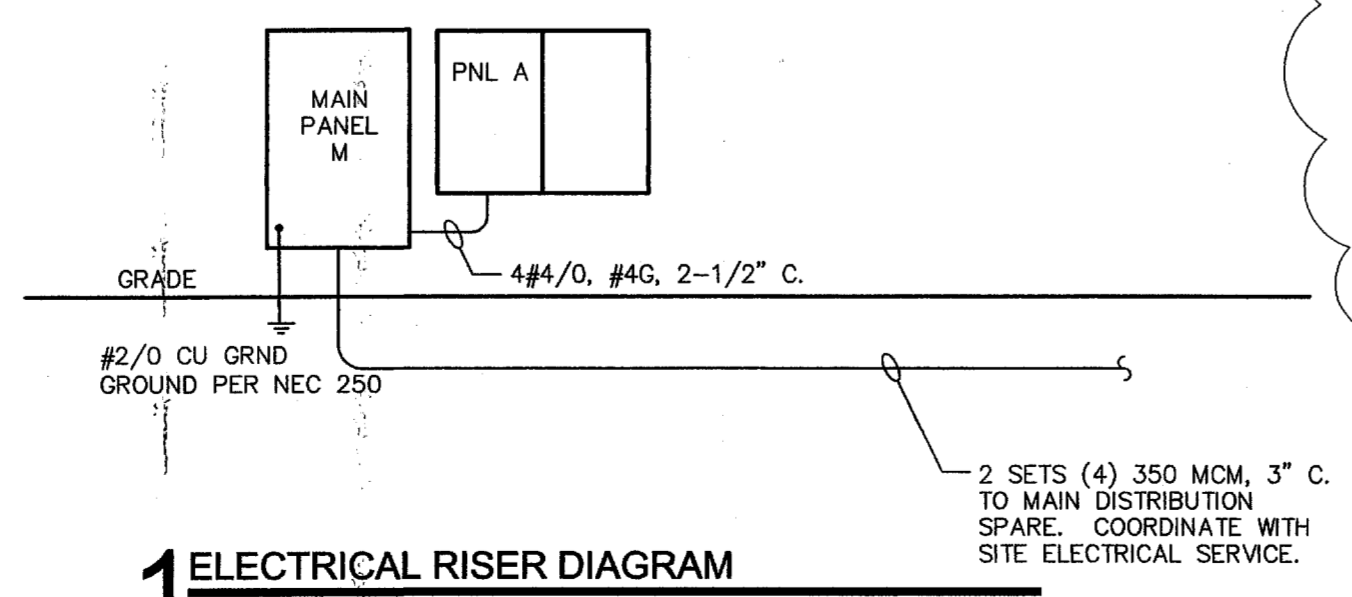


GENERAL NOTES

- G 1. COMPLETE SYSTEMS: PROVIDE (FURNISH AND INSTALL) ALL LABOR, MATERIAL, EQUIPMENT, AND TRANSPORTATION NECESSARY TO RECEIVE, INSTALL, ADJUST AND PUT INTO OPERATION COMPLETE SYSTEMS IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. PROVIDE PRODUCTS NOT MENTIONED BUT OBVIOUSLY NECESSARY AND INCIDENTAL TO THE COMPLETION OF THIS WORK.
- G 2. SCOPE: WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: MECHANICAL WORK AS REQUIRED FOR COORDINATION, ELECTRICAL WIRING, LIGHTING FIXTURE INSTALLATION, FIRE ALARM AND SIGNAL SYSTEMS, AND INSTALLATION OF RELATED MATERIALS. PROVIDE ALL CONDUIT, BACKBOARDS, AND OUTLET BOXES NEEDED FOR TELEPHONE, DATA, VIDEO, AND SECURITY SYSTEMS, UNLESS PROVIDED BY OTHERS. COORDINATE WORK WITH TELEPHONE, DATA, VIDEO, AND SECURITY SYSTEMS CONTRACTORS. PROVIDE MINIMUM 3/4" INCH CONDUIT AND PULL STRINGS FROM EACH TELEPHONE-DATA OUTLET TO APPROPRIATE TERMINAL BACKBOARD, OR TO 6 INCHES ABOVE CEILING IF USING PLENUM RATED CABLE. COORDINATE CONDUIT WORK WITH DATA-TELECOMM CONTRACTOR. COORDINATE ALL TELEPHONE AND DATA LINES, QUANTITIES, AND LOCATIONS WITH PLANS AND SITE CONDITIONS. PROVIDE ALL ELECTRICAL LABOR AND MATERIALS NOT PROVIDED BY OTHERS, BUT NECESSARY FOR THE COMPLETION OF THIS PROJECT.
- G 3. UTILITIES: COORDINATE WITH ALL UTILITY SERVICES. NOTIFY UTILITIES OF COMMENCEMENT OF WORK. MAKE ALL ARRANGEMENTS FOR TEMPORARY SERVICES. PROVIDE ALL WORK AND MATERIALS NECESSARY TO COMPLY WITH ALL UTILITY REGULATIONS AND REQUIREMENTS.
- G 4. PERMITS: OBTAIN ALL PERMITS NECESSARY TO BEGIN AND COMPLETE WORK.
- G 5. EXPERIENCE: ALL WORK DONE SHALL BE PERFORMED BY QUALIFIED PERSONNEL UNDER THE SUPERVISION AND DIRECTION OF A SUPERINTENDENT HAVING SUCCESSFUL EXPERIENCE INSTALLING AND SUPERVISING EQUIPMENT AND SYSTEM OF SIMILAR TYPE AND SIZE AS INDICATED BY THE CONTRACT DOCUMENTS.
- G 6. REGULATIONS: PERFORM ALL WORK IN ACCORDANCE WITH CURRENT RULES, REGULATIONS, AND INDUSTRY STANDARDS OF THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY COUNCIL, ADA, UL, IPCEA, NEMA, NFPA, OSHA, ANSI, IEEE, AND ANY LOCAL CODES, LAWS, STANDARDS, AND ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, NOTIFY CONSULTANT IMMEDIATELY.
- G 7. CONDITIONS: EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS, SCOPE OF WORK, AND OWNER'S CRITERIA AND SPECIFICATIONS. ALL COSTS SUBMITTED SHALL BE BASED ON A THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G 8. SPECIFICATIONS: BECOME FAMILIAR WITH ALL SPECIFICATIONS, DESIGN CRITERIA, AND EQUIPMENT REQUIREMENTS PRIOR TO ANY EQUIPMENT PURCHASE OR INSTALLATION. REFERENCE PLANS AND SPECIFICATIONS FOR DEVICES, MATERIALS, AND WORKMANSHIP REQUIREMENTS. THE DRAWINGS AND THESE NOTES PROVIDE ADDITIONAL REQUIREMENTS THAT EXTEND AND SUPPLEMENT THE SPECIFICATIONS. WHERE ANY APPEARANCE OF CONTRADICTION OCCURS BETWEEN THE PLANS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL. THERE SHALL BE NO DEVIATIONS FROM CONTRACT DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT, ENGINEER, AND OTHER RELATED DESIGN PROFESSIONALS.
- G 9. COORDINATION: COORDINATE WORK WITH ALL OTHER TRADES. GIVE SPECIAL CONSIDERATION TO COORDINATING INSTALLATION OF LIGHTING, CABLING, PIPING, AND DUCTWORK. DO NOT RUN CONDUIT, CABLING, WIRING OR OTHER MATERIALS OR DEVICES IN OR THROUGH DUCTWORK. DO NOT RUN ELECTRICAL CONDUCTORS IMMEDIATELY ADJACENT AND PARALLEL TO COPPER TELEPHONE, DATA, OR OTHER SIGNAL OR COMMUNICATION WIRING.
- G10. DEVICE COORDINATION: COORDINATE WALL OUTLET LOCATIONS AND ORIENTATIONS WITH MILLWORK. COORDINATE WALL SWITCHES WITH DOOR SWINGS. COORDINATE EXACT LOCATION, COLOR AND FINISH OF OUTLETS AND OTHER DEVICES WITH INTERIOR DESIGNER, ARCHITECT, OR DESIGNATED OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. OBTAIN APPROVAL FOR DEVICES FROM ARCHITECT OR INTERIOR DESIGNER PRIOR TO INSTALLATION. COORDINATE EXACT LOCATION OF OUTLETS AND OTHER DEVICES WITH ELECTRICAL AND ARCHITECTURAL PLANS PRIOR TO INSTALLATION. PROVIDE OUTLET BOXES, DEVICES, COVERPLATES, AND FLANGES AS REQUIRED. PLACE ALL OUTLETS AT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. REFERENCE ARCHITECT'S DRAWINGS FOR ALL HEIGHTS, DIMENSIONS, AND CONFIGURATIONS OF DEVICES NOT INDICATED ON THESE DRAWINGS. REFERENCE SAME DRAWINGS FOR EQUIPMENT NOT IDENTIFIED. COSTS FOR REVISIONS TO DEVICES OR DEVICE LOCATIONS DUE TO FAILURE TO COMPLY WITH THESE REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G11. PRODUCTS: PRODUCTS OF A SIMILAR NATURE SHALL BE OF THE SAME TYPE AND MANUFACTURER. PROVIDE THE STANDARD PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SPECIFIED PRODUCTS, UNLESS OTHERWISE REQUIRED BY DRAWINGS. CONSTRUCT AND INSTALL ALL PRODUCTS IN ACCORDANCE WITH NATIONALLY RECOGNIZED AND ACCEPTED STANDARDS AND PROCEDURES.
- G12. COMPATIBILITY: ALL NEW ACTIVE ELECTRICAL EQUIPMENT SHALL BE COMPATIBLE WITH EXISTING EQUIPMENT (IF ANY), BY MANUFACTURER, TYPE, AND APPLICATION.
- G13. IDENTIFICATION: ALL ELECTRICAL DISTRIBUTION EQUIPMENT, TRANSFORMERS, PANELBOARDS, AND OTHER ENCLOSED EQUIPMENT SHALL BE IDENTIFIED AS INDICATED IN THE CONTRACT DOCUMENTS. IDENTIFICATION SHALL CONSIST OF PERMANENTLY ATTACHED ENGRAVED LAMINATED PLASTIC NAMEPLATES. EACH BRANCH CIRCUIT OCCURRENENT PROTECTION DEVICE SHALL BE IDENTIFIED BY CIRCUIT NUMBER AND SCHEDULED INSIDE EACH PANEL DOOR. EACH BRANCH CIRCUIT SPICE OR TERMINATION SHALL BE IDENTIFIED BY PANEL AND CIRCUIT DESIGNATION SHOWN ON THE JUNCTION OR OUTLET BOX, OR UPON INDIVIDUAL WIRES IN CASES WHERE MORE THAN ONE OF EACH PHASE CONDUCTOR OCCUR.
- G14. WIRING: ALL CONDUCTORS CARRYING GREATER THAN 70 VOLTS SHALL BE MINIMUM #12 AWG, SOLID, SOFT DRAWN COPPER OF 98% CONDUCTIVITY. INSULATION: PROVIDE THW, THHN, THWN, OR XHHW INSULATIONS. COORDINATE INSULATION TYPES WITH CONDITIONS, NEC REQUIREMENTS, AND CONDUIT FILL REQUIREMENTS. ALL WIRING SIZES ARE BASED ON 60 C OR 75 C INSULATION, ACCORDING TO CURRENT RATINGS, REGARDLESS OF ACTUAL INSULATION USED. TYPE 'AC' OR 'MC' CABLE IS ACCEPTABLE ONLY WITH TYPE THHN INSULATION.
- G15. HOMERUNS: PROVIDE MINIMUM #10 AWG WIRING ON ALL HOMERUNS LONGER THAN 100 FEET.

- G16. NEUTRALS: SIZE ALL NEUTRALS FULL UNLESS SPECIFICALLY REDUCED ON PLANS. PROVIDE DEDICATED NEUTRALS FOR ALL CIRCUITS. IF AND WHERE MULTIPLE BRANCH CIRCUITS DO SHARE A COMMON NEUTRAL, USE CIRCUITS IN A CONTIGUOUS MANNER, WITH EACH A, B, AND C PHASE COMING FROM ADJACENT CIRCUIT BREAKERS. DO NOT CIRCUIT NON-ADJACENT CIRCUITS TO THE SAME NEUTRAL. DO NOT CIRCUIT PHASES FROM ONE PANELBOARD WITH A NEUTRAL FROM A DIFFERENT PANELBOARD.
- G17. GROUNDING: GROUND ALL CIRCUITS WITH MINIMUM #12 AWG INSULATED GREEN COPPER GROUND WIRE. CONDUIT MAY NOT BE USED IN LIEU OF A GROUND WIRE.
- G18. CONDUIT: ALL WIRING CARRYING VOLTAGES GREATER THAN 50 VOLTS SHALL BE IN CONDUIT, MINIMUM 1/2" INCH. EMT IS ACCEPTABLE ONLY WITH COMPRESSION FITTINGS. FLEXIBLE METAL CONDUIT IS ACCEPTABLE ONLY WITH SEPARATE INSULATED GROUND WIRE, AND ONLY FOR SWITCH DROPS OR LIGHTING FIXTURE WHIPS, OR FOR CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION. EMT ALUMINUM CONDUIT (EMT-AL), NM-C, AND SMC ARE NOT ACCEPTABLE AND MAY NOT BE USED.
- RIGID: USE GALVANIZED RIGID STEEL CONDUIT FOR ANY SIZE OVER 2 INCHES OR WHERE EXPOSED TO WEATHER, OR WHERE CONDUIT IS EXPOSED TO POTENTIAL DAMAGE.
- IMC: INTERMEDIATE METALLIC CONDUIT MAY BE ACCEPTABLE WITH WRITTEN APPROVAL OF DESIGN PROFESSIONAL AFTER COORDINATION OF USE IN FIELD.
- PVC: PROVIDE MINIMUM SCHEDULE 40 ELECTRICAL GRADE CONDUIT. LIMIT USE OF PVC TO BELOW GRADE. USE PVC ONLY FOR STRAIGHT RUNS, NEVER FOR TURNS. INSTALL RIGID STEEL CONDUIT WITH WIDE RADIUS BENDS FOR ALL TURNS.
- CONDUIT ROUTING: CONDUIT AND CIRCUITING SHOWN ON PLANS IS SYMBOLIC AND DIAGRAMMATIC. INSTALL CONDUIT TO FIT ACTUAL FIELD CONDITIONS. DO NOT RUN CONDUIT IN OR THROUGH DUCTWORK.
- CONDUIT BELOW GRADE: COVER METALLIC CONDUIT BELOW GRADE WITH ASPHALTUM OR BITUMASTIC TAPE OR OTHER APPROVED PROTECTIVE MATERIAL. SEAL JOINTS AGAINST WATER.
- CONDUIT FITTINGS: ALL FITTINGS SHALL BE COMPRESSION OR THREADED. SET SCREW FITTINGS ARE NOT ACCEPTABLE AND MAY NOT BE USED.
- G19. CIRCUIT BREAKERS: ALL BRANCH CIRCUIT OVERCURRENT PROTECTION DEVICES SHALL BE MINIMUM 20 AMPERE INVERSE TIME TYPE CIRCUIT BREAKERS. 250V AND LESS DEVICES SHALL BE RATED MINIMUM 10,000 AIC. DEVICES HIGHER THAN 250V SHALL BE RATED MINIMUM 14,000 AIC. HIGHER REQUIREMENTS MAY BE NOTED ON SCHEDULES OR ON RISERS. MULTIPOLE BREAKERS SHALL BE INTEGRAL UNITS. HANDLE TIES MAY NOT BE USED.
- G20. FUSES: ALL FUSES 600 AMPERES OR LESS SHALL BE UL LISTED CLASS J, LOW PEAK, DUAL ELEMENT, TIME DELAY, 600 VOLTS, ACCEPTABLE MANUFACTURERS: BUSMAN, COULDS-SHAMWIT, OR AS INDICATED IN PROJECT SPECIFICATIONS. USE ONLY FUSES AT ALL SERVICE ENTRANCE EQUIPMENT, SWITCHBOARDS, AND DISTRIBUTION PANELS.
- G21. PENETRATIONS: COORDINATE FLOOR PENETRATIONS WITH ARCHITECT AND STRUCTURAL ENGINEER. FIRESTOP OPENINGS AROUND PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS, FLOORS OR CEILINGS. USE APPROVED METHODS TO MAINTAIN FIRE RESISTIVE RATINGS. WHERE CONFLICTS OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
- G22. SUBSTITUTIONS: SUBMIT TO ARCHITECT FOR APPROVAL, 10 DAYS PRIOR TO PRESENTATION TO BID TO OWNER. ANY REQUESTED ALTERNATES TO MANUFACTURERS SPECIFIED IN THE CONTRACT DOCUMENTS. ARCHITECT AND OWNER WILL CONSIDER REQUESTED ALTERNATES. IF ALLOWED, NOTICE WILL BE MADE PRIOR TO FINAL BID DATE.
- ACCEPTANCE OF SUBSTITUTIONS PRIOR TO BID DOES NOT CONFER APPROVAL OF SUBSTITUTIONS. ONLY CONDITIONAL APPROVAL IS GRANTED, SUBJECT TO FINAL DETERMINATION THAT SUBSTITUTIONS MEET OR EXCEED SPECIFIED REQUIREMENTS OR MEET OR EXCEED THE PERFORMANCE OF THE SPECIFIED PRODUCTS. SUBSTITUTIONS SUBMITTED LATER THAN 10 DAYS PRIOR WILL NOT BE CONSIDERED. THE CONTRACTOR BEARS THE BURDEN OF SHOWING PROOF THAT REQUESTED SUBSTITUTIONS PERFORM IN A MANNER EQUAL OR SUPERIOR TO THE SPECIFIED ITEM. INFORMATION SUBMITTED FOR CONSIDERATION SHOULD INCLUDE PERFORMANCE CHARACTERISTICS, ILLUSTRATIONS OF FIELD APPLICATIONS, AND COMPARISONS OF THE REQUESTED ALTERNATE ITEM(S) TO THE SPECIFIED ITEM(S) OR TO THE SPECIFIED PERFORMANCE REQUIREMENTS. THE ARCHITECT, ENGINEER, OR OTHER RELATED DESIGN PROFESSIONAL MAY REJECT SUBSTITUTIONS WHICH DO NOT MEET THE INTENDED LEVEL OF QUALITY DESIRED FOR THE PROJECT.
- SUBSTITUTION: A LUMINAIRE, FIXTURE, DEVICE, EQUIPMENT ITEM, COMPONENT, MANUFACTURER, OR OTHER MATERIAL NOT SPECIFIED IN THE CONTRACT DOCUMENTS.
- G23. SUBMITTALS: SUBMIT SHOP DRAWINGS, MANUFACTURERS' STANDARD PRODUCT INFORMATION, PERFORMANCE SPECIFICATIONS, PHYSICAL DIMENSIONS, AND OTHER INFORMATION NECESSARY FOR THE DESIGN PROFESSIONALS TO INSURE COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ORDERING AND INSTALLING ANY EQUIPMENT. INCLUDE SHOP DRAWING PREPARATION TIME, TRANSMITTAL TIME, AND APPROVAL AND REVIEW TIME IN PROJECT SCHEDULE. REFERENCE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR BEARS FULL LIABILITY FOR PROJECT DELAYS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT.
- G24. PROJECT RECORD DOCUMENTS: UPON COMPLETION OF WORK, PREPARE PROJECT RECORD DOCUMENTS ("AS-BUILTS") ON A SUITABLE REPRODUCIBLE MEDIUM (MYLAR OR VELLUM). PRESENT COMPLETED DRAWINGS TO OWNER AND AT LEAST TWO SETS OF PRINTS TO DESIGN PROFESSIONAL. INCLUDE ALL BRANCH CIRCUITS, FEEDERS, AND EQUIPMENT LAYOUTS.
- G25. WARRANTY: WARRANT ALL NEW OR EXISTING MATERIALS, EQUIPMENT, AND INSTALLATION FOR AT LEAST ONE YEAR FROM TIME OF ACCEPTANCE BY OWNER (UNLESS MORE STRINGENT WARRANTIES ARE REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS).



1 ELECTRICAL RISER DIAGRAM

- ADDITIONAL SYMBOLS
- 20A 125V 2P 3W GROUNDING SINGLE RECEPTACLE NEMA 5-20R
 - 20A, 125V, 2P 3W GROUNDING DUPLEX RECEPTACLE NEMA 5-20R
 - CEILING OUTLET WITH DUPLEX RECEPT
 - FLOOR OUTLET WITH DUPLEX RECEPT (FLUSH)
 - 20A, 125V, 2P, 3W GROUNDING QUAD RECEPTACLE NEMA 5-20R
 - INSULATED ISOLATED GROUND REQUIRED
 - GROUND FAULT INTERRUPT REQUIRED
 - WEATHERPROOF COVER REQUIRED
 - ABOVE SPLASH OR COUNTERTOP DUPLEX RECEPTACLE
 - SPLIT WIRE DUPLEX RECEPTACLE
 - 20A ? RECEPT, NEMA 14-20R
 - SPECIAL PURPOSE OUTLET (NEMA CONFIGURATION AS NOTED)
 - FLUSH FLOOR SPECIAL PURPOSE OUTLET
 - WALL MOUNTED SPECIAL PURPOSE OUTLET
 - TELEPHONE RING & STRING OUTLET
 - FLUSH FLOOR TELEPHONE OUTLET
 - DATA OUTLET
 - FLUSH FLOOR DATA OUTLET
 - COMBINATION TELEPHONE/DATA RING & STRING OUTLET
 - WALL MOUNTED JUNCTION BOX
 - CEILING MOUNTED JUNCTION BOX
 - FLOOR MOUNTED JUNCTION BOX
 - FURNITURE SYSTEM BASE POWER IN
 - FURNITURE SYSTEM DATA-TELECOMM CONNECTION
 - FLOOR MOUNTED DATA/POWER
 - DISCONNECT SWITCH
 - FUSED DISCONNECT SWITCH
 - MOTOR STARTER
 - COMBINATION STARTER & DISCONNECT SWITCH
 - MOTOR
 - HOME RUN TO PANELBOARD
 - CIRCUIT NUMBER
 - EQUIPMENT CONNECTION
 - SWITCH LEG () HOT () NEUTRAL () GROUND ()
 - CONDUIT IN CEILING OR WALL
 - CONDUIT EXPOSED
 - CONDUIT IN OR UNDER FLOOR
 - CONDUIT STUBBED DOWN
 - CONDUIT STUBBED UP
 - CONDUIT WITH BREAK SHOWN FOR GRAPHIC CLARITY
 - PANELBOARD 208Y/120V 3PH 4W
 - PANELBOARD 480Y/277V 3PH 4W
 - DRY TYPE TRANSFORMER
 - TELEPHONE BACKBOARD (TTB)
 - FIRE ALARM PULL STATION
 - FIRE ALARM HORN STROBE
 - FIRE ALARM CONTROL PANEL
 - FIRE ALARM HORN STROBE COMBINATION
 - KEYED NOTE TAG. REFERENCE KEYED NOTES ON SAME PAGE.
 - EQUIPMENT LABEL
 - WALKER RFB4 RECESSED FLOOR BOX FOR MULTIPLE SYSTEMS TO SERVICE MODULAR FURNITURE AND MILLWORK. PROVIDE INSETS AND DEVICES AS REQUIRED. FVR.
 - WALKER 880 FLUSH FLOOR BOX WITH 827 BRASS FLANGE, COORDINATE FLOOR FINISH, 2 OR 3 GANGS AS REQUIRED. PROVIDE DEVICES INDICATED. FVR. COORDINATE WITH ARCHITECT.
 - SINGLE POLE SWITCH 20A 120/277V, LEVITON DECORA, ALMOND
 - SWITCH 3-WAY 20A 120/277V, LEVITON DECORA, ALMOND
 - DIMMER SWITCH, LUTRON NOVA T-STAR, ALMOND
 - EXIT LIGHT WITH EMERGENCY HEADS
 - EXIT LIGHT SINGLE FACE (ARROW INDICATES DIRECTION)
 - EXIT LIGHT DUAL FACE
 - MOUNT EXIT LIGHTS ON WALL, CEILING, SIDE OR PENDANT, AS REQUIRED BY CEILING CONDITIONS. VERIFY ALL LOCATIONS IN FIELD WITH ARCHITECT.
 - EMERGENCY TWO HEAD LIGHT FIXTURE
 - DC
 - DOOR CONTACTS FOR ALARM SYSTEM
 - ACCESS CONTROL CREDENTIAL READER
 - MECHANICAL CYPHER LOCK
 - FLOOR BOX FOR DURESS ALARM PUSH BUTTON
 - FIRE ALARM SYSTEM HEAT DETECTOR
 - FIRE ALARM SYSTEM SMOKE DETECTOR
 - "STACKED" DEVICES, IN LINE VERTICALLY, AT DIFFERENT HEIGHTS. REFERENCE IA DWGS.

ELECTRICAL DATA TELECOMM AND SECURITY SYMBOLS

NOTE: SYMBOLS SHOWN MAY NOT ALL BE USED IN PLANS. PRESENCE OF A SYMBOL IN THIS SCHEDULE DOES NOT INDICATED PROJECT QUANTITIES, ONLY TYPES AND CONFIGURATIONS. MODEL NUMBERS GIVEN ARE FOR INDICATION OF DESIGN INTENT. OTHER MANUFACTURERS MAY BE ACCEPTABLE. REFERENCE SPECIFICATIONS FOR APPROVED MANUFACTURERS. ALTERNATES AND SUBSTITUTIONS MUST BE APPROVED BY CONSULTANT. CONTRACTOR MUST COORDINATE ANY REQUIRED MODIFICATIONS DUE TO SUBMITTED ALTERNATES AND MAKE ALL NECESSARY ADJUSTMENTS.

SPECIAL SYSTEMS NOTES FOR ELECTRICAL WORK

- S1. TELEPHONE SYSTEM: PROVIDE BACKBOARDS, CONDUITS, AND PULL STRINGS. COORDINATE WORK WITH TELEPHONE COMPANY AND TELEPHONE CONTRACTOR. COORDINATE CONDUIT ROUTING WITH FIELD CONDITIONS. PROVIDE CONDUIT FOR TRUNKS. PROVIDE CONDUIT FOR RUNS EXPOSED TO WEATHER OR DAMAGE.
- S2. TELEPHONE/DATA RECEPTABLES: FURNISH AND INSTALL 3/4" CONDUIT AND PULL STRINGS FROM OUTLETS TO 6" ABOVE CEILING. VERIFY EXACT REQUIREMENTS WITH TELEPHONE EQUIPMENT SUPPLIER AND INSTALLER. FURNISH AND INSTALL MATERIALS NOT PROVIDED BY TELEPHONE CONTRACTOR.
- S3. FIRE ALARM: VERIFY FIRE ALARM REQUIREMENTS IN FIELD WITH LOCAL AUTHORITY HAVING JURISDICTION. FURNISH AND INSTALL NEW INITIATION AND ANNUNCIATION DEVICES.

SECURITY SYSTEM BASIC ELECTRICAL MATERIALS

PROVIDE POWER AND CONDUIT FOR SECURITY SYSTEMS, INCLUDING ALL EQUIPMENT, POWER AND WIRING, CONDUIT AND CIRCUITING, BOXES, AND OTHER MATERIAL NECESSARY FOR COMPLETE SYSTEMS. COORDINATE CEILING, FLOOR, AND WALL RECEPTACLE QUANTITIES AND LOCATIONS WITH ARCHITECTURAL CONDITIONS. COORDINATE WORK WITH SECURITY SYSTEMS INSTALLERS. PROVIDE ROUGH-INS AND OTHER GENERAL MATERIALS AS NECESSARY TO ALLOW SECURITY CONTRACTORS TO COMPLETE SYSTEMS INSTALLATIONS.

System Description:
System will be designed for three separate systems through one panel—the kitchen, daily restrooms and larger restrooms.

Control panel and three keypads will be mounted in the storage room. Control panel will be approximately 12.5" H X 14" W. Keypads will be standard size and will require a single gang box for each. A duplex outlet will be required for the control panel power. Telephone line connection will use existing telephone line, it will not require a dedicated phone line.

Two motion detectors will be installed in the kitchen area. One at the northeast corner and one at the southeast corner. Each will require a single gang box mounted 7.5" to 8.0' above the finished floor. A 3/4" conduit with a pull string will provide a wiring route back to the control panel.

Door contacts will be installed at all doors except #7 (Kitchen Pantry). A 3/4" conduit and pull string to a single gang box (with cover plate) above the contact point will provide access for installing door contacts and splicing wire. The box should be centered over pairs of doors (1/2, 8 & 9) and near the jamb over the open side of single doors (3, 4, 5 & 6).

When frames are set and before they are trimmed out, Security Contractor will access the area above the door frame to install and wire contacts back to the control panel.

ELECTRICAL ABBREVIATIONS

| | | | |
|---------------|---|-----------|---|
| AHU | AIR HANDING UNIT | MCM | THOUSAND CIRCULAR MILS |
| A | AMPERES | N.I.C. | NOT IN CONTRACT |
| AFF or A.F.F. | INDICATES ABOVE FINISHED FLOOR HEIGHT NOTED | NEC | NATIONAL ELECTRICAL CODE |
| ACT | ABOVE COUNTER TOP | NF | NOT FUSED |
| BKR | BREAKER | PNL | PANEL |
| C. or COND. | CONDUIT | PDU | POWER DISTRIBUTION UNIT |
| CB | CIRCUIT BREAKER | PH | PHASE |
| CKT | CIRCUIT | P | POLE |
| CO | CONVENIENCE OUTLET | PVC | POLYVINYL CHLORIDE |
| DISC. SW. | DISCONNECT SWITCH | PWR | POWER |
| DWG | DRAWING | P.F. | POWER FACTOR |
| EC | EMPTY CONDUIT | RECPT | RECEPTACLE |
| EF | EXHAUST FAN | SPEC | SPECIFICATION |
| F/A FA | FIRE ALARM | S/N | SOLID NEUTRAL |
| FACP | FIRE ALARM CONTROL PANEL | SW | SWITCH |
| FVR | FIELD VERIFY REQUIREMENTS | THHW | MOISTURE AND HEAT RESISTANT THERMOPLASTIC INSULATED WIRE |
| GND | GROUND | THHN/THWN | MOISTURE AND HEAT RESISTANT THERMOPLASTIC INSULATED NYLON-JACKETED WIRE |
| HVAC | HEATING VENTILATION AND AIR CONDITIONING | TEL | TELEPHONE |
| HZ | HERTZ | TTB | TELEPHONE TERMINAL BOARD |
| IG | ISOLATED GROUND | TVSS | TRANSIENT VOLTAGE SURGE PROTECTION |
| KCM | THOUSAND CIRCULAR MILS | U.O.N. | UNLESS OTHERWISE NOTED |
| KVA | KILOVOLT AMPERES (1000 VOLT-AMPERES) | WP | WEATHERPROOF |
| KV | KILOVOLTS (1000 VOLTS) | XFMR | TRANSFORMER |
| KW | KILOWATTS (1000 WATTS) | | |
| MLO | MAIN LUGS ONLY | | |
| MH | MANHOLE | | |

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10/31/02
07/25/03
07/31/03

issue 50% CD
DD 95% CD
ADDENDUM 1

E3.0
ELECTRICAL
NOTES & DETAILS

Addison Arts and Events Pavilion
Addison, Texas

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