

GENERAL NOTES

ELECTRIC COORDINATION

- 1.01 SUMMARY
- A. SECTION INCLUDES: GENERAL PROCEDURES FOR ELECTRICAL WORK, PROVIDE ELECTRICAL SYSTEMS TO FORM COMPLETE OPERATING SYSTEM.
- FURNISH LABOR, SUPERVISION, ENERGY, MATERIALS, TOOLS, TRANSPORTATION, EQUIPMENT, PERMITS, INSURANCE, TAXES, TEMPORARY PROTECTION, AND CORRECTION NECESSARY TO PROVIDE THE WORK SHOWN, IMPLIED AND SPECIFIED.
 - PROVIDE APPARATUS, APPLIANCES, MATERIALS, AND WORK AS REQUIRED TO COMPLETE THE SCOPE OF WORK INDICATED ON THE DRAWINGS. INCLUDE INCIDENTAL ACCESSORIES NECESSARY FOR PROPER INSTALLATION AND OPERATION, EVEN IF NOT SPECIFIED OR SHOWN, WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
 - APPARATUS REFERRED TO IN SINGULAR NUMBERS, SHALL INCLUDE AS MANY SUCH ITEMS REQUIRED TO COMPLETE THE WORK.
 - PROVIDE PIPING, WIRING, CONNECTIONS, AND MISCELLANEOUS ACCESSORIES AND MATERIALS NECESSARY FOR A COMPLETE INSTALLATION.

- 1.02 DRAWINGS
- A. DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL ARRANGEMENT OF SYSTEMS AND WORK.
- DO NOT SCALE DRAWINGS.
- B. COMPLY WITH DRAWINGS IN LAYING OUT THE WORK.
- COORDINATE WITH THE DRAWINGS TO VERIFY INSTALLATION LOCATIONS.
 - MAINTAIN MAXIMUM HEADROOM CLEARANCES AND SPACE CONDITIONS AT ALL LOCATIONS AS REQUIRED BY CODES AND REGULATIONS.
 - WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, OBTAIN INSTRUCTIONS FROM ENGINEER BEFORE PROCEEDING WITH INSTALLATION.
- C. MAKE REASONABLE MODIFICATIONS IN LAYOUT TO PREVENT CONFLICTS WITH EXISTING CONDITIONS OR FOR PROPER EXECUTION OF WORK.

- 1.03 COORDINATION
- A. TO ENSURE FULL COORDINATION BETWEEN TRADES, FURNISH INFORMATION NECESSARY TO IMPACTED TRADES TO ALLOW WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY AND WITH THE LEAST POSSIBLE INTERFERENCE OR DELAY.
- 1.04 SUPERVISION
- A. MAKE SUBCONTRACTED TRADE PROVIDE SERVICES OF AN EXPERIENCED SUPERINTENDENT IN CHARGE OF INSTALLATION OF THE WORK AND SKILLED WORKERS REQUIRED TO UNLOAD, TRANSPORT, ERECT, CONNECT, ADJUST, START, OPERATE, AND TEST WORK. EACH SUBCONTRACTED TRADE SUPERINTENDENT SHALL BE QUALIFIED AND AUTHORIZED TO MAKE DECISIONS AND ANSWER QUESTIONS DIRECTED TO THE CONTRACTOR BY A/E REGARDING PROGRESS AND DETAILS OF WORK.

- 1.05 INSPECTIONS
- A. ARRANGE AND SCHEDULE AS MANY INSPECTIONS OF THE WORK AS NECESSARY. NOTIFY ENGINEER, IN WRITING, OF ANY INSPECTION WHICH DOES NOT PASS
- B. DURING THE ENTIRE PERIOD SCHEDULE FOR THESE INSPECTIONS, CONTRACTOR CONTRACTOR'S SUPERINTENDENT SHALL BE PRESENT.
- 1.06
- A. UPON COMPLETION OF THE WORK, OBTAIN CERTIFICATION OF COMPLIANCE OR APPROVAL FROM AUTHORITIES HAVING JURISDICTION OVER THE WORK AND DELIVER CERTIFICATION TO THE OWNER.

- 1.07 ACCEPTANCE
- A. OPERATION OF ELECTRICAL WORK BY CONTRACTOR DOES NOT CONSTITUTE ACCEPTANCE OF WORK. ACCEPTANCE WILL OCCUR AFTER CONTRACTOR HAS ADJUSTED EQUIPMENT, DEMONSTRATES EQUIPMENT SATISFIES REQUIREMENTS OF DRAWINGS, HAS CORRECTED DEFECTS AND FURNISHED REQUIRED CERTIFICATIONS
- 1.08 WARRANTY
- A. COMPONENTS, PARTS, RACEWAYS, WIRING AND ASSEMBLIES FURNISHED AND INSTALLED SHALL BE WARRANTED FOR ONE (1) YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE AUTHORITY HAVING JURISDICTION
- B. THE CONTRACTOR SHALL RESPOND TO ROUTINE WARRANTY SERVICE REQUESTS BY COMPLETING REPAIRS WITHIN 24 HOURS OF SERVICE REQUEST BY OWNER.
- C. THE CONTRACTOR SHALL RESPOND TO EMERGENCY WARRANTY SERVICE REQUESTS WITH THE ARRIVAL OF A SERVICE TECHNICIAN AT THE SITE WITHIN 4 HOURS OF NOTIFICATION OF AN EMERGENCY.

- 1.09 MATERIALS AND EQUIPMENT
- A. MATERIALS AND EQUIPMENT REQUIRED FOR THE WORK SHALL BE NEW, OF GOOD QUALITY, FURNISHED, DELIVERED, ERECTED, CONNECTED, FINISHED, AND ARRANGED TO FIT PROPERLY INTO BUILDING SPACES. PROVIDE ACCESSIBILITY FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT WITHOUT NEED FOR REMOVING ADJACENT EQUIPMENT OR PIPING. IF NO SPECIFIC TYPE OR QUALITY OF MATERIAL IS GIVEN, PROVIDE MATERIALS ACCEPTED BY ENGINEER.
- B. EQUIPMENT SHALL BE OF THE TYPE AND CAPACITY SHOWN ON DRAWINGS, SPECIFICATION EQUIPMENT SCHEDULES, AND BY MANUFACTURERS DESIGNATED ON DRAWINGS.
- C. USE THE SAME MANUFACTURER OF EQUIPMENT FOR PARTS REPLACEMENT AND MAINTENANCE.
- D. EQUIPMENT, MATERIALS, AND COMPONENTS SHALL BE NEW AND CURRENT PRODUCTS OF MANUFACTURERS ENGAGED IN PRODUCTION OF SUCH EQUIPMENT ARRANGED TO FIT PROPERLY INTO BUILDING SPACES. PROVIDE ACCESSIBILITY AND BE MANUFACTURER'S LATEST DESIGN CONFORMING TO CONSTRUCTION DOCUMENTS. COMPONENTS BY THE SAME MANUFACTURER SHALL BE MECHANICALLY AND ELECTRICALLY CONSISTENT WITH RATINGS OF INSTALLED APPARATUS. ACCEPTANCE OR APPROVAL IS REQUIRED BY AUTHORITY HAVING JURISDICTION. MATERIALS USED IN FIRE RATED CONSTRUCTION AND IN ELECTRICAL WORK SHALL BE UL LISTED.
- E. HARDWARE AND ACCESSORY FITTINGS SHALL BE STANDARD SIZE DESIGNED, INTENDED, OR APPROPRIATED FOR THE USE. FURNISH WITH CORROSION PROTECTIONS SUITABLE FOR THE INSTALLED ATMOSPHERE.
- F. COORDINATE SPACE REQUIREMENTS, MOUNTING ARRANGEMENTS, AND SERVICE CONNECTIONS WHEN SUBSTITUTE EQUIPMENT IS FURNISHED.

- 1.10 EQUIPMENT INSTALLATION
- A. OBTAIN SERVICES OF MANUFACTURERS' AUTHORIZED REPRESENTATIVES OF MAJOR ELECTRICAL EQUIPMENT AT JOB SITE DURING ERECTION OR CONSTRUCTION OF THEIR EQUIPMENT TO INSURE PROPER INSTALLATION. FAILURE TO HAVE SUCH CHECKS BY MANUFACTURERS AUTHORIZED REPRESENTATIVES SHALL PLACE FULL RESPONSIBILITY FOR PROPER INSTALLATIONS ON CONTRACTOR WHO SHALL MAKE ANY CORRECTIONS AT NO ADDITIONAL COST TO THE OWNER.
- B. WHERE NECESSARY TO MEET SPACE CONDITIONS, BRING EQUIPMENT TO ITS ULTIMATE LOCATION DISASSEMBLED AND ASSEMBLE IN PLACE. PROVIDE FLANGES, STUDS, AND THE NEEDED ACCESSORIES FOR MATCHING, ALIGNMENT, AND FIELD ASSEMBLY.
- C. CONDUCT FIELD TESTS OF EQUIPMENT DURING AND AFTER ASSEMBLY UNDER DIRECT SUPERVISION OF MANUFACTURER'S AUTHORIZED REPRESENTATIVE. UPON SATISFACTORY CONCLUSION OF FIELD TESTS, MANUFACTURER SHALL FURNISH, FOR EACH SUCH APPARATUS OR EQUIPMENT, A WRITTEN STATEMENT CERTIFYING THERE HAS BEEN NO INVALIDATION OF AND WARRANTIES NOR IMPAIRMENT OF CAPACITY OF FUNCTIONING OF EQUIPMENT. FIELD TESTS SHALL BE IN ADDITION TO FACTORY TESTS, SHOP TEST, AND ADJUSTMENTS.

ELECTRIC CODES AND STANDARDS

- 1.01 REFERENCES
- A. COMPLY WITH THE CURRENT ADOPTED EDITION OF THE FLORIDA BUILDING CODE 2014 EDITION.
- B. ALL OR PORTIONS OF THE FOLLOWING CODES ARE INCORPORATED IN AND MADE A PART OF THE FBC:
- NATIONAL ELECTRIC CODE (NEC), 2011 EDITION, NFPA 70
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), STANDARDS

- 1.02 QUALITY ASSURANCE
- A. WHERE MATERIALS AND EQUIPMENT ARE AVAILABLE UNDER THE CONTINUING INSPECTION AND LISTING SERVICE OF UNDERWRITERS LABORATORIES (UL) FURNISH MATERIALS AND EQUIPMENT SO LISTED.
- B. A MAXIMUM RATIO OF 3 HELPERS TO 1 JOURNEYMAN ARE ALLOWED.

BASIC MATERIALS AND METHODS

- 1.01 SUMMARY
- A. COORDINATION:
- EXAMINE DRAWINGS AND VISIT THE SITE TO DETERMINE THE WORK TO BE PERFORMED BY THE ELECTRICAL TRADES.
 - PROVIDE ANY AND ALL REQUIRED ELECTRICAL WORK, MATERIALS AND EQUIP TO PUT INTO OPERATION, COMPLETELY WIRED, TESTED AND READY FOR USE SYSTEMS INCLUDING RACEWAYS, CONDUCTORS AND/OR OTHER DEVICES FOR PROPER OPERATION OF ELECTRICAL SYSTEMS AND EQUIPMENT

- SEAL CONDUIT AND PIPE PENETRATIONS WITH RATED COMPOUNDS.
- PAINT NEWLY INSTALLED EXPOSED CONDUITS AND BOXES TO MATCH THE COLOR OF THE SURFACE ON WHICH THEY ARE INSTALLED.
- PATCH, REPAIR AND PAINT EXISTING WALLS AND SURFACES DAMAGED OR MARRED BY THE INSTALLATION OF THE NEW WORK.

- 1.02 SUBMITTALS
- A. MANUFACTURERS DATA
- COMPLETE LIST OF MATERIALS SHALL BE FURNISHED.
 - MANUFACTURERS SPECIFICATIONS AND OTHER DATA REQUIRED TO ASSURE SPECIFICATION COMPLIANCE
 - CATALOG CUTS CLEARLY MARKED FOR IDENTIFICATION OF ITEMS PROVIDED INCLUDING DISCONNECTS, BREAKERS, FUSES, STARTERS, CONDUITS, WIRINGS, SUPPORTS OR OTHER MATERIALS NOT REQUIRING SPECIALTY SHOP DRAWINGS.
- B. SHOP DRAWINGS FOR NONSTANDARD ITEMS, INCLUDING BUT NOT LIMITED TO LIGHTING STANDARDS OR SIMILAR PRODUCTS
- C. CONTRACT CLOSOUT SUBMITTALS:
- RECORD DRAWINGS.
 - WARRANTIES.
 - OPERATING INSTRUCTIONS, MAINTENANCE MANUALS, AND PARTS LISTS.

- 1.03 DELIVERY, STORAGE, AND HANDLING
- A. DELIVERY AND STORAGE
- DELIVER MATERIALS TO JOBSITE IN THEIR ORIGINAL UNOPENED CONTAINERS WITH LABELS AND CERTIFICATIONS INTACT AND CLEARLY LEGIBLE AT TIME OF USE.
 - STORE MATERIALS ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
- B. REPLACEMENT: IN CASE OF DAMAGE, PILFERAGE, OR OTHER LOSS, MAKE IMMEDIATE REPAIR OR REPLACEMENT OF MATERIALS NECESSARY.
- C. PROTECTION: USE NECESSARY MEANS TO PROTECT MATERIALS OF THIS SECTION BEFORE, DURING, AND AFTER INSTALLATION, INCLUDING PROTECTION OF INSTALLED WORK AND MATERIALS OF OTHER TRADES.

ELECTRICAL ABBREVIATIONS	
AFCI	ARC FAULT CIRCUIT INTERRUPT
A.F.F.	ABOVE FINISHED FLOOR
EM.	EMERGENCY
EWH	ELECTRIC WATER HEATER
EWC	ELECTRIC WATER COOLER
FAP	FIRE ALARM PANEL
GD	GARBAGE DISPOSAL
GFI	GROUND FAULT CIRCUIT INTERRUPT
HP	HORSE POWER
IWH	INSTANT WATER HEATER
MTD	MOUNTED
MW	MICROWAVE
RECEPT.	RECEPTACLE
REF	REFRIGERATOR
SA	SMALL APPLIANCE BRANCH CIRCUIT
UG	UNDERGROUND
V	VOLT
WP	WEATHER PROOF
ø	PHASE
SA	SMALL APPLIANCE RECEPTACLE
VP	VAPORPROOF

ELECTRICAL SYMBOLS (SECURITY)	
DC	SECURITY SYSTEM DOOR CONTACT RECESSED INTO DOOR FRAME
MD	CEILING MOUNTED SECURITY SYSTEM MOTION DETECTOR
KP	SECURITY SYSTEM KEY PAD MTD. 48" AFF.
CCTV	JUNCTION BOX WITH PULL CORD FOR FUTURE CCTV CAMERA

ELECTRICAL SYMBOLS (LIGHTING)	
A	LIGHTING FIXTURE SCHEDULE TYPE "A"
□	2'X2' LIGHT FIXTURE. SEE FIXTURE SCHEDULE
○	RECESSED DOWNLIGHT FIXTURE. SEE FIXTURE SCHEDULE
⊕	CEILING & WALL MOUNTED EXIT SIGNS WITH INTEGRAL BATTERY
—	SURFACE INDUSTRIAL FIXTURE SEE FIXTURE SCHEDULE

ELECTRICAL SYMBOLS (POWER DISTRIBUTION)	
3P 30	DISCONNECT SWITCH. 3P = # OF POLES, 30 = FRAME SIZE, * = FUSE PER MANUFACTURERS RECOMMENDATIONS. NEMA 1 UNLESS OTHERWISE NOTED ON THE PLANS
⊖	120/208V, 3ø, 4W PANELBOARD
⊕	CEILING & WALL MOUNTED JUNCTION BOX, SIZE AS REQ. TO MEET NEC-370 (MINIMUM 4"x4"x2-1/2")

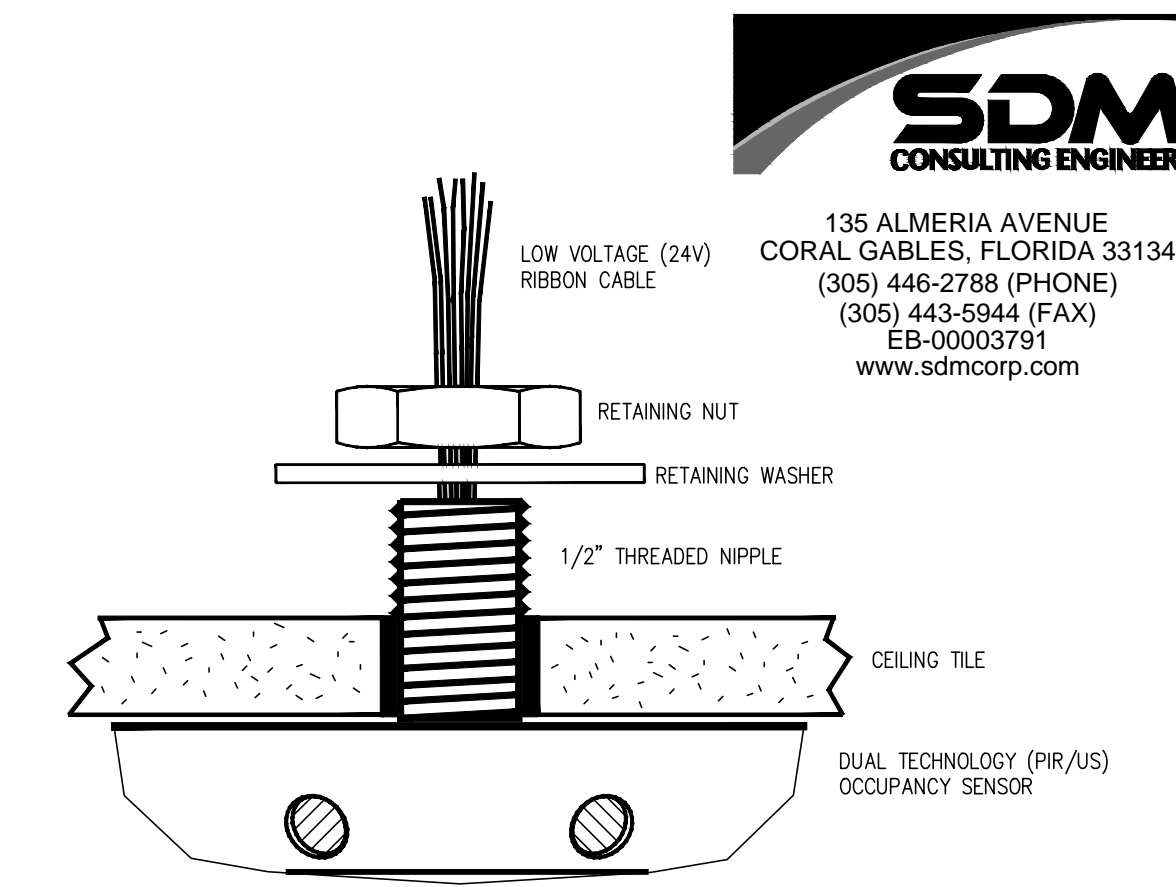
ELECTRICAL SYMBOLS (CONDUCTORS/CONDUITS)	
—	CONCEALED CONDUIT
—	CONCEALED CONDUIT BELOW GRADE
~~~~~	FLEXIBLE METAL CONDUIT (GREENFIELD)
⚡	HOMERUN TO PANELBOARD. SHORT TICKS INDICATE PHASE CONDUCTORS & LONG TICK INDICATES NEUTRAL. LONG 1 TICK INDICATES GROUND CONDUCTOR.
⊕	GROUND

ELECTRICAL SYMBOLS (RECEPTACLES)	
⊕	20A, 125V, 2P, 3W, GNDING TYPE DUPLEX RECEPTACLE MNT. 18" AFF UNLESS NOTED OTHERWISE. TAMPERPROOF PER NEC 406.11

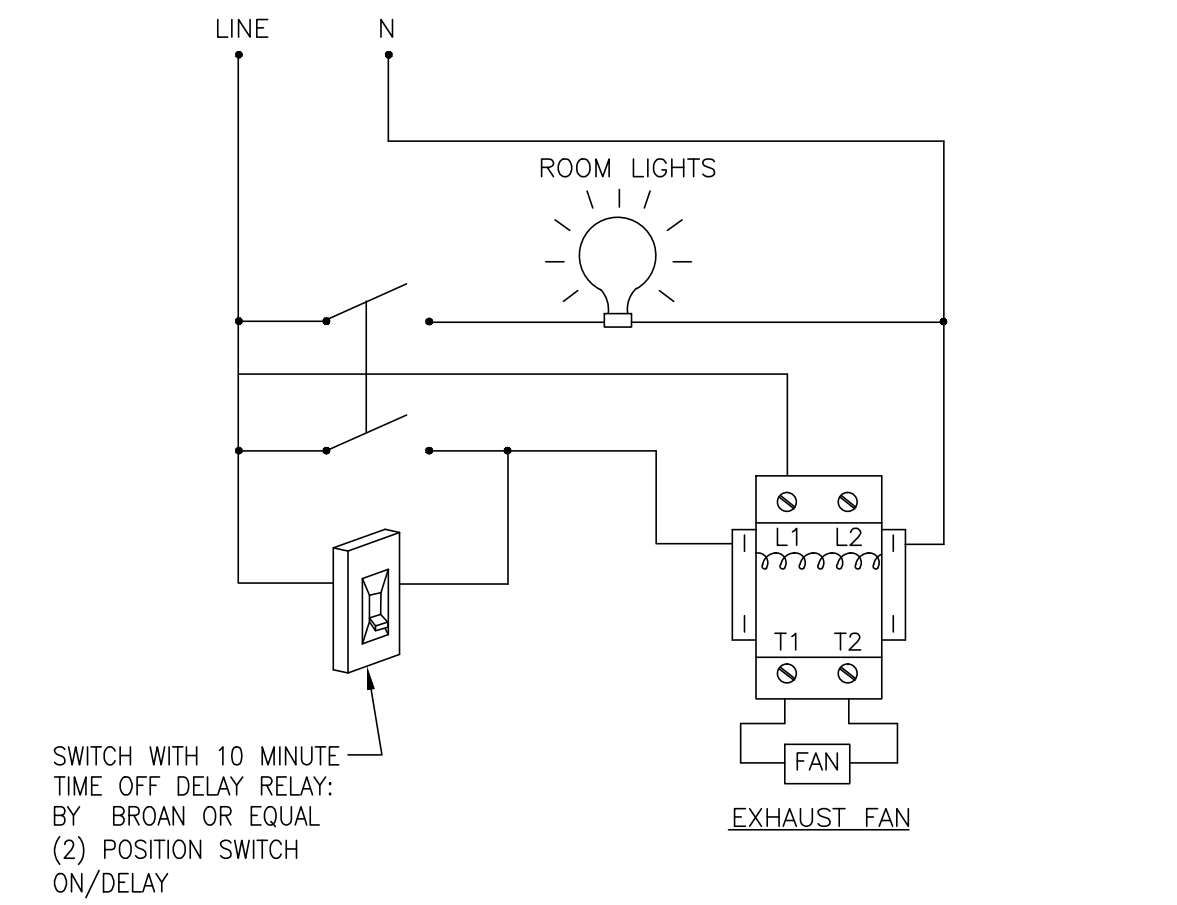
NOTE: PROVIDE #10 WIRES FOR RECEPTACLES WIRING RUNS OVER 100'.

ELECTRICAL SYMBOLS (FIRE ALARM)	
F	FIRE ALARM PULL STATION MNT. 48" AFF
H	FIRE ALARM HORN/ VISUAL LIGHT COMBINATION (75cd UNLESS NOTED OTHERWISE) MNT. 80" AFF
SL	STROBE LIGHT (75cd UNLESS NOTED OTHERWISE), MTD. 80" AFF
⊕	SMOKE DETECTOR, CEILING MTD.
⊕	HEAT DETECTOR, CEILING MTD.
⊕	DUCTSMOKE DETECTOR WITH AIR SAMPLING TUBES MOUNTED ON THE AIR SUPPLY DUCT W/REMOTE TEST SWITCH
⊕	DUCTSMOKE DETECTOR WITH AIR SAMPLING TUBES MOUNTED ON THE AIR RETURN DUCT W/REMOTE TEST SWITCH.

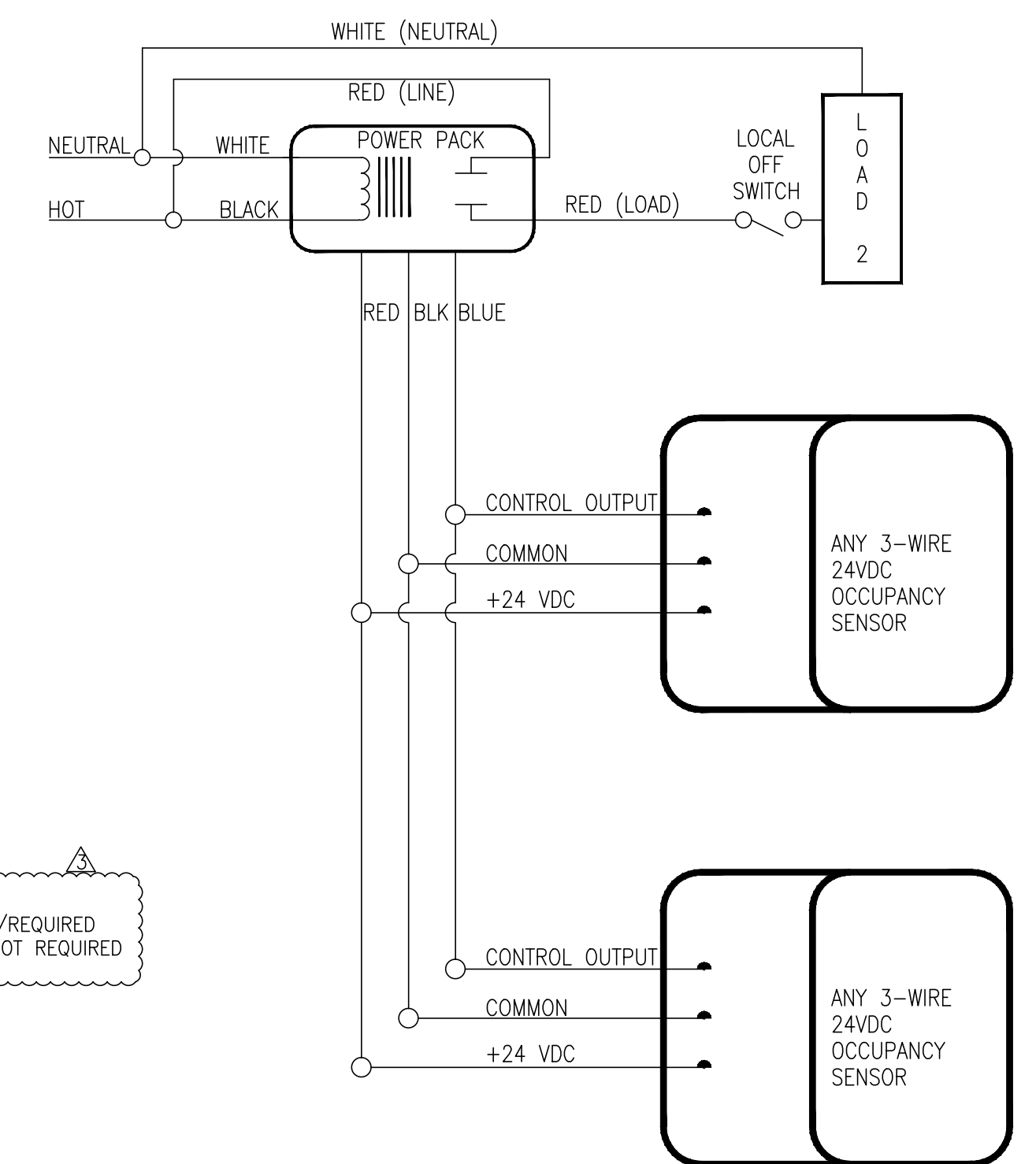
ELECTRICAL SYMBOLS (TELECOMMUNICATIONS)	
⚡	TELEPHONE TERMINAL BACKBOARD, 3/4" PLYWOOD 8'X4' PAINTED ON ALL SIDES IN A MEDIUM GRAY COLOR AS PER TIA 569B
⚡	TELECOM OUTLET BOX, EXTRA DEEP DOUBLE GANG BOX, MTD. 18" AFF. UNLESS NOTED OTHERWISE. CATALOG NUMBER 52171-1 BY STEEL CITY OR EQUAL



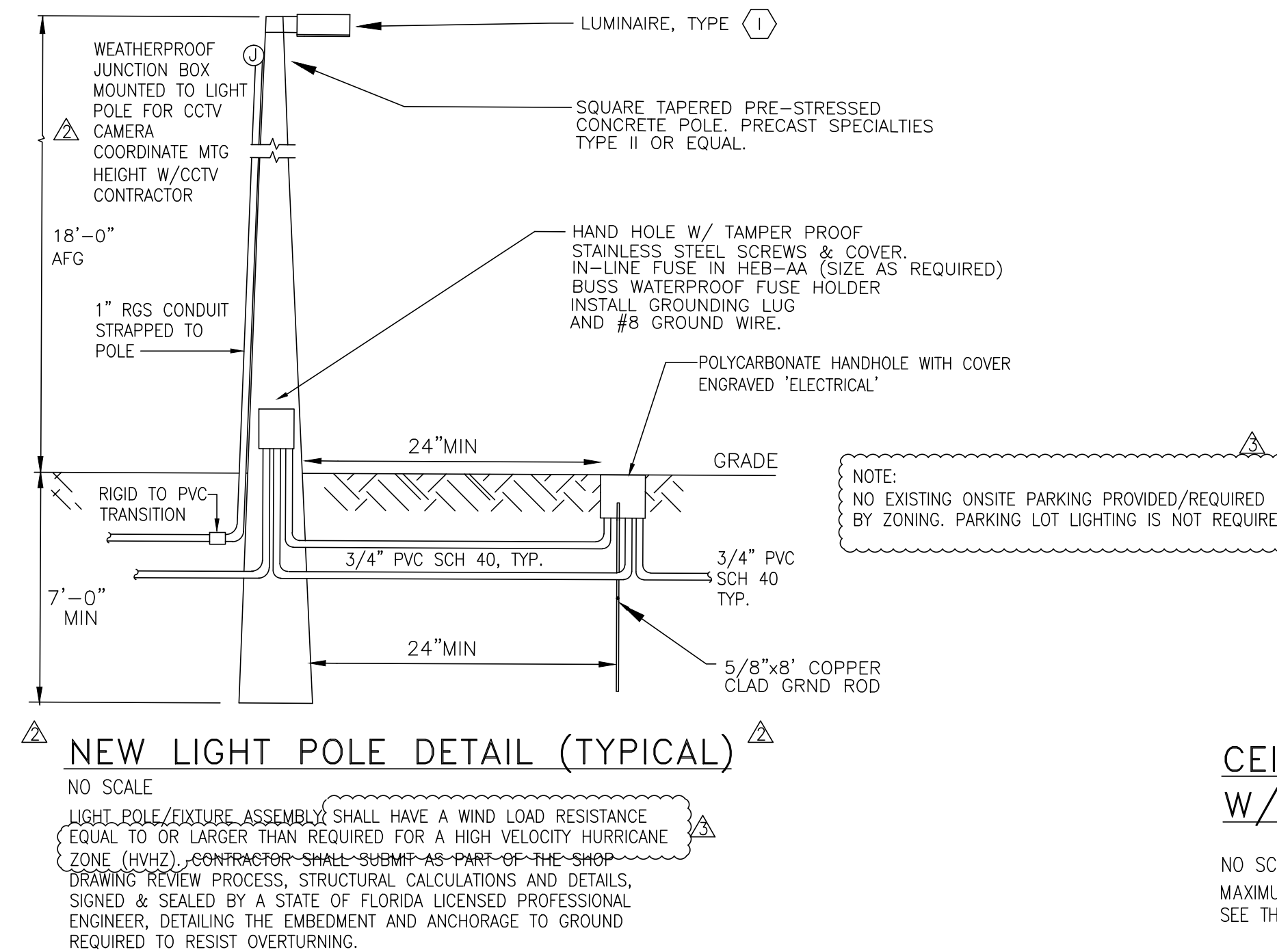
**CEILING MTD OCCUPANCY SENSOR MOUNTING DIAGRAM**  
NO SCALE



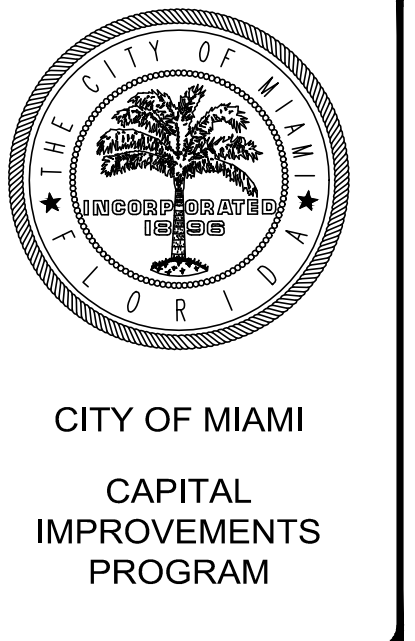
**TOILET EXHAUST FAN CONTROL DETAIL**  
NO SCALE  
TYPICAL FOR TOILET ROOMS TO SWITCH ON LIGHTS AND EXHAUST FAN WITH ADJUSTABLE TIME DELAY RELAY FOR EXHAUST FAN. DENOTED ON PLAN BY \$F



**CEILING MTD MULTIPLE OCCUPANCY SENSORS W/ONE POWER PACK**  
NO SCALE  
MAXIMUM NUMBER OF SENSORS PER POWER PACK DEPENDS ON THE SPECIFIC SENSORS MODEL USED. SEE THE PRODUCT DATA SHEET TO DETERMINE THE CURRENT CONSUMPTION OF EACH SENSOR.



**NEW LIGHT POLE DETAIL (TYPICAL)**  
NO SCALE  
LIGHT POLE/FIXTURE ASSEMBLY SHALL HAVE A WIND LOAD RESISTANCE EQUAL TO OR LARGER THAN REQUIRED FOR A HIGH VELOCITY HURRICANE ZONE (HVHZ). CONTRACTOR SHALL SUBMIT AS PART OF THE SHOP DRAWING REVIEW PROCESS, STRUCTURAL CALCULATIONS AND DETAILS, SIGNED & SEALED BY A STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER, DETAILING THE EMBEDMENT AND ANCHORAGE TO GROUND REQUIRED TO RESIST OVERTURNING.



**ELECTRICAL LEGEND AND GENERAL NOTES**

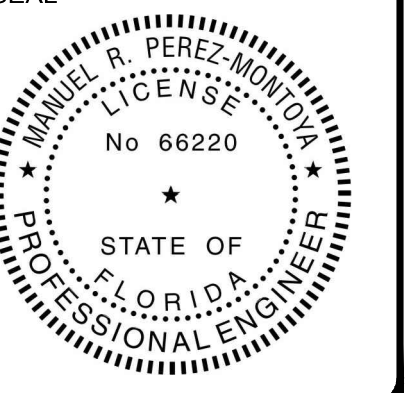
**DORSEY MEMORIAL LIBRARY RESTORATION**

100 NW 17 STREET  
MIAMI, FL. 33136

DATE:	11/15/16
DESIGN:	MPM
DRAWN:	MPM
CHECKED:	MPM
REVISIONS:	
No.	Date
1	12/19/2016
2	02/24/2017
3	03/07/2017

JOB No. B-30531  
FILE:

ENGINEER:  
MANUEL PEREZ-MONTOYA, P.E.  
SDM CONSULTING ENGINEERS, INC.  
LICENSE No. 66220  
PHONE: 305-446-2788



SCALE: AS SHOWN

SHEET No.  
**E01.1**  
OF SHEETS

PERMIT SET