GENERAL NOTES

1. NOT ALL SYMBOLS INDICATED IN THE LEGEND APPEAR ON THE DRAWINGS. COORDINATE WORK ACCORDINGLY. COMPLY WITH SPECIFICATIONS AND NOTES BELOW AS APPLICABLE.

2. ALL RECEPTACLES SHALL BE INSTALLED 18" AFF TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.

3. 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.

4. 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.

5. TEST ALL EMERGENCY LIGHTING UNITS FOR PROPER OPERATION OF LAMPS AND BATTERIES.

6. SEE MECHANICAL PLAN FOR HVAC UNITS, PUMPS AND FANS CONTROLLED BY THERMOSTATS (PROVIDED BY ATC CONTRACTOR).

7. 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.

8. ALL WORK SHALL COMPLY WITH NFPA70, NFPA72, NFPA101 & ALL FEDERAL, STATE & LOCAL REGULATIONS.

9. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN FIRE RATING FOR THE SEPARATION.

10. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.

11. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS. SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.

12. COORDINATE INSTALLATION OF VOICE/DATA OUTLETS WITH OWNER, MIS OR COMMUNICATIONS CONTRACTOR.

13. LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED BY MANUFACTURER. LOCATIONS ON DRAWINGS ARE APPROXIMATE.

14. PROVIDE RISER OR PLENUM RATED CABLES ABOVE SUSPENDED CEILINGS.

15. PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND RACEWAYS ENTERING ENCLOSURES ATTACHED TO FIXED STRUCTURES.

16. OUTDOOR RECEPTACLE COVERS SHALL COMPLY WITH NFPA 70 - ARTICLE 406.9.

17. ALL CONDUCTOR INSULATION FOR BUILDING WIRE SHALL BE THWN/THHN UNLESS NOTED OTHERWISE.

18. PROVIDE LABEL ON SERVICE EQUIPMENT INDICATING AVAILABLE SHORT CIRCUIT CURRENT OBTAIN VALUES FROM ENGINEER.

19. 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

20. 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

21. MINIMUM WIRE SIZE ON ALL BRANCH CIRCUITS SHALL BE •12.

22. PROVIDE SIGN AT SERVICE ENTRANCE EQUIPMENT INDICATING TYPE AND LOCATION OF EMERGENCY GENERATOR PER NEC 700.7.

TYPICAL BATHROOM EXHAUST FAN DETAIL

SCALE: NONE

NOTES:

1. PRIOR TO WIRING CONTRACTOR SHALL REFER TO MANUFACTURER SUPPLIED INSTALLATION INSTRUCTIONS.

2. CONTRACTOR SHALL WIRE HUMIDISTAT ALONG WITH MANUFACTURER SUPPLIED MOTION SENSOR TO EXHAUST FAN ONLY. FAN SHALL BE WIRED FOR CONTINUOUS LOW SPEED OPERATION WITH RAMP UP TO HIGH SPEED WHEN TRIGGERED BY MOTION SENSOR.

3. CONTRACTOR SHALL CONNECT FAN LIGHT TO BATHROOM SWITCH. SWITCH SHALL CONTROL FAN LIGHT AND VANITY LIGHT ONLY.

ABBREVIATIONS

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

SYMBOL LEGEND

- SURFACE MOUNTED POWER PANEL, SEE PANEL SCHEDULES FOR RATING
- RECESSED MOUNTED POWER PANEL, SEE PANEL SCHEDULES FOR RATING
- M 4 — 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 AUXILARY 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.
- GFI — GROUND FAULT DUPLEX RECEPTACLE 20A, 125V, TAMPER PROOF WITH MATCHING PLATE FURNISHED W/ OUTLET. FLUSH MOUNTED 45" AFF EXCEPT AS NOTED.
- FR — REFRIGERATOR DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE. MOUNT RECEPTACLE AT 48 INCHES ABOVE FINISHED FLOOR.
- CL — FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE- 20A, 125V SPEC GRADE GROUNDING TYPE. "CL" DENOTES CEILING MONTED
- (•) D P — POWER AND DATA WHIP LOCATION. NUMBER (•) DESIGNATES CAT6 CABLE RUNS BACK TO I.T. CLOSET.
- 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
- x/xx HP-XX — HOME RUN TO PANEL, WITH PANEL AND CIRCUIT NUMBER

  BRANCH CIRCUIT WIRING SHALL CONSIST OF (1)1/2"C-2•12AWG•1•12GND UNLESS OTHER WISE NOTED, (•)ASTERISK DENOTED •10AWG FOR ALL CIRCUITS CONTAINED IN HOME RUN. (••)DOUBLE ASTERISK DENOTES (1)3/4"C-2•8AWG•1•10GND.

  PROVIDE EQUIPMENT GROUNDS IN ACCORDANCE WITH NFPA 70, ARTICLE 250.
- CTV — CABLE TV JUNCTION BOX "CTV", SIZE AS REQUIRED BY CABLE UTILITY
- TV — TV OUTLET LOCATION, CABLE AND JACKS BY EC
- TCP — 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
- CHS — DOOR CHIME WITH STROBE-ADA COMMUNICATIONS REQUIREMENT
- A, D, F — LIGHTING FIXTURES, CAPITAL LETTERS DENOTE TYPE PER LIGHTING FIXTURE SCHEDULE. LOWER CASE LETTERS INDICATE SWITCH CONTROL. "ab" INDICATES INBOARD LAMPS CONTROLLED BY OUTBOARD SWITCHED "a" AND "b". 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
- BATT — 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-D4-1OR APPROVED EQUAL COLOR BY ARCHITECT
- SECURITY CAMERA LOCATION, COORDINATE AND PROVIDE DUPLEX RECEPTACLE, DATA AND CONDUIT PER MANUFACTURERS RECOMMENDATIONS
- DT PIR MS — 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 INDICATES PASSIVE INFRARED TECHNOLOGY
- S_{MS} — WALL MOUNTED SWITCH MOTION SENSOR. MOUNT AT 48" AFF UNLESS OTHER WISE NOTED
- S_a S_b — 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.
- S_{PL} — SWITCH WITH PILOT LIGHT, SWITCH SHALL BE PROVIDED W/ ENGRAVED NAMEPLATE IDENTIFYING USE
- S_{RF} — REMOTE RANGE HOOD FAN SWITCH, CONNECT TO HOOD FAN THRU HOOD JUNCTION BOX.
- S_{RL} — REMOTE RANGE HOOD LIGHT SWITCH, CONNECT TO HOOD LIGHT THRU JUNCTION BOX.
- S_B — BURNER SAFETY SWITCH, PROVIDE WITH RED PLATE, MOUNTED 72" AFF
- D_a D_b — 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.
- PC — PHOTOCELL
- LC — LIGHTING CONTACTOR
- TC — TIMECLOCK
- TELEPHONE/DATA DUAL JACK, MOUNT 18"AFF, RUN TWO CAT 5E CABLES BACK TO TBB
- DATA JACK, RUN TWO CAT 5E CABLES BACK TO TBB.
- CL — FLUSH FLOOR MOUNTED TELEPHONE/DATA DUAL JACK, RUN TWO CAT 5E CABLES BACK TO TBB. "CL" DENOTES CEILING MOUNTED
- TELEPHONE JACK, MOUNT 18"AFF UNLESS NOTED OTHERWISE, RUN ONE CAT 5E CABLE BACK TO TBB.
- TELEPHONE BACK BOARD
- W — WiFi ROUTER, OCE CAT 5E CABLE BACK TO TBB OR IT ROOM. MOUNT ABOVE CEILING, "W" DENOTES WALL MOUNTED AT 72" AFF
- IP — INTERCOM PANEL IN UNIT
- IC — INTERCOM PANEL AT RECEPTION
- FACP — FIRE ALARM CONTROL PANEL
- ANN — FIRE ALARM ANNUNCIATOR PANEL
- FEM — FIRE EXTINGUISHER ELECTRONIC MONITOR-SHALL BE ACCOMPLISHED THROUGH USE OF AN ADDRESSABLE INTERFACE DEVICE AND SHALL PROVIDE INPUT TO THE FACP
- 15/55 CPM — FIRE ALARM AUDIO/VISUAL, MOUNT 6'-8"AFF, NUMBER DENOTES CANDELA RATING. "MH" DENOTES MINIHORN, "CL" DENOTED CEILING MOUNTED. NO DESIGNATION EQUALS 15cd
- F — FIRE ALARM PULL STATION, MOUNT 48"AFF
- 15 CPL SDH — FIRE ALARM VISUAL STROBE ONLY, FLUSH MOUNT 6'-8" AFF, NUMBER DENOTES CANDELA RATINGS. "CL" DENOTES CEILING MOUNTED
- SD — SYSTEM CONNECTED SMOKE / CARBON MONOXIDE DETECTOR, PHOTOELECTRIC TYPE
- 135° HD — SYSTEM CONNECTED FIXED TEMPERATURE HEAT DETECTOR
- SD — SMOKE DETECTOR, PHOTOELECTRIC TYPE, SYSTEM CONNECTED.
- ER SD — SMOKE DETECTOR, PHOTOELECTRIC TYPE, SYSTEM CONNECTED. "ER" DENOTES ELEV RECALL
- SB SD — SYSTEM CONNECTED SMOKE DETECTOR, PHOTOELECTRIC TYPE, WITH SOUNDER BASE
- CO — CARBON MONOXIDE DETECTOR
- SD — DUCT SMOKE DETECTOR & TEST STATION
- FD/SD — 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.
- FS — SPRINKLER SYSTEM FLOW SWITCH
- TS — SPRINKLER SYSTEM TAMPER SWITCH

  SUPPLIED BY SPRINKLER CONTRACTOR WIRED BY EC. VERIFY LOCATIONS WITH SPRINKLER CONTRACTOR.
- M — MAGNETIC DOOR HOLD

STATE OF MAINE — JASON M. LUNDER — LICENSED PROFESSIONAL ENGINEER

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TILSON TECHNOLOGIES:
ELECTRICAL NOTES, LEGEND & DETAILS

E3.01