ELECTRICAL SPECIFICATION

1. SCOPE: FURNISH ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM AS SPECIFIED HEREIN AND INDICATED ON THE CONTRACT DRAWINGS.
2. APPLICABLE CODES: THE INSTALLATION SHALL COMPLY WITH THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE. 2014 FLORIDA BUILDING CODE 5TH EDITION, 2014 FLORIDA FIRE PREVENTION CODE 5TH EDITION. 2009 LIFE SAFETY CODE.
3. MATERIALS AND SUBSTITUTIONS: THE CONTRACTOR SHALL SUBMIT A LIST OF ALL MAJOR EQUIPMENT AND FIXTURES TO THE ARCHITECT FOR REVIEW. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT THE PERMISSION OF THE ARCHITECT IN WRITING. ALL EQUIPMENT SHALL BE NEW AND BEAR THE MANUFACTURER'S NAME AND TRADE NAME. ALL EQUIPMENT SHALL BE U.L. LISTED.
4. PERMITS: SWA SHALL PAY PERMIT FEE. CONTRACTOR SHALL BE RESPOSIBLE TO OBTAIN NECESSARY PERMITS FOR INSTALLATION OF THE WORK.
5. WORKMANSHIP: ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. EXPOSED CONDUITS AND/OR CABLES, WHERE PERMITTED, SHALL BE RUN PARALLEL AND AT RIGHT ANGLE TO MAJOR BUILDING CONSTRUCTION MEMBERS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EQUIPMENT AND DEVICES WITH THE ARCHITECT AT THE TIME OF INSTALLATION.
6. CONDUIT SYSTEMS: CONDUIT SHALL BE EMT CONCEALED IN WALLS AND SUSPENDED CEILINGS AND EXPOSED IN UNFINISHED AREAS. EXTERIOR CONDUIT SHALL BE GALVANIZED RIGID STEEL. ALUMINUM CONDUIT SHALL NOT BE PERMITTED. MINIMUM SIZE CONDUIT SHALL BE 3/4". CONNECTIONS TO MOTORS AND OTHER VIBRATING EQUIPMENT SHALL BE MADE WITH LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
7. OUTLET BOXES: FOUR INCH SQUARE FOR SWITCHES AND RECEPTACLES AND FOUR INCH OCTAGONAL FOR LIGHTING FIXTURES, WITH APPROPRIATE PLASTER RINGS AND COVERPLATES. WHERE MULTIPLE NUMBER OF SWITCHES OCCUR IN ONE LOCATION ON THE PLANS, PROVIDE A MULTI-GANG OUTLET BOX AND A COMMON COVERPLATE. PROVIDE BARRIERS WITHIN THE BOX AS MAY BE REQUIRED BY CODE. MIN. DEPTH 2 INCHES.
8. WIRE AND CABLE: TYPE THW, OR THWN, 600 VOLT AC, COPPER CONDUCTORS, COLOR CODED, WITH THE MINIMUM SIZE TO BE #12 A.W.G. WITH INSULATED GROUND. TYPE "MC" METAL CLAD CABLE MAY BE USED WHERE PERMITTED BY APPLICABLE CODES.
9. WIRING DEVICES: "ARROW HART" OR APPROVED EQUAL, AS FOLLOWS: DUPLEX RECEPTACLE-#5362; GFI RECEPTACLE-#GF5342; 1P TOGGLE SWITCH-#1991; 3-WAY TOGGLE SWITCH-#1993. COVERPLATES SHALL BE PAINTABLE PLASTIC. EDGES OF PLATES SHALL MAKE FULL CONTACT WITH BOX AND COMPLETELY COVER WALL OPENING. ALL WATER FOUNTAINS, AND VENDING MACHINES SHALL HAVE GFCI TYPE RECEPTACLES AS PER NEC 422.51. ALL RECEPTACLES WITHIN 6 FEET OF WET BAR OR ANY SINK SHALL HAVE GFCI TYPE RECEPTACLES AS PER NEC 201.8.
10. LIGHTING FIXTURES: AS SPECIFIED ON THE DRAWINGS, COMPLETE WITH LAMPS.
11. PANELBOARDS AND CIRCUIT BREAKERS: PANELBOARDS SHALL BE SQUARE D TYPE "NQOD" WITH THE SIZE AND NUMBER OF CIRCUIT BREAKERS AS INDICATED ON THE DRAWINGS. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE. PLUG-IN BREAKERS SHALL NOT BE PERMITTED. MULTI-POLE BREAKERS SHALL HAVE COMMON TRIP WITH INTEGRAL TIE MECHANISM. HANDLE TIES SHALL NOT BE PERMITTED. PANELBOARDS SHALL HAVE COPPER BUS WITH FULL CAPACITY NEUTRAL. WHERE SPACES AND/OR PROVISIONS ARE INDICATED, BUS ASSEMBLY SHALL EXTEND TO FULL LENGTH WITH ALL NECESSARY HARDWARE TO ACCOMMODATE CIRCUIT BREAKERS. PROVIDE TYPEWRITTEN DIRECTORY ON INSIDE OF DOOR. WHEN NEW WORK IS CALLED FOR IN EXISTING PANELBOARDS, NEW BREAKERS SHALL MATCH EXISTING AND DIRECTORY SHALL BE UPDATED TO REFLECT ANY CHANGES.
ALL ELECTRICAL EQUIPMENT WILL BE LABELED TO INDICATE POTENTIAL ELECTRIC ARC FLASH HAZARDS AS PER NEC 110.16
12. GROUNDING: ALL SYSTEMS SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES, THE UTILITY COMPANIES, SPECIAL SYSTEMS AND EQUIPMENT AS REQUIRED.
13. EXISTING CONDITIONS: THE CONTRACTOR SHALL VISIT THE SITE AND CAREFULLY EXAMINE ALL EXISTING CONDITIONS THAT MAY AFFECT HIS BID.
14. EXISTING ELECTRICAL INSTALLATION: ALL EXISTING ELECTRICAL WORK WHICH WILL NOT BE RENDERED OBSOLETE AND WHICH MAY BE DISTURBED DUE TO ANY CHANGES REQUIRED UNDER THIS CONTRACT SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION. OTHER ELECTRICAL MATERIAL OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS AND OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. EXCEPT AS OTHERWISE SPECIFIED, ALL DISCONNECTED MATERIAL THAT IS NOT TO BE REUSED SHALL BE REMOVED FROM THE SITE.
15. INTERRUPTION OF SERVICE: THE CONTRACTOR SHALL NOT DISCONTINUE ANY ELECTRICAL SERVICE TO THE BUILDING WITHOUT FIRST OBTAINING APPROVAL FROM THE ARCHITECT AND OWNER.
16. SCHEDULING OF WORK: THE CONTRACTOR SHALL ARRANGE WITH THE ARCHITECT/OWNER FOR SCHEDULING OF WORK.
17. COORDINATION AND REPAIR: WHERE EXISTING ELECTRICAL INSTALLATIONS INTERFERE WITH NEW WORK AND WHERE SUCH INSTALLATIONS ARE TO REMAIN IN USE, THE INSTALLATIONS SHALL BE DISCONNECTED AND RELOCATED AND/OR RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE CONTRACT DRAWINGS AND AS SPECIFIED.
18. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE AND/OR MASONRY EXTERIOR WALLS, CONTRACTOR SHALL PROVIDE ALL NECESSARY SLEEVES, CAULKING, AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.
19. FIREPROOFING: OPENINGS AND PASSAGE OF CONDUITS THROUGH FLOOR SLABS AND FIRE RATED WALLS OR PARTITIONS SHALL BE SEALED WITH U.L. LISTED FIRE STOPPING METHODS TO MAINTAIN THE FIRE RESISTANCE RATING.
20. EQUIPMENT IDENTIFICATION: EXCEPT WHERE OTHER MEANS OF IDENTIFICATION ARE SPECIFIED, PANELBOARDS, METERS, SAFETY SWITCHES, REMOTE CONTROL SWITCHES, AND MOTOR CONTROL PUSHBUTTON STATIONS SHALL BE IDENTIFIED WITH BLACK PHENOLIC NAMEPLATES WITH WHITE LETTERS, MINIMUM 1/4" HIGH, TO SHOW THE NAME AND NUMBER, IF ANY, OF THE EQUIPMENT CONTROLLED.
21. TESTS: THE CONTRACTOR SHALL TEST ALL OF THE EQUIPMENT INSTALLED UNDER THIS CONTRACT AND DEMONSTRATE ITS PROPER OPERATION TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED LABOR, MATERIAL AND INSTRUMENTS FOR THE TESTS.
TEST ALL ELECTRICAL WIRING DEVICES FOR CONTINUITY TRESTING FREE FROM ANY SHORTS AND CHECK FOR LOAD CIRCUIT BALANCING TO ENSURE NO NEUTRAL CURRENT IS PRESENT.
22. OPERATING INSTRUCTIONS: UPON COMPLETION OF ALL WORK AND OF ALL TESTS, FURNISH THE NECESSARY SKILLED LABOR AND HELPERS FOR OPERATING ALL ELECTRICAL SYSTEMS AND EQUIPMENT IN ORDER TO INSTRUCT AND TRAIN THE OWNER'S REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT FURNISHED.
23. CONTRACTOR SHALL MAINTAIN AS-BUILT RECORD DRAWINGS DURING CONSTRUCTION. THESE RED LINES AS-BUILT DRAWINGS SHALL BE SUBMITTED TO OWNER AND ENGINEER AT THE END OF PROJECT. ANY AS-BUILTS NEEDED FOR FINAL INSPECTIONS SHALL BE SUBMITTED TO ENGINEER (10) DAY PRIOR TO INSPECTION.

GENERAL ELECTRICAL NOTES

1. THE ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), AND THE LATEST EDITIONS OF ALL LOCAL CODES, RULES AND ORDINANCES HAVING JURISDICTION.
2. AS A MINIMUM, ALL EQUIPMENT SHALL MEET APPLICABLE STANDARDS, FOR TYPE OF EQUIPMENT AND INTENDED USE, OF THE FOLLOWING:
   a. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
   b. ILLUMINATING ENGINEERS SOCIETY (IESS).
   c. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
   d. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
   NOTE: THESE STANDARDS ARE SUBORDINATE TO CODES AND STANDARDS SET BY U.L.
3. IT SHALL BE UNDERSTOOD THAT ALL WORK PERFORMED SHALL BE BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. SAID CONTRACTOR SHALL MEET ALL REQUIREMENTS SET FORTH BY ANY LOCAL ORDINANCE AND GOVERNING AUTHORITIES.
4. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
5. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, U.O.N..
6. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECIFICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING TO ORIGINAL CONDITIONS, ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT, ETC. CAUSED DURING THE PERFORMANCE OF WORK.
8. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE OR DELAYS AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
9. THE CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND COUNTS AS SHOWN OR NOTED ON THE DRAWINGS, PRIOR TO SUBMITTING BID.
10. THE CONTRACTOR SHALL NOT SCALE THE ELECTRICAL DRAWINGS, REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT UNLESS NOTED OTHERWISE.
11. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE PLANS.
12. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR FOR THE ADVANCE ORDERING OF LONG LEAD ITEMS, AS TO NOT INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME. THE CONTRACTOR SHALL NOT ORDER ANY ITEMS UNTIL APPROVED SHOP DRAWINGS ARE RETURNED TO HIM.
13. THE CONTRACTOR SHALL KEEP ALL AREAS WHERE WORK IS BEING PERFORMED FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
14. ALL CONDUCTORS SHALL BE COPPER, TYPE THHN/THWN EXCEPT WHERE OTHERWISE REQUIRED BY U.L. OR CODES. MINIMUM WIRE SIZE SHALL BE #12 AWG, EXCLUDING CONTROL WIRING.
15. ALUMINUM CONDUCTORS ARE NOT PERMITTED ANYWHERE.
16. ALL CONDUCTORS SHALL BE IN CONDUITS. ALL CONDUITS SHALL BE GALVANIZED RIGID STEEL (GRS) EXCEPT THAT: (a) PVC CONDUITS MAY BE USED UNDERGROUND PROVIDED ELBOWS AND RISERS ARE GRS, WHERE SUBJECT TO PHYSICAL DAMAGE (b) ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN OR ON WALLS OR CEILINGS WHERE NOT SUBJECT TO MECHANICAL DAMAGE, DAMP OR CORROSIVE CONDITIONS, (c) LIQUID TIGHT FLEXIBLE CONDUIT WHERE REQUIRED, (d) FLEXIBLE METALLIC CONDUIT (MC CABLE W/GROUNDING CONDUCTOR), WHERE REQUIRED IN DRY LOCATIONS ONLY. ALL CONDUITS IN HAZARDOUS AREAS (PER NEC) SHALL MEET THE REQUIREMENTS OF NEC CHAPTER 5
17. ALL CONDUIT RUNS ARE SHOWN DIAGRAMATICALLY. THE EXACT ROUTING SHALL BE DETERMINED IN THE FIELD. UNLESS NOTED OTHERWISE.
18. WHERE CORE DRILLING OF FLOORS/WALLS IS REQUIRED, THE CONTRACTOR SHALL SEAL OPENINGS WATERTIGHT AFTER UTILITIES HAVE BEEN INSTALLED. LOCATION OF CORED HOLES SHALL COORDINATE WITH LOCATION OF EQUIPMENT IN A MANNER THAT IS CLEAN AND FUNCTIONAL. THE CONTRACTOR SHALL INSTALL ONLY ONE CONDUIT PER HOLE AND SEAL THE OPENING AROUND THE CONDUIT.
19. PROVIDE FIRE RETARDANT U.L. APPROVED SEALANT ON ALL PENETRATIONS, WALLS AND STRUCTURAL SLABS. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY PRIOR TO SUBMITTING BID, THE LOCATIONS OF ALL SUCH FIRE RATED PARTITIONS, WALLS, AND STRUCTURAL SLABS.
20. UNLESS NOTED AS EXISTING, ALL EQUIPMENT, WIRING, DEVICES, ETC. SHALL BE NEW.
21. ALL DISCONNECT SWITCHES SHALL BE SIZED BY NEC REQUIREMENTS TO ACCOMODATE EQUIPMENT SERVED, INCLUDING REQUIRED FUSES U.O.N. SWITCHES SHALL BE HORSEPOWER RATED FOR MAX. HORSEPOWER, HEAVY DUTY TYPE.
22. THE CONTRACTOR SHALL VERIFY CIRCUIT PROTECTIVE DEVICE RATINGS FOR EQUIPMENT PRIOR TO INSTALLATION.
23. ALL FUSES SHALL BE CURRENT LIMITING, PER U.L., RATED 600V. OR 250V. AS REQUIRED, WITH:
   (a) NON TIME DELAY FUSES IN MAIN SWITCHES AND SWITCHES FEEDING PANELS.
   (b) TIME DELAY FUSES FOR MOTOR AND HVAC CIRCUITS.
24. WIREWAYS SHALL BE SIZED AS REQUIRED, PER NEC, U.O.N.
25. ALL CIRCUIT BREAKERS SHALL BE INVERSE TIME TYPE (THERMAL-MAGNETIC). TWO AND THREE POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP. TIE HANDLES ARE NOT PERMITTED.
26. ALL ELECTRICAL EQUIPMENT SHALL BE RAINTIGHT (NEMA 3R) WHERE EXPOSED TO THE WEATHER. ALL FLEX CONDUITS CONNECTED TO SUCH EQUIPMENT SHALL BE LIQUIDTIGHT.
27. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES AS REQUIRED FOR OTHER CLASSIFIED AREAS. U.O.N..
28. ALL CONNECTIONS TO GROUND RODS SHALL BE MADE WITH U.L. APPROVED WELDED CONNECTIONS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL FORM A GROUNDING ELECTRODE SYSTEM AS PER NEC 250-50.
29. THE CONTRACTOR SHALL SUBMIT 6 COPIES OF EQUIPMENT SHOP DRAWINGS FOR ELECTRICAL EQUIPMENT TO THE ENGINEER FOR REVIEW, PRIOR TO ORDERING SUCH EQUIPMENT.
30. PROPER PLASTER RINGS SHALL BE USED WITH OUTLET BOXES. PLASTER RINGS SHALL BE A MAXIMUM OF 1/8" FROM THE FINISHED SURFACE OF THE DRYWALL AFTER THE DRYWALL IS INSTALLED. PROPER COORDINATION BETWEEN THE ELECTRICAL CONTRACTOR AND THE GENERAL CONTRACTOR FOR RING INSTALLATION IS REQUIRED. NO "GOOF" RINGS WILL BE ALLOWED. ALL OUTLET BOXES SHALL BE SECURELY FASTENED. ANY AND ALL IMPROPERLY INSTALLED PLASTER RINGS OR OUTLET BOXES SHALL BE REMOVED AND A NEW RING OR OUTLET INSTALLED AT THE CONTRACTOR'S EXPENSE.
31. FOR TELELPHONE SYSTEMS:
   A. PROVIDE GROUNDING FOR ALL TELEPHONE OUTLETS AND EQUIPMENT PER REQUIREMENTS OF THE TELEPHONE COMPANY.
   B. COORDINATE INSTALLATION OF ALL TELEPHONE OUTLETS, RACEWAYS, ENCLOSURES AND BACKBOARDS WITH TELE. CO.
   C. VERIFY LOCATION OF TELEPHONE SERVICE WITH TELEPHONE COMPANY. PROVIDE SERVICE CONDUIT TO BLDG. FROM SERVICE POINT PER TELCO. INSTRUCTIONS.
   D. MARK TERMINATIONS OF TELEPHONE CONDUIT AS DIRECTED BY THE TELEPHONE COMPANY.
   E. VERIFY LOCATION OF TELEPHONE SERVICE WITH TELEPHONE COMPANY PRIOR TO SUBMITTING BID.
   F. USE EXTERIOR GRADE 3/4" PLYWOOD BACKBOARDS FOR MOUNTING TELEPHONE EQUIPMENT AND TERMINAL STRIPS. PAINT BOARD ON ALL SIDES AND EDGES WITH TWO COATS OF FLAT BLACK ASPHALT PAINT.
32. FOR EMERGENCY EXIT SIGNS AND EMERGENCY BATTERY PACKS MAKE CONNECTION AHEAD OF ALL SWITCHES.
33. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR AREAS BEING DEMOLISHED, VISIT THE SITE AND INCLUDE ALL NECESSARY MATERIAL AND LABOR TO PERFORM THE REQUIRED DEMOLITION.
34. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL, FIRE ALARM AND COMMUTATIONS INSTALLATIONS AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC... THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
35. ELECTRICAL DRAWINGS ARE SCHEMATIC. ALL DEVICES FINAL LOCATION SHALL BE COORDINATED IN THE FIELD. NO CHANGE ORDERS WILL BE ALLOWED DUE TO EQUIPMENT RELOCATION PER FIELD CONDITIONS. ALL INSTALLATIONS SHALL BE COORDINATED WITH ALL TRADES INCLUDING BUT NOT LIMITED TO STRUCTURAL AND ARCHITECTURAL PRIOR TO PERFORMING ANY WORK.
36. CONDUCTORS FOR BRANCH CIRCUITS SHALL BE SIZED TO PREVENT VOLTAGE DROP EXCEEDING 3 PERCENT AT THE FARTHEST OUTLET OF POWER. WHERE VOLTAGE DROP IS DETERMINED TO EXCEED THIS VALUE THE CONTRACTOR SHALL INCREASE THE SIZE OF CONDUCTORS AS REQUIRED.
37. THE CONTRACTOR SHALL CONFIRM WITH THE ELECTRICAL UTILITY COMPANY ANY AND ALL REQUIREMENTS SUCH AS: METERING EQUIPMENT REQUIREMENTS AND METERING EQUIPMENT LOCATION, TRANSFORMER SIZE AND LOCATION OR SERVICE POINT, CONDUIT ENTRY AND LUG SIZE RESTRICTIONS. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED DOWN TIME FOR THE OWNERS CONFIRMATION.
38. PROVIDE J-BOX WITH 3/4" STUB UPS INSIDE CONCEALED WALLS. CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.
39. ALL ELECTRICAL POWER WIRING FOR THE HVAC SYSTEM INCLUDING WIRING THRU LINE VOLTAGE CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

SHOP DRAWING REQUIREMENTS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS. THEY SHALL BE SUBMITTED COMPLETE, TOGETHER AT ONE TIME AND MUST COME THROUGH THE ARCHITECT/OWNER. ALL SUBMITTALS SHALL BE MADE WITHIN 30 DAYS OF NOTICE TO PROCEED.
2. ALL SUBMITTALS MUST CLEARLY INDICATE EXACTLY WHICH ITEMS ARE BEING PROPOSED FOR USE. IF NOT, THE SUBMITTAL SHALL BE REJECTED.
3. THE CONTRACTOR ASSUMES ALL DESIGN RESPONSIBILITY AND ALL FINANCIAL RISKS FOR PROCEEDING PRIOR TO SHOP DRAWINGS PROCESSING, AND ON ANY ITEM OR WORK THAT IS AT VARIANCE TO THE CONSTRUCTION DOCUMENTS.
4. SHOP DRAWINGS AND SUBMITTALS FOR EACH ITEM SHALL BE REVIEWED NO MORE THAN TWICE. A THIRD SUBMITTAL ON AN ITEM MUST BE ACCOMPANIED BY A PURCHASE ORDER FROM THE CONTRACTOR OR IT SHALL BE REJECTED.
5. CIRCUMSTANCES NECESSITATING A REVISION TO THE PERMITTED DOCUMENTS NOT PROCESSED PRIOR TO INSTALLATION MAY NOT BE ACCEPTED. IF ACCEPTED IT MUST BE LEGIBLE, ACCURATE AND ACCOMPANIED BY A PURCHASE ORDER ORDER FROM THE CONTRACTOR. THE REVISION SHALL BE CHARGED TO THE CONTRACTOR AND DELIVERED TO HIM ON A C.O.D. BASIS.
6. SUBSTITUTIONS FROM THE BASE DESIGN OR VARIATIONS TO THE PERMITTED CONTRACT DOCUMENTS, WHETHER RESULTING FROM PROCESSED SHOP DRAWINGS OR NOT, THAT RESULT IN REQUIREMENTS IN LETTERS OF AUTHORIZATION AND/OR PERMIT CONTRACT DOCUMENT CHANGES MANDATED BY THE AUTHORITY HAVING JURISDICTION WILL NOT BE MADE BY THIS OFFICE UNLESS ACCOMPANIED BY A PURCHASE ORDER FROM THE CONTRACTOR, AND RELEASED ON A C.O.D. BASIS.

ELECTRICAL LEGEND

	120V, 20A DUPLEX RECEPTACLE	18" AFF
	120V, 20A SIMPLEX RECEPTACLE	18" AFF
	120V, 20A QUADRAPLEX RECEPTACLE	18" AFF
	120V, 20A ABOVE COUNTER DUPLEX RECEPTACLE	6" ABOVE COUNTER
	120V, 20A ISOLATED GROUND DUPLEX RECEPTACLE	18" AFF
	120V, 20A DUPLEX RECEPTACLE - CEILING MOUNTED	
	120V, FLUSH FLOOR MOUNT DUPLEX WITH FLEX POWER WHIP AND BLACK METAL COVER PLATE	FLUSH WITH FLOOR
	SPECIAL PURPOSE RECEPTACLE (TYPE AS NOTED ON PLAN)	18" AFF
	120V, 20A, HALF SWITCHED DUPLEX RECPT	18" AFF
	120V, 20A FLUSH FLOOR MOUNT DUPLEX RECEPTACLE/DATA	FLUSH WITH FLOOR
	DATA OUTLET WITH PLATE	
	COMBINATION TELEPHONE/DATA OUTLET WITH PLATE	18" AFF
W	TELEPHONE WALL OUTLET WITH PLATE	54" AFF
	FLUSH FLOOR MOUNT TELEPHONE/DATA OUTLET WITH FLEX POWER WHIP AND BLACK METAL COVER PLATE	FLUSH WITH FLOOR
	JUNCTION BOX	18" AFF
T/D	JUNCTION BOX FOR TEL/DATA CABLES	
	ELECTRICAL PANELBOARD	
	FUSIBLE DISCONNECT SWITCH (POLE/AMP RATING/FUSE	
3400	FUSIBLE DISCONNECT SWITCH	
	FUSE AS PER MANUFACTURERS RECOMENDATIONS	
	MOTOR	
T	TRANSFORMER	
	GROUNDING ELECTRODE & CONDUCTOR SYSTEM	
	EXIT LIGHT FIXTURE WITH BATTERY PACK	
	EMERGENCY LIGHT FIXTURE WITH BATTERY PACK	
	FIRE ALARM STROBE LIGHT	

E - DENOTES EXISTING TO REMAIN.
R - DENOTES RELOCATED DEVICE. CONTRACTOR SHALL EXTEND CONDUIT AND WIRE AS NEEDED FOR A COMPLETE WORKING SYSTEM.
N - DENOTES NEW DEVICE.
RE - DENOTES REMOVE EXISTING DEVICE.
ER - DENOTES EXISTING TO BE RELOCATED.
NL - DENOTES NIGHT LIGHTS
CLG - DENOTES CEILING MOUNTED

NOTE 1: NOT ALL DEVICES LISTED ARE USED ON THIS PLAN
NOTE 2: COLOR BY ARCHITECT

SCOPE OF WORK

1. CONTRACTOR TO RENOVATE EXISTING COMMON AREA RESTROOMS
2. CONTRACTOR TO REPLACE ALL LIGHT FIXTURES WITH NEW AS SHOWN ON PLANS FOR PROPER OPERATION.

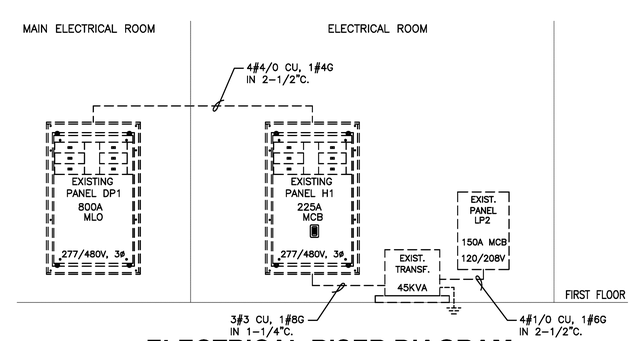
LIGHTING FIXTURE SCHEDULE

DESIG	SYMBOL	DESCRIPTION	MOUNT	LAMP/LUMEN	MANUF.	CATALOG	VOLT	REMARKS	QUANTITY	WATTS	TOTAL WATTS
A		1X4 LENSED STATIC TRUFFER	RECESS	S32W3450L	TEXAS FL	FI#128-A-14L-S323450-DMV-40K	277	1	3	32	96
B		LED DOWNLIGHT	RECESS	15W/A-19 LED	LITE LINE	#RF60ICAT/RTM-6020S	277	1	1	20	20
		EMERGENCY LIGHT	SURFACE	LED	EELP	EM16-E-LP-12-25	277	1	2	25	50
		EXIT LIGHT	SURFACE	LED	EELP	XE-2R-W-EM	277	1,2	1	1	1
										TOTAL	167

GENERAL NOTES:
ALL FLUORESCENT LUMINARIES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS INTERNALLY AS PER 2008 NEC 410.130G.
NOTE 1: PROVIDE SUBMITTALS FOR ARCHITECTS/TENANTS REVIEW PRIOR TO ORDERING.
NOTE 2: CONFIRM COLOR AND SIDES REQUIRED WITH ARCHITECTURAL DRAWINGS
NOTE 3: HALF SHADE FIXTURE DENOTED WITH 1400 LUMEN EMERGENCY BATTERY PACK.
NOTE 4: PROVIDE FIXTURE WITH OCCUPANCY SENSOR. SET SENSOR TO TURN LIGHT OFF AFTER 10 MINS.
NOTE 5: CHAIN HUNG MOUNT @ 10'-0" A.F.F.

*** GENERAL CONTRACTOR TO VERIFY QUANTITY OF LIGHT FIXTURES PRIOR TO BIDDING.

EXTEND #12 WIRE IN 1/2"C TO NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF SWITCH.



ELECTRICAL RISER DIAGRAM

SCALE: NTS

- - - - - - EXISTING TO REMAIN
———— NEW CONSTRUCTION

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SWA-PBC MAINTENANCE FACILITY LOCKER ROOM

SWA SOLID WASTE AUTHORITY

6527 N. Jog Road
West Palm Beach, FL 33412

Key Plan:

Revisions :

Date : 07/14/2016
S+A Project No : 16003
Owner Project No :
Drawn By : VICE
Checked By :

Phase :
BID SET

Sheet Title :
NOTES, DETAILS AND RISER DIAGRAM

Sheet # :
E-1