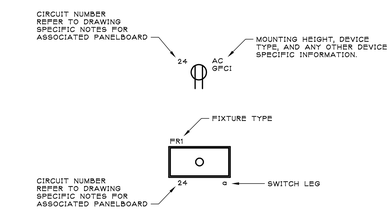
GENERAL RENOVATION NOTES:

1. UNLESS NOTED AS EXISTING OR PROVIDED BY OTHERS, CONTRACTOR SHALL PROVIDE ALL MATERIALS SHOWN ON DRAWINGS. ALL MATERIALS PROVIDED SHALL BE NEW, UNUSED CONDITION.
2. NOTIFY AND OBTAIN PERMISSION FROM THE VA COTR 5 DAYS IN ADVANCE OF ANY UTILITY INTERRUPTION.
3. REMOVE MATERIALS AS WORK PROGRESSES. UPON COMPLETION OF WORK, LEAVE AREAS IN A CLEAN CONDITION.
4. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO COMMENCING WORK.
5. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE PROVIDED WITH MINIMUM DISRUPTION TO THE HOSPITAL SYSTEMS AND STAFF. CONTINUOUS OPERATION OF THE BUILDING SYSTEMS, OUTSIDE OF WORK AREA, SHALL BE MAINTAINED THROUGHOUT THE ENTIRE PROJECT. TEMPORARY SHUTDOWN OF SYSTEMS SHALL ONLY BE ALLOWED WITH WRITTEN CONSENT OF VA COTR. EXISTING ALARM AND EMERGENCY SYSTEMS SHALL NOT BE DISRUPTED AT ANY TIME DURING THE PROJECT.
6. REMOVE & REINSTALL EXISTING CONSTRUCTION (CEILINGS, LIGHTING, ELECTRICAL EQUIPMENT, FIRE ALARM DEVICES, FURNISHINGS, ETC.) AS NECESSARY TO COMPLETE THE REMOVALS & RENOVATION WORK REQUIRED BY THE DRAWINGS & SPECIFICATIONS. REPLACE ANY ITEMS DAMAGED BY OR DUE TO THIS REMOVAL & REINSTALLATION WITH NEW ITEMS TO MATCH EXISTING. (APPLIES TO AREAS WITHIN & OUTSIDE OF THE PROJECT AREA).
7. UNLESS NOTED OTHERWISE, IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ALL CUTTING AND PATCHING REQUIRED TO PERFORM WORK. IN ADDITION, PATCH ALL OPENINGS CREATED BY REMOVAL ACTIVITIES WHICH ARE NOT BEING UTILIZED FOR CONSTRUCTION. PATCH TO MATCH EXISTING ADJACENT SURFACES IN MATERIAL, FINISH, TEXTURE AND COLOR.
8. FLUSH MOUNT ALL WIRING DEVICES, LIGHTING CONTROLS AND TELECOMMUNICATION OUTLETS WITHIN NEW AND EXISTING WALLS. CUT/CHANNEL EXISTING WALLS AS REQUIRED FOR FLUSH INSTALLATION OF WALLBOX AND CONDUIT INSTALLATIONS. THE INSTALLATION OF SURFACE MOUNTED DEVICES, SURFACE RACEWAYS, WIREMOLD, ETC., IS NOT PERMITTED.
9. PRIOR TO ROUGH-IN FOR ANY CEILING MOUNTED ELECTRICAL DEVICE OR LIGHT FIXTURE, COORDINATE THE LOCATIONS OF SPRINKLER HEADS WITH PLUMBING CONTRACTOR. ALL CEILING MOUNTED EQUIPMENT SHALL BE MOUNTED AT A DISTANCE FROM SPRINKLER HEADS THAT MEET NFPA MINIMUM REQUIREMENTS.
10. COORDINATE LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT/DEVICES WITH ARCHITECTURAL PLANS, ELEVATIONS, FURNITURE LAYOUTS, AND WITH OTHER DIVISIONS PRIOR TO INSTALLATION. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT COST TO VA.
11. INSTALL ALL CIRCUITRY PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, AND CEILING.
12. COVERS ASSOCIATED WITH JUNCTION AND PULL BOXES SHALL BE READILY ACCESSIBLE.
13. PROVIDE PULL BOXES WHERE REQUIRED BY CODE AND WHERE NECESSARY FOR CONDUCTOR INSTALLATION. PROVIDE PULL BOXES EVERY 100' FOR ALL EMPTY RACEWAY RUNS. PRIOR TO INSTALLATION OF PULL BOXES, COORDINATE WITH OTHER TRADES.
14. PROVIDE SEPARATE RACEWAYS AND BOXES FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS.
15. CIRCUITS ASSOCIATED WITH NURSE CALL SYSTEM SHALL BE PROVIDED IN SEPARATE, DEDICATED RACEWAYS.
16. INTERCOMMUNICATION SYSTEM CONDUITS AND BOXES SHALL BE PAINTED YELLOW (YELLOW "TOP-COATED" CONDUIT FROM THE CONDUIT MANUFACTURER MAY BE USED IN LIEU OF PAINTED CONDUIT)
17. WITH THE EXCEPTION OF ELECTRICAL CLOSETS & MECHANICAL ROOMS, ALL CONDUITS, RACEWAYS, ELECTRICAL DUCTS, CABLING & WIRING SHALL BE CONCEALED ABOVE ACCESSIBLE CEILINGS, IN WALLS, OR BENEATH FINISHED FLOORS.
18. PROVIDE PULL CORDS IN ALL CONDUITS/RACEWAYS FOR PULLING OF CABLING/WIRING.
19. PROVIDE SCHEDULE 40 BLACK STEEL PIPE SLEEVES AT ALL CONDUIT PENETRATIONS THROUGH CONCRETE AND MASONRY CONSTRUCTION, AND THROUGH FIRE RATED DRYWALL CONSTRUCTION.
20. FIRE SEAL ALL OPENINGS AROUND ELECTRICAL BOXES, RACEWAYS, SLEEVES, ETC. WHERE PASSING THROUGH CONCRETE SLABS AND WALLS. THE FIRE SEAL SHALL BE APPROVED AND INSTALLED IN ACCORDANCE WITH ASTM E814.
21. THE USE OF TYPE AC CABLE, MC CABLE, OR FLEXIBLE METAL CONDUIT WITH CONDUCTORS IS NOT PERMITTED, EXCEPT FOR, FINAL CONNECTIONS TO LIGHT FIXTURES AND HVAC EQUIPMENT (FINAL FLEXIBLE CONNECTION LENGTH IS LIMITED TO MAXIMUM OF 6' FOR LIGHT FIXTURES). REFER TO SPECIFICATIONS FOR MINIMUM RACEWAY SIZE AND MATERIAL REQUIREMENTS.
22. THE USE OF SHARED NEUTRALS IN LIGHTING AND RECEPTACLE BRANCH CIRCUITS IS PROHIBITED. REFER TO SPECIFICATIONS FOR NEUTRAL CIRCUITING REQUIREMENTS.
23. ELECTRICAL EQUIPMENT LOCATIONS ARE APPROXIMATE. VERIFY EXACT EQUIPMENT LOCATIONS PRIOR TO FEEDER ROUGH-IN.
24. REFER TO ELECTRICAL EQUIPMENT AND CONTROL SCHEDULE ON DRAWING E-602 FOR HVAC/PLUMBING EQUIPMENT CIRCUITRY, CONTROLS & ADDITIONAL INFORMATION.
25. TO MAINTAIN DRAWING CLARITY, MOTOR CONTROL DEVICES, FOR HVAC/PLUMBING EQUIPMENT, MAY NOT BE SHOWN. REFER TO ELECTRICAL EQUIPMENT & CONTROL SCHEDULE ON DRAWING XX FOR TYPES OF MOTOR CONTROL DEVICES REQUIRED, LOCATIONS WHERE CONTROL DEVICES ARE SCHEDULED FOR INSTALLATION, AND ADDITIONAL INFORMATION.
26. MOTOR CONNECTION LOCATIONS SHOWN ARE APPROXIMATE. VERIFY EXACT LOCATIONS WITH OTHER TRADES PRIOR TO FEEDER/ CONDUIT ROUGH-IN.
27. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL SUPPORT HARDWARE FOR SECURELY FASTENING THE HVAC CONTROL DEVICES TO THE EXISTING SUPPORT FRAMES/BUILDING STRUCTURE. THE REQUIRED HARDWARE INCLUDES, BUT IS NOT LIMITED TO, INTERMEDIATE STEEL ANGLE, UNISTRUT, FASTENERS, JOISTS CLAMPS, ETC.
28. AIM OCCUPANCY SENSOR(S) FOR OPTIMAL COVERAGE OF SPACE. SET EACH SENSOR FOR TIME SETTING AS DIRECTED BY OWNER.
29. WHERE NEW CIRCUIT BREAKERS ARE REQUIRED FOR INSTALLATION IN EXISTING ELECTRICAL PANELS, CONTRACTOR SHALL PROVIDE CIRCUIT BREAKERS WHICH ARE COMPATIBLE WITH EXISTING ELECTRICAL PANELS. MATCH FRAME SIZES, KAIC RATINGS, ETC. USED. REFURBISHED OR ALTERNATE MANUFACTURER STYLES ARE UNACCEPTABLE.
30. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL PROVIDE A COMPLETE AND UPDATED, TYPE-WRITTEN PANELBOARD DIRECTORY FOR ALL PANELBOARDS EFFECTED BY THIS PROJECT. PROVIDE VA COTR WITH TWO COPIES OF UPDATED PANELBOARD CIRCUIT BREAKER DIRECTORIES.
31. EACH RECEPTACLE, SWITCH AND JUNCTION BOX, PROVIDED, OR ALTERED, UNDER THIS CONTRACT, SHALL BE LABELED WITH THE CORRESPONDING POWER PANEL NAME AND CIRCUIT BREAKER NUMBER. ALL LABELING SHALL BE TYPEWRITTEN USING A LABEL MAKER AND SHALL BE PERMANENTLY AFFIXED TO EACH FACEPLATE. HANDWRITTEN LABELS WILL NOT BE ACCEPTED. PRIOR TO START OF LABELING, MEET WITH VA COTR TO DETERMINE LABELING SCHEME TO BE UTILIZED. PROVIDE LABELING TO MEET VA REQUIREMENTS.
32. ALL ITEMS THAT REQUIRE ACCESS, SUCH AS FOR OPERATING, CLEANING, SERVICING, MAINTENANCE, AND CALIBRATION, SHALL BE EASILY AND SAFELY ACCESSIBLE BY PERSONS STANDING AT FLOOR LEVEL, OR STANDING ON PERMANENT PLATFORMS, WITHOUT THE USE OF PORTABLE LADDERS. EXAMPLES OF THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO: ALL TYPES OF SWITCHES, PANELBOARDS, NURSE CALL EQUIPMENT, OCCUPANCY SENSORS, CONTROL DEVICES, ETC. PRIOR TO COMMENCING INSTALLATION WORK, REFER CONFLICTS BETWEEN THIS REQUIREMENT AND CONTRACT DRAWINGS TO THE VA COTR FOR RESOLUTION.
33. UPON COMPLETION OF THE ELECTRICAL INSTALLATION, CONDUCT A LOAD TEST BY TURNING ON ALL ELECTRICAL EQUIPMENT THROUGHOUT THE ENTIRE PROJECT FOR A CONTINUOUS PERIOD. ALTER FUSES, BREAKERS, CIRCUIT CONNECTIONS ARRANGEMENTS, AS REQUIRED TO PERMIT SATISFACTORY PERFORMANCE. LOAD SHALL BE BALANCED WITHIN 5%.

BRANCH CIRCUITING DIAGRAM



GENERAL DEMOLITION NOTES:

1. DEMOLITION DRAWINGS ARE BASED ON FIELD OBSERVATION. REPORT ANY CONFLICTS TO THE ENGINEER BEFORE DISTURBING EXISTING EQUIPMENT.
2. BEGINNING OF DEMOLITION MEANS THE CONTRACTOR ACCEPTS ALL EXISTING CONDITIONS.
3. VERIFY SCOPE OF WORK: CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE SCOPE OF THE WORK, AND TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS THAT WILL AFFECT THEIR WORK AND, THEREFORE, THEIR BID.
4. UNLESS NOTED OTHERWISE, EXISTING ELECTRICAL EQUIPMENT SHOWN ON THESE PLANS ARE A PART OF CONTRACT. TO MAINTAIN DRAWING CLARITY NOT ALL EXISTING ELECTRICAL EQUIPMENT HAS BEEN SHOWN. FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT/ ENGINEER OF ANY CONFLICTS.
5. UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL ITEMS SHOWN ON THESE PLANS AS INDICATED BY CROSS HATCHED LINES AND KEYED NOTES.
6. UNLESS NOTED OTHERWISE, DEMOLITION OF ELECTRICAL EQUIPMENT/DEVICES INCLUDES REMOVAL OF CIRCUITRY BACK TO ASSOCIATED SOURCE/PANEL. THIS INCLUDES REMOVAL OF THE DEVICE, WIRING, CONDUIT, BOXES, CONTROL DEVICES, ETC.
7. WHERE POSSIBLE EXISTING CONDUITS/RACEWAYS (ASSOCIATED WITH REMOVED EQUIPMENT AND WIRING) MAY BE RE-USED FOR NEW CIRCUITING. EXISTING CONDUITS/RACEWAYS MUST BE IN GOOD CONDITION, AND IN COMPLIANCE WITH NEC/SPECIFICATION REQUIREMENTS. NOTIFY ENGINEER PRIOR TO REUSING.
8. EXISTING CIRCUIT BREAKERS ASSOCIATED WITH ELECTRICAL EQUIPMENT SCHEDULED FOR DEMOLITION SHALL REMAIN FOR SPARES (UNLESS REMOVAL IS REQUIRED TO MAKE ADDITIONAL SPACE IN EXISTING PANELBOARDS) FOR NEW CIRCUIT BREAKERS.
9. PRIOR TO DEMOLITION WORK WALK-THRU PROJECT WITH VA COTR TO IDENTIFY EQUIPMENT THEY WISH TO RETAIN. REMOVE ALL UNUSED EXISTING EQUIPMENT WHERE ACCESSIBLE AND OFFER ALL SALVAGE MATERIAL TO THE VA COTR. VA COTR SHALL HAVE FIRST RIGHT OF REFUSAL, OR ACCEPTANCE, OF ALL SALVAGEABLE EQUIPMENT REMOVED FROM THE BUILDING. DELIVER, IN GOOD CONDITION, THE EXISTING EQUIPMENT THE VA COTR WISHES TO RETAIN, TO ONSITE LOCATION DESIGNATED BY VA COTR. THE EQUIPMENT NOT CLAIMED BY THE VA COTR SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIAL, NOT RETAINED BY THE VA COTR, IN A LAWFUL AND LEGAL MANNER AWAY FROM THE SITE.
10. MAINTAIN THE ELECTRICAL INTEGRITY OF ALL EXISTING BRANCH CIRCUITS INTERRUPTED BY REMOVAL WORK. PROVIDE ALL WIRING, CONDUIT, AND HARDWARE REQUIRED TO MAINTAIN CONTINUITY OF ELECTRICAL EQUIPMENT REMAINING ON EXISTING BRANCH CIRCUITS NOT BEING COMPLETELY REMOVED OR OUTSIDE WORK THE WORK AREA.
11. REMOVE EXISTING ELECTRICAL DEVICES, BOX(ES) AND RACEWAYS LOCATED ON OR IN WALLS SCHEDULED FOR REMOVAL. REMOVE ALL ABANDONED BOXES AND RACEWAYS LOCATED WITHIN PROJECT AREA.
12. EXISTING ELECTRICAL DEVICE BOX(ES) AND RACEWAYS LOCATED ON OR IN WALLS, NOT SCHEDULED FOR REMOVAL, SHALL REMAIN FOR RE-USE. EXPOSED RACEWAYS AND BOXES, FOLLOWING DEMOLITION WORK, SHALL BE REMOVED AND ROUTED CONCEALED BEHIND FINISHED SURFACES.
13. PROVIDE BLANK COVER PLATE(S) FOR EXISTING ELECTRICAL BOX(ES) WHICH REMAIN AFTER REMOVALS AND ARE NOT BEING USED FOR NEW DEVICES. PAINT COVERPLATE TO MATCH ADJACENT SURFACES.
14. WHERE REMOVALS OCCUR ON SERVICES THAT ARE TO REMAIN IN OPERATION, CAP OR OTHERWISE TERMINATE THE REMAINING SERVICES BENEATH FINISHED SURFACES.
15. ALL CONDUITS STUBBED THRU FLOOR SERVING ITEMS TO BE REMOVED, AND NOT SHOWN OR REQUIRED TO BE REUSED, SHALL BE CUT OFF FLUSH, SLAB LEVEL WITH CONCRETE.
16. PORTIONS OF FEEDERS RISERS WHICH REQUIRE REMOVAL DUE TO DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT ACCESSIBLE LOCATIONS, REROUTED AND RECONNECTED. EXTEND EXISTING FEEDERS AS REQUIRED. MATCH EXISTING FEEDERS IN CONDUCTOR SIZE (AMPACITY RATING), RACEWAY SIZE, ETC.
17. CAREFULLY REMOVE AND STORE ALL EQUIPMENT TO BE REUSED IN A SAFE PLACE UNTIL READY FOR REINSTALLATION. CLEAN MATERIALS BEFORE REINSTALLATION AND ENSURE EQUIPMENT IS STILL FULLY OPERATIONAL.
18. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OR RELOCATION OF ITEMS, NOT SHOWN ON THESE DRAWINGS TO ACCOMMODATE THE RENOVATIONS. CONTRACTOR SHALL INCLUDE, IN BASE BID, AN ALLOWANCE FOR UNFORESEEN CONDITIONS WHEN CONCEALED WORK IS EXPOSED. CLAIMS FOR ADDITIONAL DEMOLITION WORK WILL NOT BE ACCEPTED EXCEPT FOR CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE ARCHITECT.

FIRE ALARM SYSTEM NOTES:

1. EXPAND EXISTING FIRE ALARM SYSTEM TO INCLUDE ADDITIONAL DEVICES AND EQUIPMENT SHUTDOWN SHOWN ON DRAWINGS. PROVIDE ALL EXPANDER PANELS, POWER SUPPLIES, RELAYS, COMPONENTS, WIRING, ETC., AS REQUIRED.
2. ALL FIRE ALARM SYSTEM COMPONENTS SHOWN SHALL BE CONNECTED TO THE EXISTING BUILDING HEAD-END FIRE ALARM PANEL AND PROGRAMMED COMPLETE. CONTACT NORTHERN FIRE SYSTEMS AT (315) 458-1154 FOR INFORMATION ON EXISTING SYSTEM.
3. THE ELECTRICAL INTEGRITY OF ALL EXISTING FIRE ALARM CIRCUITS SHALL BE MAINTAINED DURING RENOVATION WORK. PROVIDE ALL WIRING, CONDUIT AND HARDWARE REQUIRED TO MAINTAIN CONTINUITY OF FIRE ALARM SYSTEM EQUIPMENT AND DEVICES REMAINING ON EXISTING CIRCUITS OUTSIDE THE WORK AREA PRIOR TO BEGINNING WORK, SCHEDULE FIRE ALARM SYSTEM OUTAGES WITH VA COTR AND LOCAL FIRE AUTHORITIES.
4. MAINTAIN SMOKE AND HEAT DETECTION COVERAGE OF ALL AREAS DURING DEMOLITION AND RENOVATION ACTIVITIES. PROVIDE TEMPORARY MOUNTING HARDWARE AND SUPPORTS AS REQUIRED TO SECURE SMOKE AND HEAT DETECTORS TO EXISTING BUILDING STRUCTURE. EXISTING SMOKE AND HEAT DETECTORS MAY BE UTILIZED FOR TEMPORARY FIRE PROTECTION. CONTRACTOR SHALL PROVIDE A FIRE WATCH DURING DEMOLITION AND RENOVATION WORK ASSOCIATED WITH FIRE ALARM SYSTEM.
5. EQUIPMENT SPECIFIED FOR THIS PROJECT IS "EST" COMPONENTS PROVIDED FOR THIS CONTRACT MUST BE COMPATIBLE WITH EXISTING "EST" FIRE ALARM SYSTEM. COORDINATE WORK WITH VA COTR.
6. FIRE ALARM SYSTEM CONDUITS AND BOXES SHALL BE PAINTED RED (RED "TOP-COATED" CONDUIT FROM THE CONDUIT MANUFACTURER MAY BE USED IN LIEU OF PAINTED CONDUIT).
7. PROVIDE ALL COMPONENTS AND WIRING, FOR FIRE ALARM SYSTEM, NECESSARY TO PROVIDE A PROPERLY FUNCTIONING SYSTEM WHETHER OR NOT LISTED ON DRAWINGS OR IN SPECIFICATIONS.

DRAWING E-001 NOTE:

UNLESS NOTED OTHERWISE, ALL ELECTRICAL SYMBOLS, ABBREVIATIONS, SCHEDULES, NOTES, DEFINITIONS, ETC., SHOWN ON THIS DRAWING APPLY TO ALL ELECTRICAL DRAWINGS.

ELECTRICAL DEFINITIONS:

RECONNECT EXISTING CIRCUITRY = MODIFY AND EXTEND EXISTING WIRING AND CONDUITS AS REQUIRED TO RECONNECT CIRCUITRY TO ELECTRICAL DEVICE. PROVIDE NECESSARY JUNCTION BOXES, EXTENSION BOXES, SPLICES, RACEWAYS, WIRING, CONNECTORS, ETC. AS REQUIRED.

CIRCUITRY = UNLESS NOTED OTHERWISE, CIRCUITRY INCLUDES, BUT IS NOT LIMITED TO, WIRING, OUTLETS BOXES, JUNCTION BOXES, RELAYS, WIREMOLD, SURFACE MOUNTED RACEWAY, CONDUITS, CONTROL DEVICES, ETC.

ELECTRONIC PHYSICAL ACCESS CONTROL SYSTEM NOTES:

CONTRACTOR MUST EMPLOY BER-NATIONAL CONTROLS, INC. TO PROVIDE THE FOLLOWING WORK (NO SUBSTITUTIONS):

- FURNISH AND INSTALL ELECTRONIC PHYSICAL ACCESS CONTROL SYSTEM COMPONENTS FOR VARIOUS SECURITY DOORS ASSOCIATED WITH PROJECT AREA. ACCESS CONTROL SYSTEM COMPONENTS INCLUDE, BUT, ARE NOT LIMITED TO, EXISTING DOOR ACCESS CONTROL PANEL EXPANSION, DOOR ACCESS CARD READERS, HARDWARE SETS, REQUEST-TO-EXIT DEVICES, CONTACTS, POWER SUPPLIES, ACCESS CARDS/ KEY-FOBS, SOFTWARE, PROGRAMMING ETC.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE FOLLOWING WORK:

- FURNISHING AND INSTALLING ALL WIRING, RACEWAYS, BOXES, TERMINAL CONNECTIONS, ETC., FOR ACCESS CONTROL SYSTEM COMPONENTS PER ACCESS CONTROL SYSTEM MANUFACTURERS' WRITTEN RECOMMENDATIONS. 120V CIRCUITS ASSOCIATED WITH ACCESS CONTROL SYSTEM COMPONENTS SHALL BE CIRCUITED TO EXISTING CRITICAL EMERGENCY PANELBOARD 'EGA-A' PER ACCESS CONTROL SYSTEM MANUFACTURERS' WRITTEN RECOMMENDATIONS. PROVIDE CIRCUIT BREAKERS IN EXISTING PANELBOARD 'EGA-A' AS REQUIRED.
- ALL WIRING, RACEWAYS, BOXES, TERMINAL CONNECTION, ETC., PROVIDE BY CONTRACTOR SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF A BER-NATIONAL CONTROLS, INC. REPRESENTATIVE.

THE ELECTRONIC PHYSICAL ACCESS CONTROL SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH VA WRITTEN STANDARDS. COORDINATE EXACT ACCESS CONTROL SYSTEM REQUIREMENTS WITH VA COTR.

BER-NATIONAL CONTROL, INC. CONTACT INFORMATION IS AS FOLLOWS: BER-NATIONAL CONTROLS, INC, JEFF BERNATOVICH, 105 ARTERIAL ROAD, SYRACUSE, NEW YORK 13206, TELEPHONE NUMBER (315) 432-1818.

ELECTRICAL SYMBOLS

GENERAL ELECTRICAL SYMBOLS

(#) INDICATES KEYED NOTE

LIGHTING SYMBOLS (REFER TO LIGHT FIXTURE SCHEDULE)

- F# — 2X4 FLUORESCENT CEILING MOUNTED FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 2X2 FLUORESCENT CEILING MOUNTED FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 1X4 FLUORESCENT CEILING MOUNTED FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 2X4 SIMILAR TO ABOVE EXCEPT ON CRITICAL BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 2X2 SIMILAR TO ABOVE EXCEPT ON CRITICAL BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 1X4 SIMILAR TO ABOVE EXCEPT ON CRITICAL BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 2X4 SIMILAR TO ABOVE EXCEPT ON LIFE SAFETY BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 2X2 SIMILAR TO ABOVE EXCEPT ON LIFE SAFETY BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — 1X4 SIMILAR TO ABOVE EXCEPT ON LIFE SAFETY BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — WALL MOUNTED FLUORESCENT LIGHT FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — UNDER-CABINET LIGHT FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — CEILING MOUNTED FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — SIMILAR TO ABOVE EXCEPT ON CRITICAL BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — SIMILAR TO ABOVE EXCEPT ON LIFE SAFETY BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — WALL MOUNTED LIGHT FIXTURE; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — SIMILAR TO ABOVE EXCEPT ON CRITICAL BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- F# — SIMILAR TO ABOVE EXCEPT ON LIFE SAFETY BRANCH CIRCUIT; F# = FIXTURE TYPE; a = CONTROLLED BY SWITCH 'a'
- X# — CEILING MOUNTED EXIT LIGHT, ARROW INDICATES FACE AND DIRECTION OF TRAVEL; X# = FIXTURE TYPE
- X# — WALL MOUNTED EXIT LIGHT, ARROW INDICATES FACE AND DIRECTION OF TRAVEL; X# = FIXTURE TYPE

LIGHTING CONTROL SYMBOLS

- SINGLE POLE SWITCH, MOUNT @ 42" A.F.F., UNO; 2 = DOUBLE POLE; 3 = THREE-WAY; 4 = FOUR-WAY; a = CONTROLS SWITCH LEG 'a'; D = DIMMER; P = PILOT LIGHT
- WS — WALL MOUNTED OCCUPANCY SENSOR, MOUNT @ 42" A.F.F., UNO; WT = OCCUPANCY SENSOR TYPE; REFER TO OCCUPANCY SENSOR SCHEDULE
- CT — CEILING MOUNTED OCCUPANCY SENSOR; CT = OCCUPANCY SENSOR TYPE; REFER TO OCCUPANCY SENSOR SCHEDULE

POWER SYMBOLS

- DUPLEX RECEPTACLE, MOUNT @ 18" A.F.F., UNO
- EM — EMERGENCY DUPLEX RECEPTACLE, MOUNT @ 18" A.F.F., UNO
- QUAD RECEPTACLE, MOUNT @ 18" A.F.F., UNO
- 7BB # — HOME RUN TO PANEL BOARD '7BB' # PANELBOARD '7BB' CKT #; PROVIDE QUANTITIES OF CONDUCTORS REQUIRED, FOR EQUIPMENT SHOWN ON PLANS. MINIMUM TRADE SIZE CONDUCTOR SHALL BE #12 AWG. UNLESS NOTED OTHERWISE, PROVIDE GROUND WIRE AND ONE NEUTRAL WIRE PER PHASE CONDUCTOR PER CIRCUIT.
- BRANCH CIRCUITRY. PROVIDE QUANTITIES OF CONDUCTORS REQUIRED, FOR SWITCHES AND EQUIPMENT AS SHOWN ON PLANS. MINIMUM TRADE SIZE CONDUCTOR SHALL BE #12 AWG. UNLESS NOTED OTHERWISE. PROVIDE GROUND WIRE AND ONE NEUTRAL WIRE PER PHASE CONDUCTOR PER CIRCUIT.
- UN-SWITCHED BRANCH CIRCUITRY. PROVIDE QUANTITIES OF CONDUCTORS REQUIRED, FOR EQUIPMENT AS SHOWN ON PLANS. MINIMUM TRADE SIZE CONDUCTOR SHALL BE #12 AWG. UNLESS NOTED OTHERWISE. PROVIDE GROUND WIRE AND ONE NEUTRAL WIRE PER PHASE CONDUCTOR PER CIRCUIT.
- (M) — MOTOR CONNECTION, # = EQUIPMENT DESIGNATION NUMBER; REFER TO ELECTRICAL EQUIPMENT & CONTROL SCHEDULE FOR DETAILS
- SURFACE MOUNTED PANEL BOARD
- RECESS MOUNTED PANEL BOARD

SPECIAL SYSTEMS SYMBOLS

- (S) — FIRE ALARM SMOKE DETECTOR, CEILING MOUNT, UNO
- (F) — FIRE ALARM PULL STATION, MOUNT @ 4'-0" A.F.F.
- (F) — FIRE ALARM AUDIO/VISUAL SIGNALING DEVICE (SPEAKER & STROBE), MOUNT @ 6'-8" A.F.F., UNO
- (F) — FIRE ALARM VISUAL ONLY SIGNALING DEVICE (STROBE), MOUNT @ 6'-8" A.F.F., UNO
- DH — FIRE ALARM DOOR HOLDER, COORDINATE MOUNTING REQUIRMENTS WITH ARCHITECT, UNO
- FSD — FIRE ALARM FIRE/SMOKE DAMPER
- (S) — CEILING MOUNTED PUBLIC ADDRESS SPEAKER
- COMBINATION DATA & TELEPHONE PORT, MOUNT @ 18" A.F.F., UNO
- CATV — CATV OUTLET, REFER TO DRAWINGS FOR MOUNTING HEIGHTS
- CT - 4x12 — OPEN CABLE TRAY (BASKET TYPE), NUMBERS INDICATE SIZE (EX. 4"H X 12"W), MOUNT ABOVE CEILING
- 103-1A CR — DOOR ACCESS CARD READER, 103-1A = DOOR NUMBER ASSOCIATED WITH READER, MODEL #: COORDINATE WITH VA COTR
- (M) — MAGNETIC DOOR LOCK

NOTE: WHEREVER THESE SYMBOLS APPEAR ON THE DRAWINGS, THE ITEM SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. SYMBOLS FOR EXISTING EQUIPMENT HAVE NOT BEEN IDENTIFIED ON THIS LIST. REFER TO DRAWINGS FOR EXISTING EQUIPMENT SYMBOLS, DESCRIPTIONS AND WORK ASSOCIATED WITH EXISTING EQUIPMENT.

ELECTRICAL ABBREVIATIONS

A	AMPERE	EWC	ELECTRIC WATER COOLER	N.I.C	NOT IN CONTRACT
AC	ABOVE COUNTER	EX	EXISTING	N.L	NIGHT LIGHT
A/C	AIR CONDITIONING	EXT	EXTERIOR	NTS	NOT TO SCALE
ACU	AIR CONDITIONING UNIT	FA	FIRE ALARM	OC	ON CENTER
A.F.F.	ABOVE FINISHED FLOOR	FL	FLOOR	O/H	OVERHEAD
A.F.G.	ABOVE FINISHED GRADE	FLA	FULL LOAD AMPS	P	POLE
AHU	AIR HANDLING UNIT	FLUOR	FLUORESCENT	PA	PUBLIC ADDRESS
ALC.	ALCOVE	GC	GENERAL CONTRACT(OR)	PB	PATIENT BED
A/V	AUDIO/VISUAL	GFCI	GROUND FAULT CIRCUIT INTERRUPTOR	PNL	PANEL
AWG	AMERICAN WIRE GUAGE	GND	GROUND	PRI	PRIMARY
AU	AT UNIT	GRS	GALVANIZED RIGID STEEL	PVC	POLYVINYL CHLORIDE
BKR	BREAKER	HID	HIGH INTENSITY DISCHARGE	SEC	SECONDARY
BMCS	BUILDING MANAGEMENT CONTROL SYSTEM	HOA	HAND-OFF-AUTO SELECTOR SWITCH	SF	SUPPLY FAN
C	CONDUIT	HP	HORSEPOWER	SMR	SURFACE METAL RACEWAY
CB	CIRCUIT BREAKER	HPS	HIGH PRESSURE SODIUM	SURF	SURFACE
CCTV	CLOSED CIRCUIT TELEVISION	HR	HOME RUN	SW	SWITCH
CKT	CIRCUIT	HV	HEATING & VENTILATING UNIT	TEL	TELEPHONE
CLG	CEILING	HVAC	HEATING, VENTILATING & AIR CONDITIONING	TV	TELEVISION
COTR	CONTRACTING OFFICER TECHNICAL REPRESENTATIVE	INCAN	INCANDESCENT	TYP	TYPICAL
CU	COPPER	JB	JUNCTION BOX	U/G	UNDERGROUND
CUH	CABINET UNIT HEATER	KV	KILOVOLTS	UH	UNIT HEATER
DEMO	DEMOLISH/DEMOLITION	KVA	KILOVOLT AMPS	UNO	UNLESS NOTED OTHERWISE
DTL	DETAIL	KW	KILOWATTS	V	VOLT
DWG	DRAWING	LTG	LIGHTING	VA	VETERANS AFFAIRS
DWH	DOMESTIC WATER HEATER	MCA	MINIMUM CIRCUIT AMPS	VAC	VOLTS, ALTERNATING CURRENT
EA	EACH	MCB	MAIN CIRCUIT BREAKER	VDC	VOLTS, DIRECT CURRENT
EC	ELECTRIC CONTRACTOR)	MDP	MAIN DISTRIBUTION PANEL	WP	WATERPROOF
E.B.	EMERGENCY BALLAST	MFS	MINIMUM FUSE SIZE	XFMR	TRANSFORMER
EF	EXHAUST FAN	MH	METAL HALIDE		
EM	EMERGENCY	NF	NON-FUSED		
EMT	ELECTRO METALLIC TUBING				
EMOH	ELECTRICALLY OPERATED, MECH. HELD				

NOTE: ABBREVIATIONS MAY OR MAY NOT USE PERIODS, EXAMPLE A.F.F. OR AFF

Scale: As Noted

Revisions:	Date

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