

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 eighth inch = one foot

POWER LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊕	SINGLE RECEPTACLE	—FM—	PLUG MOLD (MULTI-OUTLET ASSEMBLY)
⊕	DOUBLE RECEPTACLE	—WM—	WIREMOLD (SURFACE RACEWAY)
⊕	DOUBLE DUPLEX RECEPTACLE	—	CONDUIT CONCEALED
⊕	DUPLEX RECEPTACLE, HALF SWITCHED	—	CONDUIT EXPOSED
⊕	DUPLEX RECEPTACLE, CEILING MOUNTED	—	CONDUIT UNDERGROUND OR CONCEALED IN FLOOR AS ALLOWED PER SPECIFICATIONS
⊕	DUPLEX RECEPTACLE, FLOOR MOUNTED	—	CONDUIT TURNING DOWN
⊕	DOUBLE DUPLEX RECEPTACLE, FLOOR MOUNTED	—	CONDUIT TURNING UP
⊕	SPECIAL RECEPTACLE	—	CONDUIT CAPPED
⊕	SPECIAL RECEPTACLE, FLOOR MOUNTED	—	BRANCH CIRCUIT HOME RUN, NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS, SUBSCRIPT INDICATES PANEL & CIRCUITS
⊕	JUNCTION BOX, WALL OR CEILING MOUNTED	—	GROUND BAR
⊕	JUNCTION BOX, FLOOR MOUNTED	—	MAIN SWITCHBOARD/DISTRIBUTION CENTER
⊕	MOTOR	—	TRANSFORMER
⊕	DISCONNECT SWITCH (NON-FUSED)	—	CURRENT TRANSFORMER
⊕	DISCONNECT SWITCH (FUSED)	—	THERMOSTAT
⊕	VARIABLE SPEED DRIVE WITH DISCONNECT	—	GENERATOR ANNUNCIATOR PANEL
⊕	UTILITY METER	—	SHADING INDICATES EMERGENCY SYSTEM TEXT INDICATES PANEL AND CIRCUIT DESIGNATION
⊕	ELECTRICAL PANELBOARD, CONTROL PANEL, OR OTHER CABINET, AS NOTED	—	

LIGHTING LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊕	SHADING INDICATES EM SYSTEM, LOWER CASE SUBSCRIPT INDICATES SWITCHING, UPPER CASE SUBSCRIPT INDICATES LUMINAIRE TYPE (TYPE)	⊕	DECORATIVE ADJUSTABLE ACCENT DOWNLIGHT
⊕	SURFACE OR PENDANT MOUNTED LUMINAIRE	⊕	SQUARE DOWNLIGHT
⊕	LENSE TROFFER	⊕	SQUARE WALL WASH DOWNLIGHT
⊕	DIRECT/INDIRECT TROFFER	⊕	SQUARE ADJUSTABLE ACCENT DOWNLIGHT
⊕	PATENT OVERBED LIGHT	⊕	INGRADE (INTERIOR/EXTERIOR)
⊕	DIRECT/INDIRECT DISTRIBUTION, SUSPENDED LINEAR PENDANT	⊕	INGRADE WALL WASH
⊕	INDIRECT DISTRIBUTION, SUSPENDED LINEAR PENDANT	⊕	INGRADE ADJUSTABLE ACCENT
⊕	DIRECT DISTRIBUTION, SUSPENDED LINEAR PENDANT	⊕	DECORATIVE PENDANT
⊕	DIRECT/INDIRECT DISTRIBUTION, WALL MOUNT LINEAR	⊕	PENDANT
⊕	INDIRECT DISTRIBUTION, WALL MOUNT LINEAR	⊕	RECESS MOUNTED WALL LUMINAIRE
⊕	DIRECT DISTRIBUTION, WALL MOUNT LINEAR	⊕	WALL PACK OR EXTERIOR NON-DECORATIVE WALL STORAGE
⊕	DECORATIVE LINEAR WALLMOUNT	⊕	DECORATIVE SCIENCE
⊕	STRIP LINEAR WALLMOUNT	⊕	DECORATIVE POLE
⊕	SURFACE OR PENDANT MOUNTED STRIP OR INDUSTRIAL LUMINAIRE	⊕	POLE
⊕	THEATRICAL PIPE OR TRACK LIGHTING	⊕	BOLLARD
⊕	TRACK HEAD	⊕	PORCELAIN KEYLESS LAMPHOLDER, BRYANT #228 W/ 100W A19 I.F. LAMP. "PC" INDICATES PULLCHAIN
⊕	SURFACE DOWNLIGHT	⊕	EMERGENCY LIGHTING UNIT
⊕	DOWNLIGHT	⊕	EXTERIOR STAKE MOUNTED
⊕	WALL WASH DOWNLIGHT	⊕	DOCK LIGHT
⊕	ADJUSTABLE ACCENT DOWNLIGHT	⊕	DARKROOM SAFE LIGHT (TWO COMPARTMENT SHOWN)
⊕	DECORATIVE DOWNLIGHT	⊕	UNDERCABINET LIGHT
⊕	DECORATIVE WALL WASH DOWNLIGHT	⊕	EXIT LIGHT, ARROWS AS INDICATED, FACES INDICATED BY SHADING

CONTROLS LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
S ₁	SINGLE POLE SWITCH (SUBSCRIPT DENOTES SWITCHING)	S _{VS}	VARIABLE SPEED/SPEED CONTROLLER SWITCH
S ₂	TWO POLE SWITCH	S _{EP}	EXPLOSION PROOF SWITCH
S ₃	THREE-WAY SWITCH	S _{TO}	THERMAL OVERLOAD SWITCH
S ₄	FOUR-WAY SWITCH	S _{MC}	MOMENTARY CONTACT SWITCH
S _K	KEY OPERATED SWITCH	S _{CS}	COMBINATION SWITCH AND DUPLEX RECEPTACLE
S _M	MANUAL SWITCH, HORSEPOWER RATE	⊕	PHOTOCELL
S _D	DIMMER SWITCH	⊕	PUSH BUTTON
S _{PI}	SWITCH WITH PILOT LIGHT (PILOT LIGHT IS 'ON' WHEN SWITCH IS 'ON')	⊕	TIME CLOCK
S _P	SWITCH WITH PILOT LIGHT LOCATOR (CONTINUOUSLY LIGHTED HANDLE)	⊕	OCCUPANCY SENSOR - WALL MOUNTED (IR=INFRARED, US=ULTRASONIC, BT=DUAL TECHNOLOGY)
S _{LV}	LOW VOLTAGE SWITCH	⊕	OCCUPANCY SENSOR - CEILING MOUNTED (IR=INFRARED, US=ULTRASONIC, BT=DUAL TECHNOLOGY)

REFERENCE SYMBOLS LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊕	KEY NOTE REFERENCE	⊕	KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE
⊕	TYPICAL CIRCUIT NUMBER	⊕	EXISTING TO REMAIN
⊕	TYPICAL LUMINAIRE TYPE	⊕	EXISTING TO BE REMOVED
⊕	TYPICAL ROOM REFERENCE (TOP=RM, BOTTOM=FLR)	⊕	EXISTING TO BE RELOCATED
⊕	MECHANICAL EQUIPMENT REFERENCE	⊕	EXISTING TO REMAIN - REPLACE DEVICE
⊕	LIGHTING CONTROL/ EQUIPMENT REFERENCE		

ABBREVIATIONS LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
A	AMPERES	MCP	MOTOR CIRCUIT PROTECTOR
AC	ABOVE COUNTER, MOUNT HORIZONTALLY TO CENTERLINE OF DEVICE, H= ABOVE COUNTER OR BACK SPLASH	MEC	SEE MECHANICAL EQUIPMENT SCHEDULE
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
AFG	ABOVE FINISHED GRADE	MLO	MAIN LUGS ONLY
ANN	ANNUNCIATOR	MTS	MANUAL TRANSFER SWITCH
ARF	ABOVE RAISED FLOOR	NC	NORMALLY CLOSED
ASSD	AIR SAMPLING SMOKE DETECTION	NIC	NOT IN CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	NL	NIGHT LIGHT
BFG	BELOW FINISHED GRADE	NO	NORMALLY OPEN
C	CONDUIT	NTS	NOT TO SCALE
CATV	CABLE TELEVISION	OC	ON CENTER
CB	CIRCUIT BREAKER	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CCTV	CLOSED CIRCUIT TELEVISION	OFOI	OWNER FURNISHED, OWNER INSTALLED
(E)	EXISTING	OSWF	ON SITE WORK FORCE
EM	EMERGENCY	PB	PULL BOX
EMDC	EMERGENCY MAIN DISTRIBUTION CENTER	SB	STAND-BY
EP	EXPLOSION PROOF	SDC	SUB-DISTRIBUTION CENTER
EPO	EMERGENCY POWER OFF	TP	TAMPER PROOF
EVO	EMERGENCY VENTILATION ON/OFF	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
EW	ELECTRIC WATER COOLER	TYP	TYPICAL
FA	FIRE ALARM	UF	UNDER FLOOR
G	GROUND	UG	UNDER GROUND
GCP	GENERATOR CONTROL PANEL	UN	UNLESS OTHERWISE NOTED
GFI	GROUND FAULT INTERRUPTING	UPS	UNINTERRUPTIBLE POWER SUPPLY
HOA	HAND OFF AUTOMATIC	V	VOLTS
IG	ISOLATED GROUND	VFD	VARIABLE FREQUENCY DRIVE
MAX	MAXIMUM	W/	WITH
MCB	MAIN CIRCUIT BREAKER	W/O	WITHOUT
MCC	MOTOR CONTROL CENTER	WP	WEATHER PROOF
MDC	MAIN DISTRIBUTION CENTER	XFMR	TRANSFORMER

FIRE ALARM SYSTEM LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL	⊕	MANUAL PULL STATION
FAPS	FIRE ALARM (NAC) POWER SUPPLY	⊕	ADDRESSABLE INPUT MODULE
FSA	FIRE ALARM SYSTEM ANNUNCIATOR PANEL (GRAPHIC/LED)	⊕	ADDRESSABLE OUTPUT MODULE
FSA	REMOTE ANNUNCIATOR PANEL	⊕	AUDIOVISUAL DEVICE (H=HORN, S=STROBE COMBINATION, S=SEASER/STROBE COMBINATION, C=CHIME/STROBE COMBINATION)
GNM	GRAPHIC ZONE MAP	⊕	AUDIBLE DEVICE (H=HORN, S=SPEAKER, C=CHIME)
RASP	RESOLVE ASSISTANCE SYSTEM HEAD END UNIT	⊕	FIRE ALARM STROBE (S= CABELLA RATING 15, 30, 75, 110)
FSC	FIRE FIGHTER SMOKE CONTROL PANEL	⊕	EMERGENCY TELEPHONE STATION (J=JACK, H=HANDSET)
ASRP	REMOTE DISPLAY UNIT (AIR SAMPLING SYSTEM)	⊕	RESOLVE ASSISTANCE TELEPHONE STATION
⊕	SMOKE DETECTOR (P=PHOTOELECTRIC, SB=SWIFT SOUNDER BASE, BR=BEAM RECEIVER, BT=BEAM TRANSMITTER)	⊕	MAGNETIC DOOR HOLD
⊕	THERMAL DETECTOR (F=FIXED TEMPERATURE, RT=RESET TEMPERATURE & RATE OF RISE, TEMP. RATING)	⊕	TAMPER SWITCH
⊕	FLAME DETECTOR (UV=ULTRAVIOLET, IR=INFRARED)	⊕	FLOW DETECTOR SWITCH
⊕	DUCT SMOKE DETECTOR (S=SUPPLY, R=RETURN)	⊕	PRESSURE SWITCH
⊕	DUCT DETECTOR REMOTE INDICATOR ALARM AND TEST	⊕	FSD FIRE/SMOKE DAMPER
⊕	REMOTE INDICATOR LIGHT	⊕	CARBON MONOXIDE ALARM/DETECTOR

TECHNOLOGY LEGEND (Not all symbols listed below are used on these drawings)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊕	TELEPHONE TERMINAL CABINET	⊕	CARD READER
⊕	TELEPHONE TERMINAL BACKBOARD	⊕	DOOR CONTACT
⊕	TELEPHONE OR DATA OUTLET	⊕	ELECTRIC DOOR LOCK
⊕	TELEPHONE OR DATA OUTLET, FLOOR MOUNTED	⊕	ELECTRIC DOOR STRIKE
⊕	TELEPHONE, WALL MOUNTED	⊕	REQUEST TO EXIT
⊕	TELEPHONE/POWER POLE	⊕	ELECTRIC HINGE
⊕	TELEVISION OUTLET	⊕	ELECTRIC POWER TRANSFER
⊕	CLOCK OUTLET (D= DOUBLE SIDED)	⊕	POWER SUPPLY
⊕	INTERCOM CALL - BUTTON	⊕	MAGNETIC DOOR LOCK
⊕	PAGING SYSTEM SPEAKER	⊕	DURESS ALARM
⊕	PAGING SYSTEM HORN (HIGH OUTPUT)	⊕	MOTION DETECTOR (WALL MOUNTED)
⊕	BOX SPEAKER - SURFACE MOUNT	⊕	MOTION DETECTOR (CEILING MOUNTED)
⊕	VOLUME CONTROL	⊕	GLASS BREAK DETECTOR (WALL MOUNTED)
⊕	MICROPHONE STATION	⊕	GLASS BREAK DETECTOR (CEILING MOUNTED)
⊕	INTERCOM STATION	⊕	KEYPAD
⊕	SECURITY CONTROL PANEL	⊕	WIRELESS ACCESS POINT
⊕	PROJECTOR	⊕	SECURITY CAMERA
		⊕	DONNER ANTENNA

GENERAL NOTES:

- WORK INCLUDED IN THE CONTRACT IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
- PROTECT STRUCTURE AND OWNER EQUIPMENT FROM DAMAGE. IMMEDIATELY REPLACE OR REPAIR TO ORIGINAL CONDITION. DAMAGE CAUSED BY THE CONTRACTOR WHETHER EQUIPMENT APPEARS TO BE CURRENTLY IN USE OR NOT, UNLESS WRITTEN AUTHORIZATION FROM THE OWNER INDICATED OTHERWISE. PREPARE LISTING OF ALL EXISTING DAMAGED ITEMS AND SUBMIT TO OWNER PRIOR TO BEGINNING WORK.
- INSTALL CONDUIT CONCEALED IN FINISHED AREAS UNLESS OTHERWISE NOTED. PAINT EXPOSED CONDUIT TO MATCH EXISTING FINISHES WITHIN THE SURROUNDING AREA.
- DO NOT ROUTE CONDUIT WITHIN STRUCTURAL OR TOPPING SLABS OF FLOORS UNLESS SPECIFICALLY NOTED OTHERWISE AND WRITTEN APPROVAL IS OBTAINED FROM THE STRUCTURAL ENGINEER.
- FIRE SEAL ALL FIRE RATED WALL AND FLOOR PENETRATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED WALLS.
- COORDINATE EXACT REQUIREMENTS AND LOCATIONS OF MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN AND ORDERING MATERIALS OR EQUIPMENT.
- A DETAILED WRITTEN METHOD OF PROCEDURE IS REQUIRED WHEN A CONSTRUCTION ACTIVITY OR AN OUTSIDE AFFECTS THE SAFETY OF OCCUPANTS. TELEPHONE/DATA/FIRE ALARM EQUIPMENT OR COMPONENTS OF ANY SYSTEM WHICH SUPPORTS THIS EQUIPMENT OR ESSENTIALLY AFFECTS THE BUILDING MANAGEMENT, OPERATIONS OR SECURITY.
- EXISTING INFORMATION SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM OWNER FURNISHED DRAWINGS AND/OR LIMITED FIELD OBSERVATIONS. CATOR, RUMA & ASSOCIATES IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY INFORMATION OR THE ADEQUACY, SAFETY AND CONFORMANCE TO CURRENT PREVAILING CODES OF ANY WORK SHOWN AS EXISTING ON THESE DRAWINGS.
- FIELD LOCATE EXISTING UNDERGROUND PUBLIC AND OWNER UTILITIES OF ALL TRADES AND BUILDING GROUNDING/LIGHTNING PROTECTION SYSTEMS PRIOR TO ANY EXCAVATION, REPLACE OR REPAIR DAMAGED UTILITIES AND GROUNDING/LIGHTNING PROTECTION SYSTEMS TO ORIGINAL CONDITION.
- PROVIDE SEPARATE INSULATED GROUNDING CONDUCTOR IN ALL FEEDER, HOMERUN AND BRANCH CIRCUITS.

FIRE ALARM PLAN NOTES:

- LOCATE SMOKE DETECTORS PER NFPA 72 AND MANUFACTURERS REQUIREMENTS. THE LOCATIONS OF SMOKE DETECTORS ON THE DRAWINGS ARE DIAGRAMMATIC ONLY. DETECTORS SHALL NOT BE PLACED WITHIN 3'-0" OF ANY CEILING MOUNTED HVAC SUPPLY AIR DEVICE.
- NEW FIRE ALARM DEVICES SHALL MATCH EXISTING, UNLESS NOTED OTHERWISE. PROVIDE RE-PROGRAMMING OF SYSTEM AS REQUIRED TO ACCOMMODATE NEW DEVICES. REVERSE EXISTING ANNUNCIATOR(S) AND GRAPHIC ZONE MAP(S) TO REFLECT PROJECT FIRE ALARM MODIFICATIONS. SUBMIT TO ENGINEER AND BUILDING/FIRE DEPARTMENTS FOR REVIEW PRIOR TO INSTALLATION.
- THE CONTRACTOR/VENDOR SHALL PROVIDE SPECIFIC PROPOSED CONDUIT/WIRING ROUTINGS SHOWN ON DRAWINGS FOR ALL EXTERIOR ROUTES AND ANY INTERIOR ROUTES VISIBLE TO THE PUBLIC OR STAFF. THE PROPOSED ROUTES SHALL BE REVIEWED BY THE NCA GEMETERY DIRECTOR, NCA PROJECT MANAGER, CDR/PA, AND ENGINEER PRIOR TO THE SHOP DRAWINGS BEING FINALIZED. ONCE THE SHOP DRAWINGS AND FINAL ROUTES HAVE BEEN APPROVED FOR THE EXTERIOR ROUTINGS, AND PUBLICALLY VISIBLE ROUTES, THE CONTRACTOR SHALL THEN BE AUTHORIZED TO PROCEED TO INSTALL THOSE CONDUITS.

Revisions	Date

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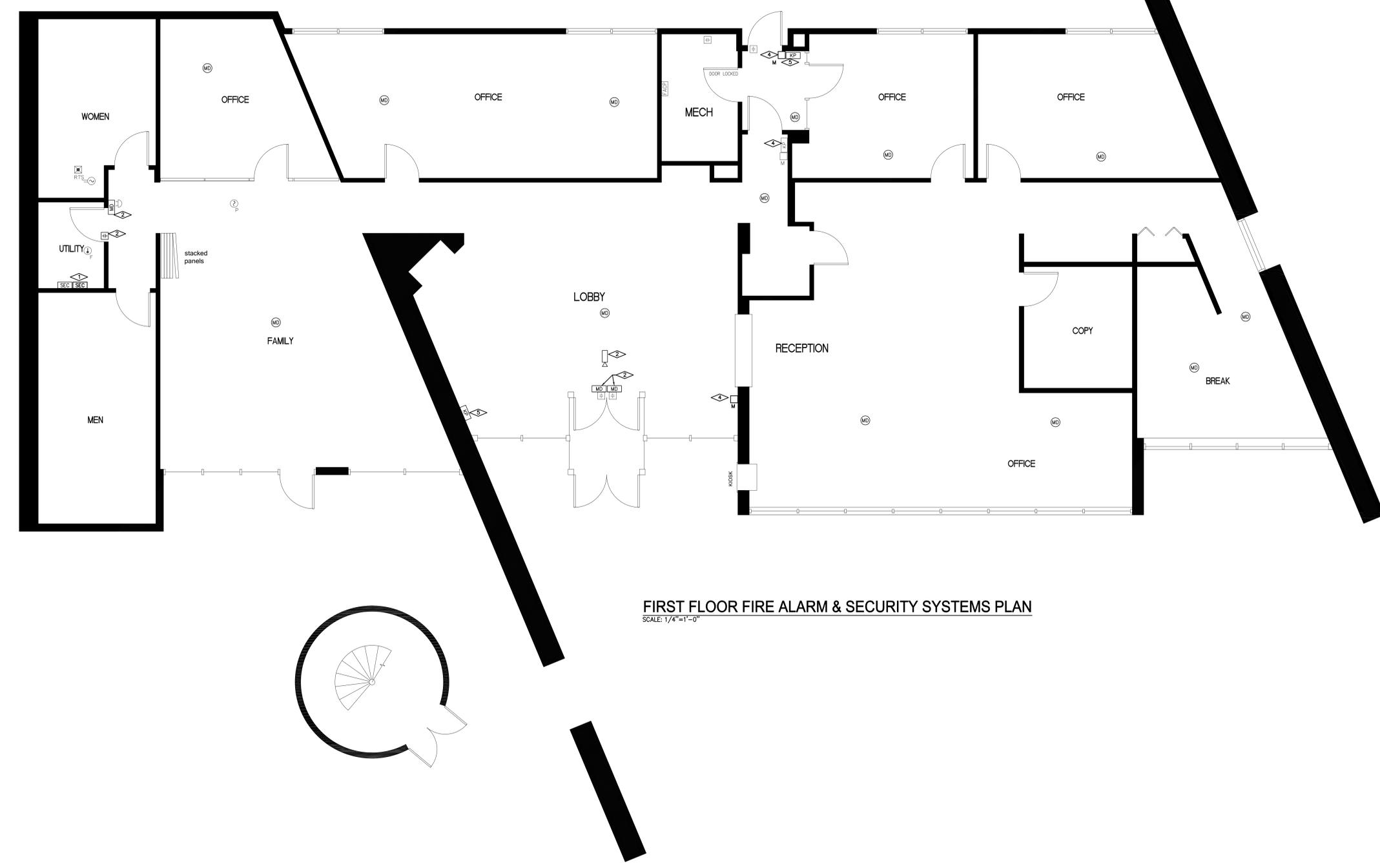
Professional Engineer
No. 11352
9-5-15

Drawing Title ELECTRICAL LEGENDS	Project Title NCA: FIRE ALARM & SECURITY SYSTEMS ASSESMENTS WOODLAWN, CALVERTON, INDIANTOWN GAP, CULPEPER	Project Number 1696.0241 NCA
Approved Project Director	Location VARIOUS LOCATIONS	Drawing Number E-001
Date 9/15/2015	Checked ADR	Drawn ADR
		Dwg. 13 of 25

NCA DESIGN AND CONSTRUCTION SERVICE

Department of Veterans Affairs

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- KEY NOTES:**
- 1. PROVIDE A NEW SECURITY HEAD END CONTROL PANEL AT APPROXIMATE LOCATION SHOWN. DEMOLISH THE EXISTING SECURITY HEAD END CONTROLLER. CONTRACTOR SHALL PROVIDE NEW SECURITY DEVICES ON NEW SYSTEM PER MANUFACTURER INSTRUCTIONS. PROVIDE CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
 - 2. PROVIDE NEW FIRE ALARM DEVICE CONNECTED TO THE EXISTING FIRE ALARM SYSTEM.
 - 3. DEMOLISH EXISTING SECURITY DEVICE. CLEAN, VERIFY DEVICE IS WORKING PROPERLY AND SALVAGE FOR REUSE WHERE IT IS. WHERE THE DEVICE IS NOT WORKING PROPERLY, THE CONTRACTOR SHALL DISPOSE OF DEVICE.
 - 4. DEMOLISH THE EXISTING SECURITY CONTROLLER/KEYPAD IN ITS ENTIRETY.
 - 5. PROVIDE A NEW KEYPAD ON NEW SECURITY SYSTEM AND CONNECT PER MANUFACTURER'S INSTRUCTIONS.

- SITE NOTES:**
- 1. THE MAINTENANCE/EMPLOYEE BUILDING AT INDIANTOWN GAP NATIONAL CEMETERY SHALL HAVE THE FIRE ALARM SYSTEM COMPLETELY TESTED IN ACCORDANCE TO THE NFPA 72 ANNUAL TESTING PROCEDURES AND SHALL BE RECORDED/DOCUMENTED BY THE CONTRACTOR. ALL DEFICIENCY FINDINGS SHALL BE PRESENTED TO THE FACILITY DIRECTOR, THE NCA PROJECT MANAGER AND THE ENGINEER OF RECORD.

FIRST FLOOR FIRE ALARM & SECURITY SYSTEMS PLAN
 SCALE: 1/4"=1'-0"

Revisions	Date

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Drawing Title	LODGE / ADMINISTRATION BUILDING FIRE ALARM & SECURITY SYSTEMS PLAN
Approved Project Director	

Project Title	NCA: FIRE ALARM & SECURITY SYSTEMS ASSESSMENTS WOODLAWN, CALVERTON, INDIANTOWN GAP, CULPEPER
Location	INDIANTOWN GAP - ANNVILLE, PA
Date	9/15/2015
Checked	ADR
Drawn	ADR

Project Number	1696.024 NCA
Building Number	1001
Drawing Number	E-1001
Dwg. 14 of 25	

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