STROBE

PHOTO ELECTRIC TYPE SMOKE DETECTOR W/ INTEGRAL HORN & STROBE

PHOTO ELECTRIC TYPE SMOKE & CO DETECTOR W/ INTEGRAL HORN & STROBE

FIRE ALARM DESIGN BUILD NOTE:

PER SPECIFICATION SECTION 28 31 00 - THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING, FURNISHING, AND INSTALLING A COMPLETE FIRE ALARM SYSTEM. INCLUDING, BUT NOT LIMITED TO, ALL ADDRESSABLE FIRE ALARM PANELS, NAC PANELS, INITIATION DEVICES, MONITORING DEVICES, CONTROL DEVICES, ANNUNCIATION DEVICES, AND OTHER EQUIPMENT AS REQUIRED BY OTHER DIVISIONS OF THE SPECIFICATIONS AND LOCAL AHJ.

SECURITY DEVICES

G

GLASS BREAK DETECTOR

DIRECTIONAL MOTION SENSOR

360° MOTION SENSOR

VIDEO SURVEILLANCE CAMERA FLUSH AUTOMATIC DOOR ACTUATOR [+ 45"]

KEYPAD [+ 45"]

MAGNETIC DOOR SWITCH

ELECTRIC STRIKE ELECTRIC LOCK

MAGNETIC DOOR LOCK

CENTRONIC DOOR CLOSER CARD READER [+ 45"]

REQUEST TO EXIT DEVICE

VIDEO CALL STATION VIDEO RECEIVER STATION

NURSE CALL

CORRIDOR LIGHT [ABOVE DOOR]

CORRIDOR LIGHT [IN CEILING] EMERGENCY PULL CORD STATION

DUTY STATION MASTER STATION

LIGHTING DEVICES

SURFACE MOUNTED LUMINAIRES

● [EMERGENCY]

[EMERGENCY]

RECESSED LUMINAIRES

PENDANT MOUNTED LUMINAIRES

[EMERGENCY]

______ 古 WALL MOUNTED LUMINAIRES

[EMERGENCY] STRIP LUMINAIRE --

[EMERGENCY]

WALL WASH LUMINAIRES TRACK LIGHTING SYSTEM

DIRECTIONAL LUMINAIRE [IN GRADE]

FLOOD LUMINAIRE STEP LUMINAIRE

[EMERGENCY] POLE ARM MOUNT LUMINAIRE

POLE TOP MOUNT LUMINAIRE

LIGHTED BOLLARD [EMERGENCY]

BATTERY PACK EM LUMINAIRE [WALL MOUNT]

BATTERY PACK EM LUMINAIRE [CEILING MOUNTED]

EXIT SIGN [CEILING MOUNTED]

EXIT SIGN [WALL MOUNTED]

EXIT SIGN W/ EMERGENCY LIGHT SINGLE-POLE SWITCH [+ 45"]

TWO-POLE SWITCH [+ 45"] THREE-WAY SWITCH [+ 45"]

FOUR-WAY SWITCH [+ 45"] OCCUPANCY SENSOR SWITCH [+ 45"]

OCCUPANCY SENSOR & DIMMER SWITCH [+ 45"]

DIMMER SWITCH [+ 45"]

LOW-VOLTAGE SWITCH [+ 45"]

KEYED SWITCH [+ 45"] SWITCH WITH PILOT LIGHT [+ 45"]

MULTI-ZONE WALL POD [+ 45"] OCCUPANCY SENSOR 360° [CEILING MOUNTED]

DIRECTIONAL OCCUPANCY SENSOR [UNIVERSAL MOUNT] OCCUPANCY SENSOR POWER PACK

PHOTOCELL DAYLIGHT SENSOR

EMERGENCY LOAD TRANSFER DEVICE LIGHTING CONTACTOR

SWITCH - LUMINAIRE CONTROL

ROOM CONTROLLER WITH [X] # RELAYS

SWITCH FOR ZONE 'x' →xx ------ 'XX'-TYPE SWITCH

TYPE 'XX' LUMINAIRE LUMINAIRE IN ZONE 'x' ─ CIRCUIT NUMBER

(OS) CONTROL IN ZONE 'X'

GIVEN DRAWING SET.

NOTE: SYMBOLS AND DEFINITIONS LISTED ON TITLE SHEET ARE TYPICAL OF ALL PROJECTS AND SOME MAY NOT BE PRESENT IN ANY

DRAWING INDEX

<u>DWG</u> <u>DESCRIPTION</u> E0 ELECTRICAL TITLE SHEET

FLOOR PLAN - ELECTRICAL PANEL SCHEDULES

PROJECT SCOPE

• PROVIDE EMERGENCY POWER TO SELECT RECEPTACLES IN MAIN OFFICE.

• PROVIDE EMERGENCY POWER TO LUMINARIES AT EXTERIOR EGRESS DOORS.

• CONNECT GYMNASIUM LIGHTING TO EMERGENCY POWER.

PROVIDE EMERGENCY POWER ACCESS CONTROL SYSTEMS.

• UPGRADE EXISTING PANEL SCHEDULES TO REFLECT CHANGES. PROVIDE TYPE WRITTEN PANEL SCHEDULES. • CONNECT MAIN OFFICE LIGHTING TO EMERGENCY CIRCUIT.

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PROJECT CONTACTS

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EXPIRES 12-31-22

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ISSUE DATE:

03-23-2022

SET TYPE:

REVISIONS:

DRAWN BY:

DD

DESIGNED BY:

CHECKED BY:

MKE JOB #:

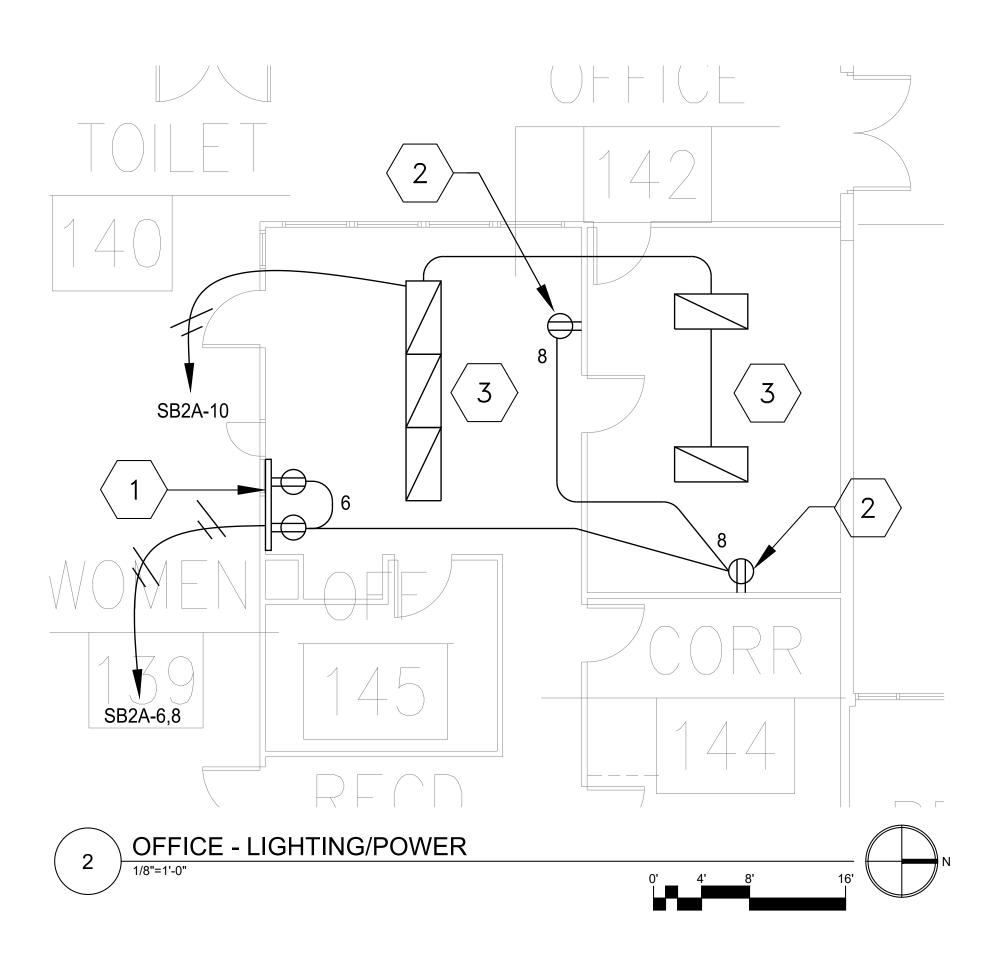
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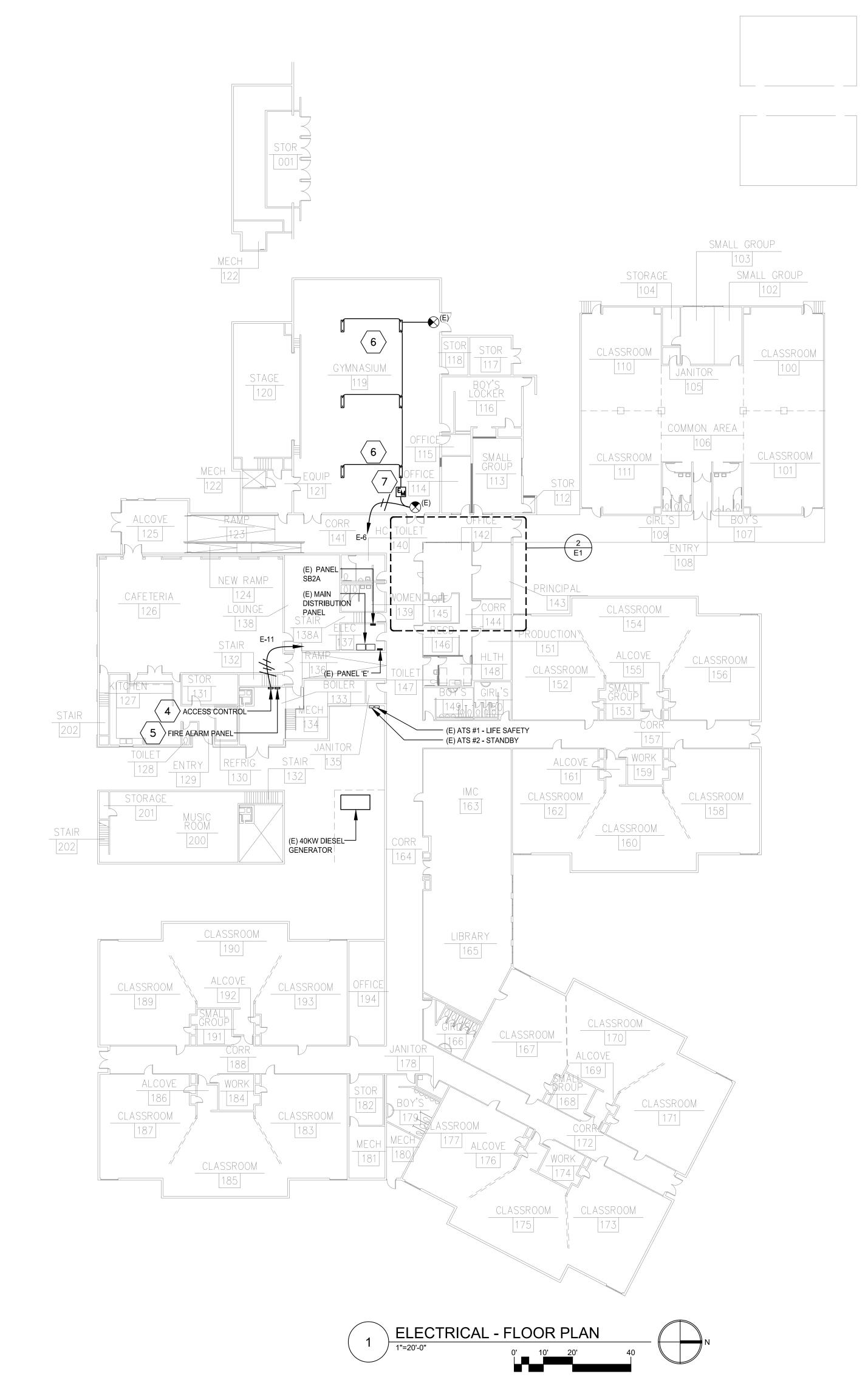
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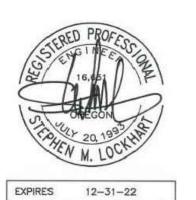
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RESILIENCY-833 -EMENTARY FIRE AI JOPER -WIDE R

ISSUE DATE: 03-23-2022

> SET TYPE: BID

> REVISIONS:

DRAWN BY: DD DESIGNED BY:

HB CHECKED BY: SL

MKE JOB #: BV-5749 ELECTRICAL -FLOOR PLAN

KEYED NOTES:

AND MODIFY PANEL SCHEDULE.

NORMAL AND POWER PANELS.

5. MAINTAIN EMERGENCY CIRCUIT FOR FACP.

LUMINARIES IN GYMNASIUM.

OUTPUT UPON POWER LOSS.

SUPPLIES.

1. PROVIDE AND INSTALL 72" OF SURFACE MOUNT WIREMOLD

4000 WITH RECEPTACLES (4 TOTAL) ON 18" CENTERS. UTLIZE EXISTING RECEPTACLE TO EXTEND CIRCUIT TO WIREMOLD.

PROVIDE EMERGENCY 20A, 120V CIRCUIT TO RECEPTACLE DISCONNECT EXISTING RECEPTACLE FROM NORMAL POWER

MAIN OFFICE AND PRINCIPLES OFFICE. DISCONNECT NORMAL

3. PROVIDE 120V, 20A DEDICATED CIRCUIT FOR LUMINARIES IN

4. PROVIDE 120V, 20A, DEDICATED CIRCUIT FOR ACCESS

6. CONNECT 120V, 20A EMERGENCY CIRCUIT TO SIX (6)

7. PROVIDE AND INSTALL UL 924 EMERGENCY LOAD TRANSFER

DEVICE TO CONTROL LUMINARIES W/NORMAL POWER CIRCUITS. LUMINARIES TO TRANSFER TO 100% EMERGENCY

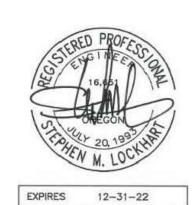
POWER CIRCUIT. PROVIDE NEW PANEL SCHEDULE FOR

CONTROL. CONNECT TO ALL ACCESS CONTROL POWER

D BY:				PANEL SCHEDULE MKE & ASSOCIATES, INC.			MOUNTING:		SURFACE	
OC:							1	BUS/MAIN:	100A MLO	
			<u>VOLTS</u> 120/208		PHASE 3		WIRE 4			
С	DESCRIPTION	VA	ΑP	No.	АВС	No.	A/P	VA	DESCRIPTION	С
5	INTERCOM/PAGING*	200	20/1	1	*	2	20/1	200	FACP*	5
5	TELE. SWITCH*	200	20/1	3	*	4	20/1	200	SECURITY*	5
	SPARE*		20/1	5	*	6	20/1	900	R - MAIN OFFICE (N)	2
5	DATA HVAC*	1800	20/2	7	*	8	20/1	540	R - PRINCIPAL (N)	2
5	*	1800	*	9	*	10	20/1	440	L - MAIN OFFICE (N)	1
2	R-ROOF*	360	20/1	11	*	12			SPACE	
	SPACE			13	*	14			SPACE	
- 0	SPACE		3	15	*	16	72		SPACE	
	SPACE		,	17	*	18			SPACE	
	SPACE			19	*	20			SPACE	
	SPACE			21	*	22			SPACE	
	SPACE			23	*	24			SPACE	
Į.	LOAD CODE (VA)	PH A	PH B	PH C	TOT	AL (VA)	FAC	TOR	CODE LOAD	
1. LIGHTS:		0	440	0	0 440		1.25		550	
2. RECEPTACLE:		540	0	1,260	1,800		*		1,800	
1	3. HEATING:		0	0	0		1.00		0	
	4. KITCHEN: 0		0	0	0		1.00		0	
5. EQUIPMENT: 2,2		2,200	2,200	0	4,400		1.00		4,400	
6. MOTORS: 0		0	0	0	0		**		0	
7	7. MISC:	0	0	0		0	1	.00	0	
	TOTAL (VA):	<u>2,740</u>	2,640	1,260	6	5,640			6,750	
LARGEST MOTOR: 0 VA TOTAL L			LOAD:	OAD: 18 A			DE DEMAND:	19 A		
# MOTES:	KITCHEN EQUIPMENT	0							OF THE BALANCE	

FED BY: MDP/ATS								BUS/MAIN:	100A	
	The section of the control of the co							DOG/III/AITA.	100/1	
<u>.0C:</u>	ELECT. RM.		VOLTS 120/208		PHASE 3		<u>WRE</u> 4			
С	DESCRIPTION	VA	Α/P	No.	АВС	No.	A/P	VA	DESCRIPTION	
1	L - OFFICE ^ *	720	20/1	1	*	2	20/1	1180	L - SO. WING ^ *	
1	L - CAFÉ/KITCHEN ^ *	820	20/1	3	3 * 5	4	20/1	820	L - EXITS - MAIN ^ *	
	SPARE ^ *	0	20/1	5	*	6	20/1	1512	R - MDF ^ *	
5	FACP **	200	20/1	7	*	8	20/1	200	SPRINKLER ALARM ^ *	
5	BLOCK HEATER **	1080	20/1	9	*	10	20/1		SPARE	
5	ACCESS CONTROL (N)	200	20/1	11	*	12	20/1		SPARE	
	SPACE			13	*	14			SPACE	
	SPACE			15	*	16			SPACE	
	SPACE	7		17	*	18		8	SPACE	
	SPACE			19	*	20			SPACE	
	SPACE		21	*	22			SPACE		
	SPACE	-		23	*	24			SPACE	
	LOAD CODE (VA)	PH A	PH B	PH C	TOTA	AL (VA)	FAC	CTOR	CODE LOAD	
	1. LIGHTS: 1,9		1,640	1,512	5,052		1.25		6,315	
	2. RECEPTACLE:	0	0	0	0				0	
	3. HEATING: 0 4. KITCHEN: 0 5. EQUIPMENT: 400		0	0 0 200	0 0 1,680		1.00 1.00 1.00		0 0 1,680	
			0							
			1,080							
6. MOTORS:		0	0	0 0		**		0		
7. MISC:		0	0	0 0		1.00		0		
	TOTAL (VA):	2,300	<u>2,720</u>	<u>1,712</u>	<u>6</u>	,732			<u>7,995</u>	
LARGEST MOTOR: 0 VA			TOTAL LOAD:			19 A	COI	DE DEMAND:	22 A	
i	# KITCHEN EQUIPMENT	0								





EXPIRES 12-31-22

PROJEC DISTRICT-WIDE FIRE ALARM RESILIENCY-8331 COOPER MT. ELEMENTARY BEAVERTON S.D. 7670 SW 170TH AVE. BEAVERTON, OR 97007

ISSUE DATE: 03-23-2022 SET TYPE: BID

REVISIONS:

DRAWN BY: DD DESIGNED BY: HB CHECKED BY: SL

MKE JOB #: BV-5749 PANEL SCHEDULES