FIRE ALARM LEGEND

SYMBOL	DESCRIPTION
XX	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE, MOUNT AT 80" AFF AND NOT MORE THAN 96". SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING.
XX	FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, 80" AFF AND NOT MORE THAN 96". SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING.
XX	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE WITH DEVICE GUARD, 80" AFF AND NOT MORE THAN 96". SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROBE SETTING AND REDUCED EFFECTIVE OUTPUT WHEN DEVICE GUARD IS PRESENT.
XX	FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, 80" AFF AND NOT MORE THAN 96". SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROVE SETTING AND REDUCED EFFECTIVE OUTPUT WHEN DEVICE GUARD IS PRESENT.
XX	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE, CEILING MOUNTED. SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING.
XX	FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, CEILING MOUNTED. SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING.
XX	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE WITH DEVICE GUARD, CEILING MOUNTED. SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROBE SETTING AND REDUCED EFFECTIVE OUTPUT WHEN DEVICE GUARD IS PRESENT.
XX	FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, CEILING MOUNTED. SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROVE SETTING AND REDUCED EFFECTIVE OUTPUT WHEN DEVICE GUARD IS PRESENT.
F	FIRE ALARM MANUAL PULL STATION, MOUNT AT +3'-10"AFF.
FK	FIRE ALARM KEY OPERATED MANUAL PULL STATION, MOUNT AT +3'-10"AFF.
SD	FIRE ALARM DUCT SMOKE DETECTOR, FURNISH AND CONNECT UNDER DIVISION 28. INSTALL UNDER DIVISION 23. VERIFY LOCATION WITH DIVISION 23 PRIOR TO ROUGH-IN. PROVIDE ACCESSIBLE KEY OPERATED REMOTE TEST SWITCH FOR EACH DETECTOR.
S	SMOKE DETECTOR, CEILING MOUNT. SUBSCRIPT 'G' WHEN PRESENT INDICATES PROVIDE DEVICE GUARD.
H	HEAT DETECTOR, CEILING MOUNT. SUBSCRIPT 'G' WHEN PRESENT INDICATES PROVIDE DEVICE GUARD.
TS	FIRE ALARM TAMPER SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28.
FS	FIRE ALARM FLOW SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28.
PIV	POST INDICATOR VALVE SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28.
PS	FIRE ALARM PRESSURE SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28.
RI	FIRE ALARM REMOTE INDICATOR, CEILING MOUNT.
M	FIRE ALARM MONITOR MODULE. NOT ALL MONITOR MODULES ARE INDICATED ON DRAWINGS. PROVIDE QUANTITY AND IN LOCATIONS REQUIRED TO ACCOMPLISH SPECIFIED MONITORING FUNCTIONS.
C	FIRE ALARM CONTROL MODULE. NOT ALL CONTROL MODULES ARE INDICATED ON DRAWINGS. PROVIDE QUANTITY AND IN LOCATIONS REQUIRED TO ACCOMPLISH SPECIFIED CONTROL FUNCTIONS.
B	FIRE ALARM SPRINKLER BELL, MOUNT AT +10'-0"AFF.
M	FIRE ALARM MAGNETIC DOOR HOLDER, WALL MOUNT DEVICE AT 6" BELOW TOP OF DOOR. PROVIDE HINGED MAGNETIC CATCH PLATE ON DOOR TO MATE WITH DEVICE. COORDINATE LOCATION AND LENGTH WITH DIVISION 08. PROVIDE CONCEALED 120-VOLT POWER CONNECTION AND FIRE ALARM CONTROL MODULE IF REQUIRED FOR PROPER OPERATION.
M	FIRE ALARM DOOR HOLDER/CLOSER HARDWARE UNDER DIVISION 08, MONITOR AND CONTROL INTERFACE WITH FIRE ALARM UNDER DIVISION 28.
	FIRE ALARM/POWER CONNECTION TO DIVISION 23 SMOKE OR FIRE/SMOKE DAMPER. COORDINATE WITH DIVISION 23. REFER TO TYPICAL FIRE/SMOKE DAMPER DIAGRAM.

GRAPHICS SYMBOLS LEGEND

A123 — **SPACE IDENTIFICATION TAG**
- SPACE NUMBER
- BUILDING AREA (WHEN USED)

SECTION WHERE CUT
- 1 / E4.1 — SECTION NUMBER / DRAWING WHERE SECTION IS INDICATED

ENLARGED PLAN WHERE CUT
- 1 / E3.1 — ENLARGED PLAN NUMBER / DRAWING WHERE ENLARGED PLAN IS INDICATED

DETAIL TAG
- 1 / E5.1 — DETAIL NUMBER / DRAWING WHERE DETAIL IS INDICATED

1 DETAIL TITLE — 1/4"=1'-0"
- E2.2 / E5.1 — DETAIL NUMBER / DRAWING WHERE DETAIL IS INDICATED
- E2.3 — DRAWING WHERE DETAIL IS CUT
- E2.4 — ADDITIONAL DRAWING REFERENCES

1 SECTION TITLE — 1/4"=1'-0"
- E2.2 / E4.1 — SECTION NUMBER / DRAWING WHERE SECTION IS INDICATED
- E2.3 — DRAWING WHERE SECTION IS CUT
- E2.4 — ADDITIONAL DRAWING REFERENCES

AVERAGE MAINTAINED ILLUMINATION LEVELS

TASK	FOOTCANDLES
CLASSROOMS	55
MEDIA CENTER	55
OFFICES	50
BUSINESS	55
STUDIO	60
SCIENCE LAB	70
ELECTRICAL ROOMS	30
MECHANICAL ROOMS	30
COMPUTER LABS	30
GYM	50
LOCKER ROOMS	20
LOBBIES/CORRIDORS	15
TOILETS	20
KITCHEN	70
DINING	40
AUDITORIUM	10-30
STOREROOMS	20
WHITEBOARDS	30

POWER LEGEND

SYMBOL	DESCRIPTION
	APPLIANCE RECEPTACLE, MOUNT AT +1'-6" AFF. PROVIDE NEMA CONFIGURATION TO MATCH PLUG FOR EQUIPMENT SERVED.
	APPLIANCE RECEPTACLE, MOUNT AT +1'-6"AFF. PROVIDE NEMA CONFIGURATION TO MATCH PLUG FOR EQUIPMENT SERVED. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF.
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF.
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +7'-6"AFF.
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +7'-6"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DUPLEX RECEPTACLE, NEMA 5-20R, RECESS FLOOR MOUNT.
	GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. PROVIDE NEMA 3R "WHILE IN USE" ENCLOSURE.
	GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF.
	GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF.
	GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF.
	DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF.
	DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE.
	DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, RECESS FLOOR MOUNT.
	SINGLE RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF.
	SINGLE RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF.
	SPD DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF.
#	POWER/COMMUNICATIONS RECESSED FLOOR BOX. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. REFER TO DETAIL ON E4 SERIES DRAWINGS.
#	POWER/COMMUNICATIONS RECESSED FLOOR BOX. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICES. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. REFER TO DETAIL ON E4 SERIES DRAWINGS.
#	POWER/COMMUNICATIONS POKE THRU FLOOR BOX. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. REFER TO DETAIL ON E4 SERIES DRAWINGS.
#	POWER/COMMUNICATIONS POKE THRU FLOOR BOX. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICES. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. REFER TO DETAIL ON E4 SERIES DRAWINGS.
SF	SYSTEM FURNITURE FLEX POWER CABLE CONNECTION VIA FLOOR BOX. COORDINATE W/ SYSTEM FURNITURE PROVIDER PRIOR TO ROUGH-IN.
SF	SYSTEM FURNITURE FLEX POWER CABLE CONNECTION VIA FLUSH WALL BOX MOUNTED 4" AFF. COORDINATE W/FURNITURE PROVIDER PRIOR TO ROUGH-IN.
	POWER/COMMUNICATIONS POWER POLE, FURNISHED WITH (NIC) SYSTEM FURNITURE. PROVIDE J-BOX MTD TO STRUCTURE ABOVE CLG, AND FLEXIBLE CONDUIT CONNECTION TO J-BOX MTD TO TOP OF POLE AND CONNECTED TO PIGTAIL(S) FURNISHED WITH POLE. POLE LOCATION IS APPROXIMATE, COORDINATE WITH SYSTEM FURNITURE PROVIDER.
T	LINE VOLTAGE THERMOSTAT. DIVISION 23 FURNISH, DIVISION 26 INSTALL. REFER TO DIVISION 23 DRAWINGS FOR LOCATIONS AND QUANTITY.
	PUSHBUTTON CONTROLLER.
	PUSHBUTTON.
	CORD REEL OUTLET, CEILING MOUNT.
	[NON-] METALLIC SURFACE RACEWAY, DEVICES AS INDICATED, MOUNT AT +1'-6"AFF, UNO.
J	JUNCTION BOX, CONCEALED ABOVE CEILING, UNO.
UJ	JUNCTION BOX, UNDER FLOOR MOUNT.
CB	ENCLOSED CIRCUIT BREAKER, CHARACTERISTICS AS INDICATED.
	MUSHROOM SWITCH, HEAVY DUTY WITH LEGEND PLATE. MOUNT W/HANDLE AT +3'-10" AFF, UNO.
	MANUAL MOTOR STARTER, OVERLOAD PROTECTION AS REQUIRED PER NAME PLATE RATINGS, WITH 'ON' INDICATOR PILOT LIGHT. FLUSH MOUNT W/HANDLE AT +3'-10"AFF, UNO.
	DISCONNECT SWITCH, FUSIBLE OR NON-FUSIBLE AS INDICATED. MOUNT W/HANDLE AT +4'-6"AFF, UNO.
	MAGNETIC MOTOR STARTER, WITH OVERLOAD RELAYS AS REQUIRED TO SERVE MANUFACTURER REQUIREMENTS OF EQUIPMENT SERVED. PROVIDE WITH HAND-OFF-AUTOMATIC SELECTOR SWITCH AND INDICATOR LIGHTS.. MOUNT W/HANDLE AT +4'-6"AFF, UNO.
	COMBINATION MAGNETIC STARTER AND DISCONNECT SWITCH. WITH OVERLOAD ELEMENTS AND FUSING AS REQUIRED TO SERVE MANUFACTURER REQUIREMENTS OF EQUIPMENT SERVED. PROVIDE WITH HAND-OFF-AUTOMATIC SELECTOR SWITCH AND INDICATOR LIGHTS.. MOUNT W/HANDLE AT + 4'-6"AFF, UNO.
E	EQUIPMENT POWER CONNECTION.
	MOTOR CONNECTION.
M	CONNECTION TO DIV 23 MOTORIZED DAMPER, VERIFY LOCATION.
EL	POWER FOR ELECTRIC DOOR LOCK CONNECTION.
ES	POWER FOR ELECTRIC DOOR STRIKE CONNECTION.
G	EMERGENCY GENERATOR.
	BRANCH CIRCUIT RUN CONCEALED, UNO. DASHED INDICATES CIRCUITRY REQUIRED TO BE RUN BELOW SLAB.
	STRAIGHT LINEWORK FOR CIRCUITRY INDICATES ON EMERGENCY POWER CIRCUIT. INDICATED FOR CLARITY ONLY, ACTUAL HOMERUN DESIGNATION OVERRIDES THIS SYMBOLOGY.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD AND CIRCUIT INDICATED.
	PANELBOARD.
T	TRANSFORMER, PROVIDE CONCRETE HOUSEKEEPING PAD UNLESS NOTED OTHERWISE.
R	RELAY, N/O OR N/C AS INDICATED.
	RELAY, NORMALLY OPEN.
	RELAY, NORMALLY CLOSED.
XXX	FEEDER TAG. REFER TO FEEDER SCHEDULE ON DWG E5.1.

COMMUNICATIONS LEGEND

NOTE: REFER TO 'TYPICAL COMMUNICATION OUTLET DETAIL' FOR BOX & CONDUIT REQUIREMENTS. REFER TO TELECOMMUNICATION DEVICE DETAILS FOR CABLING AND TERMINAL JACK REQUIREMENTS.

SYMBOL	DESCRIPTION
X	TELECOMMUNICATIONS OUTLET, SUBSCRIPT NUMBER INDICATES OUTLET TYPE. MOUNT AT +3'-10"AFF.
X	TELECOMMUNICATIONS OUTLET, SUBSCRIPT NUMBER INDICATES OUTLET TYPE. MOUNT AT +1'-6"AFF.
	[MISC COMMUNICATIONS OUTLET] , MOUNT AT +1'-6"AFF.
	RECESSED FLOOR MOUNT DEVICE COMPLETE WITH FITTINGS FOR FLOOR COVERING.
	INTERCOM STATION WITH PUSHBUTTON, MOUNT AT +4'-6"AFF.
	[MISC COMMUNICATIONS OUTLET] , MOUNT AT +4'-6"AFF.
E	PUSHBUTTON SWITCH, MOUNT AT +4'-6"AFF. SUBSCRIPT "E" INDICATES EMERGENCY FUNCTIONS.
	CATV OUTLET, MOUNT AT +[1'-6"] [7'-6"]AFF.
	WALL CLOCK, MOUNT AT +7'-6"AFF. SUBSCRIPT "D" INDICATES DOUBLE FACE CLOCK.
	WALL CLOCK, CEILING MOUNT. SUBSCRIPT "D" INDICATES DOUBLE FACE CLOCK. ARROWS INDICATE FACE DIRECTION.
W / M #	MICROPHONE OUTLET, WALL MOUNT AT +1'-6"AFF, FLUSH FLOOR MOUNT. SUBSCRIPT NUMBER INDICATES NUMBER OF JACKS TO PROVIDE IN OUTLET.
S	SOUND SYSTEM SPEAKER, RECESS WALL MOUNT AT +7'-6"AFF. 'WG' WHERE PRESENT INDICATES PROVIDE PROTECTIVE WIRE GUARD.
S	SOUND SYSTEM SPEAKER, RECESS CEILING MOUNT. 'WG' WHERE PRESENT INDICATES PROVIDE PROTECTIVE WIRE GUARD.
#	POWER/COMMUNICATIONS RECESSED FLOOR BOX. SUBSCRIPT LETTER INDICATES OUTLET TYPE. REFER TO "TYPICAL COMMUNICATION OUTLET DETAIL" FOR BOX AND CONDUIT REQUIREMENTS.
#	POWER/COMMUNICATIONS RECESSED FLOOR BOX ON EMERGENCY POWER. SUBSCRIPT LETTER INDICATES OUTLET TYPE. REFER TO "TYPICAL COMMUNICATION OUTLET DETAIL" FOR BOX AND CONDUIT REQUIREMENTS.
#	POWER/COMMUNICATIONS POKE-THRU FLOOR BOX. SUBSCRIPT LETTER INDICATES OUTLET TYPE. (2) 3/4" CONDUITS, (1) EACH AT OPPOSITE SIDES. TO STUB-UP AT NEAREST COMMUNICATION CROSS-CONNECT, UNO. REFER TO "TYPICAL COMMUNICATION OUTLET DETAIL."
#	POWER/COMMUNICATIONS POKE-THRU FLOOR BOX ON EMERGENCY POWER. SUBSCRIPT LETTER INDICATES OUTLET TYPE. (2) 3/4" CONDUITS, (1) EACH AT OPPOSITE SIDES, TO STUB-UP AT NEAREST COMMUNICATION CROSS-CONNECT, UNO. REFER TO TYPICAL COMMUNICATION OUTLET DETAIL."
SF	SYSTEM FURNITURE COMMUNICATIONS CONNECTIONS VIA FLOOR BOX. PROVIDE 1.25" CONDUIT BELOW SLAB TO STUB-UP AT NEAREST COMMUNICATION BACK BOARD. COORDINATE WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN.
SF	SYSTEM FURNITURE COMMUNICATIONS CONNECTION VIA FLUSH WALL BOX MOUNTED +4"AFF. PROVIDE 1.25" CONDUIT WITH BUSHING FROM BOX TO ABOVE CEILING. COORDINATE WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN.
	SYSTEM FURNITURE COMMUNICATIONS CONNECTION VIA POWER POLE FURNISHED WITH SYSTEM FURNITURE. COORDINATE WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN.
WA	WIRELESS ACCESS POINT
	TELECOMMUNICATIONS EQUIPMENT RACK.
	2" EMT CONDUIT SLEEVE WITH NYLON BUSHING EACH END UNO, THRU WALL AT +6" ABOVE FINISHED CEILING.
TG / B / TMGB	TELECOMMUNICATIONS GROUND BUS BAR, MOUNT AT +1'-6"AFF.
TMGB	TELECOMMUNICATIONS MAIN GROUND BUS BAR, MOUNT AT +1'-6"AFF.
	CABLE TRAY, MOUNT AT +6" ABOVE FINISHED CEILING.

LIGHTING LEGEND

SYMBOL	DESCRIPTION
$	LIGHT SWITCH, RATED 120/277 VOLTS, 20-AMPS, MOUNT AT +3'-10"AFF. SUBSCRIPT/SUPERSCRIPT LETTERS, NUMBERS, AND SYMBOLS INDICATES SWITCH TYPE AS FOLLOWS: 3 INDICATES 3-WAY LIGHT SWITCH 4 INDICATES 4-WAY LIGHT SWITCH D INDICATES DIMMER SWITCH P INDICATES PILOT LIGHT, ON WHEN SWITCH IS ON K INDICATES KEY OPERATED LIGHT SWITCH OS INDICATES SWITCH WITH INTEGRAL OCCUPANCY SENSOR OD INDICATES DIMMER SWITCH WITH INTEGRAL OCCUPANCY SENSOR OS 2 INDICATES DUAL RELAY INTEGRAL OCCUPANCY SENSOR, WIRED FOR MULTI-LEVEL SWITCHING LOWER CASE LETTER INDICATES LIGHT FIXTURE CONTROL DESIGNATION
	INDICATES SWITCHES WIRED FOR INBOARD/OUTBOARD SWITCHING.
	OMNI-DIRECTIONAL LIGHTING CONTROL OCCUPANCY DETECTOR, CEILING MOUNT.
	DIRECTIONAL LIGHTING CONTROL OCCUPANCY DETECTOR, WALL MOUNT AT 6" BELOW FINISHED CEILING.
PC	PHOTOELECTRIC CELL FOR LIGHTING CONTROL. WALL MOUNT AT +10-0"AFF. AIM NORTH.
	LIGHT FIXTURE, CEILING MOUNT.
	LIGHT FIXTURE ON EMERGENCY POWER, CEILING MOUNT.
	LIGHTING FIXTURE.
	LIGHTING FIXTURE ON EMERGENCY POWER.
	WALL WASHER LIGHTING FIXTURE.
	LIGHT FIXTURE, WALL MOUNT, HEIGHT AS INDICATED.
	EMERGENCY EGRESS LIGHTING FIXTURE, WITH BATTERY PACK, WALL MOUNT AT +8'-0"AFF.
	EXIT SIGN, CEILING MOUNT. DIRECTIONAL ARROWS AS INDICATED. SHADING INDICATES FACE(S) OF SIGN.
	EXIT SIGN, WALL MOUNT. DIRECTIONAL ARROWS AS INDICATED. SHADING INDICATES FACE(S) OF SIGN.
	TRACK LIGHTS.
	LIGHT FIXTURE, POLE MOUNT.
	SPORTS LIGHTING POLE.

SECURITY LEGEND

SYMBOL	DESCRIPTION
	DIRECTIONAL SECURITY MOTION DETECTOR, WALL MOUNT 6" BFC.
	OMNI-DIRECTIONAL SECURITY MOTION DETECTOR.
	FUTURE CCTV MOUNTING LOCATION, CEILING MOUNT. PROVIDE 20' OF COAXIAL CABLE COILED ABOVE CEILING FOR FUTURE INSTALLATION OF SECURITY CAMERA. RUN CABLE TO ROOM XXXX AND COIL 20' OF CABLE INSIDE ROOM.
	FUTURE CCTV MOUNTING LOCATION, WALL MOUNT. PROVIDE 20' OF COAXIAL CABLE COILED ABOVE CEILING FOR FUTURE INSTALLATION OF SECURITY CAMERA. RUN CABLE TO ROOM XXXX AND COIL 20' OF CABLE INSIDE ROOM.
DPS	DOOR POSITION SWITCH.
C	STATUS CONTACT.
CR	CARD READER, MOUNT AT 3'-10" AFF.
CK	CARD READER WITH KEYPAD, MOUNT AT 3'-10" AFF.
K	REMOTE KEYPAD FOR SECURITY SYSTEM, MOUNT AT 3'-10" AFF.
DS	ELECTRIC DOOR STRIKE.
EL	ELECTRIC DOOR LOCK.
PL	PNEUMATIC DOOR LOCK.
	TALK THROUGH COMMUNICATOR.
	DURESS ALARM PUSHBUTTON, MOUNT IN CASEWORK AS INDICATED.

GENERAL NOTES

A. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.

B. FOLLOW MOUNTING HEIGHTS INDICATED IN THE ELECTRICAL LEGEND UNLESS OTHERWISE INDICATED. MEASURE ALL MOUNTING HEIGHTS FROM THE DEVICE CENTER LINE UNLESS OTHERWISE INDICATED.

C. EQUIPMENT CONNECTIONS ARE INDICATED IN THEIR APPROXIMATE LOCATIONS. VERIFY EXACT LOCATIONS OF ALL CONNECTIONS WITH OTHER TRADES SUPPLYING EQUIPMENT TO AVOID CONFLICTS AT INSTALLATION.

D. LOCATE ALL SWITCHES FOR LOCAL CONTROL OF LIGHTING ON STRIKE SIDE OF SINGLE DOORS UNLESS OTHERWISE INDICATED.

E. PROVIDE SPECIFIC BREAKER ARRANGEMENT FOR THE PANEL BOARDS WHEREVER PHYSICALLY POSSIBLE. PROVIDE AS-BUILT DRAWINGS INDICATING ACTUAL BRANCH CIRCUIT ARRANGEMENT. PROVIDE TYPE WRITTEN PANELBOARD DIRECTORIES INDICATING ACTUAL BRANCH CIRCUIT ARRANGEMENT. HAND WRITTEN SCHEDULES ARE NOT ACCEPTABLE.

F. ALL CONDUIT RUNS INDICATED ARE DIAGRAMMATIC, COORDINATE ROUTING IN ALL SPACES WITH OTHER TRADES.

G. ALL PANELBOARDS INDICATED ARE HOUSED IN A SINGLE WIDTH ENCLOSURE, UNO. THE CONTRACTOR SHALL FIELD VERIFY ROOM LAYOUT AND ADJUST ACCORDINGLY, AT NO COST TO THE OWNER, IF PROVIDING ANY PANELBOARD ENCLOSURES.

H. WHERE POWER AND COMMUNICATION OUTLETS ARE INDICATED IN CLOSE PROXIMITY ON THE DRAWINGS, FIELD COORDINATE THE LOCATIONS TO PLACE THE OUTLETS ADJACENT TO EACH OTHER.

I. ALL EXTERIOR RECEPTACLES SHALL BE LABELED "WR" - WEATHER RESISTANT.

J. WHEN GROUPING MULTIPLE LINE TO NEUTRAL BRANCH CIRCUITS IN A CONDUIT, PROVIDE DEDICATED COLOR CODED NEUTRAL CONDUCTORS FOR EACH CIRCUIT. DO NOT USE BREAKER TIES AND SHARED NEUTRALS EVEN THOUGH PERMITTED BY NEC.

K. PROVIDE A 2" WIDE YELLOW LINE PAINTED ON THE FLOOR INDICATING THE ELECTRICAL WORKING SPACE. IN FRONT OF ALL ELECTRICAL PANELS IN ELECTRICAL ROOMS. REFER TO PLANS FOR ELECTRICAL WORKING SPACE DETAILS. STENCIL "NO STORAGE" IN 2" HIGH, YELLOW LETTERS CENTERED IN THE OUTLINED AREA.

ABBREVIATIONS

1P	SINGLE PHASE
3P	THREE PHASE
3R	WEATHERPROOF (NEMA 3R)
A	AMPS
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BKR	BREAKER
C	CONDUIT
CATV	COMMUNITY ANTENNA TELEVISION (CABLE)
CB	CIRCUIT BREAKER
CBL	CABLE
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CLR	CLEAR
CO.	COMPANY
COMB	COMBINATION
COMM	COMMUNICATIONS
CU	COPPER
DIA	DIAMETER
DISC	DISCONNECT
DIV	DIVISION
DWG	DRAWING
EBH	ELECTRIC BASEBOARD HEATER
EC	EMPTY CONDUIT
ECS	EMERGENCY COMMUNICATIONS STATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EPO	EMERGENCY POWER OFF
EQ	EQUIPMENT
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAGP	FIRE ALARM GRAPHIC PANEL
FAXP	FIRE ALARM EXTENDER PANEL
FFSCP	FIRE FIGHTER'S SMOKE CONTROL PANEL
FLA	FULL LOAD AMPS
FPMR	FUSE PER MANUFACTURERS REQUIREMENTS/RECOMMENDATIONS
FPND	FUSE PER NAMEPLATE DATA
G	GROUND
GE	GROUND FAULT PROTECTION FOR EQUIPMENT, 6-50mA PER NEC 427.22 (PROVIDE ACCESSORY FOR INDICATED BREAKER)
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GFP	GROUND FAULT PROTECTION FOR PERSONNEL, 4-6mA (PROVIDE ACCESSORY FOR INDICATED BREAKER)
HKP	HOUSEKEEPING PAD
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
Hz	HERTZ
IAW	IN ACCORDANCE WITH
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
KHFSS	KITCHEN HOOD FIRE SUPPRESSION SYSTEM
KHz	KILOHERTZ
KVA	KILOVOLT AMPS
KW	KILOWATTS
KWH	KILOWATT HOURS
L	LOCKOUT TO PREVENT UNAUTHORIZED SWITCHING (PROVIDE ACCESSORY FOR INDICATED BREAKER)
LC	ROUTE CIRCUIT TO LOAD VIA LIGHTING CONTACTOR, REFER TO LC SCHEDULE
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
LTS	LIGHTS
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MH	METAL HALIDE
MHz	MEGAHERTZ
MIN	MINIMUM
ML	MAINTENANCE LOCK (PROVIDE ACCESSORY FOR INDICATED BREAKER)
MLO	MAIN LUG ONLY
MNS	MASS NOTIFICATION SYSTEM
MOCP	MAXIMUM OVER CURRENT PROTECTION.
MTD	MOUNTED
N	NEUTRAL
N/C	NORMALLY CLOSED
N/O	NORMALLY OPEN
NO.	NUMBER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
P	PILOT LIGHT (AT THE SWITCH HANDLE)
PBD	PANELBOARD
PD	PROTECTIVE DEVICE
RCPT	RECEPTACLE
REC	RECEPTACLE
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SPEC.	SPECIFICATION(S)
ST	SHUNT TRIP, 120V COIL (PROVIDE ACCESSORY FOR INDICATED BREAKER)
SW	SWITCH
SWBD	SWITCHBOARD
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TC	TELECOMMUNICATIONS CLOSET
TELECOM	TELECOMMUNICATIONS
TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
TYP	TYPICAL
UNO	UNLESS NOTED (INDICATED) OTHERWISE
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
W/	WITH
WG	WIRE GUARD
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040202 5/22/2019 REGISTERED PROFESSIONAL ENGINEERS

DIVISION OF JUVENILE JUSTICE

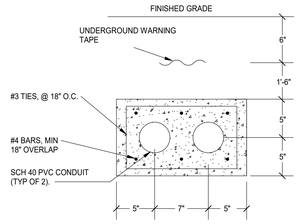
NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
REVISIONS	
DATE	DESCRIPTION

LEGENDS, ABBREVIATIONS AND GENERAL NOTES

E0.1

5/22/2019 9:41:43 AM



2 DUCTBANK DETAIL 1
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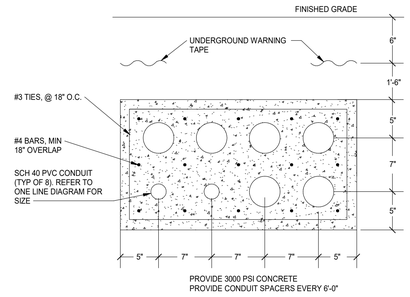

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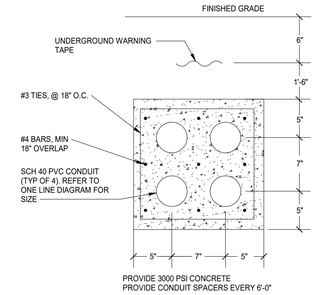

4 DUCTBANK DETAIL 3
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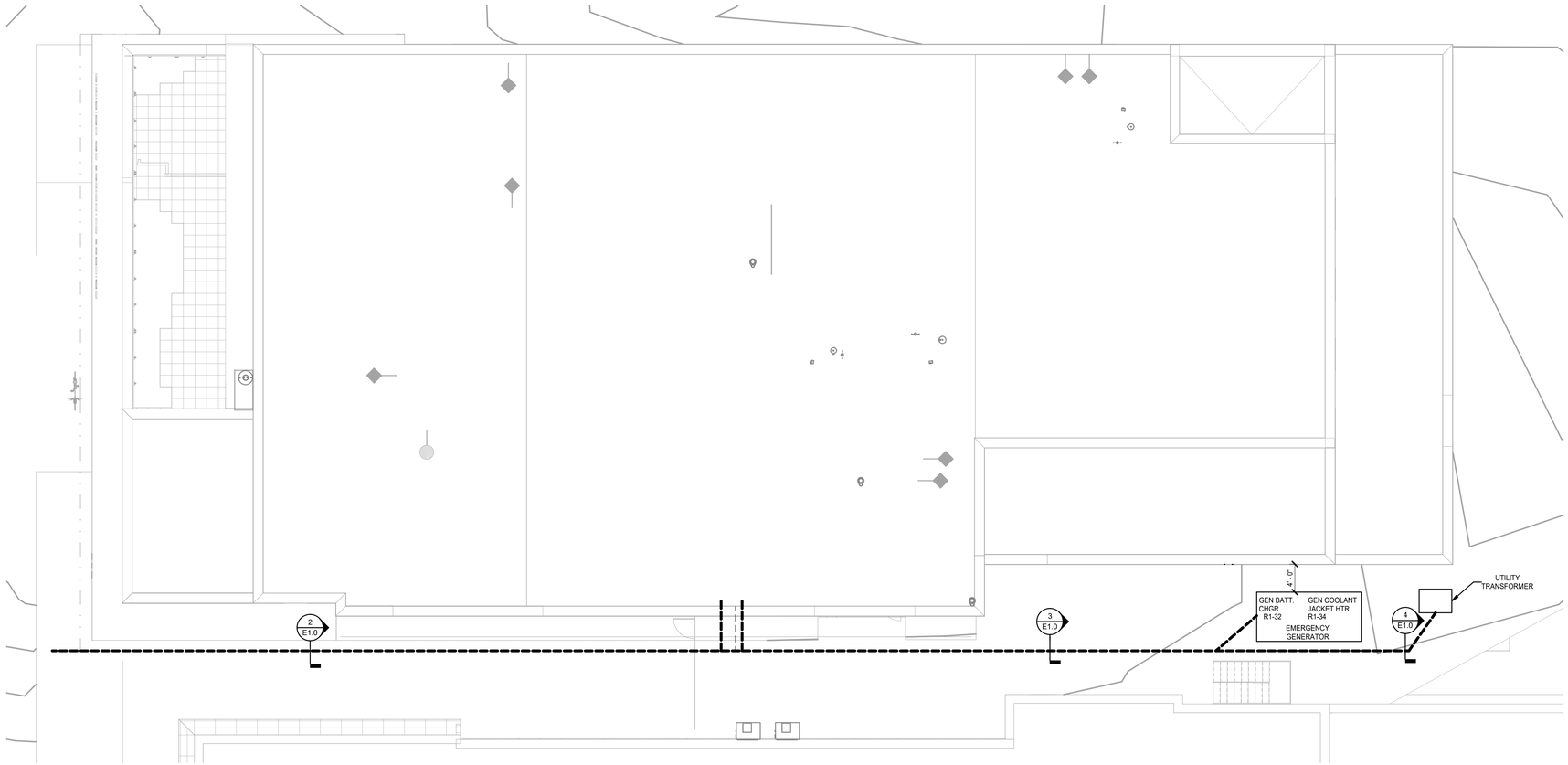


N

ELECTRICAL SITE PLAN
1/8" = 1'-0"

5/22/2019 9:41:45 AM

MOSELEY ARCHITECTS
11430 NORTH COMMUNITY HOUSE ROAD GIBSON BUILDING SUITE 225 CHARLOTTE, NC 28277
PHONE (704) 540-3755 FAX (704) 540-3754
MOSELEYARCHITECTS.COM

NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 ENGINEER BRIAN C. WELLS

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE
571990	MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

ELECTRICAL SITE PLAN

E1.0

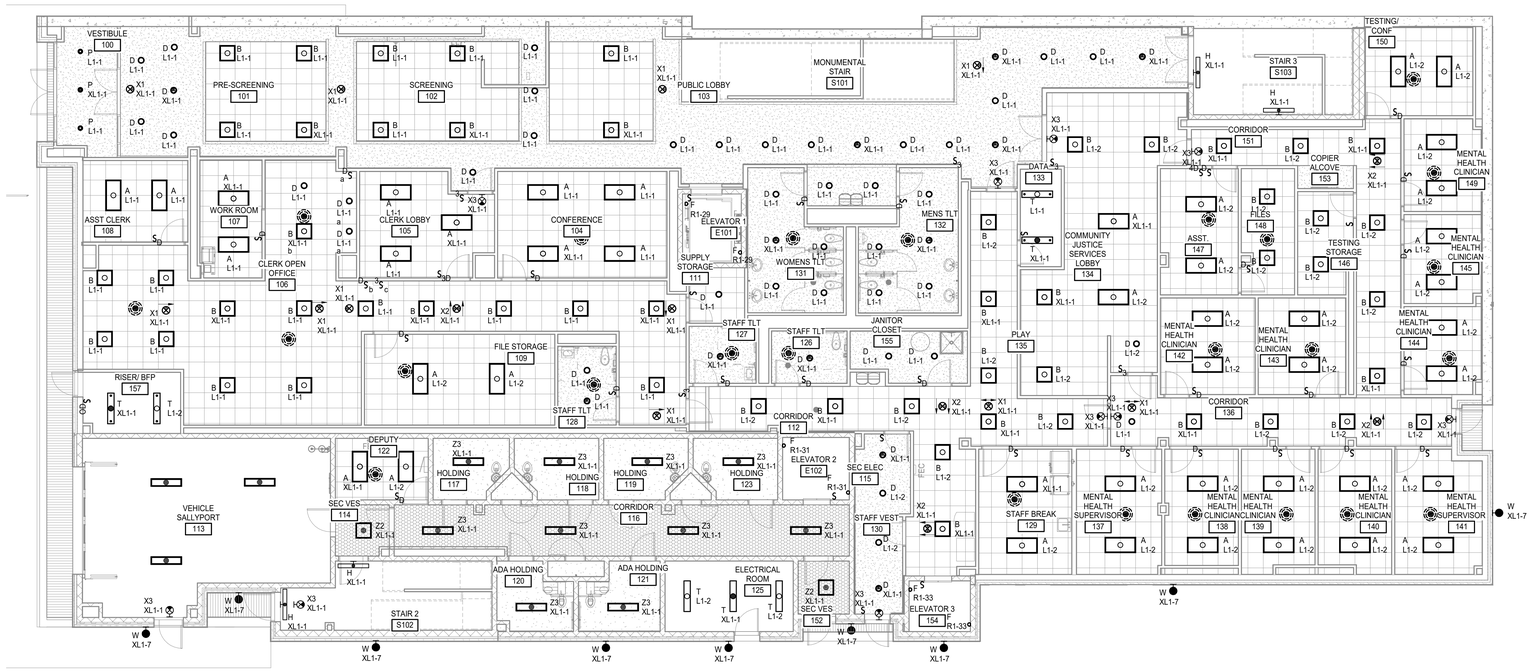
INTERIOR LIGHT FIXTURE SCHEDULE

FIXTURE					LAMP		MOUNTING	OPTIONS			COMMENTS
TYPE	MANUFACTURER	SERIES NO.	WATTAGE	LUMENS	TYPE	COLOR TEMP.		BI-LEVEL	DIMMING	INTEGRAL OCC./VAC. SENSOR*	
A	LITHONIA LIGHTING	2ALL4-30L-EZ1-LP840	25	3096 lm	LED	4000 K	RECESSED		X		
B	LITHONIA LIGHTING	2ALL2-20L-EZ1-LP840	18	2065 lm	LED	4000 K	RECESSED		X		
D	LITHONIA LIGHTING	LDN6-40/05-L06-WR-LS-MVOLT-GZ1-SF	8	662 lm	LED	4000 K	RECESSED		X		
F	PHILIPS	LPL-S-4LS3	32	1800 lm	LED	4000 K	SURFACE - ELEVATOR SHAFT / PIT				
H	LITHONIA LIGHTING	WL4-30L-LP840-MSD7	28	3251 lm	LED	4000 K	SURFACE - WALL			X	
P	V2 LIGHTING	C2LP-RV-208340-WH-WH	20	2000 lm	LED	4000 K	PENDENT - 10' ABOVE STAIRS				FIXTURE MOUNTING HEIGHTS FOLLOW SLOPE OF THE STAIRS DOWN FROM UPPER FLOOR
T	LITHONIA LIGHTING	ZL1N-L48-SMR-3000LM-FST-MVOLT-40K-80CRI-WH-ZACVH	25	3172 lm	LED	4000 K	PENDENT - 9' A.F.F.				
W	MCGRAW EDISON	ISW-B01-LED-E1-BL3-BK-P-CWB-120V	27	1380 lm	LEDS	4000 K	SURFACE - WALL 12' ABOVE GRADE				
X1	LITHONIA LIGHTING	LRP-1-RW-(LA/RA/LRA)*-277	5		LED		SURFACE - CEILING				EXIT - CEILING - SURFACE - SINGLE FACE
X2	LITHONIA LIGHTING	LRP -2-RW-(LA/RA/LRA)*-277	5		LED		SURFACE - CEILING				EXIT - CEILING - SURFACE - DOUBLE FACE
X3	LITHONIA LIGHTING	LRP-1-RW-(LA/RA/LRA)*-277	5		LED		SURFACE - WALL				EXIT - WALL
Z2	KENALL LIGHTING	SCD-2-1-25L40K-DCC-277-B/J-1-FS	25	3079 lm	LED	4000 K	SURFACE - CEILING				SECURITY FIXTURE
Z3	KENALL LIGHTING	SCA-4-1-45L40K-DCC-277-B/J-1-DLN-FS	45	4099 lm	LED	4000 K	SURFACE - CEILING	X			SECURITY FIXTURE

GENERAL LIGHTING NOTES

A. OCCUPANCY SENSORS IN ALL OFFICES WILL BE PROGRAMMED TO FUNCTION AS VACANCY SENSORS.

KEYNOTES



N

FIRST FLOOR - LIGHTING PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEY ARCHITECTS

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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 ENGINEER BRIAN P. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO:	DATE:
571990	MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

FIRST FLOOR - LIGHTING PLAN

E2.1.1

5/22/2019 9:41:50 AM

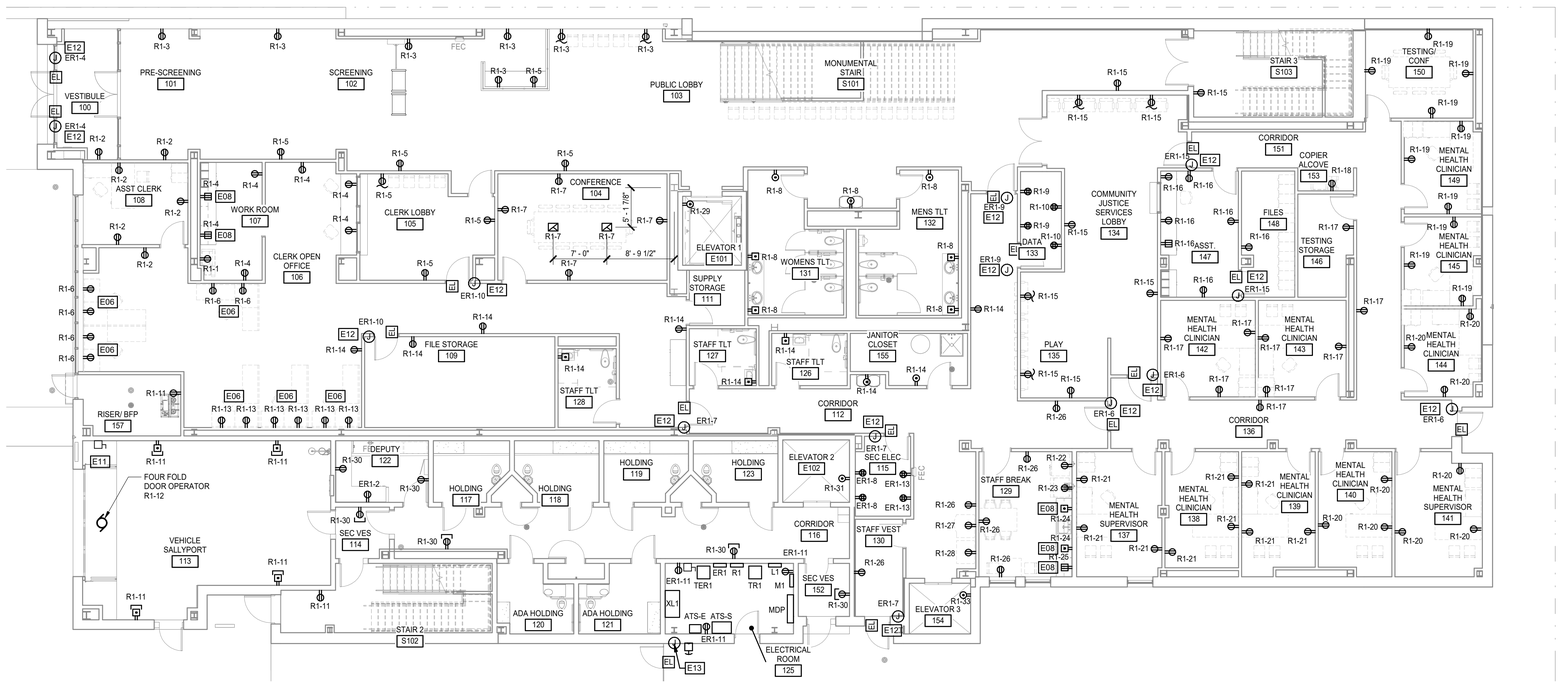
GENERAL POWER NOTES

A. FOR DEVICES AND EQUIPMENT BEING PROVIDED BY OTHERS, COORDINATE EXACT LOCATIONS AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.

B. ALL DEVICES SHOWN ARE DIAGRAMMATIC EXCEPT WHERE DIMENSIONS ARE CALLED OUT. COORDINATE INSTALLATION WITH OTHER TRADES.

KEYNOTES

E06	COORDINATE DEVICE LOCATION AND INSTALLATION REQUIREMENTS WITH FURNITURE VENDOR PRIOR TO ROUGH-IN.
E08	ABOVE COUNTER RECEPTACLE. COORDINATE MOUNTING HEIGHT TO PLACE DEVICE ABOVE COUNTER BACKSPLASH.
E11	PROVIDE NONFUSED DISCONNECT FOR FOUR FOLD DOOR OPERATOR. ROUTE 2-#12 AND 1-#12 GROUND TO FOUR FOLD DOOR OPERATOR THROUGH DISCONNECT SWITCH AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
E12	PROVIDE POWER FOR DOOR ACCESS CONTROL. REFER TO DETAIL 4 ON DRAWING SHEET E4.2. PROVIDE 2-#12 AWG AND 1-#12 AWG GROUND IN 3/4" CONDUIT AND TEMRINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATIONS AND ROUTING WITH DOOR HARDWARE PRIOR TO ROUGH-IN.
E13	PROVIDE POWER FOR GATE ACCESS CONTROL. PROVIDE 2-#12 AWG AND 1-#12 AWG GROUND IN 3/4" CONDUIT AND TEMRINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATIONS AND ROUTING WITH GATE HARDWARE PRIOR TO ROUGH-IN. PROVIDE EXTERIOR WALL MOUNTED PUSH BUTTON FOR ELECTRIC LOCK OVERRIDE. COORDINATE LOCATION WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.



N

FIRST FLOOR - ELECTRICAL POWER PLAN
1/8" = 1'-0"

0' 2' 4' 8' 16'
1/8" = 1'-0"

MOSELEY ARCHITECTS
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DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE:
571990	MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

FIRST FLOOR - ELECTRICAL POWER PLAN

E2.1.2

5/22/2019 9:41:54 AM

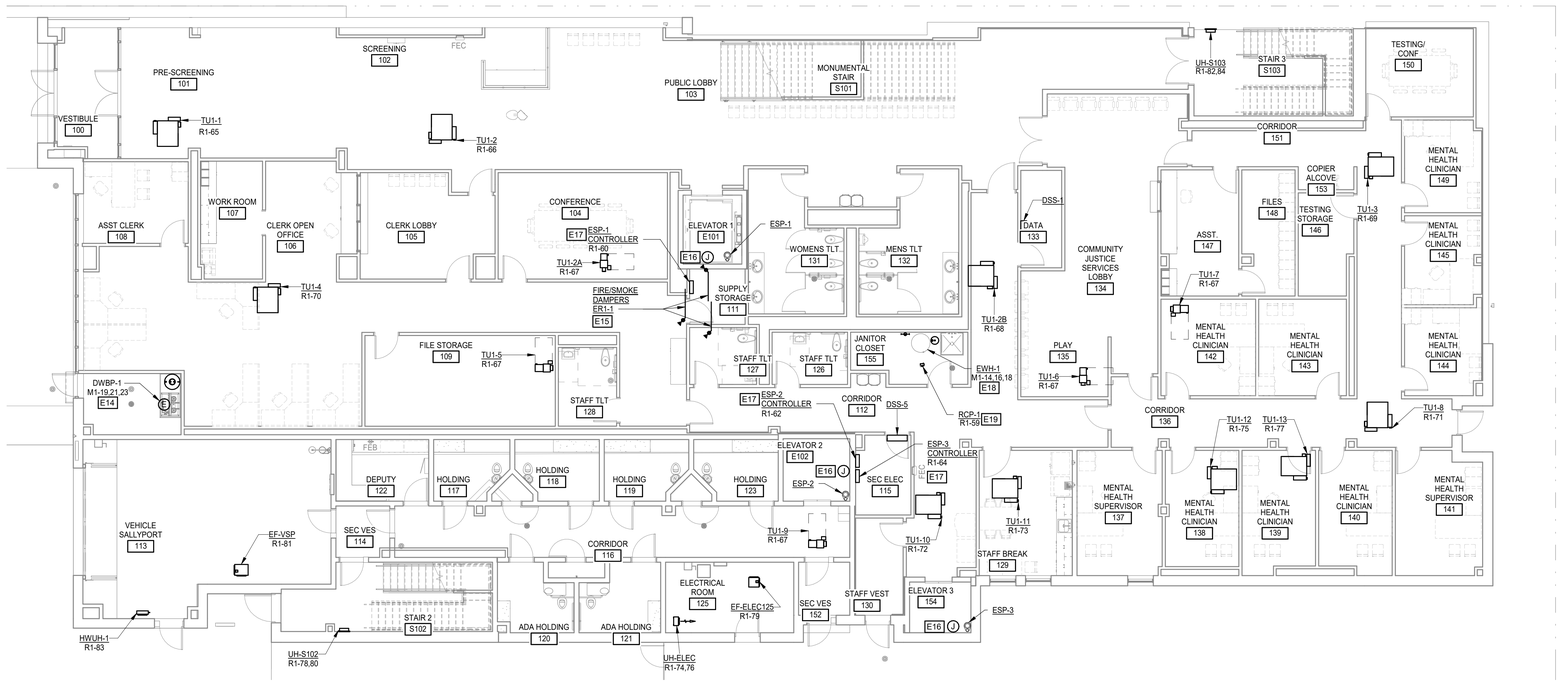
GENERAL MECHANICAL POWER NOTES

A. MECHANICAL EQUIPMENT SHOWN IS BASED UPON A "BASIS OF DESIGN" MODEL AND IS NOT GUARANTEED TO BE WHAT IS INSTALLED. COORDINATE EXACT CONNECTION REQUIREMENTS WITH VENDOR SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN.

B. EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE AND BASED UPON THE TYPE AND SIZE OF THE "BASIS OF DESIGN" MODEL. VERIFY EXACT LOCATIONS OF ALL CONNECTIONS WITH MECHANICAL CONTRACTOR TO AVOID CONFLICTS AT INSTALLATION.

KEYNOTES

E14	DOMESTIC WATER BOOSTER PUMP SYSTEM CONNECTION. ROUTE FOUR #12 AWG CONDUCTORS AND ONE #12 AWG GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO SYSTEM MOUNTED CONTROL PANEL AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E15	FIRE/SMOKE DAMPER CONNECTION. ROUTE TWO #12 AWG CONDUCTORS AND ONE #12 AWG GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO SMOKE DAMPERS AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E16	WATER TIGHT JUNCTION BOX FOR ELEVATOR PIT SUMP PUMP CONNECTION. REFER TO ELEVATOR SUMP PUMP DETAIL ON DRAWING SHEET P5.1 FOR PUMP CONNECTION REQUIREMENTS.
E17	ELEVATOR PIT SUMP PUMP CONTROLLER. ROUTE TWO #12 AWG AND ONE #12 GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO CONTROLLER AND TERMINATE PER MANUFACTURER'S INSTRUCTION. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E18	ELECTRIC WATER HEATER. ROUTE FOUR #12 AWG CONDUCTORS AND ONE #12 GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO WATE HEATER AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E19	RECIRCULATION PUMP CONNECTION. ROUTE TWO #12 AWG AND ONE #12 AWG IN 3/4" CONDUIT FROM PANEL SHOWN TO PUMP AND TERMINATE PER MANUFACTURER'S INSTRUCTION. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.



N

FIRST FLOOR - MECHANICAL POWER PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEY ARCHITECTS

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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 REGISTERED BRYAN C. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
REVISIONS	
DATE	DESCRIPTION

FIRST FLOOR - MECHANICAL POWER PLAN

E2.1.3

5/22/2019 9:41:57 AM

GENERAL COMMUNICATIONS NOTES

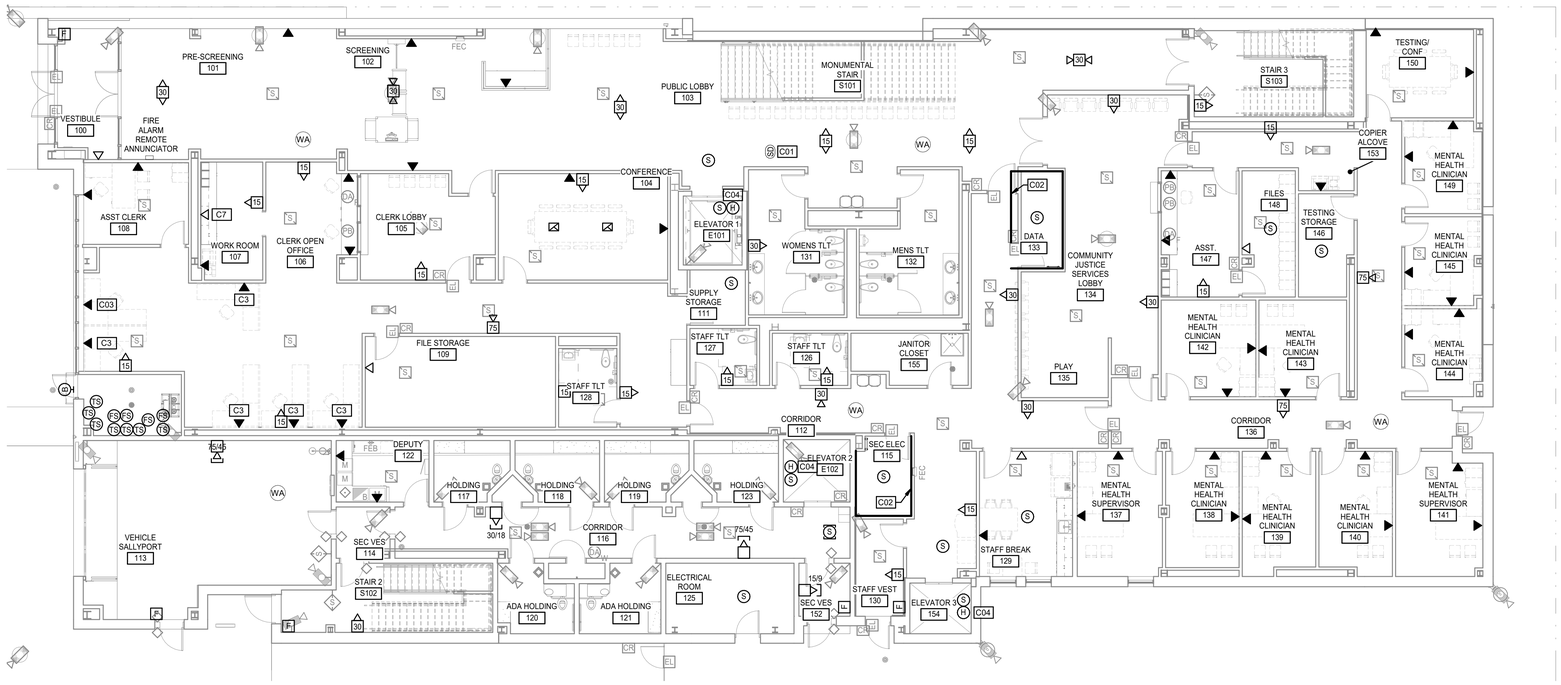
A. ALL DATA / TELEPHONE AND COMMUNICATIONS EQUIPMENT AND INFRASTRUCTURE SHALL COMPLY WITH CURRENT NEW HANOVER COUNTY ADMINISTRATIVE POLICIES AND REQUIREMENTS.

B. COORDINATE THE MOUNTING HEIGHTS FOR ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES WITH ARCHITECTURAL WALL ELEMENTS AND FEATURES. PLACE DEVICES SO THAT THEY ARE NOT PARTLY IN MORE THAN ONE SURFACE TREATMENTS, WALL MATERIALS OR TILE.

C. MICROPHONE LOCATIONS SHOWN ARE PRELIMINARY. INSTALL CONDUIT, WITH PULL CORD, FROM FURNITURE LOCATION TO NEAREST WALL, UNDERSLAB, AND EXTEND UP TO ACCESSIBLE CEILING SPACE. WHERE HARD CEILING EXISTS AT TOP OF WALL, COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE MINIMUM 8" X 8" ACCESS DOOR FOR ACCESS TO TOP OF CONDUIT. COORDINATE LOCATION AND INSTALLATION REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.

KEYNOTES

C01	DUCT SMOKE DETECTOR. PROVIDE DEVICE TO MECHANICAL CONTRACTOR FOR INSTALLATION.
C02	PROVIDE 3/4" FIRE RESISTANT PLYWOOD BACKBOARD, PAINTED WHITE. PLYWOOD SHALL EXTEND FROM 2' A.F.F. TO 10' A.F.F.
C3	
C03	COORDINATE DEVICE LOCATION AND INSTALLATION REQUIREMENTS WITH WITH FURNITURE VENDOR PRIOR TO ROUGH-IN.
C04	ELEVATOR HOISTWAY HEAT DETECTOR. COORDINATE TO LOCATE DEVICE WITHIN 2' OF SPRINKLER HEAD.
C7	



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FIRST FLOOR - COMMUNICATIONS PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEY ARCHITECTS

11430 NORTH COMMUNITY HOUSE ROAD GIBSON BUILDING SUITE 225 CHARLOTTE, NC 28277
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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 REGISTERED BRIAN E. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
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DATE	DESCRIPTION

FIRST FLOOR - COMMUNICATIONS PLAN

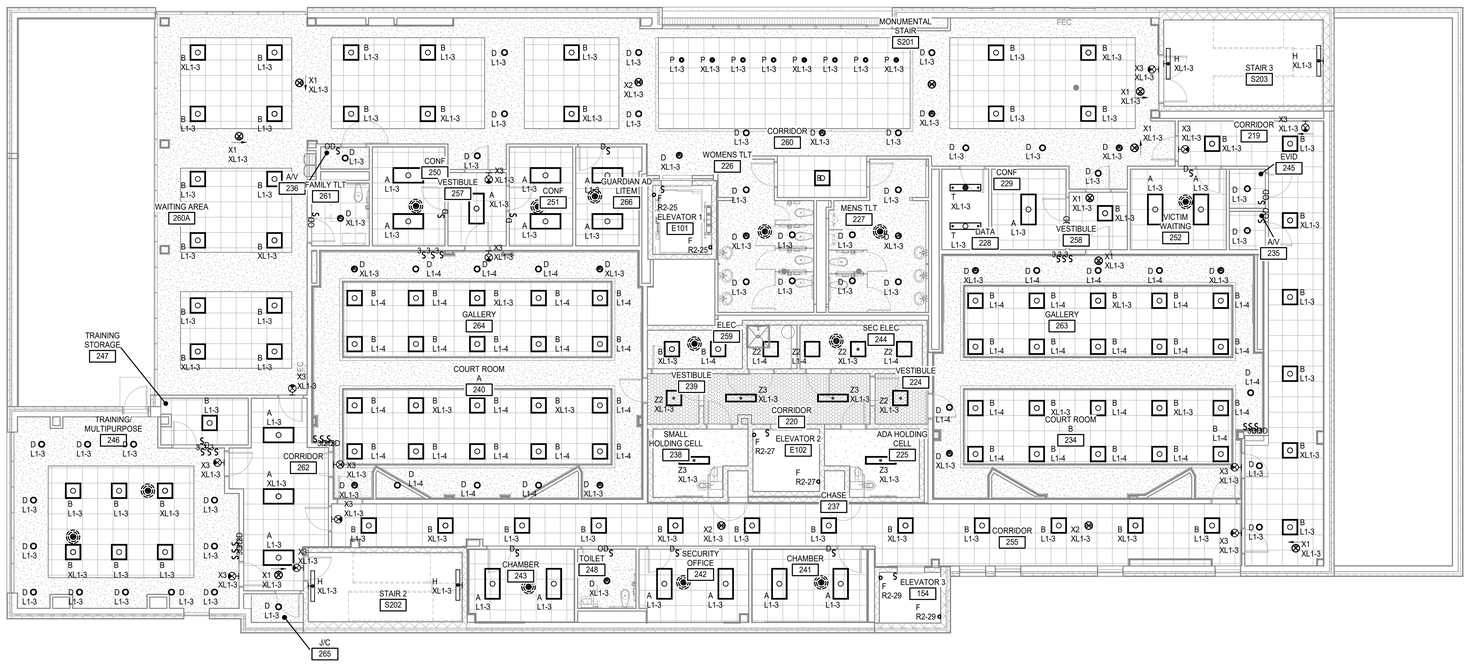
E2.1.4

5/22/2019 9:42:00 AM

GENERAL LIGHTING NOTES

A. OCCUPANCY SENSORS IN ALL OFFICES WILL BE PROGRAMMED TO FUNCTION AS VACANCY SENSORS.

KEYNOTES



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

0' 2' 4' 8' 16'
1/8" = 1'-0"

MOSELEY ARCHITECTS
11430 NORTH COMMUNITY HOUSE ROAD GIBSON BUILDING SUITE 225 CHARLOTTE, NC 28277
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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 REGISTERED ARCHITECTS

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE:
571990	MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

SECOND FLOOR - LIGHTING PLAN

E2.2.1

5/22/2019 9:42:05 AM

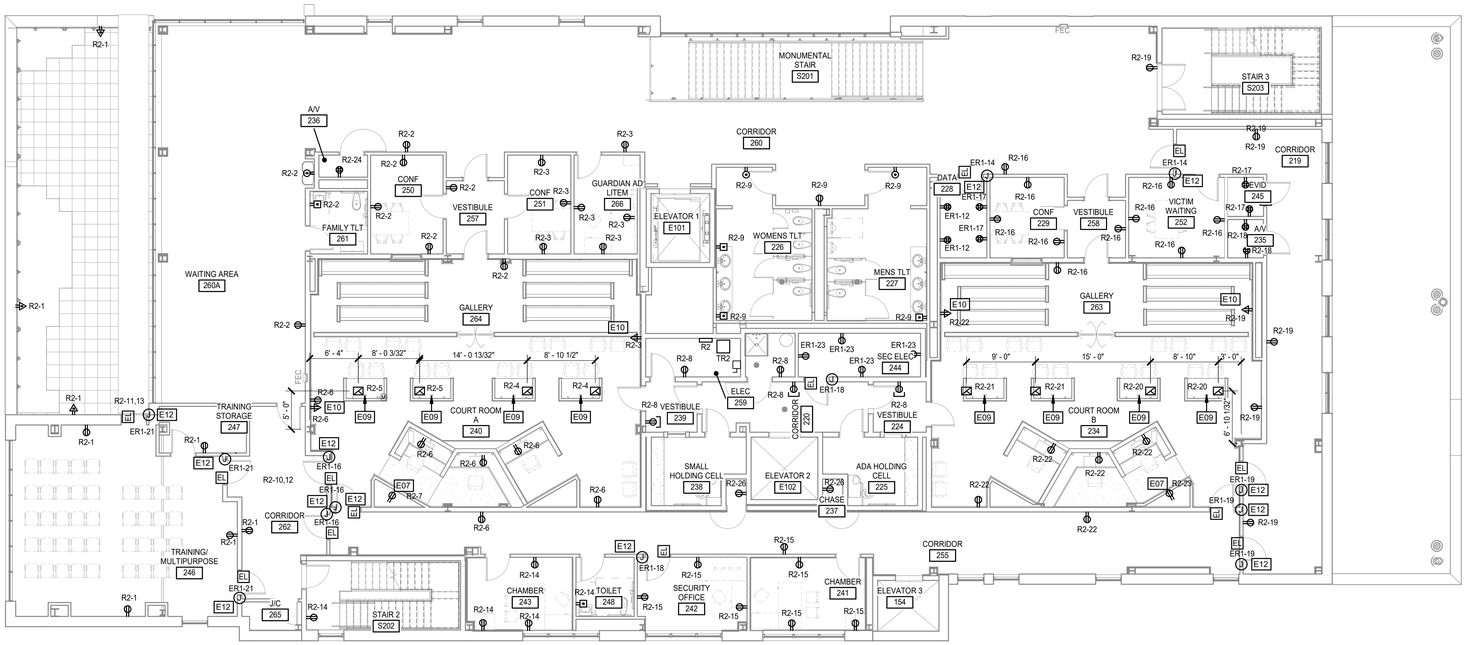
GENERAL POWER NOTES

A. FOR DEVICES AND EQUIPMENT BEING PROVIDED BY OTHERS, COORDINATE EXACT LOCATIONS AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.

B. ALL DEVICES SHOWN ARE DIAGRAMMATIC EXCEPT WHERE DIMENSIONS ARE CALLED OUT. COORDINATE INSTALLATION WITH OTHER TRADES.

KEYNOTES

E07	COORDINATE DEVICE MOUNTING HEIGHT WITH RAISED FLOORING.
E09	TABLETOP POP UP COMBINATION POWER AND DATA OUTLET. ALTINEX OR OTHER MANUFACTURER'S APPROVED EQUIVALENT. PROVIDE TWO NEMA 5-15R POWER OUTLETS AND TWO RJ45 JACKS.
E10	WALL MOUNTED TELEVISION LOCATION. PROVIDE RECESSED WALL BOX FOR POWER AND A/V CONNECTION TO TELEVISION. MOUNT AT 70" A.F.F. TO CENTER OF DEVICE BOX. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
E12	PROVIDE POWER FOR DOOR ACCESS CONTROL. REFER TO DETAIL 4 ON DRAWING SHEET E4.2. PROVIDE 2-#12 AWG AND 1-#12 AWG GROUND IN 3/4" CONDUIT AND TEMRINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATIONS AND ROUTING WITH DOOR HARDWARE PRIOR TO ROUGH-IN.



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SECOND FLOOR - ELECTRICAL POWER PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEYARCHITECTS

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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 REGISTERED BRYAN E. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE:
571990	MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

SECOND FLOOR - ELECTRICAL POWER PLAN

E2.2.2

5/22/2019 9:42:08 AM

GENERAL MECHANICAL POWER NOTES

A. MECHANICAL EQUIPMENT SHOWN IS BASED UPON A "BASIS OF DESIGN" MODEL AND IS NOT GUARANTEED TO BE WHAT IS INSTALLED. COORDINATE EXACT CONNECTION REQUIREMENTS WITH VENDOR SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN.

B. EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE AND BASED UPON THE TYPE AND SIZE OF THE "BASIS OF DESIGN" MODEL. VERIFY EXACT LOCATIONS OF ALL CONNECTIONS WITH MECHANICAL CONTRACTOR TO AVOID CONFLICTS AT INSTALLATION.

KEYNOTES

E15	FIRE/SMOKE DAMPER CONNECTION. ROUTE TWO #12 AWG CONDUCTORS AND ONE #12 AWG GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO SMOKE DAMPERS AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E18	ELECTRIC WATER HEATER. ROUTE FOUR #12 AWG CONDUCTORS AND ONE #12 GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO WATE HEATER AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E19	RECIRCULATION PUMP CONNECTION. ROUTE TWO #12 AWG AND ONE #12 AWG IN 3/4" CONDUIT FROM PANEL SHOWN TO PUMP AND TERMINATE PER MANUFACTURER'S INSTRUCTION. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.

N

SECOND FLOOR - MECHANICAL POWER PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEY ARCHITECTS

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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 REGISTERED BRIAN C. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
REVISIONS	
DATE	DESCRIPTION

SECOND FLOOR - MECHANICAL POWER PLAN

E2.2.3

5/22/2019 9:42:12 AM

GENERAL COMMUNICATIONS NOTES

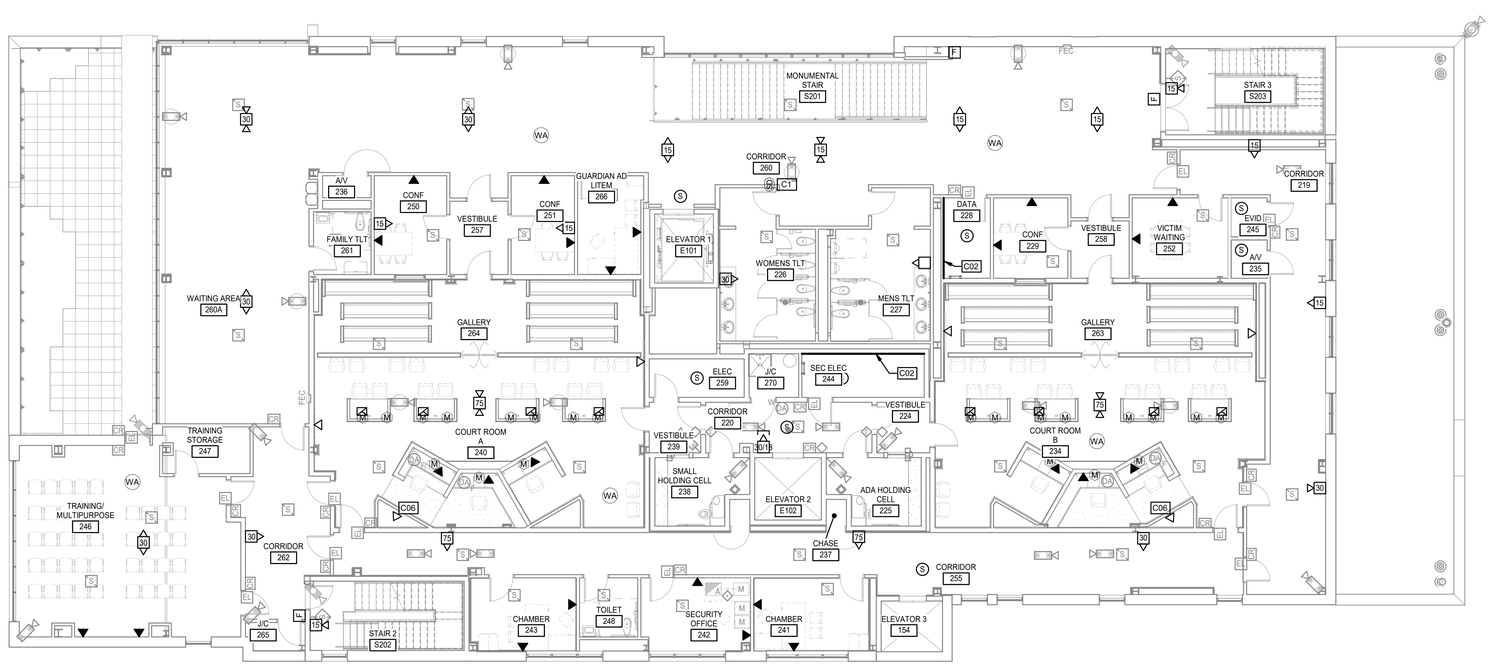
A. ALL DATA / TELEPHONE AND COMMUNICATIONS EQUIPMENT AND INFRASTRUCTURE SHALL COMPLY WITH CURRENT NEW HANOVER COUNTY ADMINISTRATIVE POLICIES AND REQUIREMENTS.

B. COORDINATE THE MOUNTING HEIGHTS FOR ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES WITH ARCHITECTURAL WALL ELEMENTS AND FEATURES. PLACE DEVICES SO THAT THEY ARE NOT PARTLY IN MORE THAN ONE SURFACE TREATMENTS, WALL MATERIALS OR TILE.

C. MICROPHONE LOCATIONS SHOWN ARE PRELIMINARY. INSTALL CONDUIT, WITH PULL CORD, FROM FURNITURE LOCATION TO NEAREST WALL, UNDERSLAB, AND EXTEND UP TO ACCESSIBLE CEILING SPACE. WHERE HARD CEILING EXISTS AT TOP OF WALL, COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE MINIMUM 8" X 8" ACCESS DOOR FOR ACCESS TO TOP OF CONDUIT. COORDINATE LOCATION AND INSTALLATION REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.

KEYNOTES

C1	
C02	PROVIDE 3/4" FIRE RESISTANT PLYWOOD BACKBOARD, PAINTED WHITE. PLYWOOD SHALL EXTEND FROM 2' A.F.F. TO 10' A.F.F.
C06	COORDINATE DEVICE MOUNTING HEIGHT WITH RAISED FLOORING.



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SECOND FLOOR - COMMUNICATIONS PLAN
1/8" = 1'-0"

0' 2' 4' 8' 16'
1/8" = 1'-0"

MOSELEY ARCHITECTS
11430 NORTH COMMUNITY HOUSE ROAD GIBSON BUILDING SUITE 225 CHARLOTTE, NC 28277
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DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO:	DATE:
571990	MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

SECOND FLOOR - COMMUNICATIONS PLAN

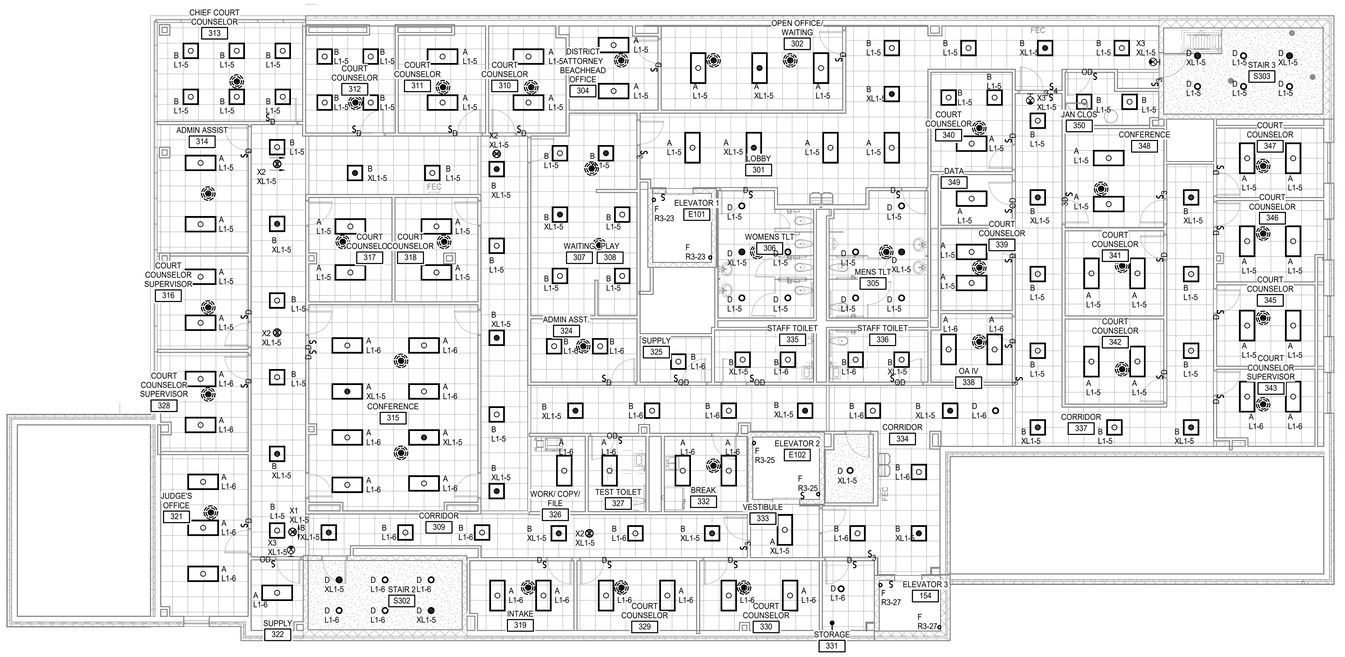
E2.2.4

5/22/2019 9:42:15 AM

GENERAL LIGHTING NOTES

A. OCCUPANCY SENSORS IN ALL OFFICES WILL BE PROGRAMMED TO FUNCTION AS VACANCY SENSORS.

KEYNOTES



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THIRD FLOOR - LIGHTING PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEYARCHITECTS

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DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE
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DATE	DESCRIPTION

THIRD FLOOR - LIGHTING PLAN

E2.3.1

5/22/2019 9:42:19 AM

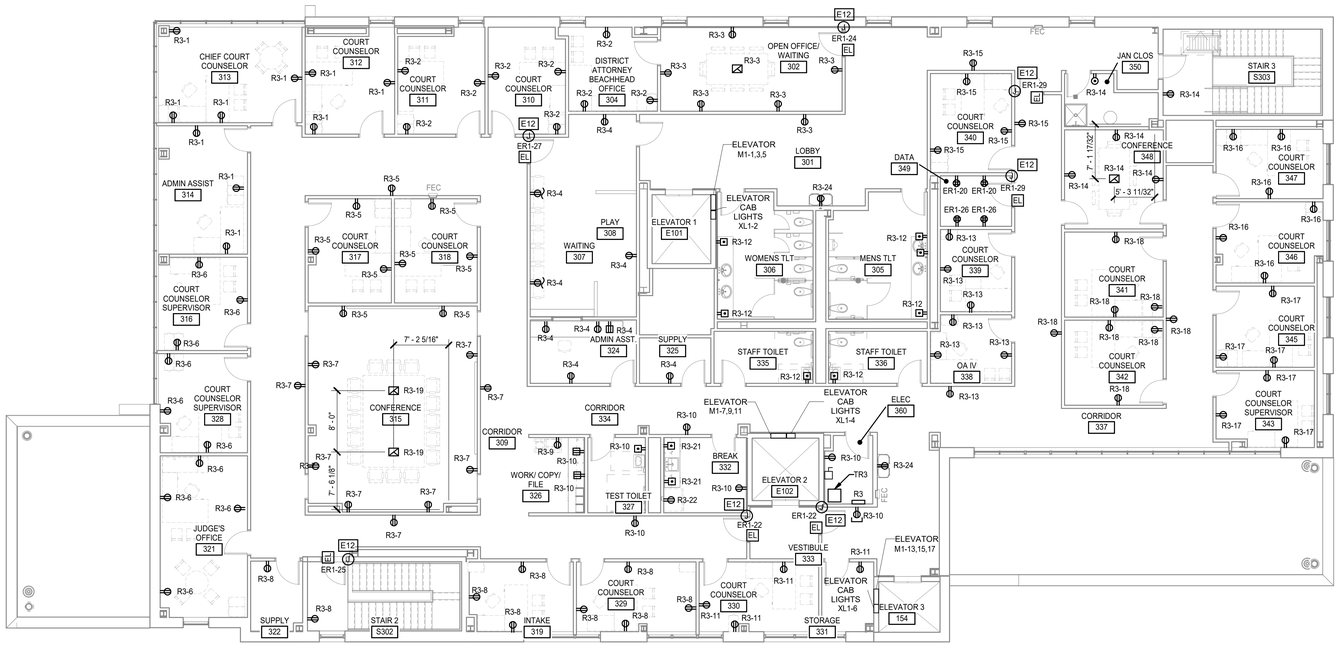
GENERAL POWER NOTES

A. FOR DEVICES AND EQUIPMENT BEING PROVIDED BY OTHERS, COORDINATE EXACT LOCATIONS AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.

B. ALL DEVICES SHOWN ARE DIAGRAMMATIC EXCEPT WHERE DIMENSIONS ARE CALLED OUT. COORDINATE INSTALLATION WITH OTHER TRADES.

KEYNOTES

E12	PROVIDE POWER FOR DOOR ACCESS CONTROL. REFER TO DETAIL 4 ON DRAWING SHEET E4.2. PROVIDE 2-#12 AWG AND 1-#12 AWG GROUND IN 3/4" CONDUIT AND TEMRINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATIONS AND ROUTING WITH DOOR HARDWARE PRIOR TO ROUGH-IN.



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THIRD FLOOR - ELECTRICAL POWER PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

MOSELEY ARCHITECTS

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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 REGISTERED BRIAN E. MOSELEY ENGINEER

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

THIRD FLOOR - ELECTRICAL POWER PLAN

E2.3.2

5/22/2019 9:42:22 AM

GENERAL MECHANICAL POWER NOTES

A. MECHANICAL EQUIPMENT SHOWN IS BASED UPON A "BASIS OF DESIGN" MODEL AND IS NOT GUARANTEED TO BE WHAT IS INSTALLED. COORDINATE EXACT CONNECTION REQUIREMENTS WITH VENDOR SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN.

B. EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE AND BASED UPON THE TYPE AND SIZE OF THE "BASIS OF DESIGN" MODEL. VERIFY EXACT LOCATIONS OF ALL CONNECTIONS WITH MECHANICAL CONTRACTOR TO AVOID CONFLICTS AT INSTALLATION.

KEYNOTES

E15	FIRE/SMOKE DAMPER CONNECTION. ROUTE TWO #12 AWG CONDUCTORS AND ONE #12 AWG GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO SMOKE DAMPERS AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E18	ELECTRIC WATER HEATER. ROUTE FOUR #12 AWG CONDUCTORS AND ONE #12 GROUND IN 3/4" CONDUIT FROM PANEL SHOWN TO WATE HEATER AND TERMINATE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
E19	RECIRCULATION PUMP CONNECTION. ROUTE TWO #12 AWG AND ONE #12 AWG IN 3/4" CONDUIT FROM PANEL SHOWN TO PUMP AND TERMINATE PER MANUFACTURER'S INSTRUCTION. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.

N

THIRD FLOOR - MECHANICAL POWER PLAN
1/8" = 1'-0"

0' 2' 4' 8' 16'
1/8" = 1'-0"

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DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

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THIRD FLOOR - MECHANICAL POWER PLAN

E2.3.3

5/22/2019 9:42:25 AM

GENERAL COMMUNICATIONS NOTES

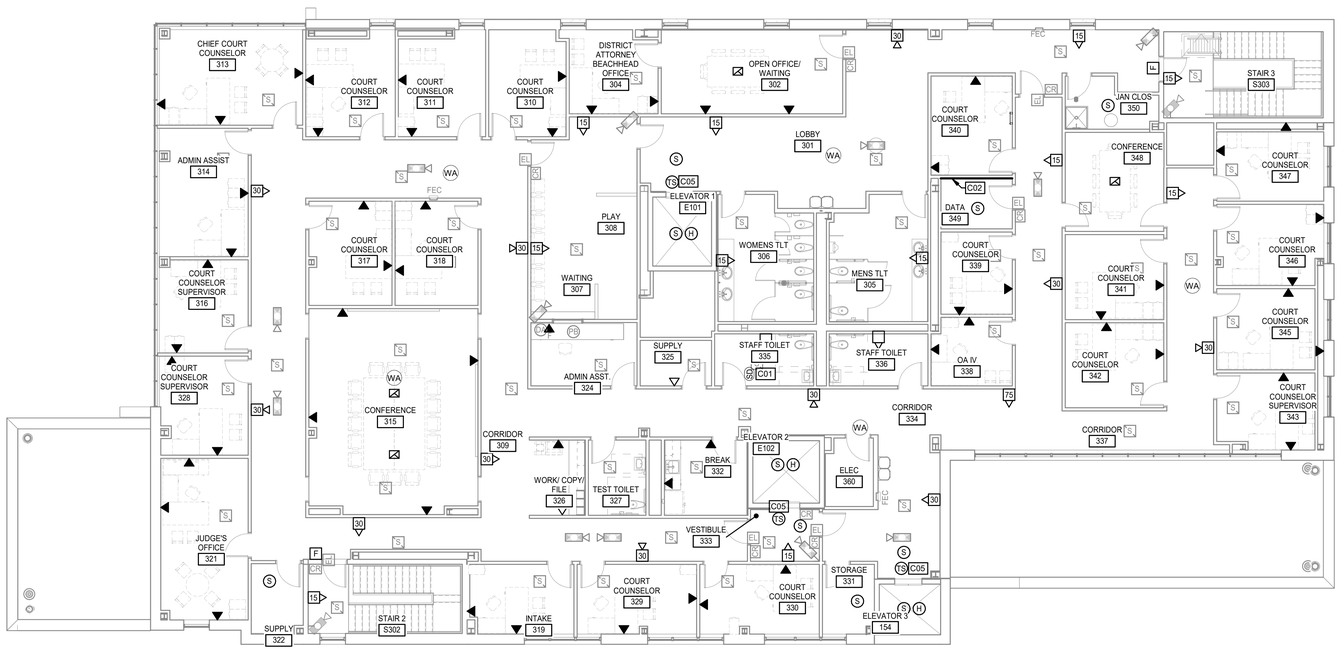
A. ALL DATA / TELEPHONE AND COMMUNICATIONS EQUIPMENT AND INFRASTRUCTURE SHALL COMPLY WITH CURRENT NEW HANOVER COUNTY ADMINISTRATIVE POLICIES AND REQUIREMENTS.

B. COORDINATE THE MOUNTING HEIGHTS FOR ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES WITH ARCHITECTURAL WALL ELEMENTS AND FEATURES. PLACE DEVICES SO THAT THEY ARE NOT PARTLY IN MORE THAN ONE SURFACE TREATMENTS, WALL MATERIALS OR TILE.

C. MICROPHONE LOCATIONS SHOWN ARE PRELIMINARY. INSTALL CONDUIT, WITH PULL CORD, FROM FURNITURE LOCATION TO NEAREST WALL, UNDERSLAB, AND EXTEND UP TO ACCESSIBLE CEILING SPACE. WHERE HARD CEILING EXISTS AT TOP OF WALL, COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE MINIMUM 8" X 8" ACCESS DOOR FOR ACCESS TO TOP OF CONDUIT. COORDINATE LOCATION AND INSTALLATION REQUIREMENTS WITH OWNER PRIOR TO DRYLIN.

KEYNOTES

C01	DUCT SMOKE DETECTOR. PROVIDE DEVICE TO MECHANICAL CONTRACTOR FOR INSTALLATION.
C02	PROVIDE 3/4" FIRE RESISTANT PLYWOOD BACKBOARD, PAINTED WHITE. PLYWOOD SHALL EXTEND FROM 2' A.F.F. TO 10' A.F.F.
C05	SPRINKLER LINE TAMPER SWITCHES. COORDINATE EXACT LOCATION OF DEVICES WITH PIPING INSTALLATION PRIOR TO ROUGH-IN.



N

THIRD FLOOR - COMMUNICATIONS PLAN
1/8" = 1'-0"

0' 2' 4' 8' 16'
1/8" = 1'-0"

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DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE:
571990	MAY 22, 2019

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DATE	DESCRIPTION

THIRD FLOOR - COMMUNICATIONS PLAN

E2.3.4

5/22/2019 9:42:27 AM

GENERAL POWER NOTES

A. MECHANICAL EQUIPMENT SHOWN IS BASED UPON A "BASIS OF DESIGN" MODEL AND IS NOT GUARANTEED TO BE WHAT IS INSTALLED. COORDINATE EXACT CONNECTION REQUIREMENTS WITH VENDOR SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN.

B. EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE AND BASED UPON THE TYPE AND SIZE OF THE "BASIS OF DESIGN" MODEL. VERIFY EXACT LOCATIONS OF ALL CONNECTIONS WITH MECHANICAL CONTRACTOR TO AVOID CONFLICTS AT INSTALLATION.

KEYNOTES

E20	EMERGENCY GAS CUTOFF.

N

ROOF - ELECTRICAL PLAN

1/8" = 1'-0"

0' 2' 4' 8' 16'

1/8" = 1'-0"

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NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
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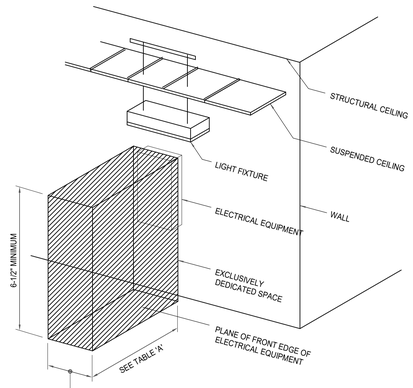
DATE	DESCRIPTION

ROOF - ELECTRICAL PLAN

E2.4

5/22/2019 9:42:29 AM

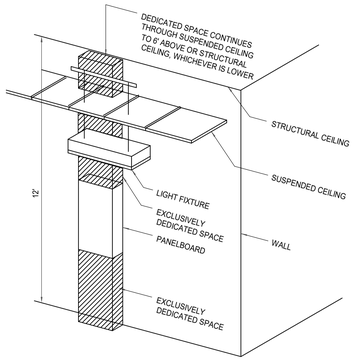


SHALL BE 30" OR WIDTH OF EQUIPMENT IF EQUIPMENT IS WIDER THAN 30". DOES NOT HAVE TO BE CENTERED ON THE EQUIPMENT BUT AT LEAST EVEN WITH ONE EDGE. EQUIPMENT DOOR SHALL BE ABLE TO OPEN AT LEAST 90 DEG.

NOTE:

1. THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-16 OF THE NATIONAL ELECTRIC CODE.

ALL ELECTRICAL EQUIPMENT



NOTE:

THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRE OVER AND UNDER PANELBOARDS FOR CABLES, RACEWAYS, E.T.C. TO AND FROM PANELBOARDS REQUIRED BY SECTION 110.26(E)(1) OF THE NATIONAL ELECTRIC CODE.

PANELBOARDS

GENERAL NOTES:

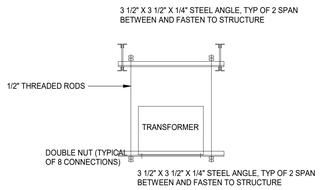
1. THIS EQUIPMENT INCLUDES BUT IS NOT LIMITED TO PANELBOARDS, SAFETY SWITCHES, MOTOR STARTERS, JUNCTION BOXES AND OTHER ELECTRICAL EQUIPMENT.
2. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT OR ARCHITECTURAL APPURTENANCES SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THROUGH THE DEDICATED SPACES SHOWN ABOVE.

TABLE 'A' - WORKING CLEARANCES			
VOLTAGE TO GROUND, NOMINAL	MINIMUM CLEAR DISTANCE		
	CONDITION 1	CONDITION 2	CONDITION 3
0-150	3'-0"	3'-0"	3'-0"
151-600	3'-0"	3'-6"	4'-0"

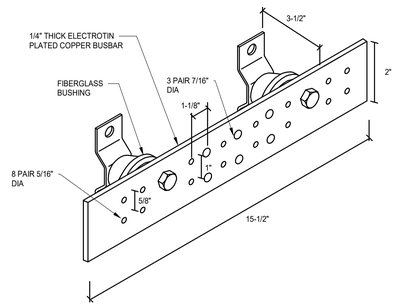
WHERE THE "CONDITIONS" ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GAURDED BY SUITABLE WOOD OR OTHER INSULATING MATERI'LS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GAURDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

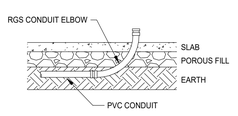
3 DEDICATED WORKING SPACE CLEARANCE REQUIREMENTS FOR ELECTRICAL EQUIPMENT
NO SCALE



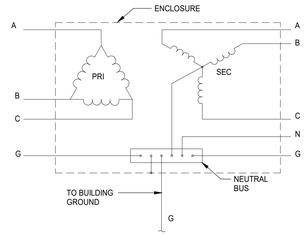
7 TRANSFORMER MOUNTING DETAIL
NO SCALE



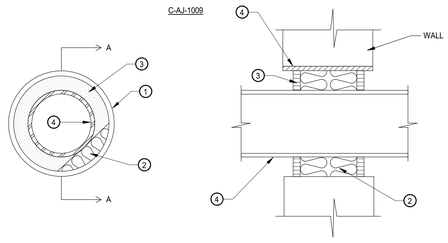
5 TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) DETAIL
NO SCALE



8 PVC TO EMT TRANSITION DETAIL
NO SCALE



6 TRANSFORMER GROUNDING DIAGRAM
NO SCALE



1. METALLIC SLEEVE - (OPTIONAL) NOMINAL 6"Ø (OR SMALLER) ELECTRIC METALLIC TUBING, STEEL CONDUIT OR CAST IRON PIPE CAST OR GROUTED INTO WALL ASSEMBLY, FLUSH WITH WALL SURFACES.

2. PACKING MATERIAL - MINIMUM 3" THICKNESS OF MINIMUM 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. PACKING MATERIAL TO BE CENTERED IN WALLS MID DEPTH AND RECESSED TO ALLOW FOR INSTALLATION OF FILL MATERIAL.

3. FILL, VOID OR CAVITY MATERIAL* -SEALANT- MINIMUM 1/2" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS. IN WALLS, FILL MATERIAL TO BE APPLIED ON EACH SIDE OF PACKING MATERIAL.

MINNESOTA MINING & MFG. CO.- CP 25WB+

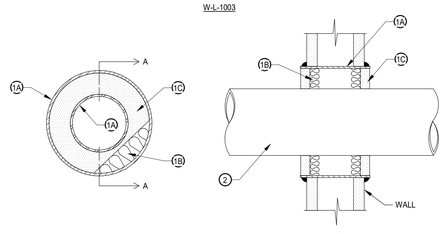
4. THROUGH PENETRANT - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOMINAL ANNULAR SPACE OF 3/4" IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED.

A. STEEL PIPE - NOMINAL 4"Ø (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.

B. CONDUIT - NOMINAL 4"Ø (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.

* BEARING THE UL CLASSIFICATION MARKING

2 PENETRATION THROUGH 2 HOUR FIRE RATED WALL
NO SCALE



1. FIRESTOP SYSTEM - INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

A. STEEL SLEEVE - CYLINDRICAL SLEEVE FABRICATED FROM MINIMUM 0.019" THICK (NO. 28 GAUGE) GALVANIZED SHEET STEEL AND HAVING A MINIMUM 2" LAP ALONG THE LONGITUDINAL SEAM. LENGTH OF STEEL SLEEVE TO BE EQUAL TO THICKNESS OF WALL PLUS 1" SUCH THAT, WHEN INSTALLED, THE ENDS OF THE SLEEVE WILL PROJECT APPROXIMATELY 1/2" BEYOND THE SURFACE OF THE WALL ON BOTH SIDES OF THE WALL ASSEMBLY. THE DIAMETER OF THE OPENINGS CUT IN THE GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE WALL ASSEMBLY (CONCENTRIC WITH PIPE) TO BE 2" TO 2-1/2" LARGER THAN OUTSIDE DIAMETER OF PIPE INSULATION SUCH THAT, WHEN THE STEEL SLEEVE IS INSTALLED, A 1" TO 1-1/4" ANNULAR SPACE WILL BE PRESENT BETWEEN THE STEEL SLEEVE AND THE PIPE INSULATION AROUND THE ENTIRE CIRCUMFERENCE OF THE PIPE. SLEEVE INSTALLED BY COILING THE SHEET STEEL TO A DIAMETER SMALLER THAN THE THROUGH OPENING, INSERTING THE COIL THROUGH THE OPENINGS AND RELEASING THE COIL TO LET IT UNCOIL AGAINST THE CIRCULAR CUTOUTS IN THE GYPSUM WALLBOARD LAYERS.

B. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR MINIMUM 1" THICKNESS OF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO STEEL SLEEVE ON BOTH SIDES OF THE WALL ASSEMBLY AS PERMANENT FORMS. PACKING MATERIAL TO BE RECESSED MINIMUM 1" FROM END OF STEEL SLEEVE (RECESSED MINIMUM 1/2" INTO GYPSUM WALLBOARD SURFACE) ON BOTH SIDES OF WALL ASSEMBLY.

B1. PACKING MATERIAL -(NOT SHOWN)- AS AN ALTERNATE TO ITEM B, NOMINAL 1" THICK POLYETHYLENE BACKER ROD MAY BE USED. THE BACKER ROD IS TO BE RECESSED WITHIN THE STEEL SLEEVE A MINIMUM OF 1" FROM EACH SURFACE OF WALL.

C. FILL,VOID OR CAVITY MATERIALS* -CAULK- MINIMUM 1" THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON BOTH SIDES OF WALL ASSEMBLY. THICKNESS FOR FILL MATERIAL FOR NOMINAL 3" DIAMETER (OR SMALLER) STEEL PIPES MAY BE REDUCED TO A MINIMUM 1/2". A NOMINAL 1/4" DIAMETER CONTINUOUS BEAD OF CAULK SHALL BE APPLIED AROUND THE CIRCUMFERENCE OF THE STEEL SLEEVE AT ITS EGRESS FROM THE GYPSUM WALLBOARD LAYERS ON BOTH SIDES OF THE WALL ASSEMBLY.

MINNESOTA MINING & MFG. CO.- CP 25WB+

2. THROUGH PENETRANT - ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MINIMUM 0" TO MAXIMUM 1-3/8". PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:

A. STEEL PIPE - NOMINAL 12" DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

B. IRON PIPE - NOMINAL 12" DIAMETER (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOMINAL 12" DIAMETER (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPING.

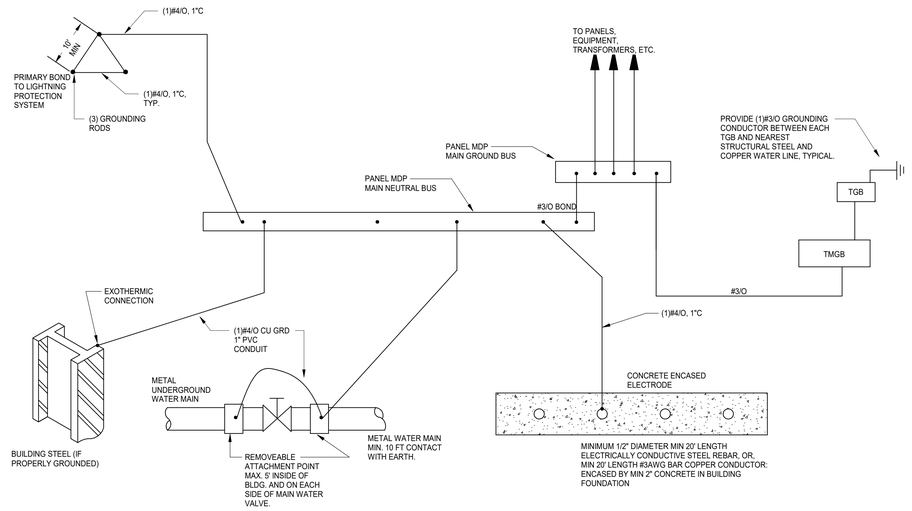
C. CONDUIT - NOMINAL 6" DIAMETER (OR SMALLER) STEEL CONDUIT OR NOMINAL 4" DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC CONDUIT.

D. COPPER TUBING - NOMINAL 6" DIAMETER (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

E. COPPER PIPE - NOMINAL 6" DIAMETER (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

* BEARING THE UL CLASSIFICATION MARKING

1 PENETRATION THROUGH 1 HOUR FIRE RATED WALL
NO SCALE



4 GROUNDING SYSTEM DIAGRAM
NO SCALE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040202 5/22/2019 BRYAN C. WELLS

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
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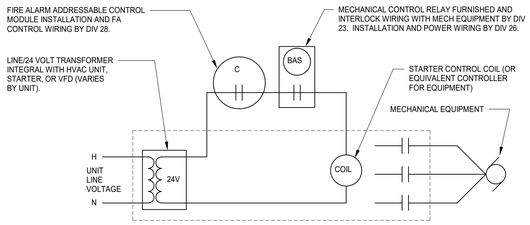
DATE	DESCRIPTION

ELECTRICAL DETAILS

E4.1

5/22/2019 9:42:30 AM



SYSTEMS WITH MULTIPLE MOTORS REQUIRE ONE SHUTDOWN RELAY FOR EACH STARTER OR VFD. THERE MAY BE MORE THAN ONE DUCT SMOKE DETECTOR PER SYSTEM, BUT ONLY ONE CONTROL MODULE IS REQUIRED PER MOTOR. SHUTDOWN IS VIA CONTROL MODULE, NOT VIA DUCT DETECTOR AUX CONTACTS. COORDINATE W/ DIV 23.

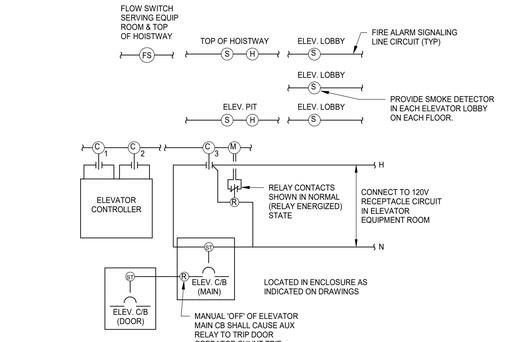
UNDER NORMAL CONDITIONS, FA SYSTEM POWERS THE NORMALLY OPEN FA CONTROL MODULE CONTACT TO THE CLOSED POSITION TO ALLOW NORMAL UNIT CONTROL BY BAS.

UPON ALARM SIGNAL FROM THE FIRE ALARM SYSTEM, THE CONTACTS IN THE FA SYSTEM RELEASES CONTROL MODULE TO OPEN POSITION, CAUSING SHUTDOWN OF ASSOCIATED HVAC EQUIPMENT. HVAC EQUIPMENT SHALL NOT BE OPERABLE UNTIL FA CONTROL MODULE IS RESET TO NORMAL CLOSED POSITION.

DIVISION 23 SHALL PROVIDE WIRING BETWEEN BETWEEN FA AND BAS CONTROL MODULES AND HVAC EQUIPMENT CONTROLLER (STARTER, VFD, OR INTEGRAL CONTROL PANEL).

5 FIRE ALARM HVAC UNIT SHUTDOWN WIRING DIAGRAM

NO SCALE



LEGEND

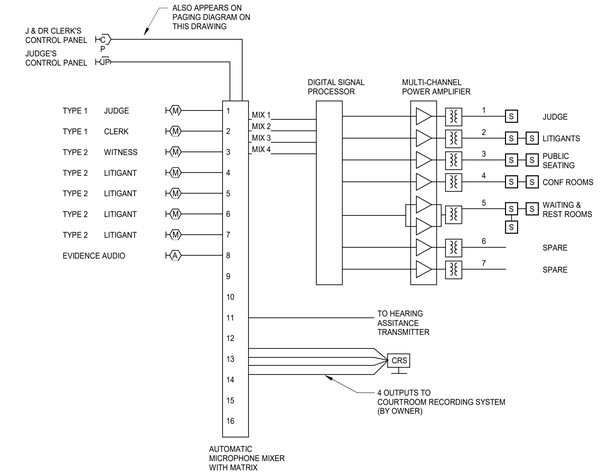
- NORMALLY OPEN CONTACT
- NORMALLY CLOSED CONTACT
- ST — SHUNT TRIP COIL/BREAKER (VERIFY CONTROL VOLTAGE - PROVIDE TRANSFORMER IF 24V)
- C — FIRE ALARM ADDRESSABLE CONTROL MODULE
- M — FIRE ALARM ADDRESSABLE MONITOR MODULE
- R — RELAY
- S — SMOKE DETECTOR FOR ELEVATOR RECALL
- H — HEAT DETECTOR (FOR SHUNT TRIP)
- FS — SPRINKLER FLOW SWITCH MONITOR

NOTES:

1. AN ALARM SIGNAL FROM A SMOKE DETECTOR IN THE ELEVATOR HOISTWAY OR ELEVATOR LOBBY (OTHER THAN AT THE PRIMARY RECALL LEVEL) SHALL ACTUATE THE FIRST ELEVATOR CONTROL MODULE (C)1.
2. AN ALARM SIGNAL FROM A SMOKE DETECTOR IN THE ELEVATOR LOBBY AT THE PRIMARY RECALL LEVEL SHALL ACTUATE THE SECOND ELEVATOR CONTROL MODULE (C)2.
3. AN ALARM SIGNAL FROM A HEAT DETECTOR OR FLOW SWITCH SERVING THE ELEVATOR HOISTWAY OR MACHINE ROOM SHALL ACTUATE THE SHUNT TRIP CONTROL MODULE (C)3, CAUSING THE ELEVATOR MAIN CIRCUIT BREAKER TO OPEN.
4. LOSS OF CONTROL POWER TO THE SHUNT TRIP BREAKER SHALL OPEN THE RELAY CONTACTS AND INITIATE A SUPERVISORY SIGNAL ON THE FIRE ALARM SYSTEM.
5. FIRE ALARM CONTROL AND MONITOR MODULES SHALL BE MOUNTED WITHIN 36" OF THE EQUIPMENT CONTROLLED OR MONITORED.
6. A HEAT DETECTOR FOR ELEVATOR SHUNT TRIP SHALL BE PROVIDED WITHIN 24" OF EACH SPRINKLER IN THE ELEVATOR HOISTWAY AND MACHINE ROOM.

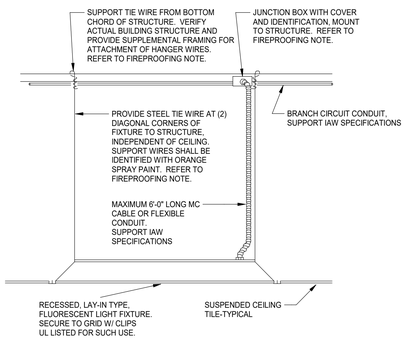
3 ELEVATOR RECALL & SHUNT TRIP DIAGRAM

NO SCALE



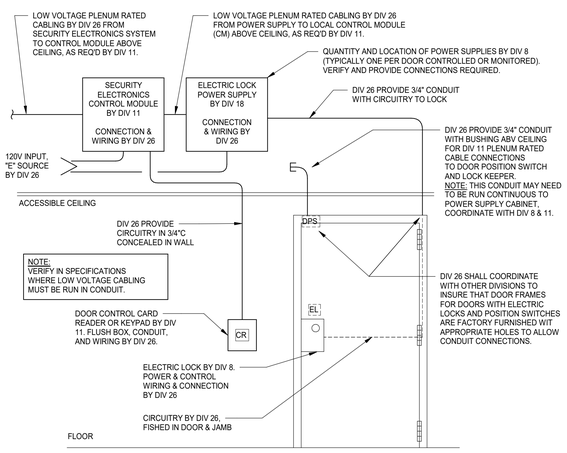
1 DISTRICT COURTROOM G130 SOUND SYSTEM DIAGRAM

NO SCALE



6 RECESSED, LAY-IN, FLUORESCENT LIGHT FIXTURE MOUNTING DETAIL

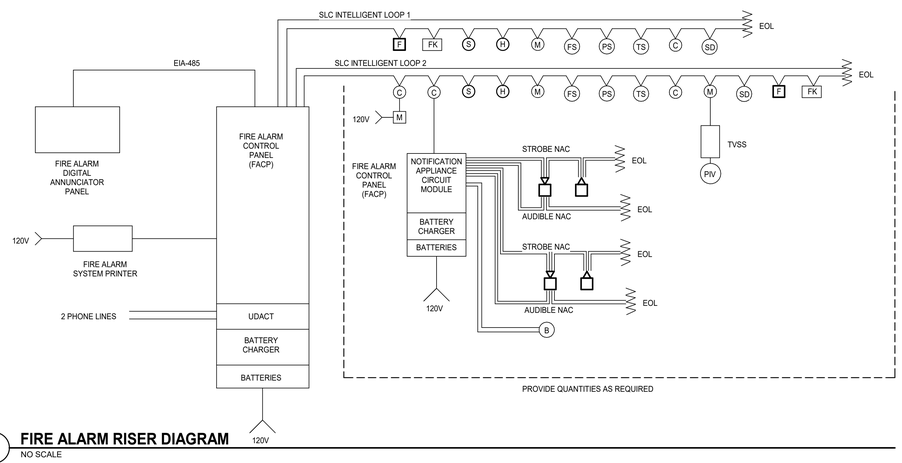
NO SCALE



4 ELECTRIC LOCK/CARD READER/SECURITY ELECTRONICS DOOR POSITION SWITCH CONNECTION DETAIL

EL CR DPS

NO SCALE



2 FIRE ALARM RISER DIAGRAM

NO SCALE

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DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
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E4.2

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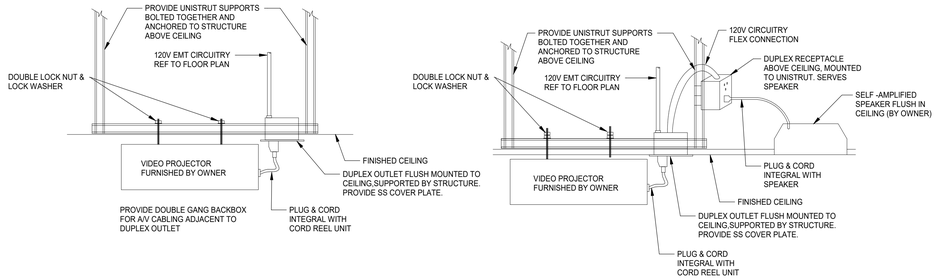
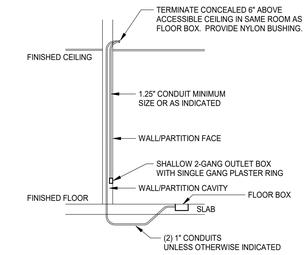


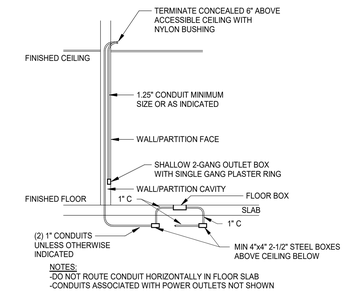
VIDEO PROJECTOR SUPPORT & POWER DETAIL

NO SCALE



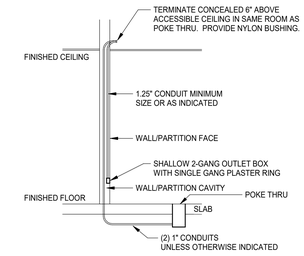
TELECOMMUNICATIONS OUTLET CONDUIT DETAIL - FLOOR BOX

NO SCALE



TELECOMMUNICATIONS OUTLET CONDUIT DETAIL - JUNCTION BOXES BELOW FLOOR

NO SCALE



TELECOMMUNICATIONS OUTLET CONDUIT DETAIL - POKE THRU

NO SCALE

MOSELEY ARCHITECTS
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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 ENGINEER BRIAN E. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO.	DATE:
571990	MAY 22, 2019

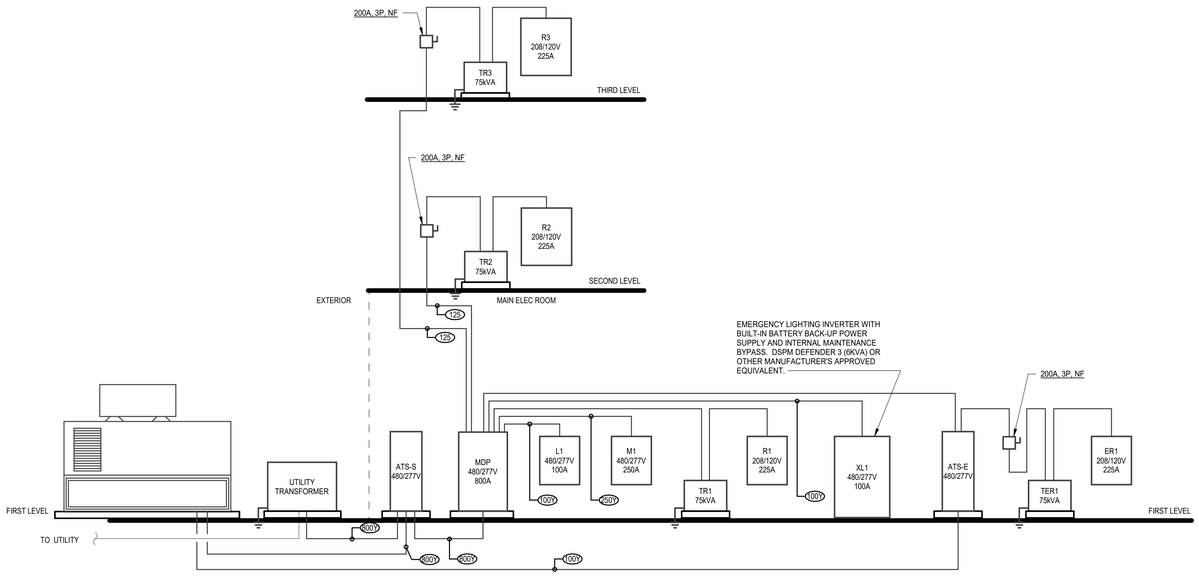
REVISIONS

DATE	DESCRIPTION

ELECTRICAL DETAILS

E4.3

5/22/2019 9:42:32 AM



ONE LINE/RISER DIAGRAM

PANELBOARD SCHEDULE MDP

LOCATION: ELECTRICAL ROOM 125 — FED FROM: ATS-S

800 AMP — 480Y/277V — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC): 100 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1				16.7	2.0								2
3	125 A	3	TR1			14.1	2.2			L1	3	100 A	4
5								12.9	2.5				6
7				11.0	48.2								8
9	125 A	3	TR2			12.4	48.2			M1	3	250 A	10
11								9.4	48.2				12
13				17.4	1.7								14
15	125 A	3	TR3			14.7	1.5			XL1	3	100 A	16
17								17.6	1.3				18
19				7.7									20
21	125 A	3	ATS-E			8.7							22
23								6.9					24
25													26
27													28
29													30
31													32
33													34
35													36
37					64.1								38
39							64.1			RTU-1	3	250 A	40
41									64.1				42
				169 kVA		166 kVA		163 kVA					
				611 A		600 A		587 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	9746 VA	125.00%	12183 VA
EXTERIOR LIGHTING	270 VA	125.00%	338 VA
RECEPTACLES	79200 VA	56.31%	44600 VA
AC / HEAT PUMP	205720 VA	98.03%	201670 VA
ELECTRIC HEAT	44469 VA	100.00%	44469 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	19000 VA	70.79%	13450 VA

Panel Totals

Total Conn. Load: 497.2 kVA
Total Est. Demand: 453.2 kVA
Total Conn. Current: 598 A
Total Est. Demand... 545 A

Mechanical Equipment - ELECTRICAL DATA

Mark	Voltage	Poles	hP	FLA	MCA	MOCP	kVA	Disconnect	Branch Circuiting	Panel	Circuit Number	Comments
B-1	120 V	1		10.0 A	0.0 A		1.2 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R3	81	
B-2	120 V	1		10.0 A	0.0 A		1.2 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R3	83	
BAS PANEL	120 V	1					0.0 kVA	N/A	2-#12, 1-#12 G, 3/4" C.	R3	79	
CU-1	208 V	2			13.0 A	20.0 A	2.7 kVA	30A2PNF, NEMA 3R	3-#12, 1-#12 G, 3/4" C.	R3	66,68	
CU-2	208 V	2			13.0 A	20.0 A	2.7 kVA	30A2PNF, NEMA 3R	3-#12, 1-#12 G, 3/4" C.	R3	70,72	
CU-3	208 V	2			13.0 A	20.0 A	2.7 kVA	30A2PNF, NEMA 3R	3-#12, 1-#12 G, 3/4" C.	R3	74,76	
CU-4	208 V	2			13.0 A	20.0 A	2.7 kVA	30A2PNF, NEMA 3R	3-#12, 1-#12 G, 3/4" C.	R3	78,80	
CU-5	208 V	2			13.0 A	20.0 A	2.7 kVA		3-#12, 1-#12 G, 3/4" C.	R3	82,84	
DSS-1	208 V	2		0.0 A	1.0 A	20.0 A	0.2 kVA	N/A	3-#12, 1-#12 G, 3/4" C.			POWERED BY OUTDOOR UNIT
DSS-2	208 V	2		0.0 A	1.0 A	20.0 A	0.2 kVA	N/A	3-#12, 1-#12 G, 3/4" C.			POWERED BY OUTDOOR UNIT
DSS-3	208 V	2		0.0 A	1.0 A	20.0 A	0.2 kVA	N/A	3-#12, 1-#12 G, 3/4" C.			POWERED BY OUTDOOR UNIT
DSS-4	208 V	2		0.0 A	1.0 A	20.0 A	0.2 kVA	N/A	3-#12, 1-#12 G, 3/4" C.			POWERED BY OUTDOOR UNIT
DSS-5	208 V	2		0.0 A	1.0 A	20.0 A	0.2 kVA	N/A	3-#12, 1-#12 G, 3/4" C.			POWERED BY OUTDOOR UNIT
EF-1	120 V	1					1.2 kVA	30A2PNF, NEMA 3R	2-#12, 1-#12 G, 3/4" C.	R3	71	
EF-2	120 V	1					0.5 kVA	30A2PNF, NEMA 3R	2-#12, 1-#12 G, 3/4" C.	R3	73	
EF-259	120 V	1					0.7 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R2	83	
EF-BOILER	115 V	1					0.1 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R3	77	
EF-ELEC125	120 V	1					0.7 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R1	79	
EF-ELEC360	120 V	1					0.7 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R3	75	
EF-VSP	120 V	1					0.7 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R1	81	
HWUH-1	120 V	1		9.0 A	15.0 A	15.0 A	1.1 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	83	
HWUH-2	120 V	1		0.8 A	1.0 A	1.8 A	0.1 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	69	
P-1	460 V	3	3	0.0 A	0.0 A	0.0 A	4.0 kVA	30A3PNF, NEMA 1	3-#12, 1-#12 G, 3/4" C.	M1	2,4,6	
P-2	460 V	3	3	0.0 A	0.0 A	0.0 A	4.0 kVA	30A3PNF, NEMA 1	3-#12, 1-#12 G, 3/4" C.	M1	8,10,12	
RTU-1	460 V	3		0.0 A	231.2 A	250.0 A	192.2 kVA	BY DIV. 23	4-350, 1-#4 G, 3" C.	MDP	38,40,42	
TU1-1	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	65	
TU1-2	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	66	
TU1-2A	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	67	
TU1-2B	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	68	
TU1-3	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	69	
TU1-4	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	70	
TU1-5	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	67	
TU1-6	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	67	
TU1-7	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	67	
TU1-8	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	71	
TU1-9	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	67	
TU1-10	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	72	
TU1-11	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	73	
TU1-12	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	75	
TU1-13	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R1	77	
TU2-1A	120 V	1		0.0 A	6.9 A	15.0 A	0.8 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	65	
TU2-1B	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	67	
TU2-2	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	68	
TU2-3	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	69	
TU2-4	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	71	
TU2-5	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	73	
TU2-6	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	75	
TU2-7	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	77	
TU2-8	120 V	1		0.0 A	5.4 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	79	
TU2-9	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R2	81	
TU3-1	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	56	
TU3-2	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	57	
TU3-3	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	58	
TU3-4	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	59	
TU3-5	120 V	1		0.0 A	5.4 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	60	
TU3-6	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	61	
TU3-7	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	61	
TU3-8	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	61	
TU3-9	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	61	
TU3-10	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	62	
TU3-11	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	63	
TU3-12	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	61	
TU3-13	120 V	1					0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	61	
TU3-14	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	64	
TU3-15	120 V	1		0.0 A	2.0 A	15.0 A	0.7 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	65	
TU3-16	120 V	1		0.0 A	2.0 A	15.0 A	0.2 kVA	BY DIV. 23	2-#12, 1-#12 G, 3/4" C.	R3	67	
UH-ELEC	208 V	2		11.0 A	13.8 A	20.0 A	3.0 kVA	30A2PNF, NEMA 1	3-#12, 1-#12 G, 3/4" C.	R1	74,76	
UH-S102	208 V	2		0.0 A	9.6 A	15.0 A	2.0 kVA	30A3PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R1	78,80	
UH-S103	208 V	2		0.0 A	9.6 A	15.0 A	2.0 kVA	30A3PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R1	82,84	
UH-S202	208 V	2		0.0 A	9.6 A	15.0 A	2.0 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R2	74,76	
UH-S203	208 V	2		0.0 A	9.6 A	15.0 A	2.0 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R2	70,72	
UH-S302	208 V	2		0.0 A	9.6 A	15.0 A	2.0 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R2	82,84	
UH-S303	208 V	2		0.0 A	9.6 A	15.0 A	2.0 kVA	30A2PNF, NEMA 1	2-#12, 1-#12 G, 3/4" C.	R2	78,80	

COPPER FEEDER SCHEDULE

FEEDER ID	# OF SETS	BUILDING WIRE QUANTITY & SIZE TYPE THHN - DRY TYPE THWN - WET	MINIMUM CONDUIT SIZE	FEEDER ID	# OF SETS	BUILDING WIRE QUANTITY & SIZE TYPE THHN - DRY TYPE THWN - WET	MINIMUM CONDUIT SIZE
30	1	3#10,#10 G	3/4"	30Y	1	4#10,#10 G	3/4"
35	1	3#8,#10 G	3/4"	35Y	1	4#8,#10 G	3/4"
40	1	3#8,#10 G	3/4"	40Y	1	4#8,#10 G	3/4"
45	1	3#6,#10 G	1"	45Y	1	4#6,#10 G	1"
50	1	3#6,#10 G	1"	50Y	1	4#6,#10 G	1"
60	1	3#4,#10 G	1"	60Y	1	4#4,#10 G	1"
70	1	3#4,#8 G	1 1/4"	70Y	1	4#4,#8 G	1 1/4"
80	1	3#3,#8 G	1 1/4"	80Y	1	4#3,#8 G	1 1/4"
90	1	3#2,#8 G	1 1/4"	90Y	1	4#2,#8 G	1 1/4"
100	1	3#1,#8 G	1 1/4"	100Y	1	4#1,#8 G	1 1/4"
110	1	3#2,#6 G	1 1/2"	110Y	1	4#2,#6 G	1 1/2"
125	1	3#1,#6 G	1 1/2"	125Y	1	4#1,#6 G	1 1/2"
150	1	3#1/0,#6 G	2"	150Y	1	4#1/0,#6 G	2"
175	1	3#2/0,#6 G	2"	175Y	1	4#2/0,#6 G	2"
200	1	3#3/0,#6 G	2"	200Y	1	4#3/0,#6 G	2"
225	1	3#4/0,#4 G	2 1/2"	225Y	1	4#4/0,#4 G	2 1/2"
250	1	3-250kCM,#4 G	2 1/2"	250Y	1	4-250kCM,#4 G	2 1/2"
300	1	3-350kCM,#4 G	2 1/2"	300Y	1	4-350kCM,#4 G	2 1/2"
350	2	3#2/0,#3 G	2"	350Y	2	4#2/0,#3 G	2"
400	1	3-600kCM,#3 G	4"	400Y	1	4-600kCM,#3 G	4"
450	2	3#4/0,#2 G	2 1/2"	450Y	2	4#4/0,#2 G	2 1/2"
500	2	3-250kCM,#2 G	2 1/2"	500Y	2	4-250kCM,#2 G	2 1/2"
600	2	3-350kCM,#1 G	3"	600Y	2	4-350kCM,#1 G	3"
700	2	3-500kCM,#1/0 G	4"	700Y	2	4-500kCM,#1/0 G	4"
800	2	3-600kCM,#1/0 G	4"	800Y	2	4-600kCM,#1/0 G	4"
1000	3	3-500kCM,#2/0 G	4"	1000Y	3	4-500kCM,#2/0 G	4"
1200	4	3-350kCM,#3/0 G	3"	1200Y	4	4-350kCM,#3/0 G	3"
1600	4	3-600kCM,#4/0 G	4"	1600Y	4	4-600kCM,#4/0 G	4"
2000	5	3-600kCM,#250 G	4"	2000Y	5	4-600kCM,#250 G	4"
2500	6	3-600kCM,#350 G	4"	2500Y	6	4-600kCM,#350 G	4"

NOTES:
1. ELECTRICAL CONTRACTOR TO VERIFY CONDUIT SIZE REQUIRED IF WIRE TYPES OTHER THAN THOSE LISTED ABOVE ARE USED.
2. FEEDER SIZES BASED ON TABLE 310.16, 75° C.
3. SIZES ADJUSTED PER NEC 110.14.

TRANSFORMER SCHEDULE

kVA	TYPE	PRIMARY	SECONDARY	COPPER PRIMARY FEEDER	COPPER SECONDARY FEEDER	BONDING CONDUCTOR
15 kVA	LINEAR	480V-3Ø	208Y/120V	3#10,#10G,3/4" C	4#4,#6G,1"C	#8
30 kVA	LINEAR	480V-3Ø	208Y/120V	3#6,#10G,1"C	4#1,#6G,1-1/2"C	#6
45 kVA	LINEAR	480V-3Ø	208Y/120V	3#4,#6G,1-1/4"C	4#1/0,#4G,2"C	#4
75 kVA	LINEAR	480V-3Ø	208Y/120V	3#1,#6G,1-1/2"C	4-250kCM,#2G, 2-1/2"C	#2
112.5 kVA	LINEAR	480V-3Ø	208Y/120V	3#2/0,#6G,2"C	4-500KCM, #1/0G,4"C	#1/O
150 kVA	LINEAR	480V-3Ø	208Y/120V	3#4/0,#4G,2-1/2"C	(2 SETS) 4-250KCM, #3/0G, 2-1/2"C	#3/O
225 kVA	LINEAR	480V-3Ø	208Y/120V	(2 SETS) 3#2/0,# 3-G,2"C	(2 SETS) 4-600KCM,#3/0G, 4"C	#3/O
300 kVA	LINEAR	480V-3Ø	208Y/120V	(2 SETS) 3#4/0,# 2 G,2-1/2"C	(4 SETS) 4-350KCM,#3/0G, 4"C	#3/O

MOSELEYARCHITECTS
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MOSELEYARCHITECTS.COM

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040202 5/22/2019 REGISTERED BRIAN C. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990 | DATE: MAY 22, 2019

REVISIONS	
DATE	DESCRIPTION

POWER ONE-LINE DIAGRAM

E5.1

5/22/2019 9:42:34 AM

PANELBOARD SCHEDULE L1

LOCATION: ELECTRICAL ROOM 125 — FED FROM: MDP

100 AMP MLO — 480Y/277V — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC): 22 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	1	INTERIOR LIGHTING	0.9	1.2					INTERIOR LIGHTING TESTING/...	1	20 A	2
3	20 A	1	INTERIOR LIGHTING WAITING...			1.4	0.7			INTERIOR LIGHTING GALLERY...	1	20 A	4
5	20 A	1	INTERIOR LIGHTING CHIEF...					1.6	0.9	INTERIOR LIGHTING COURT...	1	20 A	6
7	20 A	1	SPARE	0.0	0.0					SPARE	1	20 A	8
9	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	10
11	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	12
				2 kVA		2 kVA		3 kVA					
				7 A		8 A		9 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	6716 VA	125.00%	8395 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	0 VA	0.00%	0 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	0 VA	0.00%	0 VA

Panel Totals

Total Conn. Load: 6.7 kVA
Total Est. Demand: 8.4 kVA
Total Conn. Current: 8 A
Total Est. Demand... 10 A

PANELBOARD SCHEDULE M1

LOCATION: ELECTRICAL ROOM 125 — FED FROM: MDP

250 A MLO — 480Y/277V — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC): 65 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1				11.0	1.3								2
3	45 A	3	ELEVATOR 1			11.0	1.3			P-1	3	20 A	4
5								11.0	1.3				6
7				11.0	1.3								8
9	45 A	3	ELEVATOR 2			11.0	1.3			P-2	3	20 A	10
11								11.0	1.3				12
13				11.0	3.3								14
15	45 A	3	ELEVATOR 3			11.0	3.3			EWH-1	3	20 A	16
17								11.0	3.3				18
19				2.5	3.3								20
21	20 A	3	DWBP-1			2.5	3.3			EWH-2	3	20 A	22
23								2.5	3.3				24
25				0.0	3.3								26
27	45 A	3	SPARE			0.0	3.3			EWH-3	3	20 A	28
29								0.0	3.3				30
31				0.0	0.0					SPACE ONLY	--	--	32
33	20 A	3	SPARE			0.0	0.0			SPACE ONLY	--	--	34
35								0.0	0.0	SPACE ONLY	--	--	36
37	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	38
39	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	40
41	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	42
				48 kVA		48 kVA		48 kVA					
				174 A		174 A		174 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	0 VA	0.00%	0 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	0 VA	0.00%	0 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	30000 VA	100.00%	30000 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	0 VA	0.00%	0 VA

Panel Totals

Total Conn. Load: 144.5 kVA
Total Est. Demand: 146.4 kVA
Total Conn. Current: 174 A
Total Est. Demand... 176 A

PANELBOARD SCHEDULE R3

LOCATION: SUPPLY 360 — FED FROM: TR3

225 AMP MCB — 208Y/120V — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC): 22 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	1	RECEPTACLES CHIEF COURT...	1.8	1.6					RECEPTACLES COURT...	1	20 A	2
3	20 A	1	RECEPTACLES OPEN OFFICE/...			1.4	1.6			RECEPTACLES WAITING 307	1	20 A	4
5	20 A	1	RECEPTACLES COURT...					1.6	1.8	RECEPTACLES COURT...	1	20 A	6
7	20 A	1	RECEPTACLES CORRIDOR 309	1.6	1.6					RECEPTACLES SUPPLY 322	1	20 A	8
9	20 A	1	RECEPTACLES WORK/ COPY/...			0.2	1.4			RECEPTACLES WORK/ COPY/...	1	20 A	10
11	20 A	1	RECEPTACLES COURT...					0.7	1.1	RECEPTACLES WOMENS TLT 306	1	20 A	12
13	20 A	1	RECEPTACLES CORRIDOR 334	1.3	1.3					RECEPTACLES DATA 349	1	20 A	14
15	20 A	1	RECEPTACLES DATA 349			0.9	1.1			RECEPTACLES COURT...	1	20 A	16
17	20 A	1	RECEPTACLES COURT...					1.1	1.4	RECEPTACLES COURT...	1	20 A	18
19	20 A	1	RECEPTACLES	0.7	0.9					RECEPTACLES	1	20 A	20
21	20 A	1	RECEPTACLES BREAK 332			0.4	0.2			REFRIGERATOR BREAK 332	1	20 A	22
23	20 A	1	INTERIOR LIGHTING					0.1	0.4	RECEPTACLES ROOM 301, 334	1	20 A	24
25	20 A	1	INTERIOR LIGHTING	0.1	0.0					SPARE	1	20 A	26
27	20 A	1	INTERIOR LIGHTING			0.1	0.0			SPARE	1	20 A	28
29	20 A	1	SPARE					0.0	0.0	SPARE	1	20 A	30
31	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	32
33	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	34
35	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	36
37	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	38
39	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	40
41	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	42
43	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	44
45	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	46
47	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	48
49	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	50
51	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	52
53	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	54
55	--	--	SPACE ONLY	0.0	0.2					TU3-1 CHIEF COUNSELOR 313	1	15 A	56
57	15 A	1	TU3-2 COURT COUNSELOR 311			0.2	0.2			TU3-3 OPEN OFFICE / WAITING...	1	15 A	58
59	15 A	1	TU3-4 LOBBY 301					0.2	0.7	TU3-5 CORRIDOR 309	1	15 A	60
61	15 A	1	TU3-6, 7, 8, 9, 12, 13	1.2	0.2					TU3-10 CORRIDOR 337B	1	15 A	62
63	15 A	1	TU3-11 CORRIDOR 309			0.2	0.7			TU3-14 COURT COUNSELOR 330	1	15 A	64
65	15 A	1	TU3-15 CORRIDOR 334					0.7	1.4	CU-1	2	20 A	66
67	15 A	1	TU3-16 CORRIDOR 337C	0.2	1.4								68
69	20 A	1	HWUH-2 BOILER ROOM			0.1	1.4			CU-2	2	20 A	70
71	20 A	1	EF-1					1.2	1.4				72
73	20 A	1	EF-2	0.5	1.4					CU-3	2	20 A	74
75	20 A	1	EF-ELEC351			0.7	1.4						76
77	20 A	1	EF-BOILER					0.1	1.4	CU-4	2	20 A	78
79	20 A	1	BAS PANEL BOILER ROOM	0.0	1.4								80
81	20 A	1	B-1			1.2	1.4			CU-5	2	20 A	82
83	20 A	1	B-2					1.2	1.4				84
				17 kVA		15 kVA		18 kVA					
				148 A		122 A		150 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	192 VA	125.00%	240 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	26100 VA	69.16%	18050 VA
AC / HEAT PUMP	13500 VA	76.00%	10260 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	0 VA	0.00%	0 VA

Panel Totals

Total Conn. Load: 49.6 kVA
Total Est. Demand: 37.4 kVA
Total Conn. Current: 138 A
Total Est. Demand... 104 A

PANELBOARD SCHEDULE R2

LOCATION: MECH 259 — FED FROM: TR2

225 AMP MCB — 208Y/120V — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC): 22 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	1	RECEPTACLES	1.4	1.6					RECEPTACLES CORRIDOR 260C	1	20 A	2
3	20 A	1	RECEPTACLES CONF 251			1.4	0.7			RECEPTACLES COURT ROOM A...	1	20 A	4
5	20 A	1	RECEPTACLES COURT ROOM A...					0.7	1.3	RECEPTACLES COURT ROOM A...	1	20 A	6
7	20 A	1	RECEPTACLES COURT ROOM A...	0.2	0.9					RECEPTACLES VESTIBULE 239	1	20 A	8
9	20 A	1	RECEPTACLES WOMENS TLT 226			1.3	0.0			SHADE CONTROL RM 206A	2	20 A	10
11	20 A	2	SHADE CONTROL RM 246 STORAGE 247					0.0	0.0	STORAGE 247			12
13				0.0	0.9					RECEPTACLES STAIR 2 S202	1	20 A	14
15	20 A	1	RECEPTACLES SECURITY...			1.3	1.8			RECEPTACLES CONF 229	1	20 A	16
17	20 A	1	RECEPTACLES EVID 245					0.7	0.7	RECEPTACLES EVID 245	1	20 A	18
19	20 A	1	RECEPTACLES CORRIDOR 219	1.1	0.7					RECEPTACLES COURT ROOM B...	1	20 A	20
21	20 A	1	RECEPTACLES COURT ROOM B...			0.7	1.1			RECEPTACLES COURT ROOM B...	1	20 A	22
23	20 A	1	RECEPTACLES COURT ROOM B...					0.2	0.4	RECEPTACLES A/V 236	1	20 A	24
25	20 A	1	INTERIOR LIGHTING ELEVATOR...	0.1	0.4					RECEPTACLES	1	20 A	26
27	20 A	1	INTERIOR LIGHTING			0.1	0.0			SPARE	1	20 A	28
29	20 A	1	INTERIOR LIGHTING					0.1	0.0	SPARE	1	20 A	30
31	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	32
33	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	34
35	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	36
37	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	38
39	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	40
41	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	42
43	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	44
45	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	46
47	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	48
49	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	50
51	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	52
53	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	54
55	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	56
57	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	58
59	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	60
61	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	62
63	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	64
65	15 A	1	TU2-1A CORRIDOR 260					0.8	0.0	SPACE ONLY	--	--	66
67	15 A	1	TU2-01B CORRIDOR 260B	0.7	0.2					TU2-02 CORRIDOR 260C	1	15 A	68
69	15 A	1	TU2-03 CORRIDOR 260B			0.2	1.0			ELECTRIC HEAT STAIR 3 S203	2	20 A	70
71	15 A	1	TU2-04 CORRIDOR 262					0.2	1.0				72
73	15 A	1	TU2-05 ADA HOLDING CELL 225	0.2	1.0					ELECTRIC HEAT STAIR 2 S202	2	20 A	74
75	15 A	1	TU2-06 ADA HOLDING CELL 225			0.2	1.0						76
77	15 A	1	TU2-07 CORRIDOR 219					0.7	1.0	ELECTRIC HEAT	2	20 A	78
79	15 A	1	TU2-08 TRAINING/...	0.7	1.0								80
81	15 A	1	TU2-09 CHAMBER 243			0.7	1.0			ELECTRIC HEAT STAIR 2 S302	2	20 A	82
83	20 A	1	EF-ELEC244					0.7	1.0				84
				11 kVA		12 kVA		9 kVA					
				93 A		105 A		78 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	192 VA	125.00%	240 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	19440 VA	75.72%	14720 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	8000 VA	100.00%	8000 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	0 VA	0.00%	0 VA

Panel Totals

Total Conn. Load: 32.8 kVA
Total Est. Demand: 27.6 kVA
Total Conn. Current: 91 A
Total Est. Demand... 77 A

PANELBOARD SCHEDULE R1

LOCATION: ELECTRICAL ROOM 125 — FED FROM: TR1

225 AMP MCB — 208Y/120V — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC): 22 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	1	RECEPTACLES WORK ROOM 107	0.2	1.1					RECEPTACLES VESTIBULE 100	1	20 A	2
3	20 A	1	RECEPTACLES			1.3	1.3			RECEPTACLES WORK ROOM 107	1	20 A	4
5	20 A	1	RECEPTACLES					1.3	1.1	RECEPTACLES	1	20 A	6
7	20 A	1	RECEPTACLES CONFERENCE...	1.4	1.3					RECEPTACLES WOMENS TLT 131	1	20 A	8
9	20 A	1	RECEPTACLES DATA 133			0.7	0.7			RECEPTACLES DATA 133	1	20 A	10
11	20 A	1	RECEPTACLES CLERK OPEN...					1.1	0.5	MOTOR VEHICLE SALLYPORT 113	1	20 A	12
13	20 A	1	RECEPTACLES CLERK OPEN...	1.1	1.8					RECEPTACLES CLERK OPEN...	1	20 A	14
15	20 A	1	RECEPTACLES COMMUNITY...			1.6	1.3			RECEPTACLES ASST. 147	1	20 A	16
17	20 A	1	RECEPTACLES MENTAL HEALT...					1.6	0.2	RECEPTACLES COPIER ALCOV...	1	20 A	18
19	20 A	1	RECEPTACLES TESTING/ CONF...	1.8	1.6					RECEPTACLES MENTAL HEALT...	1	20 A	20
21	20 A	1	RECEPTACLES MENTAL HEALT...			1.6	0.2			REFRIGERATOR STAFF BREAK...	1	20 A	22
23	20 A	1	ICE MAKER STAFF BREAK 129					0.2	0.4	RECEPTACLES STAFF BREAK...	1	20 A	24
25	20 A	1	RECEPTACLES STAFF BREAK...	0.2	1.1					RECEPTACLES STAFF BREAK...	1	20 A	26
27	20 A	1	(GP) RECEPT VENDING 156			0.2	0.2			(GP) RECEPT VENDING 156	1	20 A	28
29	20 A	1	ELEVATOR PIT RECEP & LIGHT...					0.2	1.1	RECEPTACLES SEC VES 152	1	20 A	30
31	20 A	1	ELEVATOR PIT RECEP & LIGHT...	0.2	0.0					GEN BATT. CHGR	1	20 A	32
33	20 A	1	ELEVATOR PIT RECEP & LIGHT...			0.2	0.0			GEN COOLANT JACKET HTR	1	20 A	34
35	20 A	1	SPARE					0.0	0.0	SPARE	1	20 A	36
37	20 A	1	SPARE	0.0	0.0					SPARE	1	20 A	38
39	20 A	1	SPARE			0.0	0.0			SPARE	1	20 A	40
41	20 A	1	SPARE					0.0	0.0	SPARE	1	20 A	42
43	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	44
45	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	46
47	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	48
49	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	50
51	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	52
53	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	54
55	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	56
57	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	58
59	15 A	1	RCP-1					0.3	0.5	ESP-1	1	15 A	60
61	15 A	1	RCP-2	0.0	0.5					ESP-2	1	15 A	62
63	15 A	1	RCP-3			0.3	0.5			ESP-3	1	15 A	64
65	15 A	1	TU1-1 PRE-SCREENING 101					0.2	0.7	TU1-2 SCREENING 102	1	15 A	66
67	15 A	1	TU1-2A, 5, 6, 7, 9	1.0	0.2					TU1-2B CORRIDOR 112A	1	15 A	68
69	15 A	1	TU1-03 CORRIDOR 151			0.2	0.7			TU1-04 WORK ROOM 107	1	15 A	70
71	15 A	1	TU1-08 CORRIDOR 136					0.2	0.2	TU1-10 VENDING 156	1	15 A	72
73	15 A	1	TU1-11 STAFF BREAK 129	0.2	1.5					UH-ELEC125 ELECTRICAL ROOM 125	2	20 A	74
75	15 A	1	TU1-12 MENTAL HEALTH...			0.2	1.5						76
77	15 A	1	TU1-13 MENTAL HEALTH...					0.2	1.0	UH-S102 STAIR 2 S102	2	20 A	78
79	20 A	1	EF-ELEC125 ELECTRICAL ROO...	0.7	1.0								80
81	20 A	1	EF-VSP VEHICLE SALLYPORT 113			0.7	1.0			UH-S103 STAIR 3 S103	2	20 A	82
83	20 A	1	HWUH-1 VEHICLE SALLYPORT...					1.1	1.0				84
				17 kVA		14 kVA		13 kVA					
				141 A		119 A		107 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	192 VA	125.00%	240 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	27900 VA	67.92%	18950 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	6686 VA	100.00%	6686 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	1500 VA	80.00%	1200 VA

Panel Totals

Total Conn. Load: 43.7 kVA
Total Est. Demand: 33.9 kVA
Total Conn. Current: 121 A
Total Est. Demand... 94 A

MOSELEY ARCHITECTS
11430 NORTH COMMUNITY HOUSE ROAD, GIBSON BUILDING SUITE 225 CHARLOTTE, NC 28277
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040202 5/22/2019 BRYAN E. MOSELEY

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019
REVISIONS	
DATE	DESCRIPTION

PANEL SCHEDULES

E5.2

5/22/2019 9:42:36 AM

PANELBOARD SCHEDULE XL1

LOCATION: ELECTRICAL ROOM 125 | FED FROM: MDP

125 AMP MCB | 480Y/277V | 3 PH 4 W | MOUNT: SURFACE | PANEL ASSEMBLY RATED (KAIC): 65 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	1	INTERIOR LIGHTING - FIRST...	0.9	0.6					ELEVATOR 1 CAB LIGHTS	1	20 A	2
3	20 A	1	INTERIOR LIGHTING - SECOND...			0.9	0.6			ELEVATOR 2 CAB LIGHTS	1	20 A	4
5	20 A	1	INTERIOR LIGHTING CORRIDOR...					0.7	0.6	ELEVATOR 3 CAB LIGHTS	1	20 A	6
7	20 A	1	EXTERIOR LIGHTING	0.3	0.0					SPARE	1	20 A	8
9	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	10
11	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	12
				2 kVA		2 kVA		1 kVA					
				6 A		6 A		5 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	2454 VA	125.00%	3068 VA
EXTERIOR LIGHTING	270 VA	125.00%	338 VA
RECEPTACLES	0 VA	0.00%	0 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	0 VA	0.00%	0 VA

Panel Totals

Total Conn. Load: 4.5 kVA
Total Est. Demand: 5.2 kVA
Total Conn. Current: 5 A
Total Est. Demand... 6 A

PANELBOARD SCHEDULE ER1

LOCATION: ELECTRICAL ROOM 125 | FED FROM: TER1

225 AMP MCB | 208Y/120V | 3 PH 4 W | MOUNT: SURFACE | PANEL ASSEMBLY RATED (KAIC): 22 KAIC

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	1	FIRE / SMOKE DAMPERS FIRST...	0.2	0.2					RECEPTACLES DEPUTY 122	1	20 A	2
3	20 A	1	FIRE / SMOKE DAMPERS...			0.2	1.0			ACCESS CONTROL	1	20 A	4
5	20 A	1	FIRE / SMOKE DAMPERS THIRD...					0.2	1.5	ACCESS CONTROL CORRIDOR...	1	20 A	6
7	20 A	1	ACCESS CONTROL STAFF VES...	1.5	0.7					RECEPTACLES SEC ELEC 112B	1	20 A	8
9	20 A	1	ACCESS CONTROL CORRIDOR...			1.0	1.0			ACCESS CONTROL FILE...	1	20 A	10
11	20 A	1	RECEPTACLES ELECTRICAL...					0.5	0.7	RECEPTACLES DATA 228	1	20 A	12
13	20 A	1	RECEPTACLES SEC ELEC 112B	0.7	1.0					ACCESS CONTROL	1	20 A	14
15	20 A	1	ACCESS CONTROL ASST. 147			1.0	1.5			ACCESS CONTROL	1	20 A	16
17	20 A	1	RECEPTACLES DATA 228					0.7	1.0	ACCESS CONTROL SECURITY...	1	20 A	18
19	20 A	1	ACCESS CONTROL	1.5	0.7					RECEPTACLES COURT...	1	20 A	20
21	20 A	1	ACCESS CONTROL			1.5	1.0			ACCESS CONTROL CORRIDOR...	1	20 A	22
23	20 A	1	RECEPTACLES SEC ELEC 244					0.7	0.5	ACCESS CONTROL	1	20 A	24
25	20 A	1	ACCESS CONTROL	0.5	0.7					RECEPTACLES COURT...	1	20 A	26
27	20 A	1	ACCESS CONTROL			0.5	0.0			SPARE	1	20 A	28
29	20 A	1	ACCESS CONTROL COURT...					1.0	0.0	SPARE	1	20 A	30
31	20 A	1	SPARE	0.0	0.0					SPARE	1	20 A	32
33	20 A	1	SPARE			0.0	0.0			SPARE	1	20 A	34
35	20 A	1	SPARE					0.0	0.0	SPARE	1	20 A	36
37	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	38
39	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	40
41	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	42
				8 kVA		9 kVA		7 kVA					
				65 A		74 A		57 A					

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.15 DED. NEUTRAL.
(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL.
(L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING.
(LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X.
(ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	0 VA	0.00%	0 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	5760 VA	100.00%	5760 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	17500 VA	70.86%	12400 VA

Panel Totals

Total Conn. Load: 23.3 kVA
Total Est. Demand: 18.2 kVA
Total Conn. Current: 65 A
Total Est. Demand... 50 A

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NORTH CAROLINA PROFESSIONAL SEAL 040202 5/22/2019 ENGINEER BRIAN E. WELLS

DIVISION OF JUVENILE JUSTICE

NEW HANOVER COUNTY
WILMINGTON, NC

PROJECT NO: 571990	DATE: MAY 22, 2019

REVISIONS

DATE	DESCRIPTION

PANEL SCHEDULES

E5.3

5/22/2019 9:42:36 AM