

SYMBOL LIST

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| | FLUORESCENT FIXTURE | | MAIN SWITCHBOARD, MOTOR CONTROL CENTER OR DISTRIBUTION BOARD |
| | FLUORESCENT FIXTURE | | TRANSFORMER |
| | DOWNLIGHT FIXTURE | | CONCRETE FULLBOX WITH HEAVY DUTY STEEL TRAFFIC COVER |
| | WALL MOUNTED FIXTURE | | W.P. INDICATES WEATHER-PROOF (NEMA 3R) |
| | PENDANT MOUNTED FIXTURE | | C INDICATES CONDUIT WITH FULL-LINE ONLY |
| | POLE MOUNTED FIXTURE | | P.N. INDICATES PANEL |
| | BOLLARD FIXTURE | | XTR INDICATES TRANSFORMER |
| | EXIT LIGHT WITH DIRECTIONAL ARROWS AS INDICATED - CEILING MOUNTED | | NP.CO. INDICATES NEVADA POWER COMPANY |
| | FLUORESCENT FIXTURE ON EMERGENCY OR NIGHT LIGHT CIRCUIT | | GRND INDICATES GROUND |
| | LETTER INDICATES LIGHT FIXTURE TYPE AS INDICATED ON FIXTURE SCHEDULE | | 48" INDICATES MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR OR FINISH GRADE |
| | 8 SINGLE POLE SWITCH * 48" UNLESS NOTED | | HOMERUN CONDUIT - STROKES INDICATE QUANTITY OF CONDUCTORS |
| | 3-WAY POLE SWITCH * 48" UNLESS NOTED | | CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING |
| | DIMMER SWITCH - SOLID STATE TYPE * 48" UNLESS NOTED | | CONDUIT RUN BELOW FLOOR OR GRADE |
| | LUTRON NOVA SERIES FOR LOAD SERVED | | FLOOR MOUNTED TELEPHONE OUTLET UNLESS NOTED |
| | 8K SWITCH - KEY OPERATED | | ▽ TELEPHONE OUTLET * 48" UNLESS NOTED |
| | 9T THERMAL OVERLOAD SWITCH | | ▽ COMPUTER OUTLET * 48" UNLESS NOTED |
| | 6F GFI RECEPTACLE * 44" UNLESS NOTED | | ▽ TELEVISION ANTENNA OUTLET * 48" UNLESS NOTED |
| | 6D DOUBLE DUPLEX RECEPTACLE * 48" UNLESS NOTED | | ▽ FIRE ALARM MANUAL STATION * 48" |
| | 6E DUPLEX RECEPTACLE * 48" UNLESS NOTED | | ▽ FIRE ALARM HORN - CEILING MOUNTED |
| | 6J FLOOR MOUNTED RECEPTACLE UNLESS NOTED | | ▽ COMBINATION FIRE ALARM HORN WITH FLASHING LIGHT * 48" |
| | 6K JUNCTION BOX | | ▽ DUCT DETECTOR |
| | 6L NON-FUSED DISCONNECT SWITCH - 30A, 3P, UNLESS NOTED | | 1/2" - 2 #2 THIN UNLESS NOTED |
| | 6M THERMOSTAT | | 1/2" - 3 #2 THIN UNLESS NOTED |
| | 6N THERMOSTAT OUTLET * 48" UNLESS NOTED | | 1/2" - 4 #2 THIN UNLESS NOTED |
| | 6O PUSHBUTTON TYPE CONTROL STATION | | 1/2" - 5 #2 THIN UNLESS NOTED |
| | 6P FEEDER - SIZE AS INDICATED SEE SHEET E | | 3/4" - 6 #2 THIN UNLESS NOTED |
| | 6Q DIVISION B EQUIPMENT - SEE HVAC AND PLUMBING DRAWINGS | | |
| | 6R 120/208V 3A, 4W PANELBOARD | | |

NOTES

- 1 SEE A EG10
- 2 VERIFY MTG. HT. W/ARCH
- 3 SEE B EG10

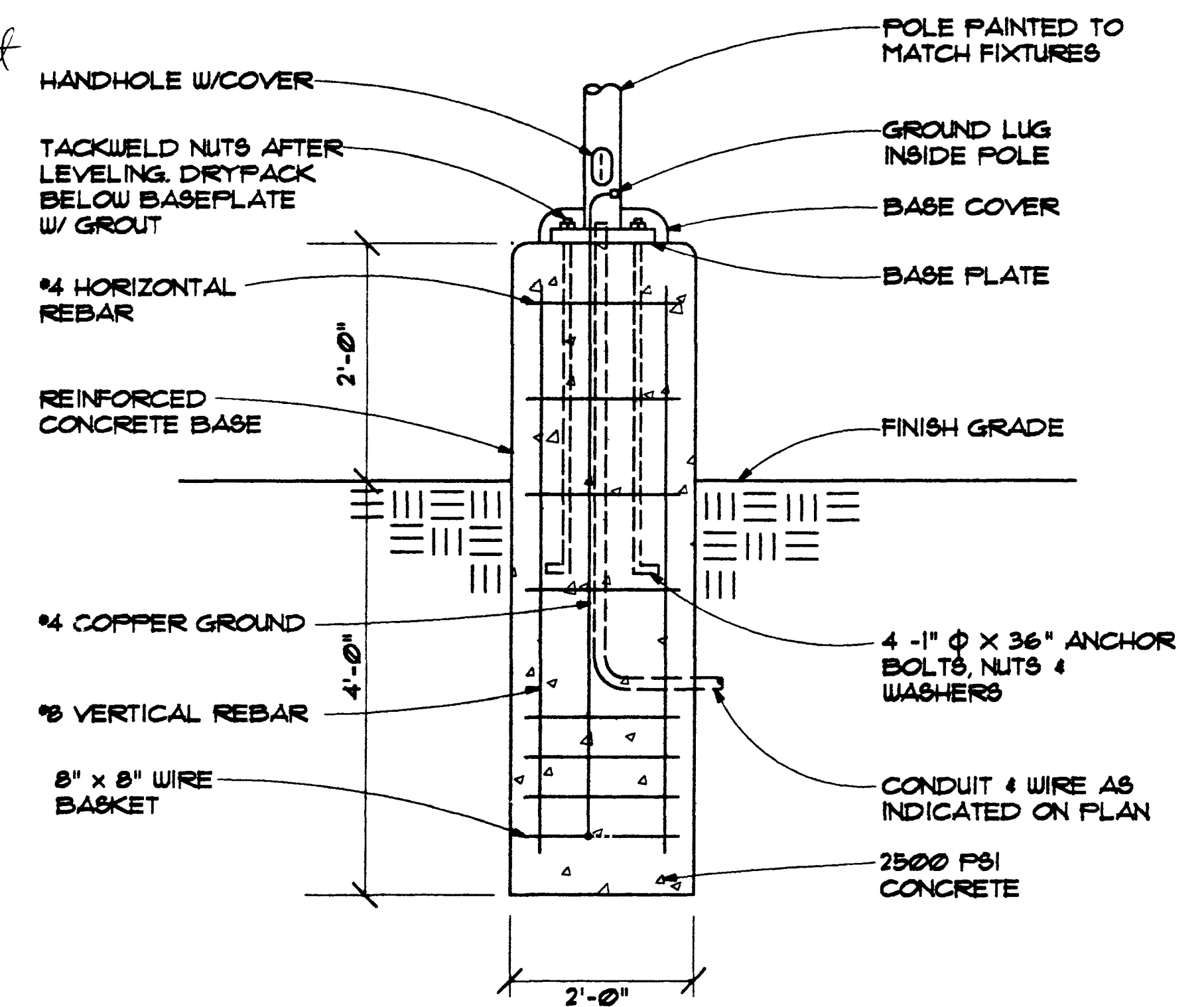
DOES NOT INCLUDE GROUND WIRE IF NON-METALLIC CONDUIT, ADD CODE SIZE GROUND.

FIXTURE SCHEDULE

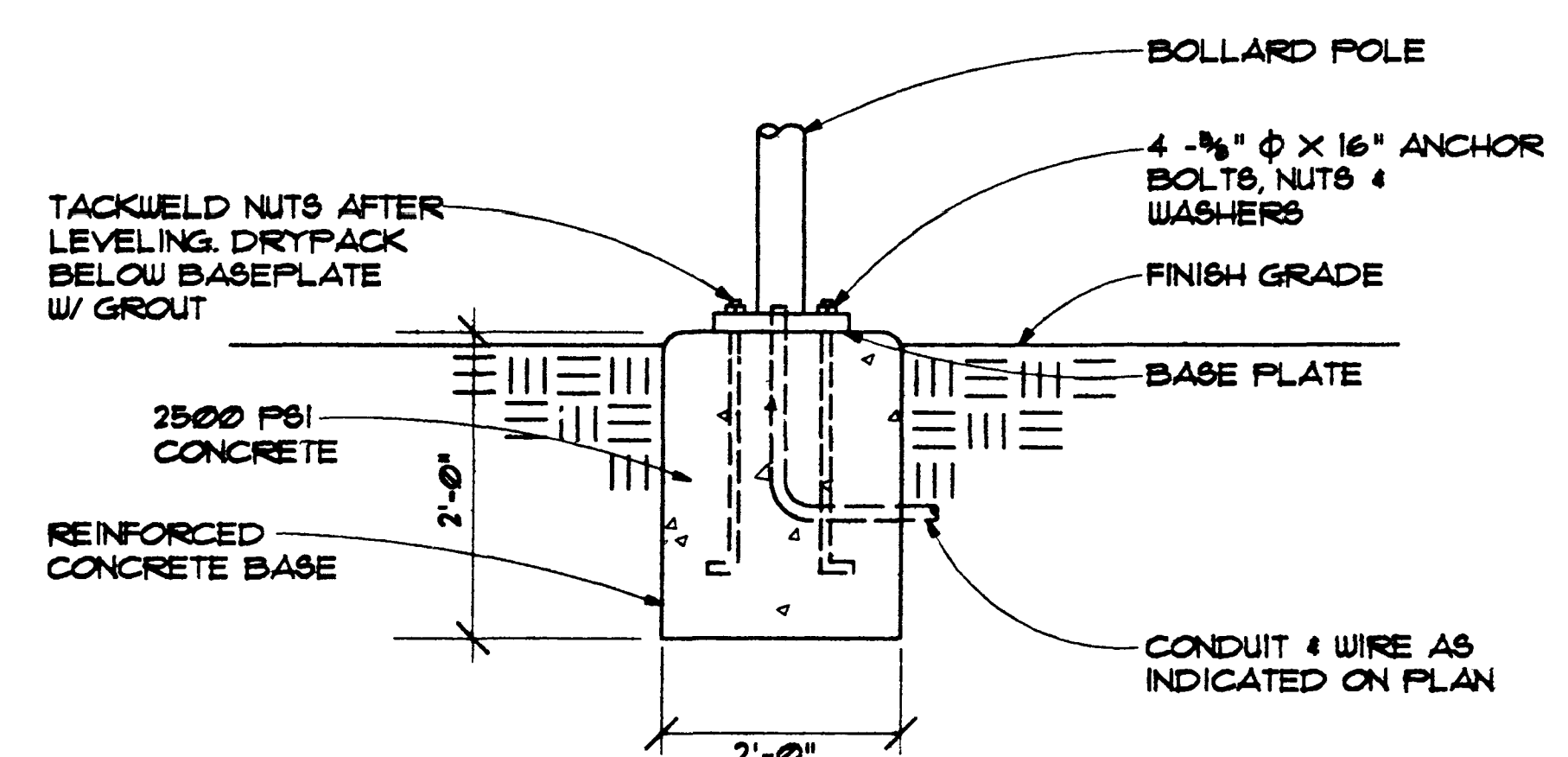
| FIXT TYPE | MANUFACTURER | CATALOG NUMBER | VOLT AMPERS | MOUNTING | LAMP TYPE | REMARKS | VOLT |
|-----------|--------------|----------------------------|-------------|-------------|--------------------|---|------|
| A | LITHONIA | 287-03-40-AZ12B-129-25832 | 80 | RECESS | 2-F32T88P/00 | 2'x4' 3-LAMP FLOOR TROFFER | D0 |
| B | LITHONIA | 8P-F-232-AZ12B-D2-ED0 | 80 | RECESS | 2-3-F32T88P/00 | 1'x4' 2-LAMP FLOOR TROFFER | D0 |
| BI | LITHONIA | 8P-F-232-AZ12B-129-2583-EL | 80 | RECESS | 2-3-F32T88P/00 | 1'x4' 2-LAMP FLOOR TROFFER W/ BATT. PACK FOR EMERG. LTG. | D0 |
| C | ELLIPTIFAR | F301-A232-3-00 | 80 | COVE | 2-F32T88P/00 | 8' FLOOR COVE LIGHT | D0 |
| CI | ELLIPTIFAR | F301A32-0-00-2-0E | 40 | COVE | 1-F32T88P/00 | 4' FLOOR COVE LIGHT | D0 |
| D | LITE CONTROL | 6-D-66ND478D-BU | 75 | PENDANT | 2-F40/D636/66 | PENDANT MTD FLOOR -COLOR AS DIRECTED BY ARCH. | D0 |
| E | LITE CONTROL | F-6/D-66ND478-D2-BU | 75 | PENDANT | 2-F40/D636/66 | PENDANT MTD FLOOR -COLOR AS DIRECTED BY ARCH. | D0 |
| F | VISA | CP3674 | 200 | PENDANT | 8-F31T/7K | 48" DIA. DECOR. FIXTURE-COLOR AS DIRECTED BY ARCH | D0 |
| G | VISA | CB3002 | 30 | WALL | 2-F31T/7K | WALL SCONCE | D0 |
| H | LITHONIA | D7AC | 150 | RECESS | 1-B6RFL | 1" DIA. DTL. W/ CLEAR REFLECTOR | D0 |
| K | LITHONIA | C232 | 80 | SURFACE | 2-F32T88P/00 | 4' 2 LAMP OPEN FLUORESCENT STRIP | D0 |
| KI | LITHONIA | C232-EL | 80 | SURFACE | 2-F32T88P/00 | 4' 2 LAMP OPEN FLUORESCENT STRIP W/ EMERG. BATT. PACK FOR EMERG. LTG. | D0 |
| L | STAFF | 23CLM1 | 40 | RECESS | 1-F36D/T/D821 | 6" DIA. FLOOR DN. LIGHT | D0 |
| LI | STAFF | 23CLM1-EM | 40 | RECESS | 1-F36D/T/D821 | 6" DIA. FLOOR DN. LIGHT W/ BATT. PACK FOR EMERG. LTG. | D0 |
| M | STAFF | 8023M4H | 75 | TRACK MTD. | 1-F36P/6/CAF/NP | WHITE TRACK MTD. FIXTURE | D0 |
| Q | LITHONIA | E8-U-1-R-D2-ELN | 40 | SURFACE | FURN W/INT | SINGLE FACE EXIT SIGN WITH RED LETTERS | D0 |
| SA | BEGA | 24205 | 65 | WALL | 1-L1000 | EXTERIOR WALL SCONCE | D0 |
| SB | BEGA | 61036 | 125 | PENDANT | 1-L1000 | EXTERIOR PENDANT MTD DNL | D0 |
| SC | BEGA | 88T1P | 20 | BOLLARD | 1-F31T/7K | EXTERIOR BOLLARD | D0 |
| SD | BEGA | 98046 | 225 | POLE-75'-0" | 1-L1000 | EXTERIOR POLE MTD LUMINAIRE | D0 |
| SO | GARCO | D716P/PL17M4H 120-POLY | 220 | GRADE | 1-T16M ED-IT CLEAR | T16M VERT. FLOOD MTD. ON 8" STANCHION | D0 |
| SE | LITHONIA | LH-R03A | 125 | RECESS | 1-L1000BT | 1" DIA. HPS DOWNLIGHT DAMP LABEL LISTED | D0 |

SF

ADD #2 NOV. 3, 1993
James J. Junt
Nucleus/AS



POLE BASE DIAGRAM (A)
NTA EG10



BOLLARD BASE DIAGRAM (B)
NTA EG10

GENERAL NOTES

1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS IN FIELD PRIOR TO COMMENCEMENT OF WORK.
2. FINAL CONNECTIONS TO EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE CONTROLS, INTERLOCKS, ACCESSORIES, ETC. IN MOTOR CONTROL. STARTERS AS REQUIRED BY THE TEMPERATURE CONTROL CONTRACTOR. STARTERS SHALL CONTAIN 120V CONTROL TRANSFORMER, PILOT LIGHT, AND PUSHBUTTONS OR SELECTOR SWITCH AS REQUIRED. IN ADDITION TO OTHER ITEMS (AUXILIARY CONTACTS, DOOR SWITCHES, RELAYS, ETC) REQUIRED. SUBMIT ELEMENTARY CONTROL DIAGRAMS FOR APPROVAL. SUBMITTALS SHALL INCLUDE INDICATION OF PRIOR REVIEW AND ACCEPTANCE BY TEMPERATURE CONTROL CONTRACTOR. REFER TO DIV. B DRAWINGS AND TEMPERATURE CONTROL DIAGRAMS FOR ADDITIONAL CONDUIT, WIRE, RELAYS, TRANSFORMERS, CONNECTIONS, ETC. REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. SEE DIVISION B FOR SPECIFIC REQUIREMENTS.
4. ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A #2 FULL WIRE OR EQUAL AND SHALL BE IDENTIFIED AT ALL JUNCTION, PULL AND TERMINATION POINTS, USING PERMANENT METALLIC TAGS. TAGS SHALL INDICATE INTENDED USE OF CONDUIT, ORIGIN AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
5. FIXTURES INDICATED AS BEING ON EMERGENCY OR NIGHT LIGHT CIRCUITS SHALL BE PROVIDED WITH SELF-CONTAINED BATTERY POWERED INVERTER UNIT FOR DIRECT MOUNTING IN FIXTURE. PROVIDE UNIT WITH FULLY AUTOMATIC TWO RATE CHARGER, NICKEL CADMIUM BATTERY, AC 10A PILOT LIGHT, AND TEST SWITCH DESIGN AND WIRE UNIT TO AUTOMATICALLY TRANSFER TO BATTERY SUPPLY ON LOSS OF NORMAL AC POWER AND TO OPERATE FOR MINIMUM 1-1/2 HOURS.
6. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO VERBALLY APPROVE METHODS AND MATERIALS NOT REFLECTED HEREIN.
7. CONTRACTOR SHALL REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS PRIOR TO BID.
8. PROPOSED SUBSTITUTIONS OF ELECTRICAL EQUIPMENT OR REQUEST FOR "OR EQUAL" OR "APPROVED EQUAL" LISTING SHALL BE SUBMITTED TO ARCHITECT NOT LESS THAN TEN (10) WORKING DAYS PRIOR TO BID. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
10. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE OF NEVADA AND NATIONAL CODES AND ORDINANCES.
11. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
12. GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
13. PROVIDE RECORD DRAWINGS TO ARCHITECT. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REWORKING, ETC.
14. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
15. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
16. WIRE SHALL BE COPPER 75°C RATED FOR GENERAL USE. FOR HID FIXTURES AND WIRING WITHIN 3 INCHES OF FLUORESCENT BALLASTS WIRE SHALL BE COPPER MINIMUM 90°C RATED. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30°C AMBIENT.
17. SPLICES IN EXTERIOR FULLBOXES AND MANHOLES SHALL BE MADE WATERPROOF USING "SCOTCHCAST" SPLICE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS WITH "DUCSEAL" OR APPROVED EQUAL.
18. PRESENT SHOP DRAWING SUBMITTAL DATA AT ONE TIME, BOUND IN THREE-RING BINDERS, INDEXED IN A NEAT AND ORDERLY MANNER. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED. SUBMITTALS SHALL INCLUDE BUT NOT BE LIMITED TO: LIGHTING FIXTURES, SWITCHGEAR, PANELBOARDS, WIRING DEVICES, SAFETY SWITCHES, FUSES, MOTOR STARTERS, LAMPS, CONDUIT, CONDUIT FITTINGS AND TRANSFORMERS.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
20. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT OR INSTALLATION METHODS.
21. SYSTEMS SHALL BE COMPLETE, OPERABLE AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTACLES, MOTORS, ETC. SHALL BE CONNECTED AND OPERABLE.
22. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING AND SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), FULLBOXES, TRANSFORMER PADS, SAUCUTTINGS AND PATCHING, CONCRETE PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
23. WIRING DEVICES SHALL BE SPECIFICATION GRADE AND RATED AT 20 AMPERES FOR LIGHT SWITCHES AND 15 AMPERES FOR DUPLEX RECEPTACLES. THE COLOR OF THE DEVICES AND COVER PLATES SHALL BE AS DIRECTED BY ARCHITECT.
24. FULLBOXES, CABINETS, ETC. MOUNTED ON THE EXTERIOR AT GRADE LEVEL, SHALL BE WEATHER-PROOF TYPE WITH HINGED LOCKABLE COVERS SECURED WITH TAMPER-PROOF SCREWS.
25. BOXES FOR TELEPHONE, T.V., COMPUTER, WIRING DEVICES, ETC. SHALL BE MINIMUM 4' SQUARE.
26. FIXTURES RECESSED IN "T-BAR" CEILING SHALL BE SUPPORTED INDEPENDENTLY OF CEILING SYSTEM, WITH FOUR #2 HANGER WIRES UP TO STRUCTURE. SECURE HANGER WIRES TO CORNERS OF FIXTURE. CLIP FIXTURE TO GRID ON TWO SIDES WITH FACTORY-FURNISHED CLIPS. FINAL CONNECTION TO FIXTURE SHALL BE MADE WITH A FLEXIBLE UL APPROVED ASSEMBLY.
27. SEE DIVISION B DRAWINGS FOR LOCATION OF MECHANICAL EQUIPMENT. PROVIDE SERVICE TO AND CONNECT EQUIPMENT AS REQUIRED.
28. SWITCHBOARDS, (DISTRIBUTION BOARDS), PANELBOARDS, DISCONNECT SWITCHES, MOTOR CONTROL CENTERS, SHALL BE MANUFACTURED BY GENERAL ELECTRIC, SIEMENS (ITE), SQUARE D, OR WESTINGHOUSE. BOLT FREE STANDING EQUIPMENT TO 4' HIGH CONCRETE HOUSEKEEPING PADS.
29. PROVIDE ENGRAVED NAMEPLATES ON SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, MOTOR CONTROL CENTERS, TRANSFORMERS, ETC., INDICATING EQUIPMENT DESIGNATION (OR DESIGNATION OF EQUIPMENT SERVED) AND VOLTAGE.
30. PANEL DIRECTORIES SHALL BE REMOVABLE. SUBMIT PROPOSED SCHEDULE OF DIRECTORIES TO OWNER FOR APPROVAL. ROOM NAMES AND NUMBERS SHALL BE AS DIRECTED BY OWNER. DIRECTORIES SHALL BE TYPED AND INSTALLED UNDER CLEAR PLASTIC COVERS.
31. DISCONNECT SWITCHES SHALL BE GENERAL DUTY TYPE. FUSIBLE SWITCHES SHALL ACCEPT CLASS "R" FUSES ONLY AND REJECT ALL OTHERS.
32. PROVIDE DRY-TAPE TAG INSIDE COVER OF EACH FUSIBLE SWITCH, INDICATING SIZE AND TYPE OF FUSES PROVIDED.
33. PROVIDE TWO (2) SETS OF THREE (3) SPARE FUSES FOR EACH SIZE AND TYPE PROVIDED ON THIS PROJECT. INSTALL FUSES IN A HINGED DOOR SHEET METAL STORAGE CABINET EQUIPPED WITH CLIPS OR CLECKLES, EACH MARKED WITH THE SIZE AND TYPE FUSE STORED THEREIN. PROVIDE NAMEPLATE "SPARE FUSES". INSTALL IN LOCATIONS AS DIRECTED BY OWNER.
34. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE AND FUSES SHALL BE BUSMANN.
35. PROVIDE 4" HIGH CONCRETE EQUIPMENT PADS BENEATH SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, ETC.
36. ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC RACEWAYS. RACEWAYS IN SLAB-ON-GRADE OR BELOW GRADE SHALL BE SCHEDULE 40 PVC. TRANSITIONS FROM BELOW TO ABOVE GRADE SHALL BE WITH RIGID STEEL ELBOWS WITH P.V.C. JACKET OR APPROVED EQUAL PROTECTION. ENT FITTINGS SHALL BE MALLEABLE IRON OR STEEL. CONNECTORS SHALL BE INSULATED THROAT TYPE.
37. FIRE ALARM, SOUND, TELEPHONE, COMPUTER, AND SIMILAR SYSTEMS CONDUITS LARGER THAN 1" SHALL HAVE LONG RADIUS BUEPES (2 TIMES THE DIAMETER).
38. FINAL CONNECTIONS TO MOTORS AND OTHER VIBRATING EQUIPMENT SHALL BE WITH SEAL TITE FLEX AND APPROVED FITTINGS. DO NOT SECURE CONDUITS, DISCONNECTS OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT.
39. ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY UL OR OTHER RECOGNIZED TESTING FACILITY.
40. WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS SUITABLE FOR 75 DEGREE C.
41. NEMA 3-R AND 3-30R RECEPTACLES INSTALLED OUTSIDE ON THE BUILDING EXTERIOR OR ROOF OR WITHIN 6 FEET HORIZONTALLY FROM A 6BK UNLESS LOCATED BELOW A COUNTER OR OTHERWISE PROTECTED SHALL BE GFCI TYPE OR PROTECTED BY GFI CIRCUIT BREAKER.
42. DUCT DETECTORS SHALL BE IONIZATION TYPE FURNISHED BY DIVISION 16, INSTALLED IN THE SUPPLY AND RETURN AIR DUCTS BY DIVISION 16 AND CONNECTED TO THE FIRE ALARM SYSTEM BY DIVISION 16. DUCT DETECTOR SHALL BE CONNECTED TO SHUT OFF ALL AIR HANDLING UNITS LOCATED WITHIN THE SAME FLENTL.

Revisions

12' AFF
RFI 4-1

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WEST LAS VEGAS ARTS CENTER
DOOLITTLE PARK - LAS VEGAS, NEVADA

SYMBOL LIST, SPECIFICATIONS AND
FIXTURE SCHEDULE

As-Built

Date: 8/12/93
Drawn By: KJP
Checked By: DOB
Project No: 92160
Scale: NONE
Sheet No: EG10

COM
Nucleus/Amberion
3/28/94

