

GENERAL NOTES

- NOT ALL SYMBOLS INDICATED IN THE LEGEND APPEAR ON THE DRAWINGS. COORDINATE WORK ACCORDINGLY. COMPLY WITH SPECIFICATIONS AND NOTES BELOW AS APPLICABLE.
- ALL RECEPTACLES SHALL BE INSTALLED 18" AFF TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.
- ALL WIRING SHALL BE COPPER UNLESS DESIGNATED AS "AL". UNLESS OTHERWISE NOTED ALL WIRING SHALL BE 2\*12 AWG AND 1\*12 EQUIPMENT GROUNDING CONDUCTOR. HOMERUNS FED FROM A 20A-1P, 120V CIRCUIT IN EXCESS OF 70' SHALL BE \*10 AWG.
- CONNECT BATTERY BACKED EMERGENCY AND EXIT LIGHTING TO NEAREST LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. CONNECT REMOTE HEADS WITH \*10 AWG COPPER CONDUCTORS. AC EXIT FIXTURES SHALL BE CONNECTED TO NEAREST EMERGENCY CIRCUIT OR AS INDICATED.
- TEST ALL EMERGENCY LIGHTING UNITS FOR PROPER OPERATION OF LAMPS AND BATTERIES.
- SEE MECHANICAL PLAN FOR HVAC UNITS, PUMPS AND FANS CONTROLLED BY THERMOSTATS (PROVIDED BY ATC CONTRACTOR).
- FUSES AND OVERLOAD UNITS FOR MOTORS SHALL BE SIZED BASED ON ACTUAL MOTOR NAMEPLATE DATA AND IN ACCORDANCE WITH NEC. CIRCUIT BREAKERS FOR MOTORS ARE SUPPLIED AT MAX VALUE PER NEC (2.5 x FLA). SIZE IN THE FIELD IN ACCORDANCE WITH MFR RECOMMENDATION.
- ALL WORK SHALL COMPLY WITH NFPA70, NFPA72, NFPA101 & ALL FEDERAL, STATE & LOCAL REGULATIONS.
- ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN FIRE RATING FOR THE SEPARATION.
- ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
- AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS. SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.
- PROVIDE TWO BALLASTS FOR EACH FIXTURE INDICATED AS REQUIRING DUAL LEVEL SWITCHING. ONE BALLAST TO CONTROL OUTER LAMPS AND THE SECOND BALLAST TO CONTROL INNER LAMP(S).
- COORDINATE INSTALLATION OF VOICE/DATA OUTLETS WITH OWNER, MIS OR COMMUNICATIONS CONTRACTOR.
- LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED BY MANUFACTURER. LOCATIONS ON DRAWINGS ARE APPROXIMATE.
- PROVIDE RISER OR PLENUM RATED CABLES ABOVE SUSPENDED CEILINGS.
- THE CONTRACTOR SHALL SET ALL ELECTRONIC BREAKERS TO SPECIFIED TRIP SETTINGS BEFORE ENERGIZING EQUIPMENT.
- PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND RACEWAYS ENTERING ENCLOSURES ATTACHED TO FIXED STRUCTURES.
- OUTDOOR RECEPTACLE COVERS SHALL COMPLY WITH NFPA 70 - ARTICLE 406.9.
- ALL CONDUCTOR INSULATION FOR BUILDING WIRE SHALL BE THWN/THHN UNLESS NOTED OTHERWISE.
- OUTLETS INSTALLED IN FIRE RATED WALLS BACK TO BACK SHALL BE SEPARATED BY 24" MINIMUM OR BE PROTECTED WITH "PUTTY PADS" PER 2009 INTERNATIONAL BUILDING CODE SECTION 713.3.2
- PROVIDE AIR VAPOR BARRIER BOXES FOR WIRING DEVICES IN EXTERIOR WALLS AND INTERIOR SOUND CONTROL WALLS BETWEEN RESIDENT ROOMS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE LESSCO MODEL NUMBER: VAPORBOX
- MINIMUM WIRE SIZE ON ALL BRANCH CIRCUITS SHALL BE \*12.
- PROVIDE SIGN AT SERVICE ENTRANCE EQUIPMENT INDICATING TYPE AND LOCATION OF EMERGENCY GENERATOR PER NEC 700.7.

ABBREVIATIONS

A	AMP	LP	LIGHTING PANELBOARD
AC	ALTERNATING CURRENT, ABOVE COUNTER	LTG	LIGHTING
ADA	AMERICANS WITH DISABILITIES ACT	LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT CIRCUIT BREAKER TRIP FUNCTIONS AS INDICATED
AF	AMP FRAME	MCC	MOTOR CONTROL CENTER
AFI	ARC FAULT CIRCUIT INTERRUPTER	MCCB	MOLDED CASE CIRCUIT BREAKER
AFB	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
AFG	ABOVE FINISHED GRADE	MDP	MAIN DISTRIBUTION PANEL
AC	AMPERES INTERRUPTING CAPACITY	MH	MANHOLE
AL	ALUMINUM	MLO	MAIN LUGS ONLY
AT	AMP TRIP	MTS	MANUAL TRANSFER SWITCH
ATC	AUTOMATIC TEMPERATURE CONTROL	NC	NORMALLY CLOSED OF NURSE CALL
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BLDG	BUILDING	NL	NIGHT LIGHT
C	CONDUIT	NO	NORMALLY OPEN
CB	CIRCUIT BREAKER	NO.	NUMBER
CI	CAST IRON	OL	OVERLOAD
CKT	CIRCUIT	P	POLE
CL	CENTERLINE	PA	PUBLIC ADDRESS
CMP	CENTRAL MAINE POWER (ELECTRIC UTILITY)	PB	PUSH BUTTON
CMU	CONCRETE MASONRY UNIT	PF	POWER FACTOR
CT	CURRENT TRANSFORMER	PH	PHASE
CONC	CONCRETE	PNL	PANEL
CS	CARBON STEEL	TP1-2	TELE-POWER POLE - POLE AND CIRCUIT NUMBER AS INDICATED
CU	COPPER	PSNH	PUBLIC SERVICE OF NEW HAMPSHIRE (ELECTRIC UTILITY)
CUH	CABINET UNIT HEATER	PT	POTENTIAL TRANSFORMER
DL	DAMP LOCATION	PVC	POLYVINYL CHLORIDE
EC	ELECTRICAL CONTRACTOR	RL	ELECTRICAL EQUIPMENT TO BE RELOCATED
EF	EXHAUST FAN	RM	ELECTRICAL EQUIPMENT TO REMAIN
ER	EXISTING REMAINS IN PLACE	RSC	RIGID STEEL CONDUIT
ERL	EXISTING RELOCATE	RTU	ROOF TOP UNIT
ERM	EXISTING REMOVE	RV	ELECTRICAL EQUIPMENT TO REMOVE
EUH	ELECTRIC UNIT HEATER	RVNR	REDUCED VOLTAGE, NON-REVESING
EWC	ELECTRICAL WATER COOLER	SB	SMART BOARD
FACP	FIRE ALARM CONTROL PANEL	SF	SUPPLY FAN
FAPS	FIRE ALARM PULL STATION	SLD	SINGLE LINE DIAGRAM
FRP	FIBER REINFORCED PLASTIC	SM	MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD DEVICE, MOUNTED AT UNIT
FVNR	FULL VOLTAGE, NON-REVERSING	SS	SOLID STATE
FWU	FURNISHED WITH UNIT	SWBD-1	SWITCHBOARD NUMBER AS DESIGNATED
DC	DIRECT CURRENT	TC	TIME CLOCK
GFI	GROUND FAULT INTERRUPTER	TS	TRANSFER SWITCH
GND	GROUND	T&B	TOP AND BOTTOM
HID	HIGH INTENSITY DISCHARGE	TYP	TYPICAL
HOA	HAND-OFF-AUTOMATIC	UG	UNDERGROUND
HP	HORSEPOWER	V	VOLT
HPS	HIGH PRESSURE SODIUM	VA	VOLT-AMPERE
HZ	HERTZ	VFD	VARIABLE FREQUENCY DRIVE
ICB	INSULATED CASE CIRCUIT BREAKER	W	WATT
JB	JUNCTION BOX	W/	WITH
KAIC	THOUSAND AMP INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MIL	XFMR	TRANSFORMER
KV	THOUSAND VOLTS	XP	EXPLOSION PROOF
KVA	THOUSAND VOLT-AMPS	3PH	THREE PHASE
KW	THOUSAND WATTS (KILOWATT)	4W	FOUR WIRE
LC	LIGHTING CONTACTORS	3W	THREE WIRE
LCP	LATERAL CONTROL PIT		
LED	LIGHT EMITTING DIODE		

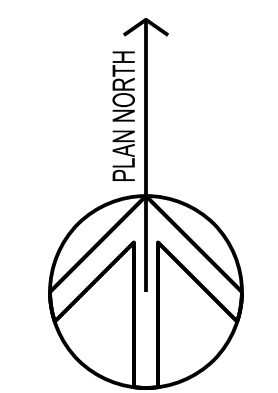
SYMBOL LEGEND

- SURFACE MOUNTED POWER PANEL, SEE PANEL SCHEDULES FOR RATING
- RECESSED MOUNTED POWER PANEL, SEE PANEL SCHEDULES FOR RATING
- Ⓜ ELECTRIC MOTOR DRIVEN EQUIPMENT, HP SHOWN
- H, DS, DW ⊕ JUNCTION BOX, "H" DENOTES RANGE HOOD, "DS" DENOTES DISPOSAL, "DW" DENOTES DISHWASHER
- SM MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD DEVICE MOUNTED AT UNIT
- DISCONNECT SWITCH SIZE AND NUMBER OF POLES AS INDICATED ON DRAWING, PROVIDED BY EC UNLESS NOTED OTHERWISE. PROVIDE FUSES WHERE RECOMMENDED BY MANUFACTURER.
- COMBINATION MOTOR STARTER/ DISCONNECT SWITCH WITH AUXILIARY CONTACTS AND HAND-OFF-AUTO SWITCH AND RED RUN LIGHT. PROVIDED AND INSTALLED BY EC UNLESS NOTED OTHERWISE.
- VFD VARIABLE FREQUENCY DRIVE, PROVIDED BY MC, INSTALLED AND WIRED BY EC
- Ⓜ DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT 18" AFF UNLESS NOTED OTHERWISE.
- Ⓜ QUAD RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT 18" AFF UNLESS NOTED OTHERWISE.
- Ⓜ DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT 18" AFF, BOTTOM RECEPTACLE SWITCHED.
- Ⓜ GROUND FAULT DUPLEX RECEPTACLE, 20A, 125V, TAMPER PROOF WITH MATCHING PLATE, FURNISHED W/ OUTLET, FLUSH MOUNTED 45" AFF EXCEPT AS NOTED.
- Ⓜ REFRIGERATOR DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT RECEPTACLE AT 48 INCHES ABOVE FINISHED FLOOR.
- Ⓜ FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE - 20A, 125V SPEC GRADE GROUNDING TYPE. "CL" DENOTES CEILING MOUNTED
- Ⓜ RANGE OUTLET 50 AMP, 250 VOLT, GROUNDING TYPE FLUSH MOUNTED 18" AFF
- Ⓜ DRYER OUTLET 30 AMP, 250 VOLT, GROUNDING TYPE FLUSH MOUNTED 18" AFF
- RACEWAY & WIRING OR MC CABLE RUN CONCEALED IN WALLS/CEILINGS
- RACEWAY & WIRING RUN EXPOSED
- RACEWAY & WIRING RUN CONCEALED UNDER FLOOR OR BURIED 30" BELOW FINISH GRADE
- HP-XX HOME RUN TO PANEL, WITH PANEL AND CIRCUIT NUMBER
- Ⓜ CABLE TV JUNCTION BOX "CTV", SIZE AS REQUIRED BY CABLE UTILITY
- Ⓜ TV OUTLET LOCATION, CABLE AND JACKS BY EC
- Ⓜ TEMPERATURE CONTROL PANEL, PROVIDED BY MC WIRED BY EC
- Ⓜ PUSHBUTTON FOR ELECTRICALLY OPERATED DOOR, FURN W/ DOOR OPERATOR, WIRED BY EC
- Ⓜ DOOR PUSHBUTTON-DOORBELL
- Ⓜ DOOR ELECTRIC STRIKE
- Ⓜ DOOR CHIME WITH STROBE-ADA COMMUNICATIONS REQUIREMENT
- Ⓜ LIGHTING FIXTURES, CAPITAL LETTERS DENOTE TYPE PER LIGHTING FIXTURE SCHEDULE, LOWER CASE LETTERS INDICATE SWITCH CONTROL. "db" INDICATES INBOARD LAMPS CONTROLLED BY OUTBOARD SWITCHED "o" AND "b". DIAGONAL INDICATED NIGHT LIGHT (UNSWITCHED)
- Ⓜ SELF-CONTAINED EMERGENCY LIGHT W/2 HEADS DUAL-LITE (LED) MODEL LZ251-03L, 25 WATTS FOR 90 MINUTES, COLOR BY ARCHITECT
- Ⓜ EMERGENCY LIGHTING BATTERY PACK DUAL-LITE No LM130-12V-I-0 SELF-DIAGNOSTIC
- Ⓜ INTERIOR REMOTE HEAD DUAL-LITE (LED) MODEL No OPRD 1203L, COLOR BY ARCHITECT
- Ⓜ EXTERIOR REMOTE HEAD DUAL-LITE (LED) MODEL No OCRD 1203L COLOR BY ARCHITECT
- Ⓜ EXIT LIGHT FIXTURE, UNSWITCHED, DUAL-LITE LX-U-R-W-E OR APPROVED EQUAL
- Ⓜ EXIT/ EMERGENCY LIGHT COMBO, DUAL-LITE No EVCU-R-D4-1OR APPROVED EQUAL COLOR BY ARCHITECT
- Ⓜ SECURITY CAMERA LOCATION, COORDINATE AND PROVIDE DUPLEX RECEPTACLE, DATA AND CONDUIT PER MANUFACTURERS RECOMMENDATIONS
- DI PIR Ⓜ CEILING MOUNTED MOTION SENSOR (WATTSTOPPER OR EQUAL) CORRIDORS; WT-2255 SENSOR & B120E-P POWER PACK. OTHER COMMON SPACES: WT-605 SENSOR & B120E-P POWER PACK. SENSORS AND RELAYS TO CONTROL CIRCUITS IN SPACES INDICATED. DEVICES SHALL PROVIDE FULL COVERAGE IN AREAS INSTALLED. DI INDICATES DUAL TECHNOLOGY PIR INDICATED PASSIVE INFRARED TECHNOLOGY
- Ⓜ WALL MOUNTED SWITCH MOTION SENSOR, MOUNT AT 48" AFF UNLESS OTHER WISE NOTED
- Ⓜ SINGLE POLE SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, MOUNT 48" AFF, 3-3-WAY, 4-4-WAY, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD.
- Ⓜ SWITCH WITH PILOT LIGHT, SWITCH SHALL BE PROVIDED W/ ENGRAVED NAMEPLATE IDENTIFYING USE
- Ⓜ REMOTE RANGE HOOD FAN SWITCH, CONNECT TO HOOD FAN THRU HOOD JUNCTION BOX.
- Ⓜ REMOTE RANGE HOOD LIGHT SWITCH, CONNECT TO HOOD LIGHT THRU JUNCTION BOX.
- Ⓜ BURNER SAFETY SWITCH, PROVIDE WITH RED PLATE, MOUNTED 72" AFF.
- Ⓜ SINGLE POLE DIMMER SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, MOUNT 48" AFF, 3-3-WAY, 4-4-WAY, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD.
- Ⓜ PHOTOCELL
- Ⓜ LIGHTING CONTACTOR
- Ⓜ TIMECLOCK
- Ⓜ TELEPHONE/DATA DUAL JACK, MOUNT 18" AFF WITH 3/4" CONDUIT RUN TO 6" ABOVE FINISHED CEILING
- Ⓜ DATA JACK, MOUNT 18" AFF WITH 3/4" CONDUIT RUN TO 6" ABOVE FINISHED CEILING
- Ⓜ TELEPHONE JACK, MOUNT 18" AFF UNLESS NOTED OTHERWISE, RUN 3/4" CONDUIT TO 6" ABOVE FINISHED CEILING.
- Ⓜ TELEPHONE BACK BOARD
- Ⓜ W/IF/ROUTER, OCE CAT 5E CABLE BACK TO TBB OR IT ROOM. MOUNT ABOVE CEILING, "W" DENOTES WALL MOUNTED AT 72" AFF
- Ⓜ INTERCOM PANEL IN UNIT
- Ⓜ INTERCOM PANEL AT RECEPTION
- Ⓜ FIRE ALARM CONTROL PANEL
- Ⓜ FIRE ALARM ANNUNCIATOR PANEL
- Ⓜ FIRE EXTINGUISHER ELECTRONIC MONITOR-SHALL BE ACCOMPLISHED THROUGH USE OF AN ADDRESSABLE INTERFACE DEVICE AND SHALL PROVIDE INPUT TO THE FACP
- Ⓜ FIRE ALARM AUDIO/VISUAL, MOUNT 6'-8" AFF, NUMBER DENOTES CANDELA RATING. "MH" DENOTES MINIHORN, "CL" DENOTES CEILING MOUNTED. NO DESIGNATION EQUALS 15cd
- Ⓜ FIRE ALARM PULL STATION, MOUNT 48" AFF
- Ⓜ FIRE ALARM VISUAL STROBE ONLY, FLUSH MOUNT 6'-8" AFF, NUMBER DENOTES CANDELA RATINGS. "CL" DENOTES CEILING MOUNTED
- Ⓜ SYSTEM CONNECTED SMOKE / CARBON MONOXIDE DETECTOR, PHOTOELECTRIC TYPE
- Ⓜ SYSTEM CONNECTED FIXED TEMPERATURE HEAT DETECTOR
- Ⓜ SMOKE DETECTOR, PHOTOELECTRIC TYPE, SYSTEM CONNECTED.
- Ⓜ SMOKE DETECTOR, PHOTOELECTRIC TYPE, SYSTEM CONNECTED. "ER" DENOTES ELEV RECALL
- Ⓜ SYSTEM CONNECTED SMOKE DETECTOR, PHOTOELECTRIC TYPE, WITH SOUNDER BASE
- Ⓜ CARBON MONOXIDE DETECTOR
- Ⓜ DUCT SMOKE DETECTOR & TEST STATION
- Ⓜ FIRE/SMOKE DAMPER, SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE ALL WIRING CONNECTIONS, AND FIRE ALARM DUCT SMOKE DETECTORS, ADDRESSABLE MODULES AND PROGRAMMING.
- Ⓜ SPRINKLER SYSTEM FLOW SWITCH } SUPPLIED BY SPRINKLER CONTRACTOR
- Ⓜ SPRINKLER SYSTEM TAMPER SWITCH } WIRED BY EC, VERIFY LOCATIONS WITH SPRINKLER CONTRACTOR.
- Ⓜ MAGNETIC DOOR HOLD
- Ⓜ NURSE CALL BASE STATION
- Ⓜ NURSE CALL PULL STATION
- Ⓜ NURSE CALL ANNUNCIATOR LIGHT

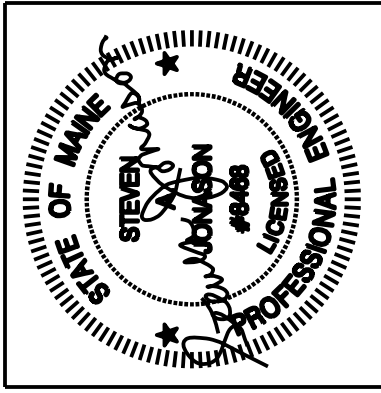
LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER AND MODEL NUMBER	LAMP INFO	REMARKS
A	FINELITE No HPR-LED-F-2x2-RCO-HO-3500K-120V-SC (DIMMING)	57.2W LED, 3500K	GENERAL USE GRID MOUNTED, VERIFY GRID SIZE
B	COLUMBIA No LCS4-30HL-EDU-GLR	55W LED, 3000K	USED IN UTILITY AND STORAGE ROOMS
C	FOCAL POINT No FLC6D-RF-2500L-277-LD1-T-BH-LC6-RD-2500L-30K-DN-WD-WP	29W LED, 3000K	EXAM ROOM DOWN LIGHT

- NOTE:  
1. CONTRACTOR SHALL APPLY FOR ALL STATE EFFICIENCY INSENTIVES ON OWNERS BEHALF.



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**Title**  
ELECTRICAL PLAN

**Scale:** 1/4" = 1'-0"

**Date:** 9/29/15

**Revisions**

**Sheet**  
**E2**