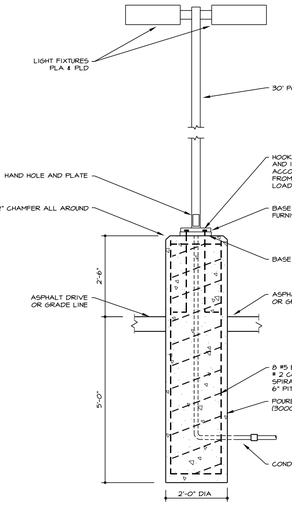
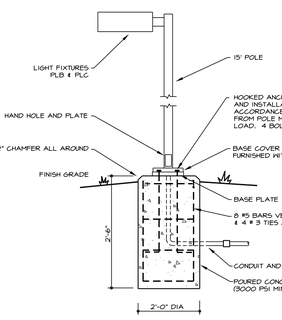



DETAIL PL-1
NOT TO SCALE

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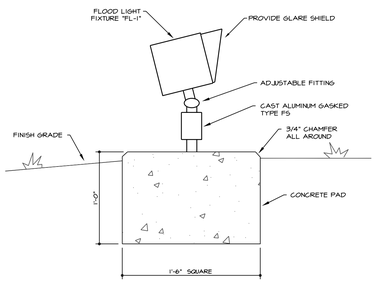


DETAIL FL-1
NOT TO SCALE

## GENERAL PROJECT NOTES:

1. ALL FEEDERS AND BRANCH CIRCUITS SHALL CONSIST OF MINIMUM #12 COPPER CONDUCTORS.
2. ALL FEEDERS AND BRANCH CIRCUIT HOMERUNS SHALL BE CONTAINED IN 3/4" MINIMUM CONDUIT.
3. ELECTRICAL CHARACTERISTICS OF PLUMBING, FIRE PROTECTION, HVAC, AND ARCHITECTURAL EQUIPMENT ARE CONTAINED IN THEIR RESPECTIVE PORTION OF THE DOCUMENTS. VERIFY THESE CHARACTERISTICS PRIOR TO INSTALLATION OF THE WORK. EXACT LOCATIONS OF VARIOUS EQUIPMENT SHALL BE SHOWN ON THEIR RESPECTIVE DRAWINGS.
4. ISOLATED GROUNDING RECEPTACLES REQUIRE TWO INSULATED GROUNDING CONDUCTORS.
5. PROVIDE FUSES IN FUSIBLE COMBINATION STARTERS AND DISCONECTS. FUSES SHALL BE SIZED PER MOTOR NAMEPLATE DATA AND THE NEC.
6. COLOR OF WIRING DEVICES AND COVERPLATES SHALL BE DETERMINED BY THE ARCHITECT.
7. REFER TO REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHT FIXTURES, EXIT SIGNS, ETC. LOCATE ALL DEVICES PER REFLECTED CEILING PLANS.
8. REFER TO REFLECTED CEILING FOR CEILING SYSTEMS SPECIFIED. COORDINATE PROPER FIXTURE MOUNTING SYSTEM FOR EACH CEILING TYPE. EXAMPLE - LAY-IN FIXTURE FOR GRID CEILINGS, FLANGE FIXTURE FOR DRYWALL OR PLASTER CEILINGS, ETC.
9. VERIFY MOUNTING HEIGHTS OF DEVICES WHERE INSTALLED ABOVE COUNTER TOPS AND IN CASEWORK WITH THE ARCHITECT BEFORE PROCEEDING WITH ROUGH-IN WORK.
10. TYPED PANELBOARD DIRECTORIES SHALL BE PROVIDED FOR ALL PANELBOARDS, USE FINAL ROOM NUMBERS PROVIDED BY OWNER. ALL PANELS TO HAVE COVERS WITH LOCKS PROVIDED.
11. 120VOLT, 20AMP BRANCH CIRCUIT HOMERUNS EXCEEDING 100 FEET IN LENGTH SHALL BE RUN WITH #10 CONDUCTORS.
12. ALL CONDUIT PENETRATIONS OF EXTERIOR BUILDING WALLS SHALL BE SLEEVED AND SEALED. SLOPE CONDUITS TO PREVENT WATER FROM DRAINING INSIDE BUILDING LINES.
13. WHERE DEVICES OCCUR ON WALLS IN CLOSE PROXIMITY TO EACH OTHER, THEY SHALL BE ALIGNED VERTICALLY ON THEIR CENTERS. EXAMPLE - FIRE ALARM HORNS AND LIGHT SWITCHES.
14. PROVIDE PULL CORDS IN ALL EMPTY RACEWAYS.
15. THE PRECISE ARRANGEMENT AND ALIGNMENT OF ALL DEVICES IS CRITICAL. TAKE CARE DURING ROUGH-IN THAT THE FINISHED DEVICE WILL BE ACCEPTABLE TO THE A/E. REFER TO THE COMPLETE SET OF DRAWINGS, INCLUDING THE INTERIOR & EXTERIOR ELEVATIONS.
16. COORDINATE LIGHTING FIXTURE LAY-OUT WITH HVAC DUCT WORK, DIFFUSERS, PLUMBING, AND OTHER TRADES.
17. ALL CIRCUITS SHALL HAVE A CODE SIZED GREEN GROUNDING CONDUCTOR.
18. ALL WIRING SHALL BE INSTALLED IN CONDUIT UNLESS NOTED OTHERWISE.
19. FOR EXACT LOCATION OF THE MECHANICAL AND PLUMBING EQIPMENT, REFER TO PLUMBING AND MECHANICAL DRAWINGS.
20. ALL GENERAL PURPOSE OUTLETS TO BE 125V, 20A.
21. WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL, STATE OF OHIO, AND NATIONAL CODES, RECOMMENDATIONS, REGULATIONS, AND REQUIREMENTS.
22. CONTRACTORS SHALL VISIT PROJECT SITE PRIOR TO BIDDING TO ASCERTAIN AND BECOME FAMILIAR WITH EXISTING CONDITIONS AS THEY PERTAIN TO THE SCOPE OF WORK. CONTRACTOR SHALL VERIFY EXACT LOCATION AND SIZES OF ELECTRICAL EQUIPMENT AND ALL OTHER APPLIANCES ASSOCIATED WITH THE WORK.
23. PHASING SHALL BE COORDINATED AND IN COMPLIANCE WITH ALL PHASING DRAWINGS, NOTES, REQUIREMENTS, AND CM. COORDINATE ANY UTILITY SHUT DOWNS, (ELECTRIC AND TELEPHONE) WITH OWNER AND PROVIDE WRITTEN NOTICE NOT LESS THAN 72 HOURS IN ADVANCE.
24. NEW SUPPORTS FOR ELECTRICAL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST SEISMIC REQUIREMENTS FOR STATE OF OHIO. CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS STEEL, ADDITIONAL BRACING, ISOLATORS, HANGERS, FASTENERS, ETC., TO MEET THESE REQUIREMENTS.
25. CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR HIS WORK. OPENINGS IN WALLS, FLOORS, AND CEILINGS DUE TO REMOVALS SHALL BE FILLED IN, PATCHED, PAINTED, AND FINISHED IN A MANNER TO MATCH THE QUALITY OF THE EXISTING, LIKE ADJACENT SURFACES.
26. NEW OPENINGS IN WALLS AND FLOORS SHALL BE CORE DRILLED OR SAW CUT. OPENINGS IN NEW WALLS AND FLOORS SHALL BE PLANNED AND COORDINATED WITH THE GENERAL CONTRACTOR FOR THE INSTALLATION OF APPROPRIATE SLEEVES.
27. CONDUIT SHALL BE CONCEALED IN CEILING OR WALLS WHENEVER POSSIBLE.
28. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE.
29. VERIFY AND COORDINATE ALL MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES MOUNTED IN CASEWORK OR ABOVE COUNTERS WITH SPECIFIC EQUIPMENT FURNISHED.
30. REFER TO MOUNTING HEIGHT DETAIL FOR DEVICE REQUIREMENTS.
31. NO MORE THAN 6 PHASE CONDUCTORS SHALL BE INSTALLED IN ANY ONE CONDUIT, UNLESS NOTED OTHERWISE.
32. GRID MOUNTED LIGHTING FIXTURES SHALL BE SUPPORTED AS FOLLOWS:
    a. FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE WITH CEILING SUPPORT WIRES ATTACHED AT ALL FOUR CORNERS OF FIXTURE.
33. PROVIDE ALL EXCAVATION AND BACKFILLING FOR ELECTRICAL INSTALLATIONS. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
34. REFER TO MECHANICAL, PLUMBING BOILER ROOM DETAILS AND SITE UTILITY PLAN AND COORDINATE WITH ALL OTHER TRADES TO AVOID CONFLICT IN THE "MECHANICAL YARD" FOR ELECTRICAL WORK.
35. CONTINUOUS EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL CIRCUITS BONDED TO ALL GROUND LUGS, BUSSING, SWITCHES, RECEPTACLES, EQUIPMENT FRAMES, ETC., PER THE NATIONAL ELECTRICAL CODE. THE MAIN FACILITY GROUNDING FIELD ELECTRODE SYSTEM TO GROUND SHALL BE 5 OHMS OR LESS.
36. COORDINATE SERVICE ENTRANCE REQUIREMENTS WITH LOCAL UTILITY SERVICE COMPANIES FOR ELECTRICAL ENERGY, TELEPHONE, AND CABLE TELEVISION.
37. ELECTRICAL BRANCH CIRCUITS TO 5 HORSEPOWER, 3-PHASE, AND LARGER MOTORS FOR AIR-HANDLING UNITS, EXHAUST FANS, PUMPS, CHILLERS, AND CONDENSING UNITS SHALL BE PROVIDED WITH PHASE LOSS PROTECTION. PROTECTION SHALL PREVENT EQUIPMENT FROM SINGLE PHASING. PHASE LOSS PROTECTION EQUIPMENT SHALL BE INTEGRAL TO STARTERS OR VARIABLE FREQUENCY DRIVES SERVING THE EQUIPMENT.
38. VOLTAGE DROP FOR FEEDERS BETWEEN THE SERVICE ENTRANCE EQUIPMENT AND THE BRANCH CIRCUIT DISTRIBUTION EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF ASHRAE STANDARD 90-1-2001.
39. DUPLEX RECEPTACLES WITHIN 6 FEET OF PLUMBING FIXTURE UNITS SHALL BE GROUND FAULT PROTECTED. THESE RECEPTACLES SHALL BE PROTECTED BY A GROUND FAULT CIRCUIT BREAKER OR AN INTEGRAL GROUND FAULT DEVICE.
40. PREKINDERGARTEN / KINDERGARTEN CLASSROOMS AND THEIR AUXILIARY SPACES SHALL HAVE DUPLEX, TAMPER-RESISTANT RECEPTACLES INSTALLED.
41. THE CONTRACTOR SHALL DETERMINE THE RATINGS OF ALL REQUIRED DISCONNECTS IN ACCORDANCE WITH NEC REQUIREMENTS.
42. SEAL ALL EXTERIOR SURFACES PENETRATED BY WIRING AND RACEWAYS TO MAKE IT WATERTIGHT.
43. PROVIDE ALL FRAMING AND STRUCTURAL SUPPORTS NECESSARY FOR ELECTRICAL MATERIALS, DEVICES, EQUIPMENT, AND FIXTURES.
44. PROVIDE THROUGH-PENETRATION FIRE STOP SYSTEMS IN ALL ELEVATED FLOOR PENETRATIONS AND IN ALL PENETRATIONS OF FIRE RATED WALLS. FLOOR PENETRATION FIRE STOPS SHALL HAVE 2 HOUR MINIMUM F RATING AND WALL PENETRATION FIRE STOPS SHALL HAVE F RATING TO MATCH THE FIRE RATING OF THE WALL.
45. RACEWAYS SHALL NOT OCCUPY SPACE SHOWN ON HVAC PLANS TO BE OCCUPIED BY DUCTWORK OR MECHANICAL PIPING.
46. RACEWAYS SHALL BE INSTALLED PARALLEL TO BUILDING LINES.
47. RACEWAYS ABOVE CEILINGS SHALL BE INSTALLED AS HIGH AS POSSIBLE.
48. DO NOT INSTALL RACEWAYS IN AIR DUCTS.
49. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING RACEWAY SIZES AND QUANTITIES AND FOR DETERMINING HOW CONDUCTORS ARE TO BE GROUPED IN RACEWAYS IN ACCORDANCE WITH NEC REQUIREMENTS WHERE NOT INDICATED ON DRAWINGS NOR IN SPECIFICATIONS.
50. EXTERIOR ELECTRICAL EQUIPMENT AND DEVICES SHALL BE HOUSED IN NEMA TYPE 3R ENCLOSURES.
51. PROVIDE UL LISTED SHALLOW BOXES AND UL LISTED DEVICES FOR USE WITH SHALLOW BOXES IN FURRED WALLS. USE STANDARD DEEP BOXES FOR NEW WALLS.
52. LIGHTING AND APPLIANCE PANELBOARDS SHALL BE CIRCUIT BREAKER PANELBOARDS.
53. LOW VOLTAGE WIRING FOR FIRE ALARM SYSTEMS SHALL BE INSTALLED IN SEPARATE RACEWAYS AS SPECIFIED FOR POWER WIRING.
54. BEFORE ROUGH-IN WIRING BEGINS THE ELECTRICAL CONTRACTOR SHALL REVISE THE PLANNED MOUNTING HEIGHTS OF ANY DEVICE WHICH WOULD OTHERWISE BE LOCATED BEHIND SPLASH BLOCKS, SHELVING, CABINETRY, CHALKBOARDS OR TACKBOARDS. WHERE THE CORRECT MOUNTING HEIGHT IS NOT OBVIOUS, VERIFY REVISED MOUNTING HEIGHT WITH ENGINEER. VERIFY AND COORDINATE PRIOR TO ANY ROUGH-IN AND LOCATE AS DIRECTED WITHOUT ADDITIONAL COST.
55. PROVIDE ISOLATION AND GROUNDING FOR CIRCUITS POWERING SOUND SYSTEMS AND EQUIPMENT AND DEVICES TO MEET EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
56. PRIOR TO ROUGH-IN OF FLOOR BOXES. VERIFY EXACT LOCATION OF FLOOR BOX WITH OWNER AND LOCATE AS DIRECTED. PROVIDE ALL NECESSARY LABOR AND MATERIALS TO EXTEND SAME AS REQUIRED.
57. THE AREA ABOVE AND AROUND NEW EQUIPMENT, BOILER, AND AIR HANDLERS IS TO BE KEPT FREE OF CONDUIT THAT DOES NOT CONNECT TO THAT EQUIPMENT. ALSO NO CONDUIT SHALL BLOCK OR INTERFERE WITH MAINTENANCE, EQUIPMENT DOOR OPENINGS ETC.,
58. WHERE FLOORS ARE SAW CUT AND/OR DISTURBED, REMOVED, ETC., THE CONTRACTOR RESPONSIBLE FOR CUTTING AND REMOVING FLOOR PORTIONS SHALL BE RESPONSIBLE FOR REPAIRING AND KEEPING IN SERVICE ANY PIPING, CONDUIT, WIRING ETC., AT HIS EXPENSE. THIS NOTE APPLIES TO ALL ELECTRICAL DRAWINGS AS THOUGH STATED THEREON IN FULL.
59. BOTTOM OF RECEPTACLES, DEVICES, AND BOXES ABOVE THE CASEWORK TO BE +6" ABOVE TO THE TOP OF THE CASEWORK UNLESS NOTED OTHERWISE.
60. GYMNASIUM SCOREBOARD. COORDINATE LOCATION, M.H. PRIOR TO ROUGH-IN.
61. ALL SYSTEMS, EQUIPMENT, AND COMPONENTS REQUIRING PROGRAMMING AND/OR LABELING SHALL BE PROGRAMMED AND/OR LABELED USING THE OWNER'S FINAL ROOM NUMBER SCHEME. ANY PROGRAMMING, IDENTIFICATION, OR LABELING DONE UTILIZING ROOM NUMBERS MATCHING THE CONSTRUCTION DRAWINGS INSTEAD OF THE OWNER'S FINAL ROOM NUMBERS SHALL RESULT IN A REQUIREMENT FOR THE CONTRACTOR TO REPROGRAM AND RELABEL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE FINAL ROOM NUMBERING SCHEME IN WRITING WITH THE ARCHITECT BEFORE BEGINNING ANY PROGRAMMING OR LABELING.
62. PROVIDE SEISMIC RESTRAINT TO CONFORM TO THE 2005 OHIO BUILDING CODE FOR SEISMIC DESIGN. SEE PROJECT SPECIFICATIONS FOR SECTIONS ON SEISMIC CONTROLS FOR PLUMBING, MECHANICAL, AND ELECTRICAL ITEMS. REFER TO BASE BID DRAWINGS FOR ANY TYPICAL SEISMIC RESTRAINT DETAILS. PROVIDE COORDINATION WITH ALL PROJECT CONTRACTORS, SUB CONTRACTORS, SUPPLIERS, AND CONSTRUCTION MANAGER PRIOR TO ALL CONSTRUCTION ACTIVITIES. SEE STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR SEISMIC DESIGN CRITERIA.
63. ALL CONDUITS SUSPENDED IN THE BOILER ROOM TO BE HUNG ON HANGERS WITH SPRING ISOLATORS.

## LIGHTING NOTES

1. ILLUMINATED EXIT SIGNS SHALL HAVE ILLUMINATED ARROWS SHOWING DIRECTION OF EGRESS.
2. SEE SCHEDULE AND PLAN FOR MOUNTING HEIGHT OF WALL MOUNTED PENDANT AND CHAIN HUNG LIGHTING FIXTURES. WHERE NOT SHOWN, VERIFY WITH ENGINEER AND LOCATE AS DIRECTED.
3. ELEVATIONS NOTED ON PLANS ARE TO BOTTOM OF LIGHTING FIXTURE.
4. VERIFY EXACT LOCATIONS OF FIXTURES NOT DIMENSIONED AND NOT OBVIOUS FROM REFLECTED CEILING PLAN WITH OWNER.
5. FLUORESCENT 4' LAMPS, UNLESS OTHERWISE INDICATED, SHALL BE T-8, 32 WATT, 3500K AS MANUFACTURED BY SYLVANIA, PHILLIPS OR G.E.
6. HIGH PRESSURE SODIUM AND METAL HALIDE LAMPS SHALL BE SYLVANIA, PHILLIPS OR G.E.
7. DETERMINATION OF APPROPRIATE EXIT SIGN MOUNTING ARRANGEMENT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY. WHERE POSSIBLE, PROVIDE BACKSIDE, SURFACE MOUNTED EXIT SIGNS ABOVE DOORS. WHERE DOOR TRANSOMS PREVENT THIS, PROVIDE CEILING MOUNTED EXIT SIGNS WITH FINISHED BACKS. WHERE CEILING MOUNTED EXIT SIGNS CAN DESIGNATE THE EXIT PATH FROM BOTH DIRECTIONS, PROVIDE DOUBLE FACED EXIT SIGNS. EXIT SIGNS LETTERING COLOR SHALL MATCH SCHOOL SYSTEMS STANDARD EXIT LIGHT COLOR. VERIFY PRIOR TO ORDERING EXIT LIGHTS.
8. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF LIGHT FIXTURES AND ANY OTHER ELECTRICAL ITEMS SHOWN ON LIGHTING PLAN THAT ARE LOCATED IN THE CEILING AND LOCATE AS SHOWN THEREON. EXTEND WIRE AND CONDUIT TO THESE LOCATIONS AS REQUIRED.
9. SEE ARCHITECTURAL PLANS, REFLECTED CEILING PLANS, SECTIONS, ETC FOR LOCATION OF ALL BULKHEADS, CEILINGS, CEILING TYPES, HEIGHTS, ETC AND COORDINATE ALL WORK WITH SAME.
10. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND SIZE OF ALL MECHANICAL EQUIPMENT SHOWN ON THE DRAWINGS.
11. ARRANGE ALL POWER WIRING IN CONDUIT SO THAT IT IS A MINIMUM OF 5" CLEAR FROM ANY AND ALL PARTS OF DATA WIRING - COORDINATE.
12. SUPPORT LIGHTING WHIPS FROM STRUCTURE. DO NOT ALLOW LIGHTING WHIP TO LAY ON LIGHT FIXTURE OR CEILING AND/OR GRID.

## GENERAL ELECTRICAL AND SYSTEMS NOTES

1. NOTE NOT USED.
2. COORDINATE ALL EXTERIOR UTILITY WORK WITH THE EFFECTED UTILITY COMPANY OR LOCAL GOVERNING AUTHORITY. THIS NOTE APPLIES TO SHUTTING OFF OR TURNING ON SERVICES AS WELL AS PHYSICAL WORK ON SYSTEMS.
3. WHERE ITEMS WHICH NEED TO BE ACCESSIBLE FOR EITHER OPERATION OR MAINTENANCE ARE INSTALLED IN INACCESSIBLE LOCATIONS, THE CONTRACTOR WHO INSTALLS THE ITEM SHALL PROVIDE AN ACCESS DOOR COMPLYING WITH SPECIFICATIONS AND UL LABELED IF INSTALLED IN A FIRE RATING OF THE WALL OR CEILING. ACCESS PANEL FIRE RATING SHALL MATCH THE RATING OF THE WALL OR CEILING. ACCESS DOORS SHALL BE SIZED AND LOCATED SO AS TO MAKE CONCEALED ITEMS READILY ACCESSIBLE. MINIMUM SIZE SHALL BE 1'-4 x 1'-4". SUBMIT ACCESS DOORS AND A SCHEDULE FOR APPROVAL.
4. NOTE NOT USED.
5. NOTE NOT USED.
6. EACH CONTRACTOR SHALL PROVIDE ALL EXCAVATION AND BACK FILL REQUIRED IN ORDER TO COMPLETE INSTALLATION OF THEIR REQUIRED SYSTEMS, MATERIALS AND EQUIPMENT. THE DRAWINGS SHOW SOME INFORMATION RELATIVE TO EXISTING UNDERGROUND ITEMS. THIS INFORMATION SHOWN WAS OBTAINED THROUGH RESEARCH OF RECORDS AND MAY NOT MATCH ACTUAL EXISTING CONDITIONS. ITEMS MAY EXIST IN LOCATIONS OTHER THAN WHERE SHOWN AND ITEMS MAY EXIST WHICH ARE NOT SHOWN. NOTIFY ALL POTENTIAL UTILITY OWNERS AT LEAST 7 DAYS BEFORE BEGINNING ANY EXCAVATION. EACH CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR IDENTIFYING AND LOCATING ALL EXISTING UNDERGROUND ITEMS WITHIN 25 FEET OF PLANNED EXCAVATION BEFORE BEGINNING ANY EXCAVATION WORK. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND COST REIMBURSEMENT REQUIRED BECAUSE OF DAMAGE DONE TO EXISTING UNDERGROUND ITEMS BY THEIR FORCES.
7. ALL BACK FILL AND COMPACTION FOR NEW OR REMOVED UTILITY EXCAVATION SHALL COMPLY WITH DIVISION 2 SPECIFICATIONS.
8. NOTE NOT USED.
9. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND SIZE OF ALL MECHANICAL EQUIPMENT SHOWN ON ELECTRICAL DRAWINGS.
10. ARRANGE ALL POWER WIRING IN CONDUIT SO THAT IT IS A MINIMUM OF 5" CLEAR FROM ANY AND ALL PARTS OF EXISTING AND/OR NEW CABLE TRAYS.
11. WHERE POWER OUTLETS OR QUADRAPLEX RECEPTACLES OCCUR BELOW CHALKBOARDS, LOCATE ON ℄ OF CHALKBOARDS.
12. WHERE POWER OUTLETS OR QUADRAPLEX RECEPTACLES OCCUR BELOW TACKBOARDS, LOCATE ON ℄ OF TACKBOARDS.
13. ALL CONDUITS 2 1/2" AND LARGER, CABLE TRAY AND LARGE ELECTRICAL ITEMS SHALL BE SUPPORTED FROM BOTTOM CHORD OF STEEL JOIST. PROVIDE APPROPRIATELY SIZED UNI-STRUT MEMBERS BETWEEN STEEL JOIST WHERE HANGER RODS OCCUR BETWEEN JOIST. PROVIDE BEAM CLAMPS OR OTHER APPROVED MEANS OF ATTACHMENTS FOR ATTACHING HANGER RODS AND/OR UNI-STRUT CROSS SUPPORTS TO BOTTOM CHORDS OF JOIST. SUPPORTS AND ATTACHMENTS SHALL BE PROPERLY SIZED FOR LOADS WHICH THEY ARE INTENDED TO SUPPORT. WELDING SUPPORTS OR ATTACHMENTS TO STEEL JOIST SHALL NOT BE PERMITTED.
14. ALL HANGERS THAT ARE SUPPORTED FROM STEEL JOISTS SHALL BE ATTACHED TO THE BOTTOM CHORD OF THE STEEL JOISTS WITHIN 2 INCHES OF A PANEL POINT WHEREVER POSSIBLE. ALL HANGER ATTACHMENTS NOT WITHIN 2 INCHES OF A PANEL POINT OR THAT EXCEED 100 POUND LOADING MUST BE REINFORCED PER WEB REINFORCEMENT DETAIL ON THE STRUCTURAL DRAWINGS (WEB STIFFENER MATERIAL AND WELDING BY STRUCTURAL STEEL CONTRACTOR). COORDINATE THESE LOCATIONS WITH THE STRUCTURAL STEEL CONTRACTOR BEFORE INSTALLING PIPES OR DUCTS. WEB REINFORCEMENT MUST BE INSTALLED BEFORE CONCENTRATED LOADS ARE APPLIED.
15. CONDUIT AND CABLE TRAY HANGERS AND SUPPORTS SHALL BE STAGGERED ON DIFFERENT JOISTS TO EVENLY SPREAD LOADS TO ALL JOISTS. COORDINATE LOCATION OF HANGERS WITH ELECTRICAL AND FIRE PROTECTION CONTRACTORS BEFORE INSTALLING HANGERS.
16. WHENEVER CONDUITS AND CABLE TRAY PASS UNDER GIRDERS AND BEAMS, PROVIDE HANGERS AND SUPPORTS AT THESE STRUCTURAL MEMBERS FIRST AND THEN DIVIDE UP THE REMAINDER OF THE HANGERS AND SUPPORTS EVENLY ON THE JOISTS.
17. COORDINATE WITH ANY CONTRACTOR INSTALLING PIPING OR DUCTS TO ASSURE THAT ALL PIPING AND DUCTWORK IS LOCATED SO THAT IT DOES NOT RUN OVER ANY ELECTRICAL OR ELECTRONIC EQUIPMENT, INCLUDING BUT NOT LIMITED TO ELECTRICAL PANELS, SWITCHGEAR, TRANSFORMERS AND CONTROL PANELS.
18. FOR ISOLATED GROUNDING TYPE RECEPTACLES, PROVIDE SEPERATE GROUND AND SEPERATE NEUTRAL WIRES FROM CIRCUIT BREAKER PANELBOARD TO RECEPTACLE.

## FLOOR BOX SCHEDULE

| MARK | USE AND DESCRIPTION | CATALOG NO. (SLAB ON GRADE) WALKER * | REMARKS |
|---|---|---|---|
| | FLUSH MOUNTED FLOOR BOX FOR MOUNTING IN CONCRETE FLOOR WITH TWO DUPLEX RECEPTACLES, AND COMMUNICATION BRACKETS WITH ALL NECESSARY ACCESSORIES TO MAKE A COMPLETE SYSTEM | (1) RFB4-C-I-1<br>(2) CLT-4TKO<br>(1) 5380BTCAL | VERIFY FLOOR SURFACE WITH FINISH SCHEDULE |
| a | FLUSH MOUNTED FLOOR BOX FOR MOUNTING IN CONCRETE FLOOR WITH TWO DUPLEX RECEPTACLES, AND COMMUNICATION BRACKETS WITH ALL NECESSARY ACCESSORIES TO MAKE A COMPLETE SYSTEM | (1) RFB4-SS<br>(2) RFB-RB-SS<br>(2) RFB-4TKO-SS<br>(1) 5380BTCAL | VERIFY FLOOR SURFACE WITH FINISH SCHEDULE |
| b | FLUSH MOUNTED FLOOR BOX FOR MOUNTING IN CONCRETE FLOOR WITH TWO DUPLEX RECEPTACLES AND ALL NECESSARY ACCESSORIES TO MAKE A COMPLETE SYSTEM | 880 OMNIBOX SERIES<br>88CM2 - TWO GANG BOX<br>821TCAL - TWO GANG BRUSHED AL. FLANGE<br>828R-TCAL - DUPLEX BRUSHED AL. COVER PLATE | VERIFY FLOOR SURFACE WITH FINISH SCHEDULE |

NOTE: REFER TO AND COORDINATE WITH "HEAPY ENGINEERING LLC" DRAWINGS FOR SUITABLE COMMUNICATION COMPONENTS PRIOR TO ORDERING AND ROUGH-IN.

* HUBBLE AND AMP SHALL BE CONSIDERED AS EQUALS
* DO NOT PIERCE VAPOR BARRIERS FOR SLABS ON GRADE.
* FLOOR BOX SHALL BE SECURED AND ADJUSTED TO BE LEVEL PRIOR TO POURING OF CONCRETE FLOOR SLAB.

## ELECTRICAL SYMBOLS AND ABBREVIATIONS

THIS IS A GENERAL LIST. ALL SYMBOLS AND ABBREVIATIONS IN THIS LIST ARE NOT NECESSARILY USED IN THIS SET OF CONSTRUCTION DOCUMENTS.

- CM - CONSTRUCTION MANAGER
- A/E - ARCHITECT/ENGINEER
- E.C. - ELECTRICAL CONTRACTOR
- M.C. - MECHANICAL CONTRACTOR
- S.M.C. - SHEET METAL CONTRACTOR
- T.C.C. - TEMPERATURE CONTROL CONTRACTOR
- I.G. - ISOLATED GROUND
- F.S.E.C. - FOOD SERVICE EQUIPMENT CONTRACTOR
- F.A.C.P. - FIRE ALARM CONTROL PANEL
- T.C. - TEMPERATURE CONTROL
- EM - EMERGENCY
- SW - SWITCH
- HD - HAND DRYER OR HAIR DRYER
- CH - CABINET HEATER
- EF - EXHAUST FAN
- UH - UNIT HEATER
- W.P. - WEATHER PROOF
- A.F.F. - ABOVE FINISH FLOOR
- TRF - TRANSFORMER
- GFI - GROUND FAULT INTERRUPTER
- C/T - CURRENT TRANSFORMER
- MFR. - MANUFACTURER
- BRK. - BREAKER
- CIRC. - CIRCUIT
- HP - HORSE POWER
- P - POLE OR PHASE
- TYP. - TYPICAL
- BAS - BUILDING AUTOMATIC SYSTEM - SEE TEMPERATURE CONTROL SPECS.
- F.H.P. - FRACTIONAL HORSE POWER
- $ - 1 POLE SWITCH
- $3 - 3 WAY SWITCH
- $4 - 4 WAY SWITCH
- $D - DIMMER SWITCH
- $K - KEY OPERATED SWITCH
- $IL - INTERCHANGEABLE SWITCH IN TRIMLINE BOX AND PLATE
- $P - SWITCH WITH PILOT LIGHT
- $S - SUBSCRIPT DESIGNATES SWITCHING ARRANGEMENT
- $PB - PUSH BUTTON ELECTRONIC TIMER SWITCH
- $OS - 1 POLE SWITCH WITH INTEGRATED MOTION DETECTOR
- $LOM - LIGHTING CONTROL OVER RIDE SWITCH (KEY OPERATED, MOMENTARY CONTACT)
- $M - F.H.P. MOTOR SWITCH WITH THERMAL OVERLOAD PROTECTION (SEE SPECS.)
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE IN FLOOR BOX - SEE FLOOR BOX SCHEDULE
- QUADRAPLEX RECEPTACLE IN FLOOR BOX - SEE FLOOR BOX SCHEDULE
- GFI TYPE DUPLEX RECEPTACLE
- WP - WEATHERPROOF DUPLEX RECEPTACLE
- DUPLEX DUPLEX OR QUADRAPLEX RECEPTACLE
- 208V RECEPTACLE
- REC - CEILING MOUNTED DUPLEX RECEPTACLE FOR VIDEO PROJECTOR
- TR - TAMPER RESISTANT DUPLEX RECEPTACLE
- TRQ - TAMPER RESISTANT QUAD. RECEPTACLE
- SPECIAL RECEPTACLE (SEE DRAWING FOR SPEC.)
- HOMERUN
- ONE PHASE WIRE AND NEUTRAL
- TWO PHASE WIRES AND NEUTRAL
- THREE PHASE WIRES AND NEUTRAL
- MOTOR
- MOTOR STARTER
- COMBINATION MOTOR STARTER AND DISCONNECT SUBSCRIPT DESIGNATES TYPE - SEE SPECS
- FUSED OR NON-FUSED DISCONNECT AS CALLED FOR ON PLANS
- PHOTO CELL FOR EXTERIOR LIGHTS WHERE CALLED FOR
- SINGLE FACED CEILING MOUNTED EXIT LIGHT
- DOUBLE FACED CEILING MOUNTED EXIT LIGHT
- WALL MOUNTED EXIT LIGHT
- WG - WALL MOUNTED EXIT LIGHT WITH WIRE GAURD
- NUMERICAL SUBSCRIPT DESIGNATES EXIT LIGHT CIRCUIT NUMBER
- GROUND WIRE WHEN SHOWN ON CIRCUITRY
- EQUIPMENT TAG
- TC - RELAY FOR EXHAUST FANS, EXTERIOR LIGHTS, AND INTERIOR LIGHTS
- EM - EMERGENCY TRANSFER LIGHTING RELAY
- FACP - MAIN FIRE ALARM CONTROL PANEL
- ANN - FIRE ALARM GRAPHIC ANNUNCIATOR
- F - FIRE ALARM PULL STATION
- H/S - HORN STROBE - ADA RATED MOUNTED AT ADA HEIGHT
- S - STROBE LIGHT - ADA RATED MOUNTED AT ADA HEIGHT
- T - TAMPER SWITCH
- F - FLOW SWITCH
- SV - SUPERVISORY SWITCH
- A - AREA SMOKE DETECTOR
- D - DUCT SMOKE DETECTOR
- H - HEAT DETECTOR
- H - DOOR HOLD OPEN DEVICES
- DS - DRILL SWITCH
- SP - SINGLE BOX WITH BLANK DEVICE PLATE
- 2P - 2 GANG BOX WITH BLANK DEVICE PLATE
- C - CONTACTOR
- CAP - CAPACITOR
- VFD - VARIABLE FREQUENCY DRIVE
- SS - SURGE SUPPRESSOR
- M/S - CEILING MOUNTED COMBINATION ULTRA SONIC/INFRARED MOTION DETECTOR
- M - POWER PACK FOR CEILING MOUNTED COMBINATION MOTION DETECTOR.
- R - EM - EMERGENCY TRANSFER RELAY
- a - EEM - 3 - NUMERICAL SUBSCRIPT DESIGNATED EMERGENCY CIRCUIT NUMBER

## LINE LEGEND

- GONDUIT AND / OR WIRING ABOVE SLAB OR GRADE
- GONDUIT AND / OR WIRING BELOW SLAB OR GRADE
- —E— ELECTRIC UTILITY LINE
- —T— TELEPHONE LINE
- —EM— EMERGENCY WIRING AND CONDUIT ABOVE CEILING
- —CTV— CABLE TV SERVICE
- —FO— FIBER OPTIC SERVICE

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## SHEET NOTES:

### SITE LIGHTING NOTES:

1. PROVIDE 3 #12 IN 3/4" SCH. 40 PVC CONDUIT, 36" CLEAR BELOW FINISH GRADES AND SURFACES.
2. WIRE EXTERIOR LIGHT CIRCUIT ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH TEMPERATURE CONTROL SUPPLIER.

### GENERAL NOTES:

1. DIVISION 16 CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING EXACT LOCATION OF SITE LIGHTING POLES, FOUNDATIONS, WIRING AND CONDUIT WITH ALL OTHER TRADES TO AVOID CONFLICTS WITH OTHER TRADES WORK AND UNDERGROUND ITEMS.
2. CONTRACTOR SHALL BE AWARE OF POSSIBLE UNDERGROUND ITEMS THAT ARE NOT SHOWN AND SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO EXISTING OR NEW UNDERGROUND SERVICES DURING HIS WORK.

SITE LIGHTING PLAN

SCALE: 1" = 30'-0" E2.1

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| 2 | BID PHASE SUBMISSION | 12/01/06 |
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Dayton, Ohio 45403
Montgomery County

SITE LIGHTING PLAN

Date 6/9/2006
Comm. No. 05201.04
Drawn M.A.R.
Checked D.R.M.
Drawing No. E2.1
Client No. DAY019.02 DAY019.04

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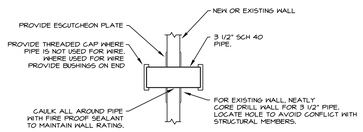
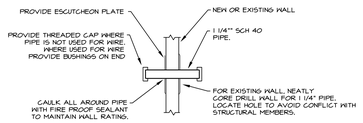



DETAIL (SYS-1)
NOT TO SCALE

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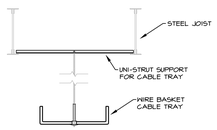


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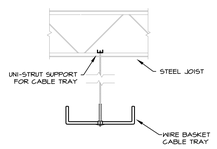


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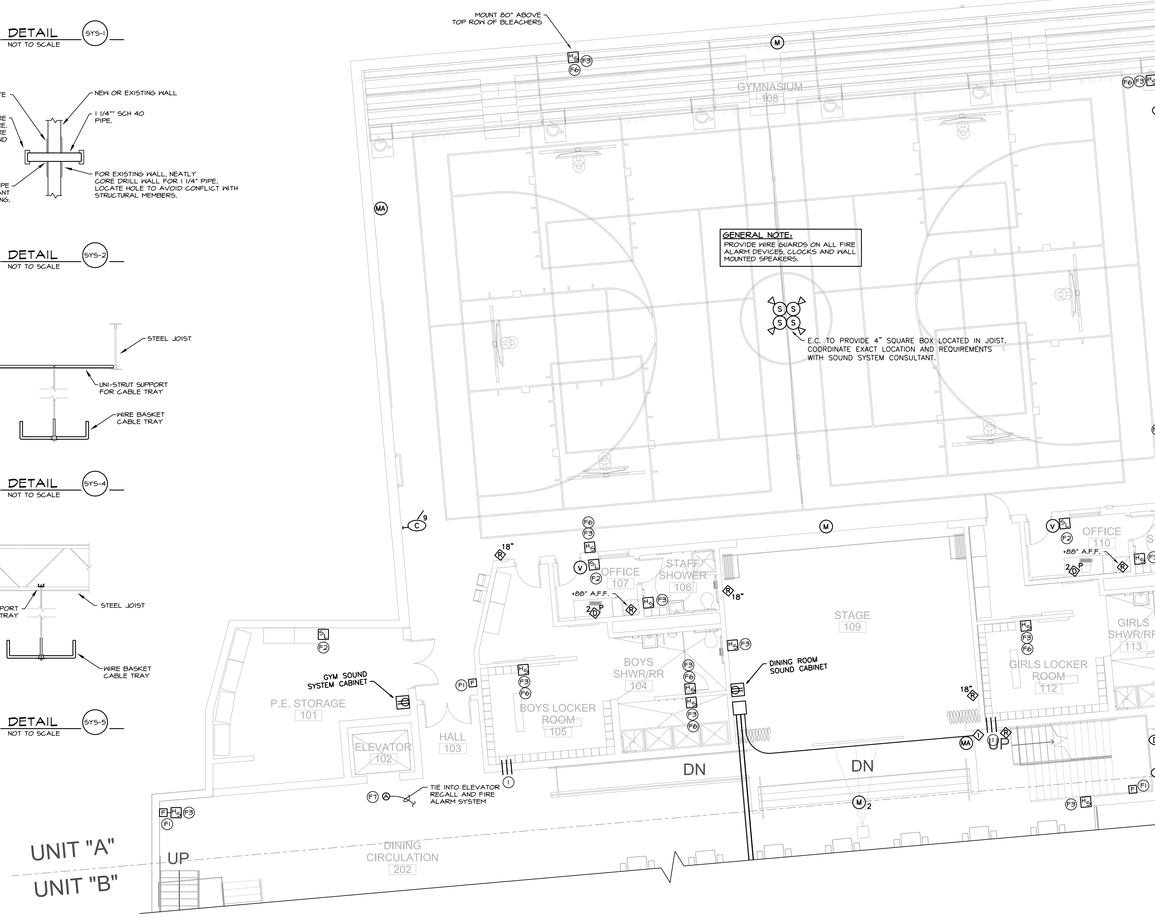
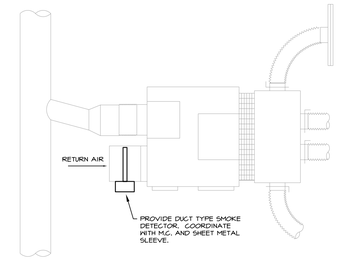
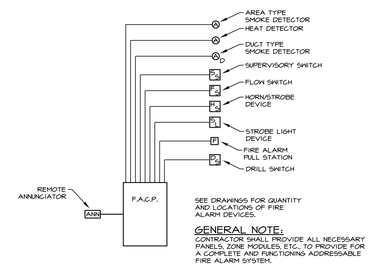



FAN POWERED VAV TERMINAL UNIT
2000 CFM OR LARGER WITH
DUCT TYPE SMOKE DETECTOR

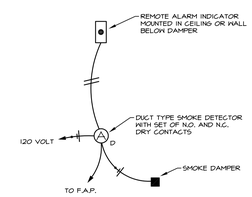
DETAIL (SYS-3)
NOT TO SCALE




GENERAL NOTE:
CONTRACTOR SHALL PROVIDE ALL NECESSARY PANELS, ZONE MODULES, ETC., TO PROVIDE FOR A COMPLETE AND FUNCTIONING ADDRESSABLE FIRE ALARM SYSTEM.

FIRE ALARM SYSTEM SCHEMATIC RISER

DETAIL (SYS-6)
NOT TO SCALE




DUCT DETECTOR FOR SMOKE DAMPER

DETAIL (SYS-7)
NOT TO SCALE

SHEET NOTES:

FIRE ALARM SYSTEM NOTES:

1. PROVIDE FLUSH MOUNTED FIRE ALARM PULL STATION IN WALL WITH WIRING IN CONCEALED EMT CONDUIT TO ABOVE CEILING BACK TO F.A.C.P.
2. PROVIDE FLUSH MOUNTED STROBE LIGHT DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.
3. PROVIDE FLUSH MOUNTED HORN/STROBE DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.
4. PROVIDE DUCT TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.
5. PROVIDE DUCT TYPE SMOKE DETECTOR FOR RETURN AIR SIDE OF VAV BOX. SEE DETAIL SYS-3 ON THIS SHEET.
6. PROVIDE WIRE GUARD ON FIRE ALARM DEVICE.
7. PROVIDE AREA SMOKE DETECTOR WITHIN 5'-0" OF ELEVATOR DOORS FOR ELEVATOR RECALL.

GENERAL SYSTEMS NOTES:

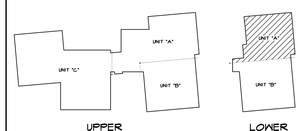
1. PROVIDE 3 - 1 1/4" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE CEILINGS.
2. PROVIDE 4 - 3 1/2" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE ACCESSIBLE CEILING.
3. FOR WALL MOUNTED SECURITY CAMERAS, PROVIDE BOX.
4. FOR SECURITY DOOR CONTACTS, PROVIDE CONDUIT AND WIRING. COORDINATE.
5. COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT. COORDINATE POWER OUTLET LOCATION PRIOR TO ROUGH-IN.
6. COORDINATE LOCATION MOUNTING HEIGHT AND OTHER REQUIREMENTS WITH ARCHITECT / CASEWORK SUPPLIER PRIOR TO ROUGH-IN. COORDINATE WITH POWER OUTLET.
7. ADDITIONAL SLEAVES AS REQUIRED.
8. PROVIDE ALL FIRESTOPS AS REQUIRED.
9. LUGS FOR TECHNOLOGY GROUNDING IN TGC AND 'IDF' FROM GROUND BAR TO THE EQUIPMENT BY OTHERS.

NOTE:
REFER TO 'HEAPY ENGINEERING LLC' DRAWINGS FOR COORDINATION OF WORK WITH DIV.17.

NOTE:
SEE SHEET E3.6 FOR LEGEND AND NOTES.

NOTE:
DEVICES NOT SPECIFIED IN THE ' SYSTEM LEGEND AND NOTES ' BUT SHOWN IN THE DRAWINGS ARE FOR REFERENCE ONLY.

UNIT "A" LOWER LEVEL
SYSTEMS PLAN
SCALE: 1/8" = 1'-0" E3.1




KEY PLAN NO SCALE

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Montgomery County

UNIT "A" LOWER LEVEL SYSTEMS PLAN

Comm. No. 05201.04
Date 6/9/2006
Drawn C.J.M.
Checked D.R.M.
Drawing No. E3.1
Client No. DAY019.02 DAY019.04

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## SHEET NOTES:

### FIRE ALARM SYSTEM NOTES:

(F1) PROVIDE FLUSH MOUNTED FIRE ALARM PULL STATION IN WALL WITH WIRING IN CONCEALED EMT CONDUIT TO ABOVE CEILING BACK TO F.A.C.P.

(F2) PROVIDE FLUSH MOUNTED STROBE LIGHT DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.

(F3) PROVIDE FLUSH MOUNTED HORN/STROBE DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.

(F4) PROVIDE DUCT TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

(F5) PROVIDE DUCT TYPE SMOKE DETECTOR FOR RETURN AIR SIDE OF VAV BOX. SEE DETAIL SYS-3 ON SHEET E3.1.

(F6) PROVIDE WIRE GUARD ON FIRE ALARM DEVICE.

(F7) PROVIDE AREA SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

(F8) PROVIDE HEAT DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

### GENERAL SYSTEMS NOTES:

1. PROVIDE 3 - 1 1/4" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE CEILINGS.
2. PROVIDE 4 - 3 1/2" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE ACCESSIBLE CEILING.
3. FOR WALL MOUNTED SECURITY CAMERAS, PROVIDE BOX.
4. FOR SECURITY DOOR CONTACTS, PROVIDE CONDUIT AND WIRING. COORDINATE.
5. COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT. COORDINATE POWER OUTLET LOCATION PRIOR TO ROUGH-IN.
6. COORDINATE LOCATION MOUNTING HEIGHT AND OTHER REQUIREMENTS WITH ARCHITECT / CASEWORK SUPPLIER PRIOR TO ROUGH-IN. COORDINATE WITH POWER OUTLET.
7. ADDITIONAL SLEAVES AS REQUIRED.
8. PROVIDE ALL FIRESTOPS AS REQUIRED.
9. LUGS FOR TECHNOLOGY GROUNDING IN TGC AND 'IDF' FROM GROUND BAR TO THE EQUIPMENT BY OTHERS.

NOTE:
REFER TO 'HEAPY ENGINEERING LLC' DRAWINGS FOR COORDINATION OF WORK WITH DIV.17.

NOTE:
SEE SHEET E3.6 FOR LEGEND AND NOTES.

NOTE:
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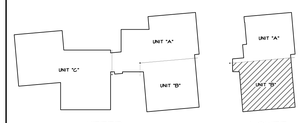


KEY PLAN NO SCALE

UNIT "B" LOWER LEVEL SYSTEMS PLAN
SCALE: 1/8" = 1'-0" E3.2

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UNIT "B" LOWER LEVEL SYSTEMS PLAN

Comm. No. 05201.04
Drawn C.J.M.
Checked D.R.M.
Date 6/9/2006
Drawing No. E3.2
Client No. DAY019.02 DAY019.04

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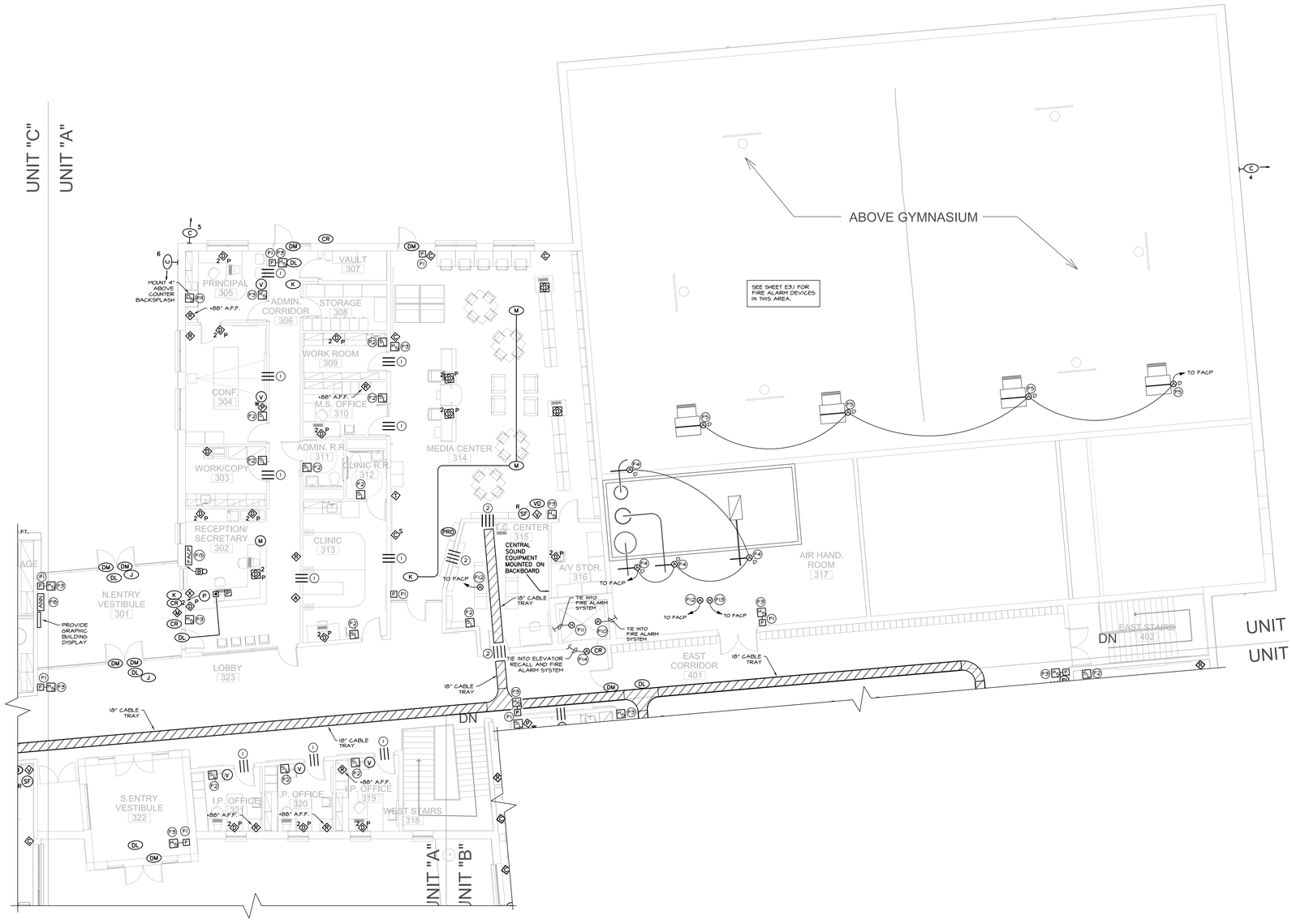


## SHEET NOTES:

### FIRE ALARM SYSTEM NOTES:

(F1) PROVIDE FLUSH MOUNTED FIRE ALARM PULL STATION IN WALL WITH WIRING IN CONCEALED EMT CONDUIT TO ABOVE CEILING BACK TO F.A.C.P.

(F2) PROVIDE FLUSH MOUNTED STROBE LIGHT DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.

(F3) PROVIDE FLUSH MOUNTED HORN/STROBE DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.

(F4) PROVIDE DUCT TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM. PROVIDE MOUNTING DEVICES AS REQUIRED FOR SMOKE DETECTORS.

(F5) PROVIDE DUCT TYPE SMOKE DETECTOR FOR RETURN AIR SIDE OF VAV BOX. SEE DETAIL SYS-3 ON SHEET E3.1.

(F6) PROVIDE WIRE GUARD ON FIRE ALARM DEVICE.

(F7) PROVIDE DUCT TYPE SMOKE DETECTOR IN DUCT WORK TO ACTIVATE SMOKE DAMPER UPON DETECTION OF SMOKE IN DUCTWORK. TIE INTO FIRE ALARM SYSTEM. SEE DETAIL SYS-1 ON SHEET E3.1.

(F8) PROVIDE LCD REMOTE ANNUNCIATOR WITH SEPERATE NON ELECTRONIC GRAPHIC DISPLAY MOUNTED NEXT TO ANNUNCIATOR.

(F9) PROVIDE FIRE ALARM SYSTEM DRILL SWITCH IN FLUSH MOUNTED SINGLE GANG BOX AND TIE INTO FIRE ALARM CONTROL PANEL.

(F10) PROVIDE AREA SMOKE DETECTOR IN ELEVATOR PIT FOR ELEVATOR RECALL. TIE INTO FIRE ALARM SYSTEM.

(F11) PROVIDE HEAT DETECTOR IN ELEVATOR PIT AND TIE INTO FIRE ALARM SYSTEM.

(F12) PROVIDE AREA TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

(F13) PROVIDE HEAT DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

(F14) PROVIDE AREA SMOKE DETECTOR WITHIN 5'-0" OF ELEVATOR DOORS FOR ELEVATOR RECALL.

(F15) PROVIDE F.A.C.P. IN EXACT LOCATION AS DIRECTED BY OWNER. PROVIDE DEDICATED PHONE LINE FOR F.A.C.P. TO TIE INTO REMOTE OFF-SITE MONITORING AGENCY.

### GENERAL SYSTEMS NOTES:

(1) PROVIDE 3 - 1 1/4" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE CEILINGS.

(2) PROVIDE 4 - 3 1/2" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE ACCESSIBLE CEILING.

(3) FOR WALL MOUNTED SECURITY CAMERAS, PROVIDE BOX.

(4) FOR SECURITY DOOR CONTACTS, PROVIDE CONDUIT AND WIRING. COORDINATE.

(5) COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT. COORDINATE POWER OUTLET LOCATION PRIOR TO ROUGH-IN.

(6) COORDINATE LOCATION MOUNTING HEIGHT AND OTHER REQUIREMENTS WITH ARCHITECT / CASEWORK SUPPLIER PRIOR TO ROUGH-IN. COORDINATE WITH POWER OUTLET.

(7) ADDITIONAL SLEAVES AS REQUIRED.

(8) PROVIDE ALL FIRESTOPS AS REQUIRED.

(9) LUGS FOR TECHNOLOGY GROUNDING IN TGC AND 'IDF' FROM GROUND BAR TO THE EQUIPMENT BY OTHERS.

NOTE:
REFER TO 'HEAPY ENGINEERING LLC' DRAWINGS FOR COORDINATION OF WORK WITH DIV.17.

NOTE:
SEE SHEET E3.6 FOR LEGEND AND NOTES.

NOTE:
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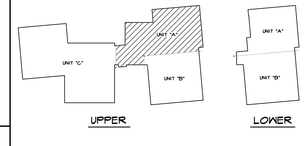
UNIT "A" UPPER LEVEL SYSTEMS PLAN
SCALE: 1/8" = 1'-0" E3.3




KEY PLAN NO SCALE

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UNIT "A" UPPER LEVEL SYSTEMS PLAN

Comm. No. 05201.04
Drawn C.J.M.
Checked D.R.M.
Date 6/9/2006
Drawing No. E3.3
Client No. DAY019.02 DAY019.04

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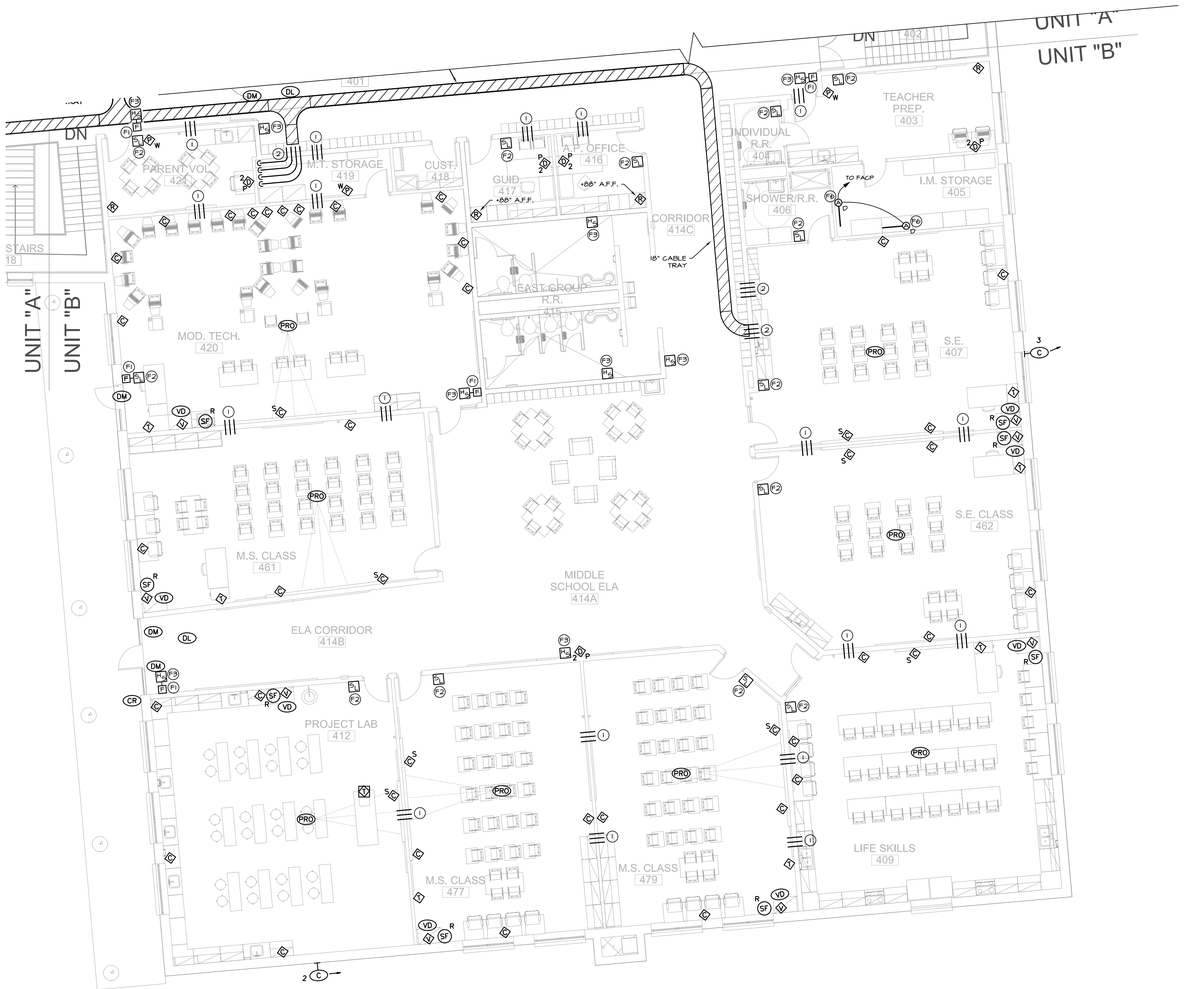


SHEET NOTES:

FIRE ALARM SYSTEM NOTES:

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(F4) PROVIDE DUCT TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

(F5) PROVIDE DUCT TYPE SMOKE DETECTOR FOR RETURN AIR SIDE OF VAV BOX. SEE DETAIL SYS-3 ON SHEET E3.1.

(F6) PROVIDE DUCT TYPE SMOKE DETECTOR IN DUCT WORK TO ACTIVATE SMOKE DAMPER UPON DETECTION OF SMOKE IN DUCTWORK. TIE INTO FIRE ALARM SYSTEM. SEE DETAIL SYS-1 ON SHEET E3.1.

GENERAL SYSTEMS NOTES:

1. PROVIDE 3 - 1 1/4" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE CEILINGS.
2. PROVIDE 4 - 3 1/2" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE ACCESSIBLE CEILING.
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6. COORDINATE LOCATION MOUNTING HEIGHT AND OTHER REQUIREMENTS WITH ARCHITECT / CASEWORK SUPPLIER PRIOR TO ROUGH-IN. COORDINATE WITH POWER OUTLET.
7. ADDITIONAL SLEEVES AS REQUIRED.
8. PROVIDE ALL FIRESTOPS AS REQUIRED.
9. LUGS FOR TECHNOLOGY GROUNDING IN TGC AND 'IDF' FROM GROUND BAR TO THE EQUIPMENT BY OTHERS.

NOTE:
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NOTE:
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NOTE:
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UNIT "B" UPPER LEVEL SYSTEMS PLAN
SCALE: 1/8" = 1'-0" E3.4

KEY PLAN NO SCALE

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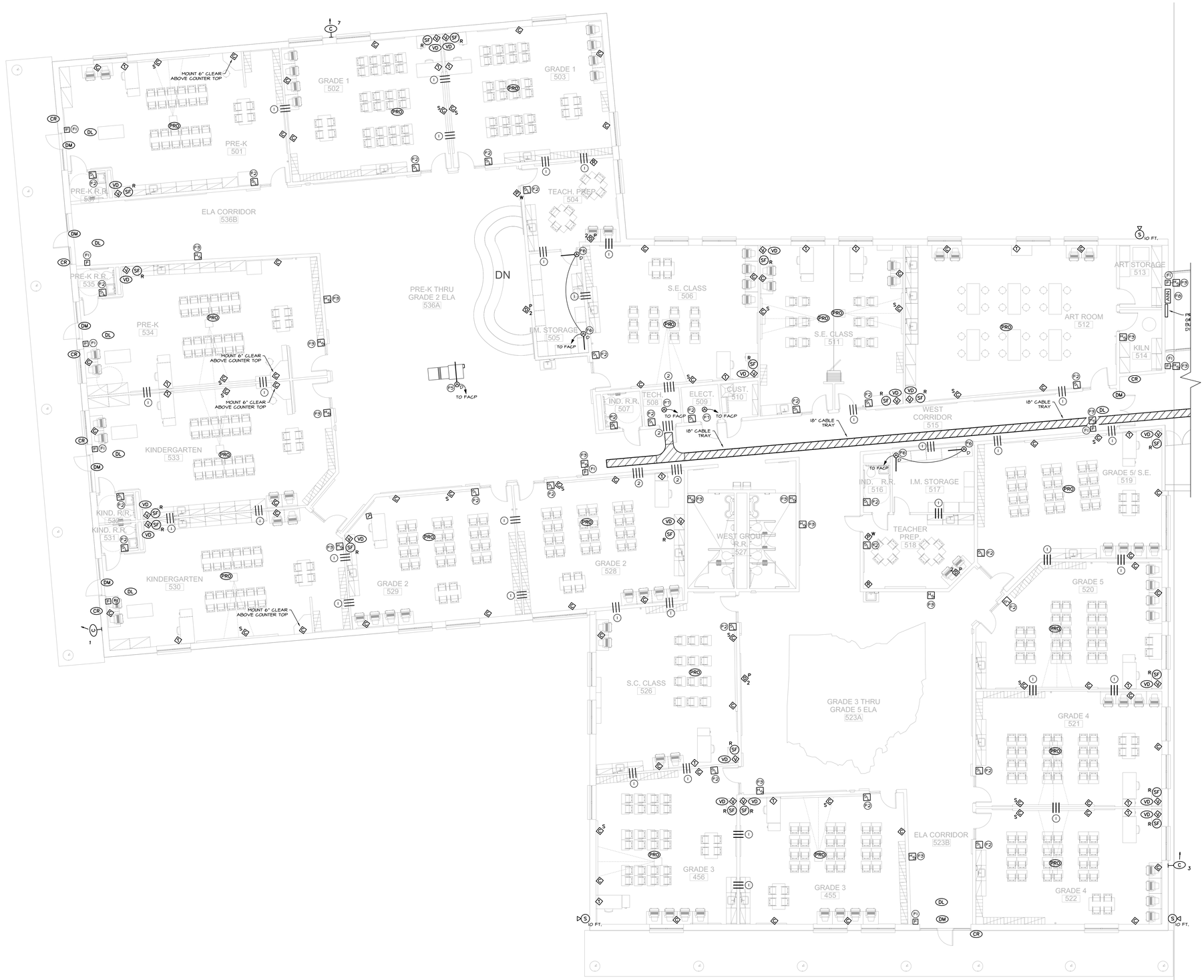


NOTE:
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NOTE:
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NOTE:
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UNIT "C" UPPER LEVEL
SYSTEMS PLAN

SCALE: 1/8" = 1'-0" | E3.5

## SHEET NOTES:

### FIRE ALARM SYSTEM NOTES:

F1 PROVIDE FLUSH MOUNTED FIRE ALARM PULL STATION IN WALL WITH WIRING IN CONCEALED EMT CONDUIT TO ABOVE CEILING BACK TO F.A.C.P.

F2 PROVIDE FLUSH MOUNTED STROBE LIGHT DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.

F3 PROVIDE FLUSH MOUNTED HORN/STROBE DEVICE WITH WIRING IN CONCEALED CONDUIT TO ABOVE CEILING AND BACK TO F.A.C.P.

F4 PROVIDE DUCT TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

F5 PROVIDE DUCT TYPE SMOKE DETECTOR FOR RETURN AIR SIDE OF VAV BOX. SEE DETAIL SYS-3 ON SHEET E3.1.

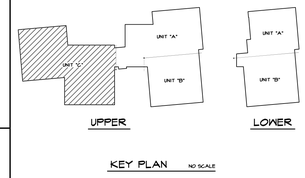
F6 PROVIDE DUCT TYPE SMOKE DETECTOR IN DUCT WORK TO ACTIVATE SMOKE DAMPER UPON DETECTION OF SMOKE IN DUCTWORK. TIE INTO FIRE ALARM SYSTEM. SEE DETAIL SYS-1 ON SHEET E3.1.

F7 PROVIDE AREA TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

F8 PROVIDE LCD REMOTE ANNUNCIATOR WITH SEPARATE NON-ELECTRONIC GRAPHIC DISPLAY MOUNTED NEXT TO ANNUNCIATOR.

### GENERAL SYSTEMS NOTES:

1. PROVIDE 3 - 1 1/4" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE CEILINGS.
2. PROVIDE 4 - 3 1/2" CONDUIT SLEEVES (WITH BUSHINGS ON EACH END) THROUGH WALL 8" ABOVE ACCESSIBLE CEILINGS.
3. FOR WALL MOUNTED SECURITY CAMERAS, PROVIDE BOX.
4. FOR SECURITY DOOR CONTACTS, PROVIDE CONDUIT AND WIRING. COORDINATE.
5. COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT. COORDINATE POWER OUTLET LOCATION PRIOR TO ROUGH-IN.
6. COORDINATE LOCATION MOUNTING HEIGHT AND OTHER REQUIREMENTS WITH ARCHITECT / CASEWORK SUPPLIER PRIOR TO ROUGH-IN. COORDINATE WITH POWER OUTLET.
7. ADDITIONAL SLEAVES AS REQUIRED.
8. PROVIDE ALL FIRESTOPS AS REQUIRED.
9. LUGS FOR TECHNOLOGY GROUNDING IN TGC AND 'IDF' FROM GROUND BAR TO THE EQUIPMENT BY OTHERS.




KEY PLAN NO SCALE

STATE OF OHIO
DON R. MILLER
E-048664
REGISTERED
PROFESSIONAL ENGINEER

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| 2 | BID PHASE SUBMISSION | 12/01/06 |
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KEMP PK-8
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Montgomery County

UNIT "C" UPPER LEVEL
SYSTEMS PLAN

Comm. No. 05201.04
Drawn C.J.M.
Checked D.R.M.
Date 6/9/2006
Drawing No. E3.5
Client No. DAY019.02 DAY019.04

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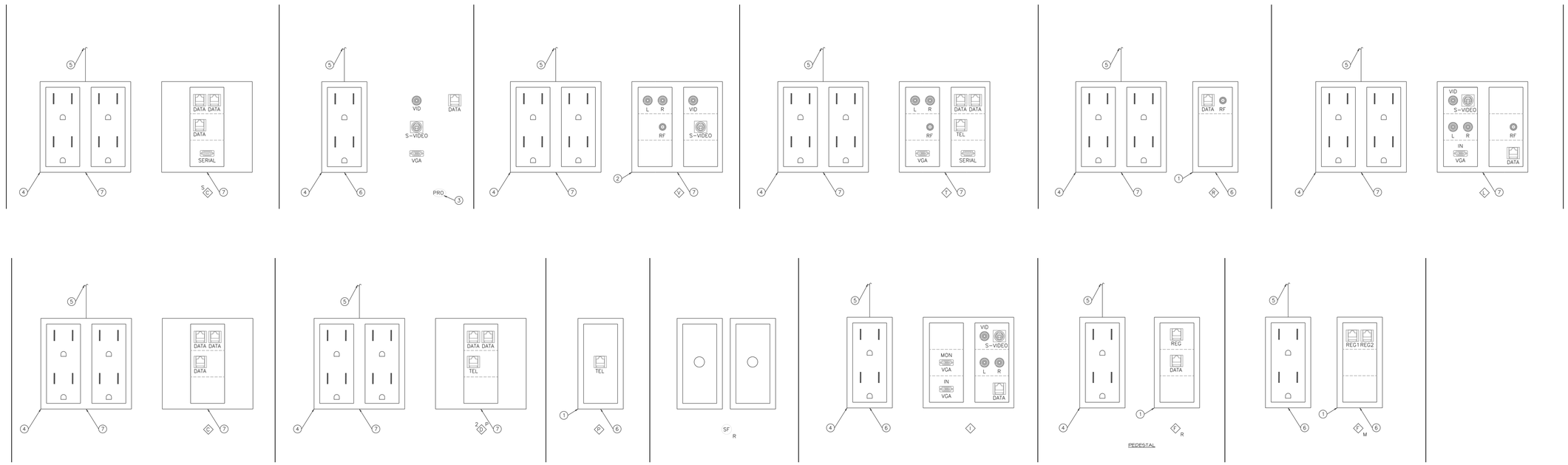
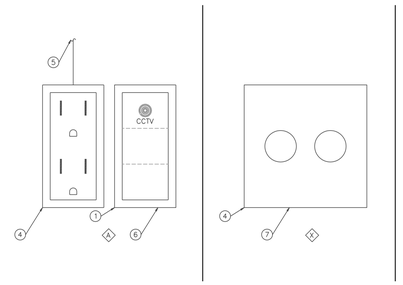



## SYSTEMS LEGEND

| | |
|---|---|
| E.C. | ELECTRICAL CONTRACTOR |
| H.C. | HVAC CONTRACTOR |
| G.C. | GENERAL CONTRACTOR |
| K.E.C | KITCHEN EQUIPMENT CONTRACTOR |
| E.S. | EQUIPMENT SUPPLIER |
| HP | HEATHERPROOF |
| S | SURFACE MOUNTED |
| AFF | ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM UNLESS INDICATED OTHERWISE ON DRAWINGS |
| MH | MOUNTING HEIGHT TO CENTERLINE OF ITEM UNLESS INDICATED OTHERWISE ON DRAWINGS. |
| J | JUNCTION BOX. |
| D W | WALL MOUNTED PHONE OUTLET (16" CLEAR A.F.F. MH, SUBSCRIPT "W" INDICATES 46" M.H.) ROUGH-IN INCLUDING EMPTY BOX AND CONDUIT (.75") TO ABOVE CORRIDOR CEILING. REFER TO DETAIL ON THIS SHEET. |
| C C | WALL MOUNTED VOICE/DATA OUTLET (16" CLEAR A.F.F. MH, UNLESS OTHERWISE NOTED) ROUGH-IN INCLUDING EMPTY BOX, CONDUIT (2-1") TO ABOVE CORRIDOR CEILING. REFER TO DETAIL ON THIS SHEET. |
| A | WALL MOUNTED A/V UPLINK OUTLET (84" MH, UNLESS INDICATED OTHERWISE) ROUGH-IN INCLUDING SYSTEMS BOX AND CONDUIT (2-1") TO ABOVE CORRIDOR CEILING. REFER TO DETAIL ON THIS SHEET. |
| R | WALL MOUNTED REMOTE A/V OUTLET (84" MH, UNLESS INDICATED OTHERWISE) ROUGH-IN INCLUDING SYSTEMS BOX AND CONDUIT (1-1") TO ABOVE CORRIDOR CEILING. REFER TO DETAIL ON THIS SHEET. |
| T | WALL MOUNTED TECHNOLOGY OUTLET (16" CLEAR A.F.F. MH, UNLESS OTHERWISE NOTED) ROUGH-IN INCLUDING EMPTY BOX, CONDUIT (2-1", 1-.75") TO ABOVE CORRIDOR CEILING. REFER TO DETAIL ON THIS SHEET. |
| I | ACTIVE A/V INTERFACE. WALL MOUNT 16" CLEAR A.F.F. MH. REFER TO DETAIL ON THIS SHEET. ROUGH-IN INCLUDING EMPTY BOX, CONDUIT (2-1") TO ABOVE CORRIDOR CEILING. |
| K M R | WALL MOUNT RESISTER OUTLET. ROUGH-IN INCLUDING BOX AND CONDUIT (1-1") TO ABOVE CORRIDOR CEILING. REFER TO DETAIL ON THIS SHEET. |
| L | A/V LOCAL OUTPUT PLATE. WALL MOUNT 16" CLEAR A.F.F. MH. REFER TO DETAIL ON THIS SHEET. ROUGH-IN INCLUDING EMPTY BOX, CONDUIT (2-1") TO ABOVE CORRIDOR CEILING. |
| M | INTERCOM SYSTEM WALL MOUNTED DOOR STATION (46" MH, 1-GANG BOX, .75" CONDUIT TO ABOVE CORRIDOR CEILING. |
| B | INTERCOM SYSTEM WALL MOUNTED REMOTE CHIME. (84" MH, 1-GANG BOX, .75" CONDUIT TO ABOVE CORRIDOR CEILING. |
| B | TELEPHONE REMOTE RINSER, WALL MOUNTED (84" MH, 1-GANG BOX, .75". |
| PRO | CEILING MOUNTED PROJECTOR OUTLET. REFER TO DETAIL ON THIS SHEET. |
| C 12" HP | 1-GANG BOX (12" MH.) WITH .75"C. TO ABOVE ACCESSIBLE CORRIDOR CEILING FOR WALL MOUNTED CCTV SYSTEM CAMERA. "HP" INDICATES HEATHERPROOF BOX. |
| DSS | TELEPHONE SYSTEM DISPLAY PANEL AT THIS LOCATION CONNECTED TO THE ATTENDANT CONSOLE. |
| ATEL | ATTENDANT CONSOLE. |
| DTEL W | OFFICE DIGITAL DISPLAY TELEPHONE AT THIS LOCATION. SUBSCRIPT "W" INDICATES WIRELESS PHONE AND BASE UNIT. |
| STEL | CLASSROOM DIGITAL DISPLAY TELEPHONE AT THIS LOCATION. |
| 32 | LCD FLAT PANEL DISPLAY WITH WALL MOUNTING HARDWARE, # INDICATES NOMINAL SCREEN SIZE. |
| VD | COMBINATION VCR/DVD PLAYER |
| CM | 20" COLOR CCTV MONITOR, WALL MOUNTED. |
| DM | DOOR POSITION SENSOR/CONTACT. CONNECT TO SECURITY MANAGEMENT SYSTEM. |
| DL | ELECTRONIC DOOR HARDWARE BY OTHERS. PROVIDE CONNECTION AND CONTROL FROM SECURITY MANAGEMENT SYSTEM. |
| CR | ACCESS CARD READER. INSTALL AND PROVIDE CONNECTION TO SECURITY MANAGEMENT SYSTEM. |
| K | SECURITY KEYPAD ENTRANCE. INSTALL AND PROVIDE CONNECTION TO SECURITY MANAGEMENT SYSTEM. |
| | PUSH BUTTON FOR REMOTE UNLOCK OF ACCESS CONTROL DOOR. |
| M 12" | 1-GANG BOX (12" MH.) WITH .75"C. TO ABOVE ACCESSIBLE CEILING. WIRE FROM EACH FOR WALL MOUNTED MOTION SENSOR WITH WIRING BY OTHERS. |
| SF R | SOUNDFIELD RECEIVER TO MOUNT INSIDE THE TEACHER'S WARDROBE UNLESS OTHERWISE NOTED. PROVIDE TWO SINGLE GANG BOXES (96"M.H.). GROMMETED PLATES AND 0.75" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING. |
| | TECHNOLOGY OUTLET INSTALLED IN FLOOR BOX. LETTER INDICATES TYPE OF TECHNOLOGY OUTLET |
| | CCTV REMOTE MONITOR OUTLET, 1-GANG BOX WITH 0.75"C. TO ABOVE CEILING. |
| P | SECURITY SYSTEM PANIC DURESS BUTTON. |
| | RECEPTION DESK SYSTEMS OUTLET (24" MH). PROVIDE BOX AND CONDUIT (2-1"). |

## LEGEND + NOTES (SOUND SYSTEM)

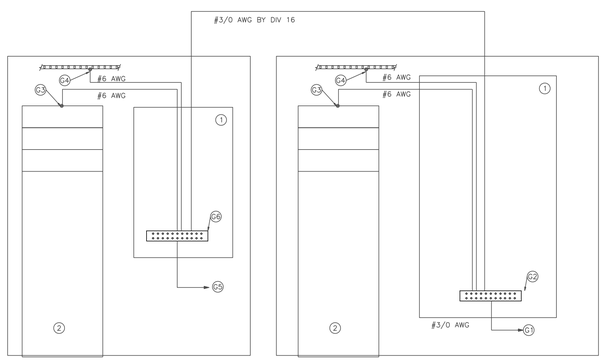
| | |
|---|---|
| S | SURFACE MOUNTED SPEAKER (90" M.H.) - PROVIDE SINGLE GANG BOX (FLUSH MOUNT) WITH (1) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. |
| S | HORN-TYPE PAGING SPEAKER. - PROVIDE SINGLE GANG BOX (FLUSH MOUNT) WITH (1) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. |
| V | SPEAKER VOLUME CONTROLLER (46" M.H.) - PROVIDE SINGLE GANG BOX (FLUSH MOUNT) WITH (1) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. |
| M X | MICROPHONE OUTLET (16" CLEAR A.F.F. M.H.). SUBSCRIPT USED TO INDICATE QUANTITY OF OUTLETS. - PROVIDE SINGLE GANG BOX (FLUSH MOUNT) WITH (1) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. |
| S M | MUSIC PLAYBACK SPEAKER - WALL MOUNTED ADJACENT TO SINGLE GANG GROMMETED PLATE. 90" M.H. - PROVIDE SINGLE GANG BOX (FLUSH MOUNT) WITH (1) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. |
| SJ | SPEAKER JACKPLATE (16" CLEAR A.F.F. MH) - PROVIDE TWO GANG BOX (FLUSH MOUNT) WITH (1) 3/4" CONDUIT. |
| P | PROGRAM SOURCE CABINET. - PROVIDE TWO GANG BOX (FLUSH MOUNT) WITH (2) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. COORDINATE LOCATION. |
| MA | MIC/AUX INPUT JACKPLATE ASSEMBLY (2-GANG). 16" CLEAR A.F.F. MH. - PROVIDE TWO GANG BOX (FLUSH MOUNT) WITH (2) 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. |

## DETAIL NOTES

1. PROVIDE 1-GANG BOX. SUBSCRIPT "H" INDICATES WALL PHONE PLATE. REFER TO LEGEND FOR M.H.
2. 2-GANG 3.5" DEEP BOX.
3. PROVIDE POWER OUTLET TO BE MOUNTED IN CEILING.
4. PROVIDE ELECTRICAL OUTLET. SEE ELECTRICAL FLOOR PLANS.
5. PROVIDE BRANCH CIRCUITRY. SEE ELECTRICAL FLOOR PLANS.
6. PROVIDE SINGLE GANG WALL BOX.
7. PROVIDE TWO GANG WALL BOX.

## TYPICAL VOICE/DATA/VIDEO OUTLET DETAILS

SCALE: NONE




## GROUNDING RISER NOTES

G1. MAIN TELECOMMUNICATIONS BONDING CONDUCTOR TO BUILDING ELECTRICAL SERVICE GROUND.
G2. MAIN TELECOMMUNICATIONS GROUND BAR (TMGB). SEE DETAIL IN SHEET E5.B.
G3. BOND LOCAL EQUIPMENT CABINETS AND RACKS TO LOCAL GROUND BAR
G4. BOND LOCAL CABLE MANAGEMENT (LADDER RACK, CABLE TRAY, SLEEVES, CONDUIT, ETC) TO LOCAL GROUND BAR
G5. TELECOMMUNICATIONS BONDING CONDUCTOR TO LOCAL ELECTRIC PANEL SERVING CIRCUITS IN TELECOM ROOM.
G6. TELECOMMUNICATIONS GROUND BAR (TGB). SEE DETAIL IN SHEET E5.B.

## GENERAL RISER NOTES

1 3/4" X 8' X FULL LENGTH PLYWOOD BACKBOARD, ALL USEABLE WALLS
2 EQUIPMENT CABINETS/RACKS

## TECHNICAL GROUNDING RISER

SCALE: NONE

VOICE/DATA/VIDEO OUTLET DETAILS

SCALE: 1/4" = 1'-0" E3.6

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VOICE/DATA/VIDEO OUTLET SUPPLEMENTARY DETAILS

Comm. No. 05201.04
Drawn A.D.
Checked D.R.M.
Date 6/9/2006
Drawing No. E3.6
Client No. DAY019.02 DAY019.04

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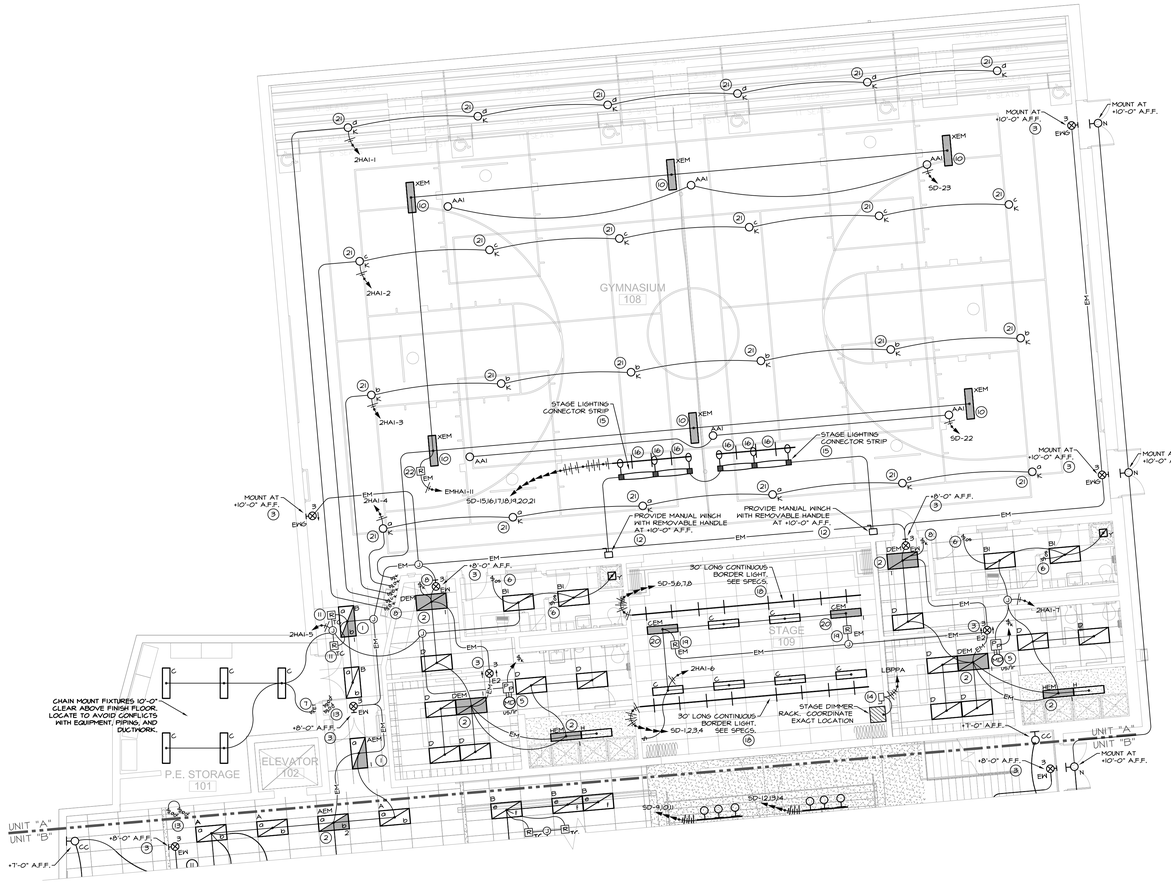
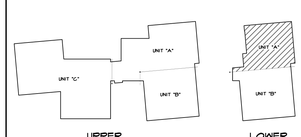



## SHEET NOTES:

### LIGHTING NOTES:

1. WIRE ONE LAMP AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
2. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
3. WIRE EXIT LIGHT ON EMERGENCY LIGHTING CIRCUIT.
4. WIRE EXTERIOR LIGHT CIRCUIT ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH TEMPERATURE CONTROL SUPPLIER.
5. PROVIDE CEILING MOUNTED, INFRARED/ULTRASONIC OCCUPANCY SENSOR IN LOCATION AS DIRECTED BY OCCUPANCY SENSOR MANUFACTURER. SEE DETAIL L-4 ON SHEET E4.6.
6. PROVIDE WALL MOUNTED SWITCH WITH INTEGRAL MOTION DETECTOR.
7. PROVIDE WALL MOUNTED LIGHT SWITCH WITH PUSH BUTTON ELECTRONIC TIMER SWITCH.
8. PROVIDE KEY SWITCHES WITH PROTECTIVE WIRE GUARDS.
9. PROVIDE KEY OPERATED SWITCHES.
10. WIRE FIXTURE SO THAT FIXTURE IS ON 24 HOURS PER DAY. FIXTURE CAN BE SWITCHED FROM KEY OPERATED SWITCH IF NECESSARY. PROVIDE WIRE GUARD ON FIXTURE.
11. WIRE INTERIOR CORRIDOR LIGHTS ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH THE TEMPERTURE CONTROL SUPPLIER. SEE DETAIL L-3 ON SHEET E4.6.
12. PROVIDE MANUAL WINCH & PULLY SYSTEM TO RAISE ENTIRE CONNECTOR STRIP LIGHTS & POWER FEED ASSEMBLY UP TO UNDERSIDE OF ROOF JOIST. SEE SPECS. PROVIDE TRAVELING POWER FEED ASSEMBLY COMPLETE WITH KELLUM GRIPS.
13. LIGHTING CONTROL OVER RIDE SWITCH.
14. PROVIDE 200 AMP NON-FUSED DISCONNECT MOUNTED ON WALL NEXT TO DIMMER RACK. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH DIMMER RACK SUPPLIER.
15. PROVIDE 12'-0" LONG CONNECTOR STRIP WITH 7 - 20A 6P CONNECTORS ON 18" PIGTAILS AND 4 SINGLE PIPE CENTERLINE BRACKETS. CONNECTOR STRIP TO BE PREWIRED WITH THREE OR FOUR 20 AMP CIRCUITS. VERIFY EXACT LOCATION AND LOCATE AS DIRECTED. SEE DETAILS STG-1 AND STG-2 ON SHEET E4.6.
16. PROVIDE 3 1/2" x 3 1/2" x 5/16" STEEL ANGLES BETWEEN STEEL JOIST (AND FASTENED TO STEEL JOIST) AS INDICATED FOR SUPPORTING CABLES THAT SUPPORT THE ELECTRICAL CONNECTOR STRIPS AND LIGHTING ASSEMBLIES.
17. PROVIDE 6'-0" LONG CONNECTOR STRIP WITH THREE 20 AMP 6P CONNECTORS ON 18" PIGTAILS AND TWO SINGLE PIPE U-BOLT BRACKETS. CONNECTOR STRIP TO BE PREWIRED WITH THREE 20 AMP CIRCUITS. VERIFY EXACT LOCATION AND LOCATE AS DIRECTED. SEE DETAILS STG-1 AND STG-2 ON SHEET E4.6.
18. PROVIDE 3 1/2" x 3 1/2" x 5/16" STEEL ANGLES BETWEEN STEEL JOIST (AND FASTEN TO STEEL JOIST) AS INDICATED FOR SUPPORTING CABLES THAT SUPPORT THE ELECTRICAL BORDER LIGHTS AND LIGHTING ASSEMBLIES.
19. PROVIDE EMERGENCY LIGHTING TRANSFER RELAY TO TRANSFER PORTION OF FIXTURE TO EMERGENCY LIGHTING CIRCUIT WHEN POWER FAILS. SEE DETAIL L-6 ON SHEET E4.6.
20. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT AND PROVIDE TRANSFER RELAY AS CALLED FOR IN DETAIL L-6 ON SHEET E4.6. FIXTURE TO BE COMPLETELY SWITCHED ON ROOMS LIGHT SWITCHES.
21. PROVIDE 3 1/2" x 3 1/2" x 1/4" STEEL ANGLE BETWEEN TOP CHORD OF JOIST (AND FASTEN TO JOIST) FOR SUPPORT OF GYM LIGHT FIXTURE. SEE DETAIL ATH-1 ON SHEET E4.6.
22. PROVIDE EMERGENCY TRANSFER RELAY TO TRANSFER EMERGENCY POWER TO LIGHTS IF LIGHTS HAVE BEEN TURNED OFF AT KEYED SWITCH.




KEY PLAN NO SCALE

UNIT "A" LOWER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0" E4.1

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UNIT "A" LOWER LEVEL LIGHTING PLAN

Comm. No. 05201.04
Drawn MAR/CJM
Checked D.R.M.
Date 6/9/2006
Drawing No. E4.1
Client No. DAY019.02 DAY019.04

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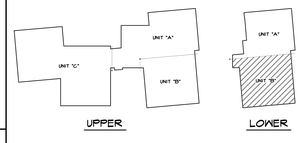
## SHEET NOTES:

### LIGHTING NOTES:

1. WIRE ONE LAMP AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
2. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
3. WIRE EXIT LIGHT ON EMERGENCY LIGHTING CIRCUIT.
4. WIRE EXTERIOR LIGHT CIRCUIT ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH TEMPERATURE CONTROL SUPPLIER.
5. PROVIDE CEILING MOUNTED, INFRARED/ULTRASONIC OCCUPANCY SENSOR IN LOCATION AS DIRECTED BY OCCUPANCY SENSOR MANUFACTURER. SEE DETAIL L-4 ON SHEET E4.6.
6. PROVIDE WALL MOUNTED SWITCH WITH INTEGRAL MOTION DETECTOR.
7. PROVIDE WALL MOUNTED LIGHT SWITCH WITH PUSH BUTTON ELECTRONIC TIMER SWITCH.
8. PROVIDE KEY SWITCHES WITH PROTECTIVE WIRE GUARDS.
9. PROVIDE KEY OPERATED SWITCHES.
10. WIRE LIGHT FIXTURE ON EMERGENCY LIGHTING CIRCUIT.
11. WIRE INTERIOR CORRIDOR LIGHTS ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH THE TEMPERTURE CONTROL SUPPLIER. SEE DETAIL L-3 ON SHEET E4.6.
12. WIRE ALL LAMPS AND BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT FIXTURE IS ON 24 HOURS PER DAY.
13. LIGHTING CONTROL OVER RIDE SWITCH.
14. PROVIDE EMERGENCY LIGHTING TRANSFER RELAY TO TRANSFER PORTION OF FIXTURE TO EMERGENCY LIGHTING CIRCUIT WHEN POWER FAILS. SEE DETAIL L-6 ON SHEET E4.6.
15. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT AND PROVIDE TRANSFER RELAY AS CALLED FOR IN DETAIL L-6 ON SHEET E4.6. FIXTURE TO BE COMPLETELY SWITCHED ON ROOMS LIGHT SWITCHES.
16. SEE DETAIL L-5 ON SHEET E4.6




KEY PLAN NO SCALE

# UNIT "B" LOWER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0" E4.2

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UNIT "B" LOWER LEVEL LIGHTING PLAN

Comm. No. 05201.04
Date 6/9/2006
Drawn MAR/GJM
Checked D.R.M.
Drawing No. E4.2
Client No. DAY019.02 DAY019.04

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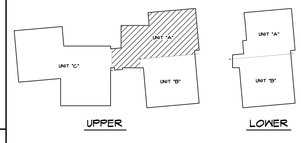
## SHEET NOTES:

### LIGHTING NOTES:

1. WIRE ONE LAMP AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
2. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
3. WIRE EXIT LIGHT ON EMERGENCY LIGHTING CIRCUIT.
4. WIRE EXTERIOR LIGHT CIRCUIT ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH TEMPERATURE CONTROL SUPPLIER.
5. PROVIDE CEILING MOUNTED, INFRARED/ULTRASONIC OCCUPANCY SENSOR IN LOCATION AS DIRECTED BY OCCUPANCY SENSOR MANUFACTURER. SEE DETAIL L-4 ON SHEET E4.6.
6. PROVIDE WALL MOUNTED SWITCH WITH INTEGRAL MOTION DETECTOR.
7. PROVIDE WALL MOUNTED LIGHT SWITCH WITH PUSH BUTTON ELECTRONIC TIMER SWITCH.
8. PROVIDE KEY SWITCHES WITH PROTECTIVE WIRE GUARDS.
9. PROVIDE KEY OPERATED SWITCHES.
10. WIRE LIGHT FIXTURE ON EMERGENCY LIGHTING CIRCUIT.
11. WIRE INTERIOR CORRIDOR LIGHTS ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH THE TEMPERTURE CONTROL SUPPLIER. SEE DETAIL L-3 ON SHEET E4.6.
12. WIRE ALL LAMPS AND BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT FIXTURE IS ON 24 HOURS PER DAY.
13. LIGHTING CONTROL OVER RIDE SWITCH.
14. PROVIDE EMERGENCY LIGHTING TRANSFER RELAY TO TRANSFER PORTION OF FIXTURE TO EMERGENCY LIGHTING CIRCUIT WHEN POWER FAILS. SEE DETAIL L-6 ON SHEET E4.6.
15. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT AND PROVIDE TRANSFER RELAY AS CALLED FOR IN DETAIL L-6 ON SHEET E4.6. FIXTURE TO BE COMPLETELY SWITCHED ON ROOMS LIGHT SWITCHES.
16. MOUNT FIXTURE AT +21'-1" A.F.F. TO BOTTOM OF FIXTURE.




KEY PLAN NO SCALE

UNIT "A" UPPER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0" E4.3

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STATE OF OHIO DON R. MILLER E-048664 REGISTERED PROFESSIONAL ENGINEER

DSDA
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| 1 | PERMIT SUBMISSION | 11/10/06 |
| 2 | BID PHASE SUBMISSION | 12/01/06 |
| 3 | REVISED BID PHASE SUBMISSION | 01/12/07 |

DAYTON PUBLIC SCHOOLS
A New Day for Dayton!

KEMP PK-8
1923 Gondert Avenue
Dayton, Ohio 45403
Montgomery County

UNIT "A" UPPER LEVEL LIGHTING PLAN

Date 6/9/2006
Comm. No. 05201.04
Drawn MAR/CJM
Checked D.R.M.
Drawing No. E4.3
Client No. DAY019.02 DAY019.04

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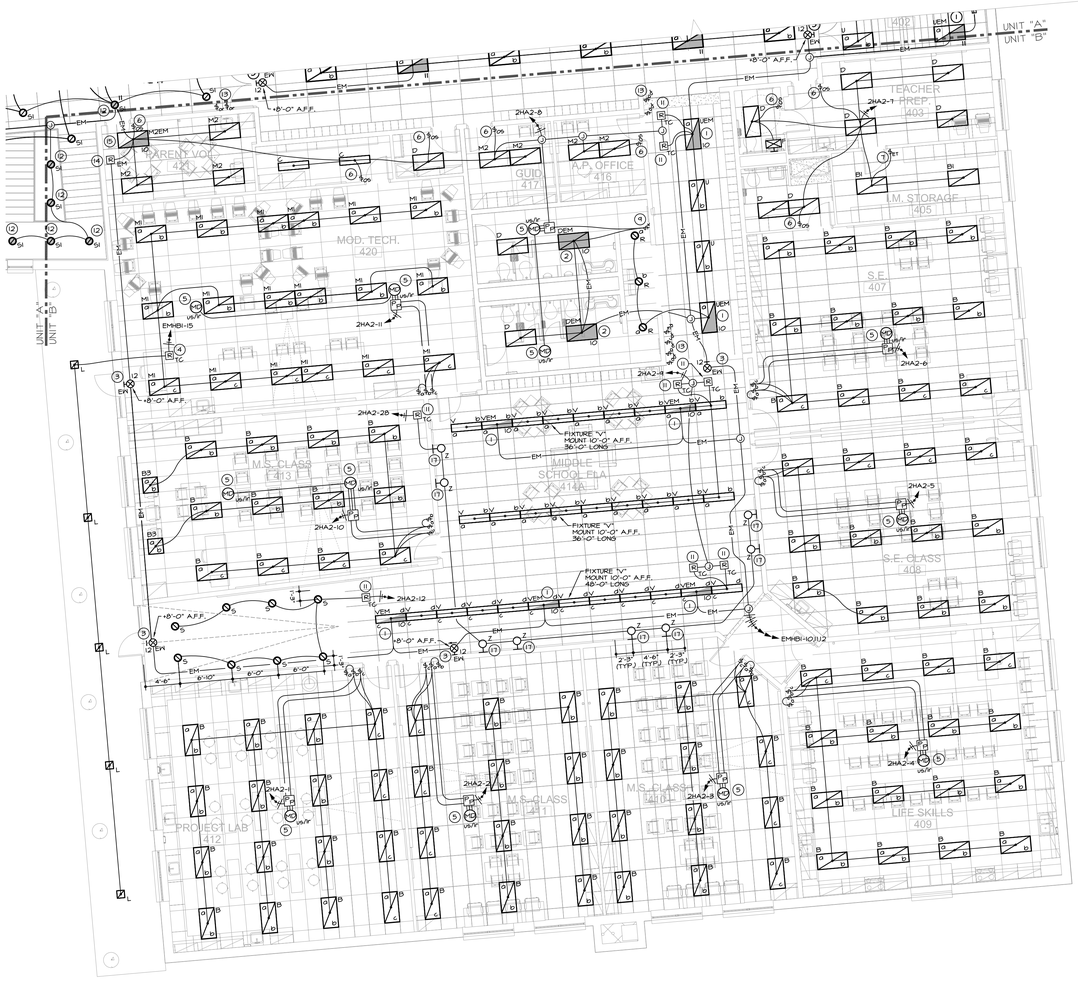
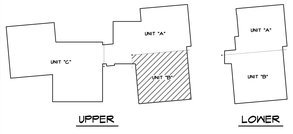



## SHEET NOTES:

### LIGHTING NOTES:

1. WIRE ONE LAMP AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
2. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
3. WIRE EXIT LIGHT ON EMERGENCY LIGHTING CIRCUIT.
4. WIRE EXTERIOR LIGHT CIRCUIT ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH TEMPERATURE CONTROL SUPPLIER.
5. PROVIDE CEILING MOUNTED, INFRARED/ULTRASONIC OCCUPANCY SENSOR IN LOCATION AS DIRECTED BY OCCUPANCY SENSOR MANUFACTURER. SEE DETAIL L-4 ON SHEET E4.6.
6. PROVIDE WALL MOUNTED SWITCH WITH INTEGRAL MOTION DETECTOR.
7. PROVIDE WALL MOUNTED LIGHT SWITCH WITH PUSH BUTTON ELECTRONIC TIMER SWITCH.
8. PROVIDE KEY SWITCHES WITH PROTECTIVE WIRE GUARDS.
9. PROVIDE KEY OPERATED SWITCHES.
10. WIRE LIGHT FIXTURE ON EMERGENCY LIGHTING CIRCUIT.
11. WIRE INTERIOR CORRIDOR LIGHTS ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH THE TEMPERTURE CONTROL SUPPLIER. SEE DETAIL L-3 ON SHEET E4.6.
12. WIRE ALL LAMPS AND BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT FIXTURE IS ON 24 HOURS PER DAY.
13. LIGHTING CONTROL OVER RIDE SWITCH.
14. PROVIDE EMERGENCY LIGHTING TRANSFER RELAY TO TRANSFER PORTION OF FIXTURE TO EMERGENCY LIGHTING CIRCUIT WHEN POWER FAILS. SEE DETAIL L-6 ON SHEET E4.6.
15. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT AND PROVIDE TRANSFER RELAY AS CALLED FOR IN DETAIL L-6 ON SHEET E4.6. FIXTURE TO BE COMPLETELY SWITCHED ON ROOMS LIGHT SWITCHES.
16. PROVIDE FLUSH MOUNTED 1000 WATT DIMMER SWITCH.
17. MOUNT FIXTURE AT 8'-6" A.F.F. SEE DETAILS ON ARCHITECTURAL SHEET A8.3.




KEY PLAN NO SCALE

UNIT "B" UPPER
LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0" E4.4

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STATE OF OHIO
DON R. MILLER
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KEMP PK-8
1923 Gondert Avenue
Dayton, Ohio 45403
Montgomery County

UNIT "B" UPPER LEVEL
LIGHTING PLAN

Date 6/9/2006
Comm. No. 05201.04
Drawn MAR/CJM
Checked D.R.M.
Drawing No. E4.4
Client No. DAY019.02 DAY019.04

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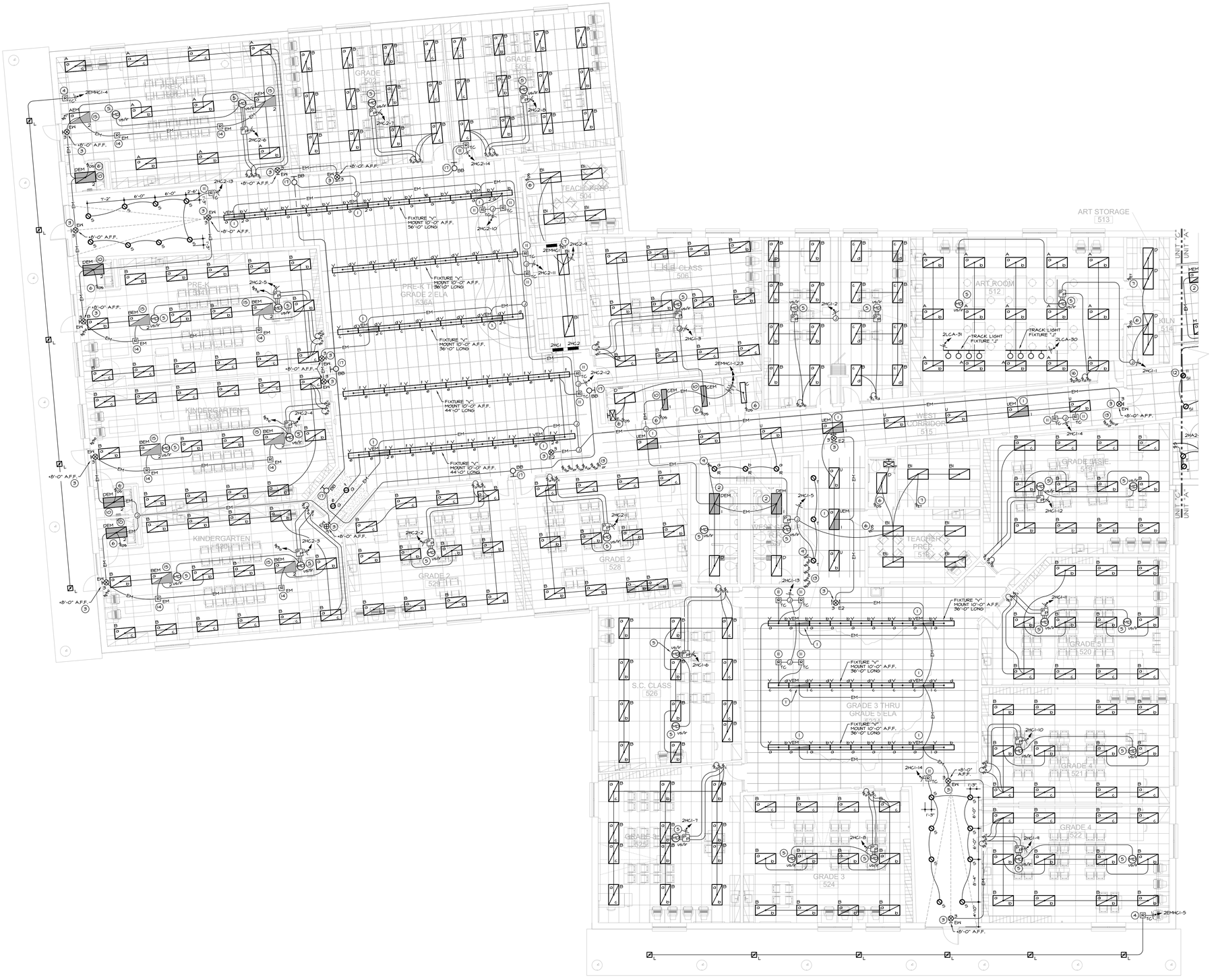


## SHEET NOTES:

### LIGHTING NOTES:

1. WIRE ONE LAMP AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
2. WIRE TWO LAMPS AND ONE BALLAST ON EMERGENCY LIGHTING CIRCUIT SO THAT BALLAST AND LAMPS ARE "ON" 24 HOURS PER DAY.
3. WIRE EXIT LIGHT ON EMERGENCY LIGHTING CIRCUIT.
4. WIRE EXTERIOR LIGHT CIRCUIT ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH TEMPERATURE CONTROL SUPPLIER.
5. PROVIDE CEILING MOUNTED, INFRARED/ULTRASONIC OCCUPANCY SENSOR IN LOCATION AS DIRECTED BY OCCUPANCY SENSOR MANUFACTURER. SEE DETAIL L-4 ON SHEET E4.6.
6. PROVIDE WALL MOUNTED SWITCH WITH INTEGRAL MOTION DETECTOR.
7. PROVIDE WALL MOUNTED LIGHT SWITCH WITH PUSH BUTTON ELECTRONIC TIMER SWITCH.
8. PROVIDE KEY SWITCHES WITH PROTECTIVE WIRE GUARDS.
9. PROVIDE KEY OPERATED SWITCHES.
10. WIRE LIGHT FIXTURE ON EMERGENCY LIGHTING CIRCUIT.
11. WIRE INTERIOR CORRIDOR LIGHTS ON TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE ALL LOCATIONS AND CONNECTION REQUIREMENTS WITH THE TEMPERTURE CONTROL SUPPLIER. SEE DETAIL L-3 ON SHEET E4.6.
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13. LIGHTING CONTROL OVER RIDE SWITCH.
14. PROVIDE EMERGENCY LIGHTING TRANSFER RELAY TO TRANSFER PORTION OF FIXTURE TO EMERGENCY LIGHTING CIRCUIT WHEN POWER FAILS. SEE DETAIL L-6 ON SHEET E4.6.
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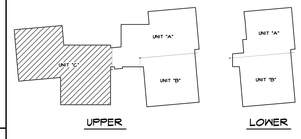
16. PROVIDE FLUSH MOUNTED 1000 WATT DIMMER SWITCH.
17. PROVIDE WALL MOUNTED FIXTURE AT +8'-0" A.F.F. SEE DETAILS AND ELEVATIONS ON ARCHITECTURAL SHEET A8.3.




KEY PLAN NO SCALE

UNIT "C" UPPER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0" E4.5

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Montgomery County

UNIT "C" UPPER LEVEL LIGHTING PLAN

Comm. No. 05201.04
Drawn MAR/CJM
Checked D.R.M.
Date 6/9/2006
Drawing No. E4.5
Client No. DAY019.02 DAY019.04

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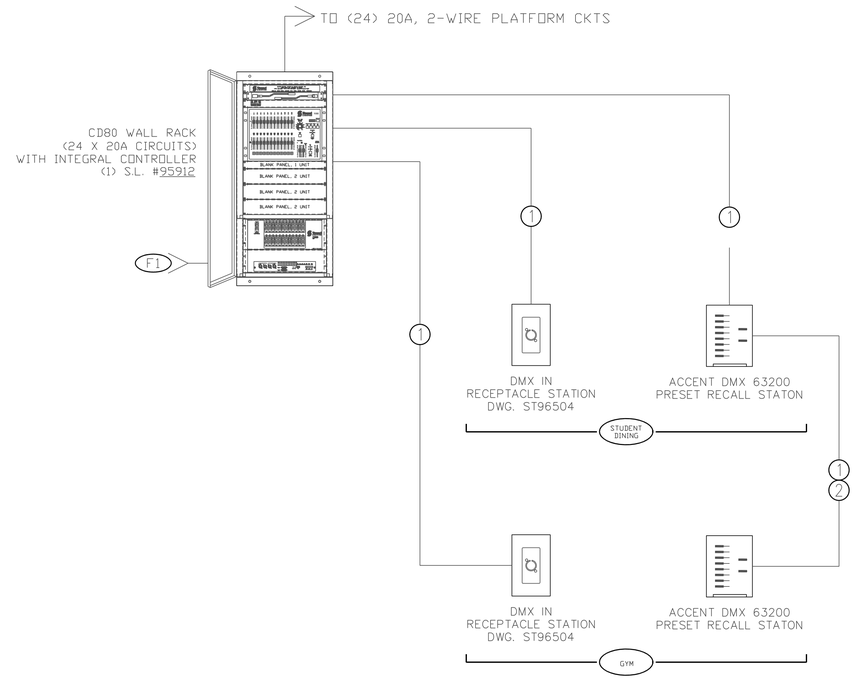



## PROVISIONS:

NO PART OF THIS ELECTRONIC SYSTEM SHALL BE ENERGIZED BEFORE BEING CHECKED AND INSTALLATION APPROVED BY A VINCENT LIGHTING ENGINEER. VINCENT LIGHTING MUST BE NOTIFIED, IN WRITING, A MINIMUM OF TWO WEEKS PRIOR TO THE ACTUAL ENERGIZING OF THE SYSTEM. FAILURE TO OBSERVE THIS PROVISION SHALL AUTOMATICALLY RELIEVE VINCENT LIGHTING OF ANY RESPONSIBILITY CONCERNING THE PROPER OPERATION OF THIS SYSTEM OR ANY PART THEREOF, AND THE REPLACEMENT OF PARTS WHICH MAY HAVE BEEN DAMAGED BY THE PREMATURE ENERGIZING OF THE SYSTEM.

## NOTES:

1. THIS DRAWING DOES NOT INDICATE THE NUMBER OR SIZE OF CONDUITS REQUIRED, BUT THE SEPARATION OF GROUPS OF WIRES. INTERCONNECTING WIRE AND CONDUIT NOT BY VINCENT LIGHTING.
2. WHEREVER CONTROL WIRES SHOWN MUST BE RUN CLOSE TO A.C. CONTROL AND/OR POWER CIRCUITS, THESE CONTROL WIRES MUST BE RUN IN SEPARATE METAL CONDUIT.
3. INCLUDE MINIMUM 10% SPARES IN EACH CONTROL RUN.
4. PROVIDE AN EQUIPMENT GROUND, AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, BETWEEN BUILDING SERVICE ENTRANCE AND THE DIMMER RACK.
5. BACK BOXES OF CONTROL STATIONS MUST BE GROUNDED.
6. SEPARATE NEUTRALS ARE REQUIRED

## WIRES AND CABLES:

(1) (1) BELDEN 1583A - DMX (CAT 5)

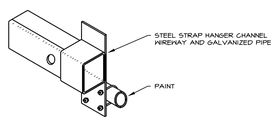
(2) (2) 18AWG WIRES - ACCENT POWER

## POWER FEEDS:

(F1) 3Ø, 4-WIRE WITH GROUND, 120/208 VAC, 60Hz.
[BUSSING AND LUGS RATED FOR 160 AMPS MAX.; COPPER CONDUCTORS ONLY]

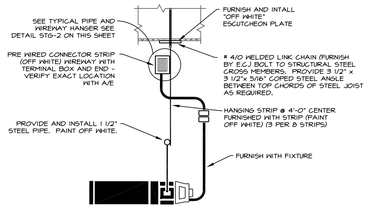
## STAGE LIGHTING RISER DIAGRAM

NO SCALE

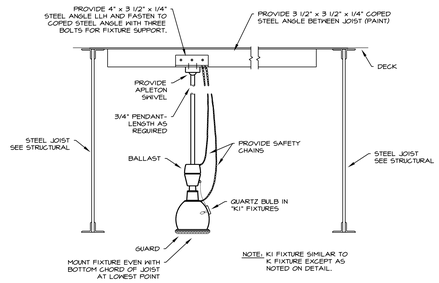



TYP. PIPE & WIREWAY HANGER DETAIL NO SCALE

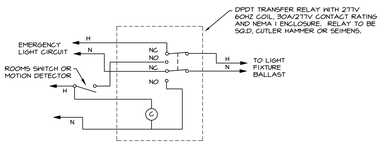
DETAIL STG-2
NOT TO SCALE




DETAIL STG-1
NOT TO SCALE




DETAIL ATH-1
NOT TO SCALE



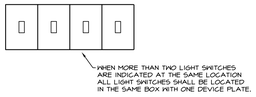

**EMERGENCY LIGHTS CONTROLLED BY RELAY**

1. WHEN NORMAL ROOM LIGHTING CIRCUIT FAILS, POWER SHALL BE TRANSFERRED TO THE EMERGENCY LIGHTING CIRCUIT TO PROVIDE EMERGENCY EXIT ILLUMINATION.
2. PREWIRE RELAY AND MOUNT TO LIGHT FIXTURE. TEST FIXTURE AND EMERGENCY TRANSFER RELAY PRIOR TO INSTALLATION.
3. WHERE LIGHT FIXTURE IS A THREE LAMP FIXTURE, CONNECT EMERGENCY TRANSFER RELAY TO THE ONE LAMP BALLAST. WHERE LIGHT FIXTURE IS A FOUR LAMP FIXTURE, PROVIDE 2 LAMPS ON EACH OF TWO BALLAST AND CONNECT EMERGENCY TRANSFER RELAY TO ONE BALLAST (AND 2 LAMPS).

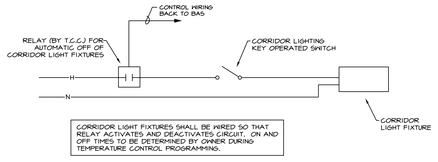
**MISCELLANEOUS ROOMS WITH CEILING MOUNTED MOTION DETECTORS**

1. IF ROOM HAS A MOTION DETECTOR, THE TRANSFER RELAY SHALL BE WIRED TO TURN ONLY THE EMERGENCY PORTION OF FIXTURE "ON" WHEN POWER FAILS.

DETAIL L-6
NOT TO SCALE

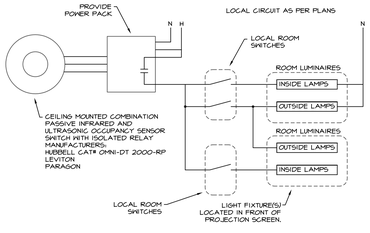



DETAIL L-7
NOT TO SCALE




CORRIDOR LIGHTING CONTROL SCHEMATIC

DETAIL L-3
NOT TO SCALE



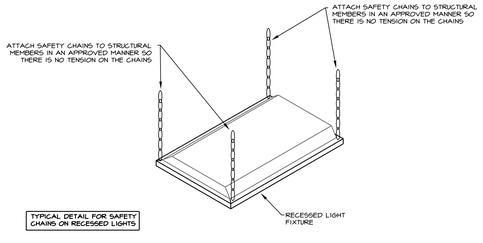

**NOTES**

1. CEILING MOUNT OCCUPANCY SENSOR AT LOCATION AS SHOWN ON PLAN.
2. NUMBER AND CONFIGURATION OF MANUAL SWITCHES AS SHOWN ON THE PLANS.
3. MANUFACTURERS: HUBBELL, WATT STOPPER, LEVITON
4. EACH LIGHT IS TO BE SWITCHED WITH REGULAR ROOM LIGHTS.

CLASSROOM LIGHTS SHALL BE WIRED SO THAT SWITCH TURNS LIGHTS "ON". MOTION DETECTOR WILL CONTROL LIGHTS UNTIL SWITCH IS CHANGED TO "OFF" POSITION.

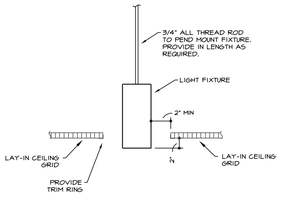
CLASSROOM LIGHTING OCCUPANCY SENSOR CONTROL DETAIL

DETAIL L-4
NOT TO SCALE



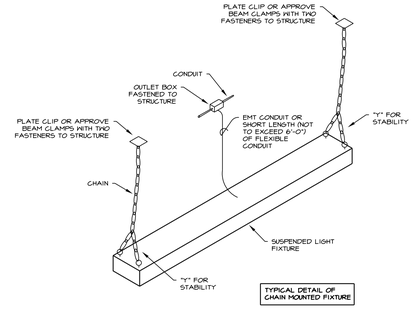

TYPICAL DETAIL FOR SAFETY CHAINS ON RECESSED LIGHTS

DETAIL L-2
NOT TO SCALE




FIXTURE "AA"

DETAIL L-5
NOT TO SCALE




TYPICAL DETAIL OF CHAIN MOUNTED FIXTURE

DETAIL L-1
NOT TO SCALE

LIGHTING DETAILS

SCALE: 1/8" = 1'-0" E4.6

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Client No. DAY019.02 DAY019.04

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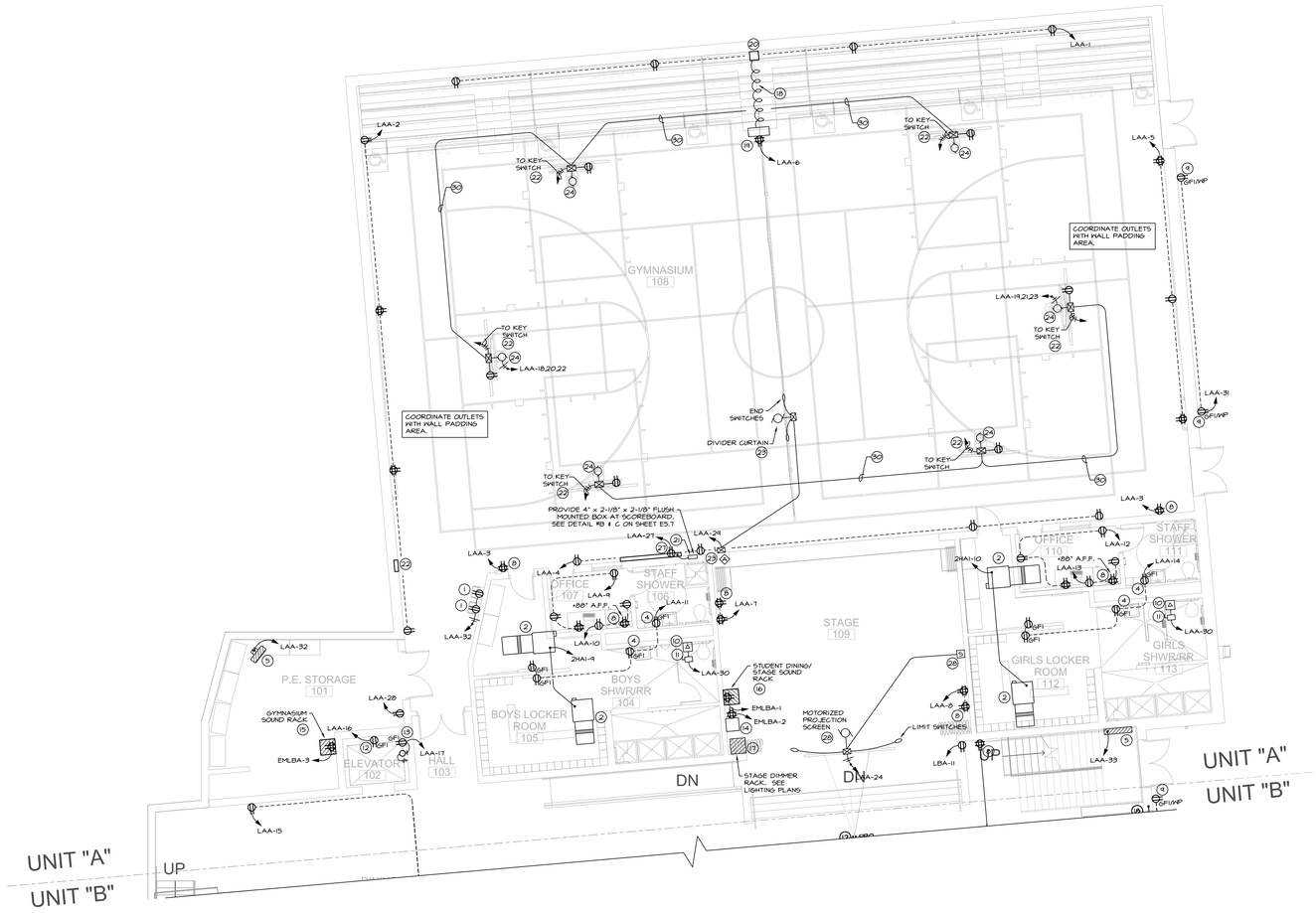
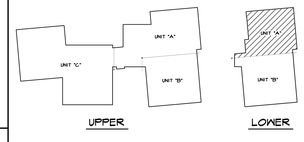



## SHEET NOTES:

1. NOTE NOT USED.
2. VAV BOX FURNISHED WITH FACTORY INSTALLED DISCONNECT. WIRE TO DISCONNECT. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
3. NOTE NOT USED.
4. 6FI DUPLEX RECEPTACLE AT +48" A.F.F.
5. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR HEATING UNIT. COORDINATE ALL FINAL LOCATIONS AND CONNECTION REQUIREMENTS.
6. NOTE NOT USED.
7. NOTE NOT USED.
8. QUAD OUTLET FOR WALL MOUNTED REMOTE A/V. M.H. 84" UNLESS NOTED OTHERWISE. COORDINATE.
9. WP / GFI OUTLET +2'-0" ABOVE FINISHED GRADE.
10. PROVIDE FLUSH MOUNTED OUTLET BOX AT EACH SENSOR LOCATION. PROVIDE 120V WIRING TO THE TRANSFORMER TO BE LOCATED ABOVE CEILING AND LOW VOLTAGE WIRING FROM THE TRANSFORMER TO EACH SENSOR AS DIRECTED BY C.M. COORDINATE EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. SEE DETAIL #F ON SHEET E5.0.
11. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER.
12. DEDICATED RECEPTACLE FOR ELEVATOR SUMP PUMP IN THE ELEVATOR PIT.
13. GFI RECEPTACLE AND WEATHER PROOF LIGHT FIXTURE EQUAL 'APPLETON'.
14. QUAD. OUTLET IN THE BOX ABOVE CEILING FOR CAFETERIA A/V DISTRIBUTION EQUIPMENT. COORDINATE WITH UNIT LOCATION.
15. GYMNASIUM SOUND SYSTEM RACK. COORDINATE EXACT LOCATION. PROVIDE QUAD. RECEPTACLE AT +48" M.H. AND WIRING FOR THE GYM SYSTEM SOUND RACK.
16. STUDENT DINING SOUND SYSTEM RACK. COORDINATE EXACT LOCATION. PROVIDE QUAD. RECEPTACLE AT +48" M.H. AND WIRING FOR THE STUDENT DINING SYSTEM SOUND RACK.
17. STAGE LIGHTING DIMMER RACK. SEE LIGHTING PLANS FOR LOCATION AND DETAILS.
18. PROVIDE CABLE FOR SCOREBOARD CONTROL AND ACCESSORIES SO THAT CABLE TRAVELS WITH THE BLEACHER AS THEY MOVE FROM FULL CLOSE. COORDINATE WITH SCOREBOARD SUPPLIER. SEE ALSO SHEET E5.1., DETAILS-'B', AND 'C'.
19. PROVIDE FOUR GANG BOX AT THE FACE OF THE BOTTOM RON OF THE BLEACHERS FOR THE QUAD. OUTLET. SCOREBOARD CONTROL UNIT SUPPLIED WITH SCOREBOARD. SEE DETAILS - 'B' AND 'C' IN SHEET E5.1. DETAILS ARE SHOWN FOR REFERENCE ONLY. COORDINATE WITH SCOREBOARD SUPPLIER.
20. FLUSH MOUNTED BOX FOR SCOREBOARD CONTROL UNIT AND CABLE. SEE DETAILS-'B', AND 'C.' IN SHEET E5.1. COORDINATE WITH SCOREBOARD SUPPLIER.
21. PROVIDE 4" x 2-1/8" x 2-1/8" FLUSH MOUNTED BOX AT SCOREBOARD LOCATION. COORDINATE LOCATION WITH SCOREBOARD PRIOR TO ROUGH-IN.
22. PROVIDE KEY OPERATED SWITCH FOR (6) BASKETBALL BACKSTOPS IN FLUSH MOUNTED CABINET. PROVIDE LOCKABLE COVER ON BOX. SEE DETAIL #N ON SHEET E5.0.
23. DIVIDER CURTAIN. COORDINATE LOCATION AND MOUNTING HEIGHT OF THE SWITCH WITH ARCHITECT.
24. BASKETBALL BACKSTOP.
25. NOTE NOT USED.
26. NOTE NOT USED.
27. PROVIDE DEDICATED DUPLEX OUTLET FOR SCOREBOARD. M.H. +16'-0" A.F.F. COORDINATE LOCATION WITH SCOREBOARD PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. SEE DETAIL-B ON SHEET E5.1.
28. MOTORIZED PROJECTION SCREEN. PROVIDE ROUGH-IN AND FINAL CONNECTIONS. COORDINATE WITH PROJECTION SCREEN SUPPLIER.
29. NOTE NOT USED.
30. INSTALL IN EMT CONDUIT ABOVE ACCESSIBLE CEILING AND CONCEAL IN WALL.




KEY PLAN NO SCALE

UNIT "A" LOWER LEVEL POWER PLAN

SCALE: 1/8" = 1'-0" | E5.1

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STATE OF OHIO DON R. MILLER E-048664 REGISTERED PROFESSIONAL ENGINEER

DSDA
DAYTON SCHOOL DESIGN ASSOCIATION, LLC

ARCHITECT OF RECORD

LORENZ WILLIAMS
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434 EAST FIRST STREET
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| No. | Revisions / Submissions | Date |
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| 1 | PERMIT SUBMISSION | 11/10/06 |
| 2 | BID PHASE SUBMISSION | 12/01/06 |
| 3 | REVISED BID PHASE SUBMISSION | 01/12/07 |

DAYTON PUBLIC SCHOOLS
A New Day for Dayton!

KEMP PK-8
1923 Gondert Avenue
Dayton, Ohio 45403
Montgomery County

UNIT "A" LOWER LEVEL POWER PLAN

Date 6/9/2006 | Comm. No. 05201.04 | Drawn C.J.M. | Checked D.R.M.

Drawing No. E5.1

Client No. DAY019.02 DAY019.04

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## SHEET NOTES:

1. PROVIDE WIRING, OUTLET AND FINAL CONNECTION FOR WATER COOLER. VERIFY ALL CONNECTIONS AND REQUIREMENTS AND PROVIDE ALL NECESSARY ELECTRICAL MATERIALS AND WORK.
2. VAV BOX FURNISHED WITH FACTORY INSTALLED DISCONNECT. WIRE TO DISCONNECT. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
3. NOTE NOT USED.
4. NOTE NOT USED.
5. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR HEATING UNIT. COORDINATE ALL FINAL LOCATIONS AND CONNECTION REQUIREMENTS.
6. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR EXHAUST FAN.
7. WIRE EXHAUST FAN CIRCUIT TO TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE EXACT TEMPERATURE CONTROL DEVICE LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
8. QUAD OUTLET FOR WALL MOUNTED REMOTE A/V. M.H. 84" UNLESS NOTED OTHERWISE. COORDINATE.
9. WP / GFI OUTLET +2'-0" ABOVE FINISHED GRADE.
10. PROVIDE FLUSH MOUNTED OUTLET BOX AT EACH SENSOR LOCATION. PROVIDE 120V WIRING TO THE TRANSFORMER TO BE LOCATED ABOVE CEILING AND LOW VOLTAGE WIRING FROM THE TRANSFORMER TO EACH SENSOR AS DIRECTED BY C.M. COORDINATE EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. SEE DETAIL 4P ON SHEET E5.0.
11. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER.
12. DUPLEX RECEPTACLE IN CEILING FOR PROJECTOR. COORDINATE LOCATION WITH PROJECTOR SUPPLIER.
13. PROVIDE BOX, DEVICE, AND WIRING FOR TEACHER'S WARDROBE WITH VCR/DVD PLAYER. COORDINATE WITH CASEWORK SUPPLIER. SEE DETAIL-6 IN SHEET E5.1.
14. GFI RECEPTACLE. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
15. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
16. INSTALL TRANSFORMER FURNISHED BY PLUMBING FIXTURE SUPPLIER ABOVE CEILING. PROVIDE 120 VOLT WIRING TO THE PRIMARY SIDE OF THE TRANSFORMER AND CONCEALED LOW VOLTAGE WIRING TO THE WASH FOUNTAIN SENSOR. COORDINATE LOCATION REQUIREMENTS WITH LAVATORY OR FOUNTAIN SUPPLIER PRIOR TO ROUGH-IN. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER LOCATION.
17. NOTE NOT USED.
18. PROVIDE EMERGENCY 120V, 20A CIRCUIT FOR THE CARD READER. PROVIDE FLUSH MOUNTED BOX, CONDUIT AND WIRING. SEE DETAIL #L IN SHEET E5.0.
19. FUSED DISCONNECT FOR ELEVATOR CAB-LIGHT - 240V, 3 POLE, 30A WITH 20A FUSES.
20. FUSED DISCONNECT FOR ELEVATOR POWER- 480V, 3 POLE, 60A WITH 50A BUSSMANN 'POWER MODULE SWITCH' WITH SHUNT TRIP, CONTROL POWER TRANSFORMER WITH FUSES AND BLOCKS, FIRE SAFETY INTERFACE RELAY IN NEMA 1 ENCLOSURE.
21. DEDICATED OUTLET FOR VENDING MACHINE. COORDINATE LOCATION WITH VENDING MACHINE.
22. OUTLET FOR REFRIGERATOR. COORDINATE WITH UNIT.
23. MASTER TEMPERATURE CONTROL PANEL. COORDINATE LOCATION WITH HVAC DRAWINGS.
24. PROVIDE 120V, 20A EMERGENCY CIRCUIT FOR POWER SUPPLY (OTHERS) FOR DOOR (HARDWARE) SECURITY SYSTEM. COORDINATE REQUIREMENTS.

PROVIDE OUTLET BOX AT EACH SENSOR LOCATION, LOW VOLTAGE WIRING AT ALL FLUSH VALVES, 120 VOLTAGE WIRING TO SMALL TRANSFORMER AND CONNECT THERE TO AS DIRECTED BY CONSTRUCTOR MANAGER. THIS CONTRACTOR SHALL BE RESPONSIBLE AND SHALL BEAR ALL COSTS FOR INSTALLATION, CONNECTIONS, ROUTING, ETC., OF TRANSFORMERS AND WORK RELATED TO SENSOR OPERATED FLUSH VALVES AS NOTED ON DRAWINGS. COORDINATE.

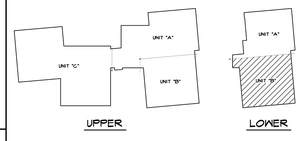
**FLUSH VALVE SENSOR LOCATION AND POSITIONING IS CRITICAL !**

FAILURE TO PROPERLY POSITION THE ELECTRICAL BOXES TO THE PLUMBING ROUGH-IN WILL RESULT IN IMPROPER INSTALLATION AND IMPAIR PRODUCT PERFORMANCE. ALL TRADESMEN (PLUMBERS, ELECTRICIANS, TILE SETTERS, ETC.) INVOLVED WITH THE INSTALLATION OF THIS PRODUCT MUST COORDINATE THEIR WORK TO ASSURE PROPER PRODUCT INSTALLATION.

## TRANSFORMER LEGEND

△ = TRANSFORMER TO OPERATE NON-SHADED WATER CLOSETS / URINAL FLUSH VALVES.

▲ = TRANSFORMER TO OPERATE SHADED WATER CLOSETS / URINAL FLUSH VALVES.




KEY PLAN NO SCALE

UNIT "B" LOWER LEVEL POWER PLAN

SCALE: 1/8" = 1'-0" E5.2

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Comm. No. 05201.04
Drawn C.J.M.
Checked D.R.M.
Drawing No. E5.2
Client No. DAY019.02 DAY019.04

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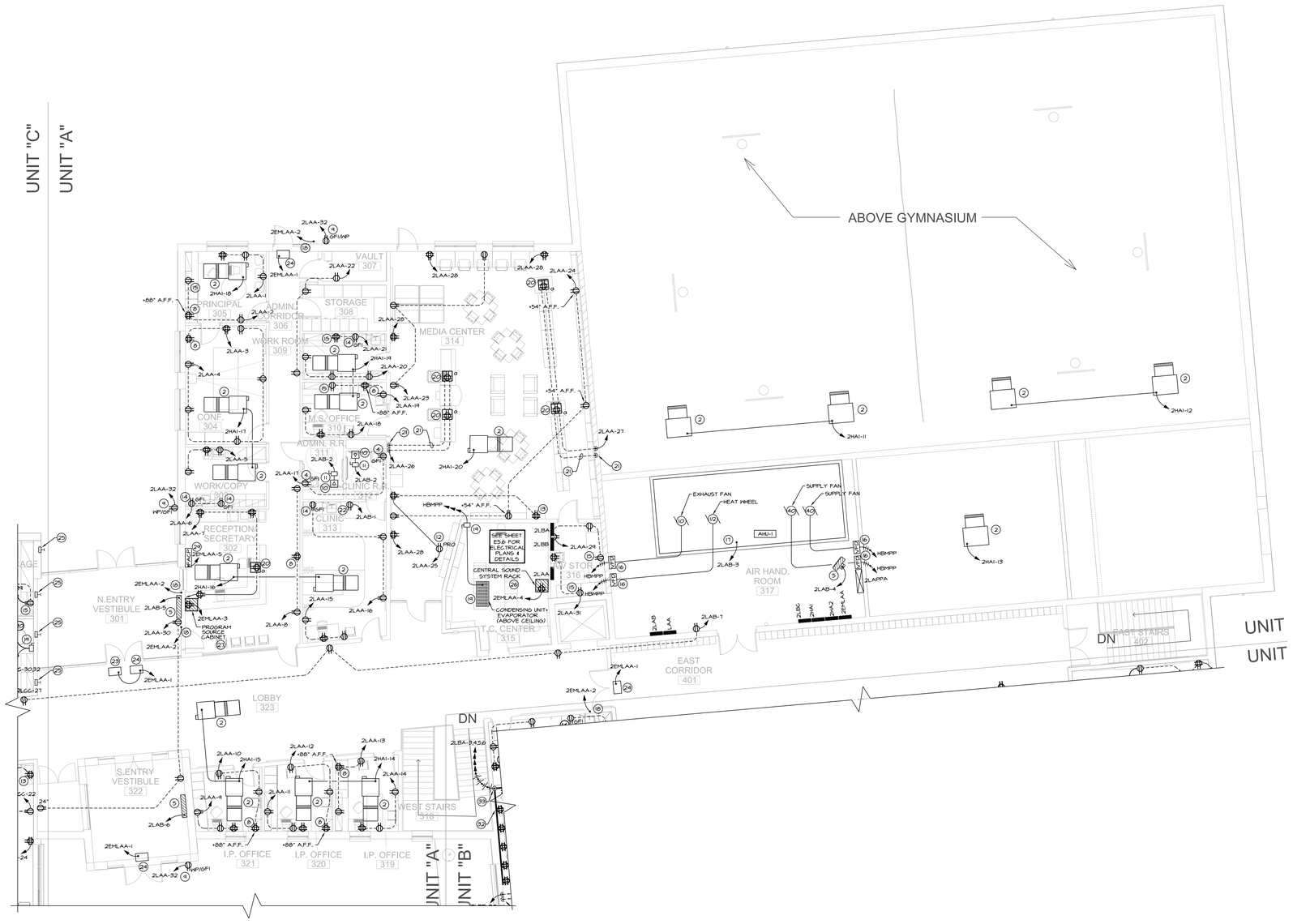
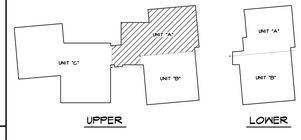



## SHEET NOTES:

1. NOTE NOT USED.
2. VAV BOX FURNISHED WITH FACTORY INSTALLED DISCONNECT. WIRE TO DISCONNECT. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
3. NOTE NOT USED.
4. GFI DUPLEX RECEPTACLE AT +48" A.F.F.
5. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR HEATING UNIT. COORDINATE ALL FINAL LOCATIONS AND CONNECTION REQUIREMENTS.
6. NOTE NOT USED.
7. NOTE NOT USED.
8. QUAD OUTLET FOR WALL MOUNTED REMOTE A/V. M.H. 84" UNLESS NOTED OTHERWISE. COORDINATE.
9. WP / GFI OUTLET +2'-0" ABOVE FINISHED GRADE.
10. PROVIDE FLUSH MOUNTED OUTLET BOX AT EACH SENSOR LOCATION. PROVIDE 120V WIRING TO THE TRANSFORMER TO BE LOCATED ABOVE CEILING AND LOW VOLTAGE WIRING FROM THE TRANSFORMER TO EACH SENSOR AS DIRECTED BY C.M. COORDINATE EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. SEE DETAIL 9P ON SHEET E5.0.
11. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER.
12. DUPLEX RECEPTACLE IN CEILING FOR PROJECTOR. COORDINATE LOCATION WITH PROJECTOR SUPPLIER.
13. PROVIDE BOX, DEVICE, AND WIRING FOR TEACHER'S WARDROBE WITH VCR/DVD PLAYER. COORDINATE WITH CASEWORK SUPPLIER. SEE DETAIL-G IN SHEET E5.7.
14. GFI RECEPTACLE. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
15. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
16. VFD SUPPLIED WITH UNIT.
17. CIRCUIT FOR AIR HANDLING UNIT RECEPTACLE AND LIGHTING.
18. PROVIDE EMERGENCY 120V, 20A CIRCUIT FOR THE CARD READER. PROVIDE FLUSH MOUNTED BOX, CONDUIT AND WIRING. SEE DETAIL 4L IN SHEET E5.0.
19. CONDENSER + EVAPORATOR UNIT. DISCONNECT SUPPLIED WITH UNIT.
20. FLUSH MOUNTED FLOOR BOX. SEE FLOOR BOX SCHEDULE ON SHEET E1.1.
21. 1" CONDUIT BELOW FLOOR FOR DATA WIRING. CONCEAL CONDUIT UP IN WALL WHEN CONDUIT RISES UP FROM BELOW FLOOR.
22. OUTLET FOR REFRIGERATOR. COORDINATE WITH UNIT.
23. PROVIDE 120V, 20A EMERGENCY CIRCUIT FOR POWER SUPPLY (OTHERS) FOR HANDICAP ACCESS DOOR SYSTEM WITH OVER RIDE CONTROL. COORDINATE REQUIREMENTS.
24. PROVIDE 120V, 20A EMERGENCY CIRCUIT FOR POWER SUPPLY (OTHERS) FOR DOOR (HARWARE) SECURITY SYSTEM. COORDINATE REQUIREMENTS.
25. HANDICAP ACCESS PUSH BUTTON. PROVIDE FLUSH MOUNTED BOX WITH 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN. COORDINATE EXACT LOCATION WITH ARCHITECT.
26. CENTRAL PAGING SYSTEM RACK. COORDINATE EXACT LOCATION. PROVIDE QUAD. RECEPTACLE AT +48" M.H. AND WIRING FOR THE CENTRAL SYSTEM CABINET.
27. PROGRAM SOURCE CABINET. COORDINATE EXACT LOCATION. PROVIDE QUAD. RECEPTACLE AT +48" M.H. AND WIRING FOR THE PROGRAM SOURCE SOUND RACK.
28. QUAD OUTLET FOR WORK STATION. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP.
29. FIRE ALARM CONTROL PANEL (FACP).




KEY PLAN NO SCALE

UNIT "A" UPPER LEVEL POWER PLAN

SCALE: 1/8" = 1'-0" | E5.3

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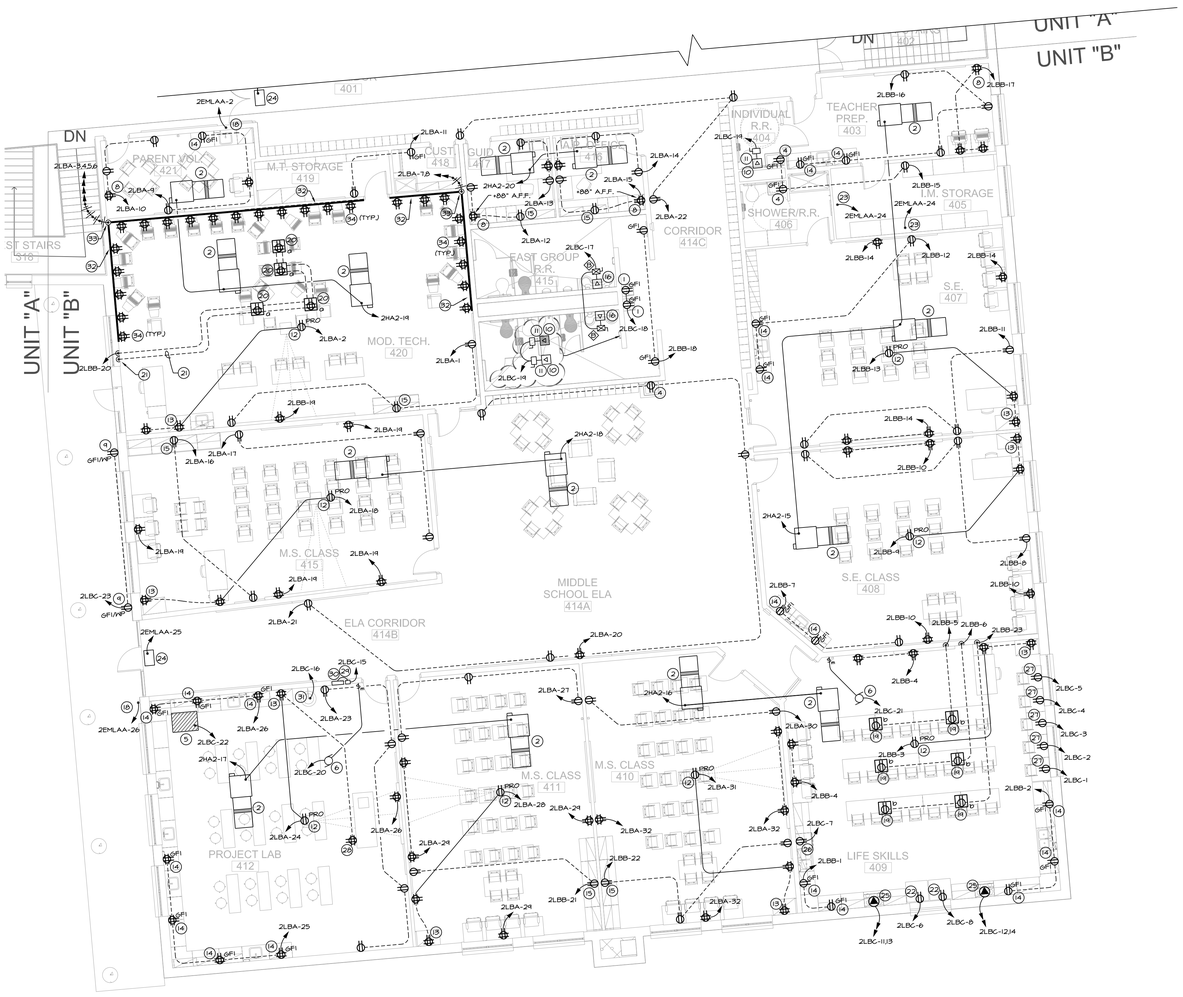


## SHEET NOTES:

1. PROVIDE WIRING, OUTLET AND FINAL CONNECTION FOR WATER COOLER. VERIFY ALL CONNECTIONS AND REQUIREMENTS AND PROVIDE ALL NECESSARY ELECTRICAL MATERIALS AND WORK.
2. VAV BOX FURNISHED WITH FACTORY INSTALLED DISCONNECT. WIRE TO DISCONNECT. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
3. NOTE NOT USED.
4. GFI DUPLEX RECEPTACLE AT +48" A.F.F.
5. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR HEATING UNIT. COORDINATE ALL FINAL LOCATIONS AND CONNECTION REQUIREMENTS.
6. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR EXHAUST FAN.
7. NOTE NOT USED.
8. QUAD OUTLET FOR WALL MOUNTED REMOTE A/V. M.H. 84" UNLESS NOTED OTHERWISE. COORDINATE.
9. WP / GFI OUTLET +2'-0" ABOVE FINISHED GRADE.
10. PROVIDE FLUSH MOUNTED OUTLET BOX AT EACH SENSOR LOCATION. PROVIDE 120V WIRING TO THE TRANSFORMER TO BE LOCATED ABOVE CEILING AND LOW VOLTAGE WIRING FROM THE TRANSFORMER TO EACH SENSOR AS DIRECTED BY C.M. COORDINATE EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. SEE DETAIL #P ON SHEET E5.B.
11. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER.
12. DUPLEX RECEPTACLE IN CEILING FOR PROJECTOR. COORDINATE LOCATION WITH PROJECTOR SUPPLIER.
13. PROVIDE BOX, DEVICE, AND WIRING FOR TEACHER'S WARDROBE WITH VCR/DVD PLAYER. COORDINATE WITH CASEWORK SUPPLIER. SEE DETAIL-G IN SHEET E5.1.
14. GFI RECEPTACLE. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
15. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
16. INSTALL TRANSFORMER FURNISHED BY PLUMBING FIXTURE SUPPLIER ABOVE CEILING. PROVIDE 120 VOLT WIRING TO THE PRIMARY SIDE OF THE TRANSFORMER AND CONCEALED LOW VOLTAGE WIRING TO THE WASH FOUNTAIN SENSOR. COORDINATE LOCATION REQUIREMENTS WITH LAVATORY OR FOUNTAIN SUPPLIER PRIOR TO ROUGH-IN. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER LOCATION.
17. NOTE NOT USED.
18. PROVIDE EMERGENCY 120V, 20A CIRCUIT FOR THE CARD READER. PROVIDE FLUSH MOUNTED BOX, CONDUIT AND WIRING. SEE DETAIL #L IN SHEET E5.B.
19. FLUSH MOUNTED FLOOR BOX. SEE FLOOR BOX SCHEDULE ON SHEET E1.1.
20. FLUSH MOUNTED FLOOR BOX. SEE FLOOR BOX SCHEDULE ON SHEET E1.1.
21. 1" CONDUIT BELOW FLOOR FOR DATA WIRING. CONCEAL CONDUIT UP IN WALL WHEN CONDUIT RISES UP FROM BELOW FLOOR.
22. OUTLET FOR REFRIGERATOR. COORDINATE WITH UNIT.
23. 120V, 20A CIRCUIT FOR SMOKE DAMPER. COORDINATE EXACT DAMPER LOCATIONS WITH MECHANICAL DRAWINGS.
24. PROVIDE 120V, 20A EMERGENCY CIRCUIT FOR POWER SUPPLY (OTHERS) FOR DOOR (HARWARE) SECURITY SYSTEM. COORDINATE REQUIREMENTS.
25. RANGE OUTLET. COORDINATE LOCATION WITH RANGE. PROVIDE OUTLET TO MATCH RANGE PLUG CONFIGURATION. SEE KEYED SWITCH ARRANGEMENT IN SHEET E5.1, DETAIL-A.
26. DEDICATED OUTLET FOR DISHWASHER. COORDINATE LOCATION, M.H. AND OTHER REQUIREMENTS WITH DISHWASHER SUPPLIER PRIOR TO ROUGH-IN.
27. DEDICATED OUTLET FOR SEWING M/C. COORDINATE LOCATION, M.H. AND OTHER REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN.
28. QUAD OUTLET FOR WORKSTATION. COORDINATE LOCATION AND WIRING WITH CASEWORK SUPPLIER. QUAD, OUTLET AND BOX FOR DATA JACK FURNISHED AND INSTALLED BY CASEWORK SUPPLIER. PROVIDE CONDUIT AND WIRING.
29. PROVIDE 120V WIRING TO EMERGENCY SHUT-OFF MASTER CONTROL PANEL. SEE DETAIL-D IN SHEET E5.1. COORDINATE LOCATION.
30. GAS SOLENOID VALVE. COORDINATE LOCATION.
31. EMERGENCY SHOWER. COORDINATE LOCATION. PROVIDE GFI BRANCH BREAKER IN PANEL.
32. WIREMOLD SERIES DS 4000 SURFACE RACEWAY WITH DIVIDER FOR POWER AND LOW VOLTAGE WIRING. BOTTOM TO BE 1" ABOVE TOP OF CASEWORK. SEE DETAIL-F IN SHEET E5.1.
33. PROVIDE WIREMOLD SERIES DS 4000 SURFACE RACEWAY - VERTICAL SECTION TO ABOVE CEILING AND TRANSITION TO EMT CONDUIT ABOVE CEILING.
34. PROVIDE QUAD RECEPTACLES IN WIREMOLD SERIES DS 4000 SURFACE RACEWAY WITH DEVICE PLATES.

PROVIDE OUTLET BOX AT EACH SENSOR LOCATION, LOW VOLTAGE WIRING AT ALL FLUSH VALVES, 120 VOLTAGE WIRING TO SMALL TRANSFORMER AND CONNECT THERE TO AS DIRECTED BY CONSTRUCTOR MANAGER. THIS CONTRACTOR SHALL BE RESPONSIBLE AND SHALL BEAR ALL COSTS FOR INSTALLATION, CONNECTIONS, ROUTING, ETC., OF TRANSFORMERS AND WORK RELATED TO SENSOR OPERATED FLUSH VALVES AS NOTED ON DRAWINGS. COORDINATE.

**FLUSH VALVE SENSOR LOCATION AND POSITIONING IS CRITICAL !**

FAILURE TO PROPERLY POSITION THE ELECTRICAL BOXES TO THE PLUMBING ROUGH-IN WILL RESULT IN IMPROPER INSTALLATION AND IMPAIR PRODUCT PERFORMANCE. ALL TRADESMEN (PLUMBERS, ELECTRICIANS, TILE SETTERS, ETC.) INVOLVED WITH THE INSTALLATION OF THIS PRODUCT MUST COORDINATE THEIR WORK TO ASSURE PROPER PRODUCT INSTALLATION.

## TRANSFORMER LEGEND

△ = TRANSFORMER TO OPERATE NON-SHADED WATER CLOSETS / URINAL FLUSH VALVES.

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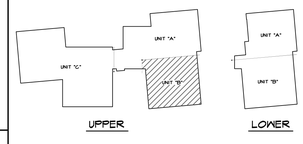


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UNIT "B" UPPER LEVEL POWER PLAN

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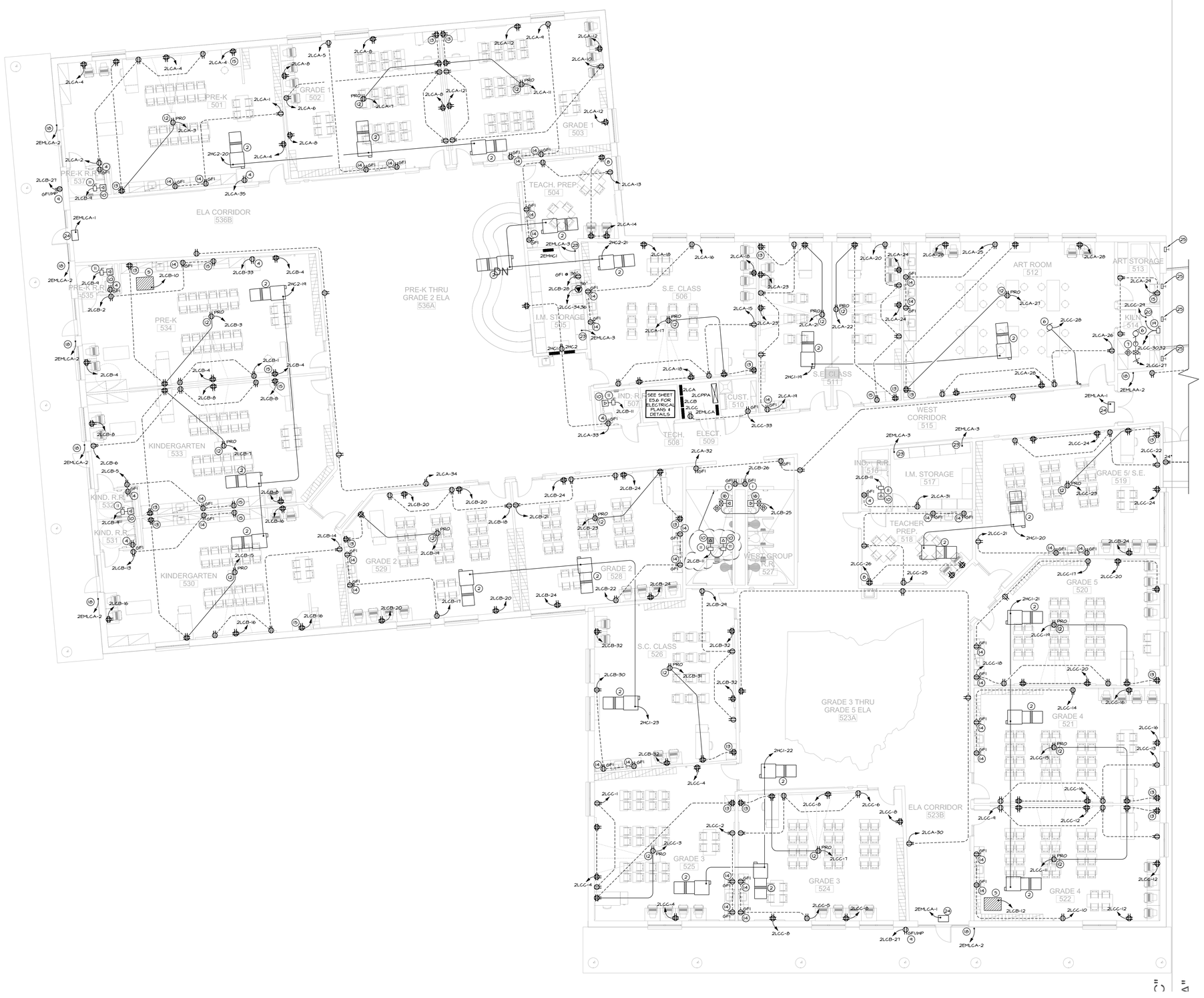


## SHEET NOTES:

1. PROVIDE WIRING, OUTLET AND FINAL CONNECTION FOR WATER COOLER. VERIFY ALL CONNECTIONS AND REQUIREMENTS AND PROVIDE ALL NECESSARY ELECTRICAL MATERIALS AND WORK.
2. VAV BOX FURNISHED WITH FACTORY INSTALLED DISCONNECT. WIRE TO DISCONNECT. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
3. NOTE NOT USED.
4. GFI DUPLEX RECEPTACLE AT +48" A.F.F.
5. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR HEATING UNIT. COORDINATE ALL FINAL LOCATIONS AND CONNECTION REQUIREMENTS.
6. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTION FOR EXHAUST FAN.
7. WIRE EXHAUST FAN CIRCUIT TO TEMPERATURE CONTROL DEVICE. VERIFY AND COORDINATE EXACT TEMPERATURE CONTROL DEVICE LOCATION AND CONNECTION REQUIREMENTS AND WIRE THERETO.
8. QUAD OUTLET FOR WALL MOUNTED REMOTE A/V. M.H. 84" UNLESS NOTED OTHERWISE. COORDINATE.
9. WP / GFI OUTLET +2'-0" ABOVE FINISHED GRADE.
10. PROVIDE FLUSH MOUNTED OUTLET BOX AT EACH SENSOR LOCATION. PROVIDE 120V WIRING TO THE TRANSFORMER TO BE LOCATED ABOVE CEILING AND LOW VOLTAGE WIRING FROM THE TRANSFORMER TO EACH SENSOR AS DIRECTED BY G.M. COORDINATE EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. SEE DETAIL MP ON SHEET E5.8.
11. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER.
12. DUPLEX RECEPTACLE IN CEILING FOR PROJECTOR. COORDINATE LOCATION WITH PROJECTOR SUPPLIER.
13. PROVIDE BOX, DEVICE, AND WIRING FOR TEACHER'S WARDROBE WITH VCR/DVD PLAYER. COORDINATE WITH CASEWORK SUPPLIER. SEE DETAIL-G IN SHEET E5.7.
14. GFI RECEPTACLE. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
15. BOTTOM OF THE DEVICE TO BE 6" ABOVE COUNTERTOP / BACKSPLASH.
16. INSTALL TRANSFORMER FURNISHED BY PLUMBING FIXTURE SUPPLIER ABOVE CEILING. PROVIDE 120 VOLT WIRING TO THE PRIMARY SIDE OF THE TRANSFORMER AND CONCEALED LOW VOLTAGE WIRING TO THE WASH FOUNTAIN SENSOR. COORDINATE LOCATION REQUIREMENTS WITH LAVATORY OR FOUNTAIN SUPPLIER PRIOR TO ROUGH-IN. PROVIDE FUSIBLE SWITCH NEAR TRANSFORMER LOCATION.
17. NOTE NOT USED.
18. PROVIDE EMERGENCY 120V, 20A CIRCUIT FOR THE CARD READER. PROVIDE FLUSH MOUNTED BOX, CONDUIT AND WIRING. SEE DETAIL KL IN SHEET E5.8.
19. KILN BY OWNER. PROVIDE OUTLET TO MATCH KILN PLUG (NEMA 6-50 CONFIGURATION FOR REFERENCE ONLY). COORDINATE WITH KILN SUPPLIER. PROVIDE DISCONNECT.
20. CIRCUIT FOR KILN HOOD.
21. NOTE NOT USED.
22. NOTE NOT USED.
23. 120V, 20A CIRCUIT FOR SMOKE DAMPER. COORDINATE EXACT DAMPER LOCATIONS WITH MECHANICAL DRAWINGS.
24. PROVIDE 120V, 20A EMERGENCY CIRCUIT FOR POWER SUPPLY (OTHERS) FOR DOOR (HARDWARE) SECURITY SYSTEM. COORDINATE REQUIREMENTS.
25. HANDICAP ACCESS PUSH BUTTON. PROVIDE FLUSH MOUNTED BOX WITH 3/4" CONDUIT CONCEALED IN WALL TO ABOVE CEILING. COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN. COORDINATE EXACT LOCATION WITH ARCHITECT.

PROVIDE OUTLET BOX AT EACH SENSOR LOCATION, LOW VOLTAGE WIRING AT ALL FLUSH VALVES, 120 VOLTAGE WIRING TO SMALL TRANSFORMER AND CONNECT THERE TO AS DIRECTED BY CONSTRUCTOR MANAGER. THIS CONTRACTOR SHALL BE RESPONSIBLE AND SHALL BEAR ALL COSTS FOR INSTALLATION, CONNECTIONS, ROUTING, ETC., OF TRANSFORMERS AND WORK RELATED TO SENSOR OPERATED FLUSH VALVES AS NOTED ON DRAWINGS. COORDINATE.

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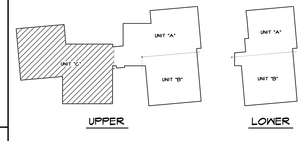
△ = TRANSFORMER TO OPERATE NON-SHADED WATER CLOSETS / URINAL FLUSH VALVES.

◭ = TRANSFORMER TO OPERATE SHADED WATER CLOSETS / URINAL FLUSH VALVES.




KEY PLAN NO SCALE

UNIT "C" UPPER LEVEL POWER PLAN

SCALE: 1/8" = 1'-0" E5.5

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UNIT "C" UPPER LEVEL POWER PLAN

| | |
|---|---|
| Date | 6/9/2006 |
| Drawing No. | E5.5 |
| Comm. No. | 05201.04 |
| Drawn | C.J.M. |
| Checked | D.R.M. |

Client No. DAY019.02 DAY019.04

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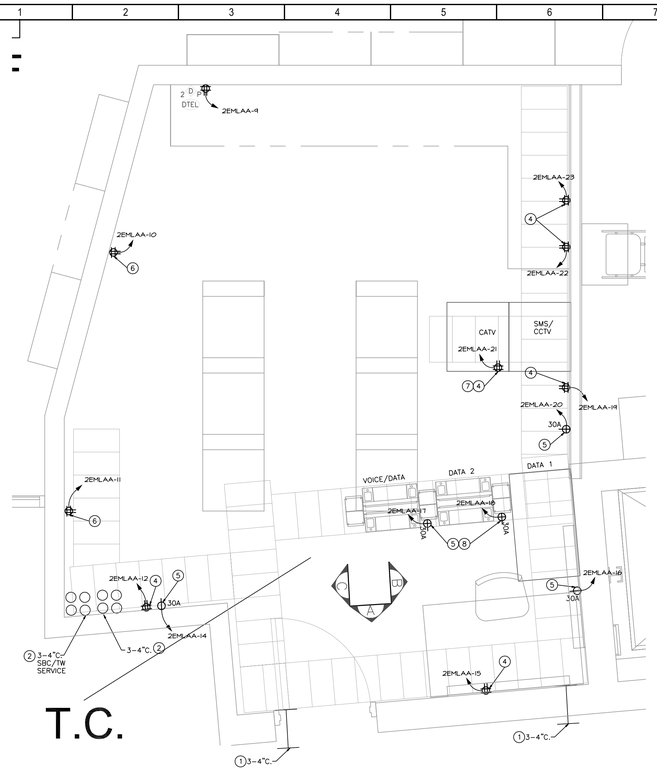
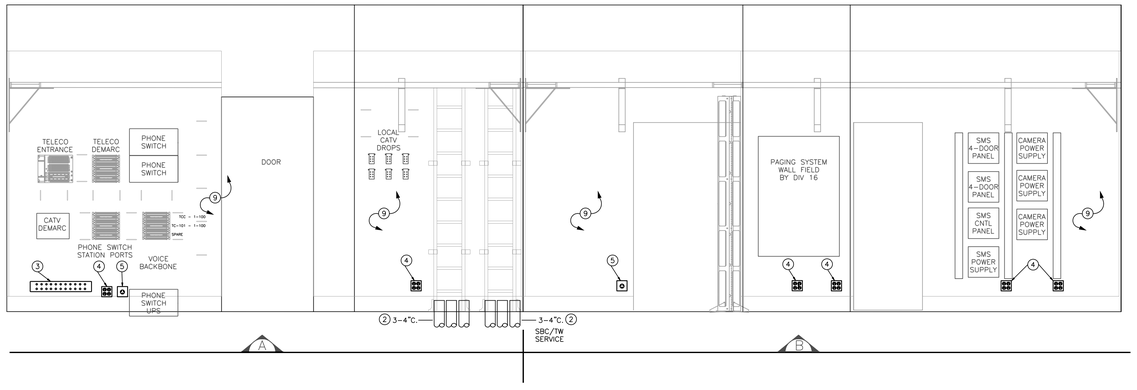


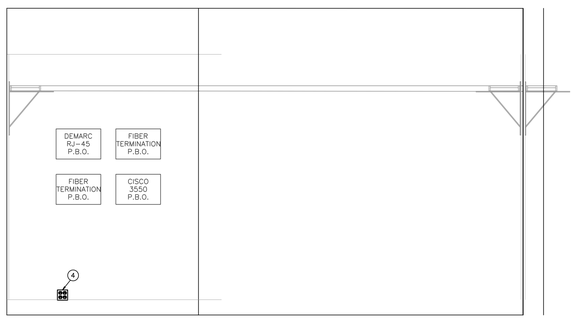

FLOOR PLAN

TECHNOLOGY CONTROL CENTER
SCALE: 1/2" = 1'-0"

## DETAIL NOTES

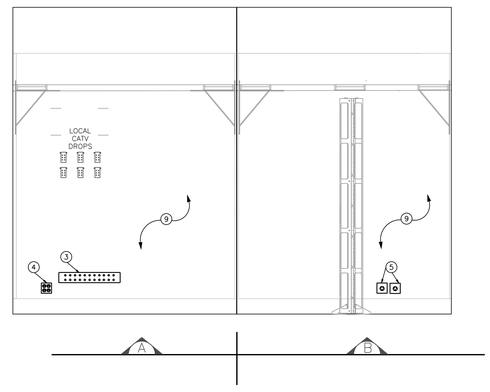
1. WALL, SLEEVE, SIZE AND QUANTITY AS NOTED
2. FLOOR SLEEVE, SIZE AND QUANTITY AS NOTED
3. TELECOMMUNICATIONS GROUND BAR
4. 20A-120V DOUBLE DUPLEX ELECTRICAL OUTLET WITH DEDICATED 120V-20A EMERGENCY BRANCH CIRCUITRY BY DIV 16.
5. 30A-120V TWISTLOCK ELECTRICAL OUTLET WITH DEDICATED 120V-30A EMERGENCY BRANCH CIRCUIT BY DIV 16.
6. 20A-120V DOUBLE DUPLEX ELECTRICAL OUTLET CONNECTED TO NORMAL POWER GENERAL PURPOSE CIRCUIT BY DIV. 16.
7. OUTLET TO BE MOUNTED INSIDE BOTTOM REAR OF CABINET BY DIV. 16..
8. OUTLET TO BE MOUNTED TO TOP OF RELAY RACK, ATTACHED TO LADDER RACK BY DIV. 16.
9. PLYWOOD BACKBOARD, 75" X 8' HIGH X FULL WIDTH, FIRE TREATED.



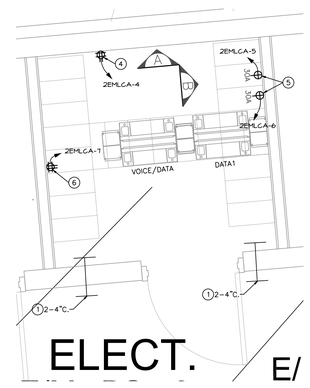




WALL ELEVTION

TYPICAL VOICE/DATA/VIDEO OUTLET DETAILS
SCALE: 1/2" = 1'-0"




WALL ELEVTION




FLOOR PLAN

TECH. CONTROL CENTER AND CLOSET POWER PLAN
SCALE: 1/2" = 1'-0" E5.6

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TECH. CONTROL CENTER AND CLOSET POWER PLAN

Comm. No. 05201.04
Drawn A.D.
Checked D.R.M.
Date 6/9/2006
Drawing No. E5.6
Client No. DAY019.02 DAY019.04

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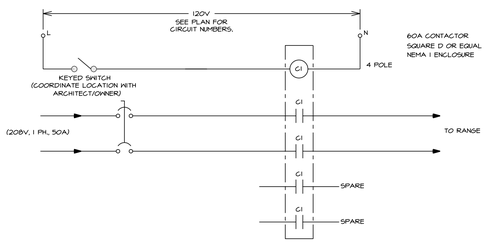
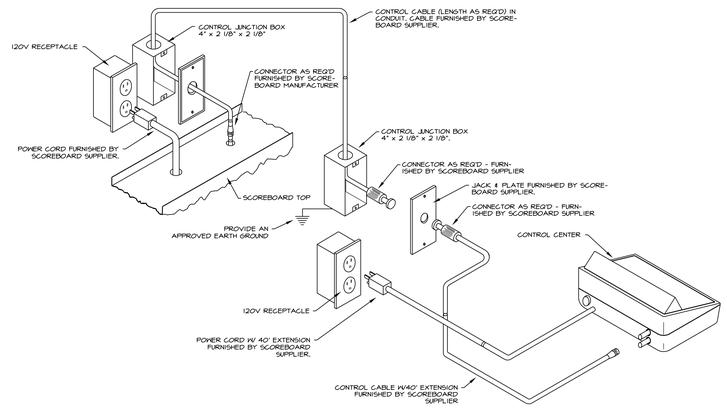



NOTE: KEYED SWICH (WITH RED/OFF AND GREEN/ON LIGHTS) FOR EACH RANGE TO BE LOCATED NEAR THE TEACHER'S STATION

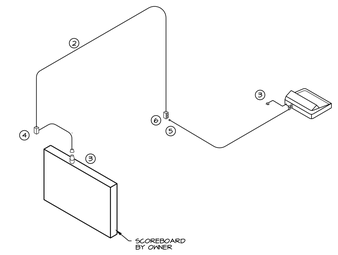
KEYED SWITCH CONTROL FOR RANGE
IN LIFE SKILLS LAB
TYPICAL FOR EACH RANGE

(A) DETAIL
NOT TO SCALE




SCOREBOARD ELECTRICAL DETAILS

(B) DETAIL
NOT TO SCALE

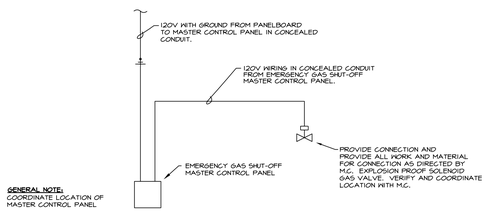



N O T E S

1. WALL BOXES MUST BE EARTH GROUNDED TO THE SAME GROUND OR GUARANTEE IS VOID.
2. CONTROL CABLE RG-58/U 1/4" DIAMETER. IF ANY CABLE LENGTH EXCEEDS 500' CONTACT THE SCOREBOARD FACTORY. CABLE VOLTAGE IS 5 VOLTS. FOR CONDUIT INSTALLATION, 1/2" CONDUIT IS REQUIRED.
3. FOR ELECTRICAL POWER REQUIREMENTS OF EACH ITEM REFER TO OTHER DRAWINGS OR SPECIFICATIONS
4. WALL BOX 4" x 2 1/8" x 2 1/8" WITH COVER
5. CONTROL CABLE 25' WITH CONNECTORS
6. WALL BOX 4' x 2 1/8" x 2 1/8" WITH COVER

SCOREBOARD SCHEMATIC

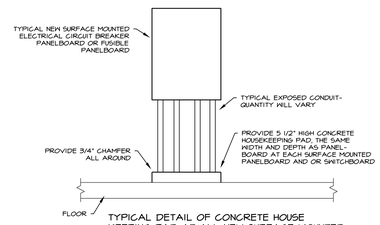
(C) DETAIL
NOT TO SCALE




GENERAL NOTE:
COORDINATE LOCATION OF
MASTER CONTROL PANEL

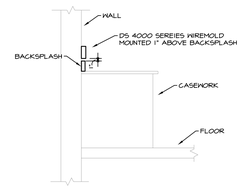
EMERGENCY GAS SHUT-OFF CONTROL IN PROJECT LAB

(D) DETAIL
NOT TO SCALE



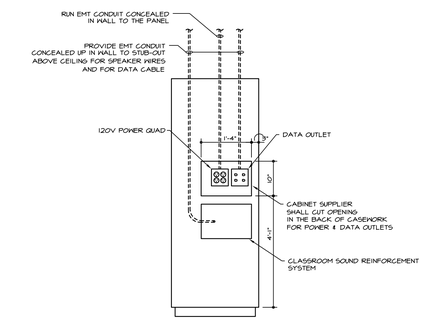

TYPICAL DETAIL OF CONCRETE HOUSE
KEEPING PAD AT ALL NEW SURFACE MOUNTED
CIRCUIT BREAKER PANELBOARDS AND
FUSIBLE PANELBOARDS.

(E) DETAIL
NOT TO SCALE




TYPICAL WIREMOLD SERIES 4000 MOUNTED
ABOVE CASEWORK

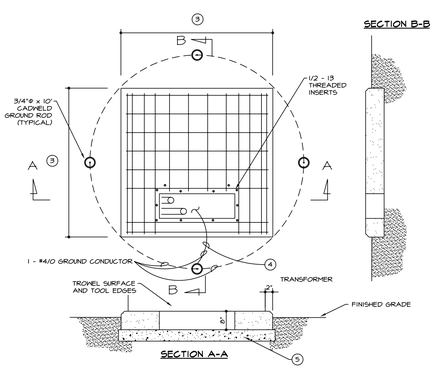
(F) DETAIL
NOT TO SCALE




BACK INTERIOR

TEACHER'S WARDROBE CABINET
(FOR REFERENCE ONLY. COORDINATE WITH
CLASSROOM SOUND SYSTEM SUPPLIER.)

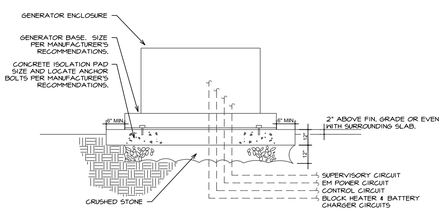
(G) DETAIL
NOT TO SCALE




1. CONCRETE PER SPECIFICATION DIV. 3
2. ALL REINFORCING SHALL BE NO. 4 ROUND DEFORMED BARS.
3. PAD DIMENSIONS SHALL BE DETERMINED BY XFMR MANUFACTURER'S AND UTILITY COMPANY RECOMMENDATIONS.
4. GROUND CONDUCTOR 2 - #4/0 SHALL BE TIED TO THE SECONDARY SIDE OF THE TRANSFORMER.
5. COMPACTED CRUSHED STONE, 6" THICK.

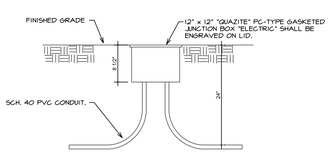
TRANSFORMER PAD DETAILS

(H) DETAIL
NOT TO SCALE




TYP. GENERATOR SET INSTALLATION DETAIL

(J) DETAIL
NOT TO SCALE




JUNCTION BOX DETAIL

(K) DETAIL
NOT TO SCALE

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Date 6/9/2006
Drawing No. E5.7
Comm. No. 05201.04
Drawn A.D.
Checked D.R.M.
Client No. DAY019.02 DAY019.04

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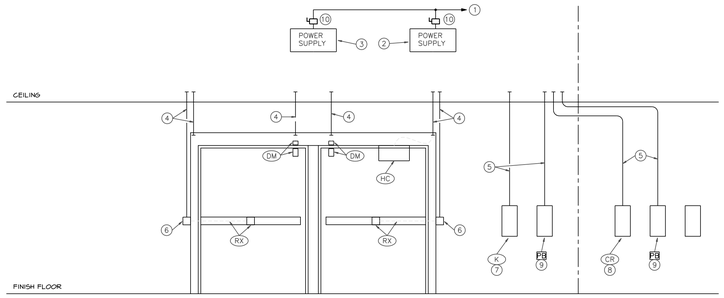



## NOTES:

1 PROVIDE 120V CIRCUIT

2 DOOR HARDWARE POWER SUPPLY ABOVE CEILING FURNISHED BY OTHERS.

3 HANDICAP DOOR OPERATOR POWER SUPPLY AND CONTROLLER ABOVE CEILING. FURNISHED BY OTHERS.

4 .5"C INSTALLED IN CMU AND DOOR FRAMES

5 .75"C INSTALLED IN CMU WALLS

6 PROVIDE 1-GANG BOX AT LOCATION OF WIRE PENETRATION FOR ELECTRIFIED HINGE.

7 PROVIDE 1-GANG BOX.

8 PROVIDE 1 GANG BOX.

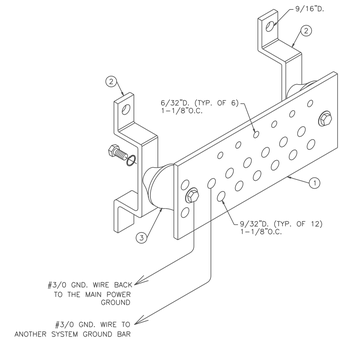
9 PROVIDE 1-GANG BOX . INSTALL AND WIRE HANDICAP DOOR OPERATOR PUSH BUTTON.

10 PROVIDE FUSED DISCONNECT. COORDINATE FUSE SIZE.

### DOOR - HANDICAP AND SECURITY

NOTES: REFER TO FLOOR PLANS FOR EXACT REQUIREMENTS FOR EACH INDIVIDUAL DOORS.

L DETAIL
NOT TO SCALE




## NOTES:

1 4"x1/4" GROUNDING BAR. ACTUAL LENGTH AS REQUIRED BY SPECIFICATIONS

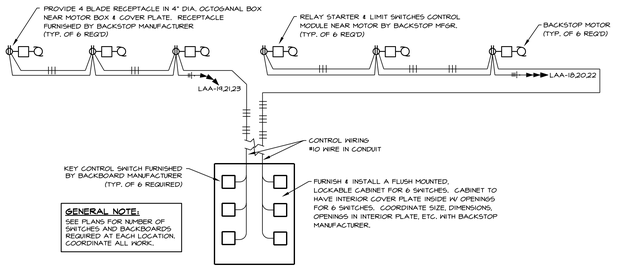
2 WALL MOUNTING BRACKET

3 STAND-OFF INSULATORS

### SYSTEM GROUND BAR

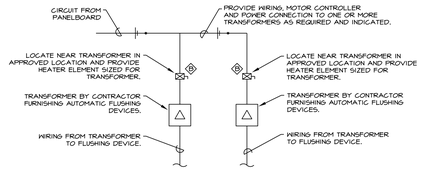
(FOR TECHNOLOGY CONTROL CENTER AND TECHNOLOGY CLOSETS. REFER ALSO TO SHEETS E3.10 AND E5.4. COORDINATE LOCATION PRIOR TO ROUGH-IN.

M DETAIL
NOT TO SCALE




### BACKBOARD WIRING DIAGRAM FOR NEW AND EXISTING BACKBOARDS

N DETAIL
NOT TO SCALE




### FLUSH VALVE WIRING DIAGRAM

P DETAIL
NOT TO SCALE

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Comm. No. 05201.04
Drawn A.D.
Checked D.R.M.
Date 6/9/2006
Drawing No. E5.8
Client No. DAY019.02 DAY019.04

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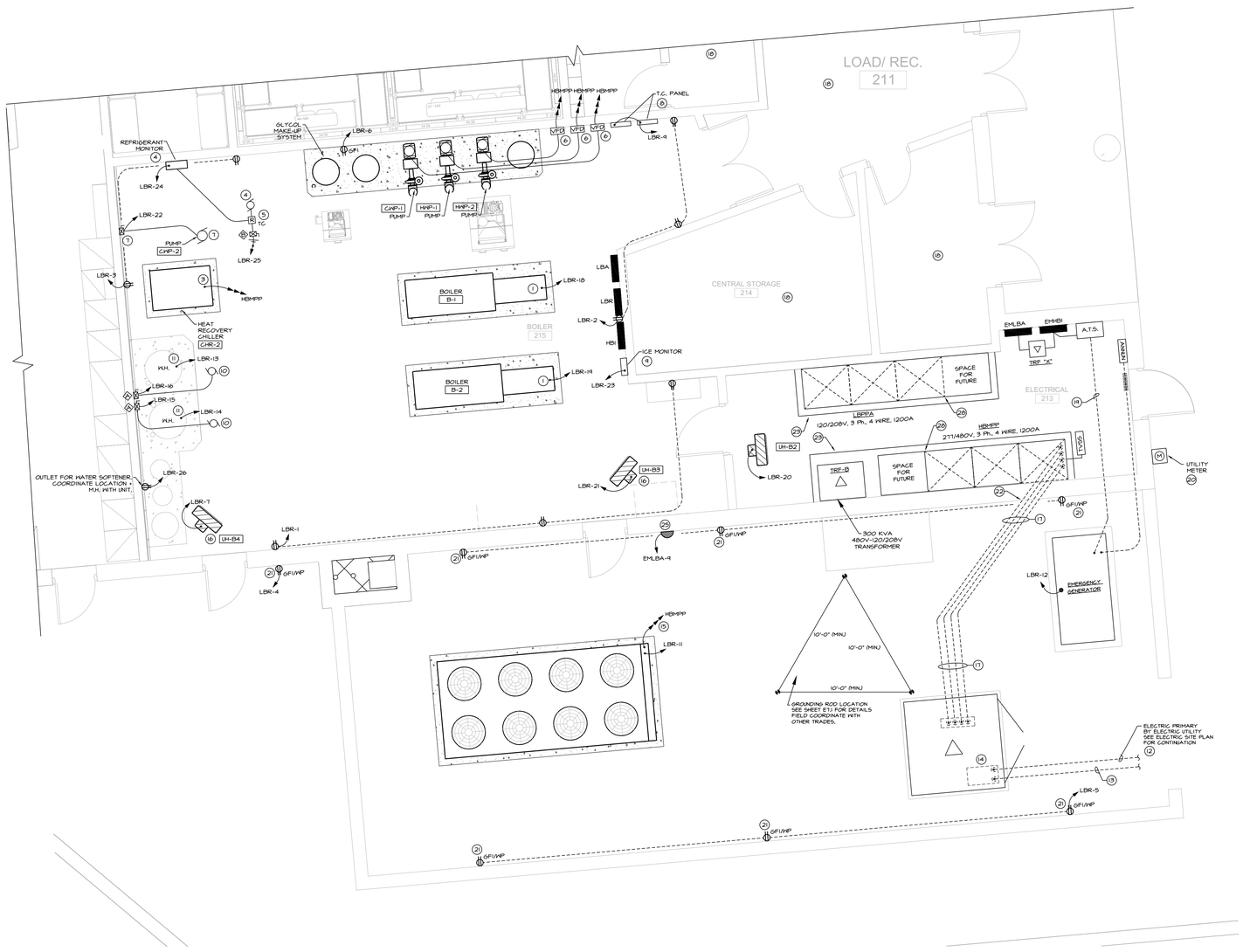


## SHEET NOTES

1. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTIONS TO BOILER BURNER UNITS. VERIFY AND COORDINATE ALL WORK.
2. NOTE NOT USED.
3. PROVIDE ALL POWER WIRING AND FINAL CONNECTIONS TO HEAT RECOVERY CHILLER. VERIFY AND COORDINATE ALL WORK.
4. PROVIDE POWER AND CONTROL WIRING TO REFRIGERATION MONITORING SYSTEM AND TWO SPEED EXHAUST FAN. VERIFY AND COORDINATE EXACT LOCATION AND ALL WORK.
5. WIRE EXHAUST FAN CIRCUIT TO TEMPERATURE CONTROL RELAY DEVICE. VERIFY LOCATION AND REQUIREMENT AND WIRE AS REQUIRED.
6. PROVIDE ALL POWER WIRING AND FINAL CONNECTIONS TO 'VFD' FOR PUMPS. VERIFY AND COORDINATE ALL WORK.
7. PROVIDE 120V POWER WIRING AND TYPE 'A' MOTOR SWITCH WITH THERMAL OVERLOAD PROTECTION TO THE MOTOR. COORDINATE LOCATION AND REQUIREMENTS AND WIRE AS REQUIRED.
8. PROVIDE 120V POWER WIRING AND FINAL CONNECTIONS TO TEMPERATURE CONTROL PANELS. VERIFY AND COORDINATE ALL WORK.
9. PROVIDE 120V POWER WIRING AND FINAL CONNECTIONS TO ICE MONITOR. VERIFY AND COORDINATE EXACT LOCATION AND ALL WORK.
10. PROVIDE POWER WIRING AND FINAL CONNECTIONS TO M.H. RECIRCULATING PUMP. PROVIDE TYPE 'A' MOTOR SWITCH WITH THERMAL OVERLOAD PROTECTION TO THE MOTOR. VERIFY AND COORDINATE EXACT LOCATION AND ALL WORK.
11. PROVIDE WIRING AND ALL FINAL CONNECTIONS TO GAS WATER HEATER IGNITION SYSTEM. VERIFY AND COORDINATE EXACT LOCATION AND ALL WORK.
12. PROVIDE SCHEDULE 40 PVC CONDUITS FOR UTILITY PRIMARY SERVICE CONDUCTORS. VERIFY ALL REQUIREMENTS AND COORDINATE WITH ELECTRIC UTILITY COMPANY. SEE AL50 ELECTRICAL SITE PLAN. LOCATE ALL CONDUITS 3'-0" CLEAR BELOW GRADES AND FINISHED SURFACES. SIZE THE CONDUITS AS REQUIRED BY THE UTILITY.
13. PROVIDE SPARE SCHEDULE 40 PVC CONDUIT THAT SHALL BE SAME AS DESCRIBED IN NOTE #12. SIZE THE CONDUIT AS REQUIRED BY ELECTRIC UTILITY.
14. SERVICE TRANSFORMER WITH 480V SECONDARY IS BY ELECTRIC UTILITY. PROVIDE REINFORCED CONCRETE PAD AND STONE/GRAVEL SUB BASE AS REQUIRED BY THE UTILITY. PROVIDE 1-1/2" BURIED CONDUIT FROM TRANSFORMER TO CT'S AND UTILITY METERING AT 480V SWITCHBOARD IN THE ELECTRICAL ROOM.
15. PROVIDE ELECTRICAL ROUGH-IN AND FINAL CONNECTIONS TO CHILLER AS REQUIRED. VERIFY AND COORDINATE CABLE LANDING AND LOCATION WITH M.C. PROVIDE ALL POWER AND CONTROL WIRING IN CONDUIT 36" CLEAR BELOW FINISHED GRADES AND SURFACES.
16. PROVIDE WIRING AND ALL FINAL CONNECTIONS TO HEATING UNIT. VERIFY AND COORDINATE ALL WORK.
17. SEE RISER DIAGRAM IN SHEET E7.1 FOR CABLE SIZING AND NUMBER OF 5CH.40 PVC CONDUITS. LOCATE ALL CONDUITS 3'-0" CLEAR BELOW FINISHED GRADES AND SURFACES.
18. SEE SHEET E5.2 FOR ELECTRICAL WORK IN THIS AREA.
19. SEE RISER DIAGRAM ON SHEET E7.1.
20. UTILITY METER. PROVIDE METER CABINET, 5CH. 40 PVC CONDUIT AND METER LEADS PER UTILITY REQUIREMENTS. METER CABINET - CUTLER HAMMER RCO461I-C4 (FOR REFERENCE ONLY. COORDINATE EXACT REQUIREMENTS WITH UTILITY.)
21. WP/GFI RECEPTACLE. MOUNT AT +2'-0" ABOVE FINISHED GRADE.
22. PROVIDE SLEEVES AND CAULK WATERTIGHT WITH SEALANT.
23. PROVIDE 3-1/2" HIGH CONCRETE HOUSEKEEPING PAD WITH 3/4" EDGE CHAMFER. CONCRETE SHALL EXTEND 6" BEYOND ALL EQUIPMENT SUPPORTED ON THE PAD. REFER TO STRUCTURAL DRAWINGS FOR PAD CONSTRUCTION DETAILS.
24. PROVIDE 120V, 20A SPARE CIRCUIT FROM THE 120/208V EMERGENCY PANEL (EMLBA) FOR HEAT TAPE REQUIREMENTS. REFER TO MECHANICAL DRAWING (SHEET M4.1) FOR LOCATIONS AND COORDINATE. CIRCUIT # EMLBA-6.
25. ALARM BELL. SEE FIRE ALARM SYSTEM DRAWINGS FOR DETAILS.
26. INTERLOCK THE CHILLER AND CONDENSER. COORDINATE REQUIREMENTS WITH THE CHILLER/CONDENSER SUPPLIER.
27. CONDENSER. PROVIDE FUSED DISCONNECT (NEMA 3R) 480V, 3 POLE, 30A. COORDINATE LOCATION WITH THE UNIT.
28. PROVIDE PROVISION FOR BUS EXTENSION FOR FUTURE ADDITION OF SWITCH BOARD SECTION.
29. ALL CONDUITS SUSPENDED IN THE BOILER ROOM TO BE HUNG ON HANGERS WITH SPRING ISOLATORS.

BOILER ROOM PLAN AND DETAILS

SCALE: 1/4" = 1'-0" | E6.1

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BOILER ROOM PLAN AND DETAILS

Date 6/9/2006 | Drawing No. E6.1

Comm. No. 05201.04 | Drawn A.D. | Checked D.R.M.

Client No. DAY019.02 DAY019.04

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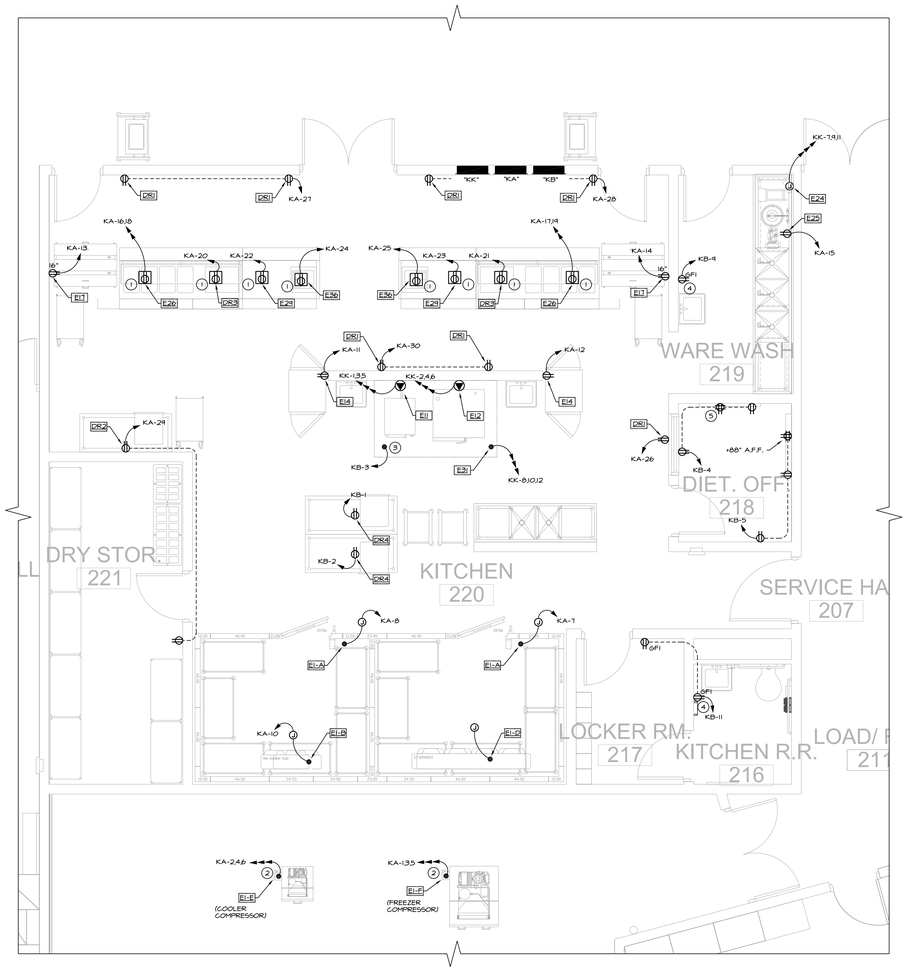



# ELECTRICAL SCHEDULE

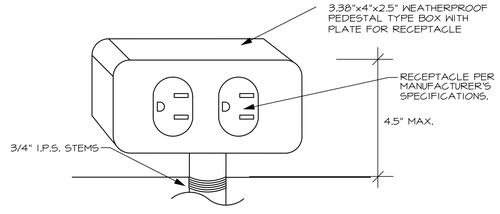
| MARK | EQUIPMENT IS ROUGHED IN FOR MANUFACTURER AND MODEL NUMBER SPECIFIED |
|---|---|
| E1 | WALK-IN COOLER / FREEZER<br>A 0.75 KW 120V-1 DIVISION 16 DROP FROM ABOVE AND CONNECT TO THE JUNCTION BOX ON TOP OF THE CEILING. DIVISION 16 WIRE FROM THE JUNCTION BOX TO THE K.E.C. FURNISHED LIGHT FIXTURES. ALL CONDUIT AND WIRE SHALL BE INSTALLED ABOVE AND ON THE OUTSIDE OF THE UNIT CEILING. PENETRATIONS THRU THE WALLS AND CEILING SHALL BE EQUIPPED WITH "SEAL-OFFS". WIRE PERIMETER DOOR HEATERS AND AIR RELIEF VENT HEATERS.<br>B COOLER COIL - 2.1 AMP DROP FROM ABOVE AND CONNECT TO THE JUNCTION BOX ON COOLING COIL. DIVISION 16 WIRE IN "SEAL-TIGHT" CONDUIT TO THE K.E.C. FURNISHED ROOM TEMP CONTROLS.<br>C CONDUIT AND WIRES FROM THE JUNCTION BOX ON THE COOLER COIL TO THE REMOTE TIMER ON THE COMPRESSOR BY DIVISION 16.<br>D FREEZER COIL - CONDUIT AND WIRES FROM THE JUNCTION BOX ON THE FREEZER COIL TO THE COMPRESSOR. DIVISION 16 WIRE IN "SEAL-TIGHT" CONDUIT TO THE K.E.C. FURNISHED ROOM TEMP CONTROLS. WIRE DRAIN LINE HEATER TO FREEZER COIL "HOT" TERMINAL. REFER TO WIRING DIAGRAM.<br>E COOLER COMPRESSOR - 4.1 AMP 208V-3.DIVISION 16 CONNECT TO K.E.C. FURNISHED DISCONNECT SWITCH ON THE COMPRESSOR. DISCONNECT SWITCH TO BE FACTORY WIRED TO THE COMPRESSOR AND TIMER. REFER TO WIRING DIAGRAM.<br>F FREEZER COMPRESSOR - 17.2 AMP 208V-3.DIVISION 16 CONNECT TO K.E.C. FURNISHED DISCONNECT SWITCH ON THE COMPRESSOR. DISCONNECT SWITCH TO BE FACTORY WIRED TO THE COMPRESSOR AND TIMER. REFER TO WIRING DIAGRAM. |
| E11 | STEAMER<br>10.0 AMP 480V-3 SPECIAL PURPOSE RECEPTACLE FLUSH MOUNTED IN WALL 16" AF. DIVISION 16 PROVIDE A NEMA 16-20R RECEPTACLE. |
| E12 | COMBI OVEN-STEAMER<br>26.0 AMP 480V-3 SPECIAL PURPOSE RECEPTACLE FLUSH MOUNTED IN WALL 16" AF. DIVISION 16 PROVIDE A NEMA 16-50R RECEPTACLE. |
| E14 | MOBILE FOOD WARMER<br>16.0 AMP 120V-1 DUPLEX RECEPTACLE FLUSH MOUNTED IN WALL 16" AF. |
| E17 | MILK-COOLER<br>120V-1/20A FLUSH MOUNTED WALL RECEPTACLE (DUPLEX) MOUNTED AT 16"A.F.F. DIVISION 16 PROVIDE A NEMA 5-15R RECEPTACLE. |
| E24 | DISPOSER<br>2.00 HP 480V-3, 24" AF. DIVISION 16 WIRE IN "SEAL-TIGHT" CONDUIT FROM THE JUNCTION BOX TO THE DISPOSER SOLENOID VALVE AND CONTROL CENTER. |
| E25 | WATER AGITATOR<br>16.0 AMP 120V-1 DUPLEX RECEPTACLE FLUSH MOUNTED IN WALL 16" AF. |
| E26 | HOT FOOD COUNTER<br>40.0 AMP 120/208V-1 PEDESTAL TYPE FLOOR RECEPTACLE 4 1/2" AF MAXIMUM HEIGHT. DIVISION 16 PROVIDE A NEMA 14-50R RECEPTACLE. |
| E29 | CASHIER COUNTER<br>16.0 AMP 120V-1 PEDESTAL TYPE FLOOR RECEPTACLE 4 1/2" AF MAXIMUM HEIGHT. DIVISION 16 PROVIDE A NEMA 5-20R RECEPTACLE. |
| E31 | COOKING VENTILATION SYSTEM (BY DIVISION 15)<br>VERIFY REQUIREMENTS WITH DIVISION 15. |
| E36 | CASH HANDLING SYSTEM<br>16.0 AMP 120V-1 PEDESTAL TYPE FLOOR RECEPTACLE WITH ISOLATED GROUND AND A DEDICATED CIRCUIT FOR CASH REGISTER MOUNTED 4 1/2" AF MAX.<br>DIVISION 16 PROVIDE CONDUIT AND CPU WIRING FROM THE TERMINALS AT THE CASH HANDLING STATIONS TO THE COMPUTER TERMINALS LOCATED IN THE OFFICE. |
| DR1 | DUPLEX RECEPTACLE<br>16.0 AMP 120V-1 DUPLEX RECEPTACLE FLUSH MOUNTED IN WALL 16" AF. |
| DR2 | DUPLEX RECEPTACLE<br>16.0 AMP 120V-1 DUPLEX RECEPTACLE FLUSH MOUNTED IN WALL 48" AF. |
| DR3 | PEDESTAL RECEPTACLE<br>16.0 AMP 120V-1 PEDESTAL TYPE FLOOR RECEPTACLE 4 1/2" AF MAXIMUM HEIGHT. |
| DR4 | DROP CORD RECEPTACLE<br>16.0 AMP 120V-1 AT CEILING. DIVISION 16 PROVIDE ELECTRIC DROP CORD TO 72" AF. |

# WORK BY DIVISION 16

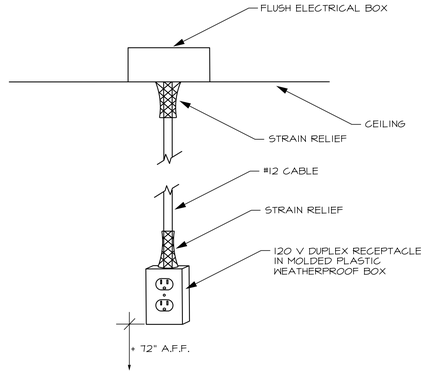
- ROUGH IN ELECTRICAL SERVICE THRU WALLS, FLOORS AND CEILINGS AND RUN CONDUIT AND CONDUCTORS FROM THE ROUGH-IN. MAKE THE CONNECTIONS TO A TERMINAL BLOCK, TERMINAL PANEL OR JUNCTION BOX ON THE EQUIPMENT.
- FURNISH AND INSTALL ALL ELECTRICAL OUTLETS IN WALLS, FLOOR AND CEILING.
- FURNISH AND INSTALL ALL DISCONNECT SWITCHES AS REQUIRED FOR THE EQUIPMENT IN ACCORDANCE WITH THE ELECTRICAL CODE.
- FURNISH AND INSTALL ALL CONDUIT AND WIRING BETWEEN REMOTE CONTROL PANELS AND THE FOOD SERVICE EQUIPMENT.
- THE FOOD SERVICE EQUIPMENT ELECTRICAL DRAWINGS AND EQUIPMENT DATA INFORMATION ARE PREPARED FOR THE CONVENIENCE OF BIDDING AND ARE NOT INTENDED AS ROUGH-IN DRAWINGS TO BE USED ON THE PROJECT SITE. REFER TO THE FOOD SERVICE EQUIPMENT CONTRACTORS ROUGH-IN DRAWING FOR ACCURATE LOCATION OF UTILITIES.
- VERIFY ELECTRICAL CHARACTERISTICS OF OWNER'S EXISTING EQUIPMENT WHICH IS TO BE REUSED.

## SHEET NOTES:

1. FLOOR BOX - PEDESTAL TYPE. COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER - FURNISH, INSTALL AND WIRE PER KITCHEN EQUIPMENT SUPPLIER'S RECOMMENDATIONS.
2. VERIFY LOCATION WITH KITCHEN CONSULTANT/ARCHITECT/OWNER. WHEN INSTALLED OUTSIDE, PROVIDE ALL REQUIREMENTS PER NEC. PROVIDE DISCONNECT IN NEMA 3R CONFIGURATION IF LOCATED OUTSIDE. PROVIDE WP/GFI RECEPTACLES, WEATHER PROOF LIGHT FIXTURE 'APPLETON' IF THE UNITS ARE LOCATED IN ROOF. PROVIDE A SPARE 120V, 20A CIRCUIT FROM THE NEAREST AVAILABLE 120/208V POWER PANEL - KB-6.
   COORDINATE LOCATION OF THE FREEZER/COOLER COMPRESSOR LOCATION WITH ARCHITECT, PRIOR TO ROUGH-IN.
3. CIRCUIT FOR KITCHEN EXHAUST SYSTEM - LIGHTING.
4. GFI DUPLEX RECEPTACLE AT +48" A.F.F.
5. QUAD. OUTLET FOR WALL MOUNTED REMOVE A/V. M.H. 84" UNLESS NOTED OTHERWISE. SEE DIV. 17 DRAWINGS FOR MOUNTING HEIGHT.




FLOOR MOUNTED RECEPTACLE IN KITCHEN ONLY
NOT TO SCALE




CEILING SUSPENDED RECEPTACLE
NOT TO SCALE

KITCHEN ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" | E6.2

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STATE OF OHIO
DON R. MILLER
E-048664
REGISTERED PROFESSIONAL ENGINEER

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| No. | Revisions / Submissions | Date |
|---|---|---|
| | | |

| No. | Revisions / Submissions | Date |
|---|---|---|
| 1 | PERMIT SUBMISSION | 11/10/06 |
| 2 | BID PHASE SUBMISSION | 12/01/06 |
| 3 | REVISED BID PHASE SUBMISSION | 01/12/07 |

DAYTON PUBLIC SCHOOLS
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KEMP PK-8
1923 Gondert Avenue
Dayton, Ohio 45403
Montgomery County

KITCHEN ELECTRICAL PLAN

Comm. No. 05201.04
Drawn A.D.
Checked D.R.M.
Date 6/9/2006
Drawing No. E6.2
Client No. DAY019.02 DAY019.04

P:\Commissioned Projects - Drawings\Current Projects\05201.04 - DPS - Kemp\E\CD\6.0\E6.2.dwg

**NOTE:**

- COORDINATE SERVICE ENTRANCE REQUIREMENTS WITH LOCAL UTILITY SERVICE COMPANIES FOR ELECTRICAL ENERGY, TELEPHONE, AND CABLE TELEVISION.
- ELECTRICAL BRANCH CIRCUITS TO 5 HORSEPOWER, 3-PHASE, AND LARGER MOTORS FOR AIR-HANDLING UNITS, EXHAUST FANS, PUMPS, CHILLERS, AND CONDENSING UNITS SHALL BE PROVIDED WITH PHASE LOSS PROTECTION. PROTECTION SHALL PREVENT EQUIPMENT FROM SINGLE PHASING. PHASE LOSS PROTECTION EQUIPMENT SHALL BE INTEGRAL TO STARTERS OR VARIABLE FREQUENCY DRIVES SERVING THE EQUIPMENT.
- VOLTAGE DROP FOR FEEDERS BETWEEN THE SERVICE ENTRANCE EQUIPMENT AND THE BRANCH CIRCUIT DISTRIBUTION EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF ASHRAE STANDARD 90-1-2001.

## RISER DIAGRAM NOTES:

1. WIRE TO VARIABLE SPEED MOTOR CONTROLLER AND FROM CONTROLLER TO VAV UNIT. VERIFY AND COORDINATE EXACT LOCATIONS AND CONNECTIONS WITH M.C., VARIABLE SPEED MOTOR CONTROLLER BY M.C.
2. PROVIDE ROUGH-IN AND FINAL CONNECTION TO VFD. VARIABLE FREQUENCY DRIVE FURNISHED BY M.C. TO E.C. FOR INSTALLATION AND WIRING BY E.C. PROVIDE WIRING FROM VFD TO PUMP MOTOR.
3. PROVIDE 50KW WEATHER PROOF GAS GENERATOR WITH SILENCER MUFFLER IN WEATHER PROOF ENCLOSURE.
4. PROVIDE 12" THICK REINFORCED CONCRETE LEVEL PAD WITH #5 BARS AT 12" TO CENTER EACH WAY. CHAMFER TOP EDGES 3/4". PROVIDE 6" #2 STONE BASE UNDER CONCRETE.
5. PROVIDE REMOTE GENERATOR ANNUNCIATOR AND WIRE IN CONDUIT PER MANUFACTURER'S RECOMMENDATIONS/INSTRUCTIONS.

| COPPER | ALUMINUM |
|---|---|
| (A) 4 #3 + 1 #8 - 1-1/4" C | (A) 4 #1/0 + 1 #6 - 2"C |
| (B) 4 #3/0 + 1 #6 - 2" C | (B) 4 #250 + 1 #4 - 2-1/2"C |
| (C) 4 #1 + 1 #4 - 1-1/2" C | |
| (D) 3 #12 + 1 #12 - 3/4" C | |
| (E) 4 #3/0 + 1 #4 - 2" C | |
| (F) 3 #3/0 + 1 #6 - 2" C | |
| (G) 3 #3 + 1 #8 - 1-1/4"C | |
| (H) 3 #8 +1 #10 - 3/4"C | |
| (J) 3 #6 + 1 #8 - 1"C | |
| (M) 2 SETS - 3 #3/0 + 1 #3 - 2"C EACH SET | (M) 2 SETS - 3 #250 + 1 #1 - 2-1/2"C EACH SET |
| (N) 4 SETS - 4 #350 - 3"C EACH SET | (N) 4 SETS - 4 #500 - 3"C EACH SET |
| (R) 4 SETS - 4 #350 + 1 #3/0 - 3"C EACH SET | (R) 4 SETS - 4 #500 + 1 #250 - 3-1/2"C EACH SET |
| (S) 2 SETS - 4 #250 + 1 #1 - 2-1/2"C EACH SET | (S) 2 SETS - 4 #350 + 1 #2/0 - 3"C EACH SET |
| (T) 4 #500 + 1 #2 - 3-1/2"C | (T) 2 SETS - 4 #400 + 1 #1/0 - 3"C EACH SET |
| (U) 3 #4 + 1 #8 - 1"C | |
| (V) 4 #2 + 1 #4 - 1-1/4"C | |
| (W) 4 #500 +1 #3 - 3 1/2"C | |

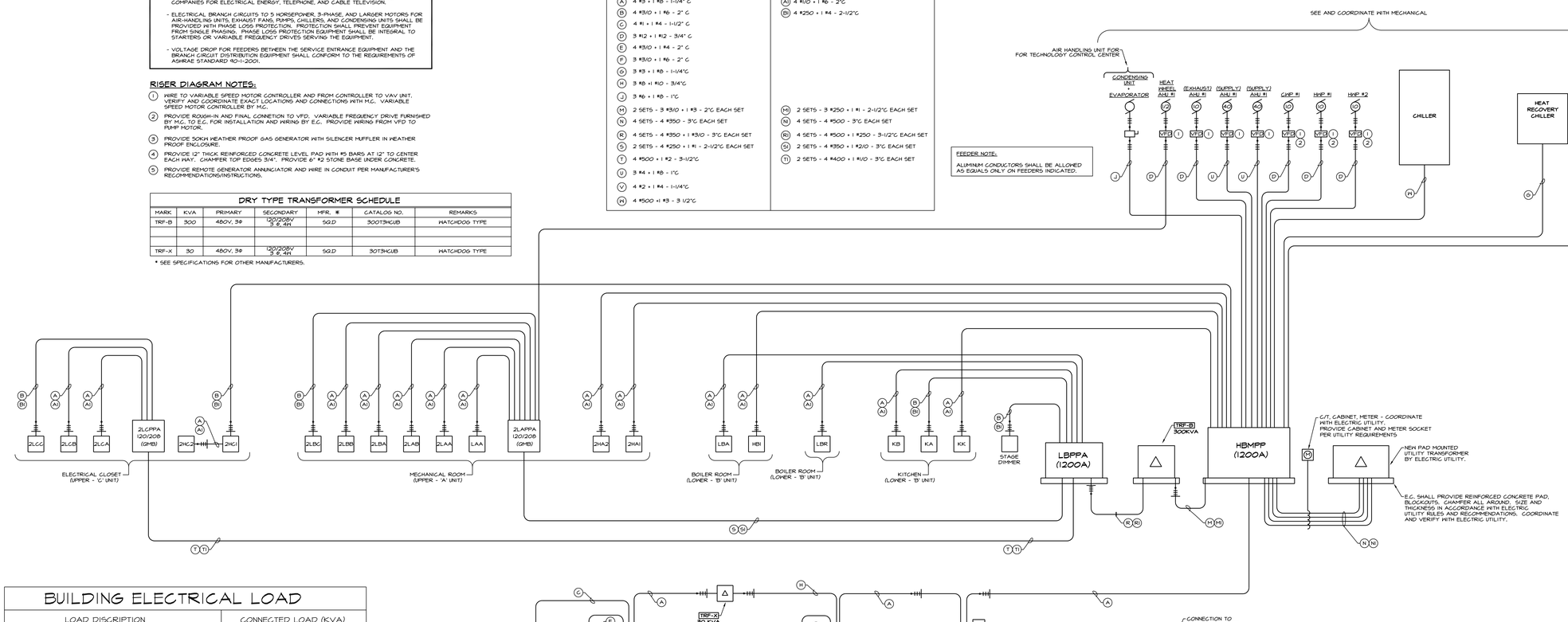
**FEEDER NOTE:**

ALUMINUM CONDUCTORS SHALL BE ALLOWED AS EQUALS ONLY ON FEEDERS INDICATED.

### DRY TYPE TRANSFORMER SCHEDULE

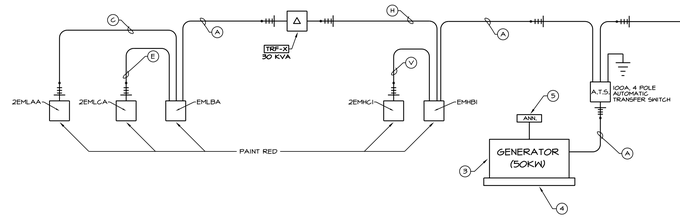
| MARK | KVA | PRIMARY | SECONDARY | MFR. * | CATALOG NO. | REMARKS |
|---|---|---|---|---|---|---|
| TRF-B | 300 | 480V, 3Φ | 120/208V 3 Φ, 4W | SGD | 300T3HGUB | WATCHDOG TYPE |
| | | | | | | |
| | | | | | | |
| TRF-X | 30 | 480V, 3Φ | 120/208V 3 Φ, 4W | SGD | 30T3HGUB | WATCHDOG TYPE |

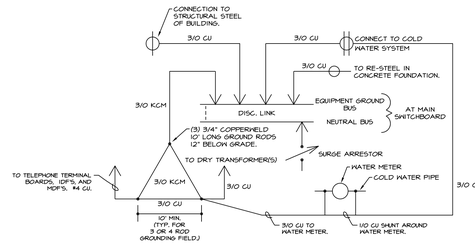
* SEE SPECIFICATIONS FOR OTHER MANUFACTURERS.




## BUILDING ELECTRICAL LOAD

| LOAD DISCRIPTION | CONNECTED LOAD (KVA) |
|---|---|
| LIGHTING | 90 |
| HVAC | 410 |
| KITCHEN EQUIPMENT | 100 |
| RECEPTACLES | 190 |
| EMERGENCY | 30 |
| MISC., | 75 |
| KILN | 15 |
| STAGE DIMMER | 35 |
| ELEVATOR | 30 |

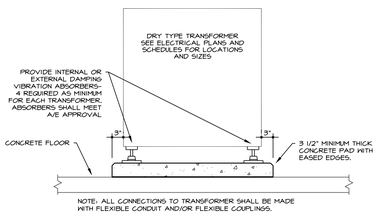



TYPICAL "TRIAD" GROUNDING SYSTEM DETAIL NO SCALE

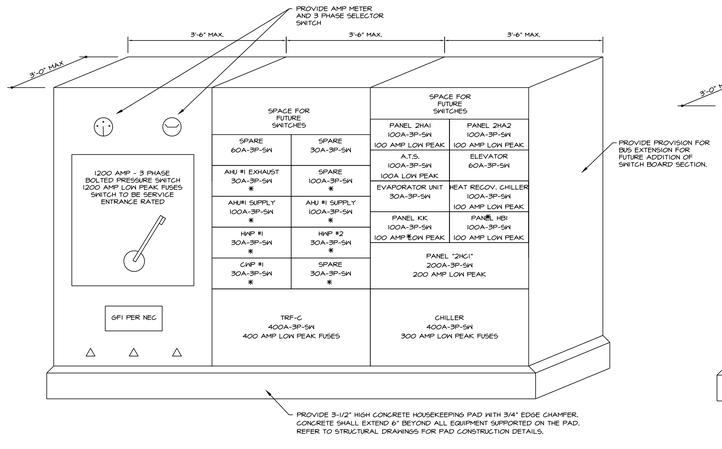
## ELECTRICAL RISER DIAGRAM

NOT TO SCALE



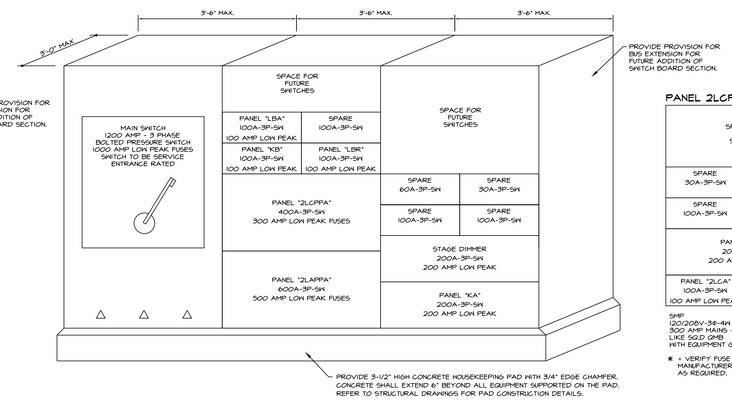

TYPICAL FLOOR MOUNTED DRY TYPE TRANSFORMER DETAIL NO SCALE

DETAIL (7/A) NOT TO SCALE




ELEVATION OF SWITCHBOARD HBMPP (277/480-3Φ-4W WYE) NO SCALE

* PROVIDE FUSES IN SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER.




ELEVATION OF SWITCHBOARD LBPPA (120/208-3Φ-4W WYE) NO SCALE

### PANEL 2LCPPA

| | |
|---|---|
| SPACE FOR FUTURE SWITCHES | |
| SPARE 30A-3P-SW | SPARE 30A-3P-SW |
| SPARE 100A-3P-SW | SPARE 60A-3P-SW |
| PANEL "2LCC" 200A-3P-SW 200 AMP LOW PEAK | |
| PANEL "2LCA" 100A-3P-SW 100 AMP LOW PEAK | PANEL "2LCB" 100A-3P-SW 100 AMP LOW PEAK |

SMP
120/208V-3Φ-4W
300 AMP MAINS - 200% NEUT.
LIKE SGD GMB
WITH EQUIPMENT GROUND BAR

* = VERIFY FUSE SIZE WITH UNIT MANUFACTURER AND PROVIDE AS REQUIRED. COORDINATE.

### PANEL 2LAPPA

| | |
|---|---|
| SPACE FOR FUTURE SWITCHES | |
| SPARE 60A-3P-SW | SPARE 30A-3P-SW |
| PANEL "2LBB" 100A-3P-SW 100 AMP LOW PEAK | HEAT WHEEL 30A-3P-SW * |
| PANEL "2LAB" 100A-3P-SW 100 AMP LOW PEAK | PANEL "2LBA" 100A-3P-SW 100 AMP LOW PEAK |
| PANEL "2LBC" 200A-3P-SW 200 AMP LOW PEAK | |
| PANEL "LAA" 100A-3P-SW 100 AMP LOW PEAK | PANEL "2LAA" 100A-3P-SW 100 AMP LOW PEAK |

SMP
120/208V-3Φ-4W
500 AMP MAINS - 200% NEUT.
LIKE SGD GMB
WITH EQUIPMENT GROUND BAR

* = VERIFY FUSE SIZE WITH UNIT MANUFACTURER AND PROVIDE AS REQUIRED. COORDINATE.

ELECTRICAL RISER DIAGRAM

SCALE: NONE | E6.1

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STATE OF OHIO DON R. MILLER E-048664 REGISTERED PROFESSIONAL ENGINEER

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| No. | Revisions / Submissions | Date |
|---|---|---|
| | | |

| No. | Revisions / Submissions | Date |
|---|---|---|
| 1 | PERMIT SUBMISSION | 11/10/06 |
| 2 | BID PHASE SUBMISSION | 12/01/06 |
| 3 | REVISED BID PHASE SUBMISSION | 01/12/07 |

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1923 Gondert Avenue
Dayton, Ohio 45403
Montgomery County

ELECTRICAL RISER DIAGRAM

Comm. No. 05201.04 | Drawn A.D. | Checked D.R.M.

Date 6/9/2006 | Drawing No. E7.1

Client No. DAY019.02 DAY019.04

P:\Commissioned Projects - Drawings\Current Projects\05201.04 - DPS - Kemp\E\DY7.0\E7.1.dwg

# PANELBOARD SCHEDULE

PANEL LAA LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I7 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 720 | | | 1080 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 720 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 900 | | | 360 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 720 | | | 720 | | | 8 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 9 | | 720 | | | 720 | | 10 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 11 | | | 720 | | | 720 | 12 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 13 | 720 | | | 720 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 360 | | | 500 | | 16 | 1 | 20 | SUMP PUMP |
| PIT-FLOT + OUTLET | 20 | 1 | 17 | | | 300 | | | 1600 | 18 | 1 | 20 | BACKSTOP |
| BACKSTOP | 20 | 1 | 19 | 1600 | | | 1600 | | | 20 | 1 | 20 | BACKSTOP |
| BACKSTOP | 20 | 1 | 21 | | 1600 | | | 1600 | | 22 | 1 | 20 | BACKSTOP |
| VENDING | 20 | 1 | 23 | | | 1600 | | | 200 | 24 | 1 | 20 | PROJ. SCREEN |
| SPARE | 20 | 1 | 25 | | | | | | | 26 | 1 | 20 | SPARE |
| SCOREBOARD | 20 | 1 | 27 | | 1000 | | | 180 | | 28 | 3 | 30 | RECEPTACLES |
| DIVIDER CURTAIN | 20 | 1 | 29 | | | 1000 | | | 150 | 30 | 1 | 20 | FLUSH VALVE |
| RECEPTACLE | 20 | 1 | 31 | 360 | | | 360 | | | 32 | 1 | 20 | WATER COOLER |
| SPARE | 20 | 1 | 33 | | | | | | | 34 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 35 | | | | | | | 36 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPACE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 4120 | 4040 | 4520 | 4120 | 3120 | 3030 | | | | |
| | | | | 8240 | 8160 | 7550 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 23.6 KW
TOTAL CONN LOAD 26.2 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL LBA LOCATION UNIT "B" LOWER LEVEL BOILER 2I5 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 720 | | | 540 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 900 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 540 | | | 540 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 900 | | | 1440 | | | 8 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 9 | | 720 | | | 900 | | 10 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 11 | | | 180 | | | 360 | 12 | 1 | 20 | RECEPTACLES |
| UNIT HEATER | 20 | 1 | 13 | 150 | | | 900 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 720 | | | 540 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 720 | | | 540 | 18 | 1 | 20 | RECEPTACLES |
| CABINET HEATER | 20 | 1 | 19 | 150 | | | 150 | | | 20 | 1 | 20 | CABINET HEATER |
| ELEV. CAB LIGHT | 20 | 1 | 21 | | 250 | | | 1000 | | 22 | 1 | 20 | REFRIGERATOR |
| VENDING | 20 | 1 | 23 | | | 1000 | | | 1000 | 24 | 1 | 20 | VENDING |
| WATER COOLER | 20 | 1 | 25 | 1000 | | | 1000 | | | 26 | 1 | 20 | WASH FOUNTAIN |
| RECEPTACLES | 20 | 1 | 27 | | 360 | | | 900 | | 28 | 1 | 20 | RECEPTACLES |
| SPARE | 20 | 1 | 29 | | | | | | 900 | 30 | 1 | 20 | RECEPTACLES |
| FLUSH VALVE | 20 | 1 | 31 | 150 | | | 300 | | | 32 | 1 | 20 | EXHAUST FAN |
| CABINET HEATER | 20 | 1 | 33 | | 150 | | | 300 | | 34 | 1 | 20 | EXHAUST FAN |
| SPARE | 20 | 1 | 35 | | | | | | | 36 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 39 | | | | | | | 40 | 1 | 20 | SPARE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 3070 | 3280 | 2440 | 4330 | 5260 | 3340 | | | | |
| | | | | 1400 | 8540 | 5780 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 21.7 KW
TOTAL CONN LOAD 24.1 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LAA LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I7 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 720 | | | 540 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 720 | | | 900 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 720 | | | 360 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 1440 | | | 720 | | | 8 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 9 | | 720 | | | 720 | | 10 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 11 | | | 720 | | | 720 | 12 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 13 | 720 | | | 720 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 720 | | | 540 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 360 | | | 540 | 18 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 19 | 720 | | | 540 | | | 20 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 21 | | 540 | | | 540 | | 22 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 23 | | | 540 | | | 720 | 24 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 25 | 720 | | | 1440 | | | 26 | 1 | 20 | FLOOR BOX |
| RECEPTACLES | 20 | 1 | 27 | | 540 | | | 540 | | 28 | 1 | 20 | RECEPTACLES |
| SPARE | 20 | 1 | 29 | | | 540 | | | 900 | 30 | 1 | 20 | RECEPTACLES |
| SPARE | 20 | 1 | 31 | | | | 540 | | | 32 | 1 | 20 | EXHAUST FAN |
| SPARE | 20 | 1 | 33 | | | | | | | 34 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 35 | | | | | | | 36 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 39 | | | | | | | 40 | 1 | 20 | SPARE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 5040 | 3420 | 2880 | 3960 | 4140 | 3060 | | | | |
| | | | | 8460 | 7560 | 5940 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 22.5 KW
TOTAL CONN LOAD 25.0 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LAB LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I7 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REFRIGERATOR | 20 | 1 | 1 | 1000 | | | 75 | | | 2 | 1 | 20 | FLUSH VALVE |
| A.H.U. LIGHTS | 20 | 1 | 3 | | 500 | | | 150 | | 4 | 1 | 20 | UNIT HEATER |
| CABINET HEATER | 20 | 1 | 5 | | | 150 | | | 150 | 6 | 1 | 20 | CABINET HEATER |
| RECEPTACLE | 20 | 1 | 7 | 720 | | | | | | 8 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 9 | | | | | | | 10 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 11 | | | | | | | 12 | 1 | 20 | SPARE |
| SPARE | | | 13 | | | | | | | 14 | | | SPACE |
| SPACE | | | 15 | | | | | | | 16 | | | SPACE |
| SPACE | | | 17 | | | | | | | 18 | | | SPACE |
| SPACE | | | 19 | | | | | | | 20 | | | SPACE |
| SPACE | | | 21 | | | | | | | 22 | | | SPACE |
| SPACE | | | 23 | | | | | | | 24 | | | SPACE |
| SPACE | | | 25 | | | | | | | 26 | | | SPACE |
| SPACE | | | 27 | | | | | | | 28 | | | SPACE |
| SPACE | | | 29 | | | | | | | 30 | | | SPACE |
| SPACE | | | 31 | | | | | | | 32 | | | SPACE |
| SPACE | | | 33 | | | | | | | 34 | | | SPACE |
| SPACE | | | 35 | | | | | | | 36 | | | SPACE |
| SPACE | | | 37 | | | | | | | 38 | | | SPACE |
| SPACE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 1000 | 500 | 150 | 75 | 150 | 150 | | | | |
| | | | | 1075 | 650 | 300 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 2.0 KW
TOTAL CONN LOAD 2.3 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LBA LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I7 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 540 | | | 900 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 1440 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 1440 | | | 1440 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 1440 | | | 1440 | | | 8 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 9 | | 720 | | | 720 | | 10 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 11 | | | 360 | | | 720 | 12 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 13 | 720 | | | 720 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 720 | | | 360 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 540 | | | 900 | 18 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 19 | 1440 | | | 360 | | | 20 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 21 | | 900 | | | 180 | | 22 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 23 | | | 720 | | | 900 | 24 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 25 | 1440 | | | 1440 | | | 26 | 1 | 20 | RECEPTACLES |
| SPARE | 20 | 1 | 27 | | 540 | | | 900 | | 28 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 29 | | | 1440 | | | 360 | 30 | 1 | 20 | RECEPTACLES |
| SPARE | 20 | 1 | 31 | 900 | | | 1440 | | | 32 | 1 | 20 | RECEPTACLES |
| SPARE | 20 | 1 | 33 | | | | | | | 34 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 35 | | | | | | | 36 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPARE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 6480 | 4320 | 4500 | 6300 | 3600 | 4320 | | | | |
| | | | | 12180 | 7920 | 8820 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 24.5 KW
TOTAL CONN LOAD 32.8 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LBB LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I7 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 200 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 360 | | | 540 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 900 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| FLOOR BOX | 20 | 1 | 5 | | | 360 | | | 360 | 6 | 1 | 20 | FLOOR BOX |
| RECEPTACLES | 20 | 1 | 7 | 540 | | | 540 | | | 8 | 1 | 20 | RECEPTACLES |
| FLOOR BOX | 20 | 1 | 9 | | 360 | | | 540 | | 10 | 1 | 20 | FLOOR BOX |
| SPARE | 20 | 1 | 11 | | | 360 | | | 540 | 12 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 13 | 900 | | | 900 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 900 | | | 540 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 1080 | | | 360 | 18 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 19 | 360 | | | 1440 | | | 20 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 21 | | 360 | | | 540 | | 22 | 1 | 20 | RECEPTACLES |
| FLOOR BOX | 20 | 1 | 23 | | | 360 | | | 360 | 24 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 25 | | | | | | | 26 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 27 | | | | | | | 28 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 29 | | | | | | | 30 | 1 | 20 | SPARE |
| SPACE | | | 31 | | | | | | | 32 | | | SPACE |
| SPACE | | | 33 | | | | | | | 34 | | | SPACE |
| SPACE | | | 35 | | | | | | | 36 | | | SPACE |
| SPACE | | | 37 | | | | | | | 38 | | | SPACE |
| SPACE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 2160 | 2700 | 1980 | 3960 | 4320 | 1260 | | | | |
| | | | | 6120 | 10200 | 5240 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 16.4 KW
TOTAL CONN LOAD 18.2 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LBC LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I7 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 200 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEWING MACHINE | 20 | 1 | 1 | 1000 | | | 1000 | | | 2 | 1 | 20 | SEWING MACHINE |
| SEWING MACHINE | 20 | 1 | 3 | | 1000 | | | 1000 | | 4 | 1 | 20 | SEWING MACHINE |
| SEWING MACHINE | 20 | 1 | 5 | | | 1000 | | | 1000 | 6 | 1 | 20 | REFRIGERATOR |
| DISH WASHER | 20 | 1 | 7 | 1000 | | | 1000 | | | 8 | 1 | 20 | REFRIGERATOR |
| SPARE | 20 | 1 | 9 | | 540 | | | 540 | | 10 | 1 | 20 | SPARE |
| RANGE | 60 | 2 | 11 | | | 6240 | | | 6240 | 12 | 2 | 60 | RANGE |
| | | | 13 | 6240 | | | 6240 | | | 14 | | | |
| EMER. SHUT-OFF | 20 | 1 | 15 | | 500 | | | 250 | | 16 | 1 | 20 | EMER. SHOWER |
| WASH FOUNTAIN | 20 | 1 | 17 | | | 1000 | | | 1000 | 18 | 1 | 20 | WATER COOLER |
| FLUSH VALVE | 20 | 1 | 19 | 225 | | | 300 | | | 20 | 1 | 20 | EXHAUST FAN |
| EXHAUST FAN | 20 | 1 | 21 | | 300 | | | 150 | | 22 | 1 | 20 | CABINET HEATER |
| RECEPTACLES | 20 | 1 | 23 | | | 360 | | | 720 | 24 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 25 | | | | | | | 26 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 27 | | | | | | | 28 | 1 | 20 | SPARE |
| SPACE | | | 29 | | | | | | | 30 | | | SPACE |
| SPACE | | | 31 | | | | | | | 32 | | | SPACE |
| SPACE | | | 33 | | | | | | | 34 | | | SPACE |
| SPACE | | | 35 | | | | | | | 36 | | | SPACE |
| SPACE | | | 37 | | | | | | | 38 | | | SPACE |
| SPACE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 8465 | 1800 | 8600 | 8540 | 1400 | 8240 | | | | |
| | | | | 17065 | 3200 | 16840 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 37.1 KW
TOTAL CONN LOAD 41.2 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LCA LOCATION UNIT "C" UPPER LEVEL ELECTRICAL CLOSET 5O9 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 540 | | | 720 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 900 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 540 | | | 540 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 900 | | | 1440 | | | 8 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 9 | | 540 | | | 540 | | 10 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 11 | | | 900 | | | 1440 | 12 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 13 | 720 | | | 1080 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 540 | | | 540 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 900 | | | 1440 | 18 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 19 | 720 | | | 720 | | | 20 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 21 | | 900 | | | 900 | | 22 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 23 | | | 720 | | | 720 | 24 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 25 | 540 | | | 540 | | | 26 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 27 | | 900 | | | 1440 | | 28 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 29 | | | 540 | | | 900 | 30 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 31 | 360 | | | 360 | | | 32 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 33 | | 720 | | | 720 | | 34 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 35 | | | 180 | | | | 36 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 39 | | | | | | | 40 | 1 | 20 | SPARE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 3780 | 4500 | 3600 | 4860 | 5580 | 5040 | | | | |
| | | | | 8640 | 10080 | 8640 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 27.4 KW
TOTAL CONN LOAD 30.4 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LCB LOCATION UNIT "C" UPPER LEVEL ELECTRICAL CLOSET 5O9 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 540 | | | 720 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 900 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 720 | | | 540 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 900 | | | 1440 | | | 8 | 1 | 20 | RECEPTACLES |
| FLUSH VALVE | 20 | 1 | 9 | | 225 | | | 540 | | 10 | 1 | 20 | CABINET HEATER |
| FLUSH VALVE | 20 | 1 | 11 | | | 300 | | | 150 | 12 | 1 | 20 | CABINET HEATER |
| RECEPTACLES | 20 | 1 | 13 | 720 | | | 540 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 900 | | | 540 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 540 | | | 540 | 18 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 19 | 900 | | | 1440 | | | 20 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 21 | | 540 | | | 540 | | 22 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 23 | | | 900 | | | 1440 | 24 | 1 | 20 | RECEPTACLES |
| WASH FOUNTAIN | 20 | 1 | 25 | 1000 | | | 1000 | | | 26 | 1 | 20 | WATER COOLER |
| EXHAUST FAN | 20 | 1 | 27 | | 360 | | | 1000 | | 28 | 1 | 20 | WASHER |
| RECEPTACLES | 20 | 1 | 29 | | | 540 | | | 900 | 30 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 31 | 900 | | | 1440 | | | 32 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 33 | | 180 | | | 360 | | 34 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 35 | | | | | | | 36 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPARE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 4980 | 2425 | 3000 | 6580 | 4510 | 3210 | | | | |
| | | | | 11540 | 9495 | 6210 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 25.2 KW
TOTAL CONN LOAD 28.0 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2LCC LOCATION UNIT "C" UPPER LEVEL ELECTRICAL CLOSET 5O9 120/208 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 200 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RECEPTACLES | 20 | 1 | 1 | 360 | | | 540 | | | 2 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 3 | | 900 | | | 1440 | | 4 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 5 | | | 540 | | | 540 | 6 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 7 | 540 | | | 540 | | | 8 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 9 | | 900 | | | 1440 | | 10 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 11 | | | 900 | | | 1440 | 12 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 13 | 540 | | | 540 | | | 14 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 15 | | 900 | | | 1440 | | 16 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 17 | | | 540 | | | 540 | 18 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 19 | 900 | | | 1440 | | | 20 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 21 | | 540 | | | 540 | | 22 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 23 | | | 900 | | | 1440 | 24 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 25 | 720 | | | 1080 | | | 26 | 1 | 20 | RECEPTACLES |
| RECEPTACLES | 20 | 1 | 27 | | 300 | | | 300 | | 28 | 1 | 20 | EXHAUST FAN |
| KILN HOOD | 20 | 1 | 29 | 500 | | | | | 5200 | 30 | 2 | 50 | KILN |
| SPARE | 20 | 1 | 31 | | | 5200 | | | | 32 | | | |
| RECEPTACLES | 20 | 1 | 33 | 360 | | | 3000 | | | 34 | 2 | 50 | DRYER |
| SPARE | 20 | 1 | 35 | | | | | | 3000 | 36 | | | DRYER |
| SPARE | 20 | 1 | 37 | | | | | | | 38 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 3420 | 3540 | 3380 | 10240 | 4260 | 4180 | | | | |
| | | | | 13860 | 11800 | 12540 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 34.0 KW
TOTAL CONN LOAD 37.8 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL HB1 LOCATION UNIT "B" LOWER LEVEL BOILER 2I5 277/480 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LIGHTING | 20 | 1 | 1 | 1320 | | | 1148 | | | 2 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 3 | | 1310 | | | 1476 | | 4 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 5 | | | 1320 | | | 1428 | 6 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 7 | 880 | | | 848 | | | 8 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 9 | | 792 | | | 1408 | | 10 | 1 | 20 | LIGHTING |
| EXTERIOR LIGHTS | 20 | 1 | 11 | | | 1872 | | | 1800 | 12 | 1 | 20 | EXTERIOR LIGHTS |
| VAV BOXES | 20 | 1 | 13 | 750 | | | 2100 | | | 14 | 1 | 20 | VAV BOXES |
| VAV BOXES | 20 | 1 | 15 | | 450 | | | 450 | | 16 | 1 | 20 | VAV BOXES |
| VAV BOXES | 20 | 1 | 17 | | | 1950 | | | 450 | 18 | 1 | 20 | VAV BOXES |
| VAV BOXES | 20 | 1 | 19 | 1350 | | | 468 | | | 20 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 21 | | 150 | | | 100 | | 22 | 1 | 20 | LIGHTING |
| SPARE | 20 | 1 | 23 | | | | | | | 24 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 25 | | | | | | | 26 | 1 | 20 | SPARE |
| SPARE | 20 | 1 | 27 | | | | | | | 28 | 1 | 20 | SPARE |
| SPACE | | | 29 | | | | | | | 30 | | | SPACE |
| SPACE | | | 31 | | | | | | | 32 | | | SPACE |
| SPACE | | | 33 | | | | | | | 34 | | | SPACE |
| SPACE | | | 35 | | | | | | | 36 | | | SPACE |
| SPACE | | | 37 | | | | | | | 38 | | | SPACE |
| SPACE | | | 39 | | | | | | | 40 | | | SPACE |
| SPACE | | | 41 | | | | | | | 42 | | | SPACE |
| | | | | 4300 | 3202 | 5142 | 4312 | 3934 | 3458 | | | | |
| | | | | 8612 | 7136 | 8600 | ← TOTALS | | | | | | |

TOTAL CONN LOAD 24.4 KW
TOTAL CONN LOAD 27.1 KVA
INTEGRATED EQUIPMENT RATING 22000 AMPS RMS SYM

# PANELBOARD SCHEDULE

PANEL 2HA1 LOCATION UNIT "A" UPPER LEVEL AIR HANDLING ROOM 3I3 277/480 VOLTS 3 Ø 4 W
MOUNTING: SURFACE 100 AMP MAINS: LUGS

BRANCH BREAKERS

| ITEM | AMP RATING | POLE | CIR NO | LEFT PHASE LOADING A | B | C | RIGHT PHASE LOADING A | B | C | CIR NO | POLE | AMP RATING | ITEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LIGHTING | 20 | 1 | 1 | 2400 | | | 2400 | | | 2 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 3 | | 2400 | | | 2400 | | 4 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 5 | | | 1280 | | | 528 | 6 | 1 | 20 | LIGHTING |
| LIGHTING | 20 | 1 | 7 | 816 | | | 584 | | | 8 | 1 | 20 | LIGHTING |
| VAV BOXES | 20 | 1 | 9 | | 900 | | | 900 | | 10 | 1 | 20 | VAV BOXES |
|