ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	LIGHTING
	NOTES: 1. LETTER WITHIN OR ADJACENT TO FIXTURE INDICATES FIXTURE TYPE. RE: FIXTURE SCHEDULE. 2. NOT ALL SYMBOLS ARE LISTED HERE.
A	LIGHTING FIXTURE, RECESSED IN CEILING
A	LIGHTING FIXTURE ON EMERGENCY OR STANDBY POWER SOURCE OR BATTERY POWERED. THESE FIXTURES MAY ALSO BE DESIGNATED WITH AN 'E' SUFFIX.
A	STRIP LIGHTING FIXTURE
A	LIGHTING FIXTURE CEILING MOUNTED
A	LIGHTING FIXTURE ON EMERGENCY OR STANDBY POWER SOURCE
	EMERGENCY "BUGEYE" FIXTURE
X	EXIT LIGHT WALL MOUNTED 8'-0" AFF TO CENTER, UNO SHADED AREA(S) INDICATE ILLUMINATED FACE(S). CEILING MOUNT WHERE CONDITIONS REQUIRE.
A	EXTERIOR POLE MOUNTED LIGHTING FIXTURE
	RECEPTACLES
	MOUNT 18" AFF TO CENTER, UNO SUBSCRIPTS: CR CORD REEL ASSEMBLY - SEE DETAIL DC DROP CORD - SEE DETAIL GFI GROUND FAULT CIRCUIT INTERRUPTER IG ISOLATED GROUND P CEILING MOUNTED FOR PROJECTOR (SEE DETAIL) SP SURGE PROTECTED TR TAMPER RESISTANT USB INCLUDES INTEGRAL USB CHARGING PORTS WP WEATHERPROOF WHILE IN USE (WITH METAL COVER)
	SIMPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
	QUADPLEX RECEPTACLE OUTLET
	CLOCK (SINGLE FACE)
	CLOCK (DOUBLE FACE)
	SPECIAL PURPOSE RECEPTACLE MOUNTED 48" AFF, UNO RE: PLANS
	GFCI RECEPTACLE
	RECEPTACLE MOUNTED 6" ABOVE COUNTER OR 36" AFF UNO
	GFCI RECEP, WP W/ METALLIC WHILE-IN-USE COVER (LEGRAND WIUCAST OR EQUAL)
	DEADFRONT GFCI; LEVITON GFRBF OR EQUAL
	SIMPLEX FLOOR OUTLET
	CEILING MOUNTED RECEPTACLE OUTLET
	DUPLEX FLOOR OUTLET
	QUADPLEX FLOOR OUTLET
	SPECIAL PURPOSE FLOOR OUTLET, RE: PLANS
FP	FLOOR BOX WITH POWER AND DATA RECEPTACLES (REFER TO SPECS)
FF	FLOOR BOX WITH HARDWIRED CONNECTION TO FURNITURE (FURNITURE FEED)
	PLUGMOLD
	SWITCHES
	MOUNT 48" AFF TO TOP, UNO SUBSCRIPTS: WP WEATHERPROOF EP EXPLOSIONPROOF LV LOW VOLTAGE P PILOT LIGHT C COUNTER TOP MOUNTED (MOUNT 4" ABOVE BACKSPLASH TO CENTER)
$	SINGLE POLE, SINGLE THROW WALL SWITCH
$2	DOUBLE POLE, SINGLE THROW WALL SWITCH
$3	THREE WAY WALL SWITCH
$4	FOUR WAY WALL SWITCH
$DV/$DC	0-10V DIMMER SWITCH. TRUE MULTI-LOCATION 0-10V DIMMER (PROVIDE COMPATIBLE SENSORS AND ALL PARTS AND CABLING AS REQUIRED). APPROVED ALTERNATES: 1. ACUITY nPODMA SWITCHES WITH nPP16ID POWER PACK(S) 2. HUBBELL NX NXSW-ORLO SWITCHES WITH NXRC-1RD ROOM CONTROLLER 3. PICO 2BRL SWITCHES WITH RMJS-8T-DV-B POWER PACKS(S) 4. OR EQUAL
$LW	LOW VOLTAGE MOMENTARY SWITCH WIRED TO PROVIDE MANUAL-ON OPERATION WITH A VACANCY SENSOR
$DO	0-10V DIMMER AND VACANCY SENSOR SWITCH, LUTRON MS-Z101-V OR EQUAL.
$OS	WALL MOUNTED OCCUPANCY SENSOR/SWITCH; SET TO MANUAL-ON OPERATION
$M	MANUAL MOTOR STARTER
$K	KEY SWITCH
$LV	LOW VOLTAGE SWITCH
$T	SPRING WOUND TIMER SWITCH. (TORK #A560MH OR EQUAL)

SYMBOL	DESCRIPTION
	CIRCUITING/RACEWAY
	HOMERUN TO PANEL INDICATED. ARROWHEADS INDICATE NUMBER OF CCTS.
	CONDUIT CAPPED FOR FUTURE USE
	CONTROL/MISC
	PUSHBUTTON STATION MOUNTED 48" AFF TO TOP
	PHOTOELECTRIC CELL. MOUNT FACING NORTH WHENEVER POSSIBLE
T	THERMOSTAT OR TEMPERATURE SENSOR MOUNTED 48" AFF TO TOP TO CENTER, UNO.
	GROUND ROD
	GROUND WELL
M	METER
OS	CEILING MOUNTED OCCUPANCY SENSOR
DS	CEILING MOUNTED DAYLIGHT SENSOR
OS	LONG RANGE CEILING MOUNTED OCCUPANCY SENSOR
OS	WALL MOUNTED OCCUPANCY SENSOR
	BOLD LINETYPES REPRESENT NEW WORK
	SUBDUED LINETYPES REPRESENT EXISTING WORK
	BOLD & DASHED LINETYPES REPRESENT DEMOLITION WORK
	POWER DISTRIBUTION
	PANELBOARD
	SAFETY DISCONNECT SWITCH
	SAFETY DISCONNECT SWITCH - FUSED
	MOTOR STARTER OR CONTROL PANEL
	MOTOR (HORSEPOWER AS INDICATED)
J	JUNCTION BOX
J	JUNCTION BOX, WALL MOUNTED
	PULL BOX
J	UNDERFLOOR DUCT JUNCTION BOX
	DRY TYPE TRANSFORMER MOUNTED ON 3" CONCRETE HOUSE KEEPING PAD. CHAMFER ALL CORNERS OF PAD.
	GROUND BAR
	INTERCOM/PAGING/SOUND - SYSTEM BY ENDEX OF OKLAHOMA
CON	INTERCOM CONTROLLER TCC2000
S	INTERCOM SPEAKER TCC2011A/BAFKIT1X2S8RJ
IC	INTERCOM CONSOLE TCC2045
S	INTERCOM SPEAKER BAFKIT1X2S
PB	INTERCOM CALL-IN BUTTON 603302
DMB	DIGITAL MESSAGE BOARD TCC3011S
DMB	DUAL DIGITAL MESSAGE BOARD TCC3011S/TCC30DFM
ZP	INTERCOM ZONE PAGE MODULE TCC2022
PM	INTERCOM PROGRAM MODULE TCC2055
BM	INTERCOM BREAKOUT MODULE 603101
AMP	INTERCOM ZONE PAGE AMPLIFIER MODULE TCC3022
	SECURITY/INTRUSION ALARM
DL	REMOTE DOOR LOCK/UNLOCK CONNECTION; MOUNT 48" AFF TO CENTER, UNO
CR	CARD READER; PROVIDE 120V F NEAREST RECEP CKT FOR POWER SUPPLY; MOUNT 48" AFF TO TOP, UNO
	SECURITY CAMERA
DC	DOOR CONTACT
KP	KEYPAD; MOUNT 48" AFF TO TOP, UNO
MS	MOTION SENSOR
GB	GLASS BREAK SENSOR
RE	REQUEST TO EXIT

SYMBOL	DESCRIPTION
	FIRE ALARM
	PROVIDE DEVICES AND QUANTITIES AS REQUIRED FOR A COMPLETE AND CODE COMPLIANT SYSTEM.
FACP	FIRE ALARM CONTROL PANEL
FSA	FIRE ALARM SYSTEM ANNUNCIATOR
F	MANUAL PULL STATION (MTD. 48" AFF TO TOP, UNO)
F	COMBINATION HORN/STROBE (MTD. 81" AFF TO BOTTOM, UNO)
F	COMBINATION HORN/STROBE (CLG MTD.)
	ALARM STROBE LIGHT (MTD. 81" AFF TO BOTTOM, UNO)
	ALARM STROBE LIGHT (CLG MTD.)
S	SPEAKER/STROBE (MTD. 81" AFF TO BOTTOM, UNO)
S	SPEAKER/STROBE (CLG MTD.)
S	SPEAKER (MTD. 81" AFF TO BOTTOM, UNO)
S	SPEAKER (CLG MTD.)
F	SMOKE DETECTOR (UF = UNDERFLOOR)
	HEAT DETECTOR
F	DUCT MOUNTED SMOKE DETECTOR
F R	BEAM SMOKE DETECTOR - DETECTOR
F R	BEAM SMOKE DETECTOR - REFLECTOR
TS	TAMPER SWITCH - PROVIDE QUANTITIES AS DIRECTED BY SPRINKLER INSTALLER
FS	FLOW SWITCH - PROVIDE QUANTITIES AS DIRECTED BY SPRINKLER INSTALLER
PS	PRESSURE SWITCH
M	MAGNETIC DOOR HOLDER
CO	CARBON MONOXIDE DETECTOR
	COMMUNICATIONS
	PROVIDE 4" SQUARE, 2-1/8" DEEP BOX WITH APPROPRIATE SINGLE-GANG DEVICE RING FLUSH MOUNTED 18" AFF AND 1" CONDUIT WITH PULL WIRE TO 6" ABOVE CEILING, UNO. PROVIDE BLANK COVER PLATE FOR ALL EMPTY BOXES
#	DATA OUTLET, SUBSCRIPT (#) AT JACK INDICATES QUANTITY OF CAT CABLES AND JACKS TO BE INSTALLED. THE ABSENCE OF A NUMBER INDICATES A SINGLE DROP
TV	TELEVISION OUTLET, SEE DETAIL.
SB	SMARTBOARD OUTLET, SEE DETAIL.
AV	TEACHER'S OUTLET FOR SMARTBOARD OR PROJECTOR, SEE DETAIL
	TELEPHONE OUTLET
	COMBINATION TELEPHONE/DATA OUTLET
P	PROJECTOR, INSTALL ONE CAT CABLE TO THIS LOCATION ABOVE CEILING WITH LEVITON "QUICK PORT" COMPATIBLE TWO-PORT, SURFACE MOUNT COMMUNICATIONS HOUSING, ITEM LEVITON 41089-2"P. HOUSING SHALL BE BLACK AT PROJECTORS. COIL 10' OF CABLE ABOVE CEILING AND TERMINATE. SEE PROJECTOR DETAIL ON PLANS.
WAP	WIRELESS ACCESS POINT, INSTALL ONE CAT CABLE TO THIS LOCATION ABOVE CEILING WITH LEVITON "QUICK PORT" COMPATIBLE TWO-PORT, SURFACE MOUNT COMMUNICATIONS HOUSING, ITEM LEVITON 41089-2"P. HOUSING SHALL BE WHITE. COIL 10' OF CABLE ABOVE CEILING AND TERMINATE.
	NURSE CALL
N E	NURSE CALL EMERGENCY STATION (PULL CORD) 44" AFF
N N 2	NURSE CALL SINGLE OR DUAL BEDSIDE STATION 44" AFF
N D	NURSE CALL DUTY STATION 44" AFF
N S	NURSE CALL STAFF STATION 44" AFF
N B	NURSE CALL CODE BLUE STATION 44" AFF
N P	NURSE CALL CODE PUNK STATION 44" AFF
N L	NURSE CALL PRESENCE INDICATOR (LOCATOR) STATION
Z	NURSE CALL CORRIDOR ZONE LIGHT
	NURSE CALL DOME LIGHT
N C	NURSE CALL CABINET 54" AFF
N M	NURSE CALL MASTER STATION

NOTE: ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AIC	SYMMETRICAL AMPS INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
AV	AUDIBLE AND VISUAL
BAS	BUILDING AUTOMATION SYSTEM
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CU	COPPER
DC	DROP CORD
DDC	DIRECT DIGITAL CONTROL
EG	EQUIPMENT GROUND
ELEC	ELECTRICAL
EMCS	ENERGY MANAGEMENT & CONTROL SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ETC.	ET CETERA
EWC	ELECTRIC WATER COOLER
EXIST. OR E	EXISTING
FA	FIRE ALARM
FIC	FIBER OPTIC INTERCONNECT CENTER
FMC	FLEXIBLE METALLIC CONDUIT
GFI OR GFCI	GROUND FAULT CIRCUIT INTERRUPTER
IA	INTRUSION ALARM
IG	ISOLATED GROUND
LTFMC	LIQUID TIGHT FLEXIBLE METALLIC CONDUIT
LV	LOW VOLTAGE
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
N/A	NOT APPLICABLE
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEUT.	NEUTRAL
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NL	NIGHT LIGHT (CONNECT TO UNSWITCHED CIRCUIT)
OC	ON CENTER
OH	OVERHEAD
OHD	OVERHEAD DOOR
PNL	PANELBOARD
RGSC	RIGID GALVANIZED STEEL CONDUIT
SCH.	SCHEDULE
SPECS	CONTRACT SPECIFICATIONS
TEL	TELEPHONE
TGB	TELEPHONE GROUND BAR
TTB	TELEPHONE TERMINAL BOARD
TYP.	TYPICAL
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
WAP	WIRELESS ACCESS POINT
WP	WEATHERPROOF
+48"	MOUNTING HEIGHT ABOVE FINISHED FLOOR OR FINISHED GRADE MOUNTING
-48"	HEIGHT BELOW FINISHED FLOOR OR FINISHED GRADE

GENERAL PROJECT NOTES

1. ALL WORK SHALL BE IN CONFORMANCE WITH NATIONAL, STATE, AND LOCAL CODES AND/OR ORDINANCES.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER CONTRACTORS & LOCAL UTILITY. E.C. SHALL CONTACT LOCAL UTILITY FOR EXACT SERVICE REQUIREMENTS TO INCLUDE BUT NOT LIMITED TO TRANSFORMER, METERING AND CABLING. LOCAL UTILITY REQUIREMENTS SUPERSEDE DRAWINGS AND SPECIFICATIONS.
3. SEE OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, MECHANICAL, PLUMBING, A/V, THEATRICAL, ETC.
4. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. THEY ARE INTENDED TO GIVE APPROXIMATE LOCATIONS AND OVERALL DESIGN INTENT. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCTS, MATERIALS, AND ELECTRICAL METHODS WHICH HAVE NOT BEEN SHOWN OR INDICATED BUT ARE REQUIRED FOR A COMPLETE SYSTEM TO THE STANDARDS OF THE INDUSTRY.
5. INSTALL LIGHTING FIXTURES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE SUPPORTING DEVICES FOR ADEQUATE SUPPORT OF FIXTURES FROM STRUCTURE.
6. ELECTRICAL RACEWAYS THAT PENETRATE FIRE RATED ASSEMBLIES SHALL BE SLEEVED AND SEALED AS PER THE LOCAL BUILDING CODE.

ELECTRICAL SHEET INDEX:

E000 - ELECTRICAL LEGEND
E010 - ELECTRICAL DEMO PLAN - ELEMENTARY RENOVATION
E020 - ELECTRICAL DEMO PLAN - ELEMENTARY AREA A
E030 - ELECTRICAL DEMO PLAN - HIGH SCHOOL
E100 - ELECTRICAL SITE PLAN - HIGHSCHOOL
E200 - ELECTRICAL LIGHTING PLAN - ELEMENTARY ADDTION
E210 - ELECTRICAL LIGHTING PLAN - ELEMENTARY RENOVATION AREA A
E220 - ELECTRICAL LIGHTING PLAN - FIRST FLOOR HIGHSCHOOL
E230 - ELECTRICAL LIGHTING PLAN - SECOND FLOOR HIGHSCHOOL
E240 - ELECTRICAL LIGHTING DETAILS
E300 - ELECTRICAL POWER PLAN - ELEMENTARY ADDTION
E310 - ELECTRICAL POWER PLAN - ELEMENTARY RENOVATION AREA A
E320 - ELECTRICAL POWER PLAN - FIRST FLOOR HIGHSCHOOL
E330 - ELECTRICAL POWER PLAN - SECOND FLOOR HIGHSCHOOL
E340 - ELECTRICAL POWER DETAILS
E350 - KITCHEN POWER PLAN
E400 - ELECTRICAL SYSTEMS PLAN - ELEMENTARY ADDTION
E410 - ELECTRICAL SYSTEMS PLAN - ELEMENTARY RENOVATION AREA A
E420 - ELECTRICAL SYSTEMS PLAN - FIRST FLOOR HIGHSCHOOL
E430 - ELECTRICAL SYSTEMS PLAN - SECOND FLOOR HIGHSCHOOL
E440 - ELECTRICAL SYSTEMS DETAILS
E450 - ELECTRICAL OVERALL PLAN - HIGHSCHOOL AND ELEMENTARY
E500 - ELECTRICAL RISER DIAGRAM / PANEL SCHEDULES
E510 - ELECTRICAL RISER DIAGRAM / PANEL SCHEDULES

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 3/4/2021 OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL LEGEND

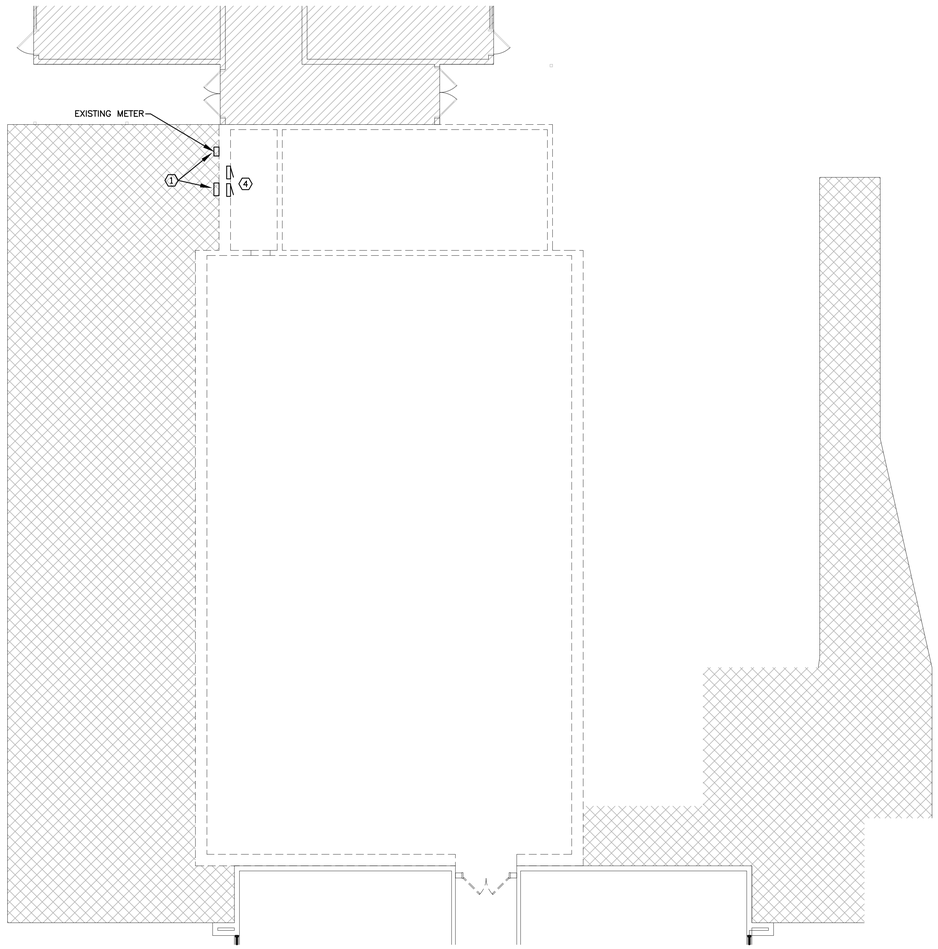
REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E000



1 ELECTRICAL DEMO PLAN - ELEMENTARY RENOVATION
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. REMOVE ALL ABANDONED SURFACE RACEWAYS AND JUNCTION BOXES. EXISTING ABANDONED RECESSED JUNCTION BOXES SHALL BE REMOVED AND THE WALL PATCHED, OR A NEW BLANK COVERPLATE SHALL BE INSTALLED.

B. DEMO ALL ABANDONED CABLING.

C. PROVIDE SUPPORTS FOR ALL EXISTING CONDUIT AND CABLING THAT REMAINS.

D. PROVIDE COVER PLATES AS REQUIRED FOR EXISTING JUNCTION BOXES.

E. EXISTING LIGHTING SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.

F. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON-SITE AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO BID.

G. ALL CEILING MOUNTED LOW VOLTAGE DEVICES IN THE AREA OF WORK SHALL BE TEMPORARILY REMOVED/RETAINED FOR REINSTALLATION IN NEW CEILING. PROTECT ALL LOW VOLTAGE CABLING DURING CONSTRUCTION AND MAKE ALLOWANCE FOR RECONNECTION/REINSTALLATION TO ALL EXISTING DEVICES.

KEYED NOTES: (N)

1. EXISTING UTILITY METER AND SERVICE/DISCONNECT TO BE DEMO'D/REPLACED. COORDINATE EXACT REQUIREMENTS WITH UTILITY CONTRACTOR AND ALL OUTAGE TIMES WITH THE OWNER.
2. REMOVE ALL LIGHTING AND ASSOCIATED WIRING IN THIS AREA BACK TO NEAREST ACCESSIBLE J-BOX. RETAIN CIRCUITING FOR CONNECTION TO NEW FIXTURES AND MODIFY SWITCHING/CONTROLS AS NEEDED FOR NEW LIGHTING CONTROL SCHEME.
3. ALL ELECTRICAL DEVICES AND ITS ASSOCIATED CONDUIT/WIRING IN WALLS TO BE DEMO'D SHALL BE REMOVED BACK TO AN ACCESSIBLE J-BOX LOCATION ABOVE THE CEILING. RETAIN CIRCUITING FOR CONNECTION TO NEW DEVICES. EXISTING ELECTRICAL DEVICES IN WALLS NOT TO BE DEMO'D SHALL REMAIN. EXTEND CIRCUITING AS REQUIRED FOR ALL EXISTING DEVICES TO REMAIN OPERATIONAL.
4. EXISTING PANELS 'MDP' AND 'K1' TO BE DEMO'D AT THIS LOCATION. RETAIN ALL EXISTING WIRING AND CIRCUITS FOR RECONNECTION TO NEW PANELS.
5. ALL EXISTING ELECTRICAL EQUIPMENT IN THIS AREA IS TO BE DEMO'D AND REPLACED. RETAIN EXISTING FEEDERS, BRANCH CIRCUIT, AND WIRING FOR CONNECTION TO NEW ELECTRICAL GEAR.
6. EXISTING DISCONNECT IS TO BE DEMO'D AND INSERTED INTO NEW SWITCHGEAR. RETAIN ALL EXISTING WIRING RELATED TO THE DISCONNECT AND EXTEND TO NEW SWITCHGEAR AS REQUIRED.
7. EXISTING PANELS 'KL' AND 'KH' TO BE DEMO'D AT THIS LOCATION. RETAIN ALL EXISTING CIRCUITING FOR RECONNECTION TO NEW KITCHEN PANELS 'K1', 'K2', AND 'K3'.
8. EXISTING FIRE ALARM CONTROL PANEL TO BE RE-LOCATED TO NEW MAIN ELECTRICAL ROOM. REFER TO SHEET E330 FOR NEW LOCATION. DEMO EXISTING FIRE ALARM CABLING AND EXTEND TO NEW LOCATION AS REQUIRED. FIRE ALARM CONTROL PANEL IS AN "EST MODEL LSS1".
9. EXISTING INTERCOM SYSTEM AT THIS LOCATION IS TO BE DEMO'D AND REPLACED. RETAIN WIRING FOR CONNECTION TO NEW SYSTEM AS APPLICABLE. REFER TO THE ELECTRICAL SYSTEMS PLANS FOR INFORMATION ON THE NEW INTERCOM SYSTEM.

FIELD VERIFICATION NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID. THE FOLLOWING ITEMS SHALL BE VERIFIED
   - A. EXACT PLACEMENT, SIZE, CAPACITY, MANUFACTURER AND CONDITION OF ALL EXISTING ELECTRICAL EQUIPMENT WITHIN SCOPE OF WORK, WHETHER SPECIFICALLY SHOWN OR NOT.
   - B. SIZE AND LOCATION OF ALL EXISTING PANELS AND FEEDERS.
   - C. SIZE AND LOCATION OF SERVICE ENTRANCE.
2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING PANELS AND DEVICES IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDE IN HIS BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.
3. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS.
4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTORS BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL DEMO PLAN - ELEMENTARY RENOVATION

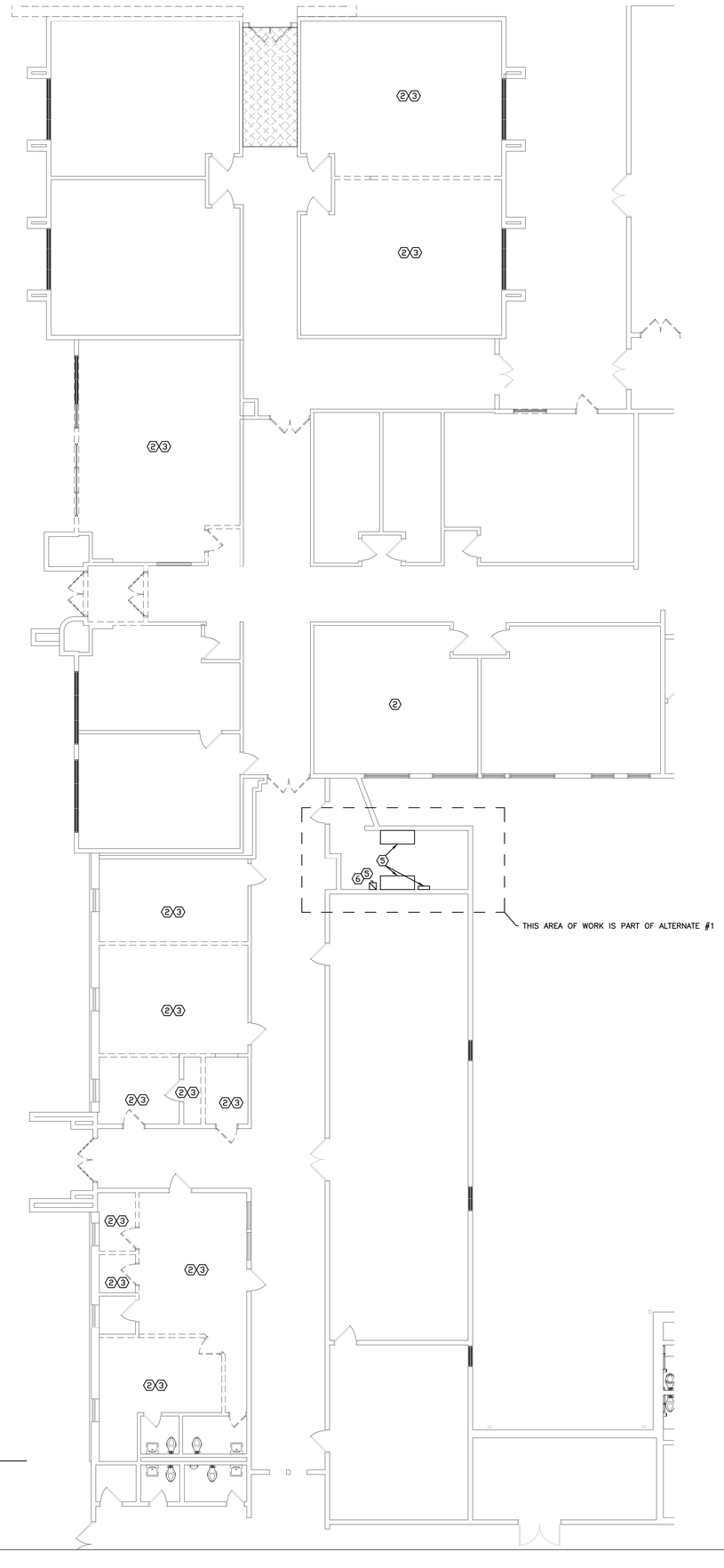
REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E010



1 ELECTRICAL DEMO PLAN - ELEMENTARY AREA A
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. REMOVE ALL ABANDONED SURFACE RACEWAYS AND JUNCTION BOXES. EXISTING ABANDONED RECESSED JUNCTION BOXES SHALL BE REMOVED AND THE WALL PATCHED, OR A NEW BLANK COVERPLATE SHALL BE INSTALLED.

B. DEMO ALL ABANDONED CABLING.

C. PROVIDE SUPPORTS FOR ALL EXISTING CONDUIT AND CABLING THAT REMAINS.

D. PROVIDE COVER PLATES AS REQUIRED FOR EXISTING JUNCTION BOXES.

E. EXISTING LIGHTING SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.

F. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON-SITE AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO BID.

G. ALL CEILING MOUNTED LOW VOLTAGE DEVICES IN THE AREA OF WORK SHALL BE TEMPORARILY REMOVED/RETAINED FOR REINSTALLATION IN NEW CEILING. PROTECT ALL LOW VOLTAGE CABLING DURING CONSTRUCTION AND MAKE ALLOWANCE FOR RECONNECTION/REINSTALLATION TO ALL EXISTING DEVICES.

KEYED NOTES: (N)

1. EXISTING UTILITY METER AND SERVICE/DISCONNECT TO BE DEMO'D/REPLACED. COORDINATE EXACT REQUIREMENTS WITH UTILITY CONTRACTOR AND ALL OUTAGE TIMES WITH THE OWNER.
2. REMOVE ALL LIGHTING AND ASSOCIATED WIRING IN THIS AREA BACK TO NEAREST ACCESSIBLE J-BOX. RETAIN CIRCUITING FOR CONNECTION TO NEW FIXTURES AND MODIFY SWITCHING/CONTROLS AS NEEDED FOR NEW LIGHTING CONTROL SCHEME.
3. ALL ELECTRICAL DEVICES AND ITS ASSOCIATED CONDUIT/WIRING IN WALLS TO BE DEMO'D SHALL BE REMOVED BACK TO AN ACCESSIBLE J-BOX LOCATION ABOVE THE CEILING. RETAIN CIRCUITING FOR CONNECTION TO NEW DEVICES. EXISTING ELECTRICAL DEVICES IN WALLS NOT TO BE DEMO'D SHALL REMAIN. EXTEND CIRCUITING AS REQUIRED FOR ALL EXISTING DEVICES TO REMAIN OPERATIONAL.
4. EXISTING PANELS 'MDP' AND 'K1' TO BE DEMO'D AT THIS LOCATION. RETAIN ALL EXISTING WIRING AND CIRCUITS FOR RECONNECTION TO NEW PANELS.
5. ALL EXISTING ELECTRICAL EQUIPMENT IN THIS AREA IS TO BE DEMO'D AND REPLACED. RETAIN EXISTING FEEDERS, BRANCH CIRCUIT, AND WIRING FOR CONNECTION TO NEW ELECTRICAL GEAR.
6. EXISTING DISCONNECT IS TO BE DEMO'D AND INSERTED INTO NEW SWITCHGEAR. RETAIN ALL EXISTING WIRING RELATED TO THE DISCONNECT AND EXTEND TO NEW SWITCHGEAR AS REQUIRED.
7. EXISTING PANELS 'KL' AND 'KH' TO BE DEMO'D AT THIS LOCATION. RETAIN ALL EXISTING CIRCUITING FOR RECONNECTION TO NEW KITCHEN PANELS 'K1', 'K2', AND 'K3'.
8. EXISTING FIRE ALARM CONTROL PANEL TO BE RE-LOCATED TO NEW MAIN ELECTRICAL ROOM. REFER TO SHEET E330 FOR NEW LOCATION. DEMO EXISTING FIRE ALARM CABLING AND EXTEND TO NEW LOCATION AS REQUIRED. FIRE ALARM CONTROL PANEL IS AN "EST MODEL LSS1".
9. EXISTING INTERCOM SYSTEM AT THIS LOCATION IS TO BE DEMO'D AND REPLACED. RETAIN WIRING FOR CONNECTION TO NEW SYSTEM AS APPLICABLE. REFER TO THE ELECTRICAL SYSTEMS PLANS FOR INFORMATION ON THE NEW INTERCOM SYSTEM.

FIELD VERIFICATION NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID. THE FOLLOWING ITEMS SHALL BE VERIFIED
   - A. EXACT PLACEMENT, SIZE, CAPACITY, MANUFACTURER AND CONDITION OF ALL EXISTING ELECTRICAL EQUIPMENT WITHIN SCOPE OF WORK, WHETHER SPECIFICALLY SHOWN OR NOT.
   - B. SIZE AND LOCATION OF ALL EXISTING PANELS AND FEEDERS.
   - C. SIZE AND LOCATION OF SERVICE ENTRANCE.
2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING PANELS AND DEVICES IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDE IN HIS BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.
3. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS.
4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTORS BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL DEMO PLAN - ELEMENTARY AREA A

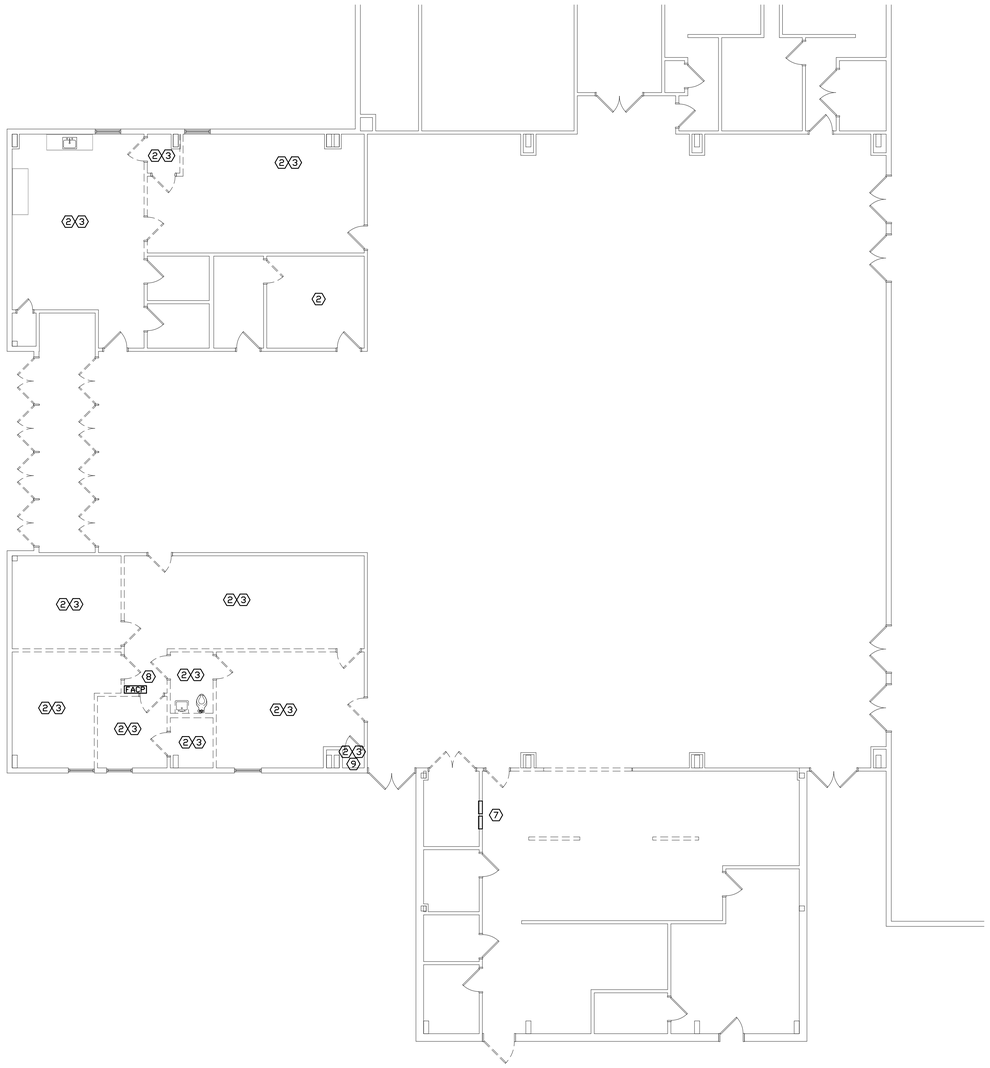
REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E020



1 ELECTRICAL DEMO PLAN - HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. REMOVE ALL ABANDONED SURFACE RACEWAYS AND JUNCTION BOXES. EXISTING ABANDONED RECESSED JUNCTION BOXES SHALL BE REMOVED AND THE WALL PATCHED, OR A NEW BLANK COVERPLATE SHALL BE INSTALLED.

B. DEMO ALL ABANDONED CABLING.

C. PROVIDE SUPPORTS FOR ALL EXISTING CONDUIT AND CABLING THAT REMAINS.

D. PROVIDE COVER PLATES AS REQUIRED FOR EXISTING JUNCTION BOXES.

E. EXISTING LIGHTING SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.

F. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON-SITE AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO BID.

G. ALL CEILING MOUNTED LOW VOLTAGE DEVICES IN THE AREA OF WORK SHALL BE TEMPORARILY REMOVED/RETAINED FOR REINSTALLATION IN NEW CEILING. PROTECT ALL LOW VOLTAGE CABLING DURING CONSTRUCTION AND MAKE ALLOWANCE FOR RECONNECTION/REINSTALLATION TO ALL EXISTING DEVICES.

KEYED NOTES: (11)

1. EXISTING UTILITY METER AND SERVICE/DISCONNECT TO BE DEMO'D/REPLACED. COORDINATE EXACT REQUIREMENTS WITH UTILITY CONTRACTOR AND ALL OUTAGE TIMES WITH THE OWNER.
2. REMOVE ALL LIGHTING AND ASSOCIATED WIRING IN THIS AREA BACK TO NEAREST ACCESSIBLE J-BOX. RETAIN CIRCUITING FOR CONNECTION TO NEW FIXTURES AND MODIFY SWITCHING/CONTROLS AS NEEDED FOR NEW LIGHTING CONTROL SCHEME.
3. ALL ELECTRICAL DEVICES AND ITS ASSOCIATED CONDUIT/WIRING IN WALLS TO BE DEMO'D SHALL BE REMOVED BACK TO AN ACCESSIBLE J-BOX LOCATION ABOVE THE CEILING. RETAIN CIRCUITING FOR CONNECTION TO NEW DEVICES. EXISTING ELECTRICAL DEVICES IN WALLS NOT TO BE DEMO'D SHALL REMAIN. EXTEND CIRCUITING AS REQUIRED FOR ALL EXISTING DEVICES TO REMAIN OPERATIONAL.
4. EXISTING PANELS 'MDP' AND 'K1' TO BE DEMO'D AT THIS LOCATION. RETAIN ALL EXISTING WIRING AND CIRCUITS FOR RECONNECTION TO NEW PANELS.
5. ALL EXISTING ELECTRICAL EQUIPMENT IN THIS AREA IS TO BE DEMO'D AND REPLACED. RETAIN EXISTING FEEDERS, BRANCH CIRCUIT, AND WIRING FOR CONNECTION TO NEW ELECTRICAL GEAR.
6. EXISTING DISCONNECT IS TO BE DEMO'D AND INSERTED INTO NEW SWITCHGEAR. RETAIN ALL EXISTING WIRING RELATED TO THE DISCONNECT AND EXTEND TO NEW SWITCHGEAR AS REQUIRED.
7. EXISTING PANELS 'KL' AND 'KH' TO BE DEMO'D AT THIS LOCATION. RETAIN ALL EXISTING CIRCUITING FOR RECONNECTION TO NEW KITCHEN PANELS 'K1', 'K2', AND 'K3'.
8. EXISTING FIRE ALARM CONTROL PANEL TO BE RE-LOCATED TO NEW MAIN ELECTRICAL ROOM. REFER TO SHEET E330 FOR NEW LOCATION. DEMO EXISTING FIRE ALARM CABLING AND EXTEND TO NEW LOCATION AS REQUIRED. FIRE ALARM CONTROL PANEL IS AN "EST MODEL LSS1".
9. EXISTING INTERCOM SYSTEM AT THIS LOCATION IS TO BE DEMO'D AND REPLACED. RETAIN WIRING FOR CONNECTION TO NEW SYSTEM AS APPLICABLE. REFER TO THE ELECTRICAL SYSTEMS PLANS FOR INFORMATION ON THE NEW INTERCOM SYSTEM.

FIELD VERIFICATION NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID. THE FOLLOWING ITEMS SHALL BE VERIFIED
   A. EXACT PLACEMENT, SIZE, CAPACITY, MANUFACTURER AND CONDITION OF ALL EXISTING ELECTRICAL EQUIPMENT WITHIN SCOPE OF WORK, WHETHER SPECIFICALLY SHOWN OR NOT.
   B. SIZE AND LOCATION OF ALL EXISTING PANELS AND FEEDERS.
   C. SIZE AND LOCATION OF SERVICE ENTRANCE.
2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING PANELS AND DEVICES IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDE IN HIS BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.
3. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS.
4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTORS BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
4/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL DEMO PLAN - HIGH SCHOOL

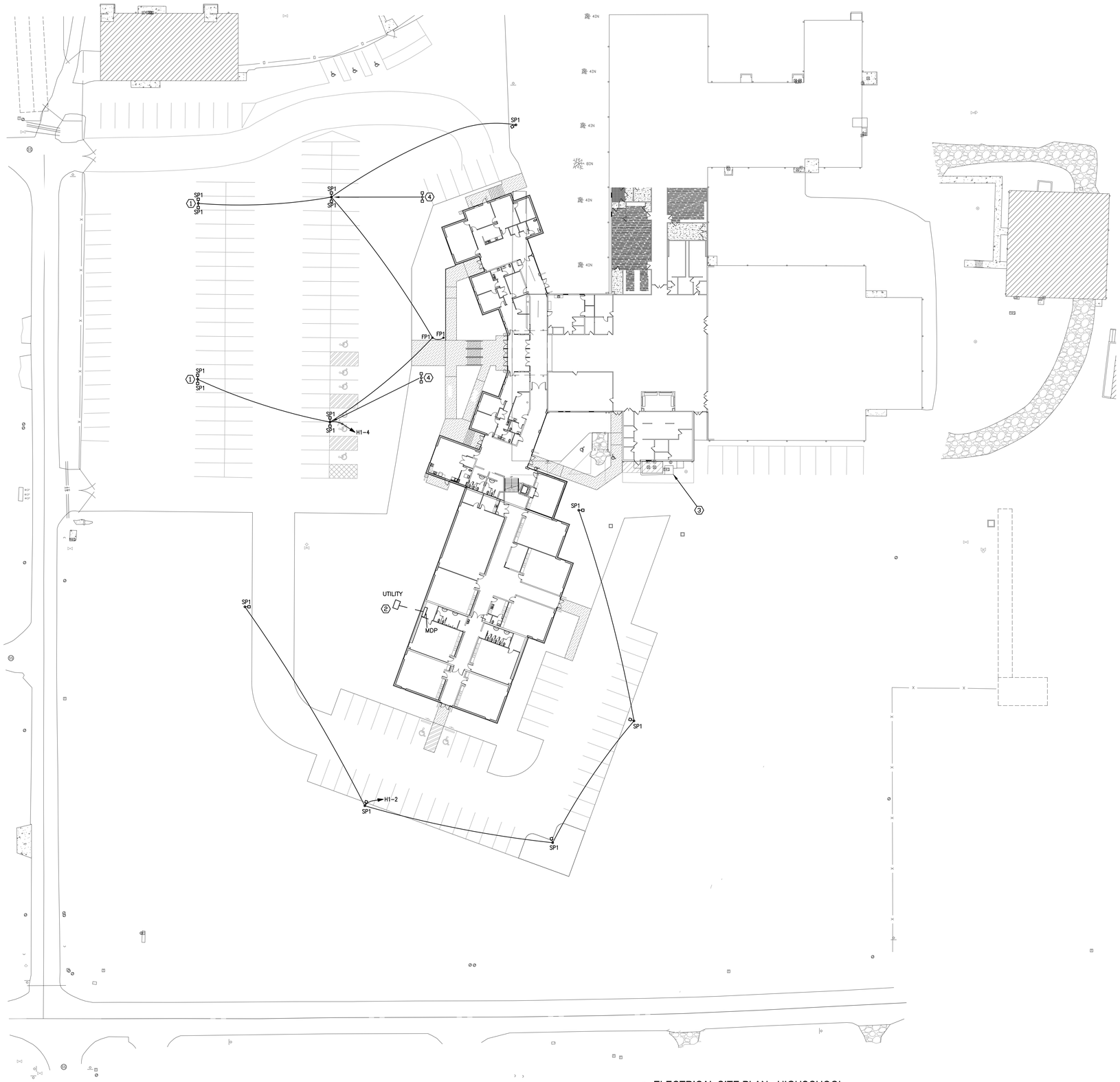
REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E030



1 ELECTRICAL SITE PLAN - HIGHSCHOOL
SCALE: 1" = 30'-0"

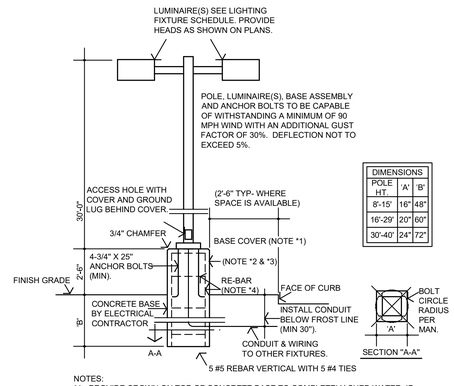
GENERAL NOTES:

A. CONNECT ALL EXTERIOR LIGHTING WITH #8 IN 1" PVC BURIED A MINIMUM OF 24" BELOW GRADE UNLESS NOTED OTHERWISE.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS WITH UTILITY TO PROVIDE ALL PARTS, TRENCHING, AND PAY ALL FEES NECESSARY TO BRING SERVICE TO NEW BUILDING. ANY/ALL COSTS INCURRED FROM UTILITY FOR INSTALLATION OF THE NEW ELECTRICAL SERVICE SHALL BE INCLUDED IN CONTRACTOR'S BID.

KEYED NOTES: (#)

1. EXISTING LIGHT POLE AT THIS LOCATION TO REMAIN. REPLACE HEADS WITH NEW SITE LIGHT FIXTURES.
2. PROPOSED LOCATION FOR NEW 480V TRANSFORMER. TRANSFORMER BY UTILITY; PROVIDE PAD TO UTILITY STANDARDS.
3. EXISTING 208V UTILITY TRANSFORMER TO REMAIN. COORDINATE WITH UTILITY TO RE-ROUTE PRIMARY AS NEEDED.
4. EXISTING LIGHT POLE TO BE RELOCATED TO LOCATION SHOWN. RETAIN POLE FOR REINSTALLATION AT NEW POLE BASE LOCATION AND REPLACE HEADS WITH NEW SITE LIGHT FIXTURES. PROVIDE NEW WIRING, CONDUIT, AND CONTROLS EXTENDED FROM NEW PANEL. EXISTING WIRING/CONDUIT MAY BE UTILIZED AS DEEMED APPLICABLE, IF CIRCUIT PATHWAY IS MODIFIED VERIFY VOLTAGE DROP IS WITHIN NEC STANDARDS.



DIMENSIONS		
POLE HT.	'A'	'B'
8'-15'	16"	48"
16'-29'	20"	60"
30'-40'	24"	72"

NOTES:
*1 - PROVIDE CROWN ON TOP OF CONCRETE BASE TO COMPLETELY SHED WATER. IF WATERSHED IS NOT PROVIDED, THEN GROUTING WITH NON-SHRINK GROUT IS REQUIRED. GROUT UNDER BASE PLATE.

*2 - PROVIDE A 3/4"X10'-0" LONG COPPER GROUND ROD FOR EACH LIGHTING STANDARD WHERE REQUIRED BY APPLICABLE CODES.

*3 - PAINT CONCRETE BASE TRAFFIC YELLOW WHERE LOCATED IN PAVED AREAS.

*4 - PROVIDE (5) #5 RE-BAR WITH (5) #4 TIES.

1 POLE & POLE BASE DETAIL
N.T.S.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL SITE PLAN

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E100

GENERAL NOTES:

A. OCCUPANCY SENSOR LOCATIONS ARE SHOWN FOR DESIGN INTENT ONLY; LOCATE OCCUPANCY SENSORS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. PROVIDE QUANTITIES AS NEEDED TO SENSE MOVEMENT IN SPACE.

B. FOR FIXTURES WITH INTEGRAL BATTERY, CONNECT BATTERY PACKS TO UNSWITCHED HOT OF LOCAL LIGHTING CIRCUIT.

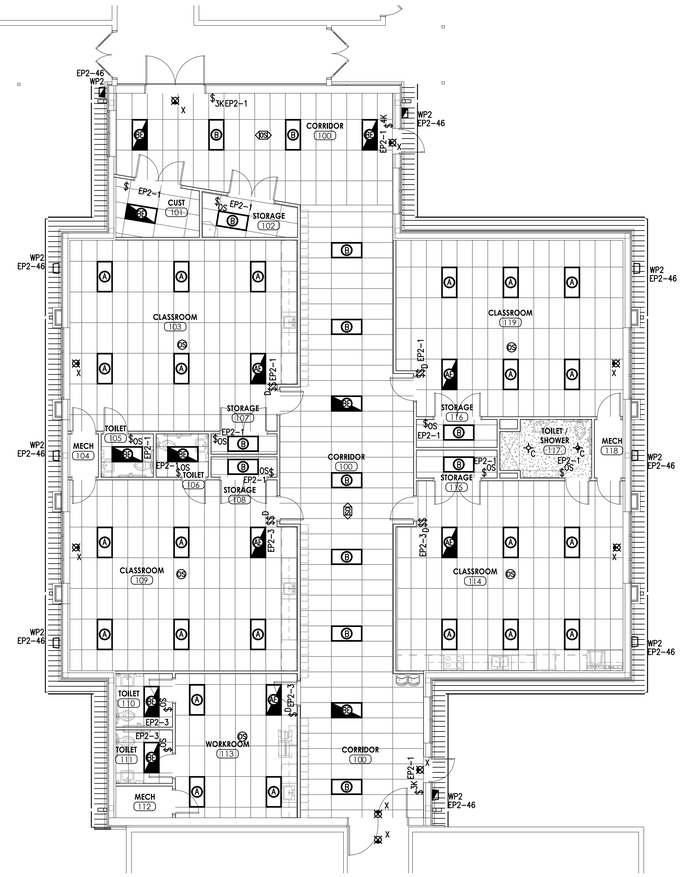
C. PROVIDE DIGITAL TIME SWITCH WITH INTEGRAL ASTRONOMICAL CLOCK AND PHOTO CELL INPUT FOR CONTROLLING EXTERIOR LIGHTS.

D. AT HIGH SCHOOL, REFER TO INVERTER SCHEDULE FOR CIRCUITS TO SERVE EMERGENCY LIGHTING FOR EACH BUILDING/ZONE. UNLESS NOTED OTHERWISE, EMERGENCY LIGHTING SHALL BE SWITCHED/CONTROLLED WITH LOCAL LIGHTING VIA UL924 TRANSFER DEVICE OR EQUIVALENT. REFER TO EMERGENCY LIGHTING DETAIL FOR ADDITIONAL INFORMATION. ALL CIRCUITS FED FROM INVERTER SHALL BE IN RED CONDUIT SEPARATE FROM NORMAL POWER.

E. IN MECHANICAL ROOMS, ADJUST LIGHT FIXTURE LOCATIONS AS NECESSARY FOR DUCTWORK, EQUIPMENT, ETC.

KEYED NOTES: (#)

1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITING RETAINED FROM DEMO PHASE.
2. LIGHT FIXTURE SHALL BE SUSPENDED 14'-0" AFF TO BOTTOM.
3. LIGHTING AND LIGHTING CONTROLS IN THIS AREA BY OTHERS. PROVIDE LIGHTING CIRCUIT FROM NEAREST AVAILABLE PANEL.



1 ELECTRICAL LIGHTING PLAN - ELEMENTARY ADDITION
SCALE: 1/8" = 1'-0"

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 OKLAHOMA 4/2/2021

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL LIGHTING PLAN - ELEMENTARY ADDITION

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E200

1 ELECTRICAL LIGHTING PLAN - ELEMENTARY RENOVATION AREA A
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. OCCUPANCY SENSOR LOCATIONS ARE SHOWN FOR DESIGN INTENT ONLY; LOCATE OCCUPANCY SENSORS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. PROVIDE QUANTITIES AS NEEDED TO SENSE MOVEMENT IN SPACE.

B. FOR FIXTURES WITH INTEGRAL BATTERY, CONNECT BATTERY PACKS TO UNSWITCHED HOT OF LOCAL LIGHTING CIRCUIT.

C. PROVIDE DIGITAL TIME SWITCH WITH INTEGRAL ASTRONOMICAL CLOCK AND PHOTO CELL INPUT FOR CONTROLLING EXTERIOR LIGHTS.

D. AT HIGH SCHOOL, REFER TO INVERTER SCHEDULE FOR CIRCUITS TO SERVE EMERGENCY LIGHTING FOR EACH BUILDING/ZONE. UNLESS NOTED OTHERWISE, EMERGENCY LIGHTING SHALL BE SWITCHED/CONTROLLED WITH LOCAL LIGHTING VIA UL924 TRANSFER DEVICE OR EQUIVALENT. REFER TO EMERGENCY LIGHTING DETAIL FOR ADDITIONAL INFORMATION. ALL CIRCUITS FED FROM INVERTER SHALL BE IN RED CONDUIT SEPARATE FROM NORMAL POWER.

E. IN MECHANICAL ROOMS, ADJUST LIGHT FIXTURE LOCATIONS AS NECESSARY FOR DUCTWORK, EQUIPMENT, ETC.

KEYED NOTES: (#)

1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITING RETAINED FROM DEMO PHASE.
2. LIGHT FIXTURE SHALL BE SUSPENDED 14'-0" AFF TO BOTTOM.
3. LIGHTING AND LIGHTING CONTROLS IN THIS AREA BY OTHERS. PROVIDE LIGHTING CIRCUIT FROM NEAREST AVAILABLE PANEL.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL LIGHTING PLAN - ELEMENTARY RENOVATION AREA A

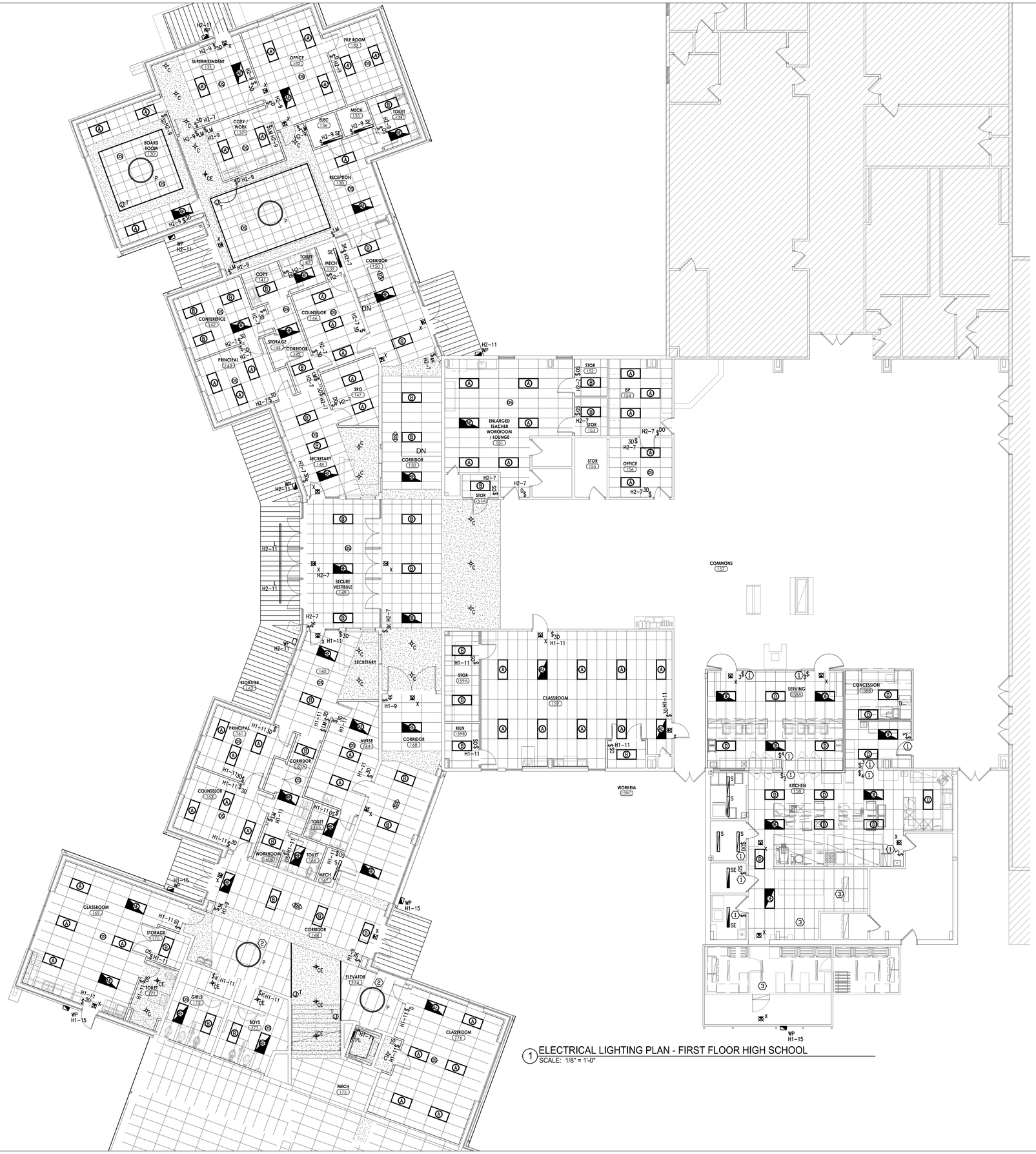
REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E210



1 ELECTRICAL LIGHTING PLAN - FIRST FLOOR HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. OCCUPANCY SENSOR LOCATIONS ARE SHOWN FOR DESIGN INTENT ONLY; LOCATE OCCUPANCY SENSORS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. PROVIDE QUANTITIES AS NEEDED TO SENSE MOVEMENT IN SPACE.

B. FOR FIXTURES WITH INTEGRAL BATTERY, CONNECT BATTERY PACKS TO UNSWITCHED HOT OF LOCAL LIGHTING CIRCUIT.

C. PROVIDE DIGITAL TIME SWITCH WITH INTEGRAL ASTRONOMICAL CLOCK AND PHOTO CELL INPUT FOR CONTROLLING EXTERIOR LIGHTS.

D. AT HIGH SCHOOL, REFER TO INVERTER SCHEDULE FOR CIRCUITS TO SERVE EMERGENCY LIGHTING FOR EACH BUILDING/ZONE. UNLESS NOTED OTHERWISE, EMERGENCY LIGHTING SHALL BE SWITCHED/CONTROLLED WITH LOCAL LIGHTING VIA UL924 TRANSFER DEVICE OR EQUIVALENT. REFER TO EMERGENCY LIGHTING DETAIL FOR ADDITIONAL INFORMATION. ALL CIRCUITS FED FROM INVERTER SHALL BE IN RED CONDUIT SEPARATE FROM NORMAL POWER.

E. IN MECHANICAL ROOMS, ADJUST LIGHT FIXTURE LOCATIONS AS NECESSARY FOR DUCTWORK, EQUIPMENT, ETC.

KEYED NOTES: (#)

1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITING RETAINED FROM DEMO PHASE.
2. LIGHT FIXTURE SHALL BE SUSPENDED 14'-0" AFF TO BOTTOM.
3. LIGHTING AND LIGHTING CONTROLS IN THIS AREA BY OTHERS. PROVIDE LIGHTING CIRCUIT FROM NEAREST AVAILABLE PANEL.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

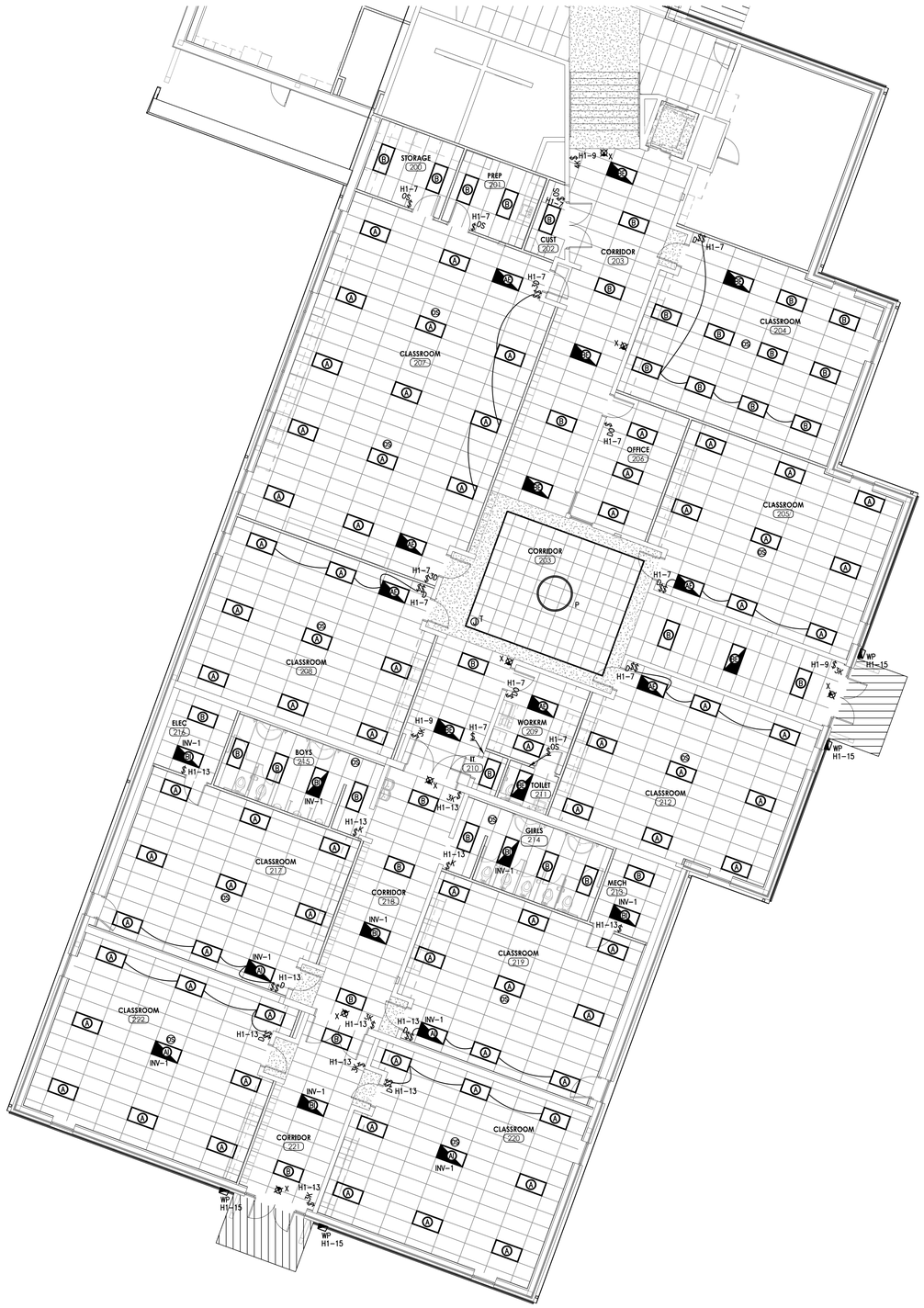
ELECTRICAL LIGHTING PLAN - FIRST FLOOR HIGH SCHOOL

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E220



1 ELECTRICAL LIGHTING PLAN - SECOND FLOOR HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. OCCUPANCY SENSOR LOCATIONS ARE SHOWN FOR DESIGN INTENT ONLY; LOCATE OCCUPANCY SENSORS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. PROVIDE QUANTITIES AS NEEDED TO SENSE MOVEMENT IN SPACE.

B. FOR FIXTURES WITH INTEGRAL BATTERY, CONNECT BATTERY PACKS TO UNSWITCHED HOT OF LOCAL LIGHTING CIRCUIT.

C. PROVIDE DIGITAL TIME SWITCH WITH INTEGRAL ASTRONOMICAL CLOCK AND PHOTO CELL INPUT FOR CONTROLLING EXTERIOR LIGHTS.

D. AT HIGH SCHOOL, REFER TO INVERTER SCHEDULE FOR CIRCUITS TO SERVE EMERGENCY LIGHTING FOR EACH BUILDING/ZONE. UNLESS NOTED OTHERWISE, EMERGENCY LIGHTING SHALL BE SWITCHED/CONTROLLED WITH LOCAL LIGHTING VIA UL924 TRANSFER DEVICE OR EQUIVALENT. REFER TO EMERGENCY LIGHTING DETAIL FOR ADDITIONAL INFORMATION. ALL CIRCUITS FED FROM INVERTER SHALL BE IN RED CONDUIT SEPARATE FROM NORMAL POWER.

E. IN MECHANICAL ROOMS, ADJUST LIGHT FIXTURE LOCATIONS AS NECESSARY FOR DUCTWORK, EQUIPMENT, ETC.

KEYED NOTES: (#)

1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITING RETAINED FROM DEMO PHASE.
2. LIGHT FIXTURE SHALL BE SUSPENDED 14'-0" AFF TO BOTTOM.
3. LIGHTING AND LIGHTING CONTROLS IN THIS AREA BY OTHERS. PROVIDE LIGHTING CIRCUIT FROM NEAREST AVAILABLE PANEL.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL LIGHTING PLAN - SECOND FLOOR

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E230

INTERIOR LIGHTING LUMINAIRE SCHEDULE							
FIXTURE TYPE	DESCRIPTION	MANUFACTURER	MODEL #	VOLTS	MOUNTING	LAMP	NOTES
A	2X4 ARCHITECTURAL LED TROFFER	H.E. WILLIAMS	PT-24-L61-840-RA-DIM-UNV	120V 1P 2W 277V 1P 2W	RECESSED	49W LED 6100L 40K	
AE	2X4 ARCHITECTURAL LED TROFFER W/ BATTERY	H.E. WILLIAMS	PT-24-L61-840-RA-EM/10W-DIM-UNV	120V 1P 2W 277V 1P 2W	RECESSED	49W LED 6100L 40K	
AI	2X4 ARCHITECTURAL LED TROFFER	H.E. WILLIAMS	PT-24-L61-840-RA-DIM-UNV	277V 1P 2W	RECESSED	49W LED 6100L 40K	3
B	2X4 ARCHITECTURAL LED TROFFER	H.E. WILLIAMS	PT-24-L38-840-RA-DIM-UNV	120V 1P 2W 277V 1P 2W	RECESSED	32W LED 3800L 40K	
BE	2X4 ARCHITECTURAL LED TROFFER W/ BATTERY	H.E. WILLIAMS	PT-24-L38-840-RA-EM/10W-DIM-UNV	120V 1P 2W 277V 1P 2W	RECESSED	32W LED 3800L 40K	
BI	2X4 ARCHITECTURAL LED TROFFER	H.E. WILLIAMS	PT-24-L38-840-RA-DIM-UNV	277V 1P 2W	RECESSED	32W LED 3800L 40K	3
C	6" RECESSED LED DOWNLIGHT	H.E. WILLIAMS	6AR-L15-840-DIM-UNV-OW-OF-CS-MWT-N	120V 1P 2W 277V 1P 2W	RECESSED	15W LED 1500L 40K	
CE	6" RECESSED LED DOWNLIGHT W/ BATTERY	H.E. WILLIAMS	6AR-L15-840-EM/10W-DIM-UNV-OW-OF-CS-MWT-N	277V 1P 2W	RECESSED	15W LED 1500L 40K	
D	2X4 FLAT LENSED LED TROFFER	H.E. WILLIAMS	LP-24-L50-840-DIM-UNV	MULTIPLE	RECESSED	48W LED 4900L 40K	
DE	2X4 FLAT LENSED LED TROFFER W/ BATTERY	H.E. WILLIAMS	LP-24-L50-840-EM/10WRM-DIM-UNV	MULTIPLE	RECESSED	48W LED 4900L 40K	
L	EXTERIOR LINEAR FLOOD LED	ORGATECH	1400S-8-LH-40-AC277-120-SB-BZ	277V 1P 2W	SURFACE	64W LED 7700 40K	4
P	ARCHITECTURAL LED PENDANT	CORONET	LOOP LED-5-40-LTG3-UNV-DB-X-ACP	277V 1P 2W	PENDANT	75W LED 6608L 40K	1
PL	VAPOR TIGHT LED ELEVATOR PIT LIGHT	ATLAS	ILW-25LED-2-D-4K-EB	277V 1P 2W	SURFACE	31W LED 3000L 40K	
S	4FT LED STRIP	H.E. WILLIAMS	7SS-4-L50-840-DIM-UNV	277V 1P 2W	PENDANT/SURFACE	33W LED 5200L 40K	1
SE	4FT LED STRIP W/ BATTERY	H.E. WILLIAMS	7SS-4-L50-840-EM/10WLP-DIM-UNV	277V 1P 2W	PENDANT/SURFACE	33W LED 5200L 40K	1
T	LED COVE LIGHT	TEMPO	PFXC-CW-0-277-E-5-40-WH-X	277V 1P 2W	SURFACE	5W/FT 477L/FT 40K	
WP	EXTERIOR LED WALL PACK	LSI	XGBWM3-LED-WT-LED-28-350-NW-UE-BRZ-BB-94	277V 1P 2W	WALL	34W LED 2900L 40K	2
WP2	EXTERIOR LED WALL PACK	LSI	WPSLS-2L-40-PC120-BZA	120V 1P 2W	WALL	20W LED 2100L 40K	2
X	EDGE-LIT LED EXIT LIGHT	H.E. WILLIAMS	EXIT/EL-SF-R-CP-AN-EM-D	120V 1P 2W 277V 1P 2W	WALL/CEILING	RED LED	

LIGHT FIXTURE SCHEDULE GENERAL NOTES:
A. ALL FIXTURES HATCHED OR DESIGNATED WITH AN 'E' AT THE END AND LOCATED WITHIN ALL OTHER AREAS SHALL BE CONNECTED TO THE EMERGENCY INVERTER/GENERATOR CIRCUIT. ALL FIXTURES HATCHED OR DESIGNATED WITH AN 'E' AT THE END AND LOCATED WITHIN THE NEW BUILDING NON-SAFEROOM ADDITION SHALL BE PROVIDED WITH AN INTEGRAL BATTERY, AND SHALL REQUIRE THE ADDITION OF AN UNSWITCHED HOT FROM THE LOCAL LIGHTING CIRCUIT.
B. ALL EXIT SIGNS SHALL BE CONNECTED TO NEAREST UNSWITCHED EMERGENCY INVERTER/GENERATOR CIRCUIT IN NEW SAFEROOM AREA BUILDING ADDITION AND FOR EXIT FIXTURES WITH INTEGRAL BATTERIES LOCATED IN THE NON-SAFEROOM BUILDING AREA, CONNECT BATTERY PACKS TO UNSWITCHED HOT OF LOCAL LIGHTING CIRCUIT.
C. PROVIDE ALL APPROPRIATE MOUNTING HARDWARE FOR ALL FIXTURES. SEE ARCHITECTURAL PLANS FOR CEILING TYPE INFORMATION.
D. UNLESS NOTED OTHERWISE, EXIT SIGNS MAY BE WALL OR CEILING MOUNTED.
E. FINAL FIXTURE HOUSING COLORS AND FINISH SELECTIONS BY ARCHITECT. SOME MAY BE DETERMINED DURING SUBMITTAL PROCESS.
F. PROVIDE (6) ADDITIONAL EXIT FIXTURES BEYOND WHAT IS SHOWN ON PLANS, TO BE LOCATED ACCORDING TO FIRE MARSHALL OR OTHER REQUEST AT NO ADDITIONAL COST TO THE PROJECT. IF THERE IS NO REQUIREMENT FOR ADDITIONAL FIXTURES TO BE INSTALLED UPON PROJECT COMPLETION, THEY SHALL BE GIVEN TO OWNER FOR SURPLUS STOCK.
G. COORDINATE LOCATIONS OF WALL-MOUNTED EMERGENCY FIXTURES WITH ARCHITECT PRIOR TO ROUGH-IN.

LIGHT FIXTURE SCHEDULE KEYED NOTES:
1. SUSPEND FIXTURE 8'-0" AFF TO BOTTOM UNLESS NOTED OTHERWISE.
2. MOUNT FIXTURE 7'-6" AFF TO BOTTOM.
3. FIXTURE IS TO BE CONNECTED TO INVERTER. SEE LIGHTING CONTROL DETAIL FOR MORE INFORMATION.
4. FIXTURE IS TO BE MOUNTED ON TOP OF CANOPY AND AIMED UP AT SIGNAGE.

SITE LIGHTING LUMINAIRE SCHEDULE							
FIXTURE TYPE	DESCRIPTION	MANUFACTURER	MODEL #	VOLTS	MOUNTING	LAMP	NOTES
FP1	LED FLOOD LIGHT	VISTA PRO	1057-Z-NS-40-C-MV-ND-HS	277V 1P 2W	GROUND MOUNTED	43W 2800LM LED	4
SP1	LED EXTERIOR SITE LIGHT	LSI	MRS-LED-24L-SIL-FT-UNV-DIM-40-70CRI-BRZ	277V 1P 2W	POLE	196W LED 24000L 40K	1, 2, 3

SITE LIGHTING SCHEDULE GENERAL NOTES:
A. PROVIDE QUANTITY OF HEADS AS SHOWN PER PLANS.
B. LIGHTING SHALL BE CONTROLLED BY 1P20A CONTACTOR, OPERATED BY A PROGRAMMABLE 7-DAY ASTRONOMIC TIME CLOCK (TORK E100B OR EQUAL FOR CONTROL SIGNAL). PROVIDE LIGHTING CONTACTOR FOR EACH LIGHTING CIRCUIT.
C. THE OVERALL HEIGHT SHOWN IN SITE LIGHTING LUMINAIRE SCHEDULE IS THE HEIGHT FROM THE PARKING LOT LEVEL TO THE BOTTOM OF THE FIXTURE HEAD, COORDINATE POLE LENGTH WITH POLE BASE HEIGHT ABOVE PARKING LOT LEVEL.

SITE LIGHTING SCHEDULE KEYED NOTES:
1. PROVIDE CONCRETE POLE BASE.
2. PROVIDE 30'-0" POLE FOR ALL NEW SITE FIXTURES, UNLESS OTHERWISE NOTED.
3. PROVIDE BKA-UMB-### UNIVERSAL MOUNTING BRACKET FOR ALL NEW HEADS TO BE MOUNTED ON EXISTING POLES. VERIFY EXISTING COLOR AND BOLT PATTERN PRIOR TO ORDERING AND MODIFY AS NEEDED.
4. AIM AT FLAG

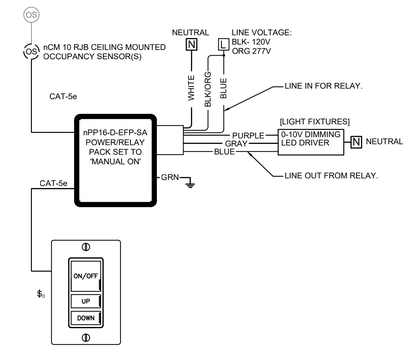
INV

MODEL DSPM DEFENDER 1 MODEL#: DE1-7.0-722/120-OCD/120/5/20/1-STU1-EW-120 AIC 42,000
NOTE 1 7KVA, 277 IN, 120/277 OUT, 2-HOUR RUNTIME.
NOTE 2
FED FROM MDP VOLTS 277V 1P 2W

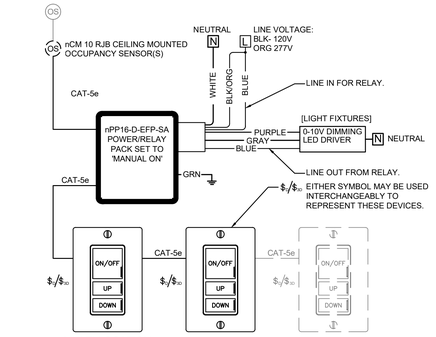
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	20/1	LIGHTING			0.392	3/4"C,1#12,#12N,#12G
2	50/2	120V PLUMBING SENSORS			1.68	3/4"C,1#6,#6N,#10G
3	20/1	SPARE			0	
4	20/1	SPARE			0	
5	20/1	SPARE			0	
		TOTAL CONNECTED KVA BY PHASE			2.07	

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.392	0.49	(125%)	MOTORS	0.6	0.6	(100%)
LARGEST MOTOR	0.3	0.075	(25%)	RECEPTACLES	1.08	1.08	(50%>10)
				TOTAL LOAD		2.25	
				TOTAL LOAD		8.11 A	

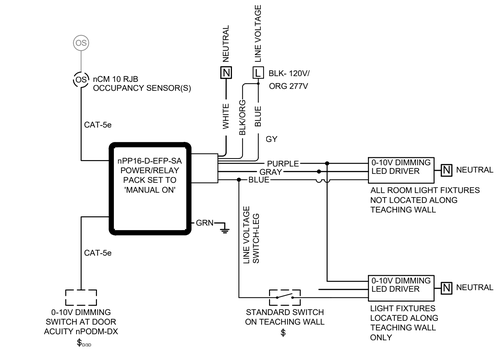
LIGHTING INVERTER GENERAL NOTES:
1. VERIFY FEED BREAKER SIZE PER INVERTER MANUFACTURER PRIOR TO ORDERING GEAR.
2. PROVIDE 4" TALL CONCRETE HOUSEKEEPING PAD UNDER UNIT.
3. PROVIDE MINIMUM 2-YEAR WARRANTY ON BATTERIES AND ELECTRONICS.
4. PROVIDE FACTORY STARTUP SERVICES.
5. SUBSTITUTE PRODUCTS MUST MEET DIMENSIONAL RESTRICTIONS OF SPECIFIED UNIT.
6. 120V IN
7. 120V OUT
8. 2-HOUR RUN TIME



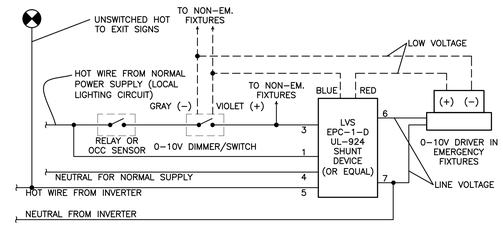
5 0-10V DIMMING WITH VACANCY SENSOR
N.T.S.



6 MULTI-LOCATION 0-10V DIMMING WITH VACANCY SENSOR
N.T.S.

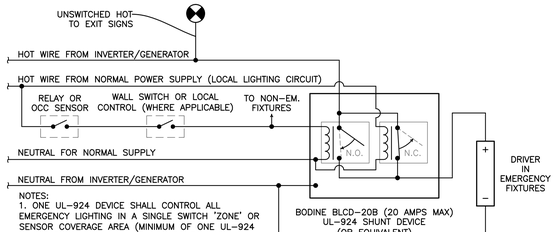


1 TYPICAL CLASSROOM SWITCHING DETAIL WITH VACANCY SENSOR
N.T.S.



NOTES:
1. ONE DEVICE SHALL CONTROL ALL EMERGENCY LIGHTING IN A SINGLE SWITCH 'ZONE' OR SENSOR COVERAGE AREA (MINIMUM OF ONE EPC-1-D PER SWITCH ZONE).
2. CONNECT TO FIRE ALARM SUCH THAT EMERGENCY LIGHTS TURN ON TO FULL BRIGHTNESS UPON FIRE ALARM ACTIVATION.
3. ALL EMERGENCY POWER FROM INVERTER/GENERATOR SHALL BE IN RED CONDUIT SEPARATE FROM NORMAL POWER.
4. EQUAL DEVICES:
- IOTA ETS-20-DR
- FUNCTIONAL DEVICES ESRN
- MEYERS RLY-DIM-2D

2 0-10V EMERGENCY LIGHTING CONTROL DETAIL
N.T.S.



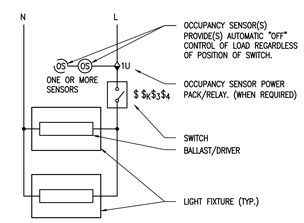
NOTES:
1. ONE UL-924 DEVICE SHALL CONTROL ALL EMERGENCY LIGHTING IN A SINGLE SWITCH 'ZONE' OR SENSOR COVERAGE AREA (MINIMUM OF ONE UL-924 DEVICE PER OCCUPANCY SENSOR ZONE). FOR STEP-DIMMED FIXTURES; PROVIDE ONE UL-924 DEVICE PER SWITCH-LEG, OR PROVIDE DEVICE CAPABLE OF SHUNTING BOTH SWITCH-LEGS.

2. CONNECT TO FIRE ALARM SUCH THAT EMERGENCY LIGHTS TURN ON TO FULL BRIGHTNESS UPON FIRE ALARM ACTIVATION.

ALL EMERGENCY POWER FROM INVERTER/GENERATOR SHALL BE IN RED CONDUIT SEPARATE FROM NORMAL POWER.

3. EQUIVALENT DEVICES:
- IOTA ETS-20
- WATT STOPPER ELCU-200

3 EMERGENCY LIGHTING CONTROL DETAIL (FOR NON-DIMMABLE FIXTURES ONLY)
N.T.S.



4 TYPICAL OCCUPANCY SENSOR WIRING DIAGRAM (AUTO-ON/AUTO-OFF)
N.T.S.

BWA ARCHITECTS
ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284
2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209
bwaarchitects.com
Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 11/4/2020 OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL LIGHTING DETAILS

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE 3.4.21

PROJECT NO. T19055

SHEET NO. E240

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.

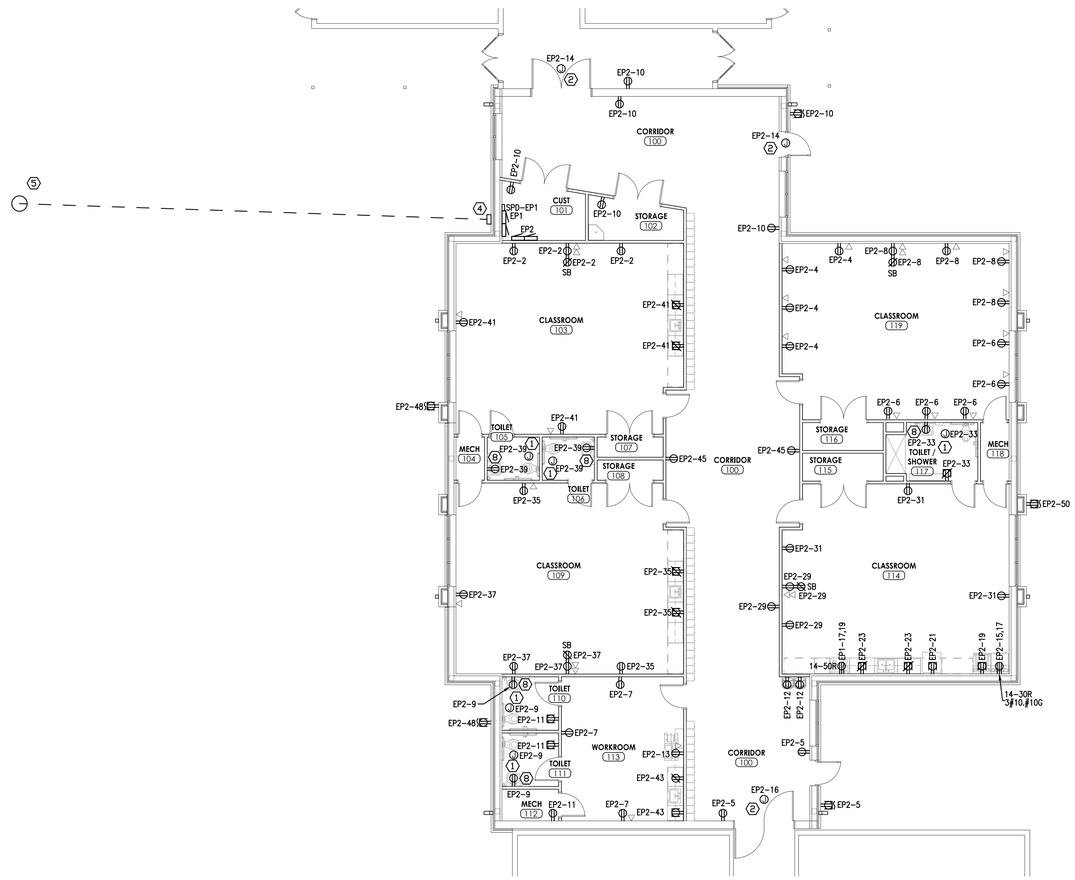
B. WHERE DEVICES ARE LOCATED IN MILLWORK, COORDINATE ROUGH-IN LOCATIONS WITH MILLWORK PROVIDER/INSTALLER. ALL ROUGH-IN SHALL BE CONCEALED.

C. CONTRACTOR SHALL VERIFY AVAILABLE CLEARANCES FOR ELECTRICAL GEAR IN THE FIELD PRIOR TO ROUGH-IN AND COORDINATE CLOSELY WITH OTHER TRADES TO AVOID CONFLICT. ELECTRICAL GEAR LAYOUT IS CONCEPTUAL ONLY AND BASED ON DIMENSIONS OF STANDARD INDUSTRY EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FINAL EQUIPMENT SIZING AND LOCATIONS THAT MEET NEC REQUIRED CLEARANCES WITHIN AVAILABLE SPACE.

D. PROVIDE TAMPER-RESISTANT RECEPTACLES WHERE REQUIRED PER NEC 406.12.

KEYED NOTES: (#)

1. PROVIDE 120V J-BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO PLUMBING SENSORS. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT REQUIREMENTS.
2. PROVIDE 120V J-BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO SECURITY ENTRANCE HARDWARE. REFER TO DOOR ACCESS DETAIL FOR MORE INFORMATION .
3. PROVIDE (3) 1-1/2" CONDUIT SLEEVE PENETRATIONS THROUGH THE SAFE ROOM WALL AT AN ACCESSIBLE LOCATION ABOVE CEILING SPACE CONDUITS PER STRUCTURAL DETAILS SUCH THAT REINFORCING IS NOT REQUIRED.
4. NEW UTILITY METER AND CT CABINET.
5. EXISTING POLE MOUNTED TRANSFORMER TO FEED NEW METER.
6. TRANSFORMER IS TO BE MOUNTED ABOVE PANEL. REFER TO TRANSFORMER WALL MOUNTING DETAIL FOR MORE INFORMATION.
7. CONTRACTOR TO VERIFY KILN POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO RECEPTACLE ROUGH-IN.
8. PROVIDE RECEPTACLE WITH GFI BREAKER LOCATED IN WALL BEHIND SINK FOR AUTO ACTIVATION SENSORS. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN
9. EXISTING ELECTRICAL PANELS AT THIS LOCATION.
10. POWER AT BACK OF CABINET AT VARYING HEIGHTS ON SHELVES. COORDINATE RECEPTACLE MOUNTING HEIGHT WITH ARCHITECT AND CABINET INSTALLER PRIOR TO ROUGH-IN.
11. RECONNECT EXISTING SERVICE, FEEDER, AND BRANCH CIRCUIT FROM DEMO PHASE ASSOCIATED WITH 'SG1', 'SG2', AND 'P1'. EXTEND WIRING AS REQUIRED.
12. CONNECT NEW RECEPTACLES IN THIS AREA TO THE NEAREST AVAILABLE RECEPTACLE CIRCUIT.
13. PROVIDE POWER FOR MICROWAVES AT THIS LOCATION. REFER TO KITCHEN EQUIPMENT SCHEDULE ON THE KITCHEN POWER PLAN FOR MORE INFORMATION.
14. PROVIDE NEW RECEPTACLE AT THIS LOCATION IF AN EXISTING RECEPTACLE IS NOT ALREADY PLACED NEARBY. IF AN EXISTING RECEPTACLE IS ALREADY IN PLACE, PROVIDE A NEW RECEPTACLE AT THE EXISTING LOCATION.
15. PROVIDE POWER TO COILING DOOR AT THIS LOCATION. VERIFY EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN. OVERHEAD DOOR IS SPECIFIED AS A COOKSON ESD-10.
16. ANY EXISTING ELECTRICAL LOADS IN THIS AREA THAT ARE NOT TO BE DEMO'D SHALL BE CONNECTED TO PANELS 'K1', 'K2', AND 'K3' AS REQUIRED.



1 ELECTRICAL POWER PLAN - ELEMENTARY ADDITION
SCALE: 1/8" = 1'-0"

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 OKLAHOMA 3/4/2021

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL POWER PLAN - ELEMENTARY ADDITION

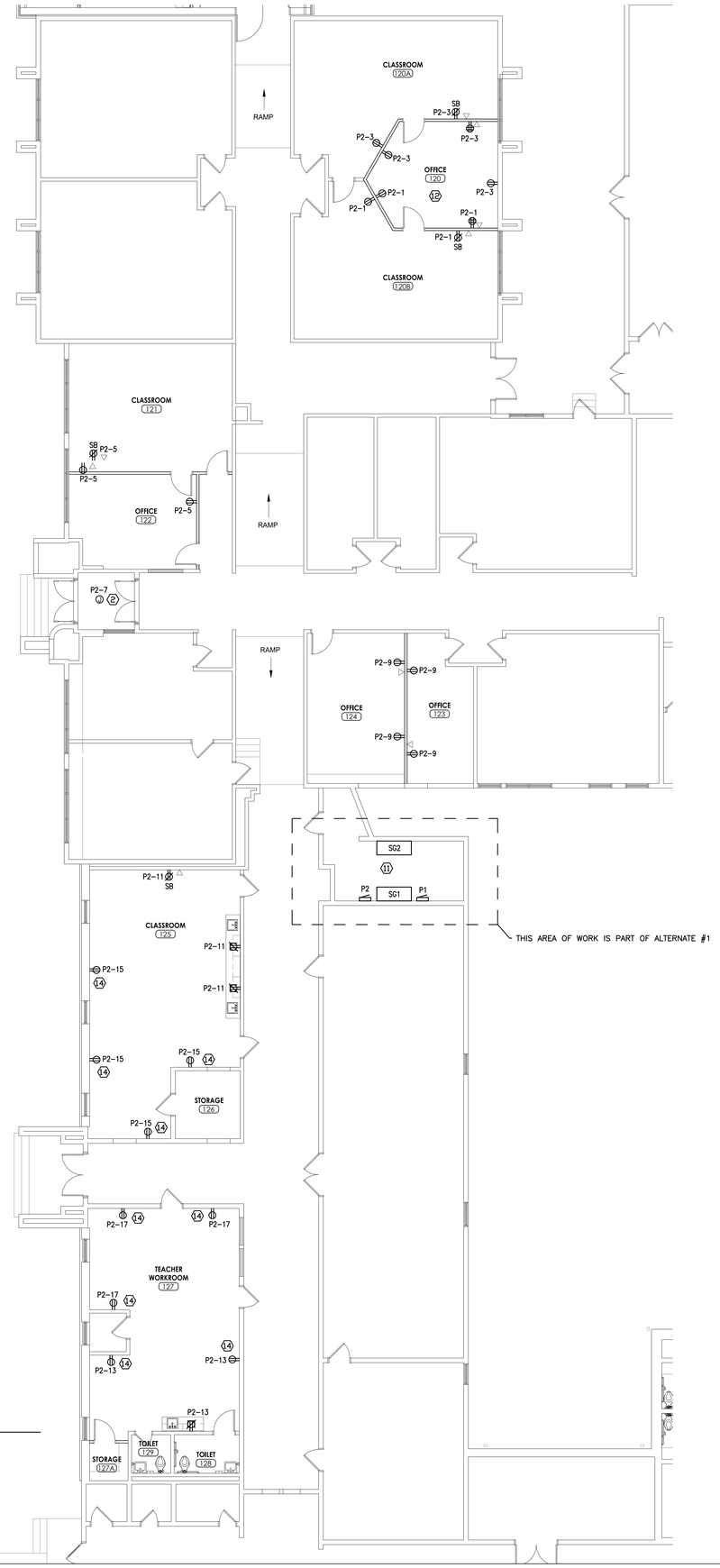
REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E300



1 ELECTRICAL POWER PLAN - ELEMENTARY RENOVATION AREA A
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.

B. WHERE DEVICES ARE LOCATED IN MILLWORK, COORDINATE ROUGH-IN LOCATIONS WITH MILLWORK PROVIDER/INSTALLER. ALL ROUGH-IN SHALL BE CONCEALED.

C. CONTRACTOR SHALL VERIFY AVAILABLE CLEARANCES FOR ELECTRICAL GEAR IN THE FIELD PRIOR TO ROUGH-IN AND COORDINATE CLOSELY WITH OTHER TRADES TO AVOID CONFLICT. ELECTRICAL GEAR LAYOUT IS CONCEPTUAL ONLY AND BASED ON DIMENSIONS OF STANDARD INDUSTRY EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FINAL EQUIPMENT SIZING AND LOCATIONS THAT MEET NEC REQUIRED CLEARANCES WITHIN AVAILABLE SPACE.

D. PROVIDE TAMPER-RESISTANT RECEPTACLES WHERE REQUIRED PER NEC 406.12.

KEYED NOTES: (#)

1. PROVIDE 120V J-BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO PLUMBING SENSORS. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT REQUIREMENTS.
2. PROVIDE 120V J-BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO SECURITY ENTRANCE HARDWARE. REFER TO DOOR ACCESS DETAIL FOR MORE INFORMATION .
3. PROVIDE (3) 1-1/2" CONDUIT SLEEVE PENETRATIONS THROUGH THE SAFE ROOM WALL AT AN ACCESSIBLE LOCATION ABOVE CEILING SPACE CONDUITS PER STRUCTURAL DETAILS SUCH THAT REINFORCING IS NOT REQUIRED.
4. NEW UTILITY METER AND CT CABINET.
5. EXISTING POLE MOUNTED TRANSFORMER TO FEED NEW METER.
6. TRANSFORMER IS TO BE MOUNTED ABOVE PANEL. REFER TO TRANSFORMER WALL MOUNTING DETAIL FOR MORE INFORMATION.
7. CONTRACTOR TO VERIFY KILN POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO RECEPTACLE ROUGH-IN.
8. PROVIDE RECEPTACLE WITH GFI BREAKER LOCATED IN WALL BEHIND SINK FOR AUTO ACTIVATION SENSORS. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN
9. EXISTING ELECTRICAL PANELS AT THIS LOCATION.
10. POWER AT BACK OF CABINET AT VARYING HEIGHTS ON SHELVES. COORDINATE RECEPTACLE MOUNTING HEIGHT WITH ARCHITECT AND CABINET INSTALLER PRIOR TO ROUGH-IN.
11. RECONNECT EXISTING SERVICE, FEEDER, AND BRANCH CIRCUIT FROM DEMO PHASE ASSOCIATED WITH 'SG1', 'SG2', AND 'P1'. EXTEND WIRING AS REQUIRED.
12. CONNECT NEW RECEPTACLES IN THIS AREA TO THE NEAREST AVAILABLE RECEPTACLE CIRCUIT.
13. PROVIDE POWER FOR MICROWAVES AT THIS LOCATION. REFER TO KITCHEN EQUIPMENT SCHEDULE ON THE KITCHEN POWER PLAN FOR MORE INFORMATION.
14. PROVIDE NEW RECEPTACLE AT THIS LOCATION IF AN EXISTING RECEPTACLE IS NOT ALREADY PLACED NEARBY. IF AN EXISTING RECEPTACLE IS ALREADY IN PLACE, PROVIDE A NEW RECEPTACLE AT THE EXISTING LOCATION.
15. PROVIDE POWER TO COILING DOOR AT THIS LOCATION. VERIFY EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN. OVERHEAD DOOR IS SPECIFIED AS A COOKSON ESD-10.
16. ANY EXISTING ELECTRICAL LOADS IN THIS AREA THAT ARE NOT TO BE DEMO'D SHALL BE CONNECTED TO PANELS 'K1', 'K2', AND 'K3' AS REQUIRED.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

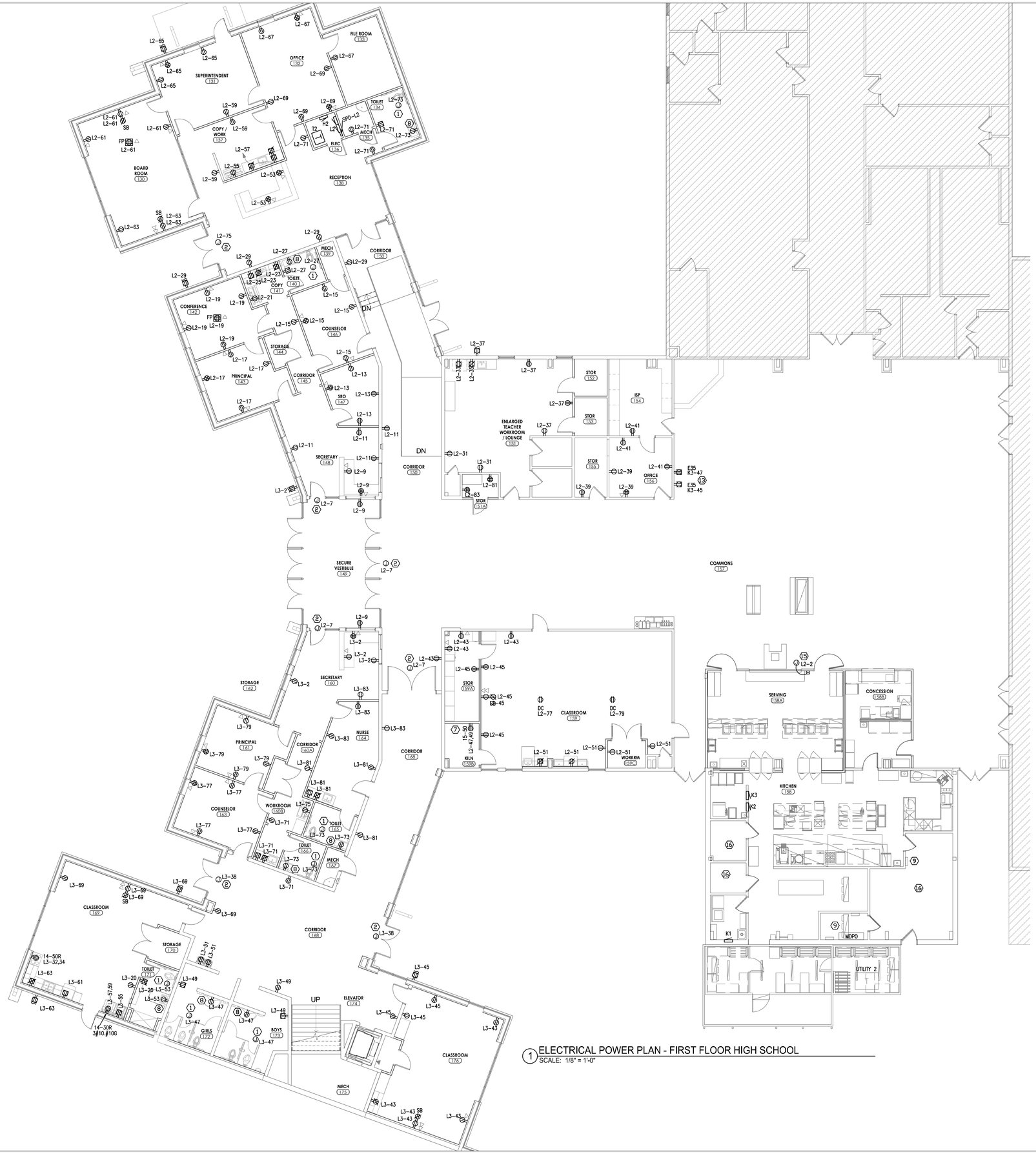
ELECTRICAL POWER PLAN - ELEMENTARY RENOVATION AREA A

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E310



1 ELECTRICAL POWER PLAN - FIRST FLOOR HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.

B. WHERE DEVICES ARE LOCATED IN MILLWORK, COORDINATE ROUGH–IN LOCATIONS WITH MILLWORK PROVIDER/INSTALLER. ALL ROUGH–IN SHALL BE CONCEALED.

C. CONTRACTOR SHALL VERIFY AVAILABLE CLEARANCES FOR ELECTRICAL GEAR IN THE FIELD PRIOR TO ROUGH–IN AND COORDINATE CLOSELY WITH OTHER TRADES TO AVOID CONFLICT. ELECTRICAL GEAR LAYOUT IS CONCEPTUAL ONLY AND BASED ON DIMENSIONS OF STANDARD INDUSTRY EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FINAL EQUIPMENT SIZING AND LOCATIONS THAT MEET NEC REQUIRED CLEARANCES WITHIN AVAILABLE SPACE.

D. PROVIDE TAMPER–RESISTANT RECEPTACLES WHERE REQUIRED PER NEC 406.12.

KEYED NOTES: (#)

1. PROVIDE 120V J–BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO PLUMBING SENSORS. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT REQUIREMENTS.
2. PROVIDE 120V J–BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO SECURITY ENTRANCE HARDWARE. REFER TO DOOR ACCESS DETAIL FOR MORE INFORMATION .
3. PROVIDE (3) 1–1/2" CONDUIT SLEEVE PENETRATIONS THROUGH THE SAFE ROOM WALL AT AN ACCESSIBLE LOCATION ABOVE CEILING SPACE CONDUITS PER STRUCTURAL DETAILS SUCH THAT REINFORCING IS NOT REQUIRED.
4. NEW UTILITY METER AND CT CABINET.
5. EXISTING POLE MOUNTED TRANSFORMER TO FEED NEW METER.
6. TRANSFORMER IS TO BE MOUNTED ABOVE PANEL. REFER TO TRANSFORMER WALL MOUNTING DETAIL FOR MORE INFORMATION.
7. CONTRACTOR TO VERIFY KILN POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO RECEPTACLE ROUGH–IN.
8. PROVIDE RECEPTACLE WITH GFI BREAKER LOCATED IN WALL BEHIND SINK FOR AUTO ACTIVATION SENSORS. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH–IN
9. EXISTING ELECTRICAL PANELS AT THIS LOCATION.
10. POWER AT BACK OF CABINET AT VARYING HEIGHTS ON SHELVES. COORDINATE RECEPTACLE MOUNTING HEIGHT WITH ARCHITECT AND CABINET INSTALLER PRIOR TO ROUGH–IN.
11. RECONNECT EXISTING SERVICE, FEEDER, AND BRANCH CIRCUIT FROM DEMO PHASE ASSOCIATED WITH 'SG1', 'SG2', AND 'P1'. EXTEND WIRING AS REQUIRED.
12. CONNECT NEW RECEPTACLES IN THIS AREA TO THE NEAREST AVAILABLE RECEPTACLE CIRCUIT.
13. PROVIDE POWER FOR MICROWAVES AT THIS LOCATION. REFER TO KITCHEN EQUIPMENT SCHEDULE ON THE KITCHEN POWER PLAN FOR MORE INFORMATION.
14. PROVIDE NEW RECEPTACLE AT THIS LOCATION IF AN EXISTING RECEPTACLE IS NOT ALREADY PLACED NEARBY. IF AN EXISTING RECEPTACLE IS ALREADY IN PLACE, PROVIDE A NEW RECEPTACLE AT THE EXISTING LOCATION.
15. PROVIDE POWER TO COILING DOOR AT THIS LOCATION. VERIFY EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH–IN. OVERHEAD DOOR IS SPECIFIED AS A COOKSON ESD–10.
16. ANY EXISTING ELECTRICAL LOADS IN THIS AREA THAT ARE NOT TO BE DEMO'D SHALL BE CONNECTED TO PANELS 'K1', 'K2', AND 'K3' AS REQUIRED.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL POWER PLAN - FIRST FLOOR HIGH SCHOOL

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E320

1 ELECTRICAL POWER PLAN - SECOND FLOOR HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.

B. WHERE DEVICES ARE LOCATED IN MILLWORK, COORDINATE ROUGH-IN LOCATIONS WITH MILLWORK PROVIDER/INSTALLER. ALL ROUGH-IN SHALL BE CONCEALED.

C. CONTRACTOR SHALL VERIFY AVAILABLE CLEARANCES FOR ELECTRICAL GEAR IN THE FIELD PRIOR TO ROUGH-IN AND COORDINATE CLOSELY WITH OTHER TRADES TO AVOID CONFLICT. ELECTRICAL GEAR LAYOUT IS CONCEPTUAL ONLY AND BASED ON DIMENSIONS OF STANDARD INDUSTRY EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FINAL EQUIPMENT SIZING AND LOCATIONS THAT MEET NEC REQUIRED CLEARANCES WITHIN AVAILABLE SPACE.

D. PROVIDE TAMPER-RESISTANT RECEPTACLES WHERE REQUIRED PER NEC 406.12.

KEYED NOTES: (#)

1. PROVIDE 120V J-BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO PLUMBING SENSORS. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT REQUIREMENTS.
2. PROVIDE 120V J-BOX IN ACCESSIBLE LOCATION ABOVE CEILING FOR CONNECTION TO SECURITY ENTRANCE HARDWARE. REFER TO DOOR ACCESS DETAIL FOR MORE INFORMATION .
3. PROVIDE (3) 1-1/2" CONDUIT SLEEVE PENETRATIONS THROUGH THE SAFE ROOM WALL AT AN ACCESSIBLE LOCATION ABOVE CEILING SPACE CONDUITS PER STRUCTURAL DETAILS SUCH THAT REINFORCING IS NOT REQUIRED.
4. NEW UTILITY METER AND CT CABINET.
5. EXISTING POLE MOUNTED TRANSFORMER TO FEED NEW METER.
6. TRANSFORMER IS TO BE MOUNTED ABOVE PANEL. REFER TO TRANSFORMER WALL MOUNTING DETAIL FOR MORE INFORMATION.
7. CONTRACTOR TO VERIFY KILN POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO RECEPTACLE ROUGH-IN.
8. PROVIDE RECEPTACLE WITH GFI BREAKER LOCATED IN WALL BEHIND SINK FOR AUTO ACTIVATION SENSORS. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN
9. EXISTING ELECTRICAL PANELS AT THIS LOCATION.
10. POWER AT BACK OF CABINET AT VARYING HEIGHTS ON SHELVES. COORDINATE RECEPTACLE MOUNTING HEIGHT WITH ARCHITECT AND CABINET INSTALLER PRIOR TO ROUGH-IN.
11. RECONNECT EXISTING SERVICE, FEEDER, AND BRANCH CIRCUIT FROM DEMO PHASE ASSOCIATED WITH 'SG1', 'SG2', AND 'P1'. EXTEND WIRING AS REQUIRED.
12. CONNECT NEW RECEPTACLES IN THIS AREA TO THE NEAREST AVAILABLE RECEPTACLE CIRCUIT.
13. PROVIDE POWER FOR MICROWAVES AT THIS LOCATION. REFER TO KITCHEN EQUIPMENT SCHEDULE ON THE KITCHEN POWER PLAN FOR MORE INFORMATION.
14. PROVIDE NEW RECEPTACLE AT THIS LOCATION IF AN EXISTING RECEPTACLE IS NOT ALREADY PLACED NEARBY. IF AN EXISTING RECEPTACLE IS ALREADY IN PLACE, PROVIDE A NEW RECEPTACLE AT THE EXISTING LOCATION.
15. PROVIDE POWER TO COILING DOOR AT THIS LOCATION. VERIFY EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN. OVERHEAD DOOR IS SPECIFIED AS A COOKSON ESD-10.
16. ANY EXISTING ELECTRICAL LOADS IN THIS AREA THAT ARE NOT TO BE DEMO'D SHALL BE CONNECTED TO PANELS 'K1', 'K2', AND 'K3' AS REQUIRED.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 3/4/2021 OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL POWER PLAN - SECOND FLOOR

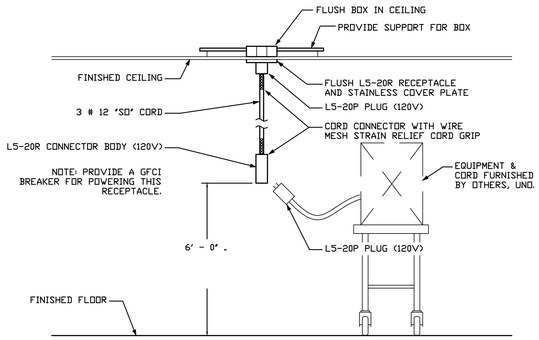
REVISIONS

NO.	DESCRIPTION	DATE

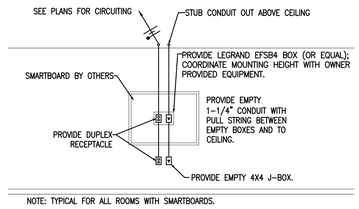
ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E330

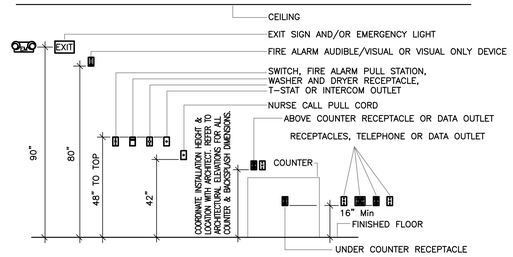


8 CORD CONNECTED EQUIPMENT DETAIL DC
N.T.S.

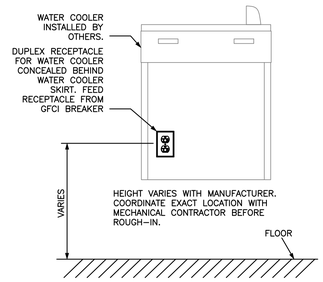


NOTE: TYPICAL FOR ALL ROOMS WITH SMARTBOARDS.

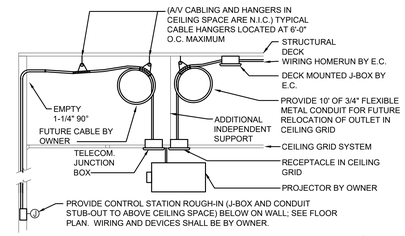
4 SMARTBOARD ROUGH-IN DETAIL SB SB
N.T.S.



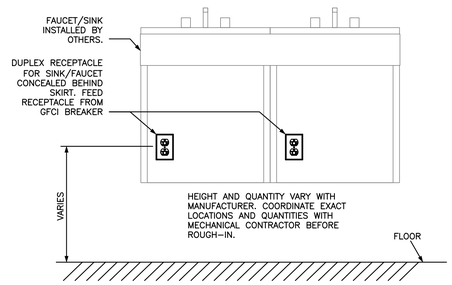
1 TYPICAL DEVICE MOUNTING HEIGHTS
NO SCALE



5 ELECTRIC SERVICE TO WATER COOLER
N.T.S.



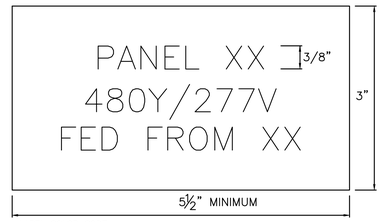
2 CEILING MOUNTED PROJECTOR RECEPTACLE DETAIL P
N.T.S.



6 ELECTRIC SERVICE TO AUTOMATED SINKS/FAUCETS
N.T.S.

NOTES:
INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH UNIT OF ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO:
1. PANEL BOARDS, ELECTRICAL CABINETS, ENCLOSURES, AND DISCONNECTS.
2. SWITCHBOARDS AND SWITCHGEAR, INCLUDING ALL BREAKERS AND SWITCHES LOCATED IN THEM.
3. TRANSFORMERS.
4. MOTOR STARTERS AND CONTROLLERS.
5. DISCONNECTS AND SAFETY SWITCHES.
6. FIRE ALARM CONTROL PANEL AND PERIPHERY.

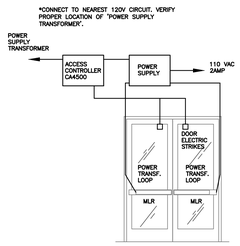
LABELS SHALL INCLUDE ALL OF THE FOLLOWING INFORMATION:
1. ALL LABELING SHALL COMPLY WITH NEC 408.4 (B).
2. EQUIPMENT NAME, EG 'PANEL H1'.
3. EQUIPMENT VOLTAGE, EG '480Y/277V'.
4. UPSTREAM EQUIPMENT NAME, EG 'FED FROM MDP'.
5. EXAMPLE:



LABEL COLOR CODE:
277/480V NORMAL POWER: YELLOW LABEL, BLACK LETTERS
120/208-240V NORMAL POWER: BLACK LABEL, WHITE LETTERS
277/480V GENERATOR/INVERTER POWER: RED LABEL, WHITE LETTERS
120/208-240V GENERATOR/INVERTER POWER: ORANGE LABEL, WHITE LETTERS
277/480V UPS POWER: PURPLE LABEL, WHITE LETTERS
120/208-240V UPS POWER: BLUE LABEL, WHITE LETTERS

LABELS SHALL BE PERMANENTLY ATTACHED TO THE EQUIPMENT. LABELS SHALL BE A MINIMUM 1/16" THICK FOR SIGNS UP TO 20 SQUARE INCHES OR 8" LENGTH; LARGER LABELS SHALL BE 1/8" THICK.

3 ELECTRICAL EQUIPMENT LABELING DETAIL
N.T.S.



7 FRONT ENTRY DOOR ACCESS DETAIL
N.T.S.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6576
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 OKLAHOMA 3/4/2021

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL POWER DETAILS

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

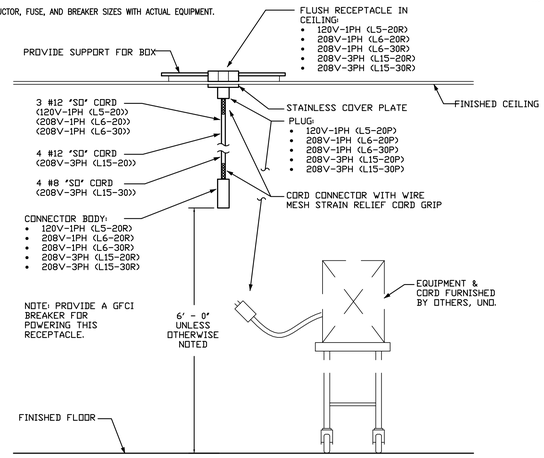
SHEET NO.
E340

KITCHEN EQUIPMENT SCHEDULE

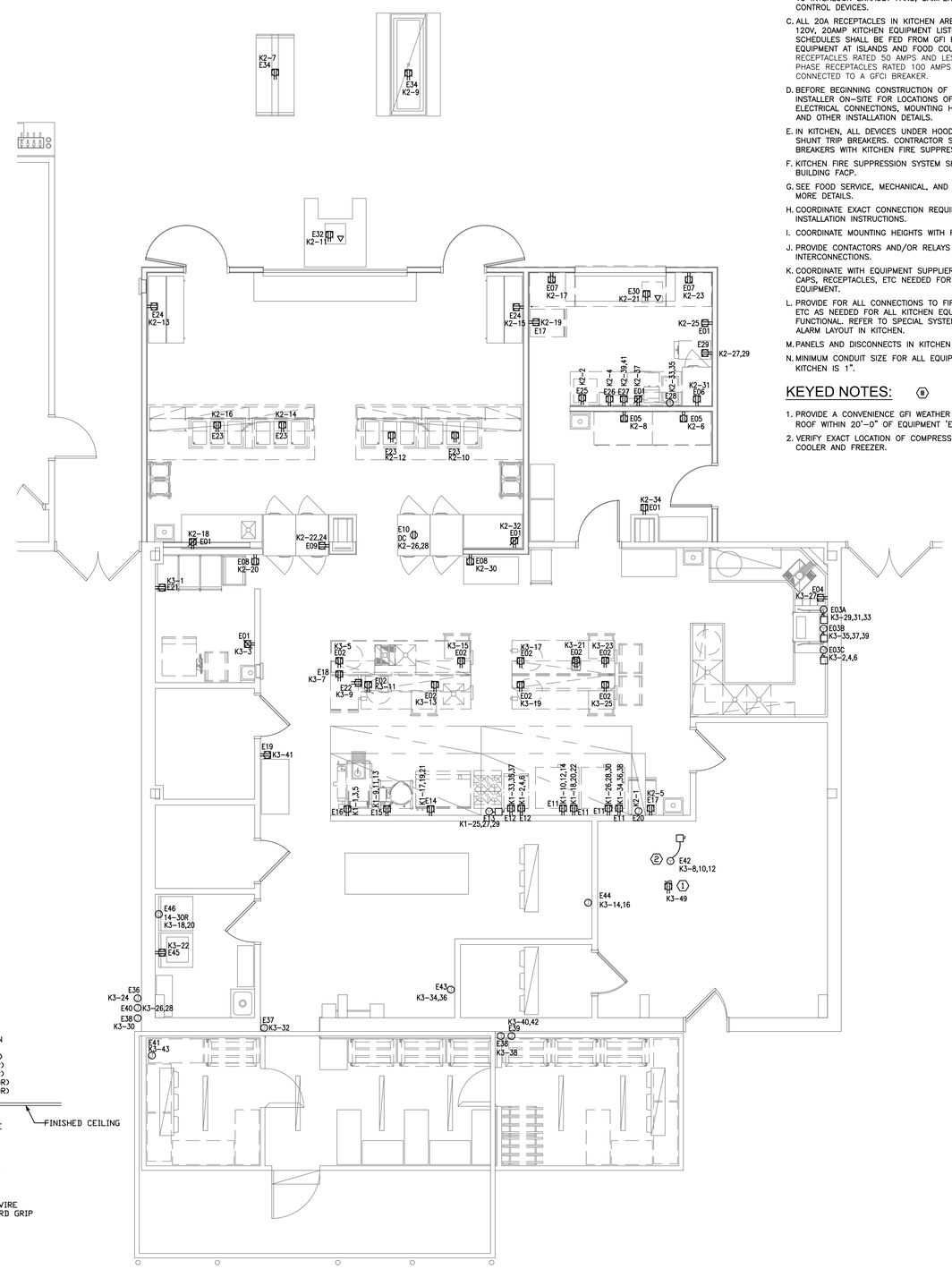
CALLOUT	DESCRIPTION	VOLTS	HP	KVA	MCA	MOCP	CIRCUIT	WIRE CALLOUT	BREAKER	DISCO	DISCO PROV BY	DISCO INST BY	KEYED NOTES
E03A	DISHWASHER	208V 3P 4W	1 HP	1.75			K3-29,31,33	1"C,3#10,#10N,#10G	20/3	NON-FUSED	EC	EC	
E03B	DISHWASHER	208V 3P 4W		6			K3-35,37,39	1"C,3#10,#10N,#10G	30/3	NON-FUSED	EC	EC	
E03C	DISHWASHER	208V 3P 4W		12			K3-2,4,6	1"C,3#6,#6N,#10G	50/3	NON-FUSED	EC	EC	
E04	DRAIN WATER TEMPERING KIT	120V 1P 2W		0.5			K3-27	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E05	REFRIGERATOR	120V 1P 2W	3/4 HP	1.66			K2-8	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E05	REFRIGERATOR	120V 1P 2W	3/4 HP	1.66			K2-6	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E06	REFRIGERATOR	120V 1P 2W	1/4 HP	0.7			K2-31	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E07	REFRIGERATOR	120V 1P 2W	1/2 HP	1.18			K2-17	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E07	REFRIGERATOR	120V 1P 2W	1/2 HP	1.18			K2-23	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E08	PASS-THRU REFRIGERATOR	120V 1P 2W	1/4 HP	0.7			K2-20	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E08	PASS-THRU REFRIGERATOR	120V 1P 2W	1/4 HP	0.7			K2-30	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E09	PASS-THRU HOT CABINET	208V 2P 2W		1.5			K2-22,24	1"C,2#10,#10G	20/2	DUPLEX GFI RECEPTACLE	EC	EC	
E10	PASS-THRU HOT CABINET	208V 2P 2W		1.5			K2-26,28	1"C,2#10,#10G	20/2	DROP CORD	EC	EC	1
E11	CONVECTION OVEN	208V 3P 4W		11			K1-10,12,14	1"C,3#8,#8N,#10G	40/3	DUPLEX GFI RECEPTACLE	EC	EC	
E11	CONVECTION OVEN	208V 3P 4W		11			K1-18,20,22	1"C,3#8,#8N,#10G	40/3	DUPLEX GFI RECEPTACLE	EC	EC	
E11	CONVECTION OVEN	208V 3P 4W		11			K1-26,28,30	1"C,3#8,#8N,#10G	40/3	DUPLEX GFI RECEPTACLE	EC	EC	
E11	CONVECTION OVEN	208V 3P 4W		11			K1-34,36,38	1"C,3#8,#8N,#10G	40/3	DUPLEX GFI RECEPTACLE	EC	EC	
E12	CONVECTION STEAMER	208V 3P 4W		12			K1-33,35,37	1"C,3#6,#6N,#10G	50/3	DUPLEX GFI RECEPTACLE	EC	EC	
E12	CONVECTION STEAMER	208V 3P 4W		12			K1-2,4,6	1"C,3#6,#6N,#10G	50/3	DUPLEX GFI RECEPTACLE	EC	EC	
E13	RANGE	208V 3P 4W		8			K1-25,27,29	1"C,3#10,#10N,#10G	30/3	NON-FUSED	EC	EC	
E14	GRIDDLE	208V 3P 4W		16			K1-17,19,21	1-1/4"C,3#4,#4N,#10G	60/3	DUPLEX GFI RECEPTACLE	EC	EC	
E15	12 GALLON KETTLE	208V 3P 4W		12			K1-9,11,13	1"C,3#6,#6N,#10G	50/3	DUPLEX GFI RECEPTACLE	EC	EC	
E16	15 GALLON TILTING FRY PAN	208V 3P 4W		7.7			K1-1,3,5	1"C,3#10,#10N,#10G	30/3	DUPLEX GFI RECEPTACLE	EC	EC	
E17	PROOF/HOT CABINET	120V 1P 2W		1.92			K2-19	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E17	PROOF/HOT CABINET	120V 1P 2W		1.92			K2-5	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E18	PROOF/HOT CABINET	120V 1P 2W		1.92			K3-7	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E19	VENTILATOR EMS SYSTEM	120V 1P 2W		1.5			K3-41	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E20	FIRE SUPPRESSION SYSTEM	120V 1P 2W		0.5			K2-1	1"C,1#10,#10N,#10G	20/1	JUNCTION BOX	EC	EC	
E21	ICE MAKER	120V 1P 2W		1.5			K3-1	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E22	MICROWAVE	120V 1P 2W		1.5			K3-9	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E23	HOT/COLD FOOD WELLS	120V 1P 2W		1.2			K2-10	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E23	HOT/COLD FOOD WELLS	120V 1P 2W		1.2			K2-12	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E23	HOT/COLD FOOD WELLS	120V 1P 2W		1.2			K2-14	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E23	HOT/COLD FOOD WELLS	120V 1P 2W		1.2			K2-16	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E24	MILK COOLER	120V 1P 2W	1/4 HP	0.7			K2-15	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E24	MILK COOLER	120V 1P 2W	1/4 HP	0.7			K2-13	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E25	POPCORN POPPER	120V 1P 2W		1.31			K2-2	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E26	HOT DOG & BUN STEAMER	120V 1P 2W		0.8			K2-4	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E27	DRAWER WARMER	208V 2P 2W		0.9			K2-39,41	1"C,2#10,#10G	20/2	DUPLEX GFI RECEPTACLE	EC	EC	
E28	HOT FOOD WELL	208V 2P 2W		1			K2-33,35	1"C,2#10,#10G	20/2	JUNCTION BOX	EC	EC	
E29	SOFT SERVE MACHINE	208V 2P 2W		4.2			K2-27,29	1"C,2#10,#10G	30/2	DUPLEX GFI RECEPTACLE	EC	EC	
E30	POS SYSTEM	120V 1P 2W		1.2			K2-21	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E32	POS SYSTEM	120V 1P 2W		1.2			K2-11	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E34	SALAD BAR & VEGE. BAR	120V 1P 2W	1/2 HP	1.18			K2-7	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E34	SALAD BAR & VEGE. BAR	120V 1P 2W	1/2 HP	1.18			K2-9	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E35	MICROWAVE	120V 1P 2W		1.5			K3-47	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E35	MICROWAVE	120V 1P 2W		1.5			K3-45	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E36	AIR CURTAIN	120V 1P 2W	1/2 HP	1.18			K3-24	1"C,1#10,#10N,#10G	20/1	JUNCTION BOX	EC	EC	
E37	STORAGE LIGHTS	120V 1P 2W		0.6			K3-32	1"C,1#10,#10N,#10G	20/1	JUNCTION BOX	EC	EC	
E38	WALK-IN LIGHTS & HEATER	120V 1P 2W		0.6			K3-30	1"C,1#10,#10N,#10G	20/1	JUNCTION BOX	EC	EC	
E38	WALK-IN LIGHTS & HEATER	120V 1P 2W		0.6			K3-38	1"C,1#10,#10N,#10G	20/1	JUNCTION BOX	EC	EC	
E39	WALK-IN EVAPORATOR	208V 2P 2W		0.2			K3-40,42	1"C,2#10,#10G	20/2	JUNCTION BOX	EC	EC	
E40	WALK-IN EVAPORATOR	208V 2P 2W		1.5			K3-26,28	1"C,2#10,#10G	20/2	JUNCTION BOX	EC	EC	
E41	WALK-IN HEAT TAP	120V 1P 2W		1.5			K3-43	1"C,1#10,#10N,#10G	20/1	JUNCTION BOX	EC	EC	
E42	REFRIGERATION SYSTEM	208V 3P 4W		11.6			K3-8,10,12	1"C,3#6,#6N,#10G	50/3	NON-FUSED	EC	EC	
E43	WALK-IN EVAPORATOR	208V 2P 2W		0.2			K3-34,36	1"C,2#10,#10G	20/2	JUNCTION BOX	EC	EC	
E44	WALK-IN EVAPORATOR	208V 2P 2W		1.7			K3-14,16	1"C,2#10,#10G	20/2	JUNCTION BOX	EC	EC	
E45	WASHER	120V 1P 2W		1			K3-22	1"C,1#10,#10N,#10G	20/1	DUPLEX GFI RECEPTACLE	EC	EC	
E46	DRYER	208/120V 2P 3W		5			K3-18,20	1"C,2#8,#8N,#10G	40/2	SPECIAL RECEPTACLE	EC	EC	

KITCHEN EQUIPMENT GENERAL NOTES:
A. COORDINATE ALL RECEPTACLE TYPES WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
B. COORDINATE LOCATIONS OF DISCONNECTS WITH EQUIPMENT INSTALLER AND ARCHITECT PRIOR TO ROUGH-IN.
C. MINIMUM CONDUIT SIZE FOR EQUIPMENT CONNECTIONS IN KITCHEN IS 1".
D. BECAUSE INSTALLED EQUIPMENT MAY VARY FROM WHAT WAS SPECIFIED, CONTRACTOR SHALL COORDINATE WITH EQUIPMENT INSTALLER AND ADJUST ALL CIRCUIT, CONDUCTOR, FUSE, AND BREAKER SIZES WITH ACTUAL EQUIPMENT.

KITCHEN EQUIPMENT KEYED NOTES:
1. PROVIDE AN L6-20P RECEPTACLE, AND AN L6-20P PLUG FOR THIS EQUIPMENT.



1 CORD CONNECTED EQUIPMENT DETAIL DC
N.T.S.



1 ELECTRICAL KITCHEN POWER PLAN - FIRST FLOOR HIGH SCHOOL
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.

B. COORDINATE WITH MECHANICAL AND KITCHEN CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES.

C. ALL 20A RECEPTACLES IN KITCHEN AREAS SHALL BE GFCI. ALL 120V, 20AMP KITCHEN EQUIPMENT LISTED IN KITCHEN EQUIPMENT SCHEDULES SHALL BE FED FROM GFI RECEPTACLES. THIS INCLUDES EQUIPMENT AT ISLANDS AND FOOD COUNTERS. ALL SINGLE PHASE RECEPTACLES RATED 50 AMPS AND LESS AS WELL AS THREE PHASE RECEPTACLES RATED 100 AMPS OR LESS SHALL BE CONNECTED TO A GFCI BREAKER.

D. BEFORE BEGINNING CONSTRUCTION OF KITCHEN, COORDINATE WITH INSTALLER ON-SITE FOR LOCATIONS OF ALL KITCHEN EQUIPMENT ELECTRICAL CONNECTIONS, MOUNTING HEIGHT, RECEPTACLE TYPES AND OTHER INSTALLATION DETAILS.

E. IN KITCHEN, ALL DEVICES UNDER HOODS SHALL BE FED FROM SHUNT TRIP BREAKERS. CONTRACTOR SHALL INTERFACE SHUNT TRIP BREAKERS WITH KITCHEN FIRE SUPPRESSION SYSTEM.

F. KITCHEN FIRE SUPPRESSION SYSTEM SHALL BE MONITORED BY BUILDING FACP.

G. SEE FOOD SERVICE, MECHANICAL, AND ARCHITECTURAL PLANS FOR MORE DETAILS.

H. COORDINATE EXACT CONNECTION REQUIREMENTS WITH EQUIPMENT INSTALLATION INSTRUCTIONS.

I. COORDINATE MOUNTING HEIGHTS WITH FOOD SERVICE PLANS.

J. PROVIDE CONTACTORS AND/OR RELAYS AS NEEDED FOR HOOD/FAN INTERCONNECTIONS.

K. COORDINATE WITH EQUIPMENT SUPPLIER TO PROVIDE ALL CORDS, CAPS, RECEPTACLES, ETC NEEDED FOR FULLY FUNCTIONING EQUIPMENT.

L. PROVIDE FOR ALL CONNECTIONS TO FIRE ALARM, CONTROLS, POWER, ETC AS NEEDED FOR ALL KITCHEN EQUIPMENT TO BE FULLY FUNCTIONAL. REFER TO SPECIAL SYSTEMS PLANS FOR GENERAL FIRE ALARM LAYOUT IN KITCHEN.

M. PANELS AND DISCONNECTS IN KITCHEN SHALL BE STAINLESS STEEL.

N. MINIMUM CONDUIT SIZE FOR ALL EQUIPMENT CONNECTIONS IN KITCHEN IS 1".

KEYED NOTES:

1. PROVIDE A CONVENIENCE GFI WEATHER PROOF RECEPTACLE ON THE ROOF WITHIN 20'-0" OF EQUIPMENT 'E42'.
2. VERIFY EXACT LOCATION OF COMPRESSOR FOR THE WALK-IN COOLER AND FREEZER.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok. 73069-6576
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 OKLAHOMA 3/4/2021

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL KITCHEN POWER PLAN - FIRST FLOOR HIGH SCHOOL AREA A

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E350

GENERAL NOTES:

A. FIRE ALARM DEVICES ARE SHOWN FOR DESIGN INTENT ONLY; PROVIDE DEVICES AND QUANTITIES NEEDED TO MEET APPLICABLE CODE. IT IS THE RESPONSIBILITY OF THE FIRE ALARM SYSTEM PROVIDER TO PROVIDE ALL DEVICES AND HARDWARE NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM PER CODE. DEVICES MAY BE CEILING OR WALL MOUNTED WHERE THE LOCATION IS APPROVED BY THE LOCAL AHJ. FINAL DEVICE LOCATIONS AND QUANTITIES ARE TO BE DETERMINED BY FIRE ALARM CONTRACTOR IN ORDER TO SATISFY THE AHJ. COORDINATE LOCATIONS OF WALL-MOUNTED DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

B. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES. SEE MECHANICAL PLANS FOR MORE DETAIL. UNLESS NOTED OTHERWISE, PROVIDE 120V POWER FOR MOTORIZED DAMPERS FOR ALL FANS. INTERLOCK WITH CORRESPONDING FAN. UNLESS NOTED OTHERWISE, ALL FANS HAVE A MOTORIZED DAMPER. REFER TO MECHANICAL PLANS FOR LOCATIONS OF ALL DAMPERS.

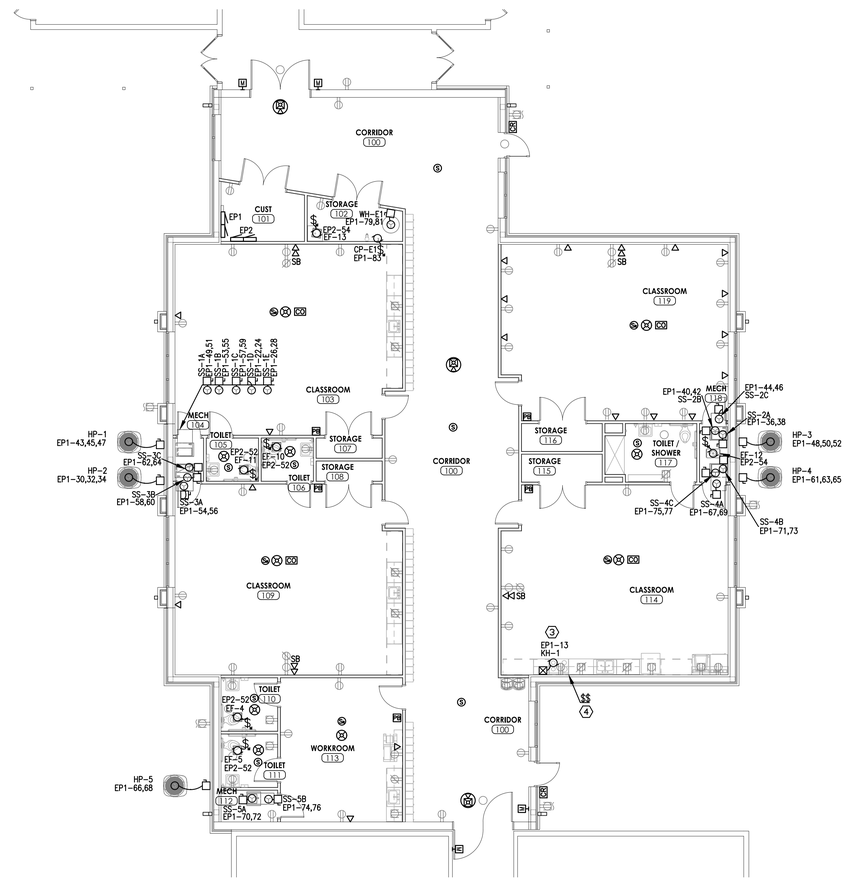
C. PROVIDE ROUGH-IN AS REQUIRED FOR THERMOSTATS; REFER TO MECHANICAL PLANS FOR LOCATIONS AND COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN..

D. PROVIDE 120V J-BOX AT EACH BAS CONTROLLER. COORDINATE EXACT LOCATION WITH INSTALLER.

E. CABLE TRAY SHALL BE GALVANIZED 12"X4" BASKET TYPE. COORDINATE WITH ALL TRADES FOR ROUTING OF TRAY AND ADJUST IN FIELD AS NEEDED. MAKE ALLOWANCE FOR PROVIDING AND INSTALLING AN ADDITIONAL 100'-0" OF TRAY FOR ANY REROUTING THAT MAY BE NEEDED.

KEYED NOTES: (#)

1. PROVIDE ROUGH-IN TO PUSH-BUTTON FOR SECURITY DOOR HARDWARE.
2. PROVIDE DATA ROUGH-IN FOR ELEVATOR TELEPHONE SERVICE. COORDINATE ALL REQUIREMENTS WITH ELEVATOR INSTALLER PRIOR TO ROUGH-IN.
3. RANGE HOOD AT THIS LOCATION. EXTEND EXHAUST FAN WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO HOOD EXHAUST FAN ABOVE CEILING. EXTEND SHUNT CONTROL WIRING TO RANGE CONTROL BOX. EXTEND FIRE ALARM CABLING FROM RANGE HOOD CONTROLLER TO FIRE ALARM PANEL. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTION PRIOR TO ROUGH-IN.
4. EXTEND RANGE HOOD FAN AND LIGHT CONTROL WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO SWITCH LOCATIONS. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDE ADDITIONAL CABLING AS NEEDED.
5. IT RACK AT THIS LOCATION. REFER TO FLOOR MOUNT I.T. RACK DETAIL FOR MORE INFORMATION.



1 ELECTRICAL SYSTEMS PLAN - ELEMENTARY ADDITION
SCALE: 1/8" = 1'-0"

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph:(405)447-2282, Fax:(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 3/4/2021 OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

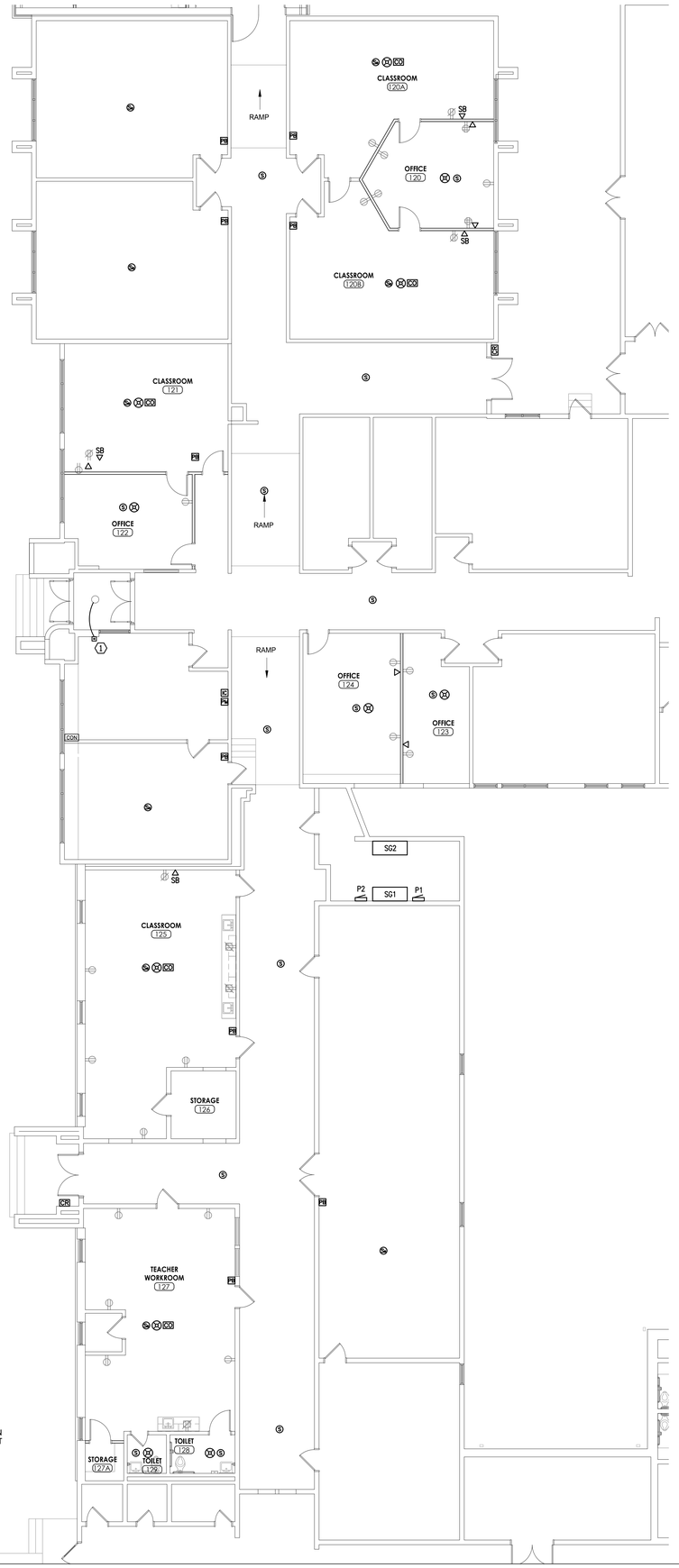
ELECTRICAL SYSTEMS PLAN - ELEMENTARY ADDITION

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E400



1 ELECTRICAL SYSTEMS PLAN - ELEMENTARY RENOVATION AREA A
SCALE: 1/8" = 1'-0"

PROVIDE ACCESS CONTROL ROUGH-IN AT EAST SET OF EXTERIOR DOORS AT THE SOUTH WING OF THE BUILDING.

GENERAL NOTES:

A. FIRE ALARM DEVICES ARE SHOWN FOR DESIGN INTENT ONLY; PROVIDE DEVICES AND QUANTITIES NEEDED TO MEET APPLICABLE CODE. IT IS THE RESPONSIBILITY OF THE FIRE ALARM SYSTEM PROVIDER TO PROVIDE ALL DEVICES AND HARDWARE NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM PER CODE. DEVICES MAY BE CEILING OR WALL MOUNTED WHERE THE LOCATION IS APPROVED BY THE LOCAL AHJ. FINAL DEVICE LOCATIONS AND QUANTITIES ARE TO BE DETERMINED BY FIRE ALARM CONTRACTOR IN ORDER TO SATISFY THE AHJ. COORDINATE LOCATIONS OF WALL-MOUNTED DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

B. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES. SEE MECHANICAL PLANS FOR MORE DETAIL. UNLESS NOTED OTHERWISE, PROVIDE 120V POWER FOR MOTORIZED DAMPERS FOR ALL FANS. INTERLOCK WITH CORRESPONDING FAN. UNLESS NOTED OTHERWISE, ALL FANS HAVE A MOTORIZED DAMPER. REFER TO MECHANICAL PLANS FOR LOCATIONS OF ALL DAMPERS.

C. PROVIDE ROUGH-IN AS REQUIRED FOR THERMOSTATS; REFER TO MECHANICAL PLANS FOR LOCATIONS AND COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN..

D. PROVIDE 120V J-BOX AT EACH BAS CONTROLLER. COORDINATE EXACT LOCATION WITH INSTALLER.

E. CABLE TRAY SHALL BE GALVANIZED 12"X4" BASKET TYPE. COORDINATE WITH ALL TRADES FOR ROUTING OF TRAY AND ADJUST IN FIELD AS NEEDED. MAKE ALLOWANCE FOR PROVIDING AND INSTALLING AN ADDITIONAL 100'-0" OF TRAY FOR ANY REROUTING THAT MAY BE NEEDED.

KEYED NOTES: (#)

1. PROVIDE ROUGH-IN TO PUSH-BUTTON FOR SECURITY DOOR HARDWARE.
2. PROVIDE DATA ROUGH-IN FOR ELEVATOR TELEPHONE SERVICE. COORDINATE ALL REQUIREMENTS WITH ELEVATOR INSTALLER PRIOR TO ROUGH-IN.
3. RANGE HOOD AT THIS LOCATION. EXTEND EXHAUST FAN WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO HOOD EXHAUST FAN ABOVE CEILING. EXTEND SHUNT CONTROL WIRING TO RANGE CONTROL BOX. EXTEND FIRE ALARM CABLING FROM RANGE HOOD CONTROLLER TO FIRE ALARM PANEL. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTION PRIOR TO ROUGH-IN.
4. EXTEND RANGE HOOD FAN AND LIGHT CONTROL WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO SWITCH LOCATIONS. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDE ADDITIONAL CABLING AS NEEDED.
5. IT RACK AT THIS LOCATION. REFER TO FLOOR MOUNT I.T. RACK DETAIL FOR MORE INFORMATION.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

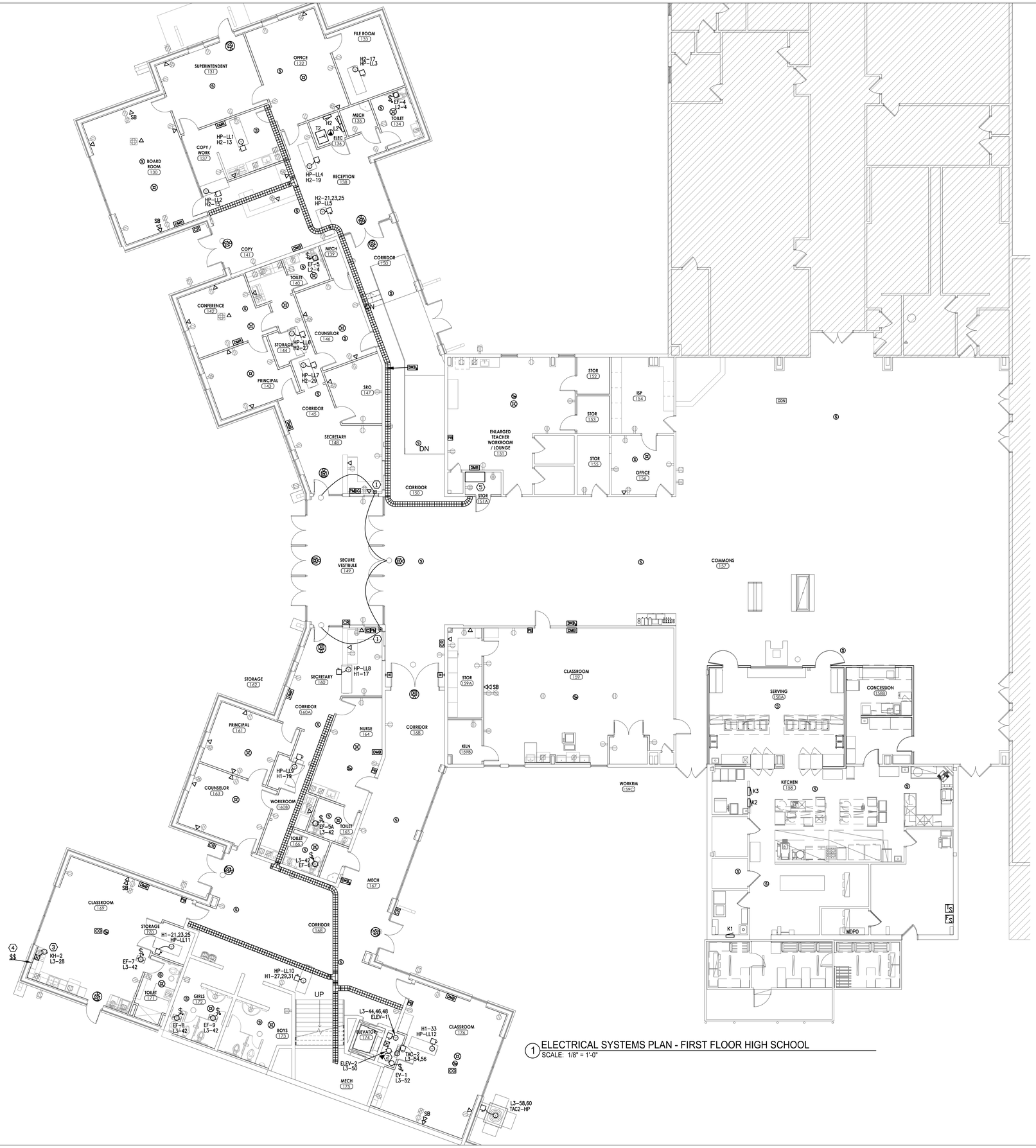
ELECTRICAL SYSTEMS PLAN - ELEMENTARY RENOVATION AREA A

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E410



1 ELECTRICAL SYSTEMS PLAN - FIRST FLOOR HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. FIRE ALARM DEVICES ARE SHOWN FOR DESIGN INTENT ONLY; PROVIDE DEVICES AND QUANTITIES NEEDED TO MEET APPLICABLE CODE. IT IS THE RESPONSIBILITY OF THE FIRE ALARM SYSTEM PROVIDER TO PROVIDE ALL DEVICES AND HARDWARE NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM PER CODE. DEVICES MAY BE CEILING OR WALL MOUNTED WHERE THE LOCATION IS APPROVED BY THE LOCAL AHJ. FINAL DEVICE LOCATIONS AND QUANTITIES ARE TO BE DETERMINED BY FIRE ALARM CONTRACTOR IN ORDER TO SATISFY THE AHJ. COORDINATE LOCATIONS OF WALL-MOUNTED DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

B. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES. SEE MECHANICAL PLANS FOR MORE DETAIL. UNLESS NOTED OTHERWISE, PROVIDE 120V POWER FOR MOTORIZED DAMPERS FOR ALL FANS. INTERLOCK WITH CORRESPONDING FAN. UNLESS NOTED OTHERWISE, ALL FANS HAVE A MOTORIZED DAMPER. REFER TO MECHANICAL PLANS FOR LOCATIONS OF ALL DAMPERS.

C. PROVIDE ROUGH-IN AS REQUIRED FOR THERMOSTATS; REFER TO MECHANICAL PLANS FOR LOCATIONS AND COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN..

D. PROVIDE 120V J-BOX AT EACH BAS CONTROLLER. COORDINATE EXACT LOCATION WITH INSTALLER.

E. CABLE TRAY SHALL BE GALVANIZED 12"X4" BASKET TYPE. COORDINATE WITH ALL TRADES FOR ROUTING OF TRAY AND ADJUST IN FIELD AS NEEDED. MAKE ALLOWANCE FOR PROVIDING AND INSTALLING AN ADDITIONAL 100'-0" OF TRAY FOR ANY REROUTING THAT MAY BE NEEDED.

KEYED NOTES: (#)

1. PROVIDE ROUGH-IN TO PUSH-BUTTON FOR SECURITY DOOR HARDWARE.
2. PROVIDE DATA ROUGH-IN FOR ELEVATOR TELEPHONE SERVICE. COORDINATE ALL REQUIREMENTS WITH ELEVATOR INSTALLER PRIOR TO ROUGH-IN.
3. RANGE HOOD AT THIS LOCATION. EXTEND EXHAUST FAN WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO HOOD EXHAUST FAN ABOVE CEILING. EXTEND SHUNT CONTROL WIRING TO RANGE CONTROL BOX. EXTEND FIRE ALARM CABLING FROM RANGE HOOD CONTROLLER TO FIRE ALARM PANEL. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTION PRIOR TO ROUGH-IN.
4. EXTEND RANGE HOOD FAN AND LIGHT CONTROL WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO SWITCH LOCATIONS. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDE ADDITIONAL CABLING AS NEEDED.
5. IT RACK AT THIS LOCATION. REFER TO FLOOR MOUNT I.T. RACK DETAIL FOR MORE INFORMATION.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL SYSTEMS PLAN - FIRST FLOOR HIGH SCHOOL

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E420

1 ELECTRICAL SYSTEMS PLAN - SECOND FLOOR HIGH SCHOOL
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. FIRE ALARM DEVICES ARE SHOWN FOR DESIGN INTENT ONLY; PROVIDE DEVICES AND QUANTITIES NEEDED TO MEET APPLICABLE CODE. IT IS THE RESPONSIBILITY OF THE FIRE ALARM SYSTEM PROVIDER TO PROVIDE ALL DEVICES AND HARDWARE NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM PER CODE. DEVICES MAY BE CEILING OR WALL MOUNTED WHERE THE LOCATION IS APPROVED BY THE LOCAL AHJ. FINAL DEVICE LOCATIONS AND QUANTITIES ARE TO BE DETERMINED BY FIRE ALARM CONTRACTOR IN ORDER TO SATISFY THE AHJ. COORDINATE LOCATIONS OF WALL-MOUNTED DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

B. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES. SEE MECHANICAL PLANS FOR MORE DETAIL. UNLESS NOTED OTHERWISE, PROVIDE 120V POWER FOR MOTORIZED DAMPERS FOR ALL FANS. INTERLOCK WITH CORRESPONDING FAN. UNLESS NOTED OTHERWISE, ALL FANS HAVE A MOTORIZED DAMPER. REFER TO MECHANICAL PLANS FOR LOCATIONS OF ALL DAMPERS.

C. PROVIDE ROUGH-IN AS REQUIRED FOR THERMOSTATS; REFER TO MECHANICAL PLANS FOR LOCATIONS AND COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN..

D. PROVIDE 120V J-BOX AT EACH BAS CONTROLLER. COORDINATE EXACT LOCATION WITH INSTALLER.

E. CABLE TRAY SHALL BE GALVANIZED 12"X4" BASKET TYPE. COORDINATE WITH ALL TRADES FOR ROUTING OF TRAY AND ADJUST IN FIELD AS NEEDED. MAKE ALLOWANCE FOR PROVIDING AND INSTALLING AN ADDITIONAL 100'-0" OF TRAY FOR ANY REROUTING THAT MAY BE NEEDED.

KEYED NOTES: (#)

1. PROVIDE ROUGH-IN TO PUSH-BUTTON FOR SECURITY DOOR HARDWARE.
2. PROVIDE DATA ROUGH-IN FOR ELEVATOR TELEPHONE SERVICE. COORDINATE ALL REQUIREMENTS WITH ELEVATOR INSTALLER PRIOR TO ROUGH-IN.
3. RANGE HOOD AT THIS LOCATION. EXTEND EXHAUST FAN WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO HOOD EXHAUST FAN ABOVE CEILING. EXTEND SHUNT CONTROL WIRING TO RANGE CONTROL BOX. EXTEND FIRE ALARM CABLING FROM RANGE HOOD CONTROLLER TO FIRE ALARM PANEL. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTION PRIOR TO ROUGH-IN.
4. EXTEND RANGE HOOD FAN AND LIGHT CONTROL WIRING IN WALL FROM RANGE HOOD CONTROL BOX TO SWITCH LOCATIONS. COORDINATE ROUGH-IN WITH RANGE HOOD MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDE ADDITIONAL CABLING AS NEEDED.
5. IT RACK AT THIS LOCATION. REFER TO FLOOR MOUNT I.T. RACK DETAIL FOR MORE INFORMATION.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL SYSTEMS PLAN - SECOND FLOOR

REVISIONS		
NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

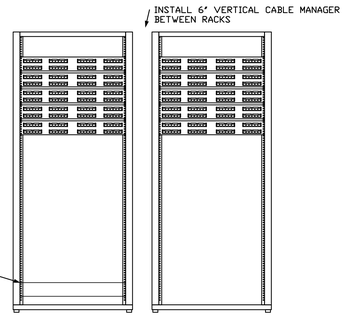
SHEET NO.
E430

RACK SHALL BE HOFFMAN ENCLOSED RACK WITH LOCKABLE DOOR. LEAVE 1 'U' OF SPACE BETWEEN PATCH PANELS. PATCH PANELS SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR. SWITCH WILL BE PROVIDED AND INSTALLED BY OWNER IN BOTTOM OF RACK. COORDINATE WITH OWNER ON-SITE FOR EXACT PLACEMENT OF INTERCOM SYSTEM, PATCH PANELS AND SWITCH IN RACKS.

INSTALL #6 AWG COPPER GROUND WIRE TO EACH RACK FROM GROUND BUS IN ROOM.

ON BACK OF EACH RACK, CONTRACTOR SHALL PROVIDE AND INSTALL TWO VERTICAL POWER STRIPS. POWER STRIPS SHALL BE HOFFMAN 20 AMP, 10 RECEPTACLE VERTICAL POWER STRIPS OR APPROVED EQUIVALENT. POWER STRIPS WILL PLUG INTO UPS AT BOTTOM OF RACK, COORDINATE WITH OWNER ON-SITE FOR EXACT DETAILS.

CONTRACTOR SHALL PROVIDE AND INSTALL ONE 1,920 WATT 2,200VA APC RACK-MOUNT "SMART-UPS", EXTENDED RUNTIME MODEL, WITH SMART SLOT INTERFACE PORT

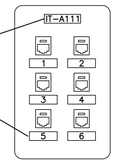


1 FLOOR MOUNT I.T. RACK DETAIL
N.T.S.

ETHERNET CABLING COLORS	
COLOR STANDARDS:	
DATA	BLUE
HVAC / BAS	GREY
POE FOR WAPs	YELLOW
CCTV SYSTEM	GREEN

10/10/2013 14:28

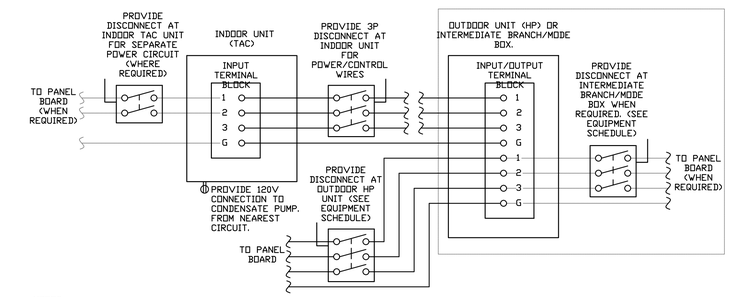
IDF OR MDF CABLES ARE ROUTED FROM



NUMBER JACKS TO MATCH PATCH PANEL IN I.T. CLOSET.

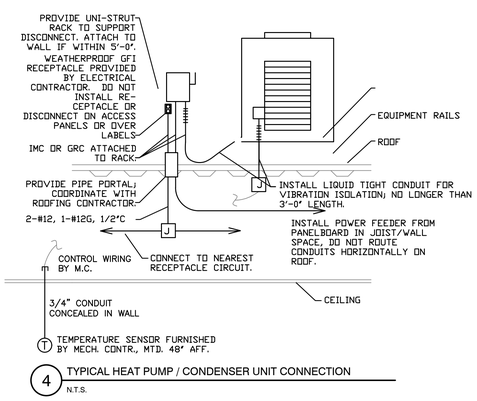
IN I.T. CLOSET, LABEL ON PATCH PANELS SHALL INDICATE ROOM NUMBER WHERE JACK IS LOCATED AND JACK NUMBER AS GIVEN ON FACEPLATE, I.E., "B105-23" FOR A JACK LABELED #23 IN ROOM B105.

2 I.T. FACEPLATE LABELING DETAIL
N.T.S.

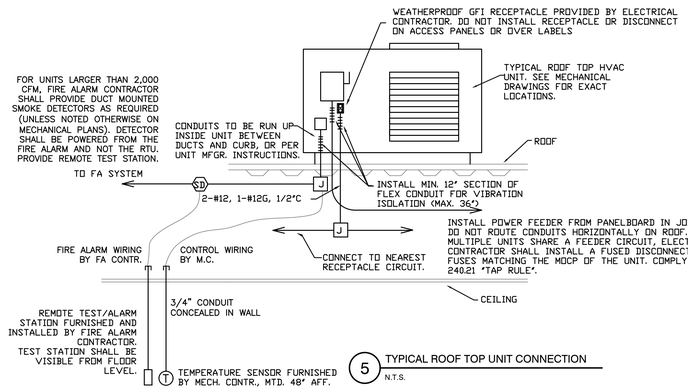


NOTES:
1. THIS DETAIL IS DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL WIRING, CONDUIT, POWER, AND CONTROLS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.
2. BECAUSE DIFFERENT MANUFACTURERS HAVE DIFFERING CONNECTION REQUIREMENTS, CONTRACTOR SHALL VERIFY EXACT CONNECTION AND CONTROL SCHEME WITH SUPPLIED EQUIPMENT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
3. VERIFY SIZE AND QUANTITY OF CONTROL WIRES WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
4. CONTRACTOR SHALL PROVIDE ALL POWER AND CONTROL CIRCUITS FOR A COMPLETE AND OPERATIONAL SYSTEM.
5. SOME SYSTEMS REQUIRE THE INDOOR TAC UNITS TO BE POWERED DIRECTLY FROM THE PANEL BOARD. OTHER SYSTEMS REQUIRE THE INDOOR TAC UNITS TO BE POWERED DIRECTLY FROM THE OUTDOOR UNITS OR BRANCH BOX UNITS AS SHOWN IN THIS DETAIL. EXACT CONNECTIONS ARE UNKNOWN UNTIL EQUIPMENT HAS BEEN PROCURED; CONTRACTOR SHALL PROVIDE FOR ALL METHODS OF CONNECTION AND VERIFY FINAL CONNECTIONS PER NOTE 1 ABOVE.
6. NOT ALL SYSTEMS UTILIZE AN INTERMEDIATE BRANCH/MODE BOX. SOME SYSTEMS CONNECT DIRECTLY FROM OUTDOOR HP UNIT TO INDOOR TAC UNIT. VERIFY EXACT CONNECTION SCHEME WITH MANUFACTURER.
7. MULTIPLE TAC UNITS MAY BE CONTROLLED BY A SINGLE HP OR BRANCH BOX UNIT. COORDINATE CONTROL SCHEME WITH MECHANICAL CONTRACTOR.
8. SEE MECHANICAL PLANS TO DETERMINE WHICH TAC UNIT IS ASSOCIATED WITH EACH HP AND/OR BRANCH BOX UNIT.

3 TYPICAL VRF / MINI SPLIT / TAC UNIT CONNECTION DETAIL
N.T.S.



4 TYPICAL HEAT PUMP / CONDENSER UNIT CONNECTION
N.T.S.



5 TYPICAL ROOF TOP UNIT CONNECTION
N.T.S.

I.T. CABLING GENERAL NOTES:

1. ALL CAT CABLING SHALL BE BID AS CAT-6A. CONTRACTOR SHALL VERIFY EXISTING CABLING TYPE PRIOR TO ORDERING NEW CABLING AND PROVIDE CABLING TYPE MATCHING EXISTING TYPE.

CAT-6A CABLING SHALL BE LANMARK 10G2 UTP (PLENUM RATED) OR APPROVED EQUIVALENT.

2. DIVISION 27 CONTRACTOR SHALL PROVIDE AND INSTALL ALL CAT CABLE, INCLUDING TERMINATIONS, LABELING AND TESTING.
3. CABLING FOR DIFFERENT SYSTEM TYPES SHALL BE BUNDLED SEPARATELY.
4. ALL CABLING SHALL BE INSTALLED IN BUNDLES OF 48 OR FEWER CABLES.
5. ALL CABLING FOR A SINGLE ROOM SHALL BE ROUTED THROUGH A SINGLE WALL PENETRATION IN SINGLE LOCATION (GROUP CABLES AND PENETRATIONS, DO NOT PENETRATE WALL RANDOMLY FOR DROPS INTO A SINGLE ROOM).
6. IN EXPOSED AREAS, CABLING SHALL BE INSTALLED IN CONDUIT UNLESS A CABLE TRAY IS SHOWN.
7. IN AREAS ABOVE CEILING, CABLING SHALL BE INSTALLED NEATLY IN J-HOOKS UNLESS A CABLE TRAY PATH IS SHOWN. CABLING SHALL BE INSTALLED IN A NEAT AND ORDERLY MANNER AT RIGHT ANGLES TO THE BUILDING STRUCTURE. CABLING SHALL HAVE INDEPENDENT J-HOOK SUPPORTS IN ALL AREAS. CABLING SHALL NOT BE INSTALLED ON TOP OF DUCTWORK, SPRINKLER PIPING, HVAC PIPING OR ANY OTHER EQUIPMENT OR SYSTEM COMPONENTS. ANY CABLING NOT NEATLY INSTALLED SHALL BE REMOVED, REPLACED AND TESTED AT CONTRACTOR'S EXPENSE.
8. ALL EMPTY CONDUITS SHALL HAVE THREE 600LB TENSILE STRENGTH PULL STRINGS INSTALLED.
9. ALL PENETRATIONS THROUGH FIRE OR SMOKE WALLS SHALL BE MADE USING A UL CLASSIFIED FIRESTOP SLEEVE KIT OF THE APPROPRIATE SIZE (AS MANUFACTURED BY "SPECIFIED TECHNOLOGIES" www.stifirestop.com).
10. PROVIDE (10) ADDITIONAL DROPS BEYOND WHAT IS SHOWN ON THE PLANS. FOR BIDDING PURPOSES, ASSUME THE LONGEST POSSIBLE LENGTH FOR THESE DROPS. THESE DROPS WILL BE LOCATED AS REQUIRED DURING CONSTRUCTION.
11. ALL DATA JACKS SHALL BE TERMINATED IN 568B CONFIGURATION. JACKS SHALL BE EQUAL TO THE FOLLOWING (COLOR OF JACKS SHALL MATCH CABLE COLORING CODE):
    11.4. CAT-6a: LEVITON 6110G-R*6
12. ALL EXISTING I.T. EQUIPMENT IN THE EXISTING MDF ROOM SHALL REMAIN FUNCTIONAL DURING CONSTRUCTION. COORDINATE WITH OWNER FOR ANY POWER OR COMMUNICATIONS OUTAGES TO EXISTING EQUIPMENT.

I.T. SYSTEMS GENERAL NOTES:

1. LABELING:
   A. FACEPLATE LABELING SCHEME WILL CONTAIN ASSIGNED IDENTIFIERS FOR SPACE (ROOM), PANEL AND PORT PER TIA/EIA 606 STANDARDS. ALL LABELS MUST BE MACHINE GENERATED AND INSERTED INTO FACEPLATE THEN SECURED WITH CLEAR PLASTIC COVER.
   B. EACH CABLE SHALL BE LABELED IN FOUR PLACES. ON PATCH PANEL, ON CABLE 18" FROM END OF CABLE, AT WALL PLATE 18" FROM END OF CABLE AND ON WALL PLATE.
   C. LABEL AT THE TOP OF ALL FACEPLATES SHALL INDICATE THE I.T. ROOM NUMBER SERVING THAT FACEPLATE. FOR EXAMPLE, IF THE LABEL IS "I.T.-A111", THEN THIS MEANS THE CABLES IN THIS FACEPLATE ARE TERMINATED IN I.T. ROOM A111. THE INDIVIDUAL CABLE MODULES WILL BE IDENTIFIED WITH A LABEL REPRESENTING THE PORT NUMBER BELOW EACH CABLE MODULE. THIS PORT NUMBER WILL BE THE SAME PORT NUMBER USED TO IDENTIFY THIS CABLE IN THE I.T. ROOM. FOR EXAMPLE, IF 10 CABLES ARE TERMINATING IN EACH OF TWO ROOMS, THE FACEPLATE PORT NUMBERS WILL FALL IN A RANGE FROM 1 TO 10 FOR THE FIRST ROOM, THE NEXT ROOM WILL BE 11 TO 20, ETC.
   D. COORDINATE ALL ROOM NUMBERS WITH OWNER. FINAL ROOM NUMBERS WILL VARY FROM THOSE INDICATED ON THESE PLANS.
   E. FACEPLATES SHALL BE ANGLED FOR CAT-6A PORTS.
2. ROOM EQUIPMENT:
   THE FOLLOWING EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 27 CONTRACTOR:
   A. CONTRACTOR SHALL PROVIDE AND INSTALL TWO RACKS IN THE MDF CLOSET. RACKS SHALL BE HOFFMAN FOUR-POST OPEN STYLE RACK OR APPROVED EQUIVALENT. COORDINATE EXACT LOCATION ON SITE WITH OWNER.
   B. IN EACH RACK, PROVIDE AND INSTALL SUFFICIENT PATCH PANELS FOR ALL DATA CABLES. INCLUDE A MINIMUM OF 20% SPARE (EMPTY) PATCH PANEL SPACES IN EACH RACK. PATCH PANELS SHALL BE LEVITON OR APPROVED EQUIVALENT
   C. PROVIDE AND INSTALL A 1-UNIT HORIZONTAL PATCH CORD CABLE MANAGER BETWEEN EACH PATCH PANEL, LEVITON OR APPROVED EQUIVALENT.

HIGHSCHOOL MECHANICAL EQUIPMENT SCHEDULE

CALLOUT	DESCRIPTION	VOLTS	HP	KVA	MCA	MOCP	CIRCUIT	WIRE CALLOUT	BREAKER	DISCONNECT TYPE	DISCO PROV BY	DISCO INST BY	KEYED NOTES
CP-1	CIRCULATION PUMP	120V 1P 2W	1/4 HP	0.7			L1-20	3/4"C,1#12,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
CP-E1	CIRCULATION PUMP	120V 1P 2W	1/4 HP	0.7			EP1-83	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-1	EXHAUST FAN	120V 1P 2W		0.3			INV-3	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-2	EXHAUST FAN	120V 1P 2W		0.3			INV-3	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-3	EXHAUST FAN	120V 1P 2W		0.1			L3-62	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-4	EXHAUST FAN	120V 1P 2W		0.1			L2-4	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-5	EXHAUST FAN	120V 1P 2W		0.1			L2-4	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-5A	EXHAUST FAN	120V 1P 2W		0.1			L3-42	3/4"C,1#10,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-6	EXHAUST FAN	120V 1P 2W		0.1			L3-42	3/4"C,1#10,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-7	EXHAUST FAN	120V 1P 2W		0.1			L3-42	3/4"C,1#10,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-8	EXHAUST FAN	120V 1P 2W		0.1			L3-42	3/4"C,1#10,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-9	EXHAUST FAN	120V 1P 2W		0.1			L3-42	3/4"C,1#10,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
EF-13	EXHAUST FAN	120V 1P 2W	F HP	0.1			EP2-54	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
ELEV-1	ELEVATOR MAIN DISCONNECT	208V 3P 4W		5.8	20	30	L3-44,46,48	3/4"C,3#10,#10N,#10G	30/3	NON-FUSED	EC	EC	
ELEV-2	ELEVATOR LIGHTING DISCONNECT	120V 1P 2W		1.5	15	20	L3-50	3/4"C,1#10,#10N,#10G	20/1	MOTOR STARTER	EC	EC	
EV-1	ELEVATOR SUMP PUMP	120V 1P 2W	1/2 HP	1.18			L3-52	3/4"C,1#10,#10N,#10G	20/1	MANUAL MOTOR STARTER	EC	EC	
HP-A1	HEAT PUMP	480V 3P 4W		10.6	15.9	20	H1-35,37,39	3/4"C,3#12,#12N,#12G	20/3	NON-FUSED	EC	EC	
HP-A2	HEAT PUMP	480V 3P 4W		9.9	14.9	20	H1-6,8,10	3/4"C,3#10,#10N,#10G	20/3	NON-FUSED	EC	EC	
HP-A3	HEAT PUMP	277V 1P 2W		4.5	20.4	30	H1-41	3/4"C,1#10,#10N,#10G	30/1	NON-FUSED	EC	EC	
HP-A4	HEAT PUMP	277V 1P 2W		4.5	20.4	30	H1-12	3/4"C,1#10,#10N,#10G	30/1	NON-FUSED	EC	EC	
HP-A5	HEAT PUMP	277V 1P 2W		3.6	16.3	25	H1-14	3/4"C,1#12,#12N,#12G	25/1	NON-FUSED	EC	EC	
HP-A6	HEAT PUMP	277V 1P 2W		3.6	16.3	25	H1-16	3/4"C,1#12,#12N,#12G	25/1	NON-FUSED	EC	EC	
HP-A7	HEAT PUMP	277V 1P 2W		3.6	16.3	25	H1-18	3/4"C,1#12,#12N,#12G	25/1	NON-FUSED	EC	EC	
HP-A8	HEAT PUMP	277V 1P 2W		3.6	16.3	25	H1-20	3/4"C,1#10,#10N,#10G	25/1	NON-FUSED	EC	EC	
HP-A9	HEAT PUMP	480V 3P 4W		11.6	17.5	25	H1-22,24,26	3/4"C,3#10,#10N,#10G	25/3	NON-FUSED	EC	EC	
HP-A10	HEAT PUMP	277V 1P 2W		3.6	16.3	25	H1-28	3/4"C,1#10,#10N,#10G	25/1	NON-FUSED	EC	EC	
HP-LL1	HEAT PUMP	277V 1P 2W		2.5	11.1	15	H2-13	3/4"C,1#12,#12N,#12G	15/1	NON-FUSED	EC	EC	
HP-LL2	HEAT PUMP	277V 1P 2W		4.5	17.5	30	H2-15	3/4"C,1#12,#12N,#12G	30/1	NON-FUSED	EC	EC	
HP-LL3	HEAT PUMP	277V 1P 2W		2.5	11.1	15	H2-17	3/4"C,1#12,#12N,#12G	15/1	NON-FUSED	EC	EC	
HP-LL4	HEAT PUMP	277V 1P 2W		3.5	15.5	20	H2-19	3/4"C,1#12,#12N,#12G	20/1	NON-FUSED	EC	EC	
HP-LL5	HEAT PUMP	480V 3P 4W		11.6	17.5	25	H2-21,23,25	3/4"C,3#12,#12N,#12G	25/3	NON-FUSED	EC	EC	
HP-LL6	HEAT PUMP	277V 1P 2W		2.5	11.1	15	H2-27	3/4"C,1#12,#12N,#12G	15/1	NON-FUSED	EC	EC	
HP-LL7	HEAT PUMP	277V 1P 2W		3.5	15.5	20	H2-29	3/4"C,1#12,#12N,#12G	20/1	NON-FUSED	EC	EC	
HP-LL8	HEAT PUMP	277V 1P 2W		3.5	15.5	20	H1-17	3/4"C,1#10,#10N,#10G	20/1	NON-FUSED	EC	EC	
HP-LL9	HEAT PUMP	277V 1P 2W		2.5	11.1	15	H1-19	3/4"C,1#10,#10N,#10G	15/1	NON-FUSED	EC	EC	
HP-LL10	HEAT PUMP	480V 3P 4W		11.6	17.5	25	H1-27,29,31	3/4"C,3#10,#10N,#10G	25/3	NON-FUSED	EC	EC	
HP-LL11	HEAT PUMP	480V 3P 4W		9.9	14.9	20	H1-21,23,25	3/4"C,3#10,#10N,#10G	20/3	NON-FUSED	EC	EC	
HP-LL12	HEAT PUMP	277V 1P 2W		3.6	16.3	25	H1-33	3/4"C,1#10,#10N,#10G	25/1	NON-FUSED	EC	EC	
KH-2	KITCHEN HOOD	120V 1P 2W		1.9	20	30	L3-28	3/4"C,1#10,#10N,#10G	30/1	MOTOR STARTER	EC	EC	
TAC-1	TERMINAL AIR CONDITIONER	208V 2P 2W		0.1	0.65	15	L1-12,14	3/4"C,2#12,#12G	15/2	NON-FUSED	EC	EC	
TAC1-HP	HEAT PUMP	208V 2P 2W		3	18	20	L1-22,24	3/4"C,2#12,#12G	20/2	NON-FUSED	EC	EC	
TAC-2	TERMINAL AIR CONDITIONER	208V 2P 2W		0.1	0.65	15	L3-54,56	3/4"C,2#10,#10G	15/2	NON-FUSED	EC	EC	
TAC2-HP	HEAT PUMP	208V 2P 2W		3	18	20	L3-58,60	3/4"C,2#10,#10G	20/2	NON-FUSED	EC	EC	
WH-1	WATER HEATER	208V 2P 2W		4.5			L1-16,18	3/4"C,2#10,#10G	30/2	NON-FUSED	EC	EC	
WH-E1	WATER HEATER	208V 2P 2W		4.5			EP1-79,81	3/4"C,2#10,#10G	30/2	NON-FUSED	EC	EC	

MECHANICAL EQUIPMENT SCHEDULE GENERAL NOTES:
A. SEE MECHANICAL PLANS AND EQUIPMENT SCHEDULES FOR MORE DETAILS.
B. BECAUSE INSTALLED EQUIPMENT MAY VARY FROM WHAT WAS SPECIFIED, CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR AND ADJUST ALL CIRCUIT, CONDUCTOR, FUSE, AND BREAKER SIZES WITH ACTUAL EQUIPMENT.
C. SUBMITTED MINI-SPLIT/TAC SYSTEMS, VARIABLE REFRIGERANT FLOW SYSTEMS, AND SIMILAR SYSTEMS OFTEN REQUIRE WIRING AND CIRCUITING REQUIREMENTS THAT DIFFER FROM WHAT WAS DESIGNED. THIS INFORMATION IS NOT READILY AVAILABLE DURING DESIGN. IF/WHEN THESE TYPES OF SYSTEMS ARE USED, CIRCUITING AS SHOWN ON THE PLANS MAY NOT BE REQUIRED DEPENDING ON THE SUBMITTED MANUFACTURER. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROPER CONNECTION REQUIREMENTS, WIRE TYPES, AND WIRES SIZE WITH THE SYSTEM MANUFACTURER PRIOR TO ROUGH-IN. REFER TO TYPICAL VRF / MINI SPLIT / TAC DETAIL FOR MORE INFO.
D. COORDINATE ALL CONTROL AND POWER WIRING WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS FOR LOCATIONS AND CONNECTION REQUIREMENTS OF MOTOR DAMPER/LOUVERS FOR ALL FANS. PROVIDE POWER AS REQUIRED FOR PROPER OPERATION.
E. MECHANICAL EQUIPMENT CONDUCTORS ARE SIZED WITH NAMEPLATE MCA PER NEC 440.6(A), THEREFORE CONDUCTOR SIZING MAY NOT CORRESPOND WITH BREAKER SIZE.
F. PROVIDE LABELS ON ALL EQUIPMENT. REFER TO SPECIFICATIONS.

ELEMENTARY ADDITION MECHANICAL EQUIPMENT SCHEDULE

CALLOUT	DESCRIPTION	VOLTS	HP	KVA	MCA	MOCP	CIRCUIT	WIRE CALLOUT	BREAKER	DISCONNECT TYPE	DISCO PROV BY	DISCO INST BY	KEYED NOTES
EF-4	EXHAUST FAN	120V 1P 2W		0.13			EP2-52	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	1
EF-5	EXHAUST FAN	120V 1P 2W		0.13			EP2-52	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	1
EF-10	EXHAUST FAN	120V 1P 2W		0.13			EP2-52	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	1
EF-11	EXHAUST FAN	120V 1P 2W		0.13			EP2-52	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	1
EF-12	EXHAUST FAN	120V 1P 2W		0.1			EP2-54	3/4"C,1#12,#12N,#12G	20/1	MANUAL MOTOR STARTER	EC	EC	
HP-1	HEAT PUMP CONDENSING UNIT	208V 3P 4W		6.4	22	35	EP1-43,45,47	3/4"C,3#10,#10N,#10G	35/3	NON-FUSED	EC	EC	
HP-2	HEAT PUMP CONDENSING UNIT	208V 3P 4W		5.2	18	30	EP1-30,32,34	3/4"C,3#12,#12N,#12G	30/3	NON-FUSED	EC	EC	
HP-3	HEAT PUMP CONDENSING UNIT	208V 3P 4W		6.4	22	35	EP1-48,50,52	3/4"C,3#10,#10N,#10G	35/3	NON-FUSED	EC	EC	
HP-4	HEAT PUMP CONDENSING UNIT	208V 3P 4W		6.4	18	30	EP1-61,63,65	3/4"C,3#10,#10N,#10G	30/3	NON-FUSED	EC	EC	
HP-5	HEAT PUMP CONDENSING UNIT	208V 2P 2W		2	12	20	EP1-66,68	3/4"C,2#10,#10G	20/2	NON-FUSED	EC	EC	
KH-1	KITCHEN HOOD	120V 1P 2W		1.9	20	30	EP1-13	3/4"C,1#10,#10N,#10G	30/1	MOTOR STARTER	EC	EC	
SS-1A	SPLIT SYSTEM MOTOR	208V 2P 2W	3/4 HP	1.66	9	15	EP1-49,51	3/4"C,2#12,#12G	15/2	NON-FUSED	EC	EC	
SS-1B	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		6	36	40	EP1-53,55	3/4"C,2#8,#10G	40/2	NON-FUSED	EC	EC	
SS-1C	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		5	27	30	EP1-57,59	3/4"C,2#10,#10G	30/2	NON-FUSED	EC	EC	
SS-1D	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		5	27	30	EP1-22,24	3/4"C,2#10,#10G	30/2	NON-FUSED	EC	EC	
SS-1E	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		5	27	30	EP1-26,28	3/4"C,2#10,#10G	30/2	NON-FUSED	EC	EC	
SS-2A	SPLIT SYSTEM MOTOR	208V 2P 2W	3/4 HP	1.66	9	15	EP1-36,38	3/4"C,2#10,#10G	15/2	NON-FUSED	EC	EC	
SS-2B	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		8.7	52	60	EP1-40,42	3/4"C,2#4,#10G	60/2	NON-FUSED	EC	EC	
SS-2C	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		7.2	43	45	EP1-44,46	3/4"C,2#6,#10G	45/2	NON-FUSED	EC	EC	
SS-3A	SPLIT SYSTEM MOTOR	208V 2P 2W	3/4 HP	1.66	9	15	EP1-54,56	3/4"C,2#12,#12G	15/2	NON-FUSED	EC	EC	
SS-3B	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		8.7	52	60	EP1-58,60	3/4"C,2#4,#10G	60/2	NON-FUSED	EC	EC	
SS-3C	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		7.2	43	45	EP1-62,64	3/4"C,2#6,#10G	45/2	NON-FUSED	EC	EC	
SS-4A	SPLIT SYSTEM MOTOR	208V 2P 2W	3/4 HP	1.66	9	15	EP1-67,69	3/4"C,2#10,#10G	15/2	NON-FUSED	EC	EC	
SS-4B	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		8.7	52	60	EP1-71,73	3/4"C,2#4,#10G	60/2	NON-FUSED	EC	EC	
SS-4C	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		7.2	43	45	EP1-75,77	3/4"C,2#6,#10G	45/2	NON-FUSED	EC	EC	
SS-5A	SPLIT SYSTEM MOTOR	208V 2P 2W	1/3 HP	0.86	4	15	EP1-70,72	3/4"C,2#10,#10G	15/2	NON-FUSED	EC	EC	
SS-5B	SPLIT SYSTEM ELECTRIC HEAT	208V 2P 2W		6.4	38	40	EP1-74,76	3/4"C,2#8,#10G	40/2	NON-FUSED	EC	EC	

MECHANICAL EQUIPMENT SCHEDULE GENERAL NOTES:
A. SEE MECHANICAL PLANS AND EQUIPMENT SCHEDULES FOR MORE DETAILS.
B. BECAUSE INSTALLED EQUIPMENT MAY VARY FROM WHAT WAS SPECIFIED, CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR AND ADJUST ALL CIRCUIT, CONDUCTOR, FUSE, AND BREAKER SIZES WITH ACTUAL EQUIPMENT.
C. SUBMITTED MINI-SPLIT/TAC SYSTEMS, VARIABLE REFRIGERANT FLOW SYSTEMS, AND SIMILAR SYSTEMS OFTEN REQUIRE WIRING AND CIRCUITING REQUIREMENTS THAT DIFFER FROM WHAT WAS DESIGNED. THIS INFORMATION IS NOT READILY AVAILABLE DURING DESIGN. IF/WHEN THESE TYPES OF SYSTEMS ARE USED, CIRCUITING AS SHOWN ON THE PLANS MAY NOT BE REQUIRED DEPENDING ON THE SUBMITTED MANUFACTURER. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROPER CONNECTION REQUIREMENTS, WIRE TYPES, AND WIRES SIZE WITH THE SYSTEM MANUFACTURER PRIOR TO ROUGH-IN. REFER TO TYPICAL VRF / MINI SPLIT / TAC DETAIL FOR MORE INFO.
D. COORDINATE ALL CONTROL AND POWER WIRING WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS FOR LOCATIONS AND CONNECTION REQUIREMENTS OF MOTOR DAMPER/LOUVERS FOR ALL FANS. PROVIDE POWER AS REQUIRED FOR PROPER OPERATION.
E. MECHANICAL EQUIPMENT CONDUCTORS ARE SIZED WITH NAMEPLATE MCA PER NEC 440.6(A), THEREFORE CONDUCTOR SIZING MAY NOT CORRESPOND WITH BREAKER SIZE.
F. PROVIDE LABELS ON ALL EQUIPMENT. REFER TO SPECIFICATIONS.

MECHANICAL EQUIPMENT SCHEDULE KEYED NOTES:
1. EXHAUST FAN TO BE CONTROLLED BY LIGHT SWITCH.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192

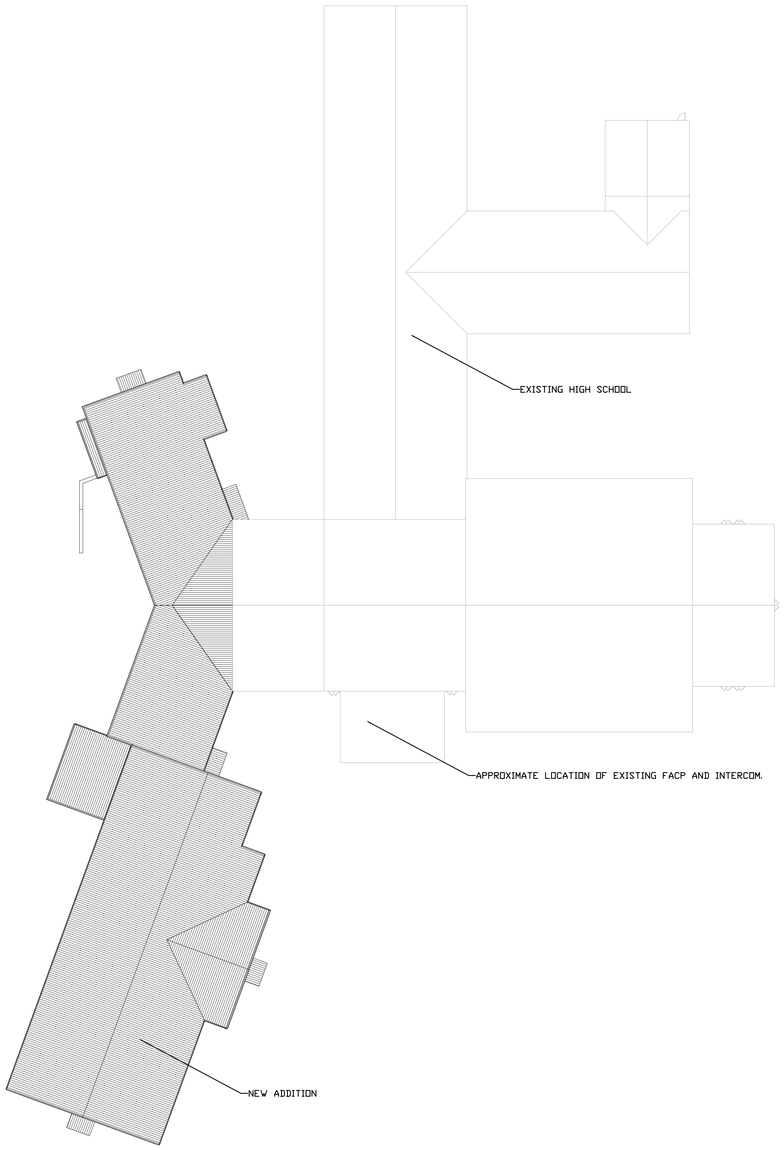
HIGH SCHOOL SYSTEMS SCOPE:

INTERCOM/CLOCKS: ELECTRICAL CONTRACTOR TO HIRE ENDEX OF OKLAHOMA TO PROVIDE NEW INTERCOM AND CLOCK SYSTEM AS SHOWN ON PLANS. SYSTEM SHALL HAVE (2) HEAD UNITS AS REQUIRED FOR PROPER OPERATION IN (2) SEPARATE ADMIN AREAS. EXTEND SYSTEM INTO ALL EXISTING AREAS OF THE HIGH SCHOOL. REPLACE EXISTING DEVICES AS REQUIRED FOR COMPATIBILITY WITH NEW SYSTEM. EXISTING DEVICES MAY BE RE-USED IF THEY ARE COMPATIBLE WITH NEW SYSTEM. PROVIDE ALL LABOR, LICENSES, PARTS, AND ACCESSORIES FOR COMPLETE AND OPERABLE SYSTEMS.

FIRE ALARM: RELOCATE EXISTING EST LSS1 CONTROL PANEL AND EXTEND EXISTING CIRCUITS AS REQUIRED. CONNECT NEW DEVICES TO EXISTING RELOCATED CONTROL PANEL. PROVIDE ALL LABOR, LICENSES, PARTS, AND ACCESSORIES FOR COMPLETE AND OPERABLE CODE-COMPLIANT SYSTEMS.

DATA CABLING: PROVIDE NEW RACKS, PATCH PANELS, CABLING, ETC AS SHOWN ON PLANS. SWITCHES, SERVERS, AND OTHER INFRASTRUCTURE TO BE PROVIDED BY OWNER.

ACCESS CONTROL: PROVIDE POWER AND ROUGH-IN ONLY FOR CARD READERS AND DOOR CONTROLS.



2 ELECTRICAL OVERALL PLAN - HIGHSCHOOL
SCALE: 1" = 30'-0"

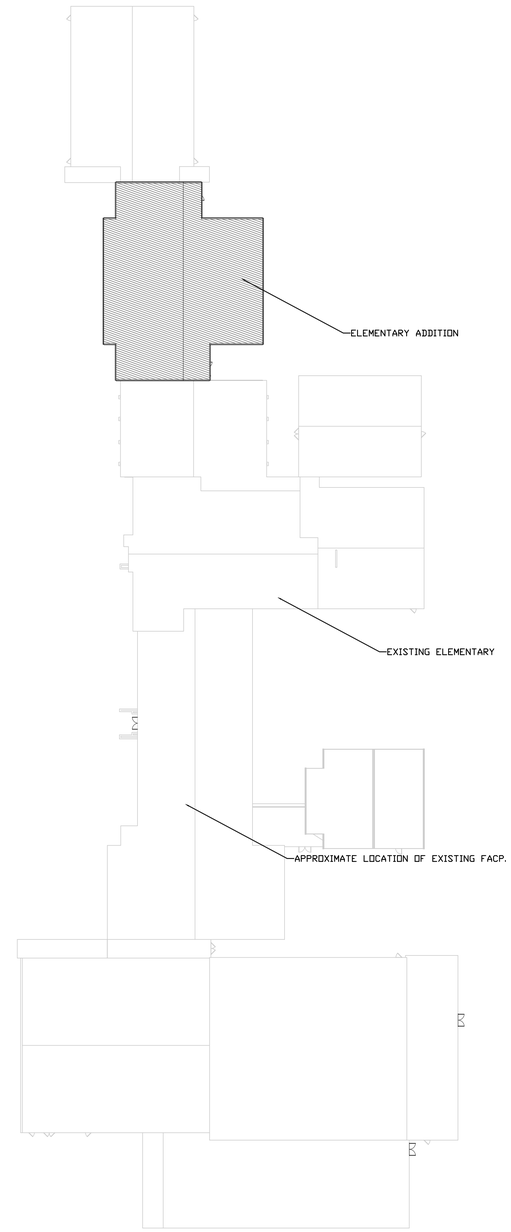
ELEMENTARY SYSTEMS SCOPE:

INTERCOM: ELECTRICAL CONTRACTOR TO HIRE ENDEX OF OKLAHOMA AND REPLACE INTERCOM FOR ENTIRE SCHOOL. EC TO INCLUDE ALL COSTS ASSOCIATED WITH INSTALLING THIS SYSTEM IN THE BID.

FIRE ALARM: CONNECT NEW DEVICES TO EXISTING NOTIFER NFW2-100. PROVIDE ALL LABOR, LICENSES, PARTS, AND ACCESSORIES FOR COMPLETE AND OPERABLE CODE-COMPLIANT SYSTEMS.

DATA CABLING: PROVIDE NEW COPPER FROM DROP TO EXISTING RACK.

ACCESS CONTROL: PROVIDE POWER AND ROUGH-IN ONLY FOR CARD READERS AND DOOR CONTROLS.



1 ELECTRICAL OVERALLPLAN - ELEMENTARY
SCALE: 1" = 30'-0"

GENERAL NOTES:

A. THE NOTES LISTED HERE ARE FOR SHOWN GENERAL REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID.

B. FOR ALL SYSTEMS, REFER TO PLANS AND SPECS FOR MORE INFO.

FIRE ALARM SYSTEM NOTES:

1. THE STATUS OF THE CODE COMPLIANCE OF THE EXISTING HIGHSCHOOL AND ELEMENTARY BUILDING'S FIRE ALARM SYSTEM IS UNKNOWN. THIS CONTRACTOR SHALL PROVIDE DEVICES AND QUANTITIES NEEDED TO MEET APPLICABLE CODE THROUGHOUT THE ENTIRETY OF THE BUILDING. IT IS THE RESPONSIBILITY OF THE FIRE ALARM SYSTEM PROVIDER TO PROVIDE ALL DEVICES AND HARDWARE NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM PER CODE. ALL BIDS SHALL INCLUDE SUCH A SYSTEM.
2. NEW DEVICES MAY BE CEILING OR WALL MOUNTED WHERE THE LOCATION IS APPROVED BY THE LOCAL AHJ.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE DEDICATED 120V, 20A CIRCUITS TO ALL SYSTEM POWER SUPPLIES. COORDINATE WITH FIRE ALARM CONTRACTOR FOR EXACT LOCATIONS.
4. ELECTRICAL CONTRACTOR SHALL INSTALL DEDICATED 120V CIRCUIT FOR DUCT DETECTORS. COORDINATE WITH FIRE ALARM CONTRACTOR FOR EXACT LOCATIONS.
5. COORDINATE WITH FIRE PROTECTION (SPRINKLER) CONTRACTOR FOR LOCATIONS AND QUANTITIES OF FLOW AND TAMPER SWITCHES. INSTALL WEATHERPROOF HORN STROBES AS NECESSARY OUTSIDE BUILDING AT FDC.
6. COORDINATE WITH COMMUNICATIONS CABLING INSTALLER FOR PHONE LINE AND/OR NETWORK CONNECTION TO FACP.
7. FINAL DEVICE LOCATIONS AND QUANTITIES ARE TO BE DETERMINED BY FIRE ALARM CONTRACTOR IN ORDER TO SATISFY THE AHJ.
8. CONTRACTOR SHALL VISIT THE SITE TO FIELD VERIFY PRIOR TO BID.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER
JESSE BABB
26493
3/4/2021
OKLAHOMA

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL OVERALL PLAN - HIGH SCHOOL AND ELEMENTARY

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E450

Panel H2

LOCATION
MOUNTING SURFACE
FED FROM MDP
NOTE

VOLTS 480Y/277V 3P 4W
BUS AMPS 225
NEUTRAL 100%

AIC 20,000
MAIN BKR 225
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	125/3	36.9	XFMR T2	a	2	20/1	0	SPARE
3	|			b	4	20/1	0	SPARE
5	|			c	6	20/1	0	SPARE
7	20/1	1.95	LIGHTING	a	8	20/1	0	SPARE
9	20/1	1.72	LIGHTING	b	10	20/1	0	SPARE
11	20/1	0.298	LIGHTING	c	12	20/1	0	SPARE
13	15/1	2.5	HP-LL1	a	14	20/1	0	SPARE
15	30/1	4.5	HP-LL2	b	16	20/1	0	SPARE
17	15/1	2.5	HP-LL3	c	18	20/1	0	SPARE
19	20/1	3.5	HP-LL4	a	20	20/1	0	SPARE
21	25/3	11.6	HP-LL5	b	22	20/1	0	SPARE
23	|			c	24	20/1	0	SPARE
25	|			a	26	20/1	0	SPARE
27	15/1	2.5	HP-LL6	b	28	20/1	0	SPARE
29	20/1	3.5	HP-LL7	c	30	20/1	0	SPARE
31	20/1	0	SPARE	a	32	20/1	0	SPARE
33	20/1	0	SPARE	b	34	20/1	0	SPARE
35	20/1	0	SPARE	c	36	20/1	0	SPARE
37	20/1	0	SPARE	a	38	20/1	0	SPARE
39	20/1	0	SPARE	b	40	20/1	0	SPARE
41	20/1	0	SPARE	c	42	20/1	0	SPARE

	CONN KVA	CALC KVA	
LIGHTING	3.97	4.96	(125%)
LARGEST MOTOR	11.6	2.9	(25%)

	CONN KVA	CALC KVA	
MOTORS	30.9	30.9	(100%)
RECEPTACLES	36.6	23.3	(50%>10)
TOTAL LOAD		62.1	
BALANCED 3-PHASE LOAD		74.7 A	
PHASE A		110%	
PHASE B		101%	
PHASE C		89.6%	

Panel H1

LOCATION
MOUNTING SURFACE
FED FROM MDP
NOTE

VOLTS 480Y/277V 3P 4W
BUS AMPS 400
NEUTRAL 100%

AIC 30,000
MAIN BKR 400
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	250/3	129	XFMR T1	a	2	20/1	0.98	LIGHTING
3	|			b	4	20/1	1.85	LIGHTING
5	|			c	6	20/3	9.9	HP-A2
7	20/1	2.88	LIGHTING	a	8	|		
9	20/1	1.8	LIGHTING	b	10	|		
11	20/1	2.21	LIGHTING	c	12	30/1	4.5	HP-A4
13	20/1	1.98	LIGHTING	a	14	25/1	3.6	HP-A5
15	20/1	0.272	LIGHTING	b	16	25/1	3.6	HP-A6
17	20/1	3.5	HP-LL8	c	18	25/1	3.6	HP-A7
19	15/1	2.5	HP-LL9	a	20	25/1	3.6	HP-A8
21	20/3	9.9	HP-LL11	b	22	25/3	11.6	HP-A9
23	|			c	24	|		
25	|			a	26	|		
27	25/3	11.6	HP-LL10	b	28	25/1	3.6	HP-A10
29	|			c	30	20/1	0	SPARE
31	|			a	32	20/1	0	SPARE
33	25/1	3.6	HP-LL12	b	34	20/1	0	SPARE
35	20/3	10.6	HP-A1	c	36	20/1	0	SPARE
37	|			a	38	20/1	0	SPARE
39	|			b	40	20/1	0	SPARE
41	30/1	4.5	HP-A3	c	42	20/1	0	SPARE

	CONN KVA	CALC KVA	
LIGHTING	12	15	(125%)
LARGEST MOTOR	12	3	(25%)

	CONN KVA	CALC KVA	
MOTORS	168	168	(100%)
RECEPTACLES	51	30.5	(50%>10)
TOTAL LOAD		217	
BALANCED 3-PHASE LOAD		260 A	
PHASE A		94.1%	
PHASE B		101%	
PHASE C		105%	

MDP

NOTE 1
MOUNTING FLOOR
FED FROM UTILITY
NOTE 2

VOLTS 480Y/277V 3P 4W
BUS AMPS 800
NEUTRAL 100%

AIC 30,000
MAIN BKR 800
LUGS STANDARD

CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	400/3	PANEL H1	72.5	77.8	80.8	(2)2"C,3#3/0,#3/0N,#2G
2	225/3	PANEL H2	26.2	24	21.3	2-1/2"C,3#4/0,#4/0N,#4G
3	40/1	INVERTER	2.07			3/4"C,1#8,#8N,#10G
4	200/3	SPARE	0	0	0	
5	200/3	SPARE	0	0	0	
6	20/3	SPARE	0	0	0	
7	20/3	SPARE	0	0	0	
8	20/3	SPARE	0	0	0	
9	20/3	SPARE	0	0	0	
10	60/3	SPD-MDP	0.033	0.033	0.033	1-1/4"C,3#4,#4N,#10G
		TOTAL CONNECTED KVA BY PHASE	101	102	102	

	CONN KVA	CALC KVA	
LIGHTING	16.3	20.4	(125%)
LARGEST MOTOR	12	3	(25%)

	CONN KVA	CALC KVA	
MOTORS	200	200	(100%)
RECEPTACLES	88.7	49.3	(50%>10)
TOTAL LOAD		272	
BALANCED 3-PHASE LOAD		328 A	

Panel L3

LOCATION
MOUNTING SURFACE
FED FROM L1
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 400
NEUTRAL 100%

AIC 20,000
MAIN BKR 400
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	30/3	0.1	SPD-L3	a	2	20/1	1.08	RECEPTACLE
3	|			b	4	20/1	0	SINK SENSOR, GFI BREAKER
5	|			c	6	20/1	0.36	RECEPTACLE
7	20/1	0.54	RECEPTACLE	a	8	20/1	0.36	RECEPTACLE
9	20/1	0.72	RECEPTACLE, SMARTBOARD	b	10	20/1	0.36	RECEPTACLE
11	20/1	0.9	PLUMBING SENSOR, RECEPTACLE	c	12	20/1	0.54	RECEPTACLE
13	20/1	0.72	RECEPTACLE	a	14	20/1	0.18	RECEPTACLE
15	20/1	0.72	RECEPTACLE, SMARTBOARD	b	16	20/1	0.18	RECEPTACLE
17	20/1	0.72	RECEPTACLE	c	18	20/1	0.36	RECEPTACLE
19	20/1	0.9	RECEPTACLE, SMARTBOARD	a	20	20/1	0.36	RECEPTACLE
21	20/1	0.9	RECEPTACLE	b	22	225/3	57.3	PANEL K3
23	20/1	0.72	RECEPTACLE	c	24	|		
25	20/1	0.72	RECEPTACLE, SMARTBOARD	a	26	|		
27	20/1	1.08	RECEPTACLE	b	28	30/1	1.9	KH-2
29	20/1	0.54	RECEPTACLE	c	30	20/1	0	SHUNT
31	20/1	0.36	RECEPTACLE	a	32	50/2	8.4	RANGE
33	20/1	0.72	RECEPTACLE, SMARTBOARD	b	34	|		
35	20/1	0.72	RECEPTACLE	c	36	20/1	0	SHUNT
37	20/1	0.36	RECEPTACLE	a	38	20/1	0.36	J-BOX
39	20/1	0.36	RECEPTACLE	b	40	20/1	0.18	J-BOX
41	20/1	0.36	RECEPTACLE	c	42	20/1	0.5	EF-5A, EF-6, EF-7, EF-8, EF-9
43	20/1	0.9	RECEPTACLE, SMARTBOARD	a	44	30/3	5.8	ELEV-1
45	20/1	0.72	RECEPTACLE	b	46	|		
47	20/1	0.36	PLUMBING SENSOR, SINK SENSOR, GFI BREAKER	c	48	|		
49	20/1	0.54	RECEPTACLE	a	50	20/1	1.5	ELEV-2
51	20/1	0.36	DRINKING FOUNTAIN, GFI BREAKER	b	52	20/1	1.18	EV-1
53	20/1	0.18	PLUMBING SENSOR, SINK SENSOR, GFI BREAKER	c	54	15/2	0.1	TAC-2
55	20/1	0.18	RECEPTACLE	a	56	|		
57	30/2	5	DRYER	b	58	20/2	3	TAC2-HP
59	|			c	60	|		
61	20/1	0.8	REFRIGERATOR	a	62	20/1	0.1	EF-3
63	20/1	0.36	RECEPTACLE	b	64	20/1	0	SPARE
65	20/2	0	SPARE	c	66	20/1	0	SPARE
67	|			a	68	20/1	0	SPARE
69	20/1	0.9	RECEPTACLE, SMARTBOARD	b	70	20/1	0	SPARE
71	20/1	0.72	RECEPTACLE	c	72	20/1	0	SPARE
73	20/1	0.36	PLUMBING SENSOR, SINK SENSOR, GFI BREAKER	a	74	20/1	0	SPARE
75	20/1	0.18	RECEPTACLE	b	76	20/1	0	SPARE
77	20/1	0.9	RECEPTACLE	c	78	20/1	0	SPARE
79	20/1	0.9	RECEPTACLE	a	80	20/1	0	SPARE
81	20/1	1.52	RECEPTACLE, REFRIGERATOR	b	82	20/1	0	SPARE
83	20/1	0.72	RECEPTACLE	c	84	20/1	0	SPARE

	CONN KVA	CALC KVA	
LARGEST MOTOR	12	3	(25%)

	CONN KVA	CALC KVA	
MOTORS	69.5	69.5	(100%)
RECEPTACLES	42.4	26.2	(50%>10)
TOTAL LOAD		98.7	
BALANCED 3-PHASE LOAD		274 A	
PHASE A		97%	
PHASE B		117%	
PHASE C		85.7%	

Panel L2

LOCATION
MOUNTING SURFACE
FED FROM T2
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 225
NEUTRAL 100%

AIC 20,000
MAIN BKR 225
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	30/3	0.1	SPD-L2	a	2	20/1	0.18	COILIING DOOR
3	|			b	4	20/1	0.2	EF-4, EF-5
5	|			c	6	20/1	0	SPARE
7	20/1	0.72	J-BOX	a	8	20/1	0	SPARE
9	20/1	0.9	RECEPTACLE	b	10	20/1	0	SPARE
11	20/1	0.72	RECEPTACLE	c	12	20/1	0	SPARE
13	20/1	0.9	RECEPTACLE	a	14	20/1	0	SPARE
15	20/1	1.08	RECEPTACLE	b	16	20/1	0	SPARE
17	20/1	0.9	RECEPTACLE	c	18	20/1	0	SPARE
19	20/1	1.08	FLOORBOX, RECEPTACLE	a	20	20/1	0	SPARE
21	20/1	0.18	RECEPTACLE	b	22	20/1	0	SPARE
23	20/1	0.36	RECEPTACLE	c	24	20/1	0	SPARE
25	20/1	0.4	REFRIGERATOR	a	26	20/1	0	SPARE
27	20/1	0.36	PLUMBING SENSOR, RECEPTACLE, SINK SENSOR, GFI BREAKER	b	28	20/1	0	SPARE
29	20/1	0.72	RECEPTACLE	c	30	20/1	0	SPARE
31	20/1	0.36	RECEPTACLE	a	32	20/1	0	SPARE
33	20/1	0.18	RECEPTACLE	b	34	20/1	0	SPARE
35	20/1	0.18	RECEPTACLE	c	36	20/1	0	SPARE
37	20/1	0.72	RECEPTACLE	a	38	20/1	0	SPARE
39	20/1	0.72	RECEPTACLE	b	40	20/1	0	SPARE
41	20/1	0.54	RECEPTACLE	c	42	20/1	0	SPARE
43	20/1	0.72	RECEPTACLE	a	44	20/1	0	SPARE
45	20/1	0.9	RECEPTACLE, SMARTBOARD	b	46	20/1	0	SPARE
47	70/2	14.4	KILN	c	48	20/1	0	SPARE
49	|			a	50	20/1	0	SPARE
51	20/1	0.9	RECEPTACLE	b	52	20/1	0	SPARE
53	20/1	0.72	RECEPTACLE	c	54	20/1	0	SPARE
55	20/1	0.18	RECEPTACLE	a	56	20/1	0	SPARE
57	20/1	0.76	RECEPTACLE, REFRIGERATOR	b	58	20/1	0	SPARE
59	20/1	0.54	RECEPTACLE	c	60	20/1	0	SPARE
61	20/1	1.08	FLOORBOX, RECEPTACLE, SMARTBOARD	a	62	20/1	0	SPARE
63	20/1	0.54	RECEPTACLE, SMARTBOARD	b	64	20/1	0	SPARE
65	20/1	0.9	RECEPTACLE	c	66	20/1	0	SPARE
67	20/1	0.72	RECEPTACLE	a	68	20/1	0	SPARE
69	20/1	0.9	RECEPTACLE	b	70	20/1	0	SPARE
71	20/1	0.72	RECEPTACLE	c	72	20/1	0	SPARE
73	20/1	0.18	PLUMBING SENSOR, SINK SENSOR, GFI BREAKER	a	74	20/1	0	SPARE
75	20/1	0.18	J-BOX	b	76	20/1	0	SPARE
77	20/1	0.18	CEILING REC	c	78	20/1	0	SPARE
79	20/1	0.18	CEILING REC	a	80	20/1	0	SPARE
81	20/1	0.36	RECEPTACLE	b	82	20/1	0	SPARE
83	20/1	0.36	RECEPTACLE	c	84	20/1	0	SPARE

	CONN KVA	CALC KVA	
LARGEST MOTOR	0.1	0.025	(25%)

	CONN KVA	CALC KVA	
MOTORS	0.3	0.3	(100%)
RECEPTACLES	36.6	23.3	(50%>10)
TOTAL LOAD		23.6	
BALANCED 3-PHASE LOAD		65.6 A	
PHASE A		120%	
PHASE B		64.5%	
PHASE C		116%	

Panel L1

LOCATION
MOUNTING SURFACE
FED FROM T1
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 400
NEUTRAL 100%

AIC 20,000
MAIN BKR 400
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	30/3	0.1	SPD-L1	a	2	400/3	112	PANEL L3
3	|			b	4	|		
5	|			c	6	|		
7	20/1	0.9	RECEPTACLE	a	8	20/1	0.18	J-BOX
9	20/1	0.72	RECEPTACLE, SMARTBOARD	b	10	20/1	0.36	RECEPTACLE
11	20/1	1.08	RECEPTACLE	c	12	15/2	0.1	TAC-1
13	20/1	0.72	RECEPTACLE, SMARTBOARD	a	14	|		
15	20/1	0.72	RECEPTACLE, SMARTBOARD	b	16	30/2	4.5	WH-1
17	20/1	1.26	RECEPTACLE	c	18	|		
19	20/1	0.72	RECEPTACLE, SMARTBOARD	a	20	20/1	0.696	CP-1
21	20/1	0.9	RECEPTACLE	b	22	20/2	3	TAC1-HP
23	20/1	0.18	RECEPTACLE	c	24	|		
25	20/1	0.36	DRINKING FOUNTAIN, GFI BREAKER	a	26	20/1	0	SPARE
27	20/1	0.36	RECEPTACLE	b	28	20/1	0	SPARE
29	20/1	0.18	FACP	c	30	20/1	0	SPARE
31	20/1	0	SPARE	a	32	20/1	0	SPARE
33	20/1	0	SPARE	b	34	20/1	0	SPARE
35	20/1	0	SPARE	c	36	20/1	0	SPARE
37	20/1	0	SPARE	a	38	20/1	0	SPARE
39	20/1	0	SPARE	b	40	20/1	0	SPARE
41	20/1	0	SPARE	c	42	20/1	0	SPARE

	CONN KVA	CALC KVA	
LARGEST MOTOR	12	3	(25%)

	CONN KVA	CALC KVA	
MOTORS	77.9	77.9	(100%)
RECEPTACLES	51	30.5	(50%>10)
TOTAL LOAD		111	
BALANCED 3-PHASE LOAD		309 A	
PHASE A		92.5%	
PHASE B		118%	
PHASE C		89.9%	

Panel K3

LOCATION
MOUNTING FLUSH
FED FROM L3
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 225
NEUTRAL 100%

AIC 20,000
MAIN BKR 225
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	1.5	E21	a	2	50/3	12	E03C
3	20/1	0.18	RECEPTACLE	b	4	|		
5	20/1	0.18	RECEPTACLE	c	6	|		
7	20/1	1.92	E18	a	8	50/3	11.6	E42
9	20/1	1.5	E22	b	10	|		
11	20/1	0.18	RECEPTACLE	c	12	|		
13	20/1	0.18	RECEPTACLE	a	14	20/2	1.7	E44
15	20/1	0.18	RECEPTACLE	b	16	|		
17	20/1	0.18	RECEPTACLE	c	18	40/2	5	E46
19	20/1	0.18	RECEPTACLE	a	20	|		
21	20/1	0.18	RECEPTACLE	b	22	20/1	1	E45
23	20/1	0.18	RECEPTACLE	c	24	20/1	1.18	E36
25	20/1	0.18	RECEPTACLE	a	26	20/2	1.5	E40
27	20/1	0.5	E04	b	28	|		
29	20/3	1.75	E03A	c	30	20/1	0.6	E38
31	|			a	32	20/1	0.6	E37
33	|			b	34	20/2	0.2	E43
35	30/3	6	E03B	c	36	|		
37	|			a	38	20/1	0.6	E38
39	|			b	40	20/2	0.2	E39
41	20/1	1.5	E19	c	42	|		
43	20/1	1.5	E41	a	44	20/1	0	SPARE
45	20/1	1.5	E35	b	46	20/1	0	SPARE
47	20/1	1.5	E35	c	48	20/1	0	SPARE
49	20/1	0.18	RECEPTACLE	a	50	20/1	0	SPARE
51	20/1	0	SPARE	b	52	20/1	0	SPARE
53	20/1	0	SPARE	c	54	20/1	0	SPARE
55	20/1	0	SPARE	a	56	20/1	0	SPARE
57	20/1	0	SPARE	b	58	20/1	0	SPARE
59	20/1	0	SPARE	c	60	20/1	0	SPARE

	CONN KVA	CALC KVA	
LARGEST MOTOR	12	3	(25%)

	CONN KVA	CALC KVA	
MOTORS	55.3	55.3	(100%)
RECEPTACLES	1.98	1.98	(50%>10)
TOTAL LOAD		60.3	
BALANCED 3-PHASE LOAD		167 A	
PHASE A		112%	
PHASE B		90.5%	
PHASE C		97.7%	

Panel K2

LOCATION
MOUNTING FLUSH
FED FROM MDPO
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC 25,000
MAIN BKR 125
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0.5	E20	a	2	20/1	1.31	E25
3	20/1	0	SHUNT	b	4	20/1	0.8	E26
5	20/1	1.92	E17	c	6	20/1	1.66	E05
7	20/1	1.18	E34	a	8	20/1	1.66	E05
9	20/1	1.18	E34	b	10	20/1	1.2	E23
11	20/1	1.2	E32	c	12	20/1	1.2	E23
13	20/1	0.696	E24	a	14	20/1	1.2	E23
15	20/1	0.696	E24	b	16	20/1	1.2	E23
17	20/1	1.18	E07	c	18	20/1	0.18	RECEPTACLE
19	20/1	1.92	E17	a	20	20/1	0.696	E08
21	20/1	1.2	E30	b	22	20/2	1.5	E09
23	20/1	1.18	E07	c	24	|		
25	20/1	0.18	RECEPTACLE	a	26	20/2	1.5	E10
27	30/2	4.2	E29	b	28	|		
29	|			c	30	20/1	0.696	E08
31	20/1	0.696	E06	a	32	20/1	0.18	RECEPTACLE
33	20/2	1	E28	b	34	20/1	0.18	RECEPTACLE
35	|			c	36	20/1	0	SPARE
37	20/1	0.18	RECEPTACLE	a	38	20/1	0	SPARE
39	20/2	0.9	E27	b	40	20/1	0	SPARE
41	|			c	42	20/1	0	SPARE

	CONN KVA	CALC KVA	
LARGEST MOTOR	4.2	1.05	(25%)

	CONN KVA	CALC KVA	
MOTORS	34.2	34.2	(100%)
RECEPTACLES	0.9	0.9	(50%>10)
TOTAL LOAD		36.2	
BALANCED 3-PHASE LOAD		100 A	
PHASE A		94.3%	
PHASE B		94.2%	
PHASE C		112%	

Panel K1

LOCATION
MOUNTING FLUSH
FED FROM MDPO
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 400
NEUTRAL 100%

AIC 42,000
MAIN BKR 400
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	30/3	7.7	E16	a	2	50/3	12	E12
3	|			b	4	|		
5	|			c	6	|		
7	20/1	0	SHUNT	a	8	20/1	0	SHUNT
9	50/3	12	E15	b	10	40/3	11	E11
11	|			c	12	|		
13	|			a	14	|		
15	20/1	0	SHUNT	b	16	20/1	0	SHUNT
17	60/3	16	E14	c	18	40/3	11	E11
19	|			a	20	|		
21	|			b	22	|		
23	20/1	0	SHUNT	c	24	20/1	0	SHUNT
25	30/3	8	E13	a	26	40/3	11	E11
27	|			b	28	|		
29	|			c	30	|		
31	20/1	0	SHUNT	a	32	20/1	0	SHUNT
33	50/3	12	E12	b	34	40/3	11	E11
35	|			c	36	|		
37	|			a	38	|		
39	20/1	0	SHUNT	b	40	20/1	0	SHUNT
41	20/1	0	SPARE	c	42	20/1	0	SPARE

	CONN KVA	CALC KVA	
LARGEST MOTOR	16	4	(25%)
MOTORS	112	112	(100%)

	CALC KVA
TOTAL LOAD	116
BALANCED 3-PHASE LOAD	321 A
PHASE A	100%
PHASE B	100%
PHASE C	100%

TRANSFORMER SCHEDULE				
CALLOUT	KVA	PRIMARY VOLTS	SECONDARY VOLTS	NOTES
T1	150	480V 3P 3W	208Y/120V 3P 4W	
T2	75	480V 3P 3W	208Y/120V 3P 4W	

TRANSFORMER SCHEDULE GENERAL NOTES:
A. PROVIDE GROUNDING PER NEC.
B. WHERE FLOOR MOUNTED, PROVIDE 4" CONCRETE HOUSEKEEPING PAD.
C. LEAVE MINIMUM OF 6" CLEARANCE ON ALL SIDES.

GENERAL NOTES:

A. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS WITH UTILITY TO PROVIDE ALL PARTS, TRENCHING, METERING / CT CAN, AND PAY ALL FEES NECESSARY TO BRING SERVICE TO NEW BUILDING. ANY/ALL COSTS INCURRED FROM UTILITY FOR INSTALLATION OF THE NEW ELECTRICAL SERVICE SHALL BE INCLUDED IN CONTRACTOR'S BID.

B. AIC RATINGS ARE ESTIMATED BASED ON AVAILABLE DATA DURING DESIGN. CONTRACTOR TO VERIFY AVAILABLE FAULT CURRENT WITH UTILITY PRIOR TO ORDERING GEAR AND PROVIDE EQUIPMENT WITH RATINGS THAT MEET OR EXCEED CALCULATED FAULT. PROVIDE ENGINEER WITH FAULT CURRENT OBTAINED FROM UTILITY.

C. PROVIDE CONCRETE HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED ELECTRICAL PANELS, TRANSFORMERS, SWITCHGEAR, AND INVERTERS.

D. PROVIDE TYPEWRITTEN PANEL INDEX DESCRIBING EACH CIRCUIT PER NEC 408.4 (A). LABEL EACH PIECE OF EQUIPMENT PER NEC 484.4 (B).

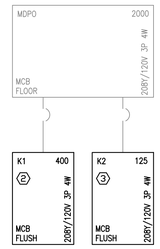
E. CONTRACTOR SHALL PROVIDE A ONE-LINE DIAGRAM, PRINTED ON A 24" X 36" (MINIMUM SIZE) 5MM STYROFOAM BACKBOARD. MOUNT ON WALL IN ELECTRICAL ROOM.

F. THE GEAR SUPPLIER SHALL PROVIDE ADJUSTABLE BREAKERS AS REQUIRED TO FACILITATE SELECTIVE COORDINATION TO 0.1 SECONDS FOR THE ENTIRE SYSTEM.

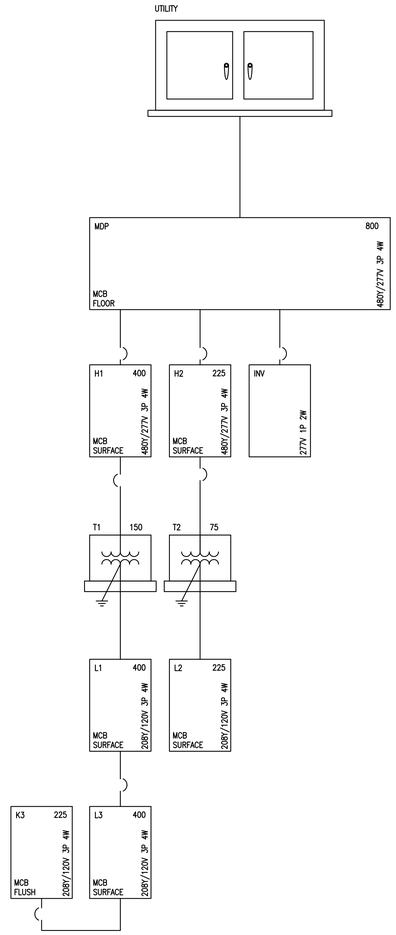
G. ALL SPARE OR UNUSED BREAKERS/SWITCHES SHALL BE SWITCHED INTO THE 'OFF' POSITION.

KEYED NOTES:

1. SIZE OF NEW SWITCHGEAR IS ASSUMED TO BE THE SAME AS THE ONE BEING DEMO'D. CONTRACTOR TO FIELD VERIFY SWITCHGEAR SIZE PRIOR TO ORDERING THE NEW SWITCHGEAR.
2. REPLACE THE 300A/3P BREAKER IN SPACE '1' OF MDPO WITH A 400A/3P BREAKER AND CONNECT PANEL 'K1' TO THE NEW BREAKER.
3. CONNECT PANEL 'K2' TO THE EXISTING 125A/3P BREAKER IN SPACE '13' OF MDPO.



1 EXISTING HIGHSCHOOL PARTIAL ONE-LINE DIAGRAM
N.T.S.



1 HIGHSCHOOL ADDITION ONE-LINE DIAGRAM
N.T.S.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED

SG1

NOTE 1
MOUNTING FLOOR
FED FROM UTILITY
NOTE 2

VOLTS 240/120V 3P 4W
BUS AMPS 1000
NEUTRAL 100%

AIC 42,000
MAIN BKR 1000
LUGS STANDARD

CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	200/2	PANEL P1	0		0	2"C,2#3/0,#3/0N,#6G
2	200/3	EXISTING	0	0	0	–
3	100/3	EXISTING	0	0	0	–
4	100/3	EXISTING	0	0	0	–
5	200/3	EXISTING DISCONNECT	0	0	0	–
6	225/2	PANEL P2	2.52		3.24	2"C,2#4/0,#4/0N,#4G
7	125/3	SPARE	0	0	0	
8	225/3	SPARE	0	0	0	
9	100/3	SPARE	0	0	0	
10	100/3	SPARE	0	0	0	
		TOTAL CONNECTED KVA BY PHASE	2.52	0	3.24	

	CONN KVA	CALC KVA			CALC KVA
RECEPTACLES	5.76	5.76	(50%>10)	TOTAL LOAD	5.76
				BALANCED 3-PHASE LOAD	13.9 A

SG2

NOTE 1
MOUNTING SURFACE
FED FROM UTILITY
NOTE 2

VOLTS 240/120V 3P 4W
BUS AMPS 800
NEUTRAL 100%

AIC 42,000
MAIN BKR 800
LUGS STANDARD

CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	100/3	EXISTING RTU	0	0	0	–
2	100/3	EXISTING RTU	0	0	0	–
3	100/3	EXISTING RTU	0	0	0	–
4	100/3	EXISTING RTU	0	0	0	–
5	100/3	EXISTING RTU	0	0	0	–
6	100/3	EXISTING RTU	0	0	0	–
7	125/3	SPARE	0	0	0	
8	225/3	SPARE	0	0	0	
9	100/3	SPARE	0	0	0	
10	100/3	SPARE	0	0	0	
		TOTAL CONNECTED KVA BY PHASE	0	0	0	

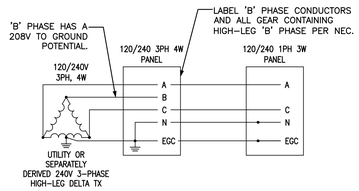
CONN KVA	CALC KVA		CALC KVA
		TOTAL LOAD	0
		BALANCED 3-PHASE LOAD	0 A

SURGE PROTECTIVE DEVICE SCHEDULE						
CALLOUT	MODEL	kA PER PHASE	kA PER MODE	VOLTS	CIRCUIT	WIRE CALLOUT
SPD-EP1	ASCO 510-120Y-P-13-A-C-A-J-2-0	130kA	65kA	208V 3P 4W	EP1-1,3,5	3/4"C,3#10,#10N,#10G
SPD-L1	ASCO 510-120Y-P-13-A-C-A-J-2-0	130kA	65kA	208V 3P 4W	L1-1,3,5	3/4"C,3#10,#10N,#10G
SPD-L2	ASCO 510-120Y-P-13-A-C-A-J-2-0	130kA	65kA	208V 3P 4W	L2-1,3,5	3/4"C,3#10,#10N,#10G
SPD-L3	ASCO 510-120Y-P-13-A-C-A-J-2-0	130kA	65kA	208V 3P 4W	L3-1,3,5	3/4"C,3#10,#10N,#10G
SPD-MDP	ASCO-570-277Y-P-50-A-C-T-G-2-0	500 kA	250 kA	480V 3P 4W	MDP-10	1-1/4"C,3#4,#4N,#10G

NOTES:
1. KEEP CONDUIT RUNS AS SHORT AS POSSIBLE; 5' MAX OVERALL LENGTH.
2. WHEN POSSIBLE, LOCATE SPD AND BREAKER IN CLOSE PROXIMITY TO ONE ANOTHER TO FURTHER LIMIT LEAD LENGTHS.

FEEDER SCHEDULE		
FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
40	3/4"C,1#8,#8N,#10G	INV
125	1-1/2"C,3#1/0,#1/0N,#6G	K2
125	1-1/2"C,3#1/0,#6G	T2
200	2"C,3#3/0,#3/0N	EP2
225	2-1/2"C,3#4/0,#4/0N,#4G	H2, K3
225	2-1/2"C,3#4/0,#4/0N,#2G	L2
250	2"C,3#250kcmil,#4G	T1
400	(2)2"C,3#3/0,#3/0N,#2G	H1, K1, L3
400	(2)2"C,3#3/0,#3/0N,#1/0G	L1
600	(2)3"C,3#350kcmil,#350kcmil N,#2/0G	EP1
800	(3)2-1/2"C,3#300kcmil,#300kcmil N	MDP

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE



240V HIGH-LEG DELTA NOTES:

1. FOR ALL 240V 3-PHASE DELTA SYSTEMS WHERE THE MIDPOINT OF ONE PHASE WINDING IS GROUNDED (I.E. A HIGH LEG DELTA), THE 'B' PHASE MUST BE CONNECTED TO THE PHASE HAVING THE HIGHEST VOLTAGE TO GROUND.
2. PROVIDE DURABLE AND PERMANENT MARKING ON THE 'B' PHASE CONDUCTORS TO INDICATE THE POTENTIAL OF 208V LINE TO GROUND PER NEC 110.15. THIS IDENTIFICATION SHALL BE MADE AT ALL POINTS IN THE SYSTEM WHERE THE NEUTRAL CONDUCTOR IS PRESENT PER NEC 230.56.
3. PROVIDE A PERMANENT LABEL ON ALL GEAR CONTAINING THE HIGH-LEG 'B' PHASE STATING "CAUTION 'B' PHASE HAS 208V TO GROUND" PER NEC 408.3.

3 240V 3-PHASE HIGH-LEG DELTA CONNECTION DETAIL
NO SCALE

EP2

Panel
LOCATION
MOUNTING SURFACE
FED FROM EP1
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 200
NEUTRAL 100%

AIC 42,000
MAIN BKR 200
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	1.27	LIGHTING	a	2	20/1	0.72	RECEPTACLE, SMARTBOARD
3	20/1	0.851	LIGHTING	b	4	20/1	0.72	RECEPTACLE
5	20/1	0.54	RECEPTACLE	c	6	20/1	0.9	RECEPTACLE
7	20/1	0.54	RECEPTACLE	a	8	20/1	0.9	RECEPTACLE, SMARTBOARD
9	20/1	0.72	PLUMBING SENSOR, SINK SENSOR, GFI BREAKER	b	10	20/1	1.08	RECEPTACLE
11	20/1	0.54	RECEPTACLE	c	12	20/1	0.36	DRINKING FOUNTAIN, GFI BREAKER
13	20/1	0.18	RECEPTACLE	a	14	20/1	0.36	J-BOX
15	30/2	5	DRYER	b	16	20/1	0.18	J-BOX
17	|			c	18	20/1	0	EXISTING
19	20/1	0.18	RECEPTACLE	a	20	20/1	0	EXISTING
21	20/1	0.8	REFRIGERATOR	b	22	20/1	0	EXISTING
23	20/1	0.36	RECEPTACLE	c	24	20/1	0	EXISTING
25	20/2	0	SPARE	a	26	20/1	0	EXISTING
27	|			b	28	20/1	0	EXISTING
29	20/1	0.72	RECEPTACLE, SMARTBOARD	c	30	20/1	0	EXISTING
31	20/1	0.54	RECEPTACLE	a	32	20/1	0	EXISTING
33	20/1	0.54	PLUMBING SENSOR, RECEPTACLE, SINK SENSOR, GFI BREAKER	b	34	20/1	0	EXISTING
35	20/1	0.72	RECEPTACLE	c	36	20/1	0	EXISTING
37	20/1	0.72	RECEPTACLE, SMARTBOARD	a	38	20/1	0	EXISTING
39	20/1	0.72	PLUMBING SENSOR, SINK SENSOR, GFI BREAKER, SINK SNESOR, GFI BREAKER	b	40	20/1	0	EXISTING
41	20/1	0.72	RECEPTACLE	c	42	20/1	0	EXISTING
43	20/1	0.98	RECEPTACLE, REFRIGERATOR	a	44	20/1	0	EXISTING
45	20/1	0.36	RECEPTACLE	b	46	20/1	0.18	LIGHTING
47	20/1	0	EXISTING	c	48	20/1	0.36	RECEPTACLE
49	20/1	0	EXISTING	a	50	20/1	0.18	RECEPTACLE
51	20/1	0	EXISTING	b	52	20/1	0.52	EF-4, EF-5, EF-10, EF-11
53	20/1	0	EXISTING	c	54	20/1	0.2	EF-12, EF-13
55	20/1	0	EXISTING	a	56	20/1	0	SPARE
57	20/1	0	EXISTING	b	58	20/1	0	SPARE
59	20/1	0	EXISTING	c	60	20/1	0	SPARE
61	20/1	0	EXISTING	a	62	20/1	0	SPARE
63	20/1	0	EXISTING	b	64	20/1	0	SPARE
65	20/1	0	EXISTING	c	66	20/1	0	SPARE
67	20/1	0	EXISTING	a	68	20/1	0	SPARE
69	20/1	0	EXISTING	b	70	20/1	0	SPARE
71	20/1	0	EXISTING	c	72	20/1	0	SPARE
73	20/1	0	EXISTING	a	74	20/1	0	SPARE
75	20/1	0	EXISTING	b	76	20/1	0	SPARE
77	20/1	0	EXISTING	c	78	20/1	0	SPARE
79	20/1	0	EXISTING	a	80	20/1	0	SPARE
81	20/1	0	EXISTING	b	82	20/1	0	SPARE
83	20/1	0	EXISTING	c	84	20/1	0	SPARE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	2.3	2.87	(125%)	MOTORS	0.72	0.72	(100%)
LARGEST MOTOR	0.13	0.033	(25%)	RECEPTACLES	20.6	15.3	(50%>10)
				TOTAL LOAD		18.9	
				BALANCED 3-PHASE LOAD		52.6 A	
				PHASE A		82.4%	
				PHASE B		117%	
				PHASE C		101%	

P1

Panel
LOCATION
MOUNTING SURFACE
FED FROM SG1
NOTE

VOLTS 240/120V 2P 3W
BUS AMPS 200
NEUTRAL 100%

AIC 42,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0	EXISTING	a	2	20/1	0	EXISTING
3	20/1	0	EXISTING	b	4	20/1	0	EXISTING
5	20/1	0	EXISTING	a	6	20/1	0	EXISTING
7	20/1	0	EXISTING	b	8	20/1	0	EXISTING
9	20/1	0	EXISTING	a	10	20/1	0	EXISTING
11	20/1	0	EXISTING	b	12	20/1	0	EXISTING
13	20/1	0	EXISTING	a	14	20/1	0	EXISTING
15	20/1	0	EXISTING	b	16	20/1	0	EXISTING
17	20/1	0	EXISTING	a	18	20/1	0	EXISTING
19	20/1	0	EXISTING	b	20	20/1	0	EXISTING
21	20/1	0	EXISTING	a	22	20/1	0	EXISTING
23	20/1	0	EXISTING	b	24	20/1	0	EXISTING
25	20/1	0	EXISTING	a	26	20/1	0	EXISTING
27	20/1	0	EXISTING	b	28	40/2	0	EXISTING
29	20/1	0	EXISTING	a	30	|		
31	50/2	0	EXISTING	b	32	20/1	0	EXISTING
33	|			a	34	20/1	0	EXISTING
35	20/1	0	EXISTING	b	36	20/1	0	EXISTING
37	20/1	0	EXISTING	a	38	20/1	0	EXISTING
39	20/1	0	EXISTING	b	40	20/1	0	EXISTING
41	20/1	0	EXISTING	a	42	20/1	0	EXISTING

CONN KVA	CALC KVA		CALC KVA
		TOTAL LOAD	0
		BALANCED LOAD	0 A
		PHASE A	0.00%
		PHASE B	0.00%

P2

Panel
LOCATION
MOUNTING SURFACE
FED FROM SG1
NOTE

VOLTS 240/120V 2P 3W
BUS AMPS 225
NEUTRAL 100%

AIC 42,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0.9	RECEPTACLE, SMARTBOARD	a	2	20/1	0	SPARE
3	20/1	1.08	RECEPTACLE, SMARTBOARD	b	4	20/1	0	SPARE
5	20/1	0.54	RECEPTACLE, SMARTBOARD	a	6	20/1	0	SPARE
7	20/1	0.18	J-BOX	b	8	20/1	0	SPARE
9	20/1	0.72	RECEPTACLE	a	10	20/1	0	SPARE
11	20/1	0.54	RECEPTACLE, SMARTBOARD	b	12	20/1	0	SPARE
13	20/1	0.54	RECEPTACLE	a	14	20/1	0	SPARE
15	20/1	0.72	RECEPTACLE	b	16	20/1	0	SPARE
17	20/1	0.54	RECEPTACLE	a	18	20/1	0	SPARE
19	20/1	0	SPARE	b	20	20/1	0	SPARE
21	20/1	0	SPARE	a	22	20/1	0	SPARE
23	20/1	0	SPARE	b	24	20/1	0	SPARE
25	20/1	0	SPARE	a	26	20/1	0	SPARE
27	20/1	0	SPARE	b	28	20/1	0	SPARE
29	20/1	0	SPARE	a	30	20/1	0	SPARE
31	20/1	0	SPARE	b	32	20/1	0	SPARE
33	20/1	0	SPARE	a	34	20/1	0	SPARE
35	20/1	0	SPARE	b	36	20/1	0	SPARE
37	20/1	0	SPARE	a	38	20/1	0	SPARE
39	20/1	0	SPARE	b	40	20/1	0	SPARE
41	20/1	0	SPARE	a	42	20/1	0	SPARE

	CONN KVA	CALC KVA			CALC KVA
RECEPTACLES	5.76	5.76	(50%>10)	TOTAL LOAD	5.76
				BALANCED LOAD	24 A
				PHASE A	113%
				PHASE B	87.5%

EP1

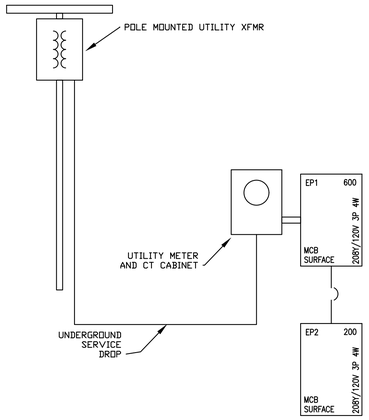
Panel
LOCATION
MOUNTING SURFACE
FED FROM EL UTILITY
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 600
NEUTRAL 100%

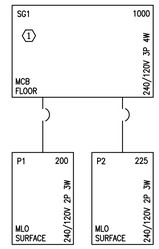
AIC 42,000
MAIN BKR 600
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	30/3	0.1	SPD-EP1	a	2	50/2	0	EXISTING
3	|			b	4	|		EXISTING
5	|			c	6	50/2	0	EXISTING
7	200/3	23.7	PANEL EP2	a	8	|		EXISTING
9	|			b	10	20/3	0	EXISTING
11	|			c	12	|		
13	30/1	1.9	KH-1	a	14	|		
15	20/1	0	SHUNT	b	16	30/3	0	EXISTING
17	50/2	8.4	RANGE	c	18	|		
19	|			a	20	|		
21	20/1	0	SHUNT	b	22	30/2	5	SS-1D
23	50/2	0	EXISTING	c	24	|		
25	|		EXISTING	a	26	30/2	5	SS-1E
27	30/2	0	EXISTING	b	28	|		
29	|		EXISTING	c	30	30/3	5.2	HP-2
31	30/3	0	EXISTING	a	32	|		
33	|		EXISTING	b	34	|		
35	|		EXISTING	c	36	15/2	1.66	SS-2A
37	30/3	0	EXISTING	a	38	|		
39	|		EXISTING	b	40	60/2	8.7	SS-2B
41	|		EXISTING	c	42	|		
43	35/3	6.4	HP-1	a	44	45/2	7.2	SS-2C
45	|			b	46	|		
47	|			c	48	35/3	6.4	HP-3
49	15/2	1.66	SS-1A	a	50	|		
51	|			b	52	|		
53	40/2	6	SS-1B	c	54	15/2	1.66	SS-3A
55	|			a	56	|		
57	30/2	5	SS-1C	b	58	60/2	8.7	SS-3B
59	|			c	60	|		
61	30/3	6.4	HP-4	a	62	45/2	7.2	SS-3C
63	|			b	64	|		
65	|			c	66	20/2	2	HP-5
67	15/2	1.66	SS-4A	a	68	|		
69	|			b	70	15/2	0.864	SS-5A
71	60/2	8.7	SS-4B	c	72	|		
73	|			a	74	40/2	6.4	SS-5B
75	45/2	7.2	SS-4C	b	76	|		
77	|			c	78	20/1	0	SPARE
79	30/2	4.5	WH-E1	a	80	20/1	0	SPARE
81	|			b	82	20/1	0	SPARE
83	20/1	0.696	CP-E1	c	84	20/1	0	SPARE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	2.3	2.87	(125%)	MOTORS	117	117	(100%)
LARGEST MOTOR	8.7	2.18	(25%)	RECEPTACLES	29	19.5	(50%>10)
				TOTAL LOAD		141	
				BALANCED 3-PHASE LOAD		393 A	
				PHASE A		96.4%	
				PHASE B		105%	
				PHASE C		98.7%	



1 ELEMENTARY SCHOOL ADDITION ONE-LINE DIAGRAM
N.T.S.



2 ELEMENTARY SCHOOL RENOVATION ALTERNATE #1 ONE-LINE DIAGRAM
N.T.S.

BWA ARCHITECTS

ALLEN CONSULTING INCORPORATED
ACI Project No. 207.20
CA2192 Expires: 6/30/2021
110 N. Mercedes Dr., Suite 100
Norman, Ok 73069-6578
Ph.(405)447-2282, Fax(405)447-2284

2651 E. 21st Street Suite 510
Tulsa, OK 74114
P 918-491-2208
F 918-491-2209

bwaarchitects.com

Member: American Institute of Architects

LICENSED PROFESSIONAL ENGINEER JESSE BABB 26493 OKLAHOMA 3/4/2021

100%

KETCHUM PUBLIC SCHOOLS
NEW ADDITION & RENOVATION
236 N. FULTON ST.
KETCHUM, OK 74349

ELECTRICAL PANEL SCHEDULE

REVISIONS

NO.	DESCRIPTION	DATE

ISSUE DATE
3.4.21

PROJECT NO.
T19055

SHEET NO.
E510