

ELECTRICAL NOTES

- A. GENERAL PROVISIONS**
1. THE WORK SHALL CONSIST OF FURNISHING LABOR, EQUIPMENT, AND MATERIALS TO PROVIDE THE COMPLETE INTEGRATED AND PROPER FUNCTIONING SYSTEMS AS SHOWN ON THE DRAWINGS.
 2. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE, FLORIDA BUILDING CODE (FBC) 2014 EDITION, IBC SECTIONS CHAB, IBCR, IBC, AND ASHRAE/IESNA 90.1, BROWARD COUNTY PUBLIC SCHOOL (BCPS) SPECIFICATIONS, BCPS DESIGN AND MATERIAL STANDARDS INCLUDING SECTIONS 13, 16, AND 17 AND ALL OTHER RELEVANT SECTIONS. ALL APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.
 3. **PERMITS AND INSPECTIONS** - PERMITS AND INSPECTIONS SHALL BE OBTAINED AND MAINTAINED THROUGHOUT THE PROJECT BY THE CONTRACTOR IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF N.E.C., I.C.C., U.L.C., ETC.
 4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER TRADES SO AS TO AVOID INTERFERENCES.
 5. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL LAYOUT OF ELECTRICAL SYSTEMS. FIELD VERIFICATIONS OF DIMENSIONS IS DIRECTED.
 6. SECURE PERMITS AND INSPECTIONS REQUIRED BY STATE AND LOCAL LAWS AND ORDINANCES.
 7. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER CERTIFICATES OF FINAL INSPECTIONS AND APPROVALS FROM AUTHORITIES HAVING JURISDICTION.
- B. RACEWAYS**
1. ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAYS.
 2. MINIMUM CONDUIT SIZE SHALL BE 3/4" TRADE SIZE.
 3. USE FLEXIBLE CONDUIT FOR SHORT FINAL CONNECTIONS TO VIBRATING EQUIPMENT SUCH AS MOTORS AND TRANSFORMERS. LIQUID-TIGHT FLEXIBLE CONDUIT SHALL BE USED IN DAMP AND WET LOCATIONS.
 4. EXPOSED CONDUITS SHALL BE RUN PARALLEL TO BUILDING LINES.
 5. DO NOT INSTALL CONDUITS LARGER THAN 1/3 THE SLAB THICKNESS IN CONCRETE SLABS.
 6. PROVIDE APPROVED FIRE STOPPING MATERIALS AT ALL PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS TO PREVENT THE PASSAGE OF SMOKE, FIRE, TOXIC GASES OR WATER THROUGH THE PENETRATION EITHER BEFORE, DURING OR AFTER A FIRE, AS REQUIRED BY ARTICLE 300-21 OF THE N.E.C.
 7. PROVIDE CABLE SUPPORTS IN ACCORDANCE WITH ARTICLE 300 OF THE N.E.C. AND BCPS SPEC SECTION 15132.
 8. PROVIDE EXPANSION FITTINGS IN CONDUIT STRUCTURAL EXPANSION JOINTS.
- C. CONDUCTORS**
1. ALL WIRING SHALL BE COPPER.
 2. CONDUCTORS SHALL BE RATED 90°C WITH TYPE THIN INSULATION.
 3. WIRES SIZE #10 AND SMALLER SHALL BE STRANDED OR SOLID. WIRES SIZE #8 AND LARGER SHALL BE STRANDED.
- D. SAFETY SWITCHES**
1. SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE FUSIBLE OR NON-FUSIBLE WITH POLES AMPERE AND SERVES RATINGS AS NOTICED ON THE PLANS. LISTS SHALL BE U.L. LISTED FOR 60-100 AMP.
 2. ENCLOSURES FOR SAFETY SWITCHES SHALL BE NEMA 1, EXCEPT FOR SWITCHES MARKED "WP" (WEATHERPROOF) SHALL BE NEMA 3R.
 3. ENSURE PROPER WORKING CLEARANCES FOR ALL NEW AND RELOCATED ELECTRICAL EQUIPMENT (DISCONNECTS) AS REQUIRED BY NEC TABLE 110.26(A)(1).
- E. PANELBOARDS**
1. PANELBOARD DISCONNECTS WITH SAFETY SWITCHES PROVIDE 2-1/2" x 3-3/4" x 1/8" THICK LAMINATED WHITE CORE PHENOLIC LABEL PLATES FASTENED WITH SCREWS WITH THE NAME OF THE CONTROLLED EQUIPMENT, CIRCUIT NUMBER, PANEL AND VOLTAGE ENGRAVED IN 3/16" HIGH LETTERS. ALL SWITCHBOARDS AND PANELBOARDS SUPPLIED BY A FEEDER SHALL BE MARKED TO INDICATE THE DEVICE OR EQUIPMENT WHERE THE POWER SUPPLY ORIGINATES. COMPLY WITH BCPS 16413.2.10, NEC 408.4(B).
- F. FUSES**
1. ALL FUSES SHALL HAVE A 200,000 AMP RMS SYMMETRICAL RATING UNLESS OTHERWISE NOTED.
 2. FUSES RATED 0 TO 600 AMPS SHALL BE AS FOLLOWS:
 - a) CIRCUIT BREAKER PANEL PROTECTION-ALL CLASS RK-1, DUAL ELEMENT/BUSSMANN "LOW PEAK" OR EQUAL.
 - b) MOTOR CIRCUIT PROTECTION-U.L. CLASS RK-5, DUAL ELEMENT (BUSSMANN "THERMID" OR EQUAL).
 - c) FUSES RATED 601 AMPS OR LARGER SHALL BE U.L. CLASS L TIME DELAY (BUSSMANN "M-CAP" OR EQUAL).

ELECTRICAL SYMBOL LEGEND

- EXIT LIGHT - DIRECTIONAL ARROWS AS INDICATED
- EMERGENCY LIGHTING UNIT
- EXIT SIGN / EMERGENCY LIGHT COMBINATION UNIT
- JUNCTION BOX
- MANUAL STARTER-MT, 5'-6" A.F.F. TO TOP U.O.N. P INDICATES PILOT LIGHT
- MAGNETIC STARTER (5'-6" A.F.F. TO TOP)
- FUSIBLE DISCONNECT SWITCH POLES, AMPS AND FUSES AS SHOWN N.F. INDICATES NON-FUSED
- MOTOR (3 PHASE) NUMBER INDICATES HORSEPOWER
- MOTOR (1 PHASE)
- PANELBOARD (5'-0" AFF TO TOP)
- DISTRIBUTION PANEL
- DRY TYPE TRANSFORMER

ABBREVIATIONS

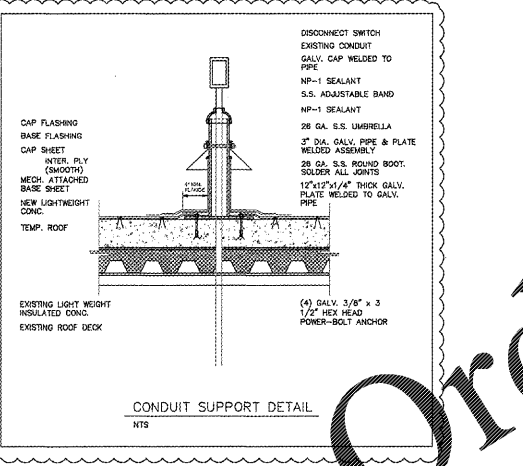
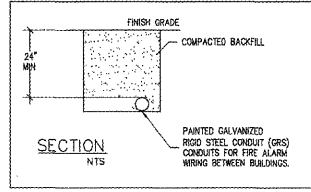
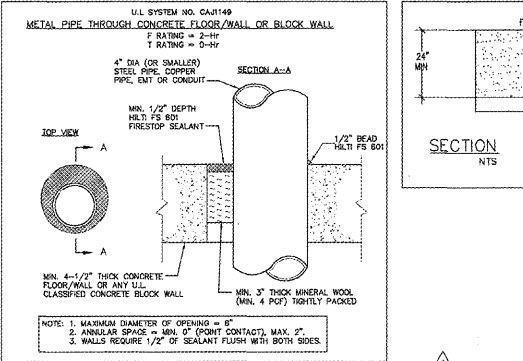
- A.F.F. ABOVE FINISH FLOOR
- A.F.G. ABOVE FINISH GRADE
- E.W.H. ELECTRIC WATER HEATER
- G.F.I. GROUND FAULT INTERRUPTER
- M.T. MOUNT
- M.T.D. MOUNTED
- F. FLOOR MOUNTED
- C. CEILING MOUNTED
- U.O.N. UNLESS OTHERWISE NOTED
- W.P. WEATHERPROOF
- N.L. NIGHT LIGHT
- T.E.L. TELEPHONE
- P.N.L. PANEL
- T.Y.P. TYPICAL
- F.N. FINISH
- C.O. COPPER
- GRD. GROUND

SCOPE OF WORK

THE SCOPE OF WORK CONSISTS OF FURNISHING ALL MATERIALS, LABOR, SERVICES, SUPERVISION, TOOLS, EQUIPMENT, INCLUDING ALL ASSOCIATED PERMITS, AND ALL OTHER ITEMS NECESSARY FOR THE SUCCESSFUL COMPLETION OF THE PROJECT, WHICH SHALL INCLUDE PURCHASING AND INSTALLING THE SPECIFIED ELECTRICAL EQUIPMENT AND MATERIALS.

SCOPE OF WORK INCLUDES BUT IS NOT LIMITED TO:

1. REPLACEMENT OF AIR HANDLING UNITS AT BUILDINGS 1, 2, AND 3.
2. REPLACEMENT OF FAN COIL UNITS AND BUILDINGS 1, 2, 3, 4, 5, AND 6.
3. REPLACEMENT OF HVAC CIRCULATING PUMPS AT BUILDING 2.
4. REPLACEMENT OF HVAC CONTROLS AT BUILDINGS 1, 2, 3, 4, 5, AND 6.
5. REPLACEMENT OF THE EXTERIOR CONDENSER AND INTERIOR AIR HANDLER AT BUILDING 1.
6. REPLACEMENT OF PACKAGED ROOF TOP UNIT AT BUILDINGS 3.
7. REPLACEMENT OF 2x2 EXHAUST HOODS AT BUILDING 2.
8. REPLACEMENT OF DUCT HEATERS IN BUILDING 2, 3, 4 AND 5.
9. REPLACEMENT OF THE ELECTRIC UNIT HEATERS AT BUILDING 2 AND 6.
10. PROVIDE NEW MINI-SPLIT FOR SERVER ROOM 407A LOCATED IN BUILDING 4.
11. REPLACEMENT OF FIRE ALARM SYSTEM FOR ALL BUILDINGS.



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REVISIONS	DATE	BUILDING DEPARTMENT COMMENTS
1	02/23/16	

SEA CASTLE
 ELEMENTARY SCHOOL
 9600 MIRAMAR BOULEVARD
 MIRAMAR, FLORIDA 33025

THE SCHOOL BOARD OF BROWARD COUNTY

RECEIVED
 MAR 06 2018
 BUILDING DEPARTMENT
 BCPS

Bid Documents Only
 Not For Construction

ELECTRICAL GENERAL NOTES & SYMBOLS

100% SUBMITTAL P-001632
 SIBC PROJECT: P-001632
 DATE: 12.13.16
 SCALE: AS SHOWN
 DRAWN BY: HA
 CHECKED BY: E.H.
 ICAE PROJECT No. 2015-55

FLORIDA PROFESSIONAL ENGINEER SEAL
 ERIC L. HAMMOND
 P.E. #39048
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER SEAL

DRAWING No.
 E-001

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