ELECTRICAL ABBREVIATIONS:

+	DEVICE MOUNTED ABOVE STD HEIGHT
1PH	SINGLE-PHASE
1P	SINGLE POLE
2/C	TWO-CONDUCTOR
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
4/C	FOUR-CONDUCTOR
4W	FOUR-WIRE
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAP	ALARM ANNUNCIATOR PANEL
AC	ALTERNATING CURRENT OR ARMORED CABLE
ACC	ACCESSIBLE
ADDL	ADDITIONAL
ADJ	ADJACENT, ADJOINING
ADO	AUTOMATIC DOOR OPENER
AF	AMPERE FRAME OR AMP FUSE
AFC	ABOVE FINISHED COUNTER, AUTOMATIC FREQUENCY CONTROL, OR AVAILABLE FAULT CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AMPERE HOUR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMB OR A	AMBIENT
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BAT	BATTERY
BC	BARE COPPER
BD	BOARD
BFF	BELOW FINISH FLOOR
BIL	BASIC INSULATION LEVEL
BLDG	BUILDING
BPIP	BOILER PLANT INSTRUMENTATION PANEL
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CAPACITY
CAT	CATALOG
CATV	COMMUNITY ANTENNA TELEVISION
CCR	CONTROL CONTACTOR
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED
CFE	CONTRACTOR FURNISHED EQUIPMENT
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COAX	COAX CABLE
COMM	COMMUNICATION
COMPT	COMPARTMENT
CONC	CONCRETE
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
CU FT	CUBIC FEET
CUR	CURRENT
DB	DECIBEL OR DIRECT BURIAL
DC	DIRECT CURRENT
DCP	DIMMER CONTROL PANEL
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO	DEMOLITION
DIAG	DIAGRAM
DISC	DISCONNECT
DISTR	DISTRIBUTION
DISTR PNL	DISTRIBUTION PANEL
DMR SW	DIMMER SWITCH
DN	DOWN
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DRSW	DOOR SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
(E)	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMCP	EMERGENCY MONITORING CONTROL PANEL
EMER	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
EPRF	EXPLOSION PROOF
(ER)	EXISTING TO BE RELOCATED
ESMT	EASEMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING

FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FABL	FIRE ALARM BELL
FABX	FIRE ALARM BOX
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FI	FILM ILLUMINATOR
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE METALLIC CONDUIT
FLT	FLOODLIGHT
FLUOR	FLUORESCENT
FLUOR FIX	FLUORESCENT FIXTURE
FOUTT	TELEPHONE FLOOR OUTLET
FP	FIRE PROTECTION
FT	FEET OR FOOT
FU SW	FUSED SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G OR GND	GROUND OR GENERATOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GTB	GROUND TERMINAL BOX
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HZ	HERTZ
IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAH	KILOVOLT AMPERE PER HOUR
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWH	KILOWATT HOUR
kWHM	KILOWATT HOUR METER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LM	LUMEN
LP	LIGHT POLE
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LTCP	LOCAL TEMPERATURE CONTROL PANEL
LT	LIGHT
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL-CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MLO	MAIN LUGS ONLY
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
MVA	MEGAVOLT-AMPERE
MW	MEGAWATT MICROWAVE
(N)	NEW
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT OR N	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NS	NO SCALE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OL	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PANELBOARD, PULL BOX, OR PUSHBUTTON
PBPU	PREFABRICATED BEDSIDE PATIENT UNIT
PCB	POLYCHLORINATED BIPHENYL
PEC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEM	PENTHOUSE EQUIPMENT MODULE
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
POD	POWER OPERATED DAMPER
PT	POTENTIAL TRANSFORMER
PTRV	POWER TYPE ROOF VENTILATION
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER

(R)	REMOVE/DEMOLISH
(RE)	RELOCATED EXISTING
RCP	REFLECTED CEILING PLAN
REC	RECESSED
RECPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
REQD	REQUIRED
SCC	SHORT CIRCUIT CAPACITY
SES	SERVICE ENTRANCE SECTION
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)
SHT	SHEET
SI	INTERNATIONAL SYSTEM OF UNITS
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SURF	SURFACE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEL	TELEPHONE
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UFD	UNDERFLOOR DUCT
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VOLT	VOLTAGE
W	WATT
WH	WATER HEATER
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

ELECTRONIC SAFETY AND SECURITY SYMBOLS

CARD ACCESS READER; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
B-BARCODE F-ELEVATOR FLOOR CALL H-ELEVATOR HALL CALL
M-MAG STRIP P-PROXIMITY S-SMART CARD
T-TOKEN

CONTROL PANEL; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
B-BURGLAR D-DOOR F-FIRE P-PERIMETER

ELECTRONIC LOCK; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
D-DEADBOLT H-HYBRID L-LATCH SET M-MAGNETIC S-STRIKE

EXIT DEVICE; LETTER INDICATES AS FOLLOWS:
T=TECHNOLOGY/TYPE
D-DELAYED EGRESS E-ELECTRIFIED M-MECHANICAL X-HIGH SECURITY

INTERCOM; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
M-MASTER S-SUBSTATION

MOTION DETECTOR; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
D-DUAL TECHNOLOGY IR-INFRARED M-MICROWAVE U-ULTRASONIC
X-REQUEST-FOR-EXIT I- MOTION INTRUSION DETECTOR
DT-DETECTION OF TRAFFIC IN EACH DIRECTION

PB — PANIC BUTTON

SECURITY ACCESS, VIDEO CAMERA WITH LENS
CAMERA SHALL BE AVIGILON IP CAMERA.

PP — PUSH PLATE WALL MOUNTED

FIRE ALARM SYMBOLS

- FATC — FIRE ALARM TERMINAL CABINET
- FACP — FIRE ALARM CONTROL PANEL (MOUNT 6'-0" ABOVE FINISHED FLOOR TO TOP); PROVIDED WITH BACK-UP BATTERIES RATED FOR 24 HOUR MINIMUM SERVICE / 5 MINUTES IN ALARM MODE
- RA — FIRE ALARM REMOTE ANNUNCIATOR (MOUNT 5'-0" ABOVE FINISHED FLOOR TO TOP)
- NAC — NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL (MOUNT 6'-0" ABOVE FINISHED FLOOR TO TOP); PROVIDED WITH BACK-UP BATTERIES RATED FOR 24 HOUR MINIMUM SERVICE / 5 MINUTES IN ALARM MODE
- F — MANUAL PULLSTATION (MOUNT 48" ABOVE FINISHED FLOOR TO TOP OF DEVICE)
- F H — DETECTOR, HEAT; LETTER INDICATES AS FOLLOWS:
  R/T = COMBINATION
  F = FIXED TEMP. RISE (135°)
  R/C = RATE COMPENSATION
  R = RATE OF
- H — DETECTOR; LETTER INDICATES AS FOLLOWS: BLANK = SMOKE DETECTOR
  H = HEAT SMOKE
  I = IONIZATION SMOKE
  P = PHOTOELECTRIC SMOKE
  IH = IONIZATION AND HEAT SMOKE
  IP = IONIZATION AND PHOTOELECTRIC SMOKE
  PH = PHOTOELECTRIC AND HEAT SMOKE
  IPH = IONIZATION, PHOTOELECTRIC, AND HEAT
- SD — DETECTOR, SMOKE, FOR DUCT (FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR; WIRED BY THE ELECTRICAL CONTRACTOR)
- AUTO SYNC STROBE UNIT WITH SELECTABLE CANDELA ADA COMPLIANT (MOUNT 80" ABOVE FINISHED FLOOR OR 6" BELOW FINISHED CEILING TO TOP OF DEVICE)
  15 — CANDELA RATING (TYP)
- W S — FIRE SPEAKER UNIT W=WALL MOUNTED C=CEILING MOUNTED
- W SS — FIRE SPEAKER STROBE (AUTO SYNC) UNIT WITH SELECTABLE CANDELA; ADA COMPLIANT (MOUNT 80" ABOVE FINISHED FLOOR OR 6" BELOW FINISHED CEILING TO TOP OF DEVICE)
  W= WALL MOUNTED
  C=CEILING MOUNTED
- CM — CONTROL MODULE
- MM — MONITORING MODULE
- R — 120VAC, 20A RELAY IN NEMA 1 ENLCOSURE
- DH — MAGNETIC DOOR HOLDER
- DR — ELECTROMAGNETIC DOOR RELEASE OR DOOR RELEASE RELAY
- RTS — DUCT SMOKE DETECTOR REMOTE TEST SWITCH
- END OF LINE RESISTOR
- TS — ALARM, TAMPER SWITCH
- FS — ALARM, FLOW SWITCH
- AS — ALARM, AIR PRESSURE SWICTH
- J — JUNCTION BOX
- DH — ELECTROMAGNETIC TYPE DOOR HOLDER OUTLET
- DL — ELECTROMAGNETIC TYPE DOOR LOCK OUTLET
- —FA— FIRE ALARM LINE = FA

ELECTRICAL POWER SYMBOLS

- MOTOR, SINGLE-PHASE
- MOTOR, THREE-PHASE
- TRANSFORMER
- EARTH GROUND
- JUNCTION BOX
- PB — PULL BOX
- NORMALLY CLOSED RELAY CONTACT
- NORMALLY OPEN RELAY CONTACT
- FUSE WITH RATING
- MOLDED CASE CIRCUIT BREAKER
- LOW-VOLTAGE DRAWOUT AIR CIRCUIT BREAKER
- SWITCH AND FUSE UNIT
- FUSED DRAWOUT POTENTIAL TRANSFORMER
- DISCONNECT SWITCH, FUSED
- DISCONNECT SWITCH, UNFUSED
- FUSIBLE LINK
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- STARTER OR MOTOR CONTROLLER
- M — METER
- C — CLOCK RECEPTACLE
- G — GROUND REFERENCE POINT
- T — TRANSFORMER, PLAN
- WYE CONNECTION
- VFD — VARIABLE FREQUENCY DRIVE
- PUSH BUTTON
- PANELBOARD, LIGHTING OR POWER
- ELECTRICAL STRIP MOLD (OUTLETS ON 2'-0" [610mm] CENTERS OR AS DESIGNATED ON DRAWINGS), MTD 3'-6" [1067mm] AFF OR AS INDICATED.
- RECEPTACLE, DUPLEX
- RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER
- RECEPTACLE, DUPLEX ON EMERGENCY POWER
- RECEPTACLE, QUADRAPLEX
- RECEPTACLE, QUADRAPLEX ON EMERGENCY POWER
- RECEPTACLE, SINGLE
- S — RECEPTACLE, SINGLE WITH SWITCH
- POWER GROUND MODULE, REFER TO TYPE 4A DETAIL 4/E5.06
- POWER GROUND MODULE, REFER TO TYPE 4B DETAIL 4/E5.06
- A — RECEPTACLE, SPECIAL PURPOSE
  A = 120V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 5-20R.
  B = 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R.
  C = 120V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R.
  D = 208V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R.
  E = 208V, 60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R.
  F = 208V, 30A, 3 PHASE, 3-POLE 4W, NEMA 15-30R.
  G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15-50R.
  H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.
- EMERGENCY POWER OFF (EPO) PUSH BUTTON
- LIGHTNING PROTECTION AIR TERMINAL
- —L— LIGHTNING PROTECTION WIRING
- —G— GROUNDING WIRING
- —(E)UGE— EXISTING UNDERGROUND ELECTRICAL CONDUITS
- —(N)UGE— NEW UNDERGROUND ELECTRICAL CONDUITS

ELECTRICAL LIGHTING SYMBOLS

$2 — SWITCH

BLANK = SINGLE POLE	2 = DOUBLE POLE
3 = THREE-WAY	4 = FOUR-WAY
D = DIMMER	K = KEY OPERATED
LV= LOW VOLTAGE	L = LOCK
LM= LOW VOLTAGE MASTER	P = WITH PILOT LIGHT
PB= PUSH BUTTON STATION	RC= REMOTE CONTROL
T = TIMER OPERATED	WP= WEATHER PROOF
X = EXPLOSION PROOF	Mo= OCCUPANCY SENSOR

B = PATIENT BED PILLOW SPEAKER RECEPTACLE AND PADDLE

- DOWNLIGHT FIXTURE CEILING MOUNTED; NORMAL POWER
- DOWNLIGHT FIXTURE CEILING MOUNTED; CRITICAL POWER
- ra1 — INDICATES RELAY DESIGNATION (TYP); INDICATES MICRO RELAY PANEL THAT CONTROLS FIXTURE (TYP); INDICATES RELAY NUMBER (TYP)
  LIGHT FIXTURE, RECESSED FLUORESCENT NORMAL POWER (TYP), 2'x4' [610x1220mm]; LETTER INDICATES TYPE.
  a — LOWERCASE LETTERS INDICATE SWITCHING INTENT (TYP)
  A — UPPERCASE LETTER INDICATES FIXTURE TYPE (TYP)
- D — LIGHT FIXTURE, FLUORESCENT LIFE SAFETY POWER (TYP), LETTER INDICATES TYPE.
- D — LIGHT FIXTURE, FLUORESCENT CRITICAL POWER (TYP), LETTER INDICATES TYPE.
- LIGHT TRACK WITH HEADS AS SHOWN
- S — LIGHT FIXTURE, STRIP/INDUSTRIAL FLUORESCENT; LETTER INDICATES TYPE.
- LIGHT FIXTURE, WALL MOUNTED
- LIGHTING, TWO HEAD EMERGENCY BATTERY POWER
- EXIT SIGN, WALL MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
- EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
- MICRO PANEL, LIGHTING CONTROL SUB PANEL WITH 8 RELAYS

COMMUNICATION SYMBOLS

- OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION
- FLOOR RECEPTACLE, TELEPHONE
- J — OUTLET TELEPHONE; LETTER INDICATES AS FOLLOWS:
  J = JACK TYPE W = WALL TYPE
- OUTLET DATA ONLY
- FLOOR OUTLET, DATA COMMUNICATION
- TTB — TELEPHONE BACKBOARD (WALL MOUNTED)
- I — INTERCOM
- NCS — NURSE'S CALL MASTER STATION MTD ON NURSE'S COUNTER TOP UNLESS OTHERWISE NOTED.
- NCT — NURSE CALL TERMINAL CABINET.
- N 2 — NURSE CALL STATION.
  2 = DUPLICATE FACILITIES FOR TWO BEDS (SEPARATE INDICATORS AT MASTER STATION) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
  D = DUTY STATION. MTD 5'-0" [1524mm] AFF UNLESS NOTED OTHERWISE.
  E = MTD 6'-0" [1829mm] AFF FOR SHOWER LOCATION, MTD 4'-6" [1372mm] AFF FOR TUB LOCATION, & MTD 3'-0" [914mm] AFF FOR TOILET LOCATION.
  S = AUDIO VISUAL MALL STATION (STAFF) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
  U = UTILITY CALL STATION, MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
  CB = CODE BLUE DEVICE, MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
- N 2 — NURSE CALL DOME LIGHT
  2 = NURSE'S CALL DOME LIGHT (SUFFIX INDICATES No. OF LAMP) MTD 6'-0" [152mm] ABOVE DOOR.
  D = CORRIDOR DOME LIGHT CODE BLUE.
- S PA — SPEAKER, CEILING MOUNTED
  PA = PUBLIC ADDRESS
- TV — TELEVISION OUTLET: MOUNTED 6'-0" AFF, U.O.N.
- AREA OF WORK

100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

NO.	DESCRIPTION	DATE

CONSULTANTS:

MILLER-REMICK LLC
PROFESSIONAL ENGINEER
(Seal: THOMAS L. CHAPMAN, REGISTERED 14634, STATE OF WEST VIRGINIA, PROFESSIONAL ENGINEER, 2/2/16)

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Drawing Title	ELECTRICAL SYMBOLS AND ABBREVIATIONS
Approved: Medical Center Director	
Project Title	RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS
Location	HUNTINGTON, WV
Date	01-15-2016
Checked	MC
Drawn	MB
Project Number	581-13-101
Building Number	1S
Drawing Number	E0.01

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

three inches = one foot; one and one half inches = one foot; one inch = one foot; three quarters inch = one foot; one half inch = one foot; three eighths inch = one foot; one quarter inch = one foot; one eighth inch = one foot

P:\0499_DVA\1-0499-0025 Huntington WV Renovate Surgical Service and Operating Rooms\2_Drawings\1_Cad\1_Current Submittal Phase\7_Electrical\E0.01.dwg 2-29-16 11:30:37 AM dread

GENERAL NOTES AND CONDITIONS:

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT ALL RULES AND REGULATIONS, INCLUDING THOSE WHICH MAY BE ISSUED BY THE OWNER, ARE BEING OBSERVED, PARTICULARLY WORKPLACE SAFETY AND THE CONDUCT OF ALL THOSE EMPLOYED DIRECTLY AND INDIRECTLY BY HIM ON THE PREMISES, AND THE OWNER'S EMPLOYEES WHO MAY BE IMPACTED OR AFFECTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL INSTALL SIGNAGE, BARRIERS, AND OTHER MEANS TO PROVIDE WARNING AND PERSONNEL SAFETY. PLACEMENT OF THESE ITEMS WILL BE COORDINATED WITH THE OWNER AND HIS ONGOING OPERATIONS AND WILL PROMPTLY BE REVISED WHEN WORK IN A PARTICULAR AREA HAS BEEN COMPLETED.
    1.1. DURING PERFORMANCE OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVISION AND MAINTENANCE OF WARNING SIGNS, LIGHT SIGNAL DEVICES, GUARD LIGHTS, BARRICADES, GUARD RAILS, FENCES AND OTHER DEVICES, APPROPRIATELY LOCATED ON AND AROUND THE JOB SITE WHICH GIVE PROPER AND UNDERSTANDABLE WARNING TO PERSONS WITH REGARD TO HAZARDOUS CONDITIONS, EQUIPMENT AND OPERATIONS BEING PERFORMED IN CONJUNCTION WITH THE WORK.
2. THIS INSTALLATION WILL CONFORM TO ALL CODES AND THE REQUIREMENTS OF FEDERAL AND STATE REGULATORY AGENCIES HAVING JURISDICTION. IN PARTICULAR, THE WORK WILL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WEST VIRGINIA UNIFORM CONSTRUCTION CODE (UCC), INCLUDING ALL OF ITS APPLICABLE SUBCODES AND AMENDMENTS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

    BUILDING: INTERNATIONAL BUILDING CODE: 2012
    ELECTRICAL: NATIONAL ELECTRIC CODE: NFPA 70 – 2011
    SITE SPECIFIC: VA DESIGN GUIDE SEPTEMBER 2011

3. ALL WORK WILL BE LAWFULLY EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND WILL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING CODES (ABOVE), INDUSTRY STANDARDS, AND IN CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS.
4. WORK UNDER THIS CONTRACT SHALL CONSIST OF THE CONTRACTOR PROVIDING ALL LABOR, MATERIALS, AND SERVICES, INCLUDING WORK NOT SPECIFICALLY SHOWN BUT REASONABLY IMPLIED. THIS SHALL INCLUDE CUTTING, PATCHING AND RESTORATION OF EXISTING SURFACES DAMAGED DURING THE CONSTRUCTION. CONTRACTOR SHALL ALSO PROVIDE ALL EQUIPMENT SHOWN OR SPECIFIED OR AN APPROVED EQUIVALENT. SUBSTITUTED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED UNTIL GIVEN WRITTEN APPROVAL BY THE OWNER.
5. EACH TRADE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR PROVIDING, INSTALLING, AND MAINTAINING ALL TEMPORARY POWER SOURCES AND ANY REQUIRED UTILITIES FOR ANY TEMPORARY MECHANICAL, PLUMBING, AND/OR ELECTRICAL EQUIPMENT OR SYSTEMS (REQUIRED BY THEIR INDIVIDUAL TRADES SCOPE OF WORK) DURING THE COURSE OF CONSTRUCTION AND PHASING/SEQUENCING OF WORK. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE INSTALLATION AND ROUTING OF: TEMPORARY FEEDERS, CONDUIT, TRANSFORMERS, ON–SITE GENERATOR PACKAGES, OVERCURRENT PROTECTION DEVICES, DISCONNECTS, CONNECTIONS AND DISCONNECTION OF EQUIPMENT, ETC. ALL ELECTRICAL WORK MUST BE PERFORMED BY A LICENSED ELECTRICIAN. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED FOR NONCOMPLIANCE WITH THESE CONTRACT DOCUMENTS. CONTRACTOR WILL NOT BE ALLOWED CHANGE ORDERS FOR PROBLEMS ARISING FROM NEGLECT OF PROVISIONS INCLUDED IN THESE CONDITIONS.
7. MAINTAIN ORDERLY HOUSEKEEPING DURING CONSTRUCTION, AND UPON SUBSTANTIAL COMPLETION PERFORM FINAL CLEANUP. REMOVE CONSTRUCTION RUBBISH, SCAFFOLDING, EQUIPMENT, TEMPORARY PROTECTION, TEMPORARY FIELD STRUCTURES, AND OTHER MATERIALS OR EQUIPMENT THAT WAS REQUIRED IN CONNECTION WITH THE CONSTRUCTION, BUT NOT A PERMANENT PART THEREOF.
8. THOSE PERFORMING WORK AS A CONTRACTOR MUST EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE CONTRACTOR IN WRITING, OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. COMMENCEMENT OF WORK BY A TRADE ON A SURFACE OR CONSTRUCTION SHALL IMPLY ACCEPTANCE OF SUCH SURFACE OR CONSTRUCTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
9. NOT USED.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND MANUFACTURERS DATA SHEETS ON ALL EQUIPMENT AND MATERIALS SPECIFIED ON DRAWINGS FOR APPROVAL BY OWNER OR AGENT FOR THE OWNER. THESE DRAWINGS OR SHEETS SHALL CONTAIN ALL NECESSARY DATA, I.E., MANUFACTURER, CATALOG NUMBER, SIZE, DIMENSIONS, CAPACITY, WIRING DETAILS AND ALL OTHER ENGINEERING DATA AND DETAILS NECESSARY FOR COMPLETE CLARITY AND INSTALLATION.
11. THE CONTRACTOR SHALL KEEP ONE SET OF THE LATEST ISSUE OF DRAWINGS WHICH SHALL REFLECT THE ACTUAL INSTALLED CONDITIONS AND CONNECTIONS OF ALL EQUIPMENT AND DEVICES. THE CONTRACTOR SHALL PROVIDE COPIES OF ALL MAINTENANCE INFORMATION AND INSTRUCTIONS RECEIVED WITH EQUIPMENT AND SYSTEMS. ALL "AS–BUILT" DRAWINGS AND MISCELLANEOUS INFORMATION SHALL BE GIVEN TO THE OWNER AND ENGINEER AT COMPLETION OF WORK. THE CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND LABOR TO BE FREE FROM DEFECTS FOR A ONE YEAR PERIOD FROM THE TIME OF OWNER ACCEPTANCE. ANY DEFECTS OCCURRING DURING THIS PERIOD SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR IS TO PROVIDE ALL REQUIRED SCAFFOLDING, LADDERS, RIGGING, HOISTING AND ALL OTHER EQUIPMENT REQUIRED FOR THE INSTALLATION OF THEIR WORK.
13. ESTABLISH PASSAGE CLEARANCES REQUIRED TO DELIVER, INSTALL AND ERECT ALL REQUIRE EQUIPMENT. IF STRUCTURES, EQUIPMENT AND SYSTEMS MUST BE ALTERED TO PROVIDE PASSAGE OF EQUIPMENT, THE CONTRACTOR SHALL RESTORE STRUCTURES, EQUIPMENT AND SYSTEMS TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE; INCLUDING REMOVING AND REPLACEMENT OF ALL CEILING AS REQUIRED TO COMPLETE THE WORK.

ELECTRICAL WORK – DEMOLITION NOTES:

1. PROVIDE DEMOLITION OF EXISTING ELECTRICAL, LIGHTING, COMMUNICATIONS, TELE/DATA, AND SECURITY EQUIPMENT, DEVICES, CABLING AND CONDUIT UNLESS NOTED OTHERWISE.
2. REMOVE ABANDONED CONDUIT AND WIRING INCLUDING EXPOSED AND THOSE ABOVE CEILINGS. ABANDON CONCEALED CONDUITS IN PLACE WHERE CONCEALMENT DOES NOT AFFECT OTHER DEMOLITION OR NEW WORK. CUT AND CAP AT WALL AND/ OR FLOOR LEVEL. COORDINATE WITH GENERAL DEMOLITION.
3. REMOVE BOXES, CONDUITS, AND WIRING IN WALLS, FLOORS AND CEILINGS SCHEDULED TO BE DEMOLISHED. COORDINATE LOCATIONS WITH GENERAL DEMOLITION.
4. COORDINATE DEVICES TO BE SALVAGED AND REUSED BY OWNER PRIOR TO DEMOLITION. TURN OVER ALL SUCH DEVICES TO OWNER IN ORIGINAL CONDITION. DISPOSAL OF EQUIPMENT NOT TO BE SALVAGED IS RESPONSIBILITY OF ELECTRICAL CONTRACTOR.
5. CONTRACTOR SHALL PATCH WALLS, FLOORS, AND CEILINGS THAT ARE EXISTING TO REMAIN AND HAVE BEEN AFFECTED BY ELECTRICAL DEMOLITION WORK TO MATCH SURROUNDING MATERIALS. SURFACES SHALL BE PREPARED FOR PAINTING BY GENERAL CONTRACTOR.
6. WHERE EQUIPMENT IS TO BE RELOCATED OR DEMOLISHED, ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE WIRING AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED. COORDINATE ALL SUCH DEMOLITION WITH ASSOCIATED TRADES.
7. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO VERIFY THE SCOPE OF DEMOLITION.
8. ALL NURSE CALL EQUIPMENT MADE AVAILABLE DURING THE PHASED DEMOLITION, SHALL BE RETURNED TO THE OWNER FOR REUSE.

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER AND ALL OTHER DISCIPLINES INVOLVED IN THIS PROJECT.
    1.1. CONTRACTOR SHALL REVIEW ALL TRADES' CONTRACT DOCUMENTS AND APPLICABLE SHOP DRAWINGS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT.
    1.2. VERIFY EXACT LOCATIONS AND MOUNTING OF ALL LIGHT FIXTURES, SWITCHES, RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, VOICE/DATA DEVICES AND OTHER EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND IN THE FIELD PRIOR TO ROUGH–IN. IN CENTERING OUTLETS AND LOCATION BOXES, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
    1.3. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. COORDINATE WITH ARCHITECTURAL AND/OR ENGINEERING PLANS AND INSTALL SWITCH ON SIDE OPPOSITE HINGE. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
2. THE CONDUITS SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE, THEY SHOW THE GENERAL ARRANGEMENT AND SIZE OF THE CONDUITS. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET OR INTERFERENCE THAT MAY BE ENCOUNTERED. CONTRACTOR IS RESPONSIBLE FOR ROUTING ALL CONDUIT IN THE MOST EFFICIENT MANNER IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3. ALL CONTRACTOR SUPPLIED MATERIALS SHALL BE NEW AND UL APPROVED (OR APPROVED BY ANOTHER NATIONALLY RECOGNIZED ORGANIZATION).
4. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE. HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS NOT PERMITTED.
5. UNLESS OTHERWISE STATED, ALL ABOVE GROUND WIRING SHALL BE IN CONDUIT, 3/4 INCH MINIMUM SIZE FOR ELECTRIC SERVICES. ALL CONDUIT BENDS SHALL BE OF THE LONG RADIUS TYPE. ALL OUTDOOR WIRING SHALL BE IN CONDUIT, 3/4 INCH MINIMUM SIZE. ALL MOTORS AND TRANSFORMERS SHALL HAVE FLEXIBLE CONNECTIONS TO MINIMIZE VIBRATION. 1/2 INCH CONDUIT IS ACCEPTABLE FOR SWITCH LEGS AND TIGHT WALL SITUATIONS. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6. ALL WIRING SHALL BE RUN CONCEALED IN CONDUIT UNLESS SPECIFIED OTHERWISE.
7. CONTRACTOR SHALL USE TRAPEZE TO SUPPORT MULTIPLE CONDUITS FROM BUILDING STEEL
8. SECURE ALL SUPPORTS TO BUILDING STRUCTURE BY STEEL FOR VERTICAL SUPPORT AND BY MEANS OF TOGGLE BOLTS ON HOLLOW MASONRY UNITS, EXPANSION SHIELDS IN CONCRETE OR BRICK. MACHINE SCREWS ON METAL SURFACE, AND WOOD SCREWS ON WOOD CONSTRUCTION. NAILS, RAWL OR WOOD PLUGS NOT PERMITTED. SUPPORT HORIZONTAL RUNS OF METALLIC CONDUITS NOT MORE THAN 10 FT. APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
9. ALL CONDUIT INSTALLATIONS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION OR EXPANSION/DEFLECTION TYPE FITTINGS AS REQUIRED. NOTE: FOR THE EXACT LOCATIONS OF EXPANSION JOINTS, SEE OWNER FOR EXISTING STRUCTURAL DRAWINGS.
10. ALL UNDERGROUND CONDUITS SHALL BE SEALED TO PREVENT THE ENTRY OF WATER OR GASES.
11. PASS RACEWAYS OVER WATER, STEAM, OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3 IN. OF STEAM OR HOT WATER PIPES, OR APPLIANCES, EXCEPT CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 IN. FROM PIPE COVER.
12. FURNISH PULL STRING IN EACH RACEWAY RUN OVER 10 FT IN WHICH WIRING IS NOT INSTALLED.
13. CUT STEEL CONDUIT ENDS SQUARE, REAM SMOOTH, PAINT MALE THREADS OF FIELD THREADED CONDUIT WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH CONDUIT COUPLINGS.
14. NOT USED.
15. GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE REGARDING ELECTRODE, GROUNDING AND BONDING REQUIREMENTS FOR SERVICE, EQUIPMENT AND ENCLOSURES. ALL EQUIPMENT SHALL BE PROVIDED WITH A SEPARATE GROUNDING CONDUCTOR.
16. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
17. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. IN COMMON BOXES, PROVIDE BARRIERS BETWEEN EMERGENCY AND NORMAL WIRING.
18. LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS.
19. WIRE COLOR CODING: PER CODE. WHERE COLOR–CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
20. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32°F.
21. PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
22. ALL SWITCHES SHALL BE MOUNTED AT 4'–6" ABOVE THE TOP OF FINISHED FLOOR, UNLESS OTHERWISE NOTED. ALL RECEPTACLES SHALL BE MOUNTED AT 18" ABOVE THE TOP OF FINISHED FLOOR, UNLESS OTHERWISE NOTED.
23. PROVIDE PULL BOXES AS INDICATED AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE AND COORDINATE LOCATIONS WITH OTHER TRADES.
24. FOR EMPTY RACEWAY RUNS, PROVIDE PULL BOXES EVERY 100FT AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.
25. JUNCTION AND PULL BOXES: LOCATE GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE CONDUITS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. COVERS OF JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE.
26. SUPPORT JUNCTION AND PULL BOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON CONDUITS.
27. ELECTRICAL CONTRACTOR SHALL COORDINATE ADDITIONAL CONTROL CIRCUITING REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH–IN. PROVIDE ADDITIONAL 120V/1ø CONTROL CIRCUITS (VIA 2#12+1#12G. IN 3/4"C.) FROM NEAREST, SPARE 20A/1P CIRCUIT BREAKER(S) IN 208V ELECTRICAL PANEL HAVING SUFFICIENT SPARE AMPERAGE CAPACITY. PROVIDE NEW CIRCUIT BREAKER(S) AS REQUIRED. PROVIDE ADDITIONAL CONNECTIONS TO LOW VOLTAGE TRANSFORMERS (PROVIDED BY CONTROLS CONTRACTOR).
28. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT AND/OR ENGINEER PRIOR TO INSTALLATION.
29. FIRESTOP SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED WALL. PANELBOARDS, DISCONNECTS, AUTOMATIC TRANSFER SWITCHES, ETC., SHALL BE MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE, TO THE TOP OF THE FINISHED FLOOR SHALL NOT EXCEED 6'–6" (MAX.).
30. ALL PANELS SHALL BE BALANCED AS EVENLY AS POSSIBLE ACROSS PHASES. ALL PANELS SHALL HAVE PERMANENT DIRECTORIES. CIRCUIT CHANGES SHALL BE REFLECTED ON "AS BUILT" DRAWINGS.
31. ALL SURFACE MOUNTED PANELS AND PANELBOARDS INSTALLED ON THE INSIDE FACE OF EXTERIOR WALLS, ABOVE GRADE OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE MOUNTED SO AS TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE FACE OF THE WALL.

GENERAL ELECTRICAL NOTES (CONT.):

32. ALL NEW ELECTRICAL PANELS SHALL BE LOCKABLE. PROVIDE OWNER WITH TWO (2) KEYS PER PANEL.
33. EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL DRAWINGS.
34. ALL DEVICES SHALL BE ADEQUATELY IDENTIFIED WITH PERMANENT LABELS OR TAGS. WIRING SHALL BE IDENTIFIED AS TO PHASING AND CONDUCTOR IDENTIFICATION.
35. CONDUIT HOMERUNS SHOWN ON THE DRAWING WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL NOT INSTALL MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY UNLESS DONE SO STRICTLY BY THE NATIONAL ELECTRIC CODE.
36. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
37. MULTI–GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.
38. ALL TEMPORARY WIRING, LIGHTING AND POWER CIRCUITS AND DEVICES SHALL BE INSTALLED TO MEET THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, LOCAL, STATE AND FEDERAL REQUIREMENTS FOR SUCH TEMPORARY INSTALLATION.
39. THE ELECTRICAL CONTRACTOR SHALL ENSURE THAT RECEPTACLES USED FOR HAND TOOLS AND OTHER MISCELLANEOUS EQUIPMENT SHALL BE INSTALLED WITH GROUND FAULT INTERRUPTER OR OTHER APPROVED AND RECOGNIZED INTERRUPTING SENSORS.
40. ALL OPENINGS SHALL BE SEALED UPON COMPLETION OF INSTALLATION TO PREVENT THE SPREAD OF SMOKE AND FIRE THROUGH OPENINGS. OPENINGS SHALL ALSO BE SEALED TO PREVENT WATER SEEPAGE WHERE APPLICABLE. ALL OPENINGS SHALL BE COORDINATED WITH OTHER CRAFTS TO PREVENT INTERFERENCE AND OBSTRUCTION. PENETRATIONS THROUGH FIRE WALLS MUST BE MADE BY AN APPROVED THROUGH PENETRATION FIRESTOP SYSTEM.
41. THE COMPLETE INSTALLATION SHALL BE TESTED AT COMPLETION OF WORK, TO BE FREE OF GROUNDS AND SHORT CIRCUITS CONDITIONS. ALL INTERLOCK CIRCUITS SHALL BE TESTED TO VERIFY CORRECT OPERATION OF EACH DEVICE. ALL ROTATING EQUIPMENT SHALL BE JOGGED TO VERIFY CORRECT ROTATION BEFORE PERMANENTLY ENERGIZING.
42. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK AND SHUTDOWNS OF EQUIPMENT WITH FACILITY.
43. EXCAVATION FOR UNDERSLAB OR UNDERGROUND INSTALLATION OF CONDUITS SHALL BE APPROACHED WITH EXTREME CAUTION SO AS NOT TO DAMAGE EXISTING UNDERGROUND PIPING, WIRING AND CONDUITS.
44. ELECTRICAL CONTRACTOR SHALL PROVIDE CONSTRUCTION MANAGER/GENERAL CONTRACTOR A SURFACE PENETRATING RADAR SURVEY FOR THE PURPOSE OF LOCATING ALL UNDERGROUND (OR IN–SLAB) CONDUITS, PIPING, UTILITIES, STRUCTURAL MEMBERS, ETC. IN ALL AREAS WHERE SLAB CUTTING MAY OCCUR (FOR THE PURPOSES OF ELECTRICAL WORK REQUIRED). SURVEY MUST BE COMPLETED TWO WEEKS PRIOR TO CUTTING OF ANY SLAB. THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY (AND ALL ASSOCIATED COSTS) OF REPAIRING AND/OR REPLACING ANY SYSTEMS DAMAGED BY THE SLAB CUTTING PROCEDURES, WHEN PREVENTATIVE MEASURES WERE NOT CONSIDERED OR UTILIZED. COST FOR SURVEY(S) SHALL BE SUBMITTED AS A SEPARATE LINE ITEM PRICE (WHEN APPLICABLE).
45. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING VOLTAGE, PHASE, MCA, MOCP, REQUIRED FOR ALL EQUIPMENT PROVIDED BY OTHER CONTRACTORS PRIOR TO PURCHASING AND INSTALLING CONDUCTORS, BREAKERS, DISCONNECTS, CONDUIT, ETC. VERIFY RATINGS WITH FINAL, APPROVED CONTRACTOR EQUIPMENT SUBMITTALS AND EQUIPMENT NAMEPLATES DIRECTLY WITH THE PROVIDING CONTRACTOR.
46. UNLESS NOTED OTHERWISE WITHIN THE PROJECT CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, ALL NEW ELECTRICAL DEVICES INDICATED ON THE ELECTRICAL PLANS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR (EXAMPLE: DISCONNECT SWITCHES, CIRCUIT BREAKERS, WIRING, CONDUIT, ETC.). VARIABLE FREQUENCY DRIVES, VFD CONTROL PANELS, DISCONNECT SWITCHES, COMBINATION MOTOR STARTER/DISCONNECTS AND ASSOCIATED COMPONENTS FOR NEW EQUIPMENT PROVIDED BY OTHERS SHALL BE PROVIDED BY THE CORRESPONDING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR (WHEN NOT FACTORY INSTALLED).
47. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REVIEW THE ELECTRICAL PLANS AND SPECIFICATIONS, AS WELL AS ALL RELATED PROJECT PLANS AND SPECIFICATIONS FROM OTHER DISCIPLINES, TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE AND COORDINATED RESPONSIBILITIES. CONFLICT OF INTENDED RESPONSIBILITIES SHALL BE BROUGHT TO ENGINEERS ATTENTION, PRIOR TO SUBMISSION OF BID.
48. DURING THE COURSE OF CONSTRUCTION, COORDINATION AND FINAL TURNOVER, IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO WORK CLOSELY WITH ALL CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
49. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH OTHER TRADES FOR ITEMS IN THEIR SCOPE OF WORK WHICH COULD REQUIRE ADDITIONAL ELECTRICAL WORK, (DISCONNECTION, RECONNECTION, ETC.) AND ARE NOT INDICATED ON THE ELECTRICAL DRAWINGS.
50. CONTRACTOR SHALL COORDINATE ALL TEMPORARY ELECTRICAL POWER WITH UTILITY, AS REQUIRED, DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR THE USAGE AND PAYMENT THEREOF. CONTRACTOR SHALL COORDINATE ACTIVATION OF NEW PERMANENT POWER FOR VA.
51. EXISTING BUILDING ELECTRICAL INFRASTRUCTURE IS POURED INTO THE SLAB. CONTRACTOR SHALL PROVIDE X–RAY TESTING, PRIOR TO CONSTRUCTION, IN ALL AREAS WHERE THE EXISTING SLAB IS TO BE CUT. PROVIDE X–RAY TESTING REPORT TO ENGINEER FOR REVIEW. ANY HARM TO EXISTING INFRASTRUCTURE INCURRED DURING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
52. ELECTRICAL CONTRACTOR SHALL INCLUDE A NEW SURVEY OF THE EXISTING WIFI SYSTEM IN THE O.R. SUITE AS PART OF THE SCOPE OF WORK. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REINSTALLED DURING PHASED WORK.
53. COORDINATE WITH IT PERSONNEL FOR ACCESS TO SECURE IT ROOMS.
54. ELECTRICAL CONTRACTOR SHALL SEAL ALL PENETRATIONS ABOVE ACCESSIBLE CEILING IN ROOMS 3B–155, 3B–155A, 3B–156, 3B–183, 3B–184, 3B–185.
55. ELECTRICAL CONTRACTOR SHALL PROVIDE, AT THE COMPLETION OF THE PROJECT, 100% WIRELESS DATA COVERAGE BASED ON THE STANDARDS LISTED IN THIS NOTE AND NOTE 56. TO ACCOMPLISH THIS, NEW WIRELESS ACCESS POINTS (WAPS) SHALL BE ADDED TO THE SCOPE OF WORK BASED ON THE CRITERIA LISTED BELOW. A NEW CAT 6 CABLE SHALL BE PROVIDED FROM EACH WAP TO THE NEW DATA RACK IN COMM 3B–162.
    - ALL AREAS MUST BE COVERED WITH ONE WAP AT –67DBM SIGNAL STRENGTH ON 2.4 AND 5GHZ.
    - ALL AREAS MUST BE COVERED WITH ONE WAP AT 25DB SIGNAL TO NOISE RATIO ON 2.4 AND 5GHZ.
    - ALL AREAS MUST BE COVERED WITH THREE WAPS AT –75DBM SIGNAL STRENGTH ON 2.4GHZ.
    - CORNER WAPS WILL BE CLOSE TO THE PERIMETER EDGE.
    - PLACE PERIMETER WAPS AT OR NEAR THE EDGE OF THE BUILDING.
    - IF BUILDING IS A WING (I.E. HALLWAY WITH ROOMS ON BOTH SIDES) THEN AT THE END OF THE WING, PLACE WAPS IN BOTH CORNERS AND CONTINUE PLACEMENT FOR THREE AP COVERAGE AT –75DB SIGNAL STRENGTH.
    - IF THERE IS MORE THAN –80DB BLEED BETWEEN FLOORS, WAPS MUST BE STAGGERED ON ADJACENT FLOORS. WITH A WING WHERE THE CORNERS WERE USED FOR TRIANGULATION, STAGGER THE WAPS ON ADJACENT FLOORS. (THIS REQUEST OVERRIDES ABOVE PLACEMENT REQUIREMENTS).
    - ELEVATOR WAPS MAY BE STACKED.
    - UTILIZE PATIENT ROOMS AND OFFICES FOR WAP PLACEMENT.
    - REQUIRED TO WALK TO THE –75DBM SIGNAL STRENGTH BOUNDARY ON 2.4 GHZ. THIS IS TO ENSURE DATA COLLECTION OF THE 3RD AP COVERAGE AT –75DB REQUIREMENT
56. ELECTRICAL CONTRACTOR SHALL PROVIDE, OR SHALL HIRE A 3RD PARTY TO PROVIDE, A DETAILED SURVEY IN THAT VA APPROVED FORMAT OF THE WIRELESS DATA SYSTEM THROUGHOUT THE SCOPE OF WORK OF THIS PROJECT. THE SURVEY WILL BE CONDUCTED AS FOLLOWS:
    - TO PROVIDE 802.11 WIRELESS COVERAGE IN THE 2.4 AND 5 GHZ FREQUENCIES.
    - TO CONSIDER IMPLEMENTATION USING CISCO 1131/1242 WIRELESS ACCESS POINTS (WAP).
    - TO PRODUCE A WLAN DESIGN TO SUPPORT DATA, VOICE, AND LOCATION SERVICES.
    - TO UTILIZE TOOLS TO PRODUCE DETAILED COVERAGE HEATMAPS AND SPECTRUM ANALYSIS TOOLS TO IDENTIFY ALL POTENTIAL SOURCES OF NOISE AND INTERFERENCE.

FIRE ALARM DEMOLITION NOTES:

1. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH RELOCATION AND REMOVAL OF FIRE ALARM SYSTEM WORK AS DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN ISSUES WHEN CONCEALED WORK HAS BEEN EXPOSED. NO ADDITIONAL CLAIMS FOR WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, UNLESS, IN CERTAIN CASES, CONSIDERED JUSTIFIABLE BY THE ENGINEER.
2. NOTE THAT THE FACILITY WILL BE FULLY OPERATIONAL DURING THE COURSE OF THIS PROJECT.
    2.1. THE CONTRACTOR IS TO COORDINATE ALL OF THE DEMOLITION WORK WITH THE FACILITY PERSONNEL TO MINIMIZE DISTURBING THE OPERATING EQUIPMENT, WIRING AND SYSTEMS.
    2.2. THE CONTRACTOR SHALL PERFORM REMOVAL AND DEMOLITION WORK WITH MINIMAL INTERFERENCE WITH EXISTING SYSTEMS.
3. DEMOLITION AND REMOVAL OF WORK SHALL BE PERFORMED IN A NEAT AND PROFESSIONAL MANNER. THE CONTRACTOR SHALL RESTORE, PATCH, PAINT, ETC., ANY INTERIOR/EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
4. REFER TO FIRE ALARM PLANS FOR NEW EQUIPMENT AND DEVICE LAYOUTS AND EXTENT OF EQUIPMENT BEING REPLACED, RELOCATED, OR REMOVED. COORDINATE WITH ALL TRADES AS TO EXTENT OF EQUIPMENT BEING REMOVED OR RELOCATED. CLOSELY COORDINATE THE EXTENT OF DEMOLITION SCOPE OF WORK WITH ARCHITECT, ENGINEER AND/OR MECHANICAL PLANS. PATCH AND PAINT (TO MATCH SURROUNDING CONDITIONS) ALL OPENINGS CREATED BY THIS DEMOLITION.
5. EXISTING CONDITIONS, EQUIPMENT, MATERIALS & SIZES ARE SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS AND BRING ANY DISCREPANCIES TO THE ENGINEER'S ATTENTION IN WRITING PRIOR TO BID SUBMISSION.
6. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIRE ALARM SYSTEM DEMOLITION WORK FOR THIS PROJECT WHETHER OR NOT SPECIFICALLY INDICATED ON THIS OR OTHER DEMOLITION PLANS. THIS WORK SHALL INCLUDE BUT IS NOT LIMITED TO THE DISCONNECTION, REMOVAL AND DISPOSAL OF; INITIATION AND NOTIFICATION DEVICES, JUNCTION BOXES, WIRE, CABLE, CONDUIT, MOUNTING HARDWARE STRAPS OR CABLES, ETC. PER THE SCOPE OF WORK FOR THIS PROJECT.
7. THE ELECTRICAL CONTRACTOR SHALL REMOVE ALL FIRE ALARM DEVICES, INCLUDING ASSOCIATED WIRING, CONDUITS, COVERS, BOXES, ETC., WHERE INDICATED ON THE PLANS. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING WIRING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL IN THE CEILING SPACE; JUNCTION BOXES AND OTHER DEVICES AND PROVIDE BYPASS CONNECTIONS NECESSARY TO MAKE CIRCUITS AFFECTED CONTINUOUS AND READY FOR OPERATION. OTHERWISE, WIRING SHALL BE REMOVED BACK TO THE NEAREST ELECTRICAL JUNCTION BOX THAT IS TO REMAIN OR TO THE SOURCE PANELBOARD.
8. ALL WORK MUST BE SCHEDULED AND PERFORMED AS NOT TO INTERRUPT NORMAL OPERATIONS. REMOVAL OF ITEMS THAT WILL CAUSE ANY TYPE OF TEMPORARY SHUTDOWN SHALL BE PERFORMED DURING OFF–PEAK HOURS. ALL SUCH OUTAGES SHALL BE SCHEDULED AND COORDINATED WITH OWNER FIELD REPRESENTATIVE TO ENSURE ESSENTIAL SERVICES OR AREAS CAN BE MAINTAINED.
9. THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL CLOSELY FOLLOW THE DEMOLITION AND PHASING SCHEDULE AND PROCEED IN THE SPECIFIED SEQUENCE.
10. THE SHUTDOWN OF EXISTING BUILDING FIRE ALARM SYSTEM SHALL BE COORDINATED WITH THE OWNER. MAKE APPROPRIATE ARRANGEMENTS AT LEAST 5 BUSINESS DAYS PRIOR TO A SHUTDOWN.
11. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING FIRE ALARM SYSTEM WORK WHICH INTERFERES WITH THE NEW SYSTEM AND ARCHITECTURAL LAYOUTS IN FULL COORDINATION WITH THE ENGINEER'S PLANS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE DE–ENERGIZED AND DISCONNECTED AT THE SOURCE.
12. ELECTRICAL CONTRACTOR SHALL PROVIDE AND MAINTAIN ANY CONNECTIONS / DISCONNECTIONS AS NEEDED TO ENSURE ADEQUATE SAFETY AND PROTECTION OF ALL PERSONNEL AND EQUIPMENT.
13. ALL FIRE ALARM PANELS AND NOTIFICATION APPLIANCE POWER EXTENDERS SHALL BE MAINTAINED AS WORKING PANELS THROUGHOUT CONSTRUCTION AND WILL CONTINUE TO MAINTAIN CIRCUITS FOR EXISTING DEVICES TO REMAIN. PROVIDE AS NECESSARY TEMPORARY FEEDS TO ANY DEVICES THAT MAY BE REQUIRED FOR UNINTERRUPTED USE. PROVIDE TEMPORARY CONNECTIONS FOR RELOCATED EQUIPMENT DURING CONSTRUCTION.
14. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ANY DEVICES LOCATED OUTSIDE OF DEMOLITION WORK AREA ARE NOT AFFECTED BY REMOVAL OF WIRING AND/OR CIRCUITING. WIRING/CONDUIT SHALL BE LEFT IN A SAFE CONDITION, LABELED FOR ITS USE, AND EXTENDED AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY, INCLUDING ALL APPLICABLE CONTROLS.
15. PORTIONS OF INITIATION AND NOTIFICATION LOOP RUNS THAT SHALL BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED. NEW LOOP EXTENSIONS SHALL MATCH EXISTING WIRING SPECIFICATIONS IN ALL ASPECTS INCLUDING BUT NOT LIMITED TO CABLE TYPE, CONDUIT SIZES, ETC..
16. ALL EXISTING LOW VOLTAGE WIRING FOR FIRE ALARM SYSTEMS THAT ARE NOT REUSED SHALL BE REMOVED IN ITS ENTIRETY BY THE RESPONSIBLE CONTRACTOR.
17. CONTRACTOR IS TO EXERCISE EXTREME CAUTION WHEN CUTTING SLAB TO AVOID DAMAGE TO ANY EXISTING CONDUITS, PIPING, ETC. THAT MAY BE CONCEALED IN OR BENEATH THE SLAB. ANY FLOOR SLAB AFFECTED BY THE REMOVAL OF DEVICES FED VIA UNDERGROUND CONDUIT OR WIRING, SHALL BE FIRESTOPPED AND PATCHED BY THE GENERAL CONTRACTOR AND TO MATCH SURROUNDING FLOOR.
18. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DISCONNECTING, RELOCATING, AND/OR RECONNECTING ALL EXISTING EQUIPMENT THAT IS TO REMAIN, EVEN IF THIS EQUIPMENT IS NOT SHOWN ON PLANS OR SCHEDULES. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR EXTENDING EXISTING SYSTEM LOOPS FROM EXISTING EQUIPMENT THAT IS REMAINING TO NEW LOCATION.
19. IN THE EVENT THAT FIRE ALARM PLANS CALL FOR EXISTING WIRING TO BE REUSED, THE ELECTRICAL CONTRACTOR SHALL SURVEY EXISTING WIRING, BOXES, ETC. TO DETERMINE IF THE EXISTING WIRING MAY BE REUSED FOR NEW DEVICES (IF WIRING REMAINS IN IT'S ORIGINAL CONDUIT). ELECTRICAL CONTRACTOR SHALL DETERMINE THAT THE ENTIRE RUN OF EXISTING WIRING, FROM SOURCE TO DEVICE FOR WIRING TO BE REUSED, IS FEASIBLE FOR REUSE AND MEETS THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES HAVING JURISDICTION.
    19.1. IN INSTANCES WHERE EXISTING WIRING IS TO BE EXTENDED OR REUSED, ELECTRICAL CONTRACTOR SHALL DISCONNECT EXISTING WIRING AND LEAVE IN A SAFE CONDITION (TAG AND LABEL ITS USE) FOR FUTURE RECONNECTION DURING RENOVATION PHASE.
20. ALL UNUSED OUTLET BOXES THAT ARE TO REMAIN SHALL BE PROVIDED WITH MATCHING BLANK COVERS.
21. ALL RACEWAYS WHICH ARE EXPOSED AS A RESULT OF NEW WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
22. EXISTING RACEWAYS THAT ARE NOT BEING REUSED SHALL BE REMOVED BACK TO THE NEAREST JUNCTION OR PULLBOX, AND THE OPENINGS BLANKED.
23. ANY CONDUITS PENETRATING MASONRY SURFACES SHALL BE CUT INTO SURFACE, PATCHED, AND PAINTED TO MATCH SURROUNDINGS.
24. DISCONNECT, RELOCATE OR REMOVE ELECTRICAL INSTALLATIONS AND EQUIPMENT AS INDICATED BY PLANS AND AS REQUIRED BY CHANGES IN CONSTRUCTION. WHERE EXISTING ELECTRICAL INSTALLATIONS INTERFERE WITH NEW WORK AND WHERE SUCH INSTALLATIONS ARE TO REMAIN IN USE, THE NEW INSTALLATIONS SHALL BE RELOCATED AND/OR RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE CONTRACT DRAWINGS. DETERMINE AND COORDINATE ALL EQUIPMENT LOCATIONS PRIOR TO INITIAL ROUGH–IN.

FIRE ALARM DEMOLITION NOTES (CONT.):

25. DISCONNECT AND RELOCATE/RECONNECT ANY ELECTRICAL LINES, DEVICES (INCLUDING FIRE ALARM DEVICES), ETC. AND REPAIR PULL BOXES THAT MAY BE DISTURBED DURING THIS RENOVATION. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL WORK WHICH WILL NOT BE RENDERED OBSOLETE AND WHICH MAY BE DISTURBED DUE TO ANY CHANGES REQUIRED UNDER THE CONTRACT, SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION AT NO COST TO OWNER. IF ANY EQUIPMENT TO REMAIN IS DAMAGED DURING CONSTRUCTION, IT SHALL BE REPLACED WITH NEW (WITH NO COST APPLIED TO OWNER).
26. ALL MATERIALS AND EQUIPMENT TO BE DEMOLISHED ARE TO BE DISPOSED OF BY THE CONTRACTOR, UNLESS DIRECTED OTHERWISE BY THE OWNER. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL MATERIALS IN ACCORDANCE WITH LOCAL AND FEDERAL LAWS. ALL MATERIALS THAT ARE CONSIDERED TO BE RECYCLABLE ARE TO BE RECYCLED ACCORDINGLY BY THE CONTRACTOR.

GENERAL FIRE ALARM NOTES:

1. FIRE ALARM SYSTEM SHALL BE AN ADDRESSABLE TYPE SYSTEM, AND DEVICES SHALL BE INDIVIDUALLY ADDRESSED.
2. MODIFICATIONS TO THE FIRE ALARM SYSTEM SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR'S FIRE ALARM VENDOR. PLANS REFLECT THE DESIGN INTENT ONLY AND ARE TO BE USED FOR DEVICE PLACEMENT ONLY. ALL MODIFICATIONS REQUIRED BY THE OWNER AND THE LOCAL FIRE OFFICIALS SHALL BE INCORPORATED INTO THE INSTALLED SYSTEM.
3. ALL COMPONENTS SHALL BEAR THE U.L. LABEL FOR FIRE SERVICE USE AND SHALL BE COMPATIBLE FOR USE WITH ALL INTERCONNECTING EQUIPMENT.
4. PROVIDE PERMANENT, "TYPED" LABEL ON INSIDE OF ALL FIRE ALL CABINETS. INDICATE SPECIFIC DEDICATED POWER CIRCUIT FEEDING PANEL.
5. ALL FIRE ALARM SYSTEM JUNCTION BOXES AND CONDUITS SHALL BE PAINTED RED. COVER PLATES SHALL BE PAINTED RED AND MARKED 'FA' AS WELL AS INDICATING THE CONTENTS OF THE BOX.
6. INSTALLING CONTRACTOR SHALL RETURN ONE SET OF ACCURATELY MARKED DRAWINGS FOR 'AS BUILT' PURPOSES, WITH INSTALLED WIRING RUNS AND EQUIPMENT LOCATIONS.
7. FIRE ALARM CONTRACTOR SHALL UPDATE DRAWINGS AND GRAPHICS IN THE MAIN FIRE ALARM PANEL SHOWING THE LOCATIONS OF ALL FIRE ALARM DEVICES.
8. REFER TO DRAWING FA–601 FOR FIRE ALARM SYSTEM MATRIX SEQUENCE OF OPERATIONS, FIRE ALARM RISER DIAGRAM, AND ADDITIONAL INFORMATION.
9. THE COMPLETE SYSTEM SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE PROJECT SPECIFICATIONS, IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, NFPA72, A.N.S.I., A.D.A. REQUIREMENTS, NFPA 101, VA FIRE PROTECTION DESIGN MANUAL, AND ALL STATE AND LOCAL BUILDING CODES.
10. FIRE ALARM SYSTEM VENDOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INSPECTIONS RELATING TO THE SYSTEM INSTALLATION. THIS SHALL INCLUDE PAYING FOR ALL FEES AND SCHEDULING OF INSPECTION.
11. SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING ANY WORK. SHOP DRAWINGS SHALL INDICATE WIRE COUNTS, CONDUCTOR TYPES, RACEWAY LOCATIONS AND SIZES, EQUIPMENT CATALOG NUMBERS, BATTERY CALCULATIONS, AND DESCRIPTIONS CLEARLY HIGHLIGHTED TO SPECIFICALLY INDICATE WHICH PRODUCTS ARE PROPOSED FOR USE. AFTER SATISFACTORY REVIEW BY THE COR AND SAFETY DEPARTMENT, WORK SHALL COMMENCE.
12. FIRE ALARM CONTRACTOR SHALL SUBMIT FIRE ALARM SHOP DRAWINGS (INCLUDING ALL TECHNICAL DATA SHEETS) THAT COMPLY WITH FIRE OFFICIAL'S OFFICE SYSTEM INSTALLATION REQUIREMENTS, TO THE FIRE MARSHAL WITHIN 30 DAYS OF PERMIT ISSUE, FOR FINAL PERMIT APPROVAL PRIOR TO START OF WORK.
13. AS–BUILT DRAWINGS SHOWING POINT BY POINT CONNECTIONS OF ALL DEVICES AND FINAL EQUIPMENT LOCATIONS SHALL BE PROVIDED TO OWNER UPON FINAL FIRE MARSHAL INSPECTION AND APPROVAL.
14. FINAL CONNECTIONS BETWEEN EQUIPMENT AND WIRING SYSTEM SHALL BE MADE UNDER DIRECT SUPERVISION OF A QUALIFIED TECHNICAL REPRESENTATIVE OF THE EQUIPMENT MANUFACTURER, WHO SHALL TEST THE SYSTEM COMPLETELY AND PROVIDE A CERTIFICATE IN WRITING AS TO THE PROPER INSTALLATION AND OPERATION OF THE FIRE ALARM SYSTEM PRIOR TO FINAL ACCEPTANCE OF THE SYSTEM BY THE OWNER.
15. FIRE ALARM CONTRACTOR SHALL COORDINATE ALL SIGNAL DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH FIXTURE PLAN, FIRE MARSHAL AND OWNER'S REPRESENTATIVE PRIOR TO ROUGH–IN.
16. FIRE ALARM CONTRACTOR SHALL UTILIZE FIRE RATED CABLE FOR FIRE ALARM SYSTEM. INSTALL CABLE PER NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES HAVING JURISDICTION. CABLE SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING STRUCTURE. ROUTE CABLES ABOVE BOTTOM CORD OF JOISTS, CONCEALED TO MAXIMUM EXTENT POSSIBLE.
17. THE MINIMUM SIZE CONDUIT SHALL BE PROVIDED AS REQUIRED BY TABLE 4 IN, CHAPTER 9, OF THE NATIONAL ELECTRIC CODE, USING ACTUAL CROSS SECTION AREA OF THE WIRING INSTALLED.
18. THE INSTALLER IS RESPONSIBLE FOR VERIFYING ALL WIRING IS CLEAR OF ANY GROUNDS, OPENS, OR SHORTS, AND THAT THE CIRCUITS ARE OF THE CORRECT RESISTANCE AND CAPACITANCE VALUES PRIOR TO TERMINATION OF WIRING TO FIRE ALARM EQUIPMENT. IN ADDITION, ALL WIRING MUST BE PROPERLY SUPPORTED.
19. TEE BARS SHALL BE USED TO SUPPORT JUNCTION BOXES IN SUSPENDED CEILING PANELS. LOCATE CABLE SO THEY DO NOT PREVENT REMOVAL OF PANELS.
20. ALL OPENINGS SHALL BE SEALED UPON COMPLETION OF INSTALLATION TO PREVENT THE SPREAD OF SMOKE AND FIRE THROUGH OPENINGS. OPENINGS SHALL ALSO BE SEALED TO PREVENT WATER SEEPAGE WHERE APPLICABLE. ALL OPENINGS SHALL BE COORDINATED WITH OTHER CRAFTS TO PREVENT INTERFERENCE AND OBSTRUCTION. PENETRATIONS THROUGH FIRE WALLS MUST BE MADE BY AN APPROVED THROUGH PENETRATION FIRESTOP SYSTEM.
21. CONDUIT RUNS SHOWN DIAGRAMMATIC. INSTALLER SHALL FIELD VERIFY ALL LENGTHS, DIMENSIONS, AND ARRANGEMENTS PRIOR TO COMMENCEMENT OF WORK. INSTALLER SHALL IDENTIFY INTERFERENCES BETWEEN WORK IN OTHER AREAS.
22. WIRING SHALL BE PER PLAN WITH RESPECT TO CONDUCTOR SIZE, TYPE, AND QUANTITY. CONDUCTORS SHALL BE PERMANENTLY MARKED FOR FUTURE IDENTIFICATION. PERMANENT WIRE MARKERS SHALL BE USED TO IDENTIFY THE TERMINATIONS OF ALL CONDUCTORS WITH THE FIRE ALARM CONTROL PANEL, PULL BOXES, AND OTHER PANELS (REFERENCE NEC 760.10).
23. REFER TO PLANS FOR DEVICE QUANTITIES AND LOCATIONS.
24. LOCATE DEVICES TO AVOID ANY CONFLICT WITH HVAC DUCTS, DIFFUSERS AND LIGHTING FIXTURES.
25. CONTRACTOR SHALL VERIFY LOCATION OF ALL NEW CEILING MOUNTED FIRE ALARM DEVICES WITH OTHER TRADES PRIOR TO INSTALLATION. LOCATION OF DETECTORS SHALL COMPLY WITH THE FOLLOWING: SHALL NOT BE CLOSER THAN 24 INCHES FROM ANY VERTICAL OBSTRUCTION (BEAM, COLUMN, A/C DUCT, ETC.) SHALL NOT BE CLOSER THAN 3 FT. FROM, NOR IN THE DIRECT PATH OF A SUPPLY REGISTER.
26. WHEN CEILING MOUNTED, SMOKE AND/OR HEAT DETECTORS SHALL BE MOUNTED NO CLOSER THAN 4" TO A SIDE WALL; OR WHEN WALL MOUNTED, NO HIGHER THAN 4" OR LOWER THAN 12" FROM THE TOP OF THE DETECTOR TO THE CEILING.
27. THE DUST COVERS FURNISHED WITH THE SMOKE DETECTORS MUST BE INSTALLED WITH EACH DEVICE UNTIL FINAL CHECKOUT (REFERENCE NFPA 72).
28. UPON COMPLETION OF THE RENOVATION, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING UPDATED FACILITY MAPS AND ZONE SCHEDULES FOR BOTH BUILDINGS. MAPS SHOULD INDICATE LOCATION OF ALL FIRE ALARM DEVICES, DETAILED ZONE NUMBERS OR ADDRESSES AS REQUIRED. REFER TO FIRE ALARM SPECIFICATIONS FOR ADDITIONAL INFORMATION.
29. LOW VOLTAGE POWER FOR ALL SMOKE DAMPERS SHALL ORIGINATE VIA THE FIRE ALARM WIRING ASSOCIATED WITH THE SMOKE DAMPER AT THAT LOCATION.

100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

NO.	DESCRIPTION	DATE

CONSULTANTS:

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THOMAS L. CHAPMAN — REGISTERED 14634 — STATE OF WEST VIRGINIA — PROFESSIONAL ENGINEER — 2/2/16

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Drawing Title: ELECTRICAL DEMOLITION AND NEW WORK NOTES

Approved: Medical Center Director

Project Title: RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location: HUNTINGTON, WV

Date: 01-15-2016 | Checked: MC | Drawn: MR

Project Number: 581-13-101

Building Number: 1S

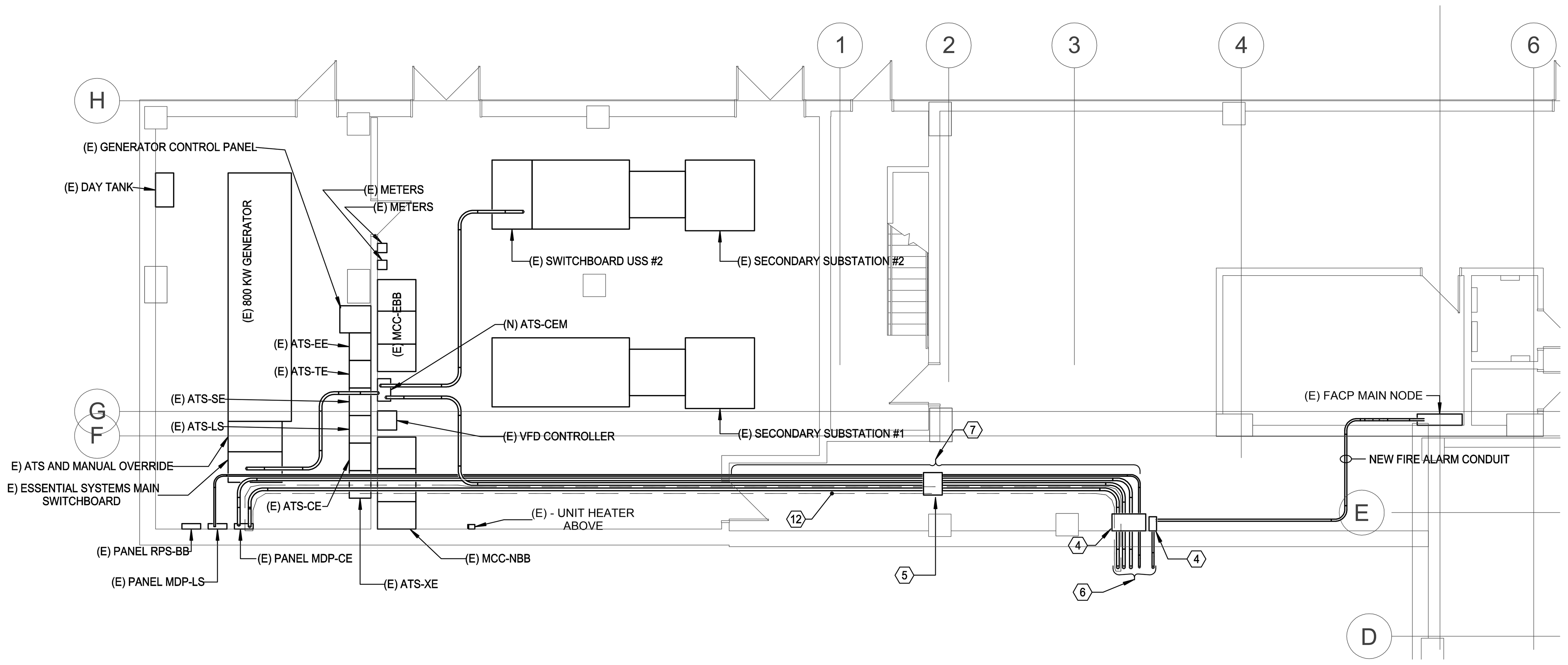
Drawing Number: E0.02

Office of Construction and Facilities Management

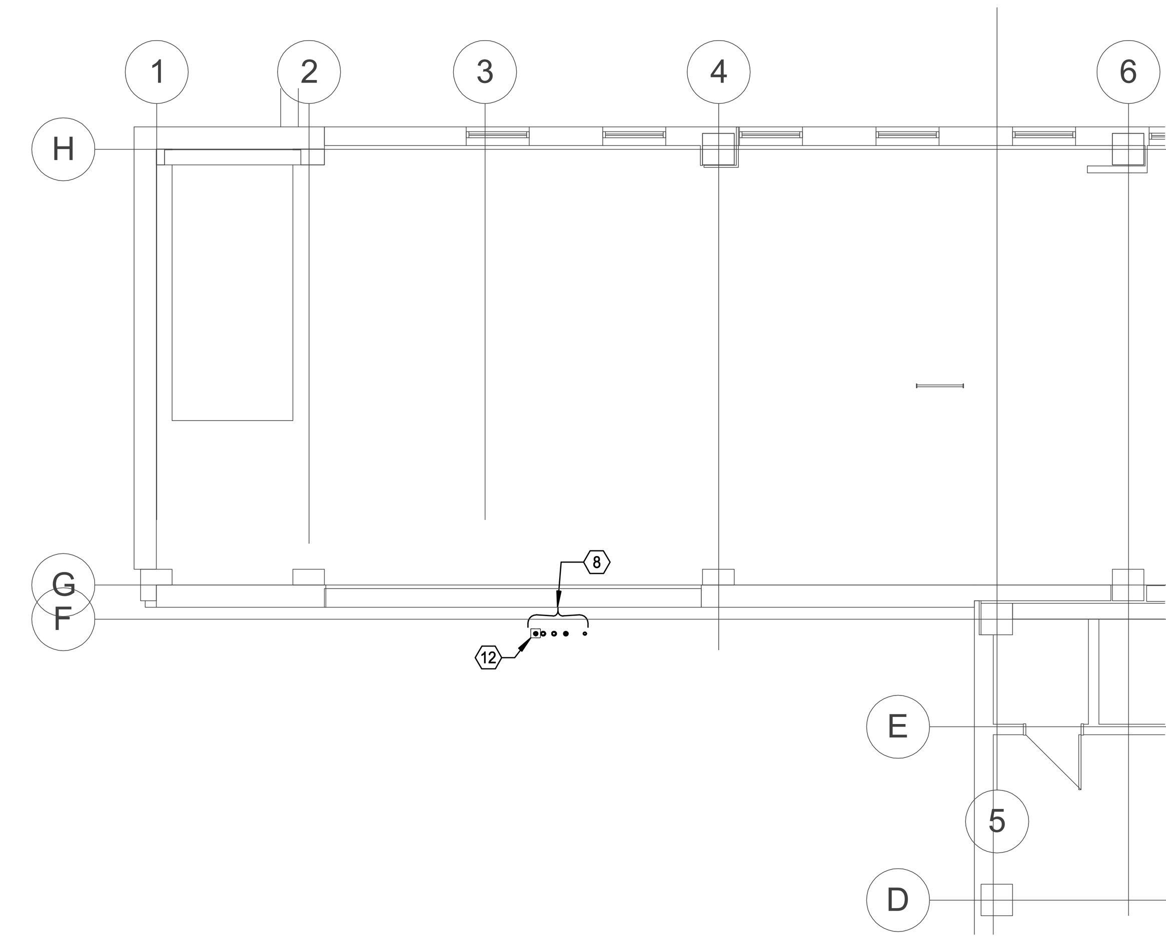
Department of Veterans Affairs

VA FORM 08-6231

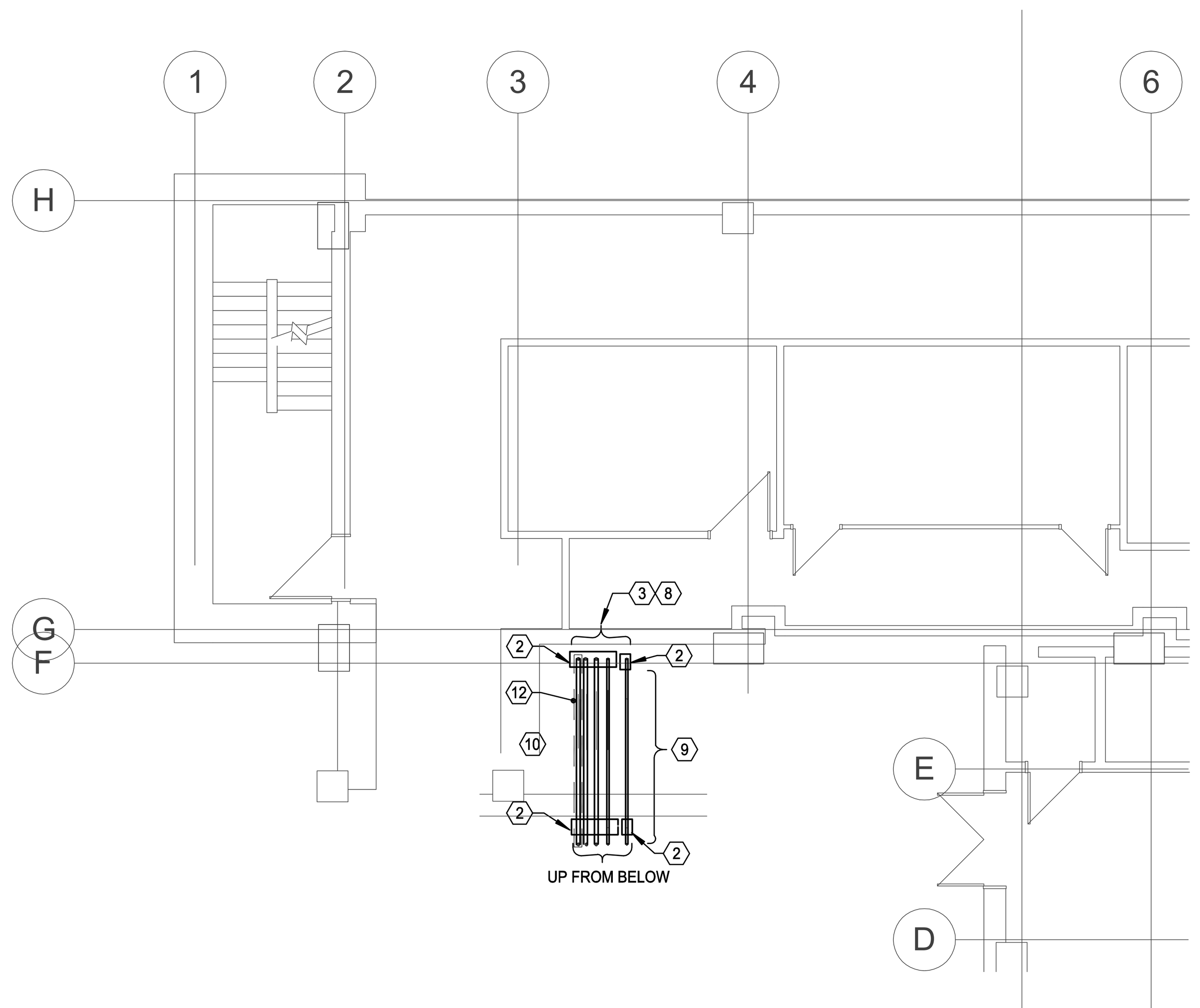
P:\0499_DVA\1-0499-0025 Huntington WV Renovate Surgical Service and Operating Rooms\2_Drawings\1_Cad\1_Current Submittal Phase\7_Electrical\E0.02.dwg 2-29-16 11:30:26 AM dread



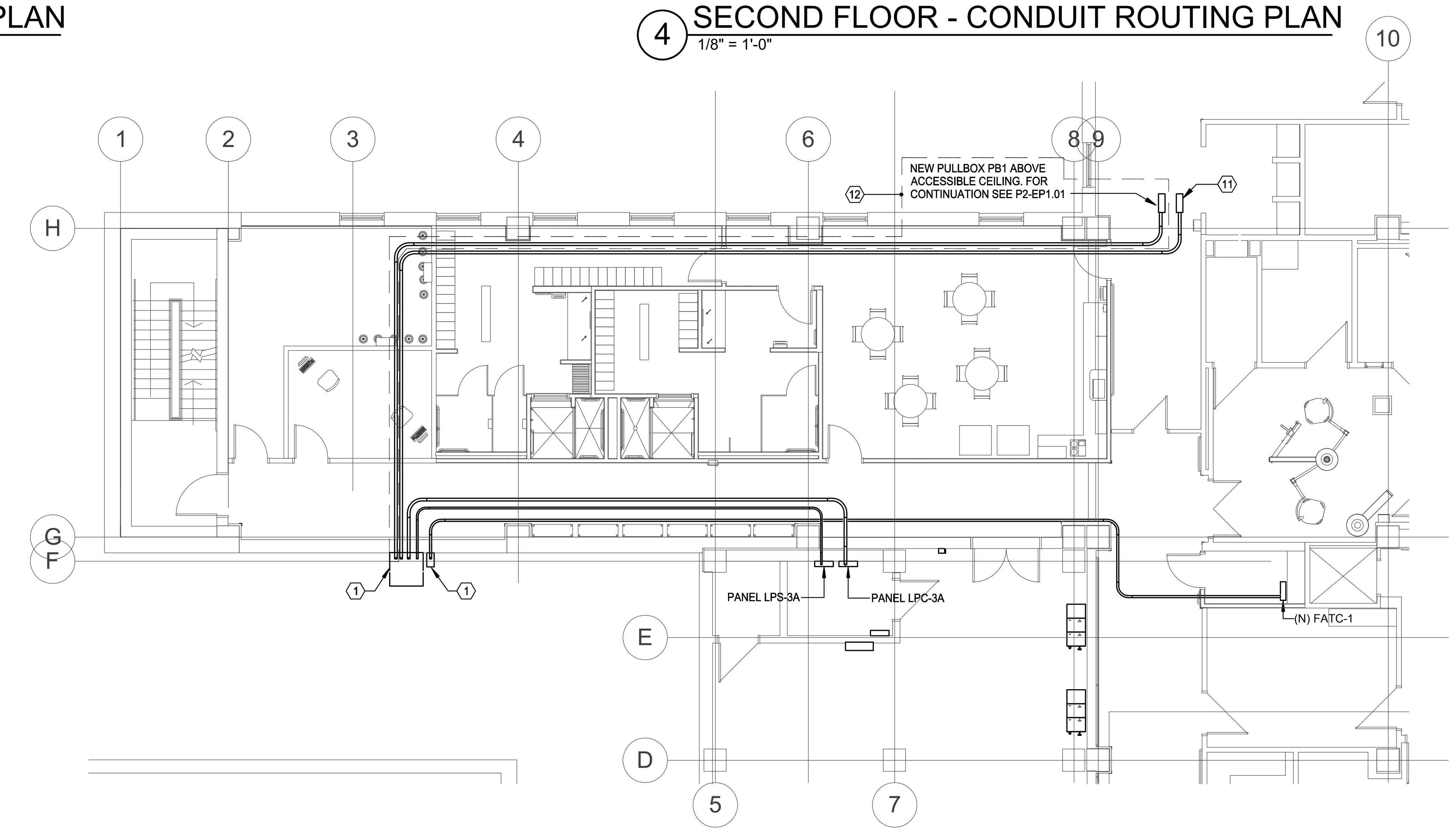
1 BASEMENT LEVEL - CONDUIT ROUTING PLAN
1/8" = 1'-0"



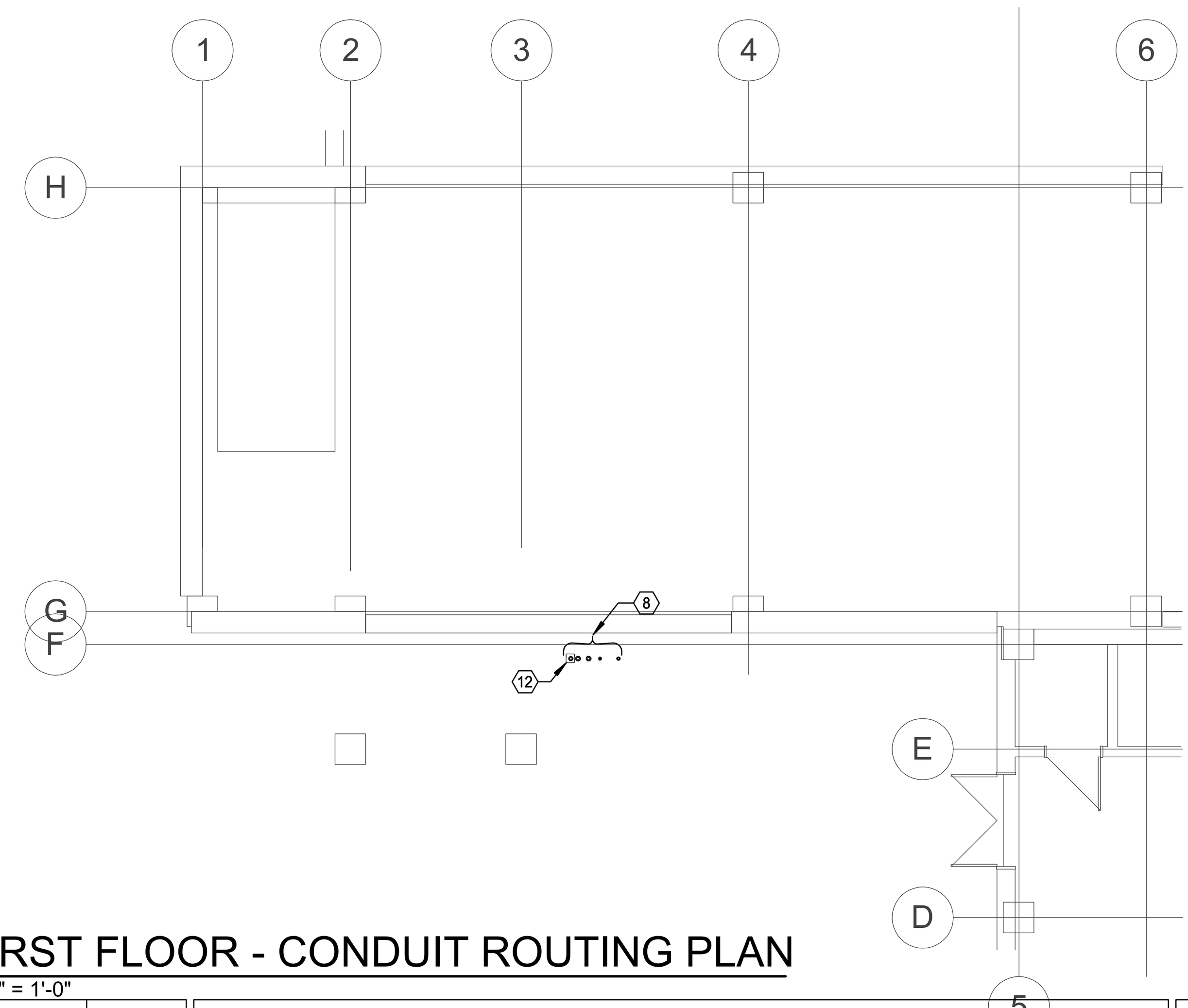
4 SECOND FLOOR - CONDUIT ROUTING PLAN
1/8" = 1'-0"



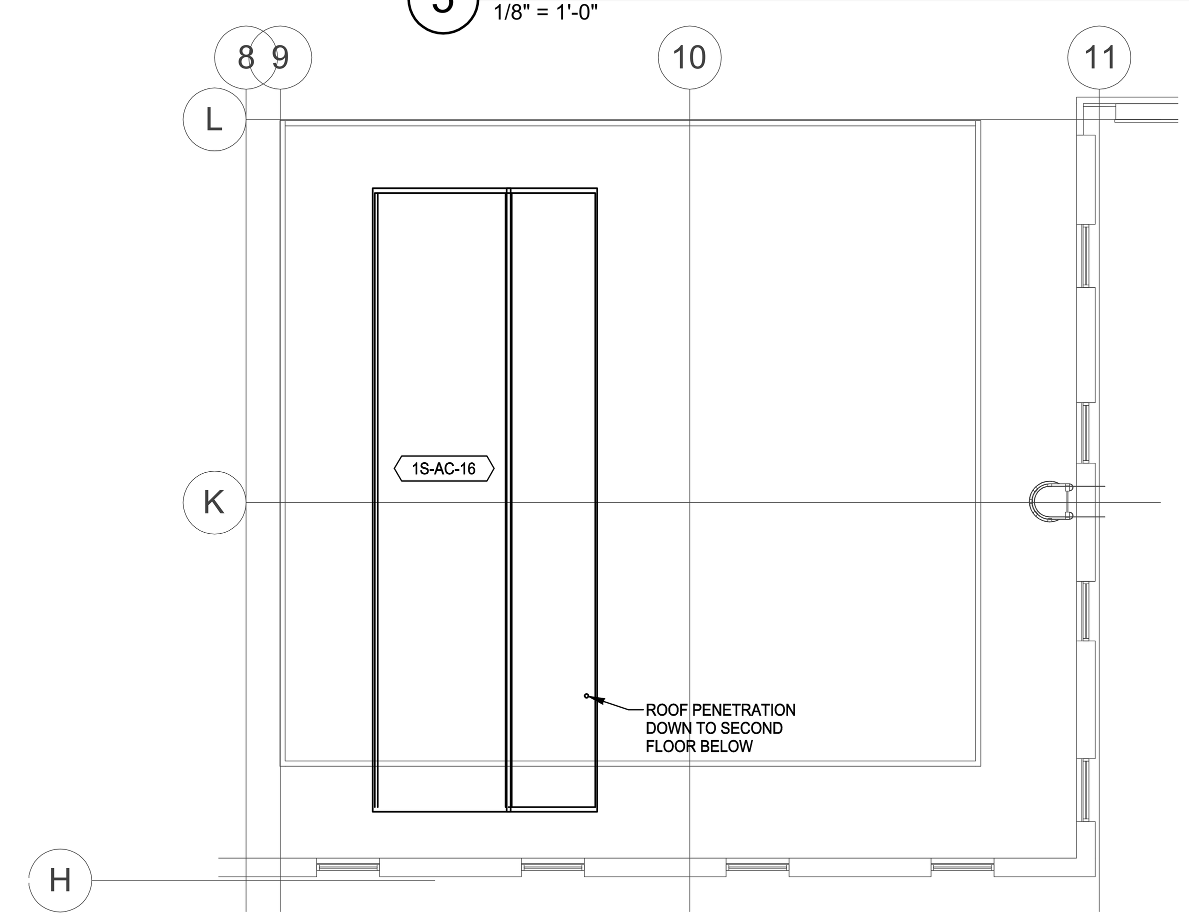
2 GROUND FLOOR - CONDUIT ROUTING PLAN
1/8" = 1'-0"



5 THIRD FLOOR - CONDUIT ROUTING PLAN
1/8" = 1'-0"



3 FIRST FLOOR - CONDUIT ROUTING PLAN
1/8" = 1'-0"



6 THIRD FLOOR ROOF - CONDUIT ROUTING PLAN
1/8" = 1'-0"

GENERAL NOTES

1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. SEE ELECTRICAL SINGLE LINE DIAGRAMS ON DRAWING E6.01 AND E6.02 FOR CONDUIT SIZES.
3. ALL NEW WORK TO BE COMPLETED IN PHASE 1, U.O.N.
4. ELECTRICAL CONTRACTOR SHALL JACK OUT ALL CONCRETE REQUIRED FROM GROUND FLOOR COURTYARD AREA TO COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL RETURN THE COURTYARD TO ITS ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETED, INCLUDING, BUT NOT LIMITED TO, POURING NEW CONCRETE WHERE REQUIRED.

⬡ SHEET KEYNOTES

1 NEW WEATHERPROOF PULLBOX MOUNTED ABOVE ACCESSIBLE THIRD FLOOR CEILING ELEVATION. PROVIDE SLEEVE SEALS FOR ALL PENETRATIONS TO ENSURE PROPER SEPARATION BETWEEN INTERIOR AND EXTERIOR ENVIRONMENTS.

2 NEW WEATHERPROOF PULLBOX BELOW GRADE.

3 CONDUITS EXIT SIDE OF PULLBOX AND TURN UP SIDE OF BUILDING.

4 NEW PULLBOX. PROVIDE SLEEVE SEALS FOR ALL PENETRATIONS TO ENSURE PROPER SEPARATION BETWEEN INTERIOR AND EXTERIOR ENVIRONMENTS.

5 PROVIDE NEW CORE THROUGH EXISTING SHEAR WALL FOR EACH CONDUIT. RACK CONDUITS AS HIGH AS POSSIBLE.

6 CONDUITS EXIT SIDE OF INTERIOR PULLBOX, EXIT BUILDING THROUGH SLEEVE SEALS AND TURN UP TO GRADE LEVEL PULLBOX AS SHOWN ON DETAIL 2/E1.01.

7 RELOCATE EXISTING LIGHT FIXTURES BELOW NEW CONDUITS.

8 RACK AND SUPPORT CONDUIT TO BUILDING EVERY 10' VERTICAL FEET.

9 PROVIDE HORIZONTAL UNISTRUT UNDER CONDUIT AND PULLBOXES AT GRADE. SECURE RIGID STEEL CONDUIT TO UNISTRUT RACK.

10 ENSURE LOCATION OF PULLBOX AND CONDUITS DO NOT IN ANY WAY PROHIBIT ACCESS TO GROUND FLOOR DOORS OR ACCESS DOOR IN THIS PART OF THE COURTYARD.

11 JUNCTION BOX JBM ABOVE ACCESSIBLE CEILING FOR FEED TO PEM DISCONNECT ON THIRD FLOOR ROOF ABOVE. FOR CONTINUATION, SEE P2-EP1.01.

12 THIS ITEM HAS BEEN IDENTIFIED AS WORK TO BE INCLUDED AS A BID ALTERNATE. SEE SPECIFICATIONS AND INSTRUCTIONS TO BIDDERS FOR A DETAILED LISTING OF THIS ITEM AND ITS ASSOCIATED SCOPE OF WORK.

100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

NO.	DESCRIPTION	DATE

CONSULTANTS:

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Drawing Title
ELECTRICAL CONDUIT ROUTING PLAN

Approved: Medical Center Director

Project Title
RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location: HUNTINGTON, WV

Date	Checked	Drawn
01-15-2016	MC	MR

Project Number: 581-13-101

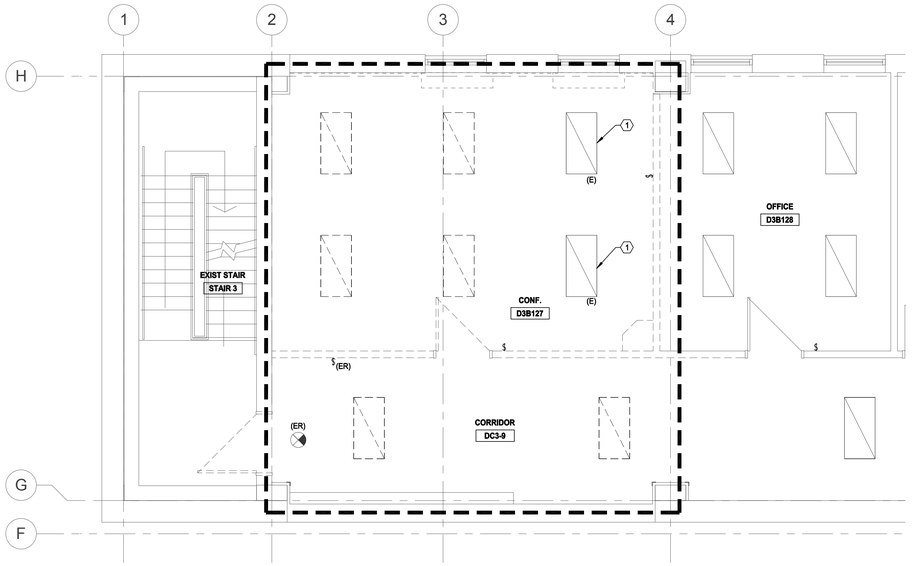
Building Number: 1S

Drawing Number: E1.01

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231



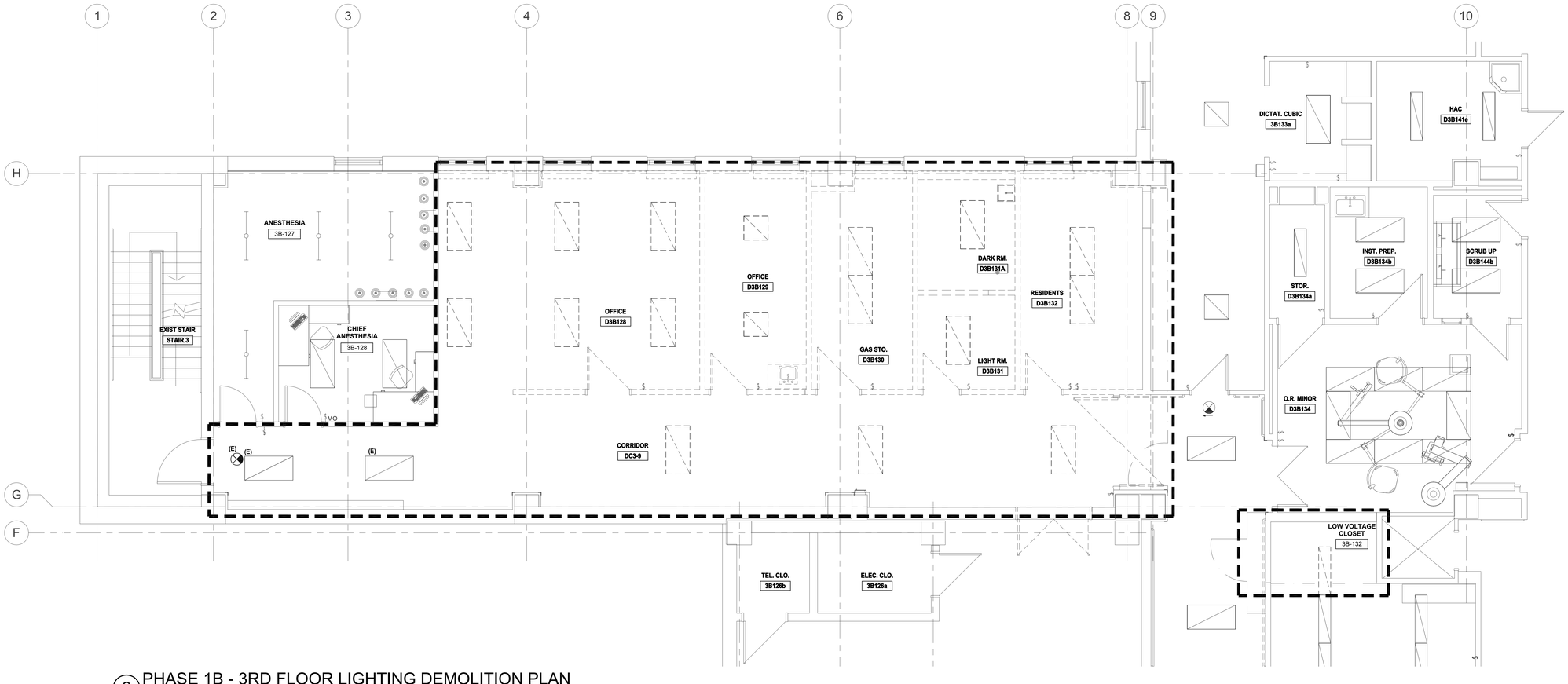
1 PHASE 1A - 3RD FLOOR LIGHTING DEMOLITION PLAN
1/4" = 1'-0"

GENERAL NOTES

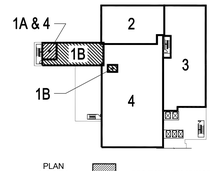
1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL DEVICES SHOWN IN AREA OF WORK TO BE DEMOLISHED, U.O.N.

⬡ SHEET KEYNOTES

1 REFER TO NEW WORK PLANS FOR TEMPORARY REWIRING OF (E)LIGHT FIXTURES.



2 PHASE 1B - 3RD FLOOR LIGHTING DEMOLITION PLAN
1/4" = 1'-0"



PLAN NORTH
ACTUAL NORTH
PROJECT LIMITS / PHASE
KEY PLAN
N.T.S.

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NO.	DESCRIPTION	DATE

CONSULTANTS:

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Drawing Title
ELECTRICAL
PHASE 1 - LIGHTING DEMOLITION PLAN

Approved: Medical Center Director

Project Title
RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location HUNTINGTON, WV

Date 01-15-2016 | Checked MC | Drawn MR

Project Number **581-13-101**
Building Number **1S**
Drawing Number **P1-ED1.01**

Office of Construction and Facilities Management
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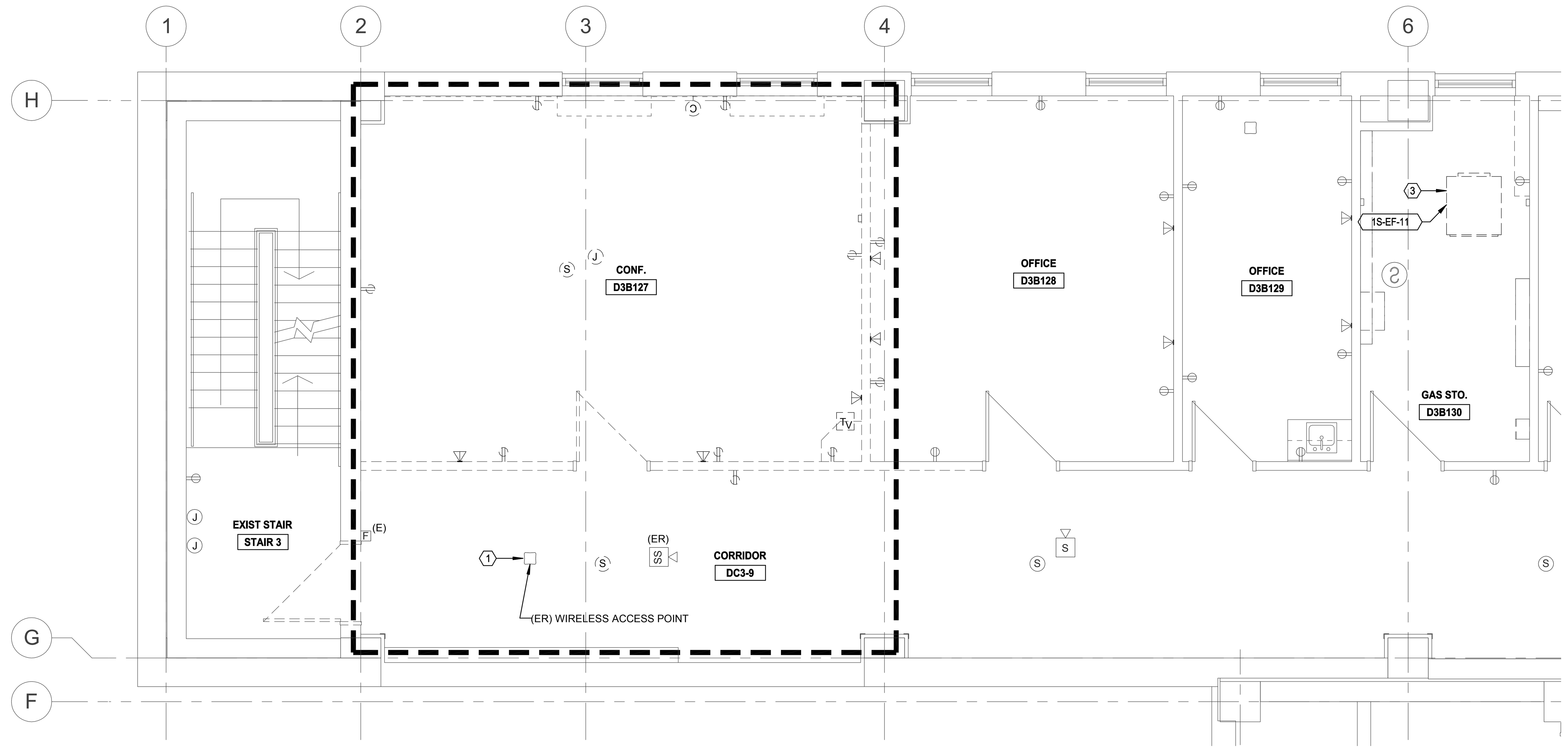
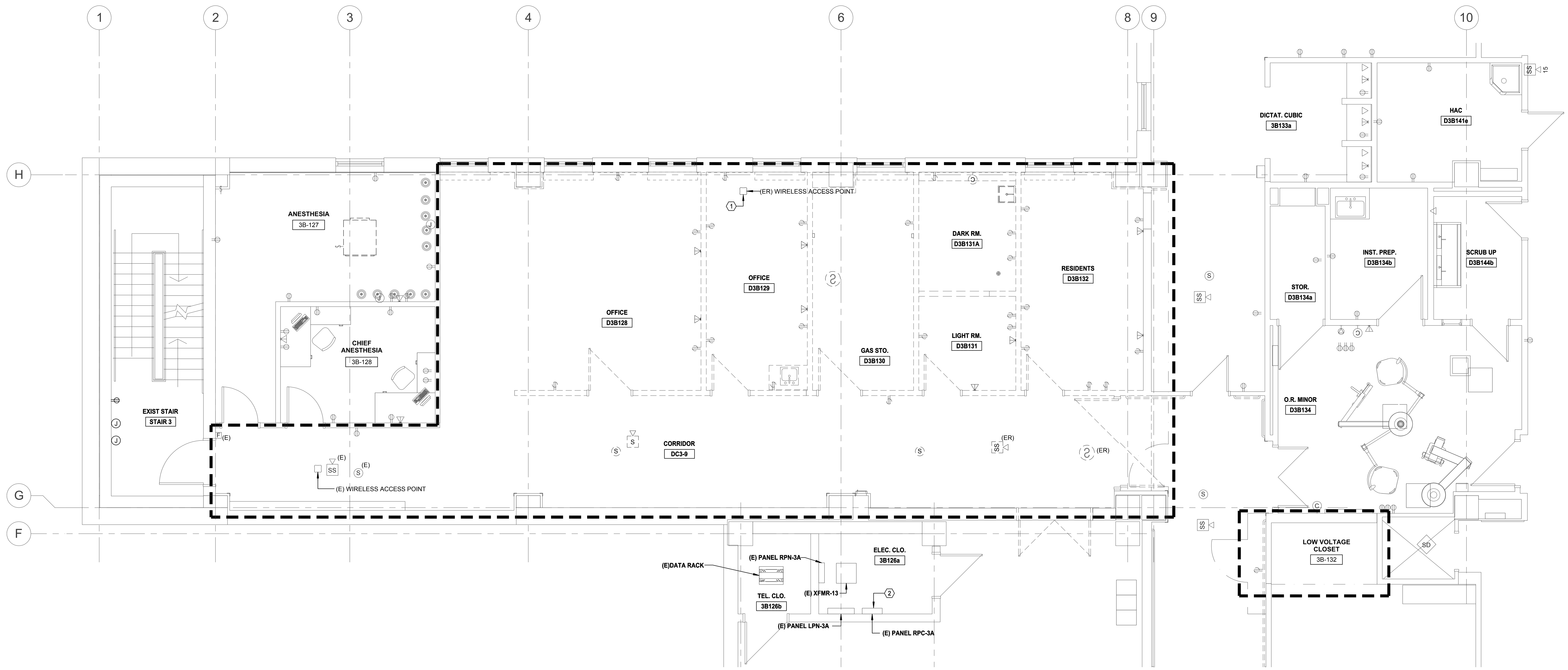


① PHASE 1A - 3RD FLOOR POWER AND SYSTEM DEMOLITION PLAN

1/4" = 1'-0"



② PHASE 1B - 3RD FLOOR POWER AND SYSTEM DEMOLITION PLAN

1/4" = 1'-0"

GENERAL NOTES

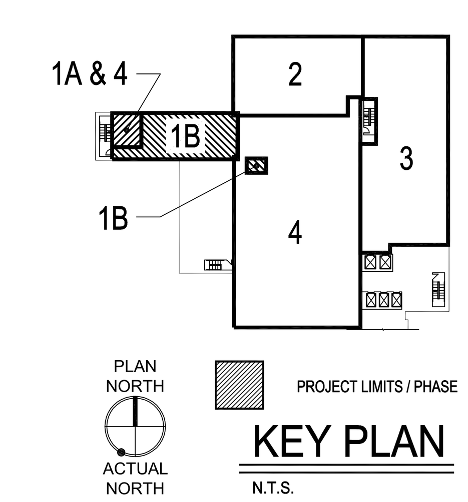
1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL DEVICES SHOWN IN AREA OF WORK TO BE DEMOLISHED, U.O.N.

⬡ SHEET KEYNOTES

1 E.C. TO REMOVE AND STORE EXISTING WIRELESS ACCESS POINT. WIRELESS ACCESS POINT TO BE REINSTALLED IN SAME LOCATION.

2 PANEL RCP-3A AND FEEDER TO BE DEMOLISHED IN PHASE 4A. ALL REMAINING CIRCUITS CONNECTED TO THE PANEL SHALL BE SPLICED AND EXTENDED TO THE NEW PANEL RCP-3A1 LOCATED IN THIS ELECTRICAL CLOSET PROVIDED IN AN EARLIER PHASE. SEE DRAWING E6.02 FOR FURTHER INFORMATION.

3 EXISTING FAN TO BE RELOCATED. SPLICE AND EXTEND ALL ASSOCIATED ELECTRICAL POWER AND CONTROLS WIRING AND DEVICES TO NEW FAN LOCATION.



KEY PLAN

N.T.S.

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NO.	DESCRIPTION	DATE

CONSULTANTS:

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Drawing Title: **ELECTRICAL PHASE 1 - POWER AND SYSTEMS DEMOLITION PLAN**

Approved: Medical Center Director

Project Title: **RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS**

Location: HUNTINGTON, WV

Date: 01-15-2016 | Checked: MC | Drawn: MR

Project Number: **581-13-101**

Building Number: 1S

Drawing Number: **P1-ED1.02**

Office of Construction and Facilities Management

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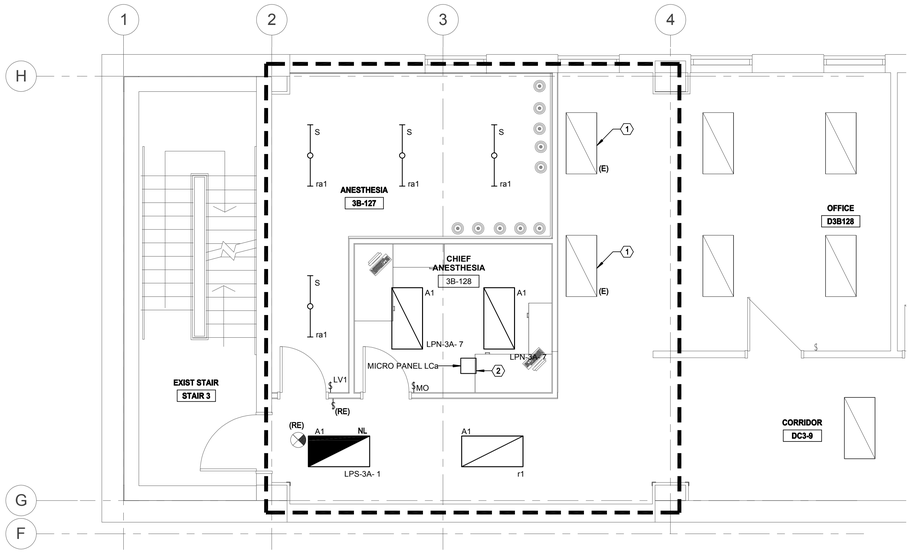


1 PHASE 1A - 3RD FLOOR LIGHTING NEW WORK PLAN

1/4" = 1'-0"

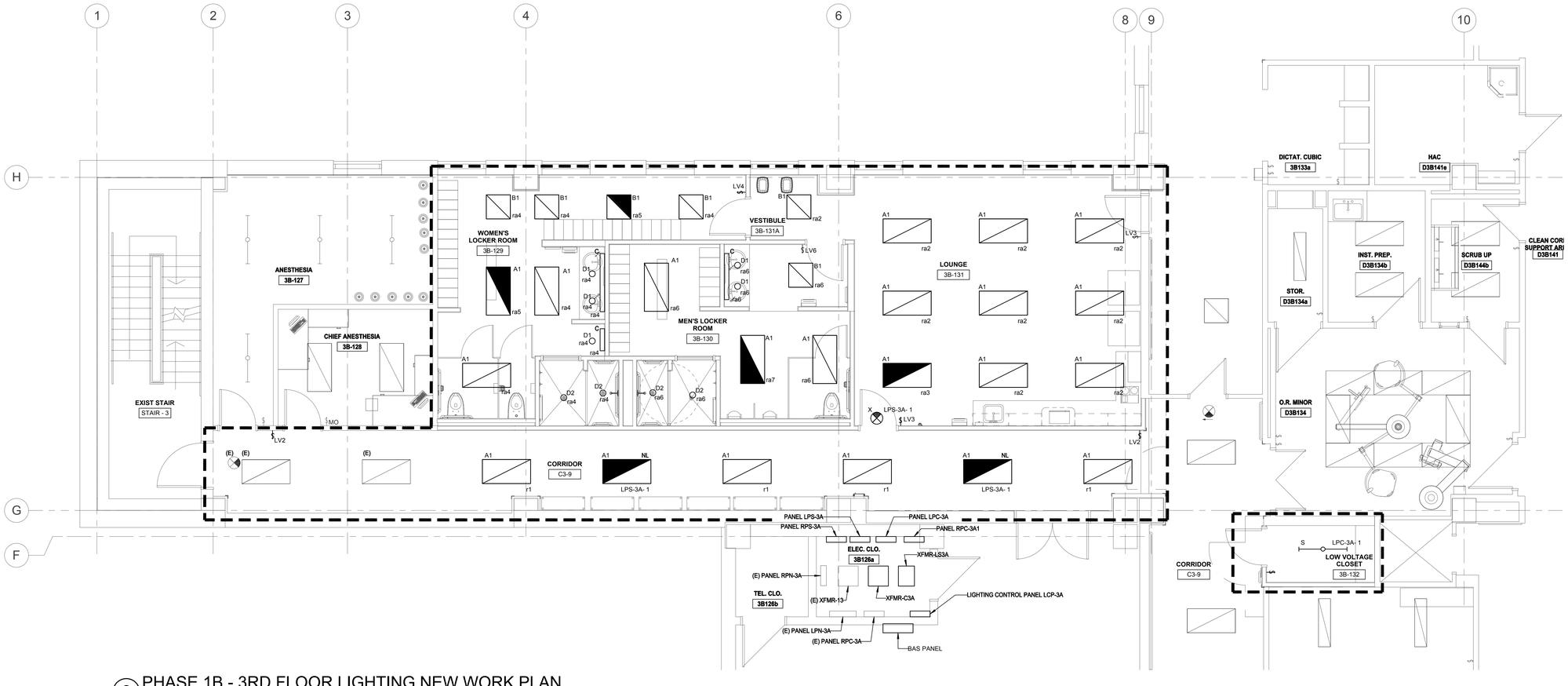
GENERAL NOTES

1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL DEVICES SHOWN IN AREA OF WORK TO BE NEW, U.O.N.
3. REFER TO LIGHTING FIXTURE SCHEDULE ON DWG. E6.05 FOR FURTHER INFORMATION ON ALL LIGHTING FIXTURES.
4. SEE DWG. E5.04-E5.05 FOR LIGHTING CONTROL RISER DIAGRAM AND SWITCHING SCHEME.

⬡ SHEET KEYNOTES

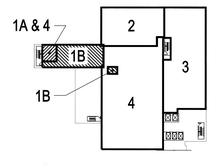
1 REWIRE LIGHT FIXTURE IN PHASE 1A TO EXISTING SWITCH IN THIS ROOM.

2 MICRO RELAY PANEL LOCATED ABOVE ACCESSIBLE CEILING.



2 PHASE 1B - 3RD FLOOR LIGHTING NEW WORK PLAN

1/4" = 1'-0"



KEY PLAN

N.T.S.

100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

NO.	DESCRIPTION	DATE

CONSULTANTS:

MILLER-REMICK LLC PROFESSIONAL ENGINEER

ARCHITECT / ENGINEERS:

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Drawing Title: ELECTRICAL PHASE 1 - LIGHTING NEW WORK PLAN

Approved: Medical Center Director

Project Title: RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location: HUNTINGTON, WV

Date: 01-15-2016 | Checked: MC | Drawn: MR

Project Number: 581-13-101

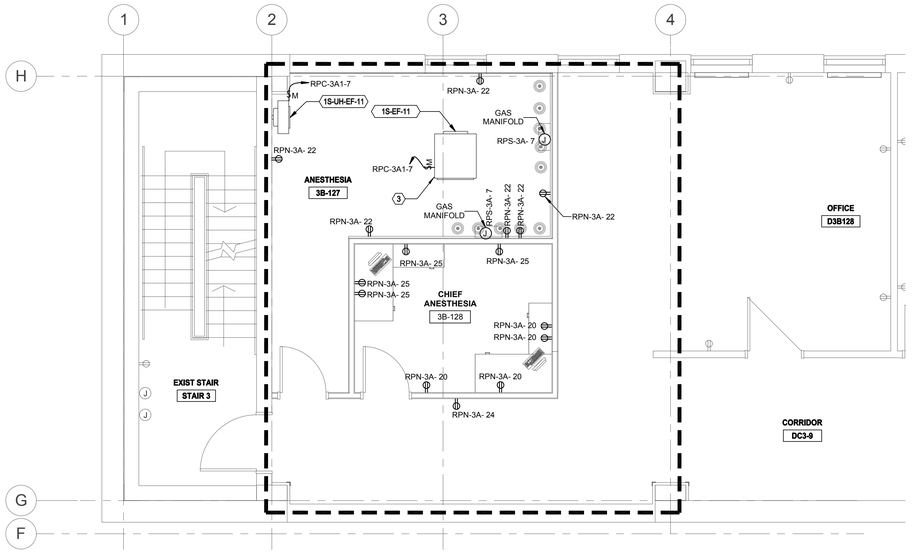
Building Number: 1S

Drawing Number: P1-EL1.01

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231



1 PHASE 1A - 3RD FLOOR POWER NEW WORK PLAN

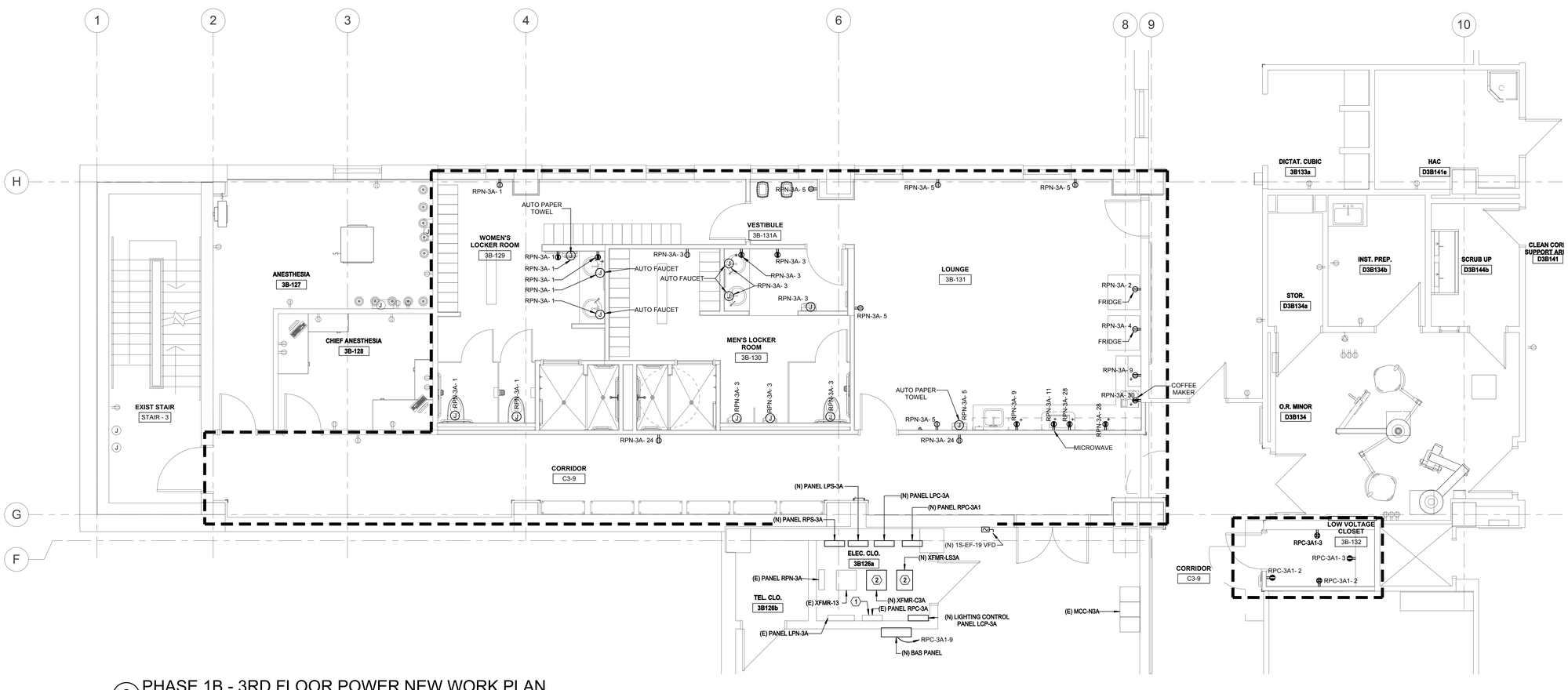
1/4" = 1'-0"

GENERAL NOTES

1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL DEVICES SHOWN IN AREA OF WORK TO BE NEW, U.O.N.
3. REFER TO DETAILS ON DRAWING E5.02 FOR FURTHER INFORMATION ON MOTORIZED AND CARD ACCESS DOOR REQUIREMENTS.

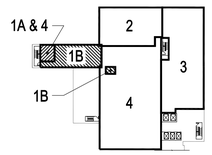
⬡ SHEET KEYNOTES

1. PANEL RCP-3A AND FEEDER TO BE DEMOLISHED IN PHASE 4A. ALL REMAINING CIRCUITS CONNECTED TO THE PANEL SHALL BE SPLICED AND EXTENDED TO THE NEW PANEL RCP-3A1 LOCATED IN THIS ELECTRICAL CLOSET PROVIDED IN AN EARLIER PHASE. SEE DRAWING E6.02 FOR FURTHER INFORMATION.
2. HANG NEW XFMR FROM CEILING ABOVE (E)LIGHT FIXTURES. PROVIDE ALL SUPPORTS AS REQUIRED.
3. RELOCATED FAN. SPLICE AND EXTEND ALL ASSOCIATED ELECTRICAL POWER AND CONTROLS WIRING AND DEVICES TO NEW FAN LOCATION.



2 PHASE 1B - 3RD FLOOR POWER NEW WORK PLAN

1/4" = 1'-0"



KEY PLAN

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Drawing Title: ELECTRICAL PHASE 1 - POWER NEW WORK PLAN

Approved: Medical Center Director

Project Title: RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location: HUNTINGTON, WV

Date: 01-15-2016 | Checked: MC | Drawn: MR

Project Number: 581-13-101

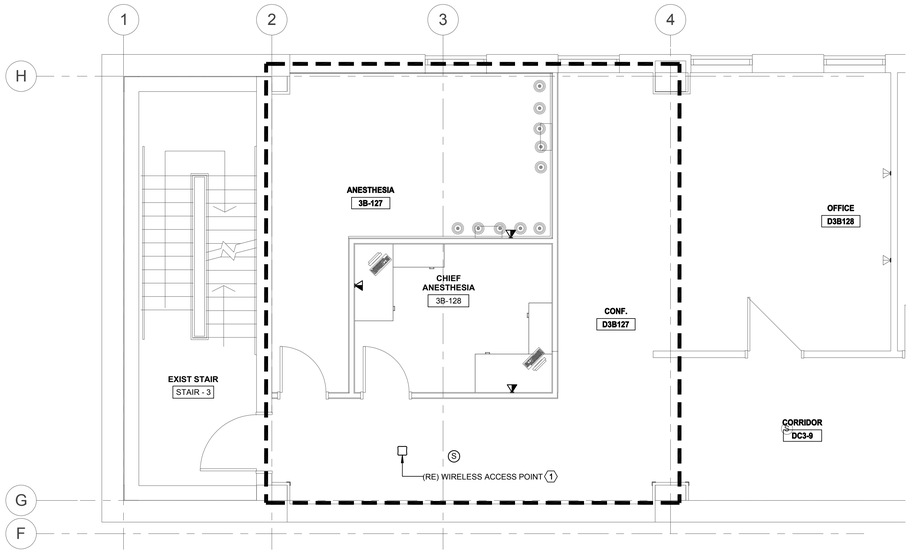
Building Number: 1S

Drawing Number: P1-EP1.01

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231



1 PHASE 1A - 3RD FLOOR SYSTEMS NEW WORK PLAN
1/4" = 1'-0"

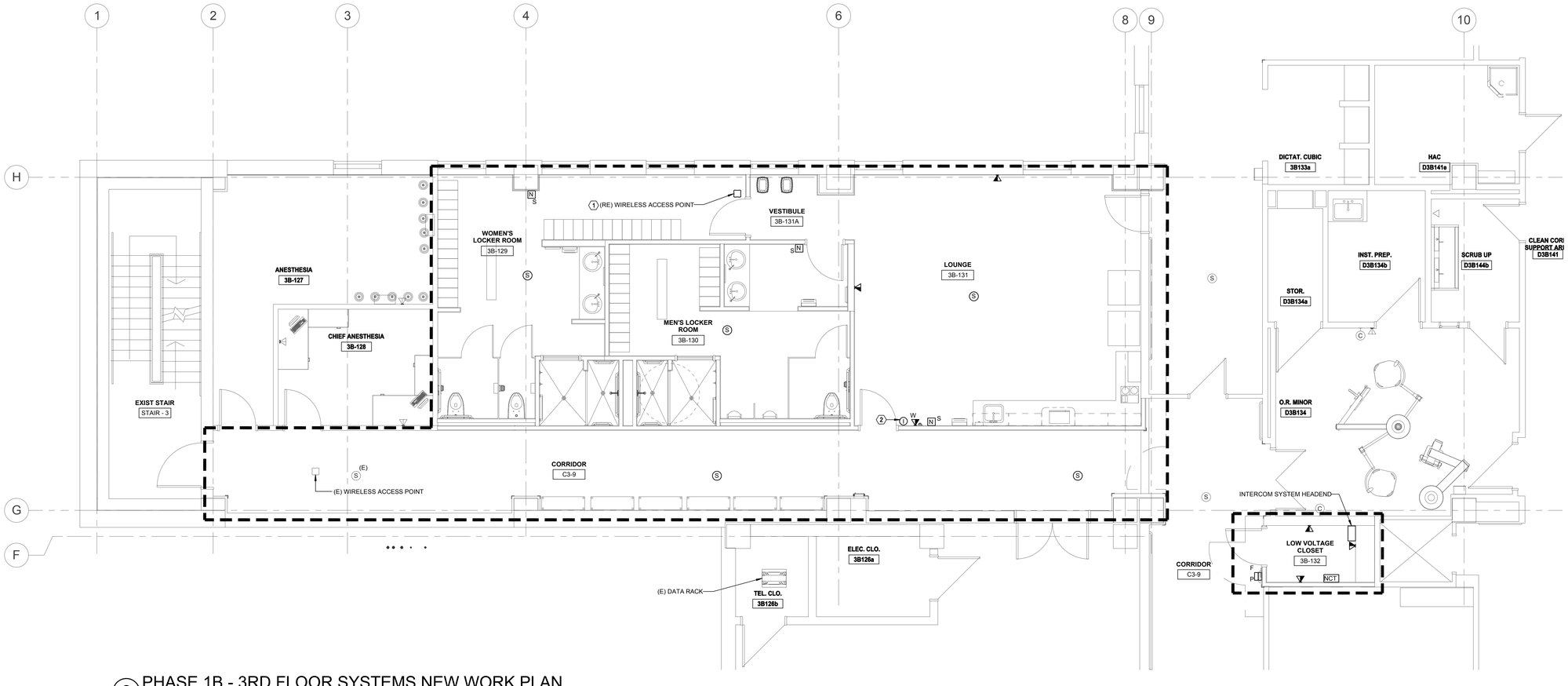
GENERAL NOTES

1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL DEVICES SHOWN IN AREA OF WORK TO BE NEW, U.O.N.
3. ALL TELE/DATA DEVICES SHALL BE PULLED BACK TO (E)DATA RACK IN MECHANICAL ROOM. SEE DWG. P1-EY1.01 FOR LOCATION OF (E)DATA RACK.
4. REFER TO DETAILS ON DRAWING E5.02 FOR FURTHER INFORMATION ON MOTORIZED AND CARD ACCESS DOOR REQUIREMENTS.
5. IN ADDITION TO ALL RELOCATED WIRELESS ACCESS POINTS (WAPs) SHOWN ON THIS PLAN, ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL WAPs, AS REQUIRED, TO PROVIDE 100% DATA COVERAGE IN THE SCOPE OF WORK. SEE GENERAL ELECTRICAL NOTES 55 AND 56 ON DRAWING E0.02 FOR FURTHER INFORMATION ON COVERAGE REQUIREMENTS.
6. ALL TELE/DATA WIRING IN THIS PHASE SHALL BE PULLED BACK TO (E) DATA RACK IN TEL. CLO. 3B126b.

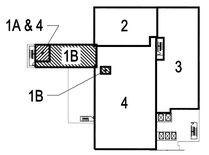
⬡ SHEET KEYNOTES

1 WIRELESS ACCESS POINT TO BE REINSTALLED IN SAME LOCATION.

2 PROVIDE (1) STENTOFON OR EQUAL OPERATING ROOM INTERCOM STATION WITH ALUMINUM FRONT PLATE AND DISPLAY SCREEN FOR INTERCOMMUNICATION BETWEEN OR'S. REFER TO DRAWING 1/E5.07.



2 PHASE 1B - 3RD FLOOR SYSTEMS NEW WORK PLAN
1/4" = 1'-0"



PLAN NORTH
ACTUAL NORTH
PROJECT LIMITS / PHASE
KEY PLAN
N.T.S.

100% CONSTRUCTION DOCUMENTS
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Drawing Title: ELECTRICAL PHASE 1 - AUXILIARY SYSTEMS NEW WORK PLAN

Approved: Medical Center Director

Project Title: RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location: HUNTINGTON, WV

Date: 01-15-2016 | Checked: MC | Drawn: MR

Project Number: 581-13-101
Building Number: 1S
Drawing Number: P1-EY1.01

Office of Construction and Facilities Management
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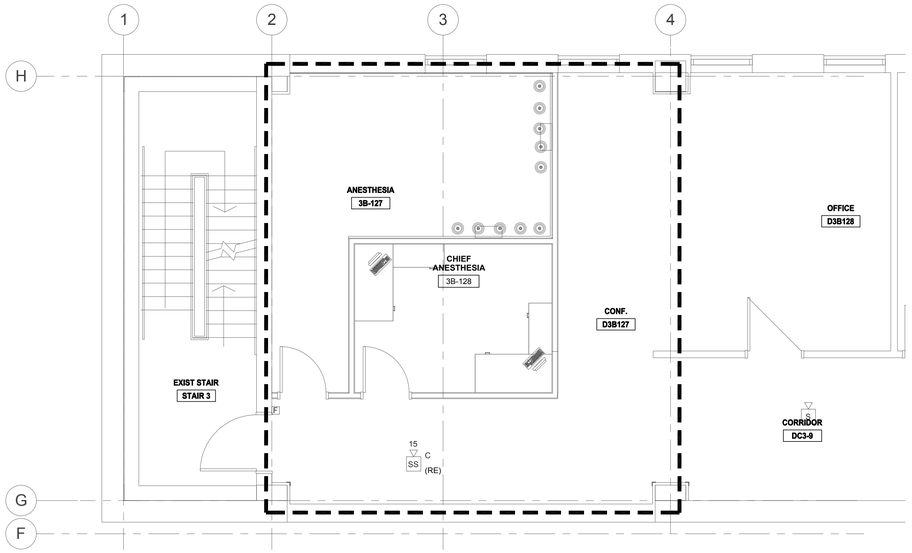
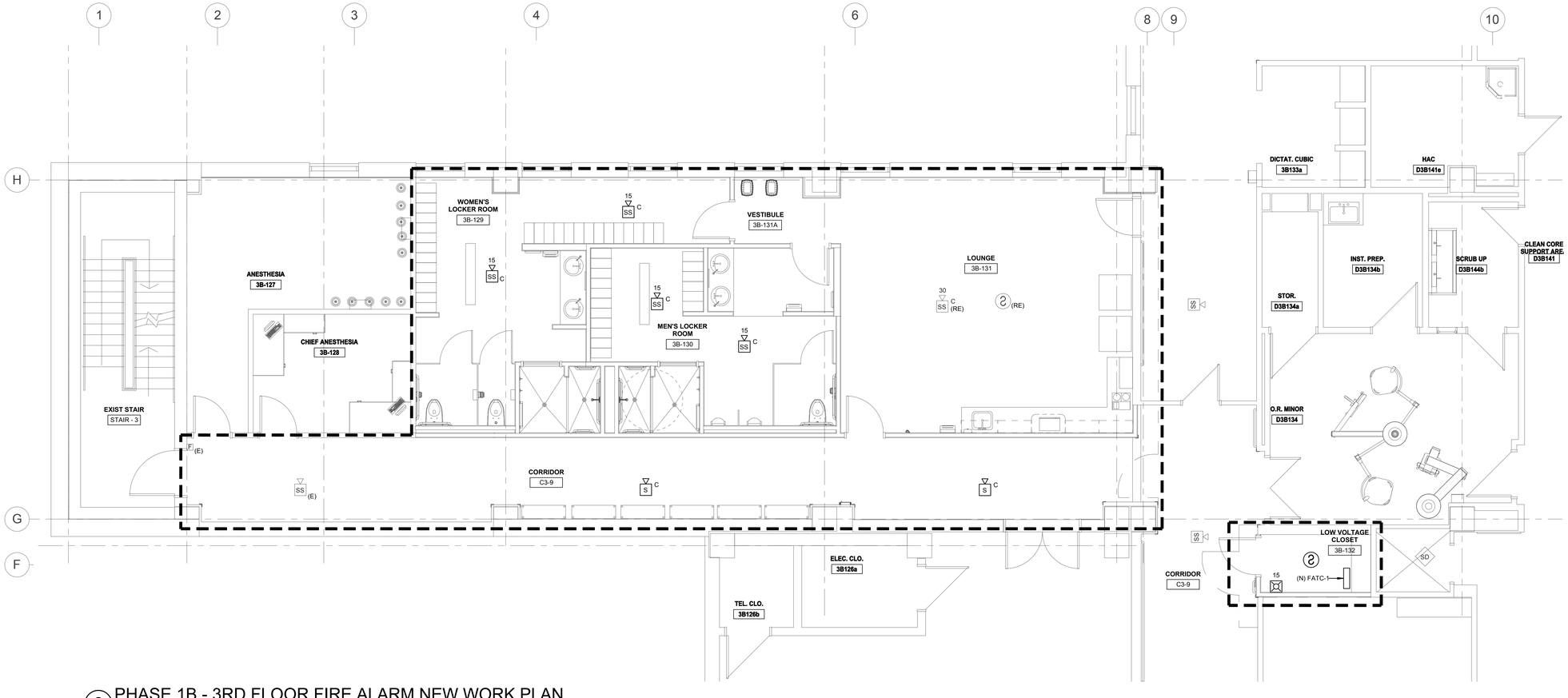


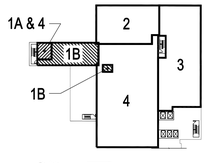
1 PHASE 1A - 3RD FLOOR FIRE ALARM NEW WORK PLAN
1/4" = 1'-0"

GENERAL NOTES

1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL DEVICES SHOWN IN AREA OF WORK TO BE NEW, U.O.N.
3. SEE FA5.01 FOR FIRE ALARM RISER DIAGRAM.



2 PHASE 1B - 3RD FLOOR FIRE ALARM NEW WORK PLAN
1/4" = 1'-0"



PLAN NORTH
ACTUAL NORTH
PROJECT LIMITS / PHASE

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Drawing Title
ELECTRICAL
PHASE 1 - FIRE ALARM NEW WORK PLAN

Approved: Medical Center Director

Project Title
RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS

Location HUNTINGTON, WV

Date 01-15-2016 | Checked MC | Drawn MR

Project Number **581-13-101**
Building Number **1S**
Drawing Number **P1-FA1.01**

Office of Construction and Facilities Management
Department of Veterans Affairs

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