	ABBREV	/IATIONS	3		ELE
	(SOME ABBREVIATIONS MAY		•		(SOME SYME
ABBREVIATION		ABBREVIATION		SYMBOL	DESCRIPTION
A or AMP	AMPERES CURRENT	MH	MANHOLE	SYMBOL	
AC	ALTERNATING CURRENT	MIN	MINIMUM	\longrightarrow	SCHEDULED EQUIPMENT CONNECTION (INCL ALL WIRING, DISCONNECTING MEANS, CONT
A/C	AMPERE INTERRUPTING CARACITY	MLO MOP, MOCP	MAIN LUGS ONLY		AND OTHER REQUIREMENTS SCHEDULED)
AIC AL	AMPERE INTERRUPTING CAPACITY ALUMINUM	MTD	MAXIMUM OVERCURRENT PROTECTION MOUNTED		,
ARCH	ARCHITECTURAL	MTG	MOUNTING	#	BUBBLE NOTE TAG SYMBOL: # — IDENTIFYING NUMBER
ATC	AUTOMATIC TEMPERATURE CONTROL	NC NC	NORMALLY CLOSED	200-4-G	FEEDER CALLOUT X-Y-Z. SEE SCHEDULE.
ATS	AUTOMATIC TRANSFER SWITCH	N, NEUT	NEUTRAL		
AWG	AMERICAN WIRE GAUGE	NIC	NOT IN CONTRACT	200/150-3P	DEVICE SIZE / FUSE OR TRIP RATING — No. OF POLES
BIL	BASIC IMPULSE LEVEL	NO	NORMALLY OPEN		
BKR	BREAKER	NTS	NOT TO SCALE	<u> </u>	SURFACE FIXTURE — ROUND
BLDG	BUILDING	ос	ON CENTER	+¤	SURFACE FIXTURE - WALL
С	CONDUIT	OD	OUTSIDE DIAMETER		EMERGENCY FIXTURE - TWIN HEAD
C.O.	CONDUIT ONLY	ОН	OVERHEAD	8	COMBINATION EXIT SIGN AND TWIN HE.
° C	DEGREES CELSIUS	PA	PUBLIC ADDRESS		EMERGENCY LIGHTING UNIT
СВ	CIRCUIT BREAKER	PB	PULLBOX		SURFACE MOUNT FIXTURE WITH EMERGENC
CCTV	CLOSED CIRCUIT TELEVISION	PF	POWER FACTOR		LIGHTING UNIT
CFM	CUBIC FEET PER MINUTE	ø or PH	PHASE	H ₩	WALL SURFACE MOUNT FIXTURE WITH EMEI
CKT	CIRCUIT	PNL	PANEL		LIGHTING UNIT
CL	CENTER LINE	PR	PAIR	S	SINGLE POLE TOGGLE SWITCH
CLG	CEILING	PRI	PRIMARY	\$	DIGITAL SWITCH STATION
CONC CT	CONCRETE CURRENT TRANSFORMER	PT PVC	POTENTIAL TRANSFORMER POLYVINYL CHLORIDE		
CU	COPPER	RECPT	RECEPTACLE	\$ _{wp,} S ₃	SWITCH SUBSCRIPTS: 2 DOUBLE POLE
CW	COLD WATER	REQ	REQUIRED		3 THREE WAY
BD	DECIBELS	RF	RADIO FREQUENCY		4 FOUR WAY
DC	DIRECT CURRENT	RM	ROOM		D DIMMER
DIA	DIAMETER	RMS	ROOT MEAN SQUARE		EP EXPLOSION PR K KEY OPERATEI
DIV	DIVISION	SEC	SECONDARY		LV LOW VOLTAGE
DPDT	DOUBLE POLE, DOUBLE THROW	SHT	SHEET		LVM LOW VOLTAGE
DPST	DOUBLE POLE, SINGLE THROW	SMR	SURFACE METAL RACEWAY		M MANUAL MOTO
DWG	DRAWING	SN	SOLID NEUTRAL		W/OVERLOADS MC MOMENTARY C
EGC	EQUIPMENT GROUND CONDUCTOR	SP	SINGLE POLE		MC MOMENTARY C P SWITCH W/PILO
ELEC	ELECTRIC	SPD	SURGE PROTECTIVE DEVICE		T TIMER
EMT	ELECTRICAL METALLIC TUBING	SPDT	SINGLE POLE, DOUBLE THROW		WP WEATHERPROO
EXST, (E)	EXISTING	SPST	SINGLE POLE, SINGLE THROW		a, b, c MULTIGANG SV
*F	DEGREES FAHRENHEIT	SS	STAINLESS STEEL	OS	OCCUPANCY SENSOR - CEILING MOUNT
FA FO	FIRE ALARM	STD	STANDARD		
FC FLA	FOOTCANDLE FULL LOAD AMPS	SW	SWITCHPOARD	S _{os}	OCCUPANCY SENSOR - WALL SWITCH
FLA FLEX	FULL LOAD AMPS FLEXIBLE CONDUIT	SWBD TEL	SWITCHBOARD TELEPHONE	DPC	DIGITAL PLUG CONTROLLER
GALV	GALVANIZED	TV	TELEVISION	DRC	DIGITAL ROOM CONTROLLER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TTB	TELECOMMUNICATIONS TERMINAL BOARD		DAVIJOUT CENCOD
GND	GROUND	TYP	TYPICAL		DAYLIGHT SENSOR
H-0-A	HAND - OFF - AUTO	UL	UNDERWRITERS LABORATORY		
HP	HORSEPOWER	UF	UNDERFLOOR		
HPF	HIGH POWER FACTOR	UG	UNDERGROUND		
H & V	HEATING AND VENTILATION	V	VOLTS		
HVAC	HEATING, VENTILATION & AIR CONDITIONING	VA	VOLT AMPERES	NOTE:	
HZ	HERTZ	VAC	VOLTS ALTERNATING CURRENT		E WEIGHT INDICATES EXISTING CONDITIONS. —
IDF	INTERMEDIATE DISTRIBUTION FRAME	VAR	REACTIVE VOLT AMPERES	HEAVY LINE W	EIGHT INDICATES NEW WORK
J-BOX	JUNCTION BOX	VAV	VARIABLE AIR VOLUME		
KV 	KILOVOLTS	VD	VOLTAGE DROP		
KVAD	KILOVOLT AMPERES	VDC	VOLTS DIRECT CURRENT		
KVAR	REACTIVE KILOVOLT AMPERES	VFD	VARIABLE FREQUENCY DRIVE		
KW KWH	KILOWATTS KILOWATT HOURS	VT W	VAPORTIGHT WATTS		
LT	LIGHT	WP WP	WEATHERPROOF		
LTG	LIGHTING	/W	WITH		
MAX	MAXIMUM	/ " W/O	WITHOUT		
MCA	MINIMUM CIRCUIT AMPS	XFER	TRANSFER		
MCB	MAIN CIRCUIT BREAKER	XFMR	TRANSFORMER		
MCC	MOTOR CONTROL CENTER	XLP	CROSS-LINKED POLYETHYLENE		
MCM, KCM	THOUSAND CIRCULAR MILS	XP	EXPLOSION PROOF		
MDF	MAIN DISTRIBUTION FRAME	Z	IMPEDANCE		
MECH	MECHANICAL	1			

MECH

MECHANICAL

ELECTRICAL LEGEND

	(SOME SYMBOLS MAY NOT	T BE USED ON	N DRAWINGS)
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SCHEDULED EQUIPMENT CONNECTION (INCLUDE ALL WIRING, DISCONNECTING MEANS, CONTROL AND OTHER REQUIREMENTS SCHEDULED)	₩	DUPLEX RECEPTACLE (NEMA 5—20R) SUBSCRIPT: IG ISOLATED GROUND WC WATER COOLER REF REFRIGERATOR
∄ 200−4−G	BUBBLE NOTE TAG SYMBOL: # — IDENTIFYING NUMBER FEEDER CALLOUT X—Y—Z. SEE SCHEDULE.		COP COPIER HWD HOT WATER DISPENSER MWO MICROWAVE OVEN
200/150-3P	DEVICE SIZE / FUSE OR TRIP RATING — No. OF POLES		P PEDESTAL WP WEATHERPROOF C CEILING
¤	SURFACE FIXTURE - ROUND		DW DISHWASHER
Ä	SURFACE FIXTURE - WALL		IWB INTERACTIVE WHITE BOARD TV VIDEO DISPLAY OUTLET. REFER TO
~	EMERGENCY FIXTURE - TWIN HEAD		ARCHITECTURAL DETAILS FOR
*	COMBINATION EXIT SIGN AND TWIN HEAD EMERGENCY LIGHTING UNIT	⊨	MOUNTING HEIGHT RECEPTACLE CONTROLLED BY OCCUPANCY SENSOR
	SURFACE MOUNT FIXTURE WITH EMERGENCY LIGHTING UNIT	,	OR TIME SWITCH (1/2 OF OUTLET IS CONTROLLED WHERE SPLIT WIRED IS INDICATED)
H∰	WALL SURFACE MOUNT FIXTURE WITH EMERGENCY LIGHTING UNIT	Ħ	GFCI DUPLEX RECEPTACLE (NEMA 5-20R) SUBSCRIPT: REF REFRIGERATOR
S	SINGLE POLE TOGGLE SWITCH		DW DISHWASHER WD WASTE DISPOSER
\$	DIGITAL SWITCH STATION		MWO MICROWAVE OVEN
\$ _{wp,} S ₃	SWITCH SUBSCRIPTS: 2 DOUBLE POLE	₩*	ASTERISK INDICATES COUNTER HEIGHT OUTLET (DUPLEX RECEPTACLE SHOWN)
	3 THREE WAY 4 FOUR WAY	⊨R	RANGE RECEPTACLE (NEMA 14-50R)
	D DIMMER		OUTLET IN FLOOR BOX (DUPLEX RECEPTACLE SHOWN)
	EP EXPLOSION PROOF K KEY OPERATED	0	JUNCTION BOX
	LV LOW VOLTAGE	TV	TV WALL OUTLET WITH F CONNECTOR TAP
	LVM LOW VOLTAGE MASTER M MANUAL MOTOR STARTER	$\left \begin{array}{c} \triangleleft \\ \wedge \end{array} \right $	DATA (COMPUTER) OUTLET WITH JACK
	W/OVERLOADS MC MOMENTARY CONTACT	⟨⟩WAP	WIRELESS ACCESS POINT
	MC MOMENTARY CONTACT P SWITCH W/PILOT LIGHT	o o	CIRCUIT BREAKER
	T TIMER WP WEATHERPROOF	\triangle	DELTA CONNECTION
	a, b, c MULTIGANG SWITCH STATION	(M)	UTILITY COMPANY METER
(OS)	OCCUPANCY SENSOR — CEILING MOUNT	© (c)	GENERATOR CURRENT TRANSFORMER (CT)
S _{os}	OCCUPANCY SENSOR - WALL SWITCH		CURRENT TRANSFORMER (CT) GROUND ELECTRODE SYSTEM
DPC	DIGITAL PLUG CONTROLLER	'''	PANELBOARD - SURFACE
DRC	DIGITAL ROOM CONTROLLER		CEILING MOUNTED SMOKE DETECTOR
	DAYLIGHT SENSOR	 {	FIRST ALERT ULTIMATE PROTECTION MODEL #SA3210 OR SIMILAR
		} ⋄	CEILING MOUNTED COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR. FIRST ALERT, MODEL # SCO7 OR SIMILAR
		ı (l

OUTLET MOUNTING HEIGHTS

(MEASURE TO CENTER OF BOX, UNLESS OTHERWISE INDICATED)

COUNTER HEIGHT (*) +3 INCHES ABOVE SPLASH FIRE ALARM CASEWORK OUTLETS AS DIRECTED MANUAL STATIONS 48 INCHES TO TOP SWITCHES & DIMMERS 48 INCHES SIGNALING DEVICES 80 INCHES TO BOTTOM RECEPTACLES REMOTE ALARM LIGHTS 80 INCHES TO BOTTOM 18 INCHES THERMOSTATS 48 INCHES REMOTE ANNUNCIATOR 60 INCHES TO BOTTOM OCCUPANCY SENSORS 12 FEET MAXIMUM GRAPHIC PLAQUES 60 INCHES TO BOTTOM VOICE (TELEPHONE) 18 INCHES DATA (COMPUTER) SECURITY 18 INCHES WALL PHONE 48 INCHES KEY PAD 54 INCHES TO TOP 18 INCHES CARD READER TV (TELEVISION) 48 INCHES TV WALL MOUNTED CENTER OF TV BRACKET WITHIN 6 INCHES OF SPEAKERS 90 INCHES CAMERA MOUNT CLOCKS 90 INCHES CCTV POLE MOUNTED 20 FEET CLOCK/SPEAKER 90 INCHES

GENERAL ELECTRICAL NOTES:

- 1. SEE ARCHITECTURAL PLANS FOR LOCATION OF FIRE RATED CONSTRUCTION.
- 2. BRANCH CIRCUIT NOTES:
- A. VERIFY BRANCH CIRCUIT WIRE COUNT BEFORE PULLING CONDUCTORS. PROVIDE REQUIRED CONDUCTORS TO EACH OUTLET AND DEVICE FOR PHASE. NEUTRAL AND EQUIPMENT GROUND BASED ON CIRCUIT DESIGNATIONS SHOWN AND AS OTHERWISE INDICATED ON PLANS OR NOTE BELOW.
- B. FOR SWITCHED OUTLETS, PROVIDE ADDITIONAL CONDUCTOR COUNT REQUIRED FOR SWITCH LEGS TO ACCOMMODATE SWITCH CONTROL INDICATED. MAINTAIN UNSWITCHED LEG IN LIGHTING BRANCH CIRCUITS TO EXIT, EMERGENCY, AND NIGHT LIGHTING SHOWN.
- C. MINIMUM BRANCH CIRCUIT CONDUCTOR SIZE FOR OUTDOOR AND EXTERIOR BUILDING LIGHTING SHALL BE #10 AWG.
- D. PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR BRANCH CIRCUITS SERVING RECEPTACLE OUTLETS UNLESS OTHERWISE INDICATED.
- E. PROVIDE MANUFACTURER APPROVED PIN INSERT STYLE HANDLE TIES BETWEEN SINGLE POLE CIRCUIT BREAKERS SERVING BRANCH CIRCUITS SHARING A COMMON NEUTRAL.
- 3. MINIMUM CONDUIT SIZE FOR HOMERUNS AND FOR CONDUIT INSTALLED BELOW GRADE OUTDOORS SHALL BE 3/4 INCH.
- 4. REFER TO REFLECTED CEILING PLANS, INTERIOR ELEVATIONS, ROOM SECTIONS, AND DETAILS SHOWN ON ARCHITECTURAL CONTRACT DOCUMENTS PRIOR TO ROUGH-IN. REPORT CONFLICTS TO ARCHITECT/ENGINEER FOR RESOLUTION.
- 5. REFER TO ARCHITECTURAL ELEVATIONS FOR LOCATION AND MOUNTING HEIGHT OF WIRING DEVICES. REPORT CONFLICTS TO ARCHITECT/ENGINEER FOR RESOLUTION.
- 6. VERIFY EXACT LOCATION OF FLOOR BOXES AND OUTLETS LOCATED IN KNEE SPACES AND CASEWORK. OBTAIN ARCHITECT APPROVAL PRIOR TO ROUGH-IN.
- 7. VERIFY BACK BOX REQUIREMENTS OF EQUIPMENT FURNISHED UNDER OTHER THAN DIVISION 16 SECTIONS AND EQUIPMENT FURNISHED BY OWNER.
- 8. SEE MECHANICAL PLANS FOR QUANTITY AND LOCATION OF SMOKE DAMPERS. PROVIDE 120 VOLT CONNECTION TO EACH DAMPER.



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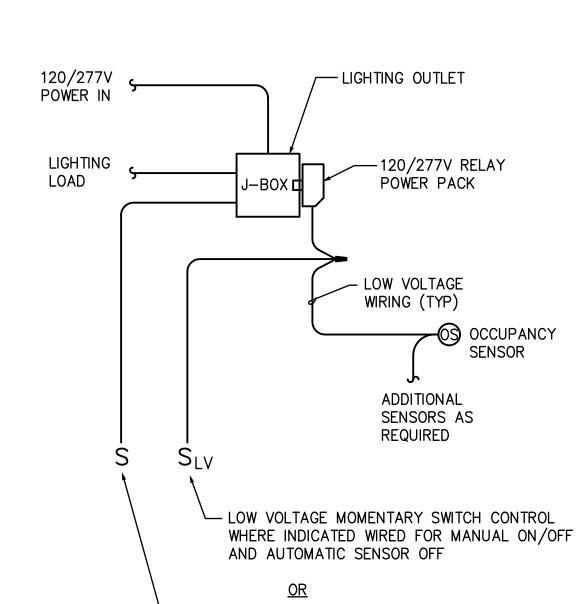
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DATE 6/11/2020

LEGEND, NOTES & **ABBREVIATIONS**

E-001

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LIGHTING CONTROL NOTES

- 1. PROVIDE QUANTITY OF RELAY POWER PACKS, ROOM CONTROLLERS, AUTOMATIC SENSORS, AND INTERFACE ACCESSORIES REQUIRED FOR COMPLETE LIGHTING CONTROL SYSTEM BASED ON GENERAL AREA LIGHTING, DAYLIGHT ZONES, AND MANUAL SWITCH CONTROL INDICATED ON PLANS. ROOMS AND BUILDING SPACES WHERE OCCUPANCY SENSORS ARE NOT INDICATED SHALL BE CONNECTED FOR AUTOMATIC TIME SWITCH CONTROL AS
- 2. WHERE OCCUPANCY SENSORS ARE INDICATED, PROVIDE ONE OR MORE SENSORS AS REQUIRED FOR FULL AREA COVERAGE. LOCATE OCCUPANCY SENSORS IN ROOM TO MINIMIZE FALSE ACTIVATION THROUGH OPEN
- 3. INSTALL ROOM CONTROLLERS IN ACCESSIBLE CEILING OR ATTIC SPACES AND WITHIN 6 FEET OF FIRST LIGHTING OUTLET SERVING LIGHTS TO BE CONTROLLED UNLESS OTHERWISE INDICATED.
- 4. INSTALL RELAY POWER PACK ON BOX OF FIRST LIGHTING OUTLET ABOVE ACCESSIBLE CEILINGS. FOR INACCESSIBLE CEILING SPACES, INSTALL RELAY POWER PACK IN COMMON OUTLET BOX WITH CEILING SENSOR. PROVIDE EXTENDED BOX DEPTH WITH SUITABLE TRIM AND INSTALLATION TO COMPLY WITH NEC 725.136 REQUIREMENTS FOR LINE VOLTAGE/CLASS 2 CIRCUIT SEPARATION USING DIVIDER AND/OR MINIMUM CONDUCTOR
- 5. LOCATE AND AIM DAYLIGHT SENSORS PER SYSTEM MANUFACTURER RECOMMENDATIONS.
- 6. PROGRAM ROOM CONTROLLERS FOR SEPARATE ON/OFF MANUAL CONTROL OF ROOM LIGHTS PER PLAN (a, b, ...) AND MASTER DIMM CONTROL UNLESS OTHERWISE DIRECTED BY OWNER.
- 7. PROGRAM ROOM CONTROLLERS FOR AUTOMATIC CONTROL OF ROOM LIGHTS AS FOLLOWS: OCCUPANCY SENSOR(S) AUTOMATIC OFF UNLESS OTHERWISE SCHEDULED. DAYLIGHT SENSOR(S) SEPARATE AUTOMATIC DIM OF PRIMARY AND SECONDARY DAYLIGHT ZONES. DAYLIGHT RESPONSIVE CONTROLS SHALL BE CONFIGURED TO COMPLETELY SHUT OFF ALL CONTROLLED LIGHTS IN THAT ZONE.
- 8. PROGRAM DIGITAL RECEPTACLE PLUG CONTROLLER(S) FOR OCCUPANCY SENSOR AUTOMATIC OFF UNLESS
- 9. PROVIDE DIGITAL WALL SWITCH STATIONS WITH A PUSHBUTTON FOR EACH CONTROL CIRCUIT INDICATED (a, b, c ...) PLUS A LABELED 'ALL OFF' PUSHBUTTON AND LABELED DIMMING CONTROL SWITCH, UNLESS OTHERWISE INDICATED.

10. LOW VOLTAGE WIRING SHALL BE INSTALLED IN 3/4" DIAMETER CONDUIT EXCEPT OPEN CABLING MAY BE INSTALLED ABOVE ACCESSIBLE CEILINGS AND IN ATTIC SPACES UNLESS OTHERWISE INDICATED ON PLANS.

LIGHTING CONTROL - ROOM OCCUPANCY SENSOR

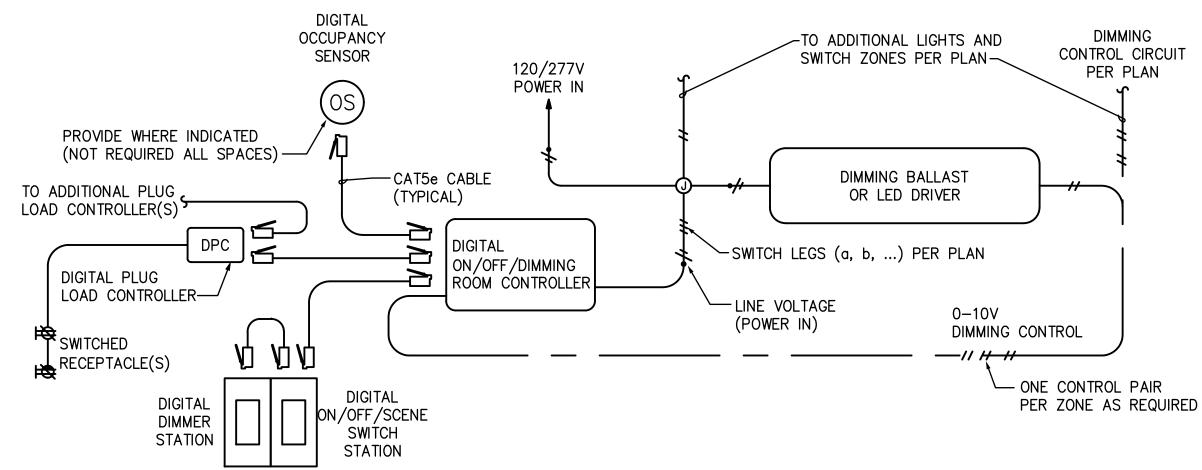
SCALE: NTS

- LINE VOLTAGE SWITCH CONTROL WHERE

POWER PACK (ALLOWS FOR AUTOMATIC

SENSOR ON/OFF CONTROL)

INDICATED WIRED ON LOAD SIDE OF RELAY

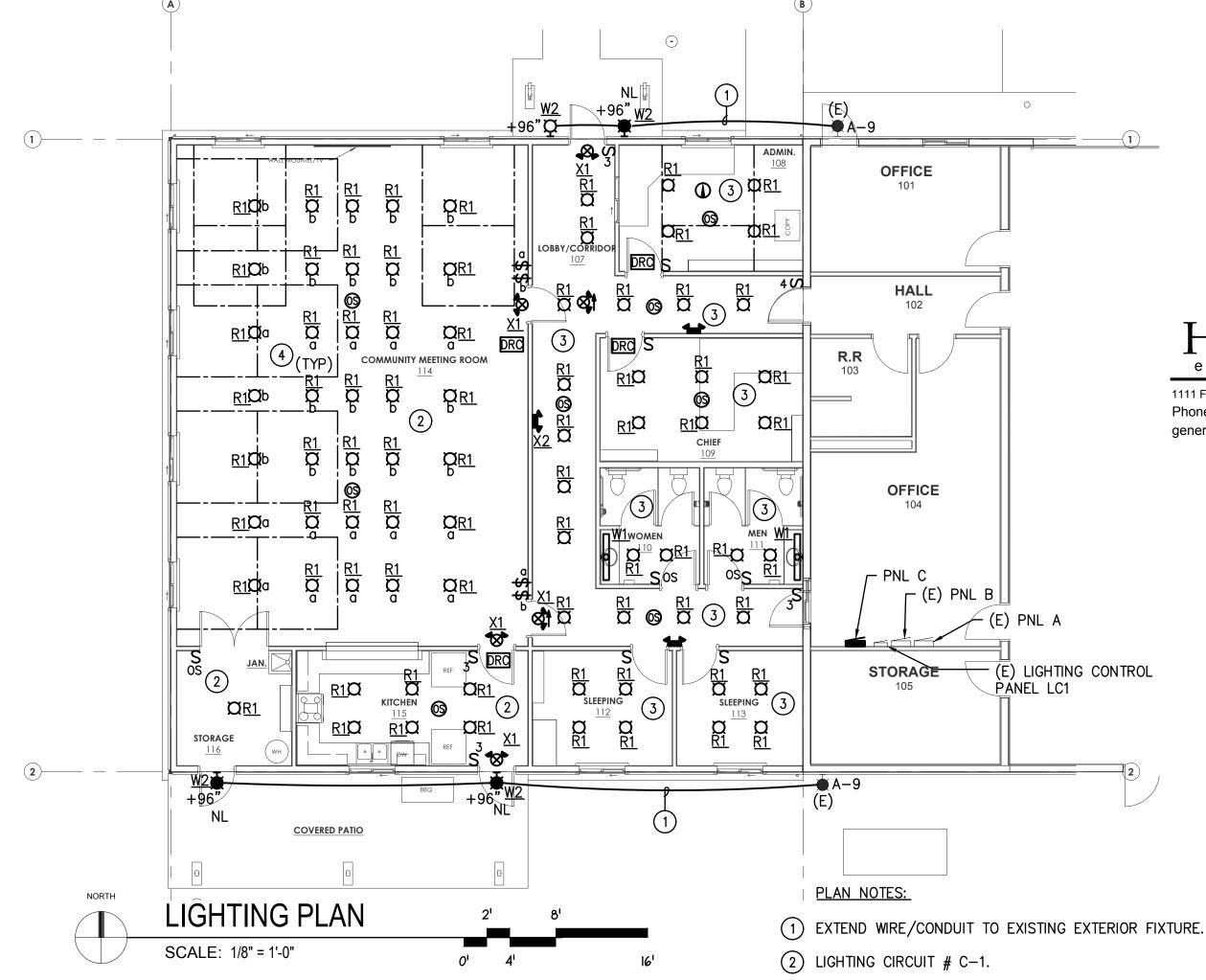


DIGITAL LIGHTING CONTROL DIAGRAM - DAYLIGHT ZONES/OCCUPANCY SENSOR

SCALE: NTS

		INTER	RIOR L	.IGHT	ING A	AND R	ECEP	TACLI	E CON	ITROL	. SCH	EDUL	E		
			MAN	UALCO	NTROL			oc	CUPAN	CY CON	ITROL				
ROOM#	ROOM NAME	LINE VOLTAGE SW	LOW VOLTAGE SW	DIMMER SW	SCENE SW	50% TIME SW REDUCTION	MANUAL ON	AUTO ON (NOTE 1)	WALL SW SENSOR	CEILING	LT FIXTURE SENSOR	TIME SW RELAY PANEL	50% RECPT LOAD CNTRL	DAYLIGHT SENSOR	REMARKS
107	LOBBY/CORRIDOR	Х		***************************************				Х		Х					
108	ADMIN	X					Х			Х			X		
109	CHIEF	X					Χ			X			X		
110	WOMEN R.R.			Χ				X	X						
111	MEN R.R.	X						X	Х						
112	SLEEPING	X													
113	SLEEPING	X													
114	MEETING RM	X					Х			Х					
115	KITCHEN	X					Х			X					
116	STORAGE							Х	Х						-

- PROVIDE AUTOMATIC ON CONTROL UNDER WSEC C405.2.1.1 EXCEPTION.
- SEE LOW VOLTAGE RELAY SCHEDULE AND RISER DIAGRAM FOR TIME SWITCH OCCUPANCY CONTROL
- PROVIDE 50% REDUCTION IN AISLE WAYS OF OPEN WAREHOUSE.
- SECURITY AND/OR SAFTEY EXCEPTION TO WSEC LIGHTING CONTROLS



		LOW VOLTAGE RI	ELAY SO	CHEDUL	Ξ		
NO.: L LOCAT		(ISTING) RM 104				ENCLO	SURE: SURFACE
RELAY NO.	CKT NO.	LOAD DESCRIPTION	CONTROL GROUP	TIME SW CIRCUIT	OS OVERRIDE	MANUAL OVERRIDE	REMARKS
1	A-9	OUTDOOR NIGHT LIGHTS	A			а	
2	A-9	OUTDOOR SWITCHED LIGHTS	В	1		b	
3		SIGN	С	2		С	
4		SPARE					
	MOTE P	HOTOSENSOR NTROLLER	A NIG		IT (PC ON) TIME SWITCH OFF)

■ PHOTO CONTROLLER ■ MASTER CONTROLLER ■ INTEGRAL TIME CLOCK

☐ REMOTE TIME CLOCK (EMS)

B OUTDOOR SWITCHED CIRCUIT (PC ON, TIME SWITCH OFF) C SIGN CIRCUIT (TIME SWITCH ON, TIME SWITCH OFF) D INDOOR SWITCHED CIRCUIT (MANUAL ON, TIME SWITCH OFF)

1. MASTER CONTROLLER TO INTERFACE WITH ENERGY MANGEMENT SYSTEM TIME SWITCH.

D1	R.R 103		HULTZ +	BHU
<u>R1</u>		F	1111 Fawcett Ave Suite 100 Phone: (253) 383-3257 general@hultzbhu.com	Tacoma, WA 98402 Fax: (253) 383-3283 Job Number: 20-048
W1	OFFICE 104 PNL C (E) PNL B			NED
3	STORAGE (I	PNL A LIGHTING CONTROL ANEL LC1		<u>Z</u>
0	A-9	2	#3	<u></u>
	PLAN NOTES:		TRICT	E ST
1	EXTEND WIRE/CONDUIT TO	EXISTING EXTERIOR FIXT	URE. $\frac{S}{\Box}$	<u>∵</u> ¾
(2)	LIGHTING CIRCUIT # C-1. LIGHTING CIRCUIT # C-3.		<u> </u>	—
4	PER WSEC C405.2.4.1 DAYNOT REQUIRED WITH TWO CAND SECONDARY ZONES.			YROCK FI

H O M A S

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LIGHTING PLAN

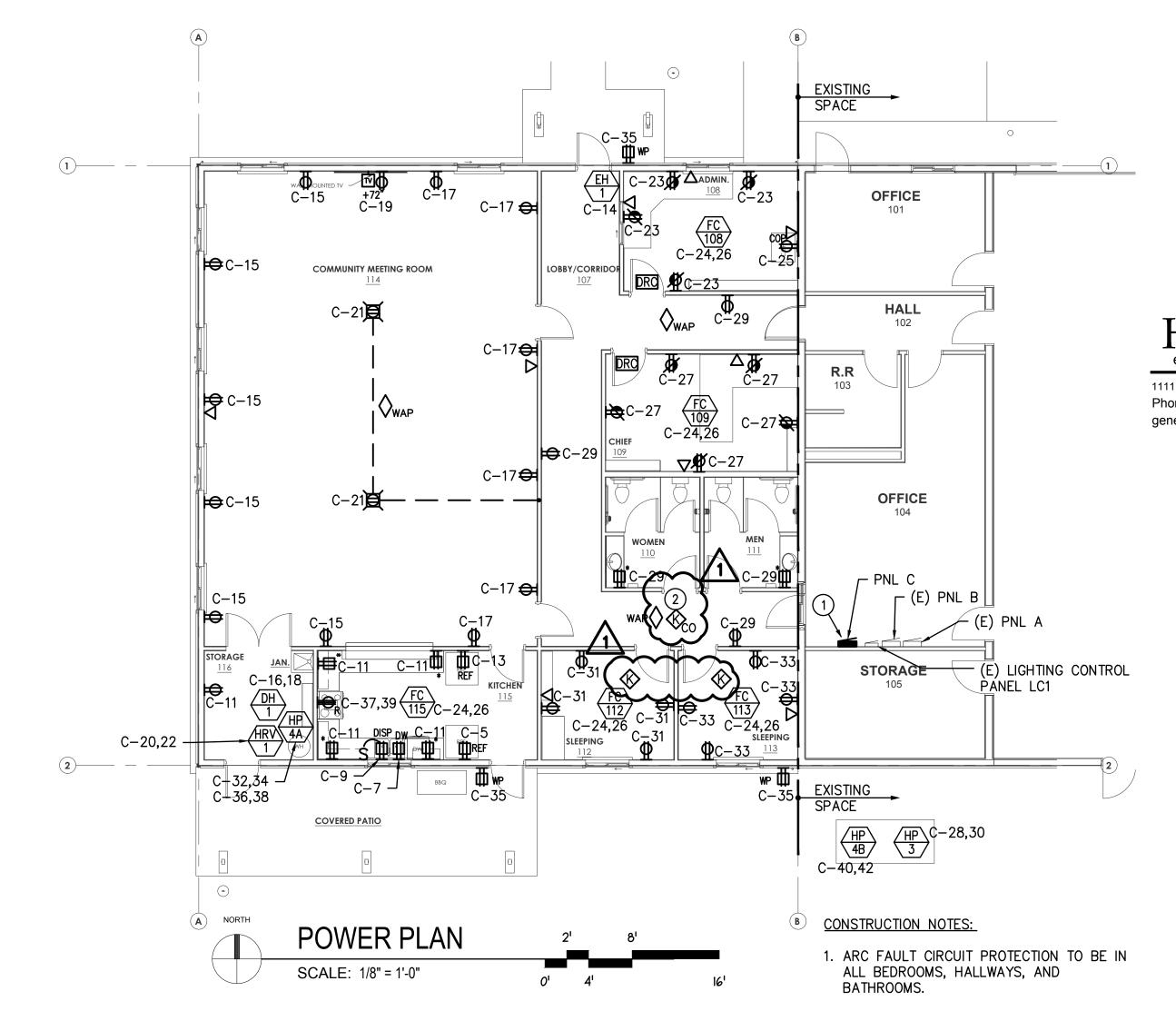
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LUMINAIRE SCHEDULE

	-		\L U			<u> </u>	
TYPE	DESCRIPTION	MANUFACTURER	LAMP	VOLTAGE	INPUT WATTS	BALLAST/ DRIVER	REMARKS
R1	6" ROUND FLUSH-MOUNTED DOWNLIGHT WITH THICK CEILING WHITE TRIM.	PATHWAY LIGHTING CALIBER COMMECIAL 6TCVL SERIES	LED 3500K 2000 LUMEN	UNIV	21	LOW VOLTAGE DIMMING DRIVER	
W1	4', WALL MOUNT, LENSED VANITYLIGHT, CSA LISTED DAMP LOCATION	COLUMBIA CWM SERIES	LED 3500K 4200 LUMENS	UNIV	32		
W2	WALL MOUNT, COMPACT LED FIXTURE, TYPE 3 DISTRIBUTION, UL LISTED WET LOCATION, STANDARD FINISH AS SELECTED	HUBBEL LNC2 SERIES	LED 4000K 2662 LUMENS	UNIV	28	LOW VOLTAGE DIMMING DRIVER	PROVIDE INTEGRAL EMERGENCY BATTERY PACK
X1	UNIVERSAL MOUNT, GREEN LED EMERGENCY EXIT SIGN WITH TWIN HEAD LIGHTING UNIT	DUAL-LIGHT HCX SERIES	GREEN LED	UNIV	2		DIRECTIONAL ARROW AS REQUIRED
X2	SURFACE MOUNTED EMERGENCY TWIN HEAD LIGHTING UNIT	DUAL-LIGHT EV SERIES	LED	UNIV	<5W		

	Panel 'C' (NEW)	120/240V, minimum fa						g Only S	urfa	ce Mounted	Panelboard wit	h a	
Ckt.		Load	C.B.				C.B.	Load	d				Ck
	Description / Location	(VA) Type		Note	Ph.	Note	A/Pole	(VA) Ty	/pe	Description	n / Location		No
1	LTG - MEETING, STOR., KITCHEN	882 L	20/1		Α								2
3	LTG - ADMIN, CHIEF, HALL, R.R, SLEE;	756 L	20/1		В								4
5	REC - KITCHEN REF	650 K	20/1		A								6
7	REC - KITCHEN DW	1,500 K	20/1		В			-					8
9	REC - KITCHEN DISP	750 K	20/1		Α								10
11	REC - KICHEN, STOR	900 R	20/1		В								12
13	REC - KITCHEN REF	650 K	20/1		Α		20/1	1,000	Н	EH-1			14
15	REC - MEETING RM	1,080 R	20/1		В		20/2	1,250		DH-1			16
17	REC - MEETING RM	1,080 R	20/1		Α		-	1,250		-			18
19	REC - MEETING RM TV	750 G	20/1		В		15/2	288	М	HRV-1			20
21	REC - MEETING RM	360 R	20/1		Α		-	288		-			22
23	REC - ADMIN	720 R	20/1		В		15/2	132	M	FC-108,10	9,112,113,115		24
25	REC - ADMIN COPY	1,200 R	20/1		Α		-	132	M	-			26
27	REC - CHIEF	900 R	20/1	1	В		30/2	1,596	M	HP-3			28
29	REC - HALL R.R.	900 R	20/1	1	Α		-	1,596	M	-			30
31	REC - SLEEPING	720 R	20/1	1	В		60/2	5,004	Н	HP-4A			32
33	REC - SLEEPING	720 R	20/1		Α		H	5,004	Н	-			34
35	REC - OUTSIDE	540 R	20/1		В		60/2	5,544	Н	HP-4A			36
37	REC - KITCHEN RANGE	4,000 K	40/2		Α		-	5,544	Н	-			38
39	-	4,000 K	-		В		30/2	1,032	M	HP-4B			40
41		***************************************			Α		-	1,032	M	-			42
	ected Load: Ph. A ected Load: Ph. B	27,038 VA 26,712 VA		Amps Amps						cted Load: and Load:		224.0 Amps 214.6 Amps	
Note 1	S: PROVIDE ARC-FAULT CIRCUIT BREAKER	₹					Α	ccessor	ies:				
	Load Description	Connected	Subfed				Total			Demand	Demand		
Туре		Loads	Loads (S	S)			Loads			Factor	Load		
	General (Non-Continuous)	0.75	0.00				0.75			100%		(KVA Typical)	
L	Lighting	1.64	0.00				1.64			125%	2.05	,	
R	Receptacles - to 10 KVA	9.12	0.00				9.12			100%	9.12		
	over 10 KVA		0.00				0.00			50%	0.00		
K	Kitchen	11.55	0.00				11.55			70%	8.09		
Н	Heating	24.60	0.00				24.60			100%	24.60		
M	Motors	2.90	0.00				2.90			100%	2.90		
	Largest Motor	3.19	0.00				3.19			125%	3.99		
	Water Heater Continuous General Load	0.00 0.00	0.00				0.00			125% 125%	0.00 0.00		
C							0.00			4050/			



PLAN NOTES:

1) PROVIDE NEW PANEL. SEE ONE-LINE DIAGRAM FOR MORE INFORMATION. 2 CENTER COMBINATION SMOKE/CARBON MONOXIDE DETECTOR BETWEEN DOORS.

							IV	IECH	ANICAL EQUIPMENT CO	NNECTION	SCHED	ULE			~~~	
				MAX	XIMUM RATINGS (CU) FEEDER CIRCUIT# DISCONNECT C					CONT	ROLS		REMARKS			
NAME	DESCRIPTION	LOCATION	HP	KVA	FLA	MCA	MOCP	VOLT/	PH #12 EACH PHASE, NEUTRAL, PLUS GROUND		BY	DESCRIPTION	STARTER BY DESCRIPTION			
HP-3	OUTDOOR HEAT PUMP	OUTDOOR		3.06	13.3	29.0	30	230	1 3/4"C-2#10 +#10 GND		•	60A 2P FUSED WP				
HP-4A	SPLIT SYSTEM HEAT PUMP	INDOOR		9.59	41.7	52.1	60	230	1 3/4"C-2#6 +#10 GND		•	60A 2P				
Π Γ-4 Α	SPEIT STSTEW HEAT FOWIP	INDOOR		10.63	46.2	57.8	60	230	1 3/4"C-2#6 +#10 GND		•	60A 2P				
HP-4B	SPLIT SYSTEM HEAT PUMP	OUTDOOR		1.99	8.6	25.0	30	230	1 3/4"C-2#10 +#10 GND		•	30A 2P FUSED WP				
FC-108	CEILING CASSETTE	ADMIN 108		0.06	0.2	0.3	15	230	1		•	TOGGLE				
FC-109	CEILING CASSETTE	CHIEF 109		0.06	0.2	0.3	15	230	1		•	TOGGLE				
FC-112	CEILING CASSETTE	SLEEPING 112		0.06	0.2	0.3	15	230	1		•	TOGGLE				
FC-113	CEILING CASSETTE	SLEEPING 113		0.06	0.2	0.3	15	230	1		•	TOGGLE				
FC-115	CEILING CASSETTE	KITCHEN 115		0.07	0.3	0.4	15	230	1		•	TOGGLE				
HRV-1	DOAS HEAT RECOVERY	JAN		0.27	1.2	2.0	15	230	1		•	TOGGLE				
DH-1	DUCT HEATER	JAN		2.50	10.4	13.0		240	1		•	TOGGLE				
EH-1	WALL HEATER	HALL		1.00	8.3	10.4		120	1		•	TOGGLE				
											Χ	INTEGRAL				

EQUIPMENT CONNECTION SCHEDULE NOTES:

- 1. VERIFY VOLTAGE, PHASE, FLA/MCA OF EACH CONNECTION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. NOTIFY ARCHITECT/ENGINEER WHEN SCHEDULED SUPPLY WILL NOT MEET NEC REQUIREMENTS.
- 2. OUTLETS, DISCONNECTS, CONTROLLERS, AND EQUIPMENT CONNECTIONS FOR ROOF TOP AND OTHER OUTDOOR EQUIPMENT SHALL BE WEATHER PROOF.
- 3. LOCATION OF OUTLETS, DISCONNECTS, CONTROL DEVICES, AND EQUIPMENT CONNECTIONS ARE DIAGRAMMATIC AND TO BE LOCATED IN FIELD BY THE ENGINEER. UNLESS OTHERWISE INDICATED ON PLANS, INSTALL SCHEDULED DISCONNECTS AND CONTROL DEVICES IN SIGHT OF EQUIPMENT. ARRANGE WIRING AND EQUIPMENT TO AVOID INTERFERENCE WITH OTHER WORK AND TO MAXIMIZE ACCESSIBILITY FOR MAINTENANCE AND REPAIRS.
- 4. COORDINATE WITH THE OTHER INSTALLING CONTRACTORS TO ENSURE NEC REQUIRED ACCESS TO DISCONNECTS IS PROVIDED FOR EACH PIECE OF EQUIPMENT.
- 5. PROVIDE SMOKE DUCT DETECTORS IN HEATING AND COOLING SYSTEMS PER INTERNATIONAL MECHANICAL CODE. SEE DIVISION 25 EQUIPMENT SCHEDULES FOR ADDITIONAL UNITS RATED OVER 2000 CFM AND PROVIDE DUCT DETECTOR AS REQUIRED.
- 6. WIRING BETWEEN EQUIPMENT DISCONNECT AND POINT OF CONNECTION SHALL COMPLY WITH NEC BASED ON EQUIPMENT NAMEPLATE RATING EXCEPT MINIMUM BRANCH CIRCUIT RATING SHALL BE 20 AMPERES.
- 7. SIZE OF DISCONNECT SWITCH AND MOTOR STARTER SHALL BE SIZED TO COMPLY WITH NEC REQUIREMENTS. WHERE INDICATED MOTOR CONTROL IS NOT LOCATED IN SIGHT OF MOTOR AS DEFINED BY NEC, PROVIDE ADDITIONAL DISCONNECTING MEANS TO COMPLY WITH NEC 430.102.
- 8. WIRING SIZES ARE BASED ON 60 DEGREE C. FOR AMPACITIES 100 AMPERES AND LESS. FOR FEEDERS LESS THAN 100 FEET IN LENGTH, CONDUCTOR SIZES MAY BE SELECTED BASED ON 75 DEGREE C. WHERE EQUIPMENT INSTALLED IS LABELED FOR 75 DEGREE C. WIRING.
- 9. SCHEDULE LEGEND: = FURNISH AND INSTALL NEW UNDER DIVISION 26
 - O = INSTALL UNDER DIVISION 26; FURNISHED WITH EQUIPMENT OR BY OTHERS.
 - X = FURNISH AND INSTALL BY OTHERS (NOT DIVISION 26)
 - * = EXISTING, RELOCATED EQUIPMENT

H O M A S architecture studios 525 COLUMBIA ST. | OLYMPIA, WA 98501 360.915.8775 | tasolympia.com 1111 Fawcett Ave Suite 100 Tacoma, WA 98402 Phone: (253) 383-3257 Fax: (253) 383-3283 SIGNED 14.15.20

> DISTRIC FIRE

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Project No: 1927 **CONSTRUCTION DOCUMENTS** MARCH 6, 2020

DATE

REVISION: 1 - REVISION 1 6/11/2020

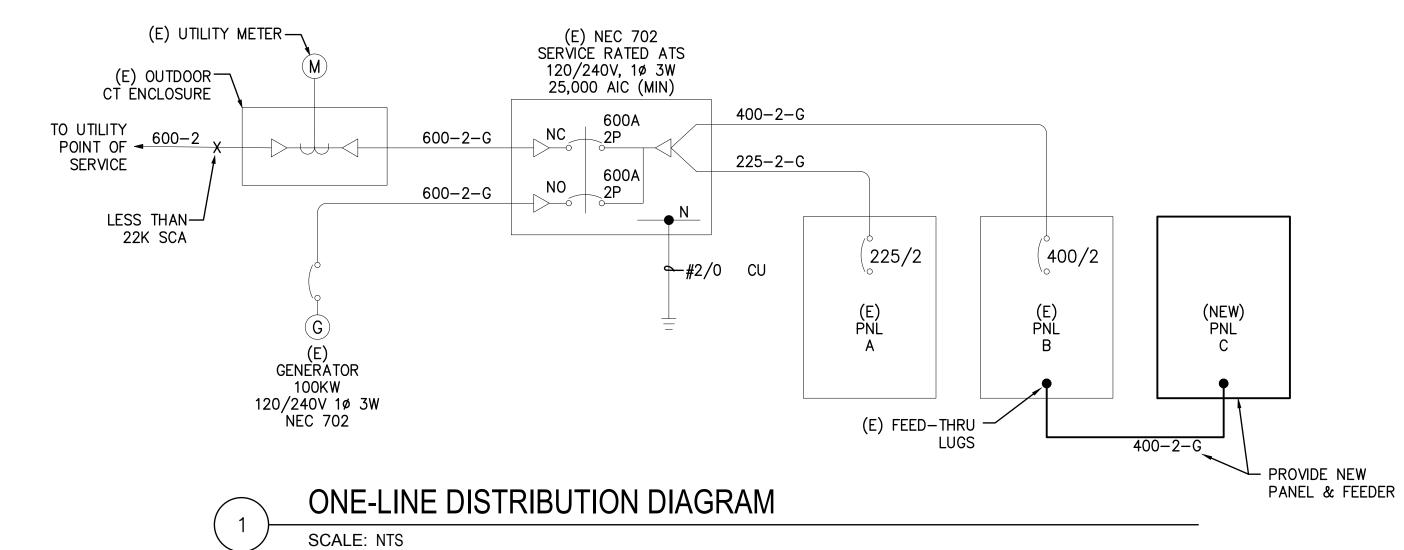
> **POWER PLAN**

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	ATS (REVISED)							Availa	able Fau
Load No.	600A, 120/240V, 1Ph, 3W Description / Location							Note	Load (VA)	Load Type
1	Panel 'A' (EX)								10,699	S
2	Panel 'B' (REVISED)								8,986 30,722 28,697	S S S
	Connected Load: Ph A	41,421 V			Amps					
otal (Connected Load: Ph B	37,683 V	Ά	314	Amps					
	Total Connected Load: Total Demand Load:	79.1 K 130.4 K		329.6 543.3	-					
	S:									
1.	S:									
1. 2.	S:									
1.	S:									
1. 2. 3.										
1. 2. 3. 4. 5.	S: Load Description		connected				Demand		Demand	
1. 2. 3. 4. 5. oad	Load Description		oads	Loads (S)		Loads	Factor		Load	
1. 2. 3. 4. 5. oad	Load Description General (Non-Continuous)		oads 0.00	Loads (S) 18.48		Loads 18.48	Factor 100%		Load 18.48	
1. 2. 3. 4. 5. oad ype G L	Load Description General (Non-Continuous) Lighting		oads 0.00 0.00	Loads (S) 18.48 5.60		Loads 18.48 5.60	Factor 100% 125%		Load 18.48 7.00	KVA
1. 2. 3. 4. 5. oad ype G	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA		oads 0.00	Loads (S) 18.48 5.60 15.40		Loads 18.48 5.60 10.00	Factor 100% 125% 100%		Load 18.48 7.00 10.00	KVA KVA
1. 2. 3. 4. 5. oad Type G L R	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA over 10 KVA		0.00 0.00 0.00 0.00	Loads (S) 18.48 5.60 15.40 2.00		Loads 18.48 5.60 10.00 7.40	Factor 100% 125% 100% 50%		Load 18.48 7.00 10.00 3.70	KVA KVA KVA
1. 2. 3. 4. 5. oad ype G L R	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA over 10 KVA Kitchen		0.00 0.00 0.00 0.00	Loads (S) 18.48 5.60 15.40 2.00 11.55		Loads 18.48 5.60 10.00 7.40 11.55	Factor 100% 125% 100% 50% 70%		Load 18.48 7.00 10.00 3.70 8.09	KVA KVA KVA KVA
1. 2. 3. 4. 5. oad ype G L R	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA over 10 KVA Kitchen Heating		0.00 0.00 0.00 0.00	Loads (S) 18.48 5.60 15.40 2.00 11.55 34.20		Loads 18.48 5.60 10.00 7.40 11.55 34.20	Factor 100% 125% 100% 50% 70% 100%		Load 18.48 7.00 10.00 3.70 8.09 34.20	KVA KVA KVA KVA KVA
1. 2. 3. 4. 5. oad ype G L R	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA over 10 KVA Kitchen		0.00 0.00 0.00 0.00	Loads (S) 18.48 5.60 15.40 2.00 11.55		Loads 18.48 5.60 10.00 7.40 11.55	Factor 100% 125% 100% 50% 70%		Load 18.48 7.00 10.00 3.70 8.09 34.20 32.40	KVA KVA KVA KVA KVA KVA
1. 2. 3. 4. 5. oad ype G L R	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA over 10 KVA Kitchen Heating Motors Largest Motor		0.00 0.00 0.00 0.00 0.00	Loads (S) 18.48 5.60 15.40 2.00 11.55 34.20 32.40 11.44		Loads 18.48 5.60 10.00 7.40 11.55 34.20	Factor 100% 125% 100% 50% 70% 100% 100%		Load 18.48 7.00 10.00 3.70 8.09 34.20 32.40 14.30	KVA KVA KVA KVA KVA KVA
2. 3. 4. 5. oad Type G L R K H	Load Description General (Non-Continuous) Lighting Receptacles - to 10 KVA over 10 KVA Kitchen Heating Motors		0.00 0.00 0.00 0.00 0.00 0.00	Loads (S) 18.48 5.60 15.40 2.00 11.55 34.20 32.40		Loads 18.48 5.60 10.00 7.40 11.55 34.20 32.40	Factor 100% 125% 100% 50% 70% 100%		Load 18.48 7.00 10.00 3.70 8.09 34.20 32.40	KVA KVA KVA KVA KVA KVA

	Panel 'A' (EX)			-				225A Ma 22,000 A		it Br	eaker Surface Mount	ed Panelbo	oard	
Ckt.		Load	d	C.B.				C.B.	Load					Cł
No.	Description / Location	(VA) T	/pe	A/Pole	Note	Ph.	Note	A/Pole	(VA) Ty	pe	Description / Location	n		No
	SPARE			20/1		Α		20/1	1,080	_	RECP - OFFICE 101			2
	LTG - RM 101 TO 105	897	L	20/1		В		20/1			RECP - HALL 102, F		ITSIDE	4
	LTG - APPARATUS 106	1,176	_	20/1		A		20/1			RECP - OFFICE 104		TOIDE	6
	LTG - APPARATUS 106	784		20/1		В		20/1			RECP - OFFICE 104			8
	LTG - BULDING EXTERIOR, SITE	563		20/1		Α		20/1	360		RECP - STORAGE			1
	LTG - STORAGE 100 (ALTERNATE NO.1)	540		20/1		В		20/1	360		RECP - STOR. 105			1
	SPARE		_	20/1		A		20/1	360		RECP - STOR. 105			1
	SPARE			20/1		В		20/1	360		RECP - STORAGE		/SCANNER	1
	SPARE			20/1		A		20/1			RECP - STORAGE			18
	SPARE			20/1		В		20/1		-	SPARE			2
	SPARE			20/1		Α		20/1			SPARE			2
	SPARE			20/1		В		20/1			SPARE			2
	SPARE			20/1		Α		20/1			SPARE			2
	FAC	300	G	20/1		В		20/1	125	М	CP-1			2
	LIGHTING CONTROL PANEL LC1	100		20/1		Α		20/1	1,800					3
	SPARE			20/1		В		20/1			RECP - APPARATU	S 106 WA	SHER	3
	BLOCK HEATER - GENERATOR	1,500	G	20/1		Α		30/2	,		APPARATUS 106 D			3
	RECPT - GENERATOR BATT CHARGER	180				В		-	2,500		-			3
	SPACE	88. 865. 681		3 A PART		Α				. 574	SPACE			3
	SPACE					В					SPACE			4
	SPACE					Α					SPACE			4
`oni	nected Load: Ph. A	10,699	\/Δ	89	Amps				Panel Co	nne	cted Load: 19.7 K	/Δ	82.0 Amps	
	nected Load: Ph. B	8,986			Amps						ind Load: 21.2 KV		88.2 Amps	
Vote	TO SHOW THE PROPERTY OF THE PR	-,							ccessor			10.0		—
1. 2. 3. 4. 5.				0.15				T. / .						
	Load Description	Connec	ted		21			Total				emand		
Гуре		Loads		Loads (Loads				ad	A T (1)	
G	General (Non-Continuous)	8.40 3.96		0.00				8.40 3.96			100%		A Typical)	
L R	Lighting Receptacles - to 10 KVA	5.40		0.00				5.40			125% 100%	4.95 5.40		
	over 10 KVA	3.40		0.00				0.00			50%	0.00		
	Kitchen	0.00		0.00				0.00			100%	0.00		
K		0.00		0.00				0.00			100%	0.00		
	Heating							0.00			100%	0.00		
Н	Heating Motors	0.00		0.00										
H M	Motors	0.00 0.13		0.00							125%			
H M LM		0.00 0.13 1.80		0.00 0.00 0.00				0.13			125% 125%	0.16		
H M LM	Motors Largest Motor	0.13		0.00							125% 125% 125%			

	<u>'anel 'B' (REVISED)</u>	with a minin		curren	ıt ran	ung or	22,000 P	iiC					
Ckt.		Load	C.B.				C.B.	Load					
No.	Description / Location	(VA) Type	A/Pole	Note	Ph.	Note	A/Pole	(VA) Ty	pe	Description	on / Location		_
1	RECP - APPARATUS BAY CORD REAL	180 R	20/1		Α		20/1	720	R	RECP - A	APPARATUS NO	RTH	
3	RECP - APPARATUS BAY CORD REAL	180 R	20/1		В		20/1	825	G	RECP - A	APPARATUS EA	ST & EF-4	
5	RECP - APPARATUS BAY CORD REAL	180 R	20/1		Α		20/1	540	R	RECP - A	APPARATUS SC	DUTH	
7	RECP - APPARATUS BAY CORD REAL	180 R	20/1		В		60/2	4,250	G	RECP - A	APPARATUS, V	VELDER	
9	APPARATUS BAY ROLL-UP DOOR	1,660 M	20/1		Α		-	4,250	G	-			
11	APPARATUS BAY ROLL-UP DOOR	1,660 M	20/1		В		20/1	1,660	M	EF-1			
13	APPARATUS BAY ROLL-UP DOOR	1,660 M	20/1		Α		20/2	1,000	Н	EH-2			
15	APPARATUS BAY ROLL-UP DOOR	1,660 M	20/1		В			1,000	Н				
17	RH-1, 2, 3	1,800 H	20/1		Α		20/1	1,800	Н	RH-4, 5, 6	6		
19	DH-1	1,250 H	20/2		В		20/1	890	М	SF-1, EF	-2 & EF-3		_
21		1,250 H	_		Α		20/1						_
23	EH-1	750 H	15/1		В		20/1						_
25		750 H	20/1		Α		20/2	817	M	HP-1			_
27	HP-2	900 M	20/2		В		-	817					_
29	-	900 M	-		Α		90/2				E AIRE COMP		_
	A IR COMP	4,025 M	80/2		В		-	5,720					_
33	-	4,025 M	-		Α		20/2			SEPTIC F	PUMP		_
	WELL PUMP	1,200 M	25/2		В		-	950					_
37	-	1,200 M	-		A		20/1				PPARATUS W	WALL	_
	WELL BOOSTER PUMP	600 M	20/2		В		20/1					CONTROLLER	~
41	-	600 M	-		A		20/1	100		SPACE	JOST LIVI SIII	OOMMOLLEN	_
Conr	nected Load: Ph. A	30,722 VA	256	Amps		-	——— і Р	anel Co	nne	cted Load:	59.4 KVA	247.6 Amps	_
Conr	nected Load: Ph. B	28,697 VA		Amps				Total De	ma	nd Load	112.0 KVA	466.6 Amps	
Vote	es:						Α	ccessori	es:				_
1.								CONTAIN	IS F	EED-THRU	LUGS		
2.													
3.													
4.													
5.													_
	Load Description		Subfed				Total			Demand	Deman	d	
Гуре		Loads	Loads (S	-			Loads			Factor	Load		
G	General (Non-Continuous)	9.33	0.75				10.08			100%		KVA Typical)	
L	Lighting	0.00	1.64				1.64			125%			
R	Receptacles - to 10 KVA	2.88	9.12				10.00			100%			
V	over 10 KVA	0.00	0.00				2.00			50%			
	Kitchen	0.00 9.60	11.55				11.55			70%			
Н	Heating		24.60				34.20			100%			
	Motors	26.17	6.10				32.27			100%			
	Largest Motor	11.44 0.00	0.00				11.44 0.00			125% 125%			
							0.00			125%	0.00	J	
	Water Heater Continuous General Load	0.00	0.00				0.00			125%			



	FEEDER SCHEDULE
CALLOUT X- X = NOMINAL EG. 225 = 2	Y = CONFIGURATION CODE Z = INDICATES IF GROUND CIRCUIT AMPACITY 1N = 1W + NEUT CONDUCTOR(S) ARE INCLUDED
CALLOUT	DESCRIPTION
600-2	(2) 2 1/2"C-3#350 KCM IN PARALLEL
225-2-G	2"C-3#4/0 +#4 GND
400-2-G	(2) 2"C-3#3/0 +#3 GND IN PARALLEL
600-2-G	(2) 2 1/2"C-3#350 KCM +#1/0 GND IN PARALLEL

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general@hultzbhu.com

Job Number: 20-048

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LEWIS COUNTY FIRE DISTRICT #3
MOSSYROCK FIRE STAT

Project No: 1927

CONSTRUCTION DOCUMENTS

MARCH 6, 2020

REVISION: DATE 1 - REVISION 1 6/11/2020

SCHEDULES & ONE-LINE

E-501

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