



TEETER ENGINEERING GROUP, P.A.  
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ISSUANCE

REVISIONS  
NO. DATE DESCRIPTION

FILE NUMBER 18030  
PROJECT MANAGER  
PROFESSIONAL  
DRAWN BY CLE  
CHECKED BY WLT

ELECTRICAL SYMBOLS  
E-002

SYMBOL SCHEDULE

**GENERAL SYMBOLS**

HOMERUN TO PANELBOARD. SEE "CIRCUIT HOMERUN AND CONDUCTOR LOGIC"

CONDUIT RUN CONCEALED OVERHEAD ABOVE CEILING AND IN WALLS OR MC CABLE WHERE PERMITTED. USE SURFACE RACEWAY SYSTEM EXPOSED ON INACCESSIBLE EXISTING CONSTRUCTION.

CONDUIT RUN EXPOSED.

CONDUIT RUN CONCEALED BELOW FLOOR.

FLEXIBLE CONDUIT WITH CONNECTION TO EQUIPMENT SERVED.

GROUND SIZED PER NEC 250.

120/208 VOLT PANELBOARD. SEE PANEL SCHEDULE.

277/480 VOLT PANELBOARD. SEE PANEL SCHEDULE.

MONITORING PANEL. SEE PLANS FOR DESCRIPTION.

**SWITCHES**

SWITCH RATED 120/277 VOLTS AND 20 AMPERES. SUBSCRIPTS FOR BASIC SYMBOL.

BLANK - SINGLE POLE  
2 - DOUBLE POLE  
3 - THREE WAY  
4 - FOUR WAY  
D - DIMMER WITH SILICON CONTROLLED RECTIFIER  
P - PILOT LIGHT

TWO SWITCHES IN COMMON OUTLET BOX AT 48" AFF.

SWITCH RATED 120/277 VOLTS AND 20 AMPERES WITH OCCUPANT SENSOR FOR MANUAL ON AND AUTO OFF AFTER PRESET TIME.

AREA LIGHTING CONTROL PHOTOELECTRIC SWITCH.

TIME CLOCK - ELECTRONIC 24 HOUR-7 DAY

LIGHTING CONTROL LIGHTING CONTACTOR.

DAYLIGHT SENSOR CONTROL.

DUAL TECHNOLOGY CEILING MOUNTED OCCUPANT SENSOR, PROVIDE LOW-VOLTAGE WIRING PER MANUFACTURER'S RECOMMENDATIONS.

HIGH BAY CEILING MOUNTED OCCUPANT SENSOR. SUSPEND DEVICE TO JUST BELOW LAMP OF SURROUNDING LIGHTING FIXTURES.

**WIRING DEVICES**

120V, 20A DUPLEX RECEPTACLE WALL MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED EWC- GFCI TYPE RECEPTACLE SERVING ELECTRIC WATER COOLER. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH PLUMBING CONTRACTOR AND INSTALL RECEPTACLE SO THAT IT IS CONCEALED FROM VIEW.

R- RECEPTACLE SERVING REFRIGERATOR. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH EQUIPMENT CONTRACTOR AND INSTALL RECEPTACLE SO THAT IT IS CONCEALED FROM VIEW AND DOES NOT IMPEDE THE INSTALLATION OF THE REFRIGERATOR.

GFI- DUPLEX RECEPTACLE WITH BUILT-IN GROUND FAULT INTERRUPTING MECHANISM.

S- SAFETY TYPE RECEPTACLE.

WP- WEATHERPROOF COVER.

120V, 20A SINGLE RECEPTACLE WALL MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED

120V, 20A DUPLEX RECEPTACLE WITH BOTTOM OF BOX 2" ABOVE COUNTER BACKSLASH OR AT COUNTER HEIGHT

TWO 120V, 20A DUPLEX RECEPTACLES UNDER COMMON COVER

TWO 120V, 20A DUPLEX RECEPTACLE UNDER COMMON COVER MOUNTED AT COUNTER HEIGHT

120V, 20A DUPLEX RECEPTACLE WITH ISOLATED GROUND TERMINAL-COLORED ORANGE

120V, 20A DUPLEX RECEPTACLE FLUSH MOUNTED IN CEILING

SPECIAL EQUIPMENT RECEPTACLE. (SEE NOTES)

SPECIAL EQUIPMENT RECEPTACLE, 30A, 250V, NEMA 14-30R.

SPECIAL EQUIPMENT RECEPTACLE, 50A, 250V, NEMA 14-50R.

**LIGHTING (SEE LIGHTING FIXTURE SCHEDULE)**

**EQUIPMENT CONNECTIONS**

CONNECTION TO 120 VOLT MOTOR.

CONNECTION TO 3-PHASE MOTOR.

HEAVY DUTY SAFETY SWITCH. (NON-FUSED) SEE "EQUIPMENT DISCONNECT SCHEDULE".

HEAVY DUTY SAFETY SWITCH. (FUSED) SEE "EQUIPMENT DISCONNECT SCHEDULE".

JUNCTION BOX WITH CONNECTION TO EQUIPMENT SERVED.

CONNECTION TO HVAC, PLUMBING OR OTHER EQUIPMENT AS NOTED.

CONNECTION TO WATER HEATER.

CONNECTION TO OVERHEAD DOOR. PROVIDE SAFETY SWITCH AT CONNECTION POINT. RUN POWER WIRING THROUGH DOOR CONTROLLER. CONNECT ALL DOOR CONTROLS (UP/DOWN CONTROL, STATION, LIMIT SWITCHES, OBSTRUCTION SAFETY SWITCHES, ETC.)

MOTOR CONTROLLER

\* NOTE: PROVIDE A DISCONNECT ON ALL FANS, UNIT HEATERS, FAN COILS, PUMPS, AIR HANDLERS, UNIT VENTILATORS, ETC.

**COMMUNICATIONS SYMBOLS**

COMBINATION DATA/TELEPHONE CABLEING OUTLET 18" AFF. EXTEND 1" TO AN ACCESSIBLE LOCATION ABOVE THE CEILING. OUTBOX TO BE 4 x 2 1/2" DEEP.

COMBINATION DATA/TELEPHONE OUTLET WITH BOTTOM OF BOX 2" ABOVE THE COUNTER BACKSLASH OR AT COUNTER HEIGHT. EXTEND 1" TO AN ACCESSIBLE LOCATION ABOVE THE CEILING. OUTLET BOX TO BE 4 x 2 1/2" DEEP.

PUSH BUTTON DOOR BELL OUTLET 48" AFF OR AT COUNTER HEIGHT. EXTEND 3/4" TO AN ACCESSIBLE LOCATION ABOVE THE CEILING OR INTO BUILDING.

CHIME OR BELL MOUNTED ABOVE DOOR FRAME. EXTEND 3/4" TO AN ACCESSIBLE LOCATION ABOVE THE CEILING OR INTO BUILDING STRUCTURE.

TV OUTLET BOX WITH DUPLEX RECEPTACLE.

FLUSH MOUNTED SPEAKER IN RECESSED ATLAS SOUND ENCLOSURE BACK BOX OR SURFACE MOUNTED BOX. RUN 1" EMT DAISY CHAINED FROM BACK BOXES TO AV RACK.

OUTLET BOX FOR CAMERA. MOUNT ALL CAMERA BRACKETS. RUN 1/2" CONDUIT TO MDF ROOM.

OUTLET BOX FOR CARD READER. MOUNT OUTLET BOX AT 48" AFF AND RUN 1/2" CONDUIT TO 4" SQUARE J-BOX ABOVE CEILING. (SEE DETAIL).

4-COMPARTMENT RECESSED FLOOR BOX, WITH TWO DUPLEX RECEPTACLES AND TWO SECTIONS FOR OWNERS COMMUNICATIONS REQUIREMENTS. (SEE DETAIL)

2-COMPARTMENT RECESSED FLOOR BOX, WITH ONE DUPLEX RECEPTACLE AND ONE SECTION FOR OWNERS COMMUNICATIONS REQUIREMENTS.

3-COMPARTMENT RECESSED FLOOR BOX, WITH ONE DUPLEX RECEPTACLE, ONE RECEPTACLE AND ONE SECTION FOR OWNERS COMMUNICATIONS REQUIREMENTS.

FIRE RATED FLUSH STYLE POKE THRU DEVICE

**ABBREVIATIONS**

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AMPERE	J	JUNCTION
A/C	AIR CONDITIONING	L	LIGHTING CONTROL
ADA	AMERICANS WITH DISABILITIES ACT	LED	LIGHT EMISSION LIGHT
AFF	ABOVE FINISHED FLOOR	MT	MINIMUM
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM
AHU	AIR HANDLING UNIT	MAX	MAXIMUM
AL	ALUMINUM	MCA	MINIMUM CIRCUIT AMPERES
AMP	AMPERE	MIB	MAIN CIRCUIT BREAKER
ATS	AUTOMATIC TRANSFER SWITCH	MIS	MAXIMUM FUSE SIZE
AWG	AMERICAN WIRE GAUGE	MLO	MAXIMUM LUGS ONLY
BB	BACKBOARD	MOC	MAXIMUM OVER-CURRENT
C	CONDUIT	NEC	PROTECTION NATIONAL ELECTRICAL CODE
CB	CIRCUIT BREAKER	NEMA	NATIONAL ELECTRICAL MFRS ASSOC.
CD	COMPENSATING UNIT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CDT	DOUBLE POLE DOUBLE THROW	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
EC	EMT CONDUIT	NIC	NOT IN CONTRACT
EF	EXHAUST FAN	P	POLE
EG	ELEMENT GROUNDING	PB	PULL BOX
EM	EMERGENCY	PE	PHOTO-ELECTRIC SWITCH
EMT	ELECTRICAL METALLIC TUBING	PVC	POLYVINYL CHLORIDE CONDUIT
E OR EX	EXISTING	PNL	PANEL
ER	EXISTING TO BE REMOVED	RMC	RIGID METAL CONDUIT
ETR	EXISTING TO REMAIN	RTU	ROOF TOP UNIT
F	FUSE	SF	SUPPLY FAN
FACP	FIRE ALARM CONTROL PANEL	SPD	SURGE PROTECTIVE DEVICE
FLA	FULL LOAD AMPERES	SPDT	SINGLE POLE DOUBLE THROW
FPN	FUSE PER NAMEPLATE	SPST	SINGLE POLE SINGLE THROW
FT	FEET	SO	SQUARE
GC	GENERAL CONTRACTOR	SW	SWITCH
GND	GROUND	SWBD	SWITCHBOARD
GF	GAS FURNACE	TTB	TELEPHONE TERMINAL BACKBOARD
GFI	GROUND FAULT INTERRUPTER	UH	UNIT HEATER
GND	GROUND	UL	UNDERWRITER'S LABORATORIES
GRC	GALVANIZED RIGID STEEL CONDUIT	UNO	UNLESS NOTED OTHERWISE
GWB	GYP/SUM WALLBOARD	UON	UNLESS OTHERWISE NOTED
HP	HORSEPOWER	UPS	UNINTERRUPTIBLE POWER SUPPLY
HVAC	HEATING-VENTILATING- AIR COND.	V	VOLT
IG	ISOLATED GROUND	W	WATT
IMC	INTERMEDIATE METAL CONDUIT	VA	VOLT-AMPERE
KW	KILOWATT	WP	WEATHER PROOF
KVA	KILOVOLT-AMPERE	XFMR	TRANSFORMER
		XP	EXPLOSION PROOF

**NOTES:**

- PROVIDE A BLANK COVERPLATE ON TELEPHONE OUTLETS.
- THE DEVICE ADDRESS NUMBER IS SHOWN NEXT TO EACH DETECTION/SENSING DEVICE ON THE SPECIAL SYSTEMS FLOOR PLANS.
- SEE DETAILS FOR ELEVATION REPRESENTATION OF ALL DEVICE MOUNTING HEIGHTS. ALL QUESTIONS ABOUT MOUNTING HEIGHTS SHALL BE DIRECTED TO THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
- THESE ARE STANDARD SYMBOLS AND MAY NOT APPEAR ON PREVIOUS DRAWINGS. WHEREVER THE SYMBOL ON THIS PROJECT DRAWING SYSTEM SHALL BE PROVIDED AND INSTALLED.

**FIRE ALARM SYMBOLS**

CONTROL PANEL.

REMOTE ANNUNCIATOR 66" AFF TO MIDDLE OF DEVICE.

MANUAL PULL STATION 48" AFF.

AUDIBLE & VISUAL SIGNAL STROBE LIGHT MOUNTED 80" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER.

SPEAKER & VISUAL SIGNAL STROBE LIGHT MOUNTED 80" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER.

AUDIBLE & VISUAL SIGNAL STROBE LIGHT CEILING MOUNTED

VISUAL SIGNAL STROBE LIGHT MOUNTED 80" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER.

PHOTO-ELECTRIC TYPE SMOKE DETECTOR.

THERMAL TYPE DETECTOR.

GAS DETECTOR.

DUCT MOUNT SMOKE DETECTOR WITH RELAY BASE IN AIR DUCT.

ADDRESSABLE CONTROL MODULE

REMOTE TEST SWITCH WITH INDICATOR LAMP FOR DUCT MOUNTED SMOKE DETECTOR

ELECTROMAGNETIC DOOR HOLD-OPEN DEVICE

WEATHERPROOF AUDIBLE & VISUAL SIGNAL STROBE LIGHT MOUNTED 80" AFF

CONNECTION TO THE DOOR HARDWARE CONTACTS. DOOR SHALL UNLOCK UPON ACTIVATION OF ALARM SYSTEM.

TAMPER SWITCH CONNECTED TO SPRINKLER VALVE.

WATER FLOW SWITCH CONNECTED TO SPRINKLER PIPING.

**LINE TYPE LEGEND**

SOLID LINETYPE INDICATES NEW CONSTRUCTION.

DASHED LINETYPE INDICATES EXISTING CONSTRUCTION TO REMAIN.

DASH-DOT LINETYPE INDICATES FUTURE CONSTRUCTION.

CIRCUIT HOMERUN SYMBOL SCHEDULE

A-1 ONE CIRCUIT HOMERUN TO PANEL "A", CIRCUIT #1.

A-1,3 TWO CIRCUIT HOMERUN TO PANEL "A", CIRCUITS #1 & 3. (REQUIRES MULTI-POLE CIRCUIT BREAKER.)

A-1,3,5 THREE CIRCUIT HOMERUN TO PANEL "A", CIRCUITS #1, 3, & 5. (REQUIRES MULTI-POLE CIRCUIT BREAKER.)

A-(1,3) ONE CIRCUIT HOMERUN TO PANEL "A", 208 VOLT OR 480 VOLT-1 PHASE CIRCUIT TO POLES #1 & 3.

A-(1,3,5) ONE CIRCUIT HOMERUN TO PANEL "A", 208 VOLT OR 480 VOLT-3 PHASE CIRCUIT TO POLES #1, 3, & 5.

SLASH MARKS INDICATE QUANTITY OF CONDUCTORS OTHER THAN TWO; --- INDICATES NEUTRAL, --- INDICATES HOT, NOTE: TWO WIRE CIRCUITS DO NOT SHOW SLASH MARKS.

SLASH MARK INDICATES EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE 250-122.

CONDUCTOR SIZING TABLE FOR 120V-20A BRANCH CIRCUITS ONLY, UNLESS OTHERWISE NOTED

IF DISTANCE A + B IN FEET IS: (SEE DIAGRAM AT RIGHT)	USE COPPER WIRE IN METALLIC CONDUIT. AWG SIZE AS FOLLOWS ON ENTIRE CIRCUIT AND SIZE CONDUIT ACCORDINGLY.	POWER PANEL
0' TO 100'	#12 (MIN.)	
100' TO 175'	#10	
175' TO 300'	#8	
300' TO 1000'	#6 (MAX.)	

FOR 277V-20A BRANCH CIRCUITS ONLY, UNLESS OTHERWISE NOTED

IF DISTANCE A + B IN FEET IS: (SEE DIAGRAM AT RIGHT)	USE COPPER WIRE IN METALLIC CONDUIT. AWG SIZE AS FOLLOWS ON ENTIRE CIRCUIT AND SIZE CONDUIT ACCORDINGLY.	LIGHTING PANEL
0' TO 250'	#12 (MIN.)	
250' TO 400'	#10	
400' TO 700'	#8	
700' TO 1000'	#6 (MAX.)	

FLORIDA ENERGY CODE (2017 FL ENERGY CONSERVATION CODE - SECTION C405)

**METHOD OF COMPLIANCE:**

2017 FL ENERGY CONSERVATION CODE:  PRESCRIPTIVE  PERFORMANCE

2013 ASHRAE 90.1:  PRESCRIPTIVE  PERFORMANCE

**LIGHTING SCHEDULE:**

LAMP TYPE REQUIRED IN FIXTURE: SEE "LIGHTING FIXTURE SCHEDULE"

NUMBER OF LAMPS IN FIXTURE: SEE "LIGHTING FIXTURE SCHEDULE"

BALLAST TYPE USED IN THE FIXTURE: SEE "LIGHTING FIXTURE SCHEDULE"

NUMBER OF BALLASTS IN FIXTURE: SEE "LIGHTING FIXTURE SCHEDULE"

TOTAL WATTAGE PER FIXTURE: SEE "LIGHTING FIXTURE SCHEDULE"

TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED (WHOLE BUILDING OR SPACE BY SPACE): SEE "LIGHTING FIXTURE SCHEDULE"

TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED: SEE "LIGHTING FIXTURE SCHEDULE"

**SECTION C406 - ADDITIONAL EFFICIENCY PACKAGE OPTIONS**

C406.2 MORE EFFICIENT HVAC PERFORMANCE  C406.5 ON-SITE SUPPLY OF RENEWABLE ENERGY

C406.3 REDUCED LIGHTING POWER DENSITY  C406.6 PROVISION OF DEDICATED OUTDOOR AIR SYSTEM

C406.4 ENHANCED LIGHTING CONTROLS  C406.7 HIGH-EFFICIENCY SERVICE WATER HEATING

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE FLORIDA ENERGY CONSERVATION CODE.

SIGNED: *William Lee Teeter*

NAME: WILLIAM LEE TEETER

TITLE: PROFESSIONAL ENGINEER

Order Plans @