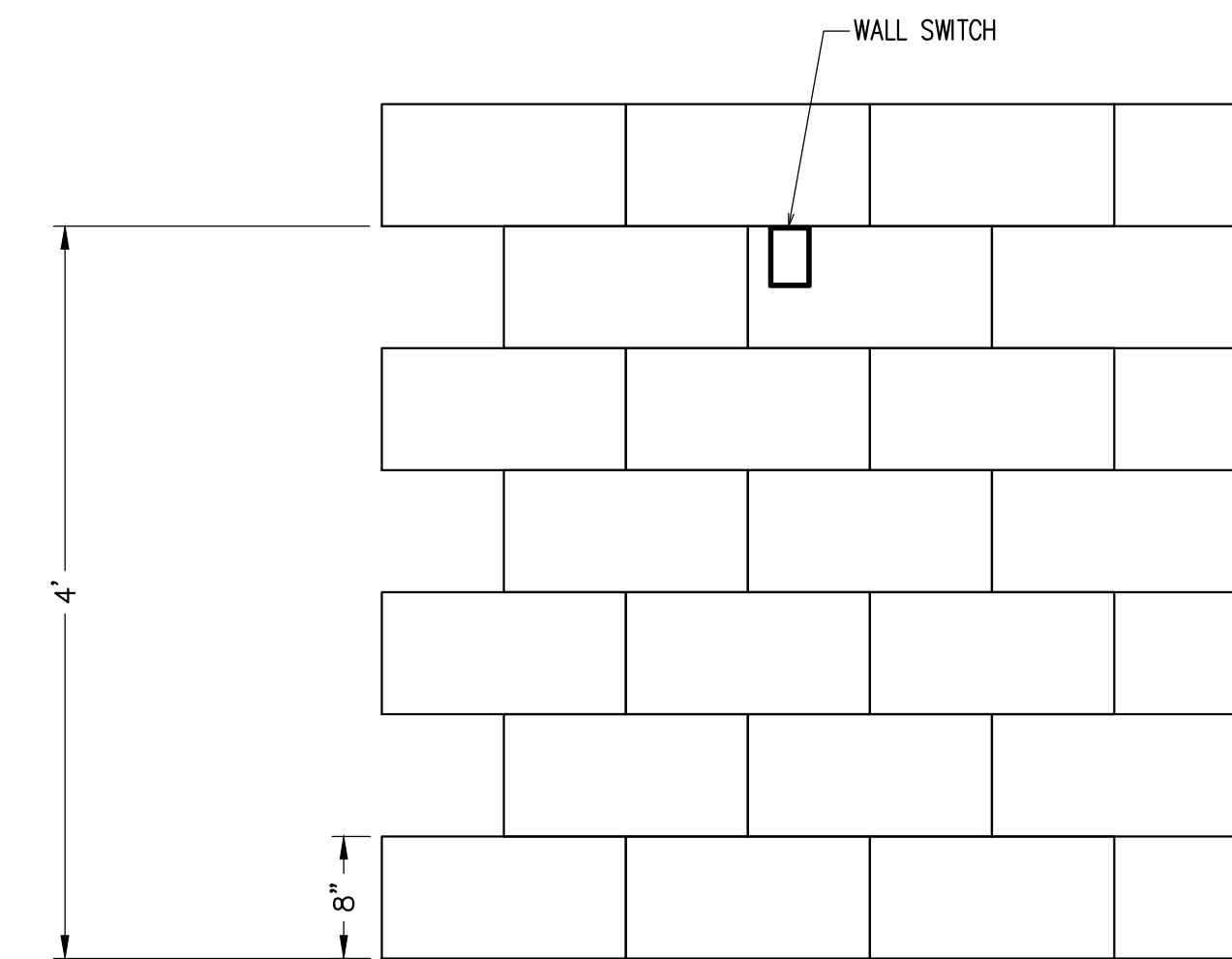


1. ELECTRICLA GENERAL NOTES

- WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN TO "TURNISH AND INSTALL COMPLETE AND READY FOR USE." CONTRACTOR SHALL PROVIDE ALL TESTING AND INSTRUCTION REQUIRED FOR OPERATION AND MAINTENANCE OF EQUIPMENT AND SYSTEM BY OWNER.
- ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), NFPA, BOCA, STATE AND LOCAL CODES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL BEAR THE COST OF ALL NECESSARY PERMITS AND INSPECTIONS.
- THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS AND TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT. ALL WORK MUST BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE'S AND PRESERVE HEADROOM.
- PROVIDE ALL MATERIALS, BRACINGS, HANGERS AND EQUIPMENT REQUIRED FOR A COMPLETE OPERATIONAL ELECTRICAL SYSTEM. ALL MATERIAL AND EQUIPMENT INSTALLED SHALL BE NEW AND U.L. LISTED.
- COORDINATE ALL WORK AND MAKE ALL FINAL CONNECTIONS REQUIRED FOR A COMPLETE INSTALLATION OF MECHANICAL EQUIPMENT AND CONTROLS. MECHANICAL EQUIPMENT RATINGS ARE APPROXIMATE AND MAY VARY BY MANUFACTURERS. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH APPROVED SHOP DRAWINGS ADJUST SIZE OF CIRCUIT BREAKERS, SWITCHES, WIRES AND MOTOR CONTROLS INCLUDING HEATER ELEMENTS BASED UPON THE ACTUAL EQUIPMENT INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
- SUBMIT FOR APPROVAL, DETAILED SHOP DRAWINGS AND CATALOG CUTS OF ALL EQUIPMENT AND MATERIAL ORDER OR DELIVER TO THE JOB SITE MATERIAL AND EQUIPMENT FOR WHICH YOU HAVE APPROVED SHOP DRAWINGS. SUBMIT DIVISION 1 SPECIFIED NUMBER OF COPIES OF THE SHOP DRAWINGS FOR REVIEW AND APPROVAL. SUBMIT SAMPLES OF ALL DEVICES AND COVER PLATES WITH COLOR SELECTION CHART FOR COLOR SELECTION.
- PROVIDE COMPLETE AS-BUILT DRAWINGS INDICATING ALL CHANGES IN EQUIPMENT LOCATIONS AND DELIVER TO THE OWNER AND BUILDING MANAGEMENT UPON COMPLETION OF THE WORK.
- ALL WORKMANSHIP, MATERIALS AND EQUIPMENT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF AREA BY OWNER
- THE CONTRACTOR SHALL VISIT EXISTING SITE AND DETERMINE CONDITIONS WHICH MAY AFFECT HIS BID.
- ALL OPENINGS CUT THROUGH WALLS FOR CONDUIT SHALL BE RE-SEALED AFTER COMPLETION OF WORK.
- BRANCH CIRCUIT HOMERUNS TO REFERENCED PANEL BOARD SHALL BE SIZED PER NEC UNLESS SHOWN OR SPECIFIED OTHERWISE.
- ALL NEW WORK SHALL BE CONCEALED IN CEILINGS, WALLS ETC.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" AND MINIMUM WIRE SIZE SHALL BE #12 AWG; THW, THHW, OR THWN (75 °C RATINGS).
- ALL FIRE ALARM STROBES WITH LIGHT VISIBLE FROM A GIVEN AREA SHALL BE SYNCHRONIZED
- MATERIAL AND FINAL FINISH OF ALL DEVICES SHALL BE COORDINATED WITH ARCHITECT.
- ALL MECHANICAL AND ELECTRICAL ITEMS MUST BE FURNISHED COMPLETELY IF SHOWN ON ARCHITECTURAL DRAWINGS AND NOT ON ME DRAWINGS.
- IF APPLICABLE FIXTURES, ALARMS, DEVICES, ETC. BOTH INTERIOR AND EXTERIOR SHALL NOT BE MOUNTED WITHIN ARCHITECTURAL ACCENT BANDS.
- PROVIDE A RECEPTACLE WIRED FROM THE NEAREST RECEPTACLE BRANCH CIRCUIT TO SERVICE ANY CONDENSATE PUMP WHICH IS ADDED PER FIELD CONDITIONS. INCLUDE COST IN BID FOR UP TO TEN INSTANCES.
- INSTALL ALL CONDUIT AS HIGH AS POSSIBLE IN ALL MECHANICAL ROOMS TO MAXIMIZE AVAILABLE SERVICE AND ACCESS CLEARANCES.
- IF A DISCONNECT SWITCH IS INSTALLED ON THE LOAD SIDE OF A VFD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED CONTROL INTERLOCK FEATURES.
- THE CONTRACTOR SHALL NOT RUN ANY CONDUIT IN ANY EXPOSED CORRIDORS THROUGHOUT THE SCHOOL. ANY CONDUIT RUNS 1"-1/2" OR GREATER MUST BE INCLUDED IN THE COORDINATION DRAWINGS THAT ARE REQUIRED BY CONTRACT.
- ALL BRANCH CIRCUIT WIRING IN FINISHED SPACES SHALL BE INSTALLED CONCEALED IN CEILINGS AND WALLS. BRANCH CIRCUIT WIRING FOR CONCEALED POWER AND LIGHTING CIRCUITS SHALL BE #12 THHN WIRES + #12 GND TYPE MC CABLE UNLESS SHOWN OR SPECIFIED OTHERWISE. BRANCH CIRCUIT WIRING FOR EXPOSED POWER AND LIGHTING CIRCUITS IN UNFINISHED SPACES SHALL BE #12 THHN WIRES + #12 GND IN EMT CONDUIT UNLESS SHOWN OR SPECIFIED OTHERWISE. ALL HOMERUNS SHALL BE IN CONDUIT. ALL WIRE IN RACEWAY INSIDE WALLS SHALL BE IN CONDUIT.
- PROVIDE TYPED CIRCUIT DIRECTORIES ON ALL POWER AND LIGHTING PANELBOARDS IDENTIFYING ALL CIRCUITS WITH THEIR RESPECTIVE LOADS, INCLUDING ROOM DESIGNATIONS. ALL CIRCUITS MUST HAVE SEPARATE INSULATED GROUND WIRE. THE CONDUIT CANNOT BE USED IN PLACE OF THE GROUND WIRE.
- CONTRACTOR SHALL VERIFY NEMA TYPE RECEPTACLE CONFIGURATION REQUIRED FOR PCGCS FURNISHED EQUIPMENT SUCH AS OFFICE EQUIPMENT AND APPLIANCES. CONFIRM RECEPTACLE NEMA CONFIGURATION IS COMPATIBLE WITH CORD AND PLUG ACTUALLY FURNISHED WITH THE EQUIPMENT BEFORE INSTALLING RECEPTACLES. WHERE EQUIPMENT IS NOT FURNISHED WITH CORD & PLUG, THE CONTRACTOR SHALL SUPPLY CORD AND PLUG IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AS CONFORMING TO N.E.C.
- COMMON NEUTRALS SHALL NOT BE USED FOR CIRCUITS WITH COMPUTER OUTLETS OR LIGHTING CIRCUITS WITH ELECTRONIC BALLASTS.
- CONTROL/POWER WIRING REQUIRED BUT NOT SHOWN FOR, AND NOT LIMITED TO, THERMOSTATS, CONTROLLERS, VARIABLE FREQUENCY DRIVE CONTROLS, EQUIPMENT MANUFACTURER CONTROL PANELS, DAMPER MOTORS, CONTROL MOTORS, VALVES, SENSING DEVICES (TEMPERATURE, PRESSURE, HUMIDITY, LEVEL, FLOW, ON-OFF, FIRE ALARM DEVICES) SHALL BE SUPPLIED AND INSTALLED TO PROVIDE A COMPLETE AND USABLE FACILITY AS SPECIFIED. COORDINATE WITH DIVISION 15 AND PROVIDE AS REQUIRED.
- SYMBOLS SHOWN ON THIS SHEET ARE STANDARD SYMBOLS AND ALL MAY NOT NECESSARILY BE APPLICABLE TO THIS PROJECT.
- ALL DEVICE COVER PLATES ARE TO BE STAINLESS STEEL. ALL SWITCH COLORS ARE TO BE IVORY UNLESS OTHERWISE NOTED. SEE SYMBOLS LISTS FOR RECEPTACLE COLORS.
- THE CONTRACTOR SHALL FIELD COORDINATE THE CONTROL POWER NEEDS OF THE BMS SYSTEM, AND EXTEND EMERGENCY POWER CIRCUITS TO THOSE BMS PANELS REQUIRING EMERGENCY POWER TO MAINTAIN PROPER ERU EMERGENCY POWER OPERATIONS.
- THE CONTRACTOR SHALL FIELD COORDINATE THE POWER NEEDS OF ANY ELECTRONIC TRAP PRIMERS LOCATED THROUGH OUT THE BUILDING EVEN IF NOT SHOWN ON PLANS.
- IF ALL RECEPTACLES ON A CIRCUIT ARE LABELED OF THE GFI TYPE, A GFI CIRCUIT BREAKER MAYBE USED TO PROTECT THE CIRCUIT IN LEU OF INDIVIDUAL GFI PROTECTION ON EACH RECEPTACLE.
- PROVIDE A RECEPTACLE WIRED FROM THE NEAREST RECEPTACLE BRANCH CIRCUIT TO SERVICE ANY CONDENSATE PUMP WHICH IS ADDED PER FIELD CONDITIONS. INCLUDE COST IN BID FOR UP TO TEN INSTANCES.
- GENERAL CONTRACTOR TO PROVIDE ANY EXTRA HOMERUNS FOR SPEAKER CIRCUITS THAT SHOW MORE THAN 5 SPEAKERS PER CIRCUIT. SPECIFICATIONS ONLY ALLOW FIVE SPEAKERS PER CIRCUIT. OMINASUM SPEAKERS TO BE TAPPED AT 4 WATTS. OTHER HIGHER CEILING ROOMS (MULTI-PURPOSE ROOM, MEDIA ROOM) SHALL BE TAPPED AT 2-4 WATTS. PCGCS WILL FIELD DIRECT TAPS.
- THE CONTRACTOR SHALL FIELD COORDINATE THE POWER NEEDS OF ANY ELECTRONIC TRAP PRIMERS LOCATED THROUGH OUT THE BUILDING EVEN IF NOT SHOWN ON PLANS.
- FOR SPEAKER LOCATIONS IN EXPOSED OR UNFINISHED CEILINGS, CONTRACTOR TO PROVIDE SURFACE MOUNTED SPEAKER BACK BOX TYPE, MOUNTING BRACKETS, AND ALL NECESSARY ACCESSORIES FOR COMPLETE INSTALLATION AND FULL USE.
- PROVIDE ESCUTCHEONS ON ALL CONDUIT (OR SIMILAR) PENETRATIONS OF BUILDING SURFACES WITHIN FINISHED SPACES.



7. ELEVATION - WALL SWITCH INSTALLATION

2. ABBREVIATIONS 3. SYMBOLS

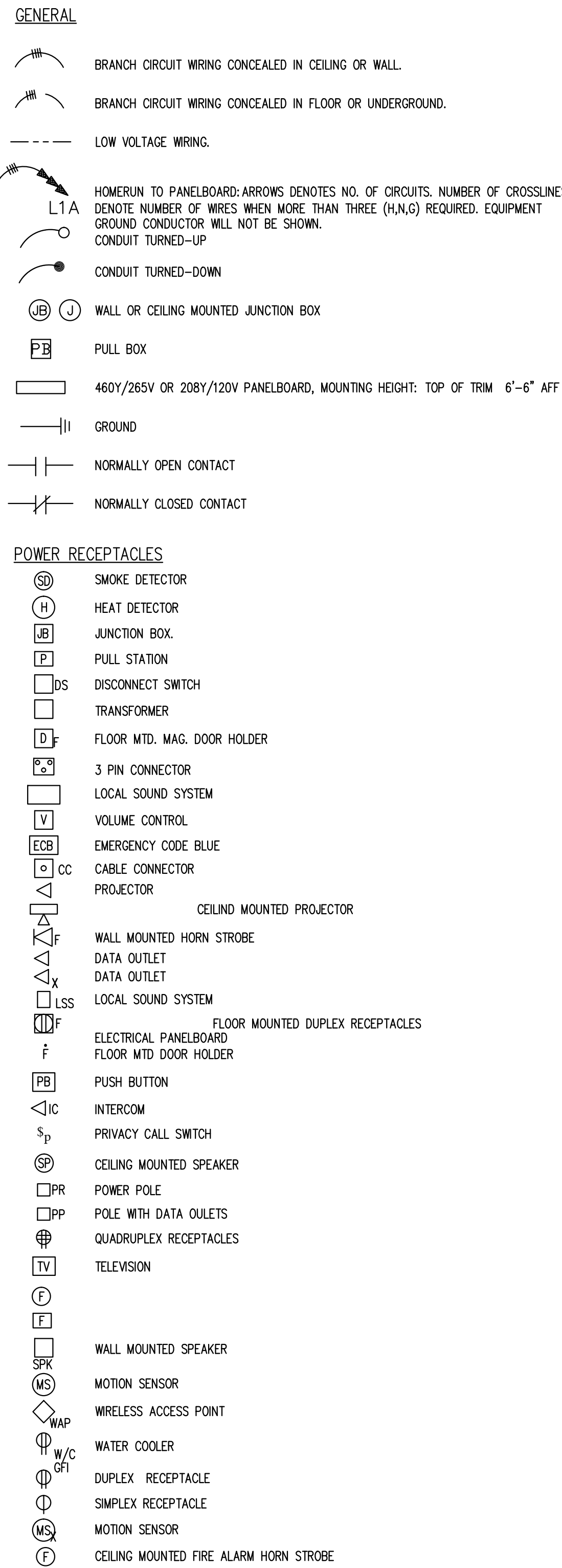
A	AMPERE
AC	ALTERNATING CURRENT
ADDL.	ADDITIONAL
ATF	ABOVE FINISHED FLOOR
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CAB	CABINET
CB	CIRCUIT BREAKER
CD	CANDELA
CHT	CIRCUIT
CLG	CEILING
COMP	COMPUTER
DET	DETAIL
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DWG	DRAWING
EA	EACH
ELECT	ELECTRICAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXR	EXISTING TO REMAIN
ETRD	EXISTING TO BE REMOVED
ETRL	EXISTING TO BE RELOCATED
F	FUSED
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FDR	FEDER
FL	FLOOR
FIXT	FIXTURE
G	GROUND
GFI	GROUND FAULT INTERRUPTER
HP	HORSEPOWER
HZ	HERTZ
INFO	INFORMATION
IC	INTERRUPTING CAPACITY
JB	JUNCTION BOX
KW	KILOWATT
KVA	KILOVOLT AMPERE
LTG	LIGHTING
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MIN	MINIMUM
MTR	MOTOR
MTD	MOUNTED
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NUMBER
P	POLE
PF	POWER FACTOR
PNL	PANEL
PH	PHASE
PWR	POWER
RECEP	RECEPTACLE
RM	ROOM
SHT	SHEET
SW	SWITCH
SWBD	SWITCHBOARD
TBD	TO BE DETERMINED
TRANSF	TRANSFORMER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT AMPERE
W	WATT
WP	WEATHERPROOF

4. DRAWING LIST

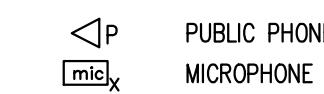
E-001	ELECTRICAL COVER SHEET
EE-101A	ELECTRICAL LIGHTING PART PLAN LEVEL 01-A
EE-101B	ELECTRICAL LIGHTING PART PLAN LEVEL 01-B
EE-101C	ELECTRICAL LIGHTING PART PLAN LEVEL 01-C
EE-102A	ELECTRICAL LIGHTING PART PLAN LEVEL 02-A
EE-102B	ELECTRICAL LIGHTING PART PLAN LEVEL 02-B
EE-102C	ELECTRICAL LIGHTING PART PLAN LEVEL 02-C
EE-103B	ELECTRICAL LIGHTING PART PLAN LEVEL 03-B
EE-103C	ELECTRICAL LIGHTING PART PLAN LEVEL 03-C
EE-104	ELECTRICAL LIGHTING OVERALL PLAN ROOF LEVEL
EE-201A	ELECTRICAL POWER PART PLAN LEVEL 01-A
EE-201B	ELECTRICAL POWER PART PLAN LEVEL 01-B
EE-201C	ELECTRICAL POWER PART PLAN LEVEL 01-C
EE-202A	ELECTRICAL POWER PART PLAN LEVEL 02-A
EE-202B	ELECTRICAL POWER PART PLAN LEVEL 02-B
EE-202C	ELECTRICAL POWER PART PLAN LEVEL 02-C
EE-203B	ELECTRICAL POWER PART PLAN LEVEL 03-B
EE-203C	ELECTRICAL POWER PART PLAN LEVEL 03-C
EE-204	ELECTRICAL POWER OVERALL PLAN ROOF LEVEL
EE-301	ELECTRICAL PARTIAL PLANS-LEVEL 1 MECHANICAL ROOMS
EE-302	ELECTRICAL PARTIAL PLANS-PENTHOUSE MECHANICAL ROOMS
EE-303	ELECTRICAL PARTIAL PLANS
EE-301	ELECTRICAL SITE PLAN
EE-304	ELECTRICAL PART PLAN
EE-401	ELECTRICAL DETAILS
EE-501	ELECTRICAL RISER DIAGRAM
EE-601	ELECTRICAL SCHEDULE

8. ELEVATION - WALL RECEPTACLE INSTALLATION

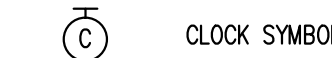
- NOTE:
- WALL RECEPTACLES SHALL BE LOCATED 16" TO THE TOP FOR ALL KINDERGARTEN RECEPTACLES.
  - WALL RECEPTACLES SHALL BE LOCATED 16" TO THE BOTTOM FOR ALL NON-KINDERGARTEN RECEPTACLES.



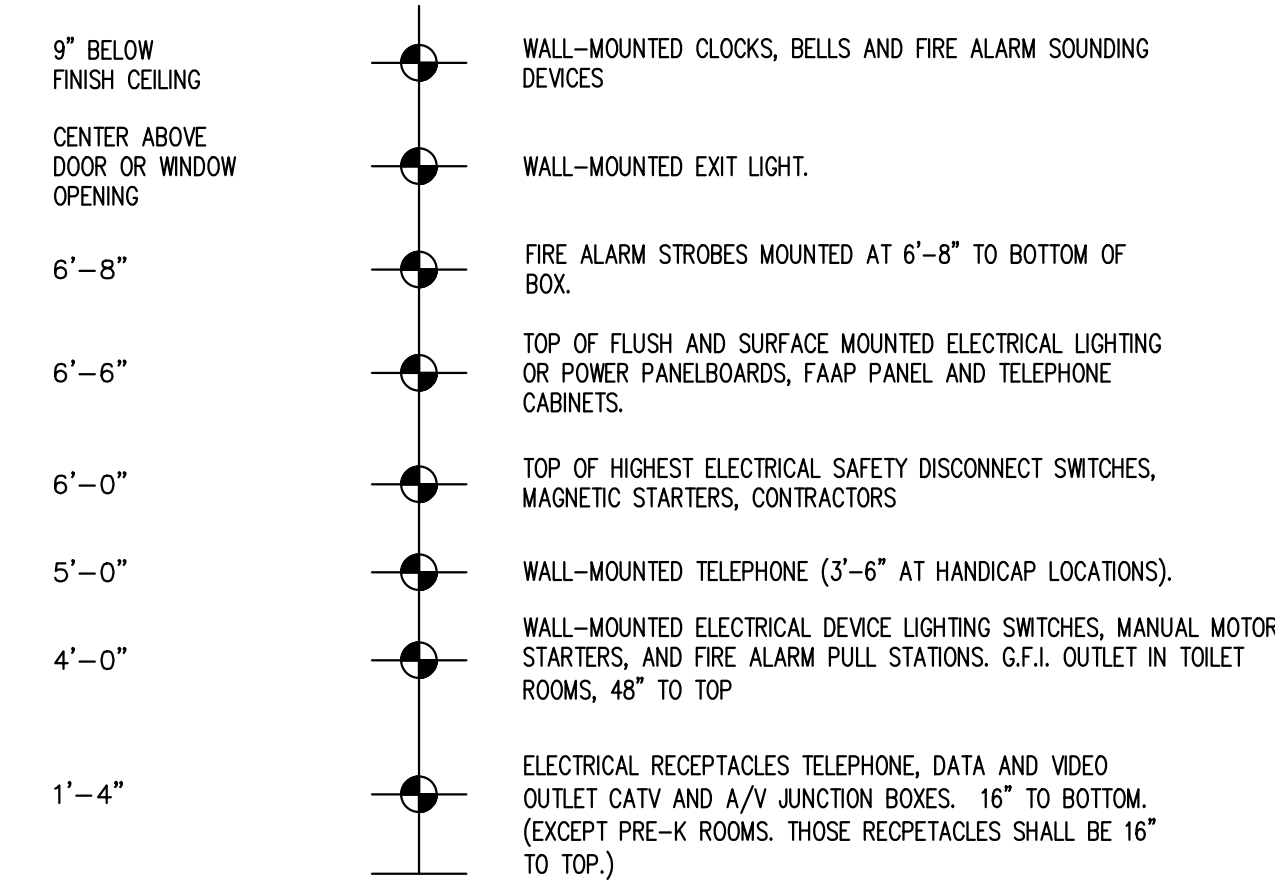
TELEPHONE - COMMUNICATIONS - DATA



CLOCKS



5. MOUNTING HEIGHTS



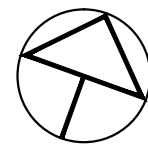
- MOUNTING NOTES:
- THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS.

6. ELECTRICAL LOAD CALCULATIONS

LOAD	CONNECTED LOAD KVA	DEMAND LOAD FACTOR	DEMAND KVA
LIGHTING	103	125%	128.8
RECEPTACLES	147.7	1ST 10 KVA @ 100% REMAIN KVA @ 50%	10 68.9
MOTORS / AC SYSTEM	510.1	100%	510.1
OTHER	61.2	100%	61.2
OTHER (KITCHEN)	138.3	65%	89.9
TOTAL DEMAND	960.3		868.9

IN REGARD TO THE ABOVE CALCULATION, TOTAL DEMAND LOAD FOR SCHOOL IS 868.9 KVA OR 1045 AMPS AT 480V/277V, 3-PHASE. BASED ON 25% SPARE CAPACITY FOR FUTURE USE, WE RECOMMEND A SECONDARY ELECTRICAL SERVICE WITH CAPACITY OF 1600A (480/277V, 3-PHASE, 4W)

PROFESSIONAL CERTIFICATION:  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17366, EXPIRATION DATE MAY 29, 2013.



Marlboro Hall  
Renovation and  
Addition

Prince George's  
Community College  
301 Largo Rd. Largo, MD  
20774

JCJARCHITECTURE

ONE STATE STREET  
SUITE 900  
BOSTON, MA 02109  
617.532.6600

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CONSULTANTS:

Civil/ Geotech:  
Triad Engineering  
1075-D Sherman Avenue  
Hagerstown, MD 21740  
T: 301.797.6400 F: 301.797.2424

Envelope:  
Coleman Consulting  
205 South Tyrone Road  
Baltimore, Maryland 21212  
T: 410.878.6566 F:

Hazmat:  
Aerosol Monitoring & Analysis  
1331 Ashton Road, Suite A  
Hanover, Maryland 21076  
T: 410.684.3327 F:

LANDSCAPE:  
Flours Teetler Landscape Architects  
800 N. Charles Street, Suite 300  
Baltimore, MD 21201  
T: 410.528.8395 F:

LEED:  
Doo Consulting  
531 Piccadilly Rd.  
Towson, MD 21204  
T: 443.463.5859 F:

FIRE PROTECTION  
Koffel Associates  
8815 Centre Park Drive, Suite 200  
Columbia, MD 21046  
T: 410.750.2246 F:

MEP  
Weigand Associates, Inc.  
20270 Goldenrod Land  
Germanstown, MD 20876  
T: 301.540.9060 F: 301.540.9061

STRUCTURAL:  
Silliman Associates Structural Engineers  
1053 31st Street NW  
Washington, DC 20007  
T: 202.333.6230 F:

EXISTING  
CONDITION

NOT FOR  
CONSTRUCTION

PROFESSIONAL CERTIFICATION:  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17366, EXPIRATION DATE MAY 29, 2013.

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SCALE N.T.S.

REVISIONS:

ELECTRICAL  
COVERSHEET

EE-001