

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE	GTB	GROUND TERMINAL BOX
1P	SINGLE POLE		
2/C	TWO-CONDUCTOR	HID	HIGH INTENSITY DISCHARGE
3/C	THREE-CONDUCTOR	HOA	HAND-OFF-AUTOMATIC
3PH	THREE-PHASE	HP	HORSEPOWER
4/C	FOUR-CONDUCTOR	HT	HEIGHT
4W	FOUR-WIRE	HZ	HERTZ
A/C UNIT	AIR CONDITIONING UNIT	IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA
A/E	ARCHITECT/ENGINEER	IMC	INTERMEDIATE METAL CONDUIT
AAP	ALARM ANNUNCIATOR PANEL	INCAND	INCANDESCENT
AC	ALTERNATING CURRENT OR ARMORED CABLE	IR	INFRARED
ACC	ACCESSIBLE	IWH	INSTANTANEOUS WATER HEATER
ADDL	ADDITIONAL	J-BOX	JUNCTION BOX
ADJ	ADJACENT, ADJOINING		
ADO	AUTOMATIC DOOR OPENER	KV	KILOVOLT
AF	AMPERE FRAME OR AMP FUSE	KVA	KILOVOLT AMPERE
AFD	ABOVE FINISHED FLOOR, AUTOMATIC FREQUENCY CONTROL, OR AVAILABLE FAULT CURRENT	KVAH	KILOVOLT AMPERE PER HOUR
		KVAR	KILOVOLT AMPERE REACTIVE
		KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	KWH	KILOWATT HOUR
AFG	ABOVE FINISHED GRADE	KWHM	KILOWATT HOUR METER
AH	AMPERE HOUR		
AHJ	AUTHORITY HAVING JURISDICTION	LED	LIGHT EMITTING DIODE
AIC	AMPERE INTERRUPTING CAPACITY	LF	LINEAR FEET (FOOT)
ALT	ALTERNATE	LM	LUMEN
AMB OR A	AMBIENT	LP	LIGHT POLE
AMP	AMPERE	LPS	LOW PRESSURE SODIUM
ARCH	ARCHITECT	LRA	LOCKED ROTOR AMPS
ASC	AMPS SHORT CIRCUIT	LTC	LOCAL TEMPERATURE CONTROL PANEL
AT	AMPERE TRIP	LT	LIGHT
ATS	AUTOMATIC TRANSFER SWITCH	LTO	LIGHTING
AUTO	AUTOMATIC	LTG PNL	LIGHTING PANEL
AV	AUDIO VISUAL	LTNG	LIGHTNING
		LV	LOW VOLTAGE
BAT	BATTERY		
BC	BARE COPPER	MATV	MASTER ANTENNA TELEVISION SYSTEM
BD	BOARD	MAX	MAXIMUM
BFF	BELOW FINISH FLOOR	MC	METAL-CLAD
BIL	BASIC INSULATION LEVEL	MCA	MINIMUM CIRCUIT AMPS
BLDG	BUILDING	MCB	MAIN CIRCUIT BREAKER
BRIP	BOILER PLANT INSTRUMENTATION PANEL	MCC	MOTOR CONTROL CENTER
BRKR	BREAKER	MDP	MAIN DISTRIBUTION PANEL
BYP	BY PASS	MECH	MECHANICAL
		MG	MOTOR GENERATOR
C	CONDUIT	MH	MANHOLE
CAB	CABINET	MIN	MINIMUM
CALC	CALCULATE	MOCP	MAXIMUM OVERCURRENT PROTECTION
CAP	CAPACITY	MLO	MAIN LUGS ONLY
CAT	CATALOG	MT	MOUNT
CATV	COMMUNITY ANTENNA TELEVISION	MTD	MOUNTED
CCR	CONTROL CONTROLLER	MTG	MOUNTING
CCTV	CLOSED CIRCUIT TELEVISION	MTS	MANUAL TRANSFER SWITCH
cd	CANDELA	MV	MEDIUM VOLTAGE
CD	CONSTRUCTION DOCUMENTS	MVA	MEGAVOLT-AMPERE
CF	CONTRACTOR FURNISHED	MW	MEGAWATT
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED		
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED	NA	NOT APPLICABLE
CIE	CONTRACTOR FURNISHED EQUIPMENT	NEC	NATIONAL ELECTRICAL CODE
CHW	CHILLED WATER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CHWP	CHILLED WATER PUMP	NEUT OR	NEUTRAL
CKT	CIRCUIT	NFFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CKT BRKR	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CLF	CURRENT LIMITING FUSE	NL	NIGHT LIGHT
CLG	CEILING	NO	NORMALLY OPEN
CMU	CONCRETE MASONRY UNIT	NS	NO SCALE
COAX	COAX CABLE	NTS	NOT TO SCALE
COMM	COMMUNICATION		
COMP	COMPARTMENT	OC	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONT	CONTINUE	OL	OVERLOAD
CONTR	CONTRACTOR	P	POLE
COORD	COORDINATE	PA	PUBLIC ADDRESS
CPT	CONTROL POWER TRANSFORMER	PB	PANELBOARD, PULL BOX, OR PUSHBUTTON
CRI	COLOR RENDERING INDEX	PBPJ	PREFABRICATED BESIDE PATENT UNIT
CT	CURRENT TRANSFORMER	PCB	POLYCHLORINATED BIPHENYL
CTV	CABLE TELEVISION	PEC	PHOTOELECTRIC CELL
CU	COPPER	PED	PEDESTAL
CU FT	CUBIC FEET	PEND	PENDANT
CUR	CURRENT	PF	POWER FACTOR
		PH	PHASE
DB	DECIBEL OR DIRECT BURIAL	PNL	PANEL
DC	DIRECT CURRENT	POD	POWER OPERATED DAMPER
DOP	DIMMER CONTROL PANEL	PT	POTENTIAL TRANSFORMER
DEG C	DEGREES CELSIUS	PTRV	POWER TYPE ROOF VENTILATION
DEG F	DEGREES FAHRENHEIT	PVC	POLYVINYL CHLORIDE (PLASTIC)
DEMO	DEMOLITION	PWR	POWERPCP REFLECTED CEILING PLAN
DIA	DIAGRAM	REC	RECESSED
DISC	DISCONNECT	RECPT	RECEPTACLE
DISTR	DISTRIBUTION	RGS	RIGID GALVANIZED STEEL
DISTR PNL	DISTRIBUTION PANEL	RM	ROOM
DMR SW	DIMMER SWITCH	RMS	ROOT MEAN SQUARE
DN	DOWN	REQD	REQUIRED
DPDT	DOUBLE POLE, DOUBLE THROW		
DPST	DOUBLE POLE, SINGLE THROW	SCC	SHORT CIRCUIT CAPACITY
DRSW	DOOR SWITCH	SES	SERVICE ENTRANCE SECTION
DS	DISCONNECT SWITCH	SD	SMOKE DETECTOR
DWG	DRAWING	SF	SQUARE FOOT (FEET)
		SHT	SHEET
EC	EMPTY CONDUIT	SI	INTERNATIONAL SYSTEM OF UNITS
EG	EQUIPMENT GROUND	SPEC	SPECIFICATION
EL	ELEVATION	SPST	SINGLE POLE, SINGLE THROW
ELEC	ELECTRIC OR ELECTRICAL	SURF	SURFACE
ELEV	ELEVATOR	SW	SWITCH
EMCP	EMERGENCY MONITORING CONTROL PANEL	SWBD	SWITCHBOARD
EMER	EMERGENCY	SWGR	SWITCHGEAR
EMI	ELECTROMAGNETIC INTERFERENCE		
EMT	ELECTRICAL METALLIC TUBING	TC	TIME CLOCK
ENCL	ENCLOSURE	TEL	TELEPHONE
EPO	EMERGENCY POWER OFF	TP	TWISTED PAIR
EPRF	EXPLOSION PROOF	TPS	TWISTED PAIR SHIELDED
ESMT	EASEMENT	TTB	TELEPHONE TERMINAL BOARD
EW	ELECTRIC WATER COOLER	TV	TELEVISION
EWL	ELECTRIC WATER HEATER	TYP	TYPICAL
EXIST	EXISTING		
FA	FIRE ALARM	UGND	UNDERGROUND DUCT
FAAP	FIRE ALARM ANNUNCIATOR PANEL	UL	UNDERWRITERS LABORATORY
FABL	FIRE ALARM BELL	UON	UNLESS OTHERWISE NOTED
FABX	FIRE ALARM BOX	UNINT	UNINTERRUPTIBLE POWER SUPPLY
FACP	FIRE ALARM CONTROL PANEL	UTIL	UTILITY
FC	FOOTCANDLE		
FI	FILM ILLUMINATOR	V	VOLT
FIXT	FIXTURE	VA	VOLT AMPERE
FLA	FULL LOAD AMPS	VAR	VOLT AMPERE REACTIVE
FLEX	FLEXIBLE METALLIC CONDUIT	VFD	VARIABLE FREQUENCY DRIVE
FLT	FLOODLIGHT	VOLT	VOLTAGE
FLUOR	FLUORESCENT		
FLUOR FIX	FLUORESCENT FIXTURE	W	WATT
FOUTT	TELEPHONE FLOOR OUTLET	WH	WATER HEATER
FP	FIRE PROTECTION	WP	WEATHERPROOF
FT	FEET OR FOOT		
FU SW	FUSED SWITCH	XFER	TRANSFER
FVNR	FULL VOLTAGE NON-REVERSING	XFMR	TRANSFORMER
FVR	FULL VOLTAGE REVERSING		
G OR GND	GROUND OR GENERATOR		
GEN	GENERATOR		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		

ELECTRICAL SYMBOLS – DIAGRAM

	EARTH GROUND
	PULL BOX
	FUSE WITH RATING
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT SWITCH, FUSED
	DISCONNECT SWITCH, UNFUSED
	STARTER, COMBINATION WITH DISCONNECT SWITCH
	STARTER OR MOTOR CONTROLLER
	VARIABLE FREQUENCY DRIVE
	TIME CLOCK
	LIGHTING CONTACTOR
	GENERATOR, POWER
	METER
	WYE CONNECTION
	MOTOR, SINGLE-PHASE
	MOTOR, THREE-PHASE
	WATT-HOUR DIGITAL METER WITH KYZ HARDWARE AND INTERFACED WITH DDC PANEL VIA CAT-5e CABLING.

ELECTRICAL SYMBOLS – LIGHTING PLAN

	SWITCH	2 = DOUBLE POLE
	BLANK = SINGLE POLE	3 = THREE-WAY
	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	
	M=MANUAL MOTOR SWITCH	Mo= OCCUPANCY SENSOR
	WALL MOUNTED, OCCUPANCY SENSOR	
	PHOTOELECTRIC CELL, LIGHTING CONTROLS	
	FIXTURE, DOWNLIGHT, RECESSED	
	FIXTURE, DOWNLIGHT, RECESSED, EMERGENCY BATTERY BACKUP	
	FIXTURE, WALL MOUNTED	
	FIXTURE, 2'x4' LAY-IN, RECESSED	
	FIXTURE, 2'x4' LAY-IN, RECESSED, EMERGENCY BATTERY BACKUP	
	FIXTURE, 4' STRIP, PENDANT; /E INCLUDE WITH EMERGENCY BATTERY BACKUP	
	FIXTURE, 4' LINEAR, PENDANT; /E INCLUDE WITH EMERGENCY BATTERY BACKUP	
	FIXTURE, 4' LINEAR, WALL MOUNTED	
	FIXTURE, 2'x4'	
	FIXTURE,	
	FIXTURE, 1'x2' SURFACE MOUNTED	
	EXIT SIGN, WALL MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN	
	EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN	

GENERAL NOTES

- ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.
- LIGHTING FIXTURES WITH MORE THAN TWO LAMPS SHALL HAVE TWO OUTER LAMPS CONTROLLED WITH ONE SWITCH AND INNER LAMP(S) CONTROLLED BY A SECOND SWITCH.
- EACH HOMERUN CONDUIT SHALL CONTAIN NO MORE THAN THREE CIRCUITS. PROVIDE A NEUTRAL AND GROUND FOR EACH HOMERUN CIRCUIT. IF THE HOMERUN EXCEEDS 100 FEET, USE #10 THHN CU WIRE.
- MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.

ELECTRICAL SYMBOLS – POWER PLAN

	RECEPTACLE, DUPLEX, 120VAC, 20A, 18" A.F.F.
	RECEPTACLE, DUPLEX, 120VAC, 20A, COORD. WITH COUNTER
	RECEPTACLE, DUPLEX, 120VAC, 20A, GFCI, COORD. WITH COUNTER
	RECEPTACLE, DUPLEX, 120VAC, 20A, GFCI, WEATHERPROOF WHILE IN USE.
	RECEPTACLE, DUPLEX, 120VAC, 20A, EMERGENCY POWER
	RECEPTACLE, DUPLEX, 120VAC, 20A, TAMPER RESISTANT
	RECEPTACLE, DUPLEX, 120VAC, 20A, ISOLATED GROUND
	RECEPTACLE, SIMPLEX, 120VAC, 20A, COORD. WITH EQUIPMENT
	RECEPTACLE, QUADPLEX, 120VAC, 20A, 18" A.F.F. U.N.O.
	RECEPTACLE, DUPLEX, 120VAC, 20A, SPLIT WIRED
	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 6-30R. 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, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-30R. H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.
	JUNCTION BOX
	PANELBOARD, SURFACE MOUNTED
	PANELBOARD, RECESSED MOUNTED
	TRANSFORMER - "TA"
	DISCONNECT SWITCH
	MAIN GROUNDING BUSBAR
	CONDUIT TERMINATED 6" [152mm] AFF IN STANDARD BOX FOR EXTENSION TO EQUIPMENT AS DIRECTED.
	CONDUIT TERMINATED W/COUPLING (FLUSH W/FINISHED FLOOR) FOR EXTENSION TO EQUIPMENT AS DIRECTED.
	BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF HOT LEGS AND NEUTRAL. ONE SEPERATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN(NOT SHOWN). NO LINES SHOWN INDICATE HOT, NEUTRAL AND GND. ALL ISOLATED GROUND RECEPTACLE CIRCUITS WILL REQUIRE AN ADDITIONAL GROUNDING CONDUCTOR; ALSO NOT SHOWN.
	LIGHT POLE, ONE LUMINAIRE
	LIGHTING, EXTERIOR BUILDING
	BRANCH CIRCUIT. LINES INDICATE NUMBER OF HOT LEGS, NEUTRAL AND SWITCH LEGS. ONE SEPERATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN(NOT SHOWN). NO LINES SHOWN INDICATE 3 CONDUCTORS AS REQUIRED(HOT,NEUTRAL OR SWITCH LEGS) PLUS THE GROUND. ALL ISOLATED GROUND RECEPTACES CIRCUITS WILL REQUIRE AN ADDITIONAL GROUNDING CONDUCTOR; ALSO NOT SHOWN.

ELECTRICAL GENERAL NOTES

- REFER TO ARCHITECTURAL DRAWINGS FOR ALL ROOF PENETRATIONS AND DETAILS.
- THIS SCHEDULE IS A STANDARD SCHEDULE. CERTAIN SYMBOLS & ABBREVIATIONS INDICATED ON THIS SCHEDULE MAY NOT APPEAR ON THE DRAWINGS.
- EQUIPMENT SYMBOLS SHOWN DASHED ON THE DRAWINGS INDICATE EXISTING EQUIPMENT.
- IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT.
- FURNISH ALL LABOR AND TOOLS NECESSARY, AND FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES, UFC'S AND AUTHORITY HAVING JURISDICTION REQUIREMENTS, INCLUDING ITEMS REQUIRED BUT NOT NECESSARILY SHOWN SUCH AS LAMPS, COUPLINGS, HANGERS, BRACKETS, CLAMPS, BOXES, CONNECTORS AND HARDWARE.
- BEFORE SUBMITTING THE BID PROPOSAL, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE JOB CONDITIONS. VERIFY SERVICE REQUIREMENTS, INCLUDING ALL NECESSARY PULLBOXES, SIZE AND NUMBER OF CONDUITS AND CONDUCTORS, PANELS, SWITCHBOARDS, DISCONNECT SWITCHES, CABLES, ETC., WHETHER SHOWN ON DRAWINGS OR NOT, BUT REQUIRED FOR PROVIDING A COMPLETE AND OPERABLE ELECTRICAL SYSTEM WITHOUT ADDITIONAL COST TO THE OWNER.
- ALL EXTERIOR ENCLOSED DISCONNECT SWITCHES AND CIRCUIT BREAKERS SHALL BE NEMA 4X, UNLESS OTHERWISE NOTED.
- ALL INTERIOR ENCLOSED DISCONNECT SWITCHES AND CIRCUIT BREAKERS SHALL BE NEMA 1, UNLESS OTHERWISE NOTED.
- ALL RECEPTACLES DENOTED WITH "GF" GROUND FAULT CIRCUIT INTERRUPTION SHALL BE WIRED TO THE LINE TERMINALS ONLY. DOWNSTREAM "GF" RECEPTACLES SHALL NOT BE FED BY THE LOAD TERMINALS OF UPSTREAM "GF" DEVICES. (TYPICAL)

FINAL SUBMISSION
APRIL 9, 2013

IF SHEET IS LESS THAN (30"x42") IT IS
A REDUCED PRINT; SCALE ACCORDINGLY

E001

 786 MOORE ST., FARMHORE, AL 36532 251-990-5778 ARCH. & ENGR. SEAL 	NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS SATISFACTORY TO DATE	P.W. DWG. NO.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
	SAFETY DEPARTMENT SATISFACTORY TO DATE	DRAWN BY GWS	NAVAL SUPPORT ACTIVITY PANAMA CITY, FLORIDA	
	FIRE DEPARTMENT SATISFACTORY TO DATE	CHECKED BY KDE	CONSTRUCT NAVAL BRANCH HEALTH CLINIC PANAMA CITY	
	PUBLIC WORKS SUPERVISOR SATISFACTORY TO DATE	SUPERVISOR WWB	GENERAL NOTES, SYMBOLS AND LEGENDS	
		APPROVED DATE	SIZE F	CODE IDENT. NO. N/A
		HOW PROJ. NO. 520-13-200	CONSTR. CONTR. NO.	
		SCALE NONE	MACC.	T.O.# SHEET 1 OF 13