

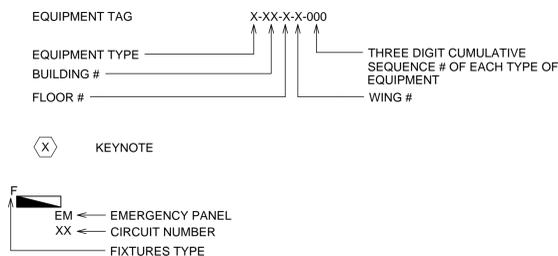
ELECTRICAL GENERAL NOTES:

- CONTRACTOR SHALL REVIEW ENTIRE SET OF CONTRACT DOCUMENTS: INCLUDING BUT NOT NECESSARILY LIMITED TO ALL ARCHITECTURAL, ALL STRUCTURAL, ALL MECHANICAL, ALL ELECTRICAL, ALL PLUMBING, AND ENTIRE PROJECT SPECIFICATION. CONTRACTOR SHALL ACKNOWLEDGE AND INCLUDE IN THE SCOPE OF WORK (CONTRACT) ALL CONDITIONS PERTINENT TO THE COMPLETION OF THE ELECTRICAL WORK. CONTRACTOR SHALL FULLY COORDINATE ELECTRICAL WORK WITH THE INSTALLATION OF WORK BY ALL OTHER TRADES AND MAKE NECESSARY FIELD ADJUSTMENTS AS REQUIRED TO ACCOMMODATE THE ELECTRICAL INSTALLATION. ALL OF THE ABOVE SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO THE VA.
- CONTRACTOR SHALL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS, VISIT THE SITE OF THE WORK, AND FULLY INFORM HIM/HERSELF AS TO ALL CONDITIONS AND MATTERS THAT CAN, IN ANY WAY, AFFECT THE WORK OR THE COST THEREOF, SHOULD THIS CONTRACTOR FIND DISCREPANCIES IN, OR OMISSIONS FROM, THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS OR BE IN DOUBT AS TO THEIR MEANING, NOTIFY THE VA AND ARCHITECT AT ONCE, IN WRITING, OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND NEW WORK, OR BETWEEN ELECTRICAL WORK AND THE WORK OF OTHER TRADES AND OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED TO INDICATE NO DISCREPANCIES OR CONFLICTS EXIST. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THESE REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM. WHERE THERE IS NO MENTION OF THE RESPONSIBLE PARTY FOR A SPECIFIC ITEM TO BE FURNISHED, INSTALLED OR WIRED ON THE ELECTRICAL DRAWINGS, THE CONTRACTOR WILL BE RESPONSIBLE COMPLETELY FOR ALL PURCHASES AND LABOR FOR A COMPLETE OPERATING SYSTEM FOR THIS ITEM.
- ANY MENTION OF A SPECIFIC VOLTAGE ON THE ELECTRICAL DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO VERIFY THE VOLTAGE PRIOR TO PURCHASING OR ROUGH-IN WORK.
- CONTRACTOR SHALL VERIFY ALL OUTLET MOUNTING ARRANGEMENTS, HEIGHTS AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN. ANY MENTION OF A SPECIFIC MOUNTING ARRANGEMENT, HEIGHT OR LOCATION SHALL NOT RELIEVE THE ELECTRICAL CONTRACTOR OF THE RESPONSIBILITY TO VERIFY THE SPECIFIC REQUIREMENT WITH THE EQUIPMENT FURNISHED OR THE OTHER TRADES WORKING IN THE SAME AREA. NO ADDITIONS TO THE CONTRACT SUM WILL BE PERMITTED FOR OUTLETS IN WRONG LOCATIONS, IN CONFLICT WITH OTHER WORK ETC. THE VA RESERVES THE RIGHT TO RELOCATE ANY DEVICE 10'-0" PRIOR TO ROUGH-IN WITHOUT ANY ADDITIONAL CHARGES BY THE CONTRACTOR.
- ALL INSTRUMENTS, APPARATUS AND EQUIPMENT SHALL BE TESTED AND PROVED TO BE ELECTRICALLY AND MECHANICALLY WITHOUT DEFECTS. THE ELECTRICAL SYSTEM SHALL BE TESTED FOR GROUNDS OR SHORTS AND IF SHORTED OR GROUNDED, ALL SUCH WIRES SHALL BE REMOVED AND REPLACED. IF TROUBLE IS WITHIN CIRCUIT, ALL METERS, CABLES, EQUIPMENT OR APPARATUS NECESSARY FOR MAKING ALL TESTS SHALL BE FURNISHED AND PROVIDED BY CONTRACTOR.
- CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK, COMPLYING WITH THE APPLICABLE PROVISIONS OF ALL CITY, STATE, AND FEDERAL SAFETY LAWS (OSHA), AND AS RECOMMENDED IN THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" AS ISSUED BY THE ASSOCIATION OF GENERAL CONTRACTORS OF AMERICA, INC., 20TH AND E. STREETS, N.W. WASHINGTON, D.C.
- THE CONSULTING ENGINEER MAY MAKE PERIODIC VISITS TO THE JOB SITE TO OBSERVE THE PROGRESS OF THE WORK AND TO OBSERVE WHETHER OR NOT IT IS BEING PERFORMED IN ACCORDANCE WITH THE ELECTRICAL PLANS AND SPECIFICATIONS. THIS DOES NOT IN ANY WAY MEAN THAT THE ENGINEER IS A GUARANTOR OF THE CONTRACTOR'S WORK, OR RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE, IN CONTROL OF THE SAFETY OR ADEQUACY SAFETY OR ADEQUACY OF ANY SHIPMENT, BUILDING, SCAFFOLDING, FORMS OR OTHER WORK AIDS, OR FOR SUPERINTENDING, DIRECTING OR HAVING CHARGE AT THE ERECTION AND/OR CONSTRUCTION OF THE WORK.
- UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REVIEW AND CHECK THE ENTIRE PORTION OF WORK, CLEAN EQUIPMENT AND DEVICES, REMOVE SURPLUS MATERIALS AND RUBBISH FROM THE VA'S PROPERTY, LEAVING THE WORK IN NEAT AND CLEAN ORDER AND IN COMPLETE WORKING CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY CARTON, DEBRIS, ETC. FOR EQUIPMENT INSTALLED BY THIS CONTRACTOR INCLUDING EQUIPMENT FURNISHED BY THE VA. THE ABOVE SHALL ALSO APPLY TO ALL EQUIPMENT FURNISHED BY OTHERS AND UNPACKED OR REMOVED FROM CARTON, BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERY, RECEIVING, UNLOADING, UNCRATING, STORING SETTING IN PLACE, AND PROTECTING FROM DAMAGE, VANDALISM, THEFT OR WEATHER DURING CONSTRUCTION FOR ALL NEW EQUIPMENT FURNISHED BY THE CONTRACTOR.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING FOR CONSTRUCTION TRAILER, HAND TOOLS AND CONSTRUCTION LIGHTING PER LATEST OSHA STANDARDS AND INCLUDE ALL COSTS IN THE BASE BID. COORDINATE ALL REQUIREMENTS WITH THE GENERAL CONTRACTOR.
- CONTRACTOR SHALL FURNISH CONTRACT RECORD DOCUMENTS TO THE ARCHITECT/ENGINEER BEFORE FINAL PAYMENT WILL BE ISSUED. THE CONTRACT RECORD DOCUMENTS SHALL DIAGRAMMATICALLY INDICATE THE INSTALLED CONDITION AND BE IN REPRODUCIBLE DRAWING FORM.
- THE ELECTRICAL INSTALLATION IS TO BE IN ACCORDANCE WITH ALL NATIONAL, STATE, LOCAL ELECTRICAL CODES AND LOCAL UTILITY COMPANY'S REQUIREMENTS. ANY MODIFICATIONS AND/OR ADDITIONS TO THESE PLANS, REQUIRED FOR PROPER COMPLIANCE TO ANY APPLICABLE CODES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN HIS/HER BASE BID.
- ALL EQUIPMENT/DEVICES SHALL BE NEW AND/OR FIRST QUALITY AND IS TO BEAR THE APPROPRIATE UL OR CSA APPROVED LABELS FOR SPECIFIC PURPOSE.
- ALL WIRE AND CABLE SHALL BE COPPER ONLY, TYPE "THWN" OR "XHHW". MINIMUM WIRE SIZE TO BE #12 EXCEPT FOR CONTROL WIRE. ALL WIRE SIZE #10 AWG AND SMALLER SHALL BE SOLID. ALL CABLE #8 AWG AND LARGER SHALL BE STRANDED.
- ALL 20 AMPERE BRANCH CIRCUIT HOMERUNS 100' OR LONGER SHALL BE MINIMUM #10 AWG OR LARGER SIZED TO LIMIT VOLTAGE DROP TO CODE REQUIREMENTS.
- NO ROMEX OR BX WILL BE PERMITTED.
- ALL WIRE SHALL BE INSTALLED IN THIN WALL (E.M.T.) CONDUIT UNLESS OTHERWISE NOTED. MINIMUM SIZE SHALL BE 3/4" EXCEPT FOR DROPS FOR DEVICES, SWITCH LEGS, TEMPERATURE CONTROL CONDUITS, WHERE INDICATED OR AS CALLED FOR ON DRAWINGS.
- ALL THINWALL FITTINGS SHALL BE OF THE STEEL COMPRESSION GLAND TYPE.
- ALL UNDERFLOOR, UNDERGROUND OR EXPOSED-TO-WEATHER CONDUIT SHALL BE HEAVYWALL GALVANIZED RIGID STEEL PVC COATED. (G.R.S.), MINIMUM 3/4".
- ALL CONDUITS 2" OR LARGER SHALL BE GALVANIZED RIGID STEEL OR INTERMEDIATE METAL CONDUIT (I.M.C.).
- CONTRACTOR SHALL INSTALL SIZE OF CONDUIT SHOWN AND AS SCHEDULED ABOVE AND SHALL NOT REDUCE SIZING OF CONDUITS TO SUIT WIRE FILL CAPACITY.
- ALL CONDUIT FASTENERS, STRAPS, SUPPORTS ETC. MUST BE "BOLT-ON" GALVANIZED STEEL ON EXPOSED CONSTRUCTION AND IN WET AREAS.
- NO WIREWAY, TROUGH OR JUNCTION SHALL BE UTILIZED WHERE MORE THAN 8 CONDUITS ARE ENTERING OR LEAVING. MULTIPLE WIREWAYS, TROUGHS OR JUNCTIONS SHALL BE UTILIZED. IN NO CASE SHALL FEEDER OR CONDUIT OR CABLING BE MIXED WITH BRANCH CONDUIT.
- CONTRACTOR SHALL FIREPROOF ALL CONDUIT OPENINGS BETWEEN FLOORS AND ANY INTERSPACE FIRE SEPARATION BLOCK WALLS WITH AN OWNER APPROVED UL LISTED FIRE RETARDANT MATERIAL. AS SUCCESSFULLY REVIEWED BY THE ARCHITECT.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL SLEEVES THRU WALLS AND CORING THRU FLOORS. CONTRACTOR SHALL WEATHERPROOF ALL PENETRATIONS THRU FOUNDATION AND EXTERIOR WALLS.
- FINAL EQUIPMENT CONNECTION TO PILOT CONTROL DEVICES SHALL BE MADE WITH 1'-0" MINIMUM LENGTH OF FLEXIBLE CONDUIT CONNECTION (I.E. SOLENOID VALVES, MOTORIZED DAMPERS, ETC.).
- CONTRACTOR SHALL PROVIDE CIRCUITS AND FINAL POWER CONNECTIONS FOR FIRE PROTECTION, ALARM BELLS AS REQUIRED.
- RECEPTACLES INDICATED FOR G.F.I. PROTECTION SHALL PROTECT RECEPTACLE INDICATED ONLY. G.F.I. CIRCUIT BREAKERS WILL NOT BE PERMITTED TO PROTECT RECEPTACLES INDICATED FOR G.F.I. PROTECTION.

ELECTRICAL SYMBOLS:

SYMBOL	DESCRIPTION
POWER SYMBOLS	
⌚	SINGLE POLE TOGGLE SWITCH, 20 AMPERE RATED, MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE. SUBSCRIPT: 'a' - LOWER CASE LETTER INDICATES SWITCH CONTROL "3" - DENOTES THREE WAY TOGGLE SWITCH "2P" - DENOTES TWO POLE TOGGLE SWITCH "VS" - OCCUPANCY SENSOR
⊕	DUPLEX RECEPTACLE, 120 VOLT, 20 AMPERE RATED, 18" A.F.F. UNLESS NOTED OTHERWISE. HUBBELL OR LEVITON #5362-1, MTD HORIZONTALLY IN JUNCTION BOX. SUBSCRIPT: "WP" - DENOTES WATER PROOF TYPE
⌋	JUNCTION BOX CEILING MOUNTED
⊕	JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION
⌋	FIRE ALARM CONDUIT [RED]
⌋	LIGHTNING PROTECTION [CABLE]
⌋	EXPOSE CONDUIT [RGS]
M	MOTOR
⌋	DISCONNECT SWITCH
F	FUSED DISCONNECT SWITCH
⊙	GROUND ROD
○	CONDUIT UP
●	CONDUIT DOWN
UH	ELECTRIC UNIT HEATER
⌋	EXHAUST FAN
LIGHTING SYMBOLS	
○	LIGHT FIXTURE
◐	EMERGENCY LIGHT FIXTURE
⌋	8" X 4' LIGHT FIXTURE
⌋	8" X 4' EMERGENCY LIGHT FIXTURE
⌋	EXIT SIGN - REFER TO EXIT SIGN SCHEDULE
⌋	EXISTING PANELBOARD
⌋	ELECTRICAL PANELBOARD
⊙	CEILING MOUNTED DUAL-TECHNOLOGY (PIR/ULTRASONIC) OCCUPANCY SENSOR.
FIRE ALARM SYMBOLS	
S	MANUAL PULL STATION
V	VISUAL ALARM
AV	AUDIO/VISUAL ALARM
SD	SMOKING DETECTOR
D	HEAT DETECTOR
TELEPHONE/DATA AND SECURITY SYMBOLS	
▶	2 DATA OUTLETS AND 2 VOICE OUTLETS MOUNTED HORIZONTALLY AT +18" A.F.F. UNLESS OTHERWISE NOTED
SC-1	SECURITY CAMERA - FIXED MOUNT
SC-2	SECURITY CAMERA - PTZ MOUNT
ECS-2	EMERGENCY CALL STATION - WALL MOUNTED
ECS-1	EMERGENCY CALL STATION - PEDESTAL

EQUIPMENT TAG SYMBOLS:



ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR
EM	INDICATES FIXTURE CONNECTED TO EMERGENCY SERVICE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND INDICATES GREEN GROUND CONDUCTOR CONNECTED TO EQUIPMENT AND PANEL
FACP	FIRE ALARM CONTROL PANEL
NL	NIGHT LIGHT, 24 HOUR OPERATION
OS	OCCUPANCY SENSOR
RGS	RIGID GALVANIZED STEEL
UNO	UNLESS NOTED OTHERWISE

EXIT SIGN ARROW INDICATES DIRECTION.			
SUBSCRIPT:			
SINGLE FACE SIGNS		DOUBLE FACE SIGNS	
⊗	X1 -FIRE ESCAPE	⊗	X16 -FIRE ESCAPE
⊗	X2 -STAIR(S)/STAIRWAY	⊗	X17 -STAIR(S)
⊗	X3 -EXIT	⊗	X18 -EXIT
⊗	X4 -FIRE ESCAPE	⊗	X19 -FIRE ESCAPE
⊗	X5 -STAIR(S)	⊗	X20 -STAIR(S)
⊗	X6 -EXIT	⊗	X21 -EXIT
⊗	X7 -FIRE ESCAPE	⊗	X22 -FIRE ESCAPE
⊗	X8 -STAIR(S)	⊗	X23 -STAIR(S)
⊗	X9 -EXIT	⊗	X24 -EXIT
⊗	X10 -FIRE ESCAPE		
⊗	X11 -STAIR(S)		
⊗	X12 -EXIT		

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 ELECTRICAL GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

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Drawn
 YY AG

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