

1 HVAC FLOOR PLAN
MH101 1/8" = 1'-0"

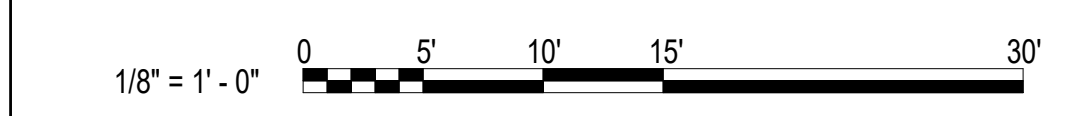
GENERAL NOTES

- A. REFER TO M-001 FOR GENERAL NOTES.
- B. ALL EXPOSED DUCTWORK SHALL BE DOUBLE WALL SPIRAL WITH A PAINT GRIP FINISH.
- C. CONCEALED DUCTWORK SHALL BE INSULATED WITH 2" BLANKET INSULATION.
- D. EXTERIOR DUCTWORK SHALL BE INSULATED WITH 2" RIGID INSULATION AND COVERED WITH AN ALUMINUM JACKET.

KEY NOTES

1. BOTTOM OF DUCT SHALL BE 22' ABOVE FINISHED FLOOR.
2. TURN DUCTWORK UP IN CHASE.
3. SIDE WALL EXHAUST GRILLE. MOUNT AT 11' ABOVE FINISHED FLOOR.
4. PROVIDE DRUM LOUVER. BALANCE TO 380 CFM. REFER TO MARK "A" IN AIR DEVICE SCHEDULE FOR ADDITIONAL INFORMATION. TYPICAL OF 12 DRUM LOUVERS
5. EXHAUST FAN SHALL RUN CONTINUOUSLY WHEN THE BUILDING IS OCCUPIED.
6. TRANSFER AIR TO BATHROOM SPACE. PROVIDE LINED DUCTWORK. MOUNTED SIDE WALL GRILLE 13' 6" ABOVE FINISHED FLOOR.
7. PROVIDE ACOUSTICAL LINED DUCTWORK FOR THE FIRST 20' OF SUPPLY DUCT AND THE LAST 20' OF RETURN DUCT AT THE PACKAGED UNIT.
8. PROVIDE DRY WELL FOR CONDENSATE DRAIN. SEE DETAIL
9. PROVIDE CONCRETE PAD, 6" LARGER THAN UNIT. EXTEND PAD TO EXTERIOR WALL UNDER DUCTWORK.
10. DDC PANEL
11. SUPPORT EXPOSED SPIRAL DUCTWORK WITH CABLE SUPPORTS.
12. EXISTING CONDENSING UNIT TO BE RELOCATED SEE NOTE 13 FOR NEW LOCATION.
13. RELOCATED CONDENSING UNIT.
14. EXISTING AHU TO REMAIN. PROVIDE REFRIDGERANT LINE SET TO RELOCATED CONDENSING UNIT.
15. INTEGRATE CONTROLS AND PROVIDE GRAPHICS FOR EXISTING BUILDING'S HVAC SYSTEM. SYSTEM IS COMPRISED OF A SIGNAL ZONE HEAT PUMP. PROVIDE SCHEDULING CAPABILITIES, TEMPERATURE SETPOINT ADJUSTMENT, AND ALARM NOTIFICATION.

GRAPHIC SCALE(S)



HENDERSON COUNTY AND BLUE RIDGE COMMUNITY COLLEGE

BRCC - PUBLIC SAFETY TRAINING FACILITY

180 W CAMPUS DR.
FLAT ROCK, NC 28731

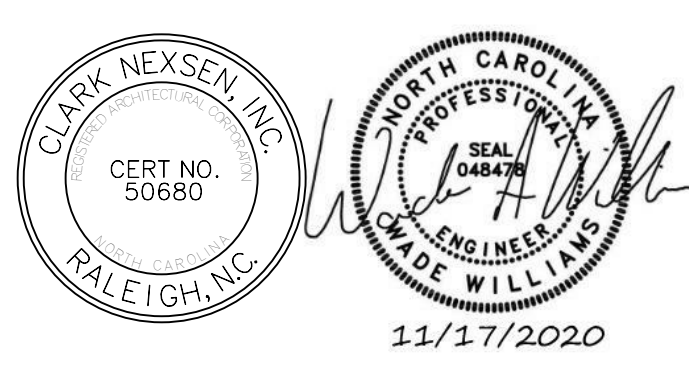


DESIGNER

CLARK NEXSEN

301 College Street, Suite 300
Asheville, North Carolina 28801
828 232-2606
www.clarknexsen.com

SEALS



SUBMITTAL

11/17/2020

CONSTRUCTION DOCUMENTS

REVISIONS

NO.	DATE	DESCRIPTION
1	12/7/2020	ADDENDUM #1

SHEET

FLOOR PLAN

MH101

DESIGN: WAW
DRAWN: WAW
REVIEW: RHF

CN 5199-L

11/17/2020 4:05:14 PM
C:\Bent Projects\199-L-BRCC_PSTF_MCO_PSTF_MCO_Jordan_Margham.rvt

DRAIN SCHEDULE				
LOCATION	DRAIN TYPE	SIZE INCHES	SEWER	REMARKS
TOILET ROOM	C/D	3"	S	1
SHOWER/DRESSING	D	2"	S	1
MECHANICAL	E	4"	S	1
TRAINING	S	4"	S	1

LEGEND	TYPE
S = SANITARY SD = STORM DRAIN	C = FINISHED AREA D = LATEX MASTIC/THIN SET TILE E = MECHANICAL ROOM M = ADJUSTABLE FUNNEL STRAINER S = OIL/SEDIMENT INTERCEPTOR

SHOCK ABSORBER SCHEDULE							
P.D.I. SYMBOL	AA	A	B	C	D	E	F
FIXTURE UNIT RATING	1-3	1-11	12-32	33-60	61-113	114-154	155-330

NOTES:							
1. REFER TO DRAWINGS FOR LOCATION OF FLOOR DRAIN.							

SHOCK ABSORBER SCHEDULE							
P.D.I. SYMBOL	AA	A	B	C	D	E	F
FIXTURE UNIT RATING	1-3	1-11	12-32	33-60	61-113	114-154	155-330

NOTES:							
1. MANUFACTURING COMPANY; J.R. SMITH, JOSAM, ZURN, OR APPROVED EQUAL IS ACCEPTABLE.							

ELECTRIC VERTICAL STORAGE WATER HEATER						
MARK	CAPACITY GALLON	RECOVERY AT 100°F GPH	TYPE	KW	VOLTAGE/PHASE	LOCATION
WH-1	80	186	ELECTRIC	45	208/3	MECH ROOM 107

NOTES:						
1. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL REQUIREMENTS						
2. BASIS OF DESIGN: MANUFACTURER: BRADFORD WHITE; MODEL CEHD80-45A208-3CF OR APPROVED EQUAL.						

EXPANSION TANK SCHEDULE								
MARK	WATER HEATER VOLUME	SUPPLY PRESSURE PSI	AIR PRE-CHARGE PSI	TEMP °F	EXPANSION FACTOR	ACCEPTANCE VOLUME GALLONS	TOTAL VOLUME GALLONS	REMARKS
ET-1	80	60	40	140	0.0109	0.88	8.65	1 AND 2

NOTES:							
1. BASIS OF DESIGN: MANUFACTURER: WATTS WATER TECHNOLOGIES, MODEL: DELTA-20 OR APPROVED EQUAL.							
2. REFER TO MANUFACTURER LITERATURE FOR INSTALLATION OF EXPANSION TANK AND SPECIFICATIONS FOR MANUFACTURER.							

THERMOSTATIC TYPE PRESSURE BALANCE MIXING VALVE SCHEDULE								
MARK	PIPING		PRESSURE DROP PSI	CAPACITY GPM	TEMPERATURE			REMARKS
	INLET	OUTLET			COLD	HOT	TEMPERED	
MV-1	3/8	3/8	10	0.5	60°F	130°F	110°F	1, 3, AND 4
MV-2	1 1/4	1 1/4	10	27	60°F	140°F	130°F	2 AND 5
MV-3	1/2	1/2	10	5	60°F	130°F	85°F	3 AND 6

NOTES:								
1. ASSE 1070 LISTED. DESIGN BASIS: POWERS LFG480-10 OR APPROVED EQUAL.								
2. ASSE 1017 LISTED. DESIGN BASIS: POWERS LFM431 OR APPROVED EQUAL.								
3. ASSE 1071 LISTED. DESIGN BASIS: POWERS ES150 OR APPROVED EQUAL.								
4. EXPOSED, ROUGH BRONZE CHROME PLATED FINISH, SIDE CONNECTIONS, TOP OUTLET.								
5. MINIMUM FLOW SHALL BE 0.25 GPM.								
6. MINIMUM FLOW SHALL BE 3.00 GPM.								
7. MINIMUM FLOW SHALL BE 1.00 GPM.								

DOMESTIC WATER CIRCULATING PUMP SCHEDULE							
MARK	TYPE	MOTOR H.P.	ELECTRICAL		TOTAL HEAD FEET	GALLONS PER MINUTE	LOCATION
			VOLTAGE	PHASE			
RP-1	IN-LINE	VFD	120	SINGLE	8'-0"	5	MECH ROOM 107

NOTES:						
1. PUMP AND MOTOR SHALL BE LISTED BY A NATIONAL TESTING LABORATORY.						
2. PUMP BASE, IMPELLER, AND PUMP HOUSING SHALL BE NSF61 APPROVED STAINLESS STEEL.						
3. PUMP (RP-1); INTEGRAL VFD TO MAINTAIN CONSTANT RETURN TEMPERATURE. SET POINT 135°F.						
4. BASIS OF DESIGN: GRUNDFOS MAGNA 3 32-60FN WITH CONTROL CONNECTION OR APPROVED EQUAL.						
5. PROVIDE TEMPERATURE SENSOR IN SUCTION PIPING FOR DOMESTIC HOT WATER RETURN PIPING. CONNECT TO INTEGRAL VFD. SET POINT 140°F.						

PLUMBING FIXTURE SCHEDULE										
MARK	FIXTURE	DFU	DCWS WSFU	DHWS WSFU	TOTAL WSFU	CONNECTION PIPE SIZE				REMARKS
						WASTE	VENT	DCWS	DHWS	
P-1	WATER CLOSET, FLUSH VALVE, PUBLIC	4.00	10.00	-	10.00	4.00	2.00	1.00	-	1
P-2	WATER CLOSET, FLUSH VALVE, PUBLIC	4.00	10.00	-	10.00	4.00	2.00	1.00	-	1 AND 8
P-3	URINAL, PUBLIC	2.00	5.00	-	5.00	2.00	1.50	0.75	-	2 AND 8
P-4	LAVATORY, PUBLIC	1.00	1.50	1.50	2.00	1.25	1.50	0.375	0.375	3
P-5	LAVATORY, PUBLIC	1.00	1.50	1.50	2.00	1.25	1.50	0.375	0.375	3 AND 8
P-6	SHOWER, PUBLIC	2.00	3.00	3.00	4.00	2.00	1.50	0.50	0.50	4
P-7	SHOWER, PUBLIC	2.00	3.00	3.00	4.00	2.00	1.50	0.50	0.50	4 AND 8
P-8	SERVICE SINK	2.00	2.25	2.25	3.00	3.00	1.50	0.50	0.50	5
P-9	ELECTRIC WATER COOLER	0.50	0.25	-	0.25	1.25	1.50	0.375	-	6 AND 8
P-10	WALL HYDRANT	-	-	-	-	-	-	0.50	-	-
P-11	EMERGENCY EYEWASH	1.00	1.50	1.50	2.00	1.25	1.50	0.500	0.500	7 AND 8

NOTES:									
1. WALL HUNG, VITREOUS CHINA, SIPHON JET, SENSOR OPERATED FLUSH VALVE, 1.28 GPF MAXIMUM.									
2. WALL HUNG, VITREOUS CHINA, WASHDOWN, SENSOR OPERATED FLUSH VALVE, 0.125 GPF MAXIMUM.									
3. DROP-IN COUNTER-TOP, VITREOUS CHINA, OVAL BASIN, 17-1/2-INCH X 20-1/4-INCH, 3-HOLE 4" O.C., SENSOR OPERATED CONTROL FAUCET WITH 0.35 GPM MAXIMUM LAMINAR FLOW DEVICE. PROVIDE ASSE 1070 LISTED POINT OF USE THERMOSTATIC TYPE PRESSURE BALANCE MIXING VALVE (MV-1) UNDER LAVATORY.									
4. WALL MOUNTED SHOWERHEAD CONNECTED TO ARM AT 78-INCHES ABOVE FINISHED FLOOR AND REMOVABLE SPRAYER HEAD ASSEMBLY ON 5 FOOT FLEXIBLE HOSE ON 30-INCH SLIDE BAR. SHOWERHEAD WITH 1.5 GPM MAXIMUM. MOUNT MIXING VALVE AT 36-INCHES AND DIVERTER VALVE AT 44-INCHES ABOVE FINISHED FLOOR. PROVIDE PRESSURE-BALANCED ASSE 1016 THERMOSTATIC MIXING VALVE.									
5. FLOOR MOUNTED, TERRAZZO, 36-INCH X 24-INCH RECTANGLE, MOP SERVICE BASIN, 12 INCH DEPTH WITH 6 INCH DROP FRONT, STAINLESS STEEL CAPS ON ALL CURBS, HOSE & HOSE BRACKET, SERVICE FAUCET, CHROME PLATED WITH VACUUM BREAKER, INTEGRAL CHECK STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT, BODY INLETS 8" CENTERS, FOUR ARM HANDLES.									
6. WALL HUNG, SELF CONTAINED DUAL HEIGHT, STAINLESS STEEL, MECHANICALLY COOLED.									
7. WALL HUNG, STAINLESS STEEL 11" ROUND BOWL, INVERTED DIRECTIONAL LAMINAR FLOW, CAST-ALUMINUM CHROMATE PROTECTED WALL BRACKET, DRAIN TRAP, TAILPIECE, YELLOW PLASTIC POP-OFF DUST COVER FOR EYEWASH, HEAD, TAILPIECE AND TRAP, AND UNIVERSAL SIGN. PROVIDE ASSE 1071 THERMOSTIC TYPE MIXING VALVE (MV-3).									
8. BARRIER-FREE ADA INITIATIVE REQUIREMENTS.									

PLUMBING FIXTURE UNIT CALCULATION										
MARK	FIXTURE	QTY	DRAINAGE FIXTURE UNITS		DOMESTIC WATER FIXTURE UNITS					
			EACH	TOTAL	COLD WATER EACH	COLD WATER TOTAL	HOT WATER EACH	HOT WATER TOTAL	WATER SUPPLY EACH	WATER SUPPLY TOTAL
P-1	WATER CLOSET, FLUSH VALVE, PUBLIC	2	4.00	8.00	10.00	20.00	-	-	10.00	20.00
P-2	WATER CLOSET, FLUSH VALVE, PUBLIC	3	4.00	12.00	10.00	30.00	-	-	10.00	30.00
P-3	URINAL, PUBLIC	1	2.00	2.00	5.00	5.00	-	-	5.00	5.00
P-4	LAVATORY, PUBLIC	2	1.00	2.00	1.50	3.00	1.50	3.00	2.00	4.00
P-5	LAVATORY, PUBLIC	2	1.00	2.00	1.50	3.00	1.50	3.00	2.00	4.00
P-6	SHOWER, PUBLIC	4	2.00	8.00	3.00	12.00	3.00	12.00	4.00	16.00
P-7	SHOWER, PUBLIC	4	2.00	8.00	3.00	12.00	3.00	12.00	4.00	16.00
P-8	SERVICE SINK	1	2.00	2.00	2.25	2.25	2.25	2.25	3.00	3.00
P-9	ELECTRIC WATER COOLER	1	0.50	0.50	0.25	0.25	-	-	0.25	0.25
P-10	WALL HYDRANT	2	-	-	-	-	-	-	-	-
P-11	EMERGENCY EYEWASH	1	-	-	-	-	-	-	-	-
			44.50	87.50			32.25	98.25		
DOMESTIC WATER SUPPLY					98.25 WSFU = 73.00 GPM.					
DOMESTIC COLD WATER SUPPLY					87.50 WSFU = 67.50 GPM					
DOMESTIC HOT WATER SUPPLY					32.25 WSFU = 19.60 GPM					
PIPE SIZE:			4" DRAINAGE		2-1/2" DCWS ~ 1-1/2" DHWS					

DOMESTIC WATER CALCULATIONS				
SIZE	GPM		FLUSH VALVE WSFU	FLUSH TANK WSFU
	FLUSH VALVE	FLUSH TANK		
1/2"	2	2	-	0.25
3/4"	4	4	-	1
1"	9	9	-	4
1-1/4"	15	15	5	10
1-1/2"	24	24	9	34
2"	51	51	53	137
2-1/2"	92	75	222	250
3"	145	120	500	495

NOTES:	
1. FIXTURE UNIT VALUES BASED ON THE INTERNATIONAL PLUMBING CODE SIZING CHARTS.	
2. MAX VELOCITY FOR HOT WATER - 5 FT/SECOND, FOR COLD WATER 6 FT/SECOND.	



ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
LIGHTING	
	A LIGHTING FIXTURE TYPE, SEE LIGHTING FIXTURE SCHEDULE ON SHEET EL101.
	LED LIGHTING FIXTURE (-I INDICATES BRACKET, WALL MOUNTED FIXTURES).
	LED LIGHTING FIXTURE ON EMERGENCY CIRCUIT. PROVIDE 90 MINUTE BATTERY BACK. (-I INDICATES BRACKET, WALL MOUNTED FIXTURES).
	EXIT LIGHTING FIXTURE. ARROW, WHEN USED, INDICATES DIRECTION. (-I INDICATES BRACKET, WALL MOUNTED FIXTURES). FILLED IN QUADRANT(S) OF SYMBOL INDICATES NUMBER AND ORIENTATION OF ILLUMINATED FACES. PROVIDE WITH 90 MINUTE BATTERY PACK.
	S 120 VOLT SINGLE POLE TOGGLE SWITCH, MOUNTED AT 48" AFF UON. SUBSCRIPT "3" INDICATES 3-WAY TOGGLE SWITCH, SUBSCRIPT "4" INDICATES 4-WAY TOGGLE SWITCH. COLOR CHOSEN BY ARCHITECT.
	D 120 VOLT SLIDE TYPE DIMMER, ON/OFF/RAISE LOWER, MOUNTED AT 48" AFF UON. COLOR CHOSEN BY ARCHITECT.
	OS DIGITAL DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSOR CONTROLLER.
POWER DEVICES	
	C DUPLEX CONVENIENCE RECEPTACLE, 20 A, 125 VAC, MOUNT "18" AFF UON. "WP" INDICATES WEATHERPROOF OUTLET. "TV" INDICATES OUTLET FOR TELEVISION POWER, MOUNTING HEIGHT TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS. "C" INDICATES CEILING MOUNTED.
	RECEPTACLE AS NOTED ABOVE BUT, MOUNT 48" AFF OR 6" ABOVE BACKSPASH OR COUNTER TOP WHERE COUNTER IS INDICATED.
	RECEPTACLE AS NOTED ABOVE BUT WITH INTERNAL GROUND FAULT PROTECTION, MOUNT 48" AFF OR 6" ABOVE BACKSPASH OR COUNTER TOP WHERE COUNTER IS INDICATED.
	RECEPTACLE, MOUNT 18" AFF, INDICATES GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE.
	QUADPLEX CONVENIENCE RECEPTACLE MOUNTED IN TWO-GANG OUTLET BOX - EACH RATED 20A, 125 VOLTS WITH SINGLE COVER PLATE, MOUNT 18" AFF, UON.
TELEPHONE AND DATA SYSTEMS	
	DATA/VOICE OUTLET AT 18" AFF UON WITH 1" CONDUIT AND PULL STRING ROUTED TO ABOVE EXISTING WALL MOUNTED IT RACK, PER DETAIL ON SHEET EP501.
	WP CCTV LOCATION. PROVIDE 4" BOX WITH 3/4" CONDUIT AND PULL STRING TO ABOVE EXISTING WALL MOUNTED IT RACK. "WP" INDICATES WEATHERPROOF.
	WAP WIRELESS ACCESS POINT LOCATION. PROVIDE 4" BOX WITH 3/4" CONDUIT AND PULL STRING TO ABOVE EXISTING WALL MOUNTED IT RACK.

SYMBOL	DESCRIPTION
EQUIPMENT CONNECTIONS	
	JUNCTION BOX
	DISCONNECT SWITCH, 600V IN NEMA 1 ENCLOSURE UON. SIZE AND TYPE AS NOTED.
	DISCONNECT SWITCH PROVIDED INTEGRAL WITH EQUIPMENT.
	VFC VARIABLE FREQUENCY CONTROLLER CONNECTION (DRIVE FURNISHED WITH EQUIPMENT)
	SM MOTOR RATED SWITCH WITH OVERLOADS.
	FACP FIRE ALARM CONTROL PANEL LOCATION. REFER TO FIRE PROTECTION PLANS.
DISTRIBUTION	
	PANELBOARD - 208Y/120V
WIRE, CONDUIT AND RACEWAY	
	LZA-1.3 HOMERUNS TO PANEL, PANEL AND CIRCUIT DESIGNATIONS AS INDICATED.
	INDICATES A CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE SUSPENDED CEILING UON.
	CONDUIT RUN EXPOSED ON WALL OR CEILING. DASHED INDICATES EMERGENCY CIRCUIT.
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	CONDUIT SEAL/SPICE
GENERAL	
	NOTE REFERENCE - TYPICALLY LOCATED ON SAME SHEET WHERE SYMBOL IS USED.
	ROOM NUMBER.

ELECTRICAL ABBREVIATIONS

A	AMPER	N/C	NORMALLY CLOSED
AFF	ABOVE FINISHED FLOOR	N/O	NORMALLY OPEN
AFG	ABOVE FINISHED GRADE	NEC	NATIONAL ELECTRICAL CODE
AHU	AIR HANDLING UNIT	NESCA	NATIONAL ELECTRICAL SAFETY CODE
AWG	AMERICAN WIRE GAUGE	NEU	NEUTRAL
BLDG	BUILDING	NF	NON FUSIBLE
BRKR	BREAKER	NTS	NOT TO SCALE
C	CONDUIT	OC	OCCUPANCY SENSOR
CB	CIRCUIT BREAKER	P	POLE
CCT	CIRCUIT	PH	PHASE
DISC SW	DISCONNECT SWITCH	PNL	PANEL
DWG	DRAWING	PVC	POLYVINYL CHLORIDE CONDUIT
EA	EACH	QTY	QUANTITY
EF	EXHAUST FAN	RECEPT	RECEPTACLE
ELEC	ELECTRICAL	REQ'D	REQUIRED
EMT	ELECTRICAL METALLIC TUBING	RM	ROOM
EQUIP	EQUIPMENT	S/N	SOLID NEUTRAL
EXIST	EXISTING	SF	SUPPLY FAN
FC	FOOTCANDLE	SPD	SURGE PROTECTIVE DEVICE
FCU	FAN COIL UNIT	SW	SWITCH
FLA	FULL LOAD AMPS	TEL	TELEPHONE
FT	FEET	TYP	TYPICAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UG	UNDERGROUND
GND	GROUND	UH	UNIT HEATER
GRS	GALVANIZED RIGID STEEL	UON	UNLESS OTHERWISE NOTED
HH	HANDHOLE	V	VOLTAGE OR VOLTS
HP	HORSEPOWER	W	WIRE
KAIC	THOUSAND AMP CAPACITY, RMS SYMMETRICAL	WH	WATER HEATER
KCMIL	THOUSAND CIRCULAR MILS	WP	WEATHERPROOF
KVA	KILOVOLT AMPERE	XFMR	TRANSFORMER
KWH	KILOWATT HOUR	Ø	PHASE
LAN	LOCAL AREA NETWORK		
LED	LIGHT EMITTING DIODE		
LTG	LIGHTING		
LTS	LUMINAIRE		
MCB	MAIN CIRCUIT BREAKER		
MLO	MAIN LUG ONLY		
MRS	MOTOR RATED SWITCH		
MSB	MAIN SWITCHBOARD		
MT	MOUNT		
MTD	MOUNTED		
MTG HT	MOUNTING HEIGHT		

SHEET NUMBER	SHEET NAME
E-001	ELECTRICAL LEGENDS, ABBREVIATIONS, AND SCHEDULES
ES101	ELECTRICAL SITE PLAN
EL101	LIGHTING FLOOR PLAN - PSTF
EP101	POWER AND TELECOMMUNICATIONS FLOOR PLAN - PSTF
EP501	POWER AND TELECOMMUNICATIONS DETAILS

HENDERSON COUNTY AND BLUE RIDGE COMMUNITY COLLEGE
BRCC - PUBLIC SAFETY TRAINING FACILITY
 180 W CAMPUS DR.
 FLAT ROCK, NC 28731



DESIGNER
CLARK NEXSEN
 301 College Street, Suite 300
 Asheville, North Carolina 28801
 828-232-0008
 www.clarknexsen.com

NEW PANEL LMDP SCHEDULE

DCKT NO.	LOAD DESCRIPTION	208Y/120 VOLTS				3PH, 4W, 60 HZ				MIN. 22 KAC				SURFACE MOUNTED	SER RATED	DCKT NO.
		WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	KVA	BKR TRIP	WIRE SIZE	LOAD DESCRIPTION				
1	PANEL LA	158				A	18.5	154.3		T15						2
7	EXISTING PANEL M1	200				A	18.5	154.3		175						8
11	BUSSED SPACE					B	15.0	125.0								
13	SPACE					C	15.0	125.0								14
19	SPACE					A										20
TOTAL AMPS (CONN. LOAD)				A: 509.6		B: 514.4		C: 389.0								
TOTAL AMPS (FEEDTHRU)				A: 509.6		B: 514.4		C: 389.0								
TOTAL AMPS (CONN. LOAD + FEED-THRU)				A: 509.6		B: 514.4		C: 389.0								
PANELBOARD NOTES: 1. PROVIDE WITH DIGITAL MULTIMETER 2. PROVIDE INTERNALLY MOUNTED SPD SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE																
LOAD DESCRIPTION	PANEL CONN. LOAD	SUBFEED CONN. LOAD	FEEDTHRU CONN. LOAD	TOTAL CONN. LOAD	D.F.	TOTAL KVA	M.E.T.	DEMAND								
LIGHTING	3.0	KVA	KVA	3.0		1.25	3.7	KVA								
RECEPTACLES	22.6	KVA	KVA	22.6		18.5	16.3	KVA								
MECH EQUIP	100.6	KVA	3.8	KVA	104.5	1.00	104.5	KVA								
ELECTRIC HEAT		KVA	KVA			1.25		KVA								
MISCELLANEOUS		KVA	3.8	KVA	3.8	1.00	3.8	KVA								
EXISTING PANEL	33.3	KVA	KVA	33.3		0.90	30.0	KVA								
TOTALS (CONN. KVA)	133.8	KVA	33.3	KVA	167.2	KVA	158.3	KVA								
TOTALS (CONN. KVA + 20%)	160.6	KVA	40.0	KVA	200.6	KVA	189.9	KVA								
TOTALS (CONN. AMPS)	371.5	AMPS	82.5	AMPS	454.0	AMPS	389.0	AMPS								
TOTALS (CONN. AMPS + 20%)	445.8	AMPS	111.0	AMPS	556.8	AMPS	466.8	AMPS								

NEW PANEL LA SCHEDULE

DCKT NO.	LOAD DESCRIPTION	208Y/120 VOLTS				3PH, 4W, 60 HZ				MIN. 22 KAC				SURFACE MOUNTED	SER RATED	DCKT NO.
		WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	KVA	BKR TRIP	WIRE SIZE	LOAD DESCRIPTION				
1	REC. 322,398,323,321,321 EXT.	12	20	7.5	0.9	A	1.2	9.8	20	12	ROLL UP DOOR					
3	REC. 319	12	20	12.5	1.5	B	1.2	9.8	20	12	ROLL UP DOOR					
5	REC. 319	12	20	12.5	1.5	A	1.4	11.3	20	12	LIGHTS TRAINING 369					
7	REC. PAST	12	20	12.5	1.5	A	0.7	6.2	20	12	LIGHTS TRAINING 369					
9	REC. PAST	12	20	12.5	1.5	B	0.7	5.8	20	12	LIGHTS OFFICE/LOCKER RMS.					
11	REC. 330	12	20	6.0	0.7	C	0.2	1.5	20	12	LIGHTS EXTERIOR					
13	REC. 389	12	20	7.5	0.9	A	1.0	8.3	20	*	DOOR PANEL					
15	EWG 389 (NOTE 1)	12	20	4.2	0.5	B	1.0	8.3	20	12	FACP					
17	REC. 389	12	20	7.5	0.9	C	0.2	2.0	20	12	LAV/FLUSH SENSORS RM 108					
19	REC. CEILING 359	12	20	8.3	1.0	A	0.2	2.0	20	12	LAV/FLUSH SENSORS RM 102					
21	REC. CEILING 359	12	20	8.3	1.0	B			20		SPARE					
23	REC. CEILING 359	12	20	8.3	1.0	C			20		SPARE					
25	REC. CAR CHGR. 359	12	20	8.3	1.0	A			20		SPARE					
27	REC. CAR CHGR. 359	12	20	8.3	1.0	B			20		SPARE					
29	REC. CAR CHGR. 359	12	20	8.3	1.0	C			20		SPARE					
31	REC. CAR CHGR. 359	12	20	8.3	1.0	A	0.1	0.9	20	*	RF-1					
33	REC. CAR CHGR. EXT.	12	20	8.3	1.0	B	0.1	0.9	20	*	RF-1					
35	REC. CAR CHGR. EXT.	12	20	8.3	1.0	C	0.4	4.2	20	*	RF-1					
37	REC. CAR CHGR. EXT.	12	20	8.3	1.0	A	0.4	4.2	20	*	RF-1					
39	REC. CAR CHGR. EXT.	12	20	8.3	1.0	B	0.8	8.8	20	*	RF-1					
41	REC. VENDING 359 (NOTE 1)	12	20	12.5	1.5	C	0.8	8.8	20	*	RF-1					
TOTAL AMPS (CONN. LOAD)				A: 91.8		B: 94.9		C: 89.7								
TOTAL AMPS (FEEDTHRU)				A: 91.8		B: 94.9		C: 89.7								
TOTAL AMPS (CONN. LOAD + FEED-THRU)				A: 91.8		B: 94.9		C: 89.7								
PANELBOARD NOTES: 1. PROVIDE GFCI BREAKER SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE																
LOAD DESCRIPTION	PANEL CONN. LOAD	SUBFEED CONN. LOAD	FEEDTHRU CONN. LOAD	TOTAL CONN. LOAD	D.F.	TOTAL KVA	M.E.T.	DEMAND								
LIGHTING	3.0	KVA	KVA	3.0		1.25	3.7	KVA								
RECEPTACLES	22.6	KVA	KVA	22.6		18.5	16.3	KVA								
MECH EQUIP	4.4	KVA	KVA	4.4		1.00	4.4	KVA								
ELECTRIC HEAT		KVA	KVA			1.25		KVA								
MISCELLANEOUS	3.4	KVA	KVA	3.4		1.00	3.4	KVA								
EXISTING PANEL		KVA	KVA			0.90		KVA								
TOTALS (CONN. KVA)	33.1	KVA	KVA	33.1		27.7		KVA								
TOTALS (CONN. KVA + 20%)	39.8	KVA	KVA	39.8		33.2		KVA								
TOTALS (CONN. AMPS)	80.0	AMPS	AMPS	80.0	AMPS	80.0	AMPS	76.8	AMPS							
TOTALS (CONN. AMPS + 20%)	110.4	AMPS	AMPS	110.4	AMPS	96.2	AMPS	92.2	AMPS							

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

EQUIPMENT DESIGNATION	LOCATION	VOLTS	PHASE	DISCONNECT SWITCH	CONDUCTOR	CONDUIT	PANEL	CIRCUIT NUMBER	BREAKER	NOTES
PHP-1	EXTERIOR	208V	3	200A/3P/3R	3#2/0,#66	2"	LMDP	2	175	1
EF-1	ELEC 105	208V	1	M.R.S.	2#12,#12G	1/2"	LA	36	20	1
RF-1	TRAINING 100	208V	1	M.R.S.	2#12,#12G	1/2"	LA	40	20	1
DDC PANEL	MECH 107	120V	1	NONE	2#12,#12G	1/2"	LA	14	20	
WH-1	MECH 107	208V	3	200A/3P	3#2/0,#66	2"	LMDP	8	175	
RP-1	MECH 107	208V	1	M.R.S.	2#12,#12G	1/2"	LA	32	20	

1. COORDINATE WITH MECHANICAL FOR CONTROLS. ALL CONTROLS CABLING SHALL BE RAN IN 1/2" CONDUIT.

12/7/2020 4:51:24 PM
 C:\Recent Projects\199-LBRC-PS1F_E20_Michael Brookins.rvt

SHEET
ELECTRICAL LEGENDS, ABBREVIATIONS, AND SCHEDULES
E-001
 DESIGN: MRB
 DRAWN: SJB
 REVIEW: MGB
 CN 5199-L

LIGHTING FIXTURE SCHEDULE									
TYPE	DESCRIPTION	MANUFACTURER	SERIES	LIGHT SOURCE	VOLTAGE	WATTAGE	MOUNTING	HEIGHT	
A	2X4 LED TROFFER, 4000 LUMENS, 4000K CCT, MIN 80 CRI, #12 PATTERN ACRYLIC 0.110" THICK LENS, W/FLANGE KIT	LITHONIA	2GT4	LED	UNV.	29.9W	RECESSED	N/A	
B1	2X4 LED TROFFER, 4800 LUMENS, 4000K CCT, MIN 80 CRI, #12 PATTERN ACRYLIC 0.110" THICK LENS	LITHONIA	2GT4	LED	UNV.	35.8W	RECESSED	N/A	
B2	2X4 LED TROFFER, 4800 LUMENS, 4000K CCT, MIN 80 CRI, DOOR FRAME GASKET, #12 PATTERN ACRYLIC 0.110" THICK LENS, W/ FLANGE KIT	LITHONIA	2GT4	LED	UNV.	35.8W	RECESSED	N/A	
C	2X4 LED TROFFER, 6000 LUMENS, 4000K CCT, MIN 80 CRI, #12 PATTERN ACRYLIC 0.110" THICK LENS, 0-10V DIMMABLE DRIVER	LITHONIA	2GT4	LED	UNV.	48.9W	RECESSED	N/A	
D1	WALL SCONCE, 4400 LUMENS, 4000K CCT, MIN 80 CRI, FORWARD THROW DISTRIBUTION, WIRE GUARD WITH INTEGRAL EMERGENCY BATTERY PACK AND PHOTOCELL	LITHONIA	WDG2	LED	UNV.	35W	WALL	9' UON.	
D2	WALL SCONCE, 4500 LUMENS, 4000K CCT, MIN 80 CRI, WIDE DISTRIBUTION, WIRE GUARD WITH INTEGRAL PHOTOCELL	LITHONIA	WDG2	LED	UNV.	35W	WALL	9' UON.	
E	4FT STRIPLIGHT, 5000 LUMENS, 4000K CCT, MIN 80 CRI, WITH FROSTED, DIFFUSE LENS	LITHONIA	2L1N	LED	UNV.	34W	SURFACE	N/A	
E2	4FT STRIPLIGHT, 5000 LUMENS, 4000K CCT, MIN 80 CRI, WITH FROSTED, DIFFUSE LENS	LITHONIA	2L1N	LED	UNV.	34W	PENDANT	9' A.F.F.	
F	6" ROUND DOWNLIGHT, 850 LUMENS, 4000K CCT, MIN 80 CRI, W/ FLANGE KIT, WET LOCATION RATED	LITHONIA	WF6	LED	UNV.	12.9W	RECESSED	N/A	
G	2' LED HIGH BAY LUMINAIRE, 22000 LUMENS, 4000K CCT, MIN 80CRI, ACRYLIC TEXTURED SEMI-DIFFUSE LENS 0.04" THICK, 360 DEGREE MOTION SENSOR, WIRE GUARD	LITHONIA	IBE	LED	UNV.	166W	PENDANT	2' BELOW ROOF DECK	
X	EXIT LIGHT, WALL MOUNTED (UNIVERSAL), TWIN LED LAMP HEADS, RED LETTERING, WHITE HOUSING, SINGLE FACE, DIRECTIONAL ARROWS AS REQUIRED, WIRE GUARD, 90 MINUTE NICAD BATTERY REQUIRED	LITHONIA	LH0M	LED	UNV.	1.4W	SURFACE	N/A	

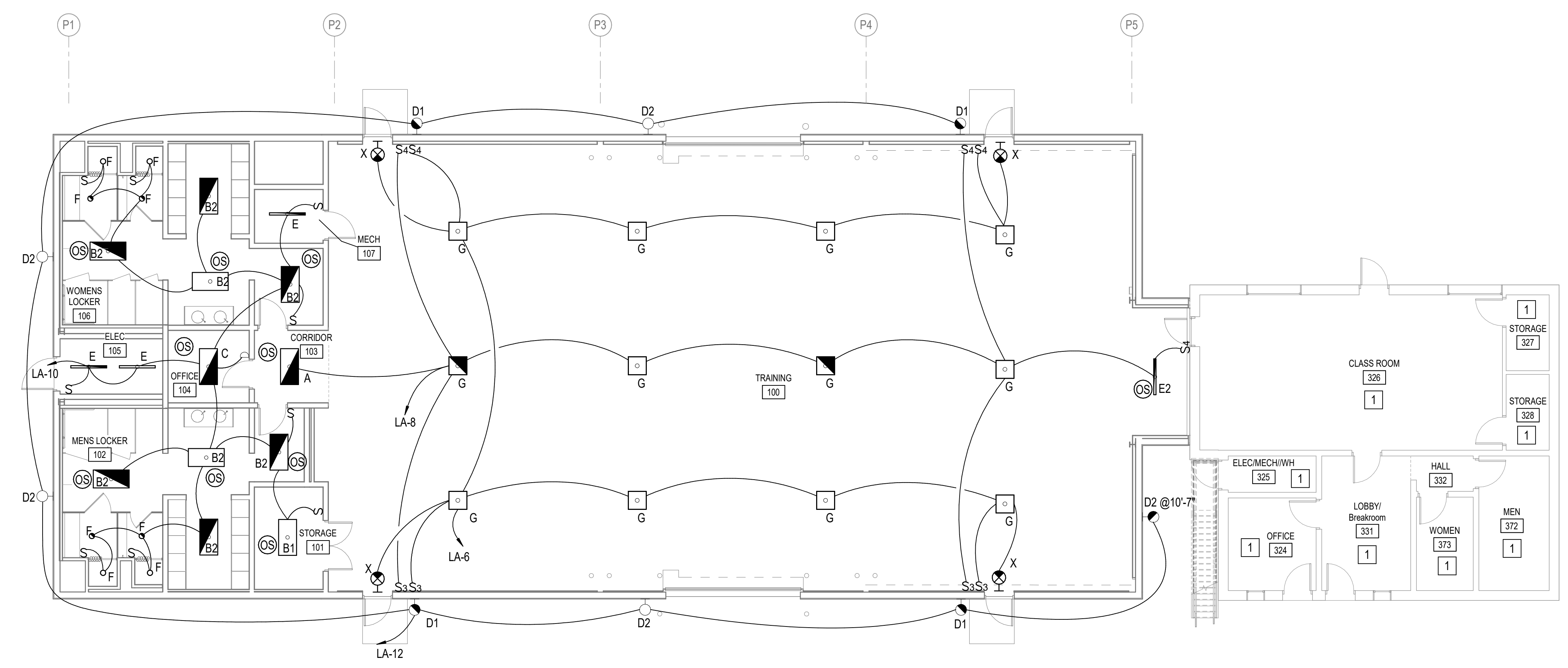
GENERAL LIGHTING FIXTURE NOTE:
 A. OTHER APPROVED MANUFACTURERS: ALPHABET, BEACON, BRUCK, COMPASS, DAY-O-LITE, GLIGHTING, KIM LIGHTING, KURT VERSEN, LIGHTALARMS, LUMENWERX, LUMEN PULSE, OXYGEN, PRESCOLITE, SPAULDING, BEGA, BETACALCO, CORELITE, ETC., ELLIPTIPAR, FAIL-SAFE, KENALL, LUMARK, MCGRAW-EDISON, NEO-RAY, SPECTRUM, VISA, PHILIPS, H.E. WILLIAMS, ACUITY, EATON, HUBBELL.

GENERAL NOTES

- A COORDINATE FIXTURE LOCATIONS WITH ARCHITECTURAL RCPS PRIOR TO INSTALLATION.
- B THESE PLANS INDICATE AREAS TO BE CONTROLLED BY MOTION SENSORS. SINCE COVERAGES AND DEVICES VARY BETWEEN MANUFACTURERS IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE PROPER DEVICE LOCATION, ORIENTATION AND QUANTITIES WITH THE MANUFACTURER OF THE SYSTEM BEING INSTALLED TO MEET THE SPECIFIED CRITERIA.
- C CEILING SENSORS SUCH AS OCCUPANCY AND DAYLIGHT SENSORS ARE TO BE MOUNTED AWAY FROM ANY STRONG AIRFLOW. COORDINATE LOCATION OF SENSOR WITH MECHANICAL AND LIGHTING PLANS.
- D THE CONTRACTOR SHALL ENSURE LIGHT FIXTURES AND LIGHTING CONTROL SYSTEM USED ARE COMPATIBLE PRIOR TO ORDERING.
- E FOR LIGHTING DEVICES, THE MOUNTING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS TO THE BOTTOM OF THE LIGHTING DEVICE.
- F CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO ENSURE NO OBJECTS, EQUIPMENT, PIPES, DUCTS, ETC. ARE MOUNTED DIRECTLY BELOW LIGHTING FIXTURES PRIOR TO INSTALLATION. THIS WILL AFFECT THE CALCULATED LIGHT LEVELS IN THAT AREA.
- G ALL LIGHTING CIRCUITS LOCATED IN EXPOSED OR HARD CEILINGS SHALL BE ROUTED IN EMT CONDUIT.

HENDERSON COUNTY AND BLUE RIDGE COMMUNITY COLLEGE
BRCC - PUBLIC SAFETY TRAINING FACILITY
 180 W CAMPUS DR.
 FLAT ROCK, NC 28731

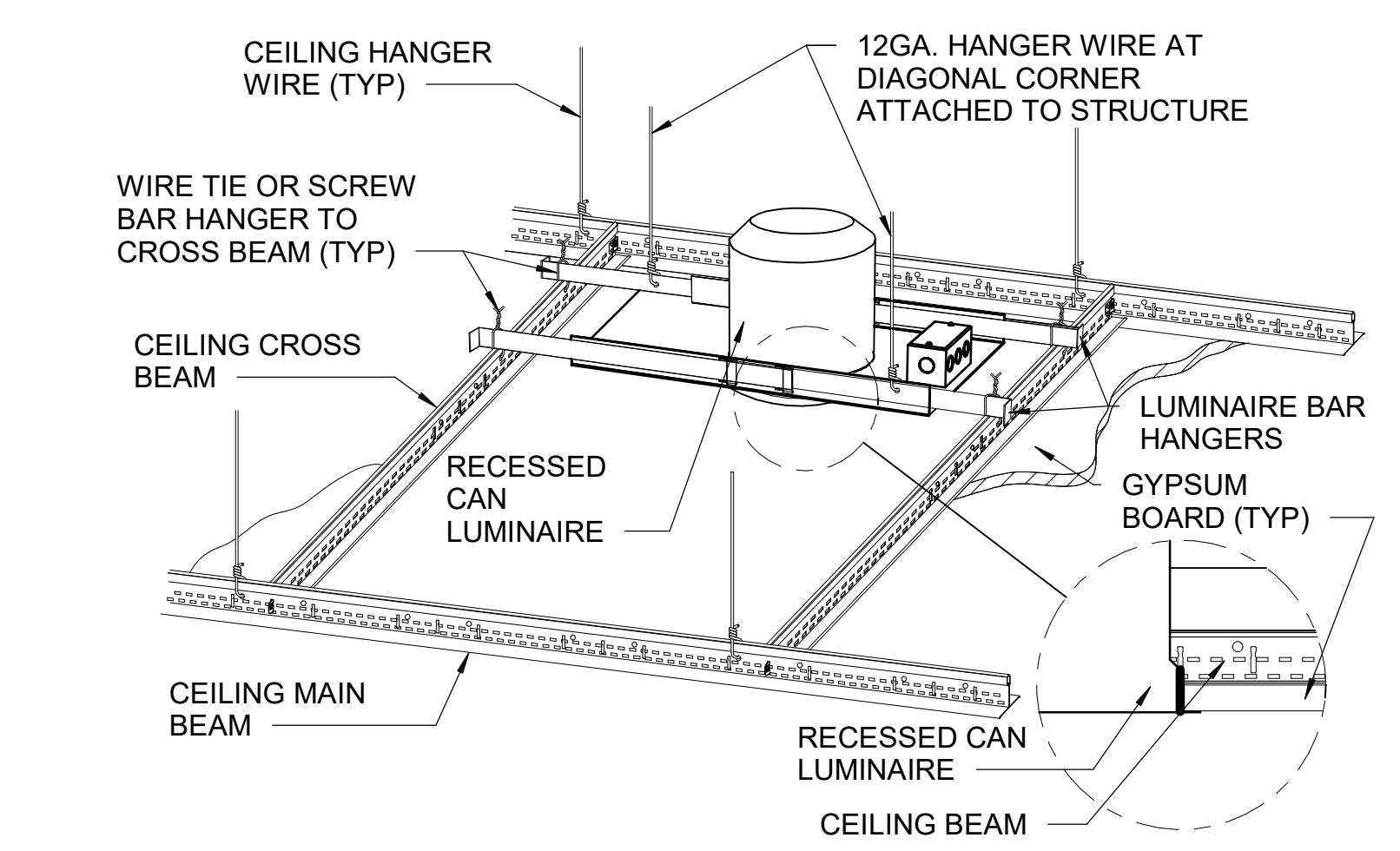
DESIGNER
CLARK NEXSEN
 301 College Street, Suite 300
 Asheville, North Carolina 28801
 828-232-0008
 www.clarknexsen.com



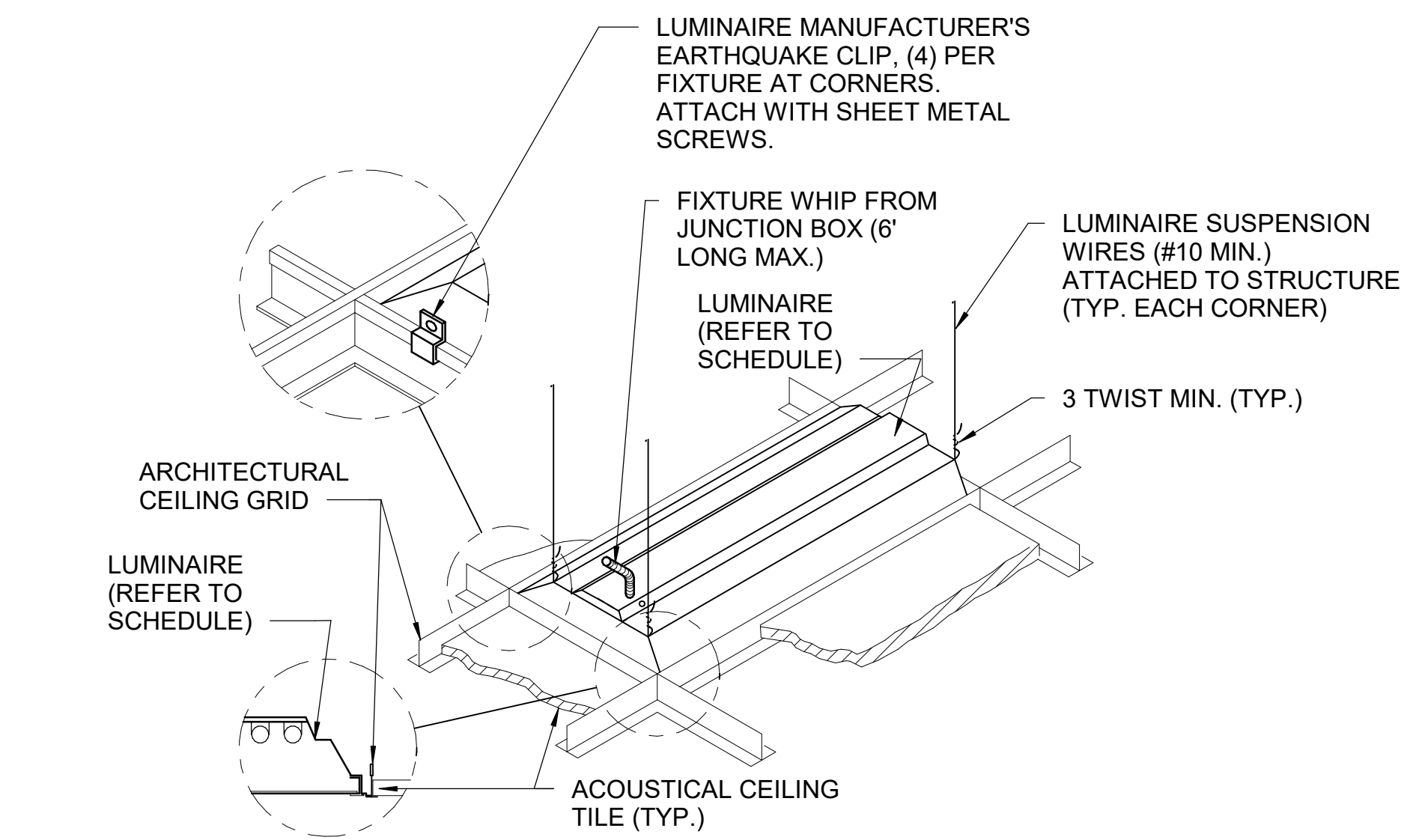
KEY NOTES

- 1 NO WORK IN THIS AREA UNLESS OTHERWISE NOTED.

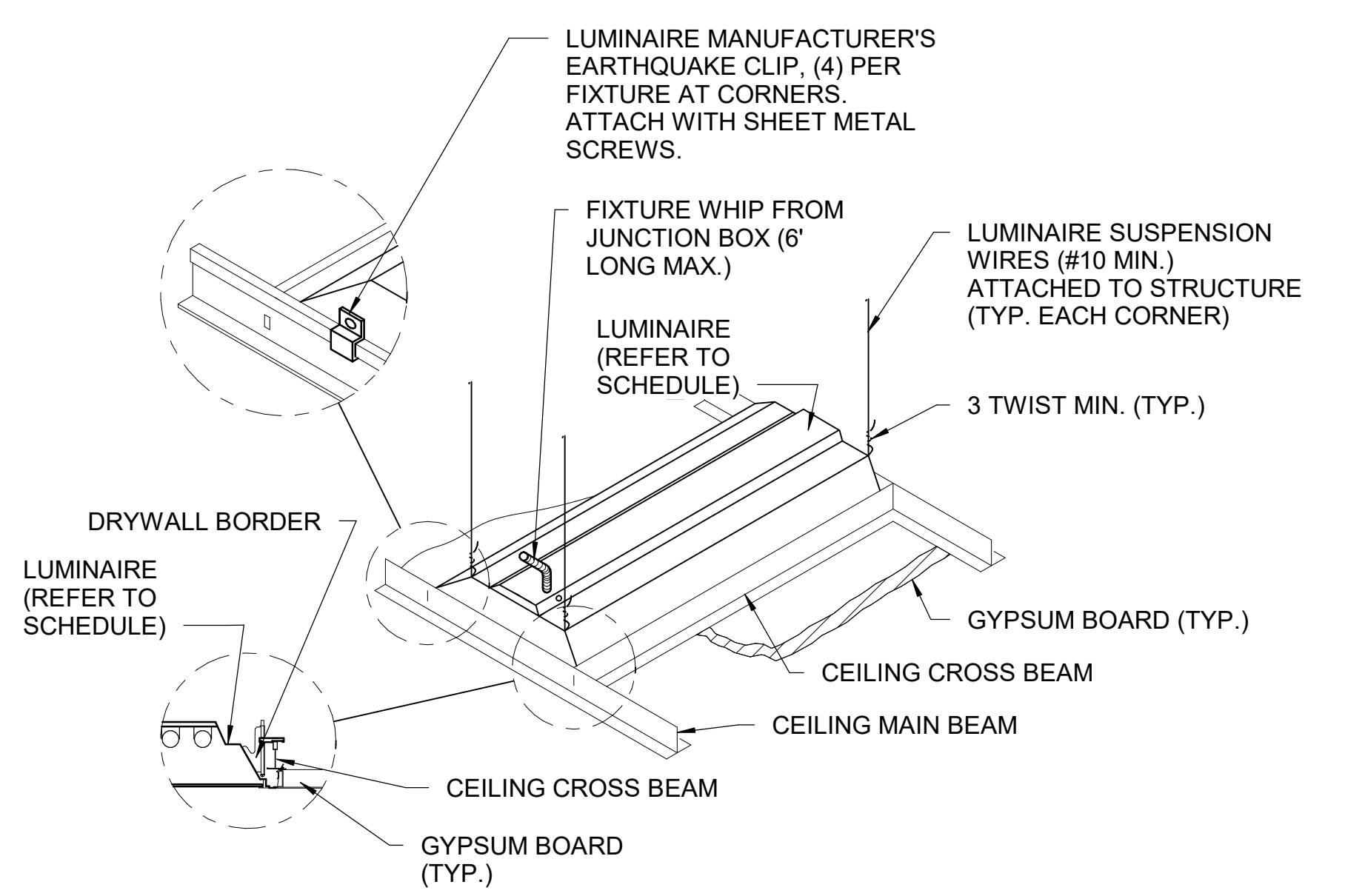
1 LIGHTING FLOOR PLAN
 1/8" = 1'-0"



2 DOWNLIGHT MOUNTING - GYPBOARD CEILING
 NOT TO SCALE

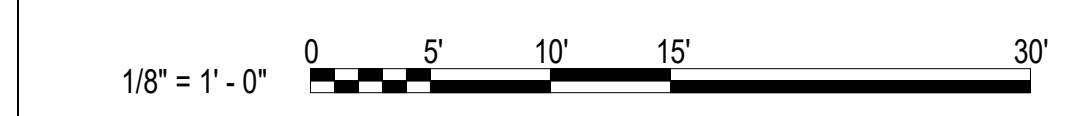


4 LUMINAIRE MOUNTING - LAY-IN CEILING
 NOT TO SCALE



3 LUMINAIRE MOUNTING - GYPBOARD CEILING
 NOT TO SCALE

GRAPHIC SCALE(S)



SEALS

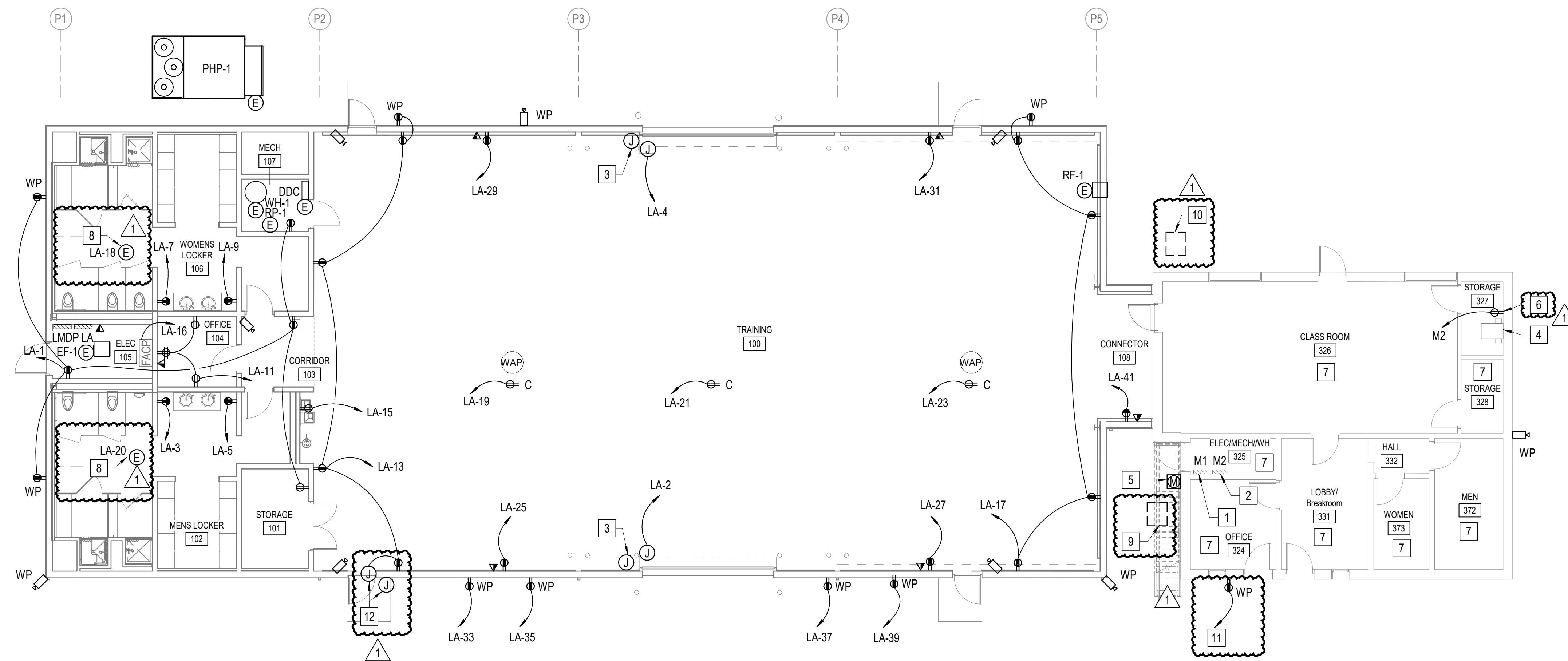
SUBMITTAL
 11/17/2020
 CONSTRUCTION DOCUMENTS

REVISIONS
 1 12/7/2020 ADDENDUM 1

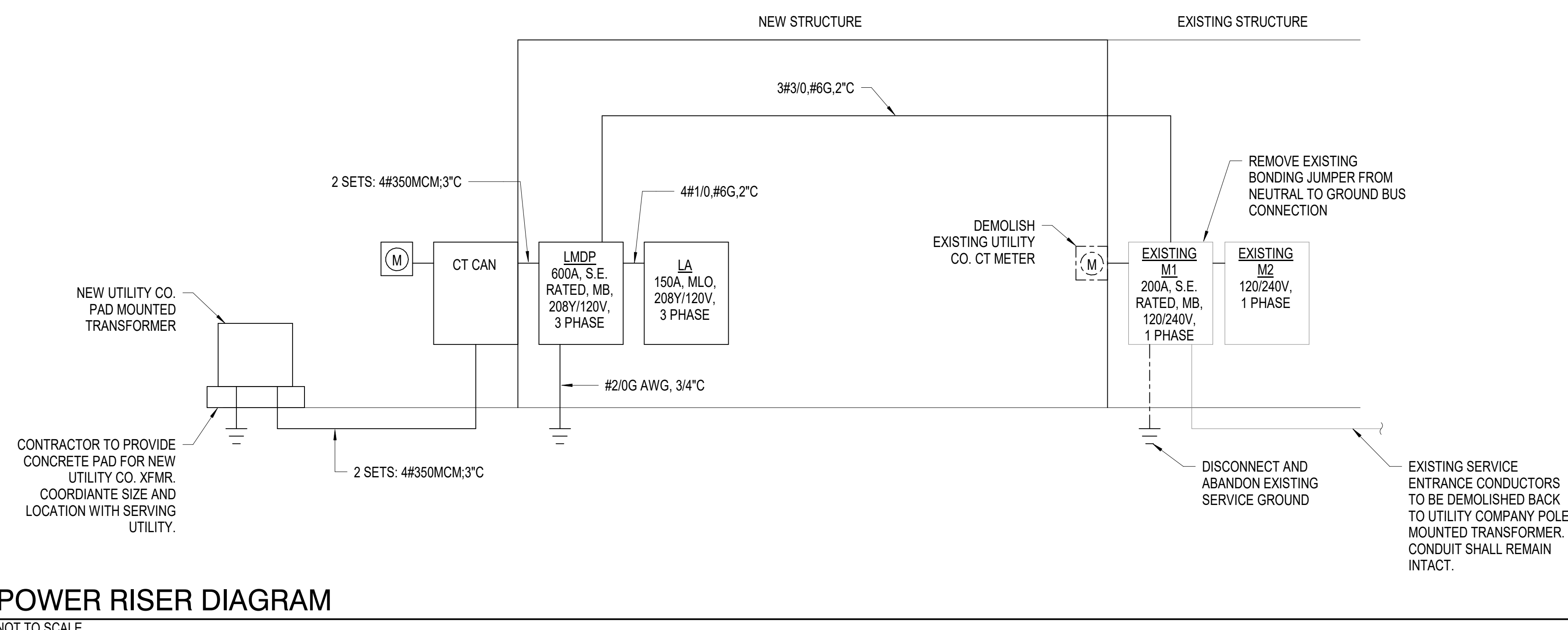
SHEET
 LIGHTING FLOOR PLAN - PSTF

EL101

DESIGN: MRB
 DRAWN: SJB
 REVIEW: MGB
 CN 5199-L



1 POWER AND TELECOMMUNICATIONS FLOOR PLAN
1/8" = 1'-0"



2 POWER RISER DIAGRAM
NOT TO SCALE

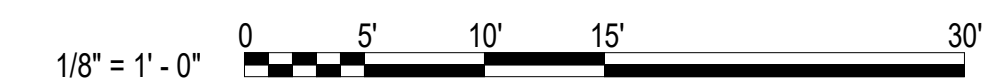
GENERAL NOTES

- A MOUNTING HEIGHTS AS INDICATED ON THE DRAWINGS SHALL BE FROM THE FINISHED FLOOR TO THE CENTER LINE OF THE OUTLET BOX.
- B ALL FLUSH RECESSED OUTLET BOXES IN NON-COMBUSTIBLE MATERIAL SHALL BE INSTALLED SUCH THAT FRONT EDGE OF THE BOX WILL NOT BE SET BACK OFF THE FINISHED SURFACE MORE THAN 1/4 IN AS NOTED IN NFPA 70 SECTION 314.23. INSTALLATIONS WITHIN A COMBUSTIBLE SURFACE MATERIAL MUST EXTEND TO THE FINISHED SURFACE. SUPPORT OF THE OUTLET BOX BY THE DEVICE OR COVERPLATE IS NOT ACCEPTABLE. SEE NEC SECTION 314.23.
- C CAREFULLY COORDINATE ROUGH-IN WITH ARCHITECTURAL AND BLOCK MASONS.
- D ALL RECEPTACLES WITHIN 6FT OF A SINK, IN BATHROOMS, OUTDOORS, ON A ROOFTOP, OR IN LOCATIONS DETERMINED BY NFPA 70 SECTION 210.8 MUST HAVE GFCI PROTECTION.
- E COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT PRIOR TO ELECTRICAL ROUGH-IN.
- F SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON SHEET E-001 FOR ALL POWER CONNECTION INFORMATION FOR HVAC, PLUMBING AND SPECIAL EQUIPMENT.
- G ALL BREAKERS SERVING LIFE SAFETY EQUIPMENT (FIRE ALARM) SHALL BE LABELED AS SUCH WITH RED IDENTIFICATION TAG "FIRE ALARM CIRCUIT". PROVIDE BREAKER WITH DEVICE TO LOCK BREAKER IN THE ON POSITION SUCH AS "ECLIPS LOCK-FA" OR EQUAL DEVICE TO MEET NFPA 70, ARTICLE 760.41(B).
- H COORDINATE ELECTRICAL CONNECTIONS TO FACP AND DDC PANELS WITH THE RELEVANT DISCIPLINE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

KEY NOTES

- 1 EXISTING 120/240 VOLT, 200A MAIN BREAKER, 40 POLE, SINGLE PHASE MAIN DISTRIBUTION PANEL 1 TO REMAIN.
- 2 EXISTING 120/240 VOLT, 125A M.L.O., 16 POLE, SINGLE PHASE MAIN DISTRIBUTION PANEL 2 TO REMAIN.
- 3 PROVIDE JUNCTION BOX AT 44" AFF UON FOR ROLL UP DOOR CONTROLS. ROUTE 1/2" CONDUIT WITH PULL STRINGS FROM JUNCTION BOX TO DOOR CONTROLLER. COORDINATE EXACT REQUIREMENTS WITH ROLL UP DOOR MANUFACTURER.
- 4 EXISTING WALL MOUNTED DATA RACK TO REMAIN.
- 5 EXISTING UTILITY COMPANY METER IN THIS LOCATION TO BE DEMOLISHED.
- 6 ROUTE 3#12, 1/2" TO PANEL M2 AND CONNECT TO SPARE 20A/1P BREAKER. THIS RECEPTACLE IS INTENDED TO SUPPLY POWER TO UPS AND SHALL BE A TWIST-LOCK TYPE RECEPTACLE. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH OWNER AND WITH UPS MANUFACTURER'S LITERATURE. COORDINATE EXACT LOCATION OF OUTLET WITH OWNER PRIOR TO INSTALLATION. UPDATE PANEL LEGEND.
- 7 NO WORK IN THIS AREA UNLESS OTHERWISE NOTED.
- 8 WHERE EQUIPMENT CONNECTION DESIGNATION IS INDICATED ON FLOOR PLANS, PROVIDE ELECTRICAL CONNECTION TO EACH TOILET, URINAL AND SINK IN ROOM. COORDINATE EACH ELECTRICAL CONNECTION WITH PLUMBING FIXTURE CONTROLLER. PLUMBING FIXTURE PROVIDED BY PLUMBING CONTRACTOR. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
- 9 EXISTING CONDENSING UNIT TO BE RELOCATED.
- 10 RELOCATED CONDENSING UNIT. CONTRACTOR TO RELOCATE EXISTING DISCONNECT AND FEEDER TO THIS LOCATION.
- 11 ROUTE 3#12, 1/2" TO PANEL M2 AND CONNECT TO EXISTING 20A/1P BREAKER. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- 12 SEE ACCESS CONTROL DETAIL ON SHEET EP501.

GRAPHIC SCALE(S)



1	12/7/2020	ADDENDUM 1

