

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.
- MOUNT PANELS IN RESIDENTIAL SPACES SO NO CIRCUIT BREAKER HANDLE IS HIGHER THAN 44" AFF.
- 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 MFGR 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.
- OPERATE ALL FLUORESCENT AND METAL HALIDE LAMPS FROM INITIAL INSTALLATION FOR 100 HOURS AT FULL OUTPUT (NO DIMMING) TO SEASON LAMPS AND STABILIZE LAMP COLOR.
- 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.
- PROVIDE LABEL ON SERVICE EQUIPMENT INDICATING AVAILABLE SHORT CIRCUIT CURRENT OBTAIN VALUES FROM ENGINEER.
- PROVIDE ARC FAULT LABELS PER NFPA 70-ARTICLE 110.24
- IF BUILDING REQUIRES TWO SERVICE ENTRANCES, PROVIDE SIGNS PER NFPA 70-230.
- 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

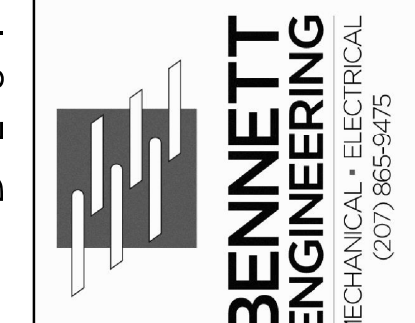
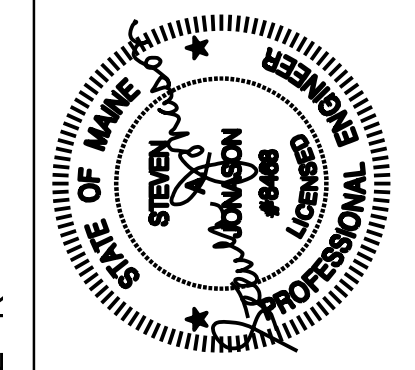
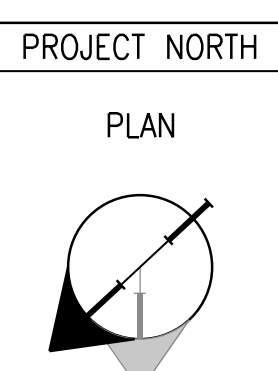
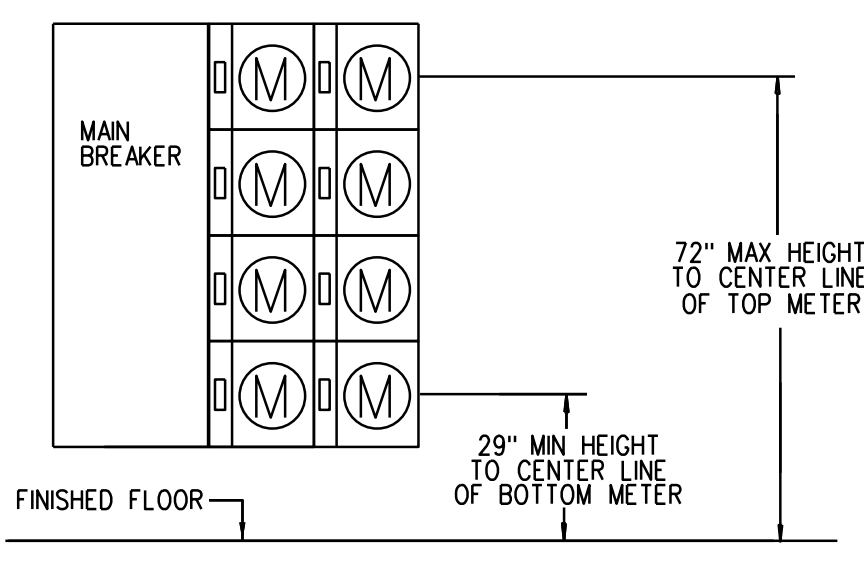
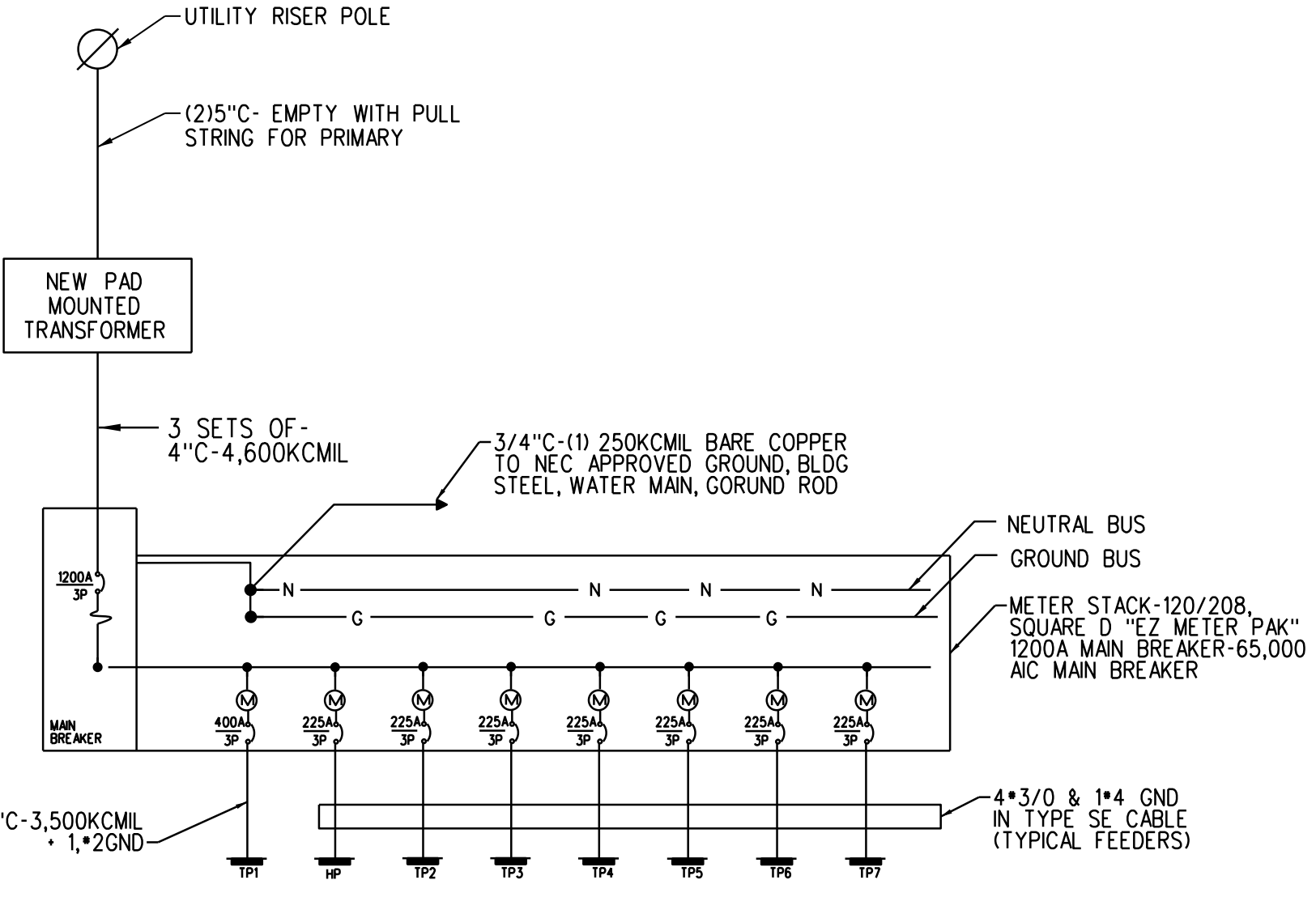
A	AMP	LTG	LIGHTING
AC	ALTERNATING CURRENT, ABOVE COUNTER	LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT CIRCUIT BREAKER TRIP FUNCTIONS AS INDICATED
ADA	AMERICANS WITH DISABILITIES ACT	MCC	MOTOR CONTROL CENTER
AF	AMP FRAME	MCCB	MOLDED CASE CIRCUIT BREAKER
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MCB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

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
- JUNCTION BOX, "H" DENOTES RANGE HOOD, "DS" DENOTES DISPOSAL UNIT, "DW" DENOTES DISHWASHER
- 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.
- 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 UNLESS OTHERWISE NOTED.
- REFRIGERATOR DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT RECEPTACLE AT 48" AFF.
- DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF WITH (2) USB CHARGING PORTS, COLOR BY ARCH. MOUNT 18" AFF UNLESS NOTED OTHERWISE.
- 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 ON MC CABLE RUN CONCEALED IN WALLS/CEILING
- RACEWAY & WIRING RUN EXPOSED
- RACEWAY & WIRING RUN CONCEALED UNDER FLOOR OR BURIED 30" BELOW FINISH GRADE HOME RUN TO PANEL, WITH PROVIDE EQUIPMENT GROUNDS IN ACCORDANCE WITH NFPA 70, ARTICLE 250.
- 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. "ob" INDICATES INBOARD LAMPS CONTROLLED BY OUTBOARD SWITCHED "oa" AND "ob". DIAGONAL INDICATED NIGHT LIGHT (UNSWITCHED)
- SELF CONTAINED EMERGENCY LIGHT W/2 HEADS DUAL-LITE (LED) MODEL LZ25NI-03L, 25 WATTS FOR 90 MINUTES, COLOR BY ARCHITECT
- EMERGENCY LIGHTING BATTERY PACK DUAL-LITE No LM130-12V1-0 SELF-DIAGNOSTIC
- INTERIOR REMOTE HEAD DUAL-LITE (LED) MODEL No CPRD 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-D4-1 OR APPROVED EQUAL COLOR BY ARCHITECT
- SECURITY CAMERA LOCATION, COORDINATE AND PROVIDE DUPLEX RECEPTACLE, DATA AND CONDUIT PER MANUFACTURER'S RECOMMENDATIONS
- 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.
- DT 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 PLOT 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, RUN TWO CABLES BACK TO TBB. SEE SPECIFICATIONS FOR FURTHER INFORMATION
- DATA JACK, RUN TWO CABLES BACK TO TBB. SEE SPECIFICATIONS FOR FURTHER INFO
- FLUSH FLOOR MOUNTED TELEPHONE/DATA DUAL JACK, RUN TWO CABLES BACK TO TBB. "CL" DENOTES CEILING MOUNTED
- TELEPHONE JACK, MOUNT 18" AFF UNLESS NOTED OTHERWISE, RUN ONE CABLE BACK TO TBB. TELEPHONE BACK BOARD
- WIFIROUTER, RUN 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
- CARD READER LOCATION: PROVIDE BOX AND 3/4" CONDUIT TO NEAREST LOCATION ABOVE SUSPENDED CEILING. PROVIDE 120V DOOR STRIKE POWER FROM NEAREST RECEPTACLE CIRCUIT.
- FIRE ALARM CONTROL PANEL WITH DEDICATED TELEPHONE JACK
- 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 ELEVATOR 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 } SPRINKLER CONTRACTOR.
- MAGNETIC DOOR HOLD
- NURSE CALL BASE STATION
- NURSE CALL PULL STATION
- NURSE CALL ANNUNCIATOR LIGHT
- WP DENOTES WEATHERPROOF CONSTRUCTION
- RP DENOTES EXISTING ELECTRICAL EQUIPMENT TO BE REPLACED
- RM OR ETR DENOTES EXISTING ELECTRICAL EQUIPMENT TO REMAIN
- RL DENOTES EXISTING ELECTRICAL EQUIPMENT TO BE RELOCATED
- RV DENOTES EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED

EXTERIOR AND INTERIOR LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER AND MODEL NUMBER	LAMP INFO	REMARKS
A3	KIM LIGHTING-ARCHETYPE LARGE PICOPRISM LED-AR3-P35-80L-4K-NFO	95 W LED, 9201 LUMENS	PARKING LOT POLE LIGHTS-20FT POLE MOUNT
A4N	KIM LIGHTING-ARCHETYPE LARGE PICOPRISM LED-AR4-P35-80L-4K-NFO	95W LED, 8025 LUMENS	PARKING LOT POLE LIGHTS-20FT POLE MOUNT
A	CONTECH LIGHTING RA2LRM-230K12S-NCF1-CST2322LSQ-PL-P	16W LED	2" RECESSED LED WALL WASH LIGHTING
B	CONTECH LIGHTING RA2LRM-130K12S-NCF1-CST2322LSQ-PL-P	11W LED	2" RECESSED LED DOWNLIGHT
C	COLUMBIA INDUSTRIAL STRIP LED-LCR4-30ML-EU	48W LED, 5500 LUMENS	4' STRIP LIGHTING FOR MECH ROOMS
D	SPAULDING LIGHTING-LAREDO SERIES-LCC: MODEL LCC-12LU-5K-1	LED	WALL PACK LIGHTING-MOUNTED 16-20' FT ABOVE FINISH GRADE. COORDINATE FINAL LOCATION WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION



OWNER
EARL W. NOYES & SONS
C/O PAUL URENECK

4600 MAYFLOWER HILL
WATERVILLE, ME 04901
T: 207-859-4617

PROJECT
191 MARGINAL WAY
RETAIL CENTER

191 MARGINAL WAY
PORTLAND, MAINE 04101

DRAWING
**ELECTRICAL LEGEND,
NOTES AND ONE-LINE
DIAGRAM**

CWS PROJECT NUMBER: 15.063

REVISIONS

NO.	DATE	REVISION