ELECTRICAL SYMBOL LEGEND

GENERAL NOTES:

1. MOTOR CONNECTION, NUMBER DENOTES HORSEPOWER

2. VARIABLE FREQUENCY DRIVE

3. WITH APPROPRIATE FLANGE

4. AND PILOT LIGHT

5. MANUAL MOTOR STARTER WITH OVERLOAD HEATERS

6. CEILING MOUNTED OCCUPANCY SENSOR

7. WITH WEATHERPROOF LOCKING COVER

8. SINGLE POLE SWITCH

9. SINGLE POLE SWITCH

10. FOUR-WAY SWITCH

11. THREE-WAY SWITCH

12. (ORANGE DEVICE)

13. MOUNTED ABOVE COUNTER

14. TWO DUPLEX RECEPTACLES WITH COMMON COVER

15. GFI RECEPTACLE MOUNTED ABOVE COUNTER

16. GFI RECEPTACLE. WP DENOTES WEATHERPROOF COVER.

17. ELECTRIC WATER COOLER. COORDINATE WITH EWC

18. SIMPLEX RECEPTACLE (EWC DENOTES

19. DUPLEX RECEPTACLE WITH TOP HALF SWITCHED

20. COVERPLATES WITH SPANNER HEAD SCREWS

21. EACH HALF ON SEPARATE CIRCUIT

22. DUPLEX RECEPTACLE

23. AND ONE COMBINATION W/ VOICE/DATA OUTLET

24. FLOOR OUTLET BOX WITH TWO DUPLEX RECEPTACLES

25. DUPLEX RECEPTACLE

26. SIZE AS NOTED

27. MAGNETIC MOTOR STARTER OR CONTACTOR

28. POWER CONNECTION TO EQUIPMENT

29. LIGHTING CONTROL TIME CLOCK

30. (RED DEVICE) TYPICAL FOR ANY DEVICE IN LEGEND

31. RECEPTACLE CONNECTED TO THE EMERGENCY CIRCUIT

32. TICK MARKS SHOWN ON ANY DEVICE REPRESENT

33. NOTE:

34. B3 = DISTRIBUTION BOARD DEVICE

35. EQ

36. L

37. NF

38. 30AR

39. AR DENOTES AMP RATING OF SWITCH

40. LOWER CASE LETTER INDICATES

41. XXCD CD = CANDELA RATING

42. P PARAPET MOUNTED AIR TERMINAL

43. CONNECTION TO CLOSURE/ HOLDER INCLUDES DETECTOR

44. SPRINKLER WATERFLOW

45. VISUAL SIGNALING UNIT, WALL MOUNTED

46. FIRE ALARM SPEAKER WITH STROBE

47. CHIME/FLASHING "FIRE" LIGHT

48. GROUND TERMINAL

49. PIPE CLAMP FOR PLUMBING VENT THRU ROOF.

50. BONDING PLATE

51. 7.

52. 3.

53. 2.

54. D3 4' LONG LED CHAIN HUNG VAPORTITE LIGHTING FIXTURE

55. METALUX VT-LD2-55-DR-W-EL400-UNV-L840-CD2-WL-VT2-CHAIN/SET-

56. S1 BUILDING MOUNTED LED WALLPACK FIXTURE WITH WIRE

57. A1 2x4 LED LAY-IN SECURITY LIGHTING FIXTURE FAIL-SAFE FSR-SC-X-24-4-LD3-3-STD-40-UNV-80/97-ED

58. C 277 V 7900 LUMEN LED WITH UNIT 122 VA

59. VERIFY COLOR/FINISH OF ALL FIXTURES WITH THE ARCHITECT.

60. CE 4' LONG LED UP/DOWN WALL MOUNTED SECURITY FIXTURE

61. FAIL-SAFE FHL-7L-50-3A-UNV-TL-EBP 277 V 7400 LUMEN LED WITH UNIT 94 VA MOUNT FIXTURE @ +18'-0" A.F.F. OR FLUSH WITH

62. METALUX 24EN-LD1-6700-UNV-EL14-L840-CD-1 277 V 6700 LUMEN LED WITH UNIT 70 VA

63. F 1x4 LED SURFACE MOUNTED SECURITY FIXTURE FAIL-SAFE FMSLP-X-12-4-7500-7-40-UNV-80/97-ED-EBP 277 V 7500 LUMEN LED WITH UNIT 105 VA

64. METALUX VT-LD2-55-DR-W-EL400-UNV-L840-CD2-WL-VT2 277 V 5500 LUMEN LED WITH UNIT 81 VA WALL MOUNT IN ELEVATOR PIT

65. LUMARK XTORA9A-WG-XTORMX 277 V 7200 LUMEN LED WITH UNIT 86 VA VERIFY FINISH WITH ARCHITECT, MOUNT FIXTURE AT

66. +18'-0" A.F.F. OR FLUSH WITH
PROPOSED LOCATION FOR DUKE ENERGY PRIMARY SERVICE

2 NEW PRIMARY SERVICE TO REFEED EXISTING DUKE ENERGY TRANSFORMERS SERVING "A", "B", AND "C" BARRACKS

3 EXISTING DUKE ENERGY PAD-MOUNTED SWITCHGEAR TO REMAIN.

4 EXISTING DUKE ENERGY TRANSFORMER TO REMAIN.

5 DEMOLISH EXISTING "FSG" SECONDARY SERVICE BACK TO EXISTING TRANSFORMER.

6 DEMOLISH ALL ELECTRICAL ASSOCIATED WITH VISITOR CENTER, FOOD SERVICE, AND LAUNDRY FACILITY. EXISTING EMERGENCY GENERATOR SERVES "A" AND "B" BARRACKS.

7 REFEED EXISTING "A" AND "B" BARRACKS' EMERGENCY FEEDS FROM NEW INFRASTRUCTURE BUILDING. VERIFY ALL EXISTING REQUIREMENTS.

8 DEMOLISH EXISTING DUKE ENERGY PRIMARY FEEDER, ASSOCIATED TRANSFORMERS BACK TO SOURCE.

GENERAL NOTES:

1. TRANSFORMER, SWITCHGEAR, AND PULL BOX LOCATIONS ARE BASED UPON CIVIL DRAWINGS, ELECTRICAL UTILITY DRAWINGS, AND SATELLITE IMAGERY. FIELD VERIFY EXACT LOCATIONS.

2. UNDERGROUND FEEDER ROUTING IS DIAGRAMMATIC AND BASED UPON CIVIL DRAWINGS AND ELECTRICAL UTILITY DRAWINGS. REFER TO CIVIL AND ELECTRICAL UTILITY DRAWINGS FOR FURTHER INFORMATION.

3. TRANSFORMER DATA IS BASED UPON ELECTRICAL UTILITY DRAWINGS AND AN EXISTING FACILITY ELECTRICAL ASSESSMENT REPORT DATED JULY 19, 2006.

4. ALL WORK REQUIRED BY THE UTILITY COMPANY SHALL BE PERFORMED BY THE UTILITY COMPANY AND ALL ASSOCIATED COSTS SHALL BE INCLUDED BY THE DESIGN BUILDER.

5. DESIGN BUILDER TO SEQUENCE ALL DEMOLITION WITH OWNER TO MINIMIZE SHUTDOWNS TO ALL EXISTING OPERATIONS TO REMAIN.

6. PROVIDE EMERGENCY POWER TO ALL NEW SECURITY WORK IN EXISTING BUILDINGS. COORDINATE REQUIREMENTS WITH SECURITY DRAWINGS.
FIRST FLOOR FIRE ALARM & MISC. SYSTEMS PLAN

1. ALL NOTIFICATION DEVICES SHALL HAVE A LUMINOUS INTENSITY OF 75 CANDELA UNLESS OTHERWISE NOTED.
SECOND FLOOR POWER PLAN

Scale: 1/8" = 1'-0"
1. REFER TO REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF FIXTURES.
2. ALL LIGHTING FIXTURES SHALL BE CONTROLLED VIA RELAY CONTROL PANELS FROM THE MAIN BUILDING CONTROL/SECURITY ROOM.
3. PROVIDE UNSWITCHED CONDUCTORS TO ALL EMERGENCY LIGHTING POWER SUPPLIES IN DESIGNATED FIXTURES.
4. REFER TO SHEET E-000 FOR FIXTURE SCHEDULE.
1. TAMPER SWITCH FOR CONTROL VALVE SERVING ELEVATOR HOISTWAY FIRE SPRINKLER PENDENT
2. COORDINATE LOCATION WITH DIVISION 21 CONTRACTOR PRIOR TO INSTALLATION. PROVIDE ADDRESSABLE INPUT MONITORING MODULE(S) LOCATED WITHIN A CONDITIONED, ACCESSIBLE SPACE OR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. RELAYS FOR PRIMARY LEVEL ELEVATOR RECALL, ALTERNATE LEVEL ELEVATOR RECALL, SHUNT-TRIP ACTUATION, ELEVATOR WARNING LIGHT ILLUMINATION, AND SHUNT-TRIP CONTROL CIRCUIT VOLTAGE MONITORING.
4. COORDINATE LOCATION WITH OWNER AND A.H.J. PRIOR TO INSTALLATION.
5. FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY UNIT WITH BATTERY BACKUP

GENERAL NOTES:
1. ALL NOTIFICATION DEVICES SHALL HAVE A LUMINOUS INTENSITY OF 75 CANDela UNLESS OTHERWISE NOTED.
ELECTRICAL KEY NOTES

1. A COMPLETE LIGHTNING PROTECTION SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 780. SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER’S RECOMMENDATIONS AND OBTAIN A UL LETTER OF CERTIFICATION.

2. LIGHTNING PROTECTION SYSTEM SHALBe PROVIDED IN ACCORDANCE WITH NFPA 780. SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER’S RECOMMENDATIONS AND OBTAIN A UL LETTER OF CERTIFICATION.

3. REFER TO DETAIL SHEET FOR LIGHTNING PROTECTION DETAILS.

4. BONNET FULL SIZE CONDUCTOR TO ALL METAL OBJECTS ON ROOF. BOND ROOF DRAINS AS REQUIRED, LADDER HATCHS, ETC.

5. JOB CONDITIONS MIGHT NECESSITATE A SLIGHT VARIATION IN INSTALLATION.

6. UPON COMPLETION OF THE JOB, THE CONTRACTOR SHALL FURNISH THE OWNER WITH A UL LETTER OF CERTIFICATION.

7. PROVIDE LIGHTNING PROTECTION AT GENERATOR LOCATION AND TIE INTO SYSTEM AS REQUIRED.

8. REFER TO DETAIL SHEET FOR CONNECTION DETAILS TO ALL MECHANICAL EQUIPMENT WITH UNDERLINED TAGS SHOWN ON PLAN VIEW.

LIGHTNING PROTECTION GENERAL NOTES:

1. A COMPLETE LIGHTNING PROTECTION SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 780. SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER’S RECOMMENDATIONS AND OBTAIN A UL LETTER OF CERTIFICATION.

2. THE CONTRACTOR SHALL PROVIDE A COMPLETE ROOF COMPATIBLE LIGHTNING PROTECTION SYSTEM AS APPROVED BY ARCHITECT AND/OR ENGINEER. THE SYSTEM SHALL BE INSTALLED BY A LIGHTNING PROTECTION CONTRACTOR ACTING IN THE INSTALLATION OF UL MASTER LABEL SYSTEMS. THE CONTRACTOR SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE IN LIGHTNING PROTECTION INSTALLATIONS.

3. INSTALL CONDUCTORS AND COMPLEMENTARY PARTS SO COMPLETED WORK IS UNOBTRUSIVE AND DOES NOT DISTRACT FROM APPEARANCE.

4. INTERCONNECT CONDUCTORS TO PROVIDE AT LEAST TWO ELECTRIC PATHS TO GROUND. AVOID AN UPWARD DIRECTION FOR LATERAL CONDUCTORS INTERCONNECTING AIR TERMINALS. TURN RADIUS OF AT LEAST 8 INCHES AT AN INCLUDED ANGLE NO MORE ACUTE THAN RIGHT ANGLE. SPACE DOWN CONDUCTORS AROUND BUILDING PERIPHERY AS SHOWN IN PLAN VIEW.

5. REFER TO DETAIL SHEET FOR LIGHTNING PROTECTION DETAILS.

6. DOWNCONDUCTOR MAY UTILIZE VERTICAL BUILDING STEEL COLUMNS WHERE ACCESSIBLE. OTHERWISE, PROVIDE DOWNCONDUCTOR RUNS IN PVC AT CONCRETE COLUMNS.

7. BOND FULL SIZE CONDUCTOR TO ALL METAL OBJECTS ON ROOF. BOND ROOF DRAINS AS REQUIRED, LADDER HATCHS, ETC.

8. JOB CONDITIONS MIGHT NECESSITATE A SLIGHT VARIATION IN INSTALLATION.

9. UPON COMPLETION OF THE JOB, THE CONTRACTOR SHALL FURNISH THE OWNER WITH A UL LETTER OF CERTIFICATION.

10. REFER TO DETAIL SHEET FOR CONNECTION DETAILS TO ALL MECHANICAL EQUIPMENT WITH UNDERLINED TAGS SHOWN ON PLAN VIEW.

11. LIGHTNING PROTECTION SYSTEM SHALL BE COPPER.

ROOF ELECTRICAL PLAN

Dewberry
Pinellas County
Infrastructure Criteria Package - Drawings
Clearwater, FL.
401 SW Water St.
Suite 701
Peoria, IL 61602
309.282.8000 Phone
309.282.8001 Fax

Scale: 1/8" = 1'-0"
1. Locate ground rods a minimum of 2'-0" from building foundation.

2. The top of ground rod shall be a minimum of 1'-0" below finished grade.

- Copperweld ground rod 5/8" x 20'-0" vertically driven.
- Cable to ground rod heavy duty type CADWELD "GT" series.
- #11500 CM copper cable.
- Cable to cable heavy duty type CADWELD "TA" series.

- Maintain 20'-0" between rods.
- Ground wire 2" min.
- Ground rod slot box for cable.
- Compacted gravel approved exothermic connection.
- 5 1/4" dia valve box.

- Parapet CADWELD bonded connections to building steel main conductor (copper).
- (1) 1" concealed within wall main conductor (copper).
- Set screw type fitting lower rooftop premanufactured thru-roof penetration CADWELD bonded connections.

- Set screw type fitting higher rooftop premanufactured thru-roof penetration CADWELD bonded connections.

- Class 1 copper lightning conductor (32 x 17 AWG)
- Thru-roof connector with bronze mounting plate secured to roof deck extending up through insulation and roofing materials.
- Boot flashing furnished and installed by roofing contractor.
- 1/2" dia. brass threaded riser bar
- Lead sealing washer and stainless steel washer
- Stainless steel nut
- Vertical connector

- Class 1 copper lightning conductor (32 x 17 AWG)
- Offset wall point base bolt & lead anchor w/ sealant around base
- Universal cable anchor spaced 3'-0" O.C. max
- Offset wall point base metal mount point base with stainless steel sheet metal screw.

- Aluminum point (1/2" x 12"
- Aluminum cable run to roof circuit with parallel cable splice
- Bimetallic cable splice roof loop with stainless steel sheet metal screw.

- 10" min. above highest surface.

- Metal mounting plate to new facility/logo space.