

**NOTICE: DUTY OF COOPERATION**

Release of these plans contemplates further cooperation among the owner, his or her contractor, and the architect. Design and construction are complex. Although the architect and his/her consultants have performed their services with due care and diligence, they cannot guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a simple notice to the architect shall relieve the architect from responsibility for all consequences. Changes made from the plans without consent of the architect are unauthorized and shall relieve the designer from all consequences arising out of such changes.

100% CONSTRUCTION DOC'S  
JANUARY 7, 2025  
Revisions

**CMC MINI COLLEGE**  
**1402 BLAKE AVE**  
**100% CONSTRUCTION DOC'S**



**Job Site:**  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

**ELECTRICAL -  
COVER SHEET**

**Sheet Number:**

**E0-1**

FIRE ALARM EQUIPMENT LEGEND	
	FIRE ALARM CONTROL PANEL
	FIRE ALARM PULL STATION
	FIRE ALARM HORN
	FIRE ALARM STROBE
	FIRE ALARM HORN/STROBE
	CEILING MOUNTED SPEAKER
	DUCT DETECTOR
	REMOTE LAMP
	SMOKE DETECTOR - PHOTOELECTRIC
	135° STANDARD HEAT DETECTOR
	PIR DETECTOR
	DOOR HOLD - MAGNETIC HOLD
	FLOW SWITCH
	TAMPER SWITCH

COMMUNICATION LEGEND	
	CLOCK ONLY
	CLOCK / PA SPEAKER WALL MOUNTED
	ROUND CEILING MOUNTED SPEAKER
	SQUARE SPEAKER
	INTERCOM PUSH TO CALL SWITCH
	WIRELESS ACCESS POINT ABOVE THE CEILING
	PROJECTOR
	ABOVE THE CEILING PROJECTOR CONNECTION
	WALL MOUNTED HDMI
	PLAIN DATA OUTLET
	PLAIN DATA OUTLET WITH MOUNTING HEIGHT
	COMBINATION DATA/TELEPHONE
	FLOOR MOUNTED COMBINATION DATA/TELEPHONE
	CEILING MOUNTED COMBINATION DATA/TELEPHONE
	TELEVISION OUTLET

SECURITY SYSTEM LEGEND	
	SECURITY CAMERA
	ADA DOOR OPERATOR PUSH BUTTON
	ELECTRIC DOOR STRIKE
	CARD READER FOR DOOR OPERATOR

LIGHTING LEGEND	
<b>NOTES:</b>	
SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON THE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.	
VARIATION AND/OR COMBINATION MAY BE USED ON THE PLANS.	
A NUMBER NEXT TO A RECEPTACLE OR DEVICE INDICATES A CIRCUIT NUMBER.	
AN UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE FUNCTION OF THE SWITCH. A LOWER CASE LETTER INDICATES THE SWITCH CIRCUIT.	
AN UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE. REFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS. A LOWER CASE LETTER NEXT TO A LIGHT CORRESPONDS TO THE SWITCH DESIGNATION.	

SWITCHES	
	SINGLE POLE SWITCH
	TWO POLE SWITCH
	THREE-WAY SWITCH
	FOUR-WAY SWITCH
	DIMMER SWITCH
	3 WAY DIMMER SWITCH - (4D INDICATES A 4WAY DIMMER)
	DOOR ACTIVATED SWITCH
	WALL MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR SWITCH
	LOW VOLTAGE LIGHT SWITCH
	MANUAL MOTOR STARTER
	PILOT LIGHT SWITCH
	AUTO ON / AUTO OFF LIGHT SWITCH
	DUAL TECHNOLOGY MOTION / OCCUPANCY SENSOR LIGHT SWITCH
	MANUAL ON / AUTO OFF DIMMING LIGHT SWITCH
	KEY OPERATED LIGHT SWITCH
	MANUAL ON - TIMED OFF LIGHT SWITCH
	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH
	CEILING MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR
	CEILING MOUNTED DAYLIGHT HARVESTING SENSOR
	SCENE CONTROL STATION
	UNIT LIGHTING MANAGEMENT CONTROL STATION

LIGHT FIXTURES	
	1'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	2'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	OPEN STRIP FIXTURE
	WALL BRACKET LINEAR FIXTURE
	WALL MOUNTED SCONCE LIGHT FIXTURE
	RECESSED DOWNLIGHT CAN FIXTURE
	SURFACE CEILING OR PENDANT MOUNTED FIXTURE
	DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
	SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
	WALL MOUNTED EMERGENCY LIGHT
	EMERGENCY EXTERIOR EGRESS FIXTURE

**GENERAL ELECTRICAL NOTES:**

- ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC, IEC AND ALL APPLICABLE GOVERNING CODES.
  - FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES.
  - ELECTRIC UTILITY TO ADVISE OWNER AND/OR THE ELECTRICAL ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.
- WRING:**
- ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING. FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN.
  - ALL CONDUITS AND CONVEYANCES SHALL BE CONCEALED. IN THE EVENT THAT A NEW DEVICE IS BEING INSTALLED IN AN EXISTING DRYWALL PARTITION, PROVIDE A CUT IN TYPE BOX AND FISH FLEXIBLE CONDUIT DOWN INSIDE THE WALL FROM ABOVE THE CEILING AND REPAIR THE DRYWALL AROUND THE CONDUIT. TRANSITION TO EMT ONCE ABOVE THE CEILING.
  - SIZES OF WIRE AND CABLES ARE BASED UPON COPPER CONDUCTORS, UNLESS OTHERWISE INDICATED. ALL CIRCUITS SHALL CONTAIN (2) #12 AWG WITH (1) #12 GND IN 1/2" CONDUIT UNLESS NOTED OTHERWISE.
  - ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE SIZE LARGER.
  - ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE STOPPED IN SUCH A WAY THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL.
  - THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN THE APPROPRIATE DISCIPLINES AND CONTRACTORS.
  - COORDINATE ALL DEVICE, FIXTURE AND HARDWARE COLOR SELECTIONS WITH THE ARCHITECT PRIOR TO MAKING SHOP DRAWING SUBMITTALS.
  - COORDINATE THE MOUNTING HEIGHTS OF ALL RECEPTACLES MOUNTED ABOVE COUNTERS, CASEWORK AND APPLIANCE RECEPTACLES WITH ARCHITECTURAL ELEVATIONS.
  - BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN FINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN SURFACE MOUNTED RACEWAY.
  - ALL EXPOSED CONDUITS, BOXES, ETC. IN ROOMS TO BE PAINTED SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE. EXPOSED CONDUITS, BOXES, ETC. IN ROOMS WHICH ARE NOT PAINTED MAY BE LEFT UN-PAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE AS CLOSELY AS POSSIBLE.
  - THE CONTRACTOR IS RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, CEILING OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION AND/OR INSTALLATION OF ELECTRICAL WORK.
  - PROVIDE ELECTRICAL CONNECTION TO ALL FIRE, SMOKE, AND FIRE / SMOKE DAMPERS INCLUDING POWER AND FIRE ALARM. VERIFY EXACT SIZE AND FINAL LOCATION OF ALL DAMPERS WITH THE MECHANICAL CONTRACTOR. ALL ROOFTOP UNITS RATED AT MORE THAN 2000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN THE RETURN DUCT. ALL ROOFTOP UNITS RATED AT MORE THAN 15000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT AT ROOFTOP LEVEL AND IN THE RETURN DUCT AT EVERY LEVEL THAT IS SERVED. ELECTRICAL CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND ALL WIRING NECESSARY TO COMPLETE INSTALLATION.
  - REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH PLUMBING AND HVAC EQUIPMENT AND OWNER/GENERAL CONTRACTOR FURNISHED EQUIPMENT.

ELECTRICAL EQUIPMENT LEGEND	
	BRANCH CIRCUIT PANELBOARD
	TELEPHONE TERMINAL BOARD
	ELECTRIC MOTOR
	FUSED SAFETY SWITCH / DISCONNECT COMBINATION
	MOTOR STARTER
	CONTACTOR
	CIRCUITRY HOMERUN: PANEL LA - CIR. #7
	CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE)
	CONDUIT OR WIRE UNDERFLOOR/UNDERGND. (CENTER LINE TYPE)

MAIN DISTRIBUTION GEAR	
	CIRCUIT BREAKER IN A PANEL BOARD
	PAD MOUNTED UTILITY TRANSFORMER
	FUSED DISCONNECT 100A = AMP RATING 2P = NUMBER OF POLES
	FUSED DISCONNECT 2 POLE
	ELECTRICAL METER SHOWN ON ONE-LINE DIAGRAMS
	ELECTRICAL POWER PANEL WITH MAIN LUG OR MAIN BREAKER PPI = PANEL NAME 225A MLO = MAIN LUG OR BREAKER SIZE 120/208V = PANEL VOLTAGE 3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE
	PP1 225A MCB 120/208V 3PH, 4W
	PP1 225A MLO 120/208V 3PH, 4W

ELECTRICAL DEVICE LEGEND	
	CEILING JUNCTION BOX - SURFACE/FLUSH
	WALL JUNCTION BOX - SURFACE/FLUSH
	DUPLEX RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	SPLIT WIRED DUPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	FLOOR MOUNTED FOURPLEX RECEPTACLE
	APPLIANCE RECEPTACLE - 3 WIRE
	DUPLEX RECEPTACLE
	FOURPLEX RECEPTACLE
<b>ABBREVIATIONS PERTAIN TO ALL DUPLEX AND FOURPLEX RECEPTACLES:</b>	
	ABOVE COUNTER
	AC GROUND FAULT CIRCUIT INTERRUPTER
	ABOVE COUNTER WITH USB PORT
	ARC FAULT PROTECTED
	ARC FAULT PROTECTED WITH USB PORT
	ARC FAULT WITH GROUND FAULT CIRCUIT INTERRUPTER
	DEDICATED RECEPTACLE
	DEDICATED RECEPTACLE WITH USB PORT
	RECEPTACLE CIRCUITED TO THE EMERGENCY PANEL WITH RED COVER PLATE
	GROUND FAULT CIRCUIT INTERRUPTER
	WEATHER PROOF GROUND FAULT CIRCUIT INTERRUPTER
	PLUG LOAD
	ELECTRIC HAND DRYER
	THERMOSTAT
	OPEN/CLOSE/STOP PUSH BUTTON
	DRAWING KEY NOTES
	ROOM DESIGNATION

**LUMINAIRES:**

- COORDINATE THE LOCATION OF ALL LIGHTING EQUIPMENT INCLUDING BUT NOT LIMITED TO THE LUMINAIRES, SWITCHES WITH THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND ALL OTHER TRADES AS REQUIRED. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONAL LOCATION OF LIGHT FIXTURES.
- LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.
- THE ELECTRICAL CONTRACTOR IS TO CONFIRM THE LIGHT FIXTURES ORDERED WILL BE COMPATIBLE WITH THE CEILING TYPES AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING THE FIXTURES.
- VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT MOUNTED FIXTURES PRIOR TO ORDERING.
- ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND CONTROLS BEING PROVIDED.
- THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH THE ARCHITECT AND ENGINEER AS APPROVED EQUAL BEFORE BID. NO LIGHT FIXTURE SHALL BE ORDERED UNTIL THE LIGHT FIXTURE SUBMITTAL PACKAGE HAS BEEN APPROVED IN WRITING BY THE ARCHITECT, GENERAL CONTRACTOR AND ELECTRICAL ENGINEER.
- COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING ORDER.

**RESPONSIBLE DIVISION:**

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23	23	26	--
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	--
MANUAL OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

**SUBSCRIPT FOOTNOTES:**

- MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.
- IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23. CONNECT UNDER DIVISION 26.

**ABBREVIATIONS:**

44"	MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DIA	DIAMETER
A	AMPS	DIAG	DIAGRAM
A.D.	ACCESS DOOR	DIFF	DIFFERENTIAL
AAV	AIR ADMITTANCE VALVE	DISCH	DISCHARGE
ABV	ABOVE	DIV	DIVISION
AC	AIR CONDITIONING UNIT	DN	DOWN
AC	ABOVE COUNTER	DS	DUCT SILENCER
AD	AREA DRAIN (SEE SYMBOLS)	DWG	DRAWING
A.F.C.	ABOVE FINISHED CEILING	DX	DIRECT EXPANSION
A.F.G.	ABOVE FINISHED GRADE	(E)	EXISTING
AIC	AMPERE INTERRUPTING CAPACITY	EA	EXHAUST AIR GRILLE/REGISTER
AFCI	ARC FAULT CIRCUIT INTERRUPTERS	EAT	ENTERING AIR TEMPERATURE
A.F.F.	ABOVE FINISHED FLOOR	EC	ELECTRICAL CONTRACTOR
AHU	AIR HANDLING UNIT	EC	ELECTRICAL CONTRACTOR
ALUM	ALUMINUM	EFF	ECCENTRIC
AP	ACCESS PANEL OR DOOR	EFC	EXHAUST FAN
ATS	AUTOMATIC TRANSFER SWITCH	EFF	EFFICIENCY
AV	AUDIO / VIDEO	EL	ELEVATION
AVG	AVERAGE	ELEC	ELECTRIC
AWG	AMERICAN WIRE GAGE	ELEV	ELEVATOR
BAS	BUILDING AUTOMATION SYSTEM	EM	EMERGENCY FUNCTION
BB	BASEBOARD	ENT	ENTERING
BD	BACK DRAFT DAMPER	EQ	ELECTRIC METALLIC TUBE
BFP	BACK FLOW PREVENTOR	EQ	EQUAL
BL	BOILER	EQUIP	EQUIPMENT
BLDG	BUILDING	EQUIV	EQUIVALENT
BLW	BELOW	ESP	END SWITCH
BOB	BOTTOM OF BEAM	ES	EXTERNAL STATIC PRESSURE
BOD	BOTTOM OF DUCT	ET	EXPANSION TANK
BOP	BOTTOM OF PIPE	EWC	ELECTRIC WATER COOLER
BSMT	BASEMENT	EWT	ENTERING WATER TEMPERATURE
BTU	BRITISH THERMAL UNIT	EX	EXHAUST
C	CHILLER	EXPN	EXPANSION
CAFCEI	COMBINATION ARC FAULT CIRCUIT INTERRUPTERS	EXT	EXTERNAL
CAP	CAPACITY	F	DEGREES FAHRENHEIT
CB	CIRCUIT BREAKER	FA	FREE AREA
CBV	CIRCUIT BALANCING VALVE	FC	FAN COIL UNIT
CCT	CORRELATED COLOR TEMPERATURE	FD	FLOOR DRAIN
CKT	CIRCUIT	FD	FLOOR DRAIN
CFH	CUBIC FEET PER HOUR	FIN	FINISHED
CFM	CUBIC FEET PER MINUTE	FLX	FLEXIBLE
CHWR	CHILLED WATER RETURN	FLR	FLOOR
CHWS	CHILLED WATER SUPPLY	FOB	FLAT ON BOTTOM
CJ	CAST IRON	FOF	FLAT ON TOP
CL	CENTER LINE	FP	FIRE PROTECTION
CLG	CEILING	FR	FIRE PUMP
CMU	CONCRETE MASONRY UNIT	FPM	FEET PER MINUTE
CO	CLEAN OUT	FPS	FEET PER SECOND
COL	COLUMN	FS	FLOW SWITCH
COMP	COMPRESSOR	FSD	FIRE/SMOKE DAMPER
CONC	CONCRETE	FT	FEET
COND	CONDENSATE	FXC	FLEXIBLE CONNECTION
CONN	CONNECTION	GND	GROUND
CONT	CONTINUATION	GAL	GALLON
CONTR	CONTRACTOR	GALV	GALVANIZED
CRI	COLOR RENDERING INDEX	GALV	GALVANIZED
CT	COOLING TOWER	CONDUCTOR	CONDUCTOR
CT	CURRENT TRANSFORMER	GFCI / GFI	GROUND FAULT CIRCUIT INTERRUPTER
CU	CONDENSING UNIT	GC	GENERAL CONTRACTOR
CU	COPPER	GPH	GALLONS PER HOUR
CUH	CABINET UNIT HEATER	GPM	GALLONS PER MINUTE
CVB	CONSTANT VOLUME BOX	GRS/LB	GRAMS PER POUND
CWR	CONDENSER WATER RETURN	H <sub>2</sub> O	WATER
CWS	CONDENSER WATER SUPPLY	HOSE	BISS
DB	DRY BULB	HD	HEAD (SEE SCHEDULES)
DEPT	DEPARTMENT	HP	HEAT PUMP
DF	DRINKING FOUNTAIN		

**SUBSTITUTIONS:**

A. SUBSTITUTIONS, SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

**EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:**

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIATED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

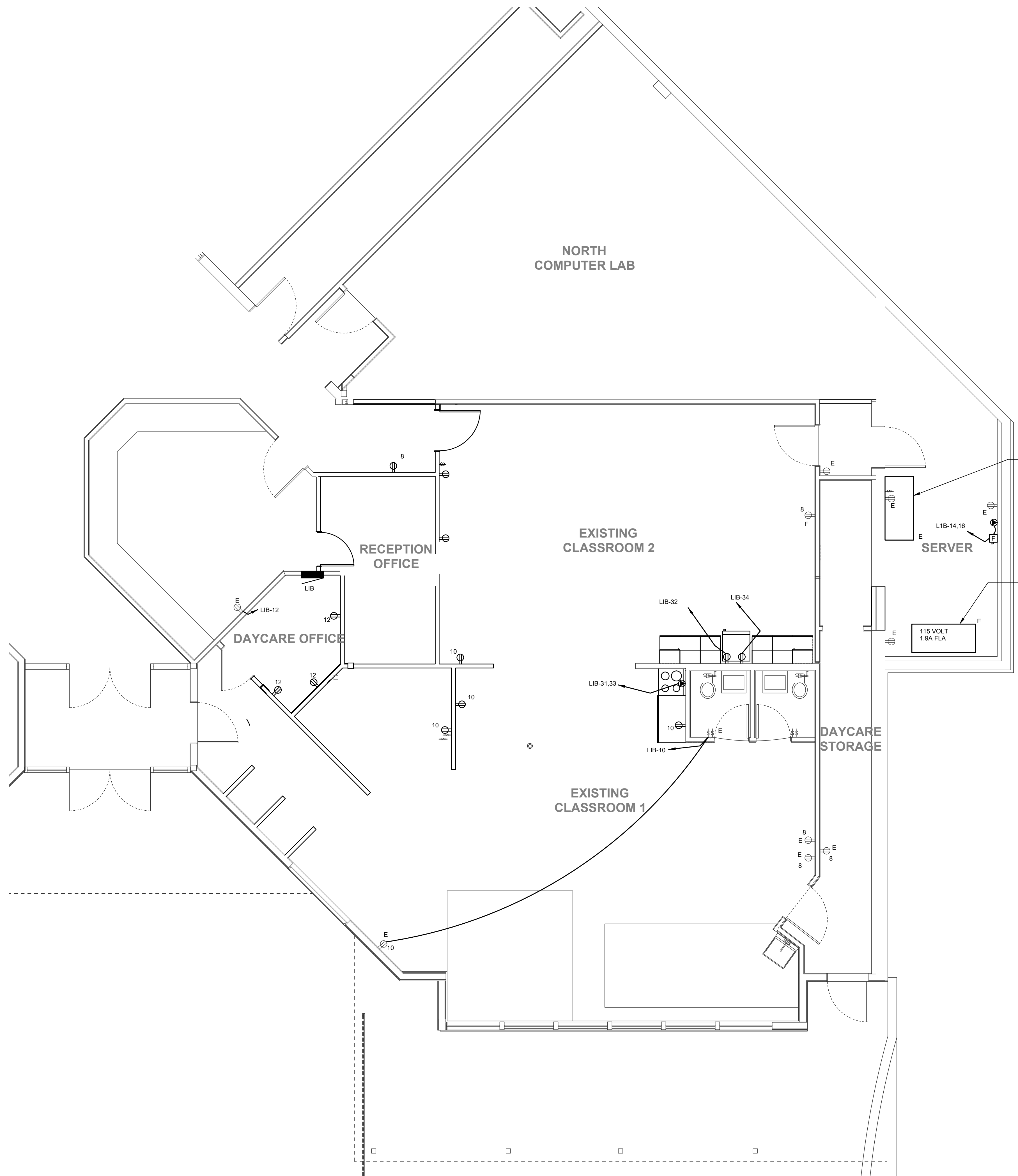
HP	HORSEPOWER	PTAC	PACKAGED TERMINAL AIR CONDITIONER
HR</			



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 Revisions



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**1402 BLAKE AVE**  
**100% CONSTRUCTION DOC'S**



**Job Site:**  
 1402 BLAKE AVE  
 GLENWOOD SPRINGS,  
 COLORADO 81601

**ELECTRICAL -**  
**EXISTING FLOOR PLAN**

**Sheet Number:**

**ED2-1**

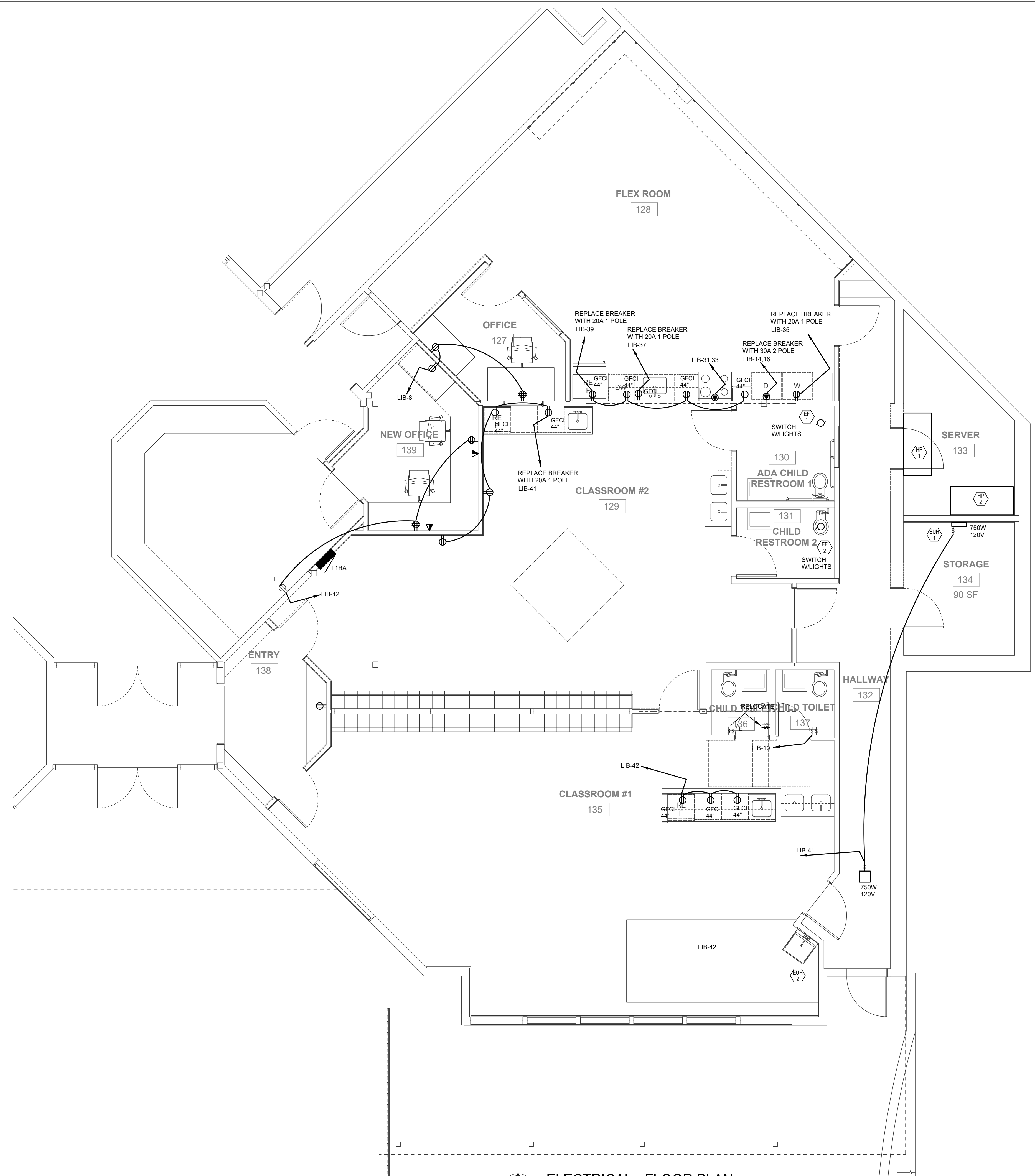
**ELECTRICAL - EXISTING FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH



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**ELECTRICAL - FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH

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**Job Site:**  
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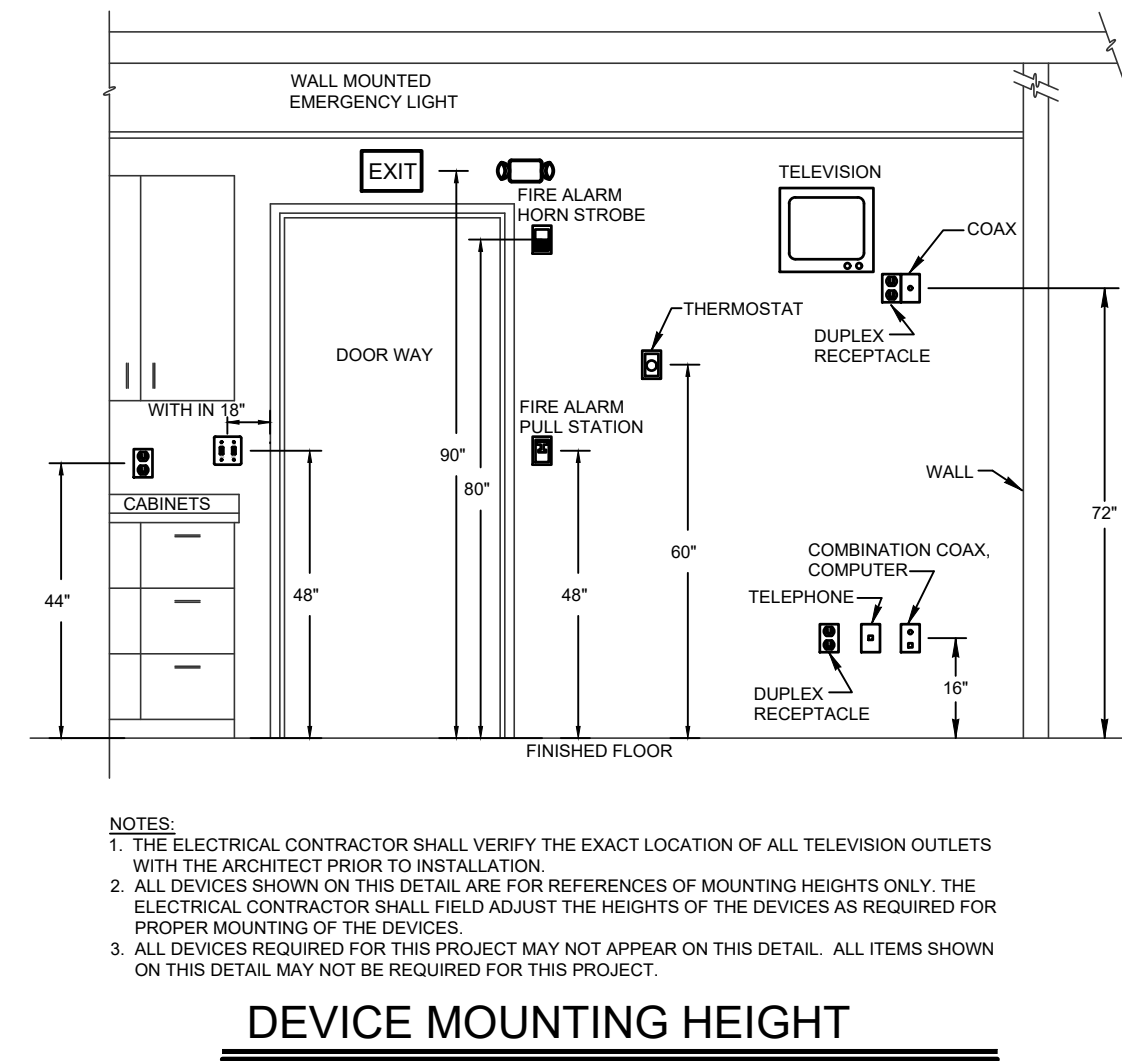
**ELECTRICAL - FLOOR PLAN**

**Sheet Number:**

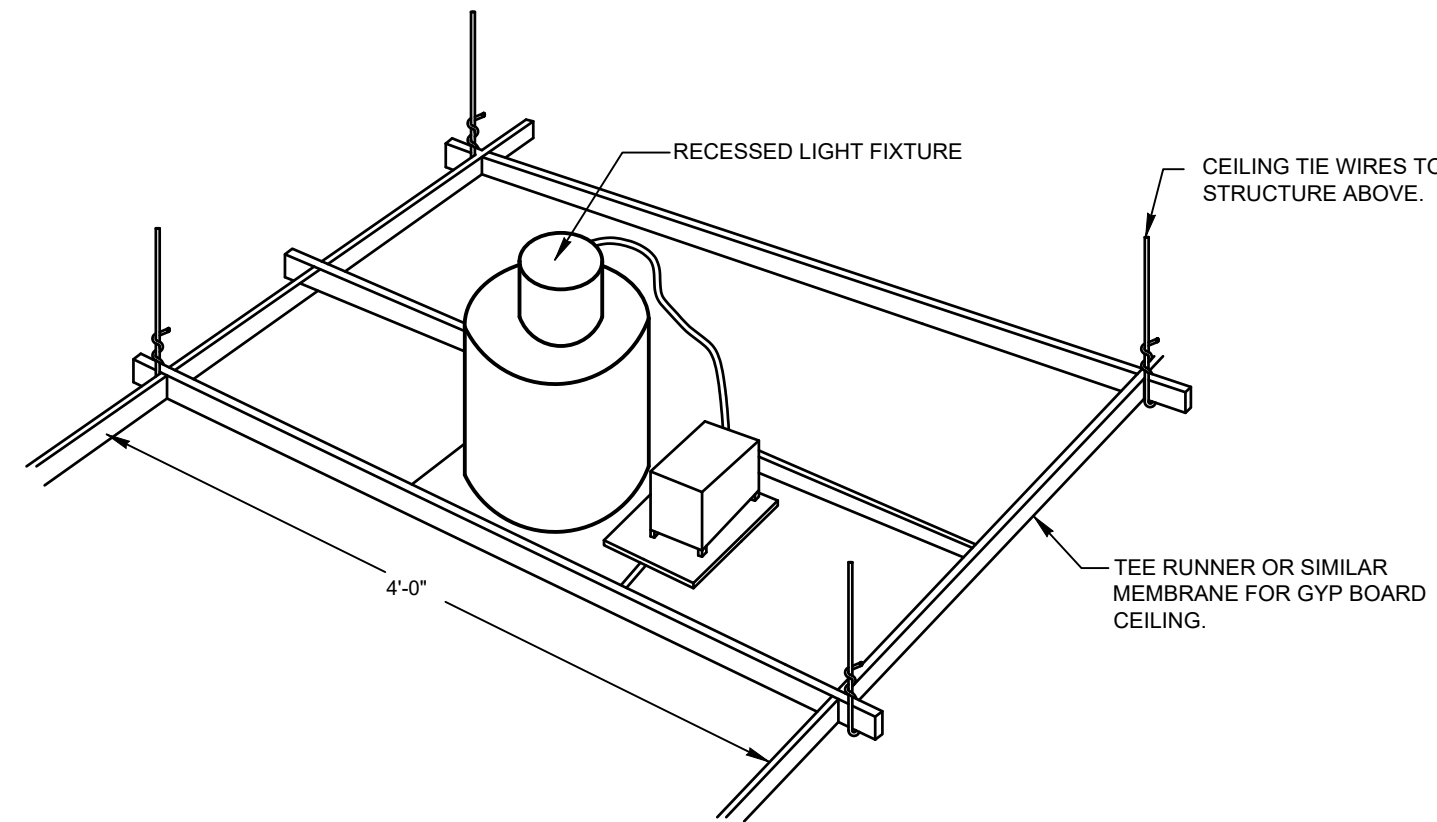
**E2-1**

PANEL SCHEDULE -		LIB	TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD 120/208 NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:			150 NONE FLUSH	PHASES: WIRES: SC RATING:	3 4 10000	NEUTRAL BUS: GROUND BUS:	YES YES
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION				
LIGHTING	LITES RSVP	20A 1P	1 500	A	2 500	20A 1P	RECEPTACLE	OUTLETS RSVP				
LIGHTING	LITES COMPUTER ROOM	20A 1P	3 500	B	4 500	20A 1P	RECEPTACLE	OUTLETS CENTRAL RSVP				
LIGHTING	LITES MINI COLLEGE	20A 1P	5 500	C	6 500	20A 1P	RECEPTACLE	N & E RSVP, N & W LIBRARY				
RECEPTACLE	SOUTH MINI COLLEGE	20A 1P	7 500	A	8 1000	20A 1P	RECEPTACLE	COMPUTER LAB				
RECEPTACLE	MINI COLLEGE EXCEPT SOUTH	20A 1P	9 500	B	10 500	20A 1P	RECEPTACLE	LIBRARY SOUTH				
RECEPTACLE	FAR EAST FIRST FLOOR	20A 1P	11 500	C	12 500	20A 1P	RECEPTACLE	MINI COLLEGE OFFICE A W POTTERY				
LIGHTING	LITES ELEVATOR ROOM & OUTLET	20A 1P	13 500	A	14 500	40A 2P	MISCELLANEOUS	SERVER UPS				
LIGHTING	LITES ELEVATOR CAR	20A 1P	15 500	B	16 500	---	MISCELLANEOUS	---				
RECEPTACLE	NEW WALL WEST LAB 2	20A 1P	17 500	C	18 1000	20A 1P	LIGHTING	LITES POTTERY TRACK LITES				
MISCELLANEOUS	DEDICATED LINE SERVER	20A 1P	19 500	A	20 2500	50A 2P	MISCELLANEOUS	KILN				
MISCELLANEOUS	XEROX	20A 1P	21 1000	B	22 2500	---	MISCELLANEOUS	---				
MISCELLANEOUS	SERVER UPS	30A 1P	23 1000	C	24 2500	30A 2P	MISCELLANEOUS	WATER HEATER				
MISCELLANEOUS	LIBRARY_RSVP	20A 1P	25 1000	A	26 2500	---	MISCELLANEOUS	---				
RECEPTACLE	MINI COLLEGE SO OUTLET	20A 1P	27 500	B	28 1000	20A 2P	MISCELLANEOUS	UNKOWN				
RECEPTACLE	RECEPTION DESK	20A 1P	29 500	C	30 1000	---	MISCELLANEOUS	---				
APPLIANCE	RANGE MINI COLLEGE	40A 2P	31 2000	A	32 500	20A 1P	RECEPTACLE	REFRIG MINI COLLEGE				
APPLIANCE	---	---	33 2000	B	34 1000	20A 1P	APPLIANCE	MINI COLLEGE MICROWAVE				
SPARE	UNALLOCATED FUTURE	15A 1P	35 200	C	36 5000	---	MECH YEAR ROUND	---				
SPARE	UNALLOCATED FUTURE	15A 1P	37 200	A	38 5000	60A 3P	MECH YEAR ROUND	ROOF TOP UNIT				
SPARE	UNALLOCATED FUTURE	15A 1P	39 200	B	40 5000	---	MECH YEAR ROUND	---				
SPARE	UNALLOCATED FUTURE	20A 1P	41 200	C	42 100	20A 1P	SPARE	UNALLOCATED FUTURE				
LOADS BY TYPE:												
LOAD TYPE	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)	PHASE	CONNECTED LOAD (VA)	CONNECTED LOAD (AMPS)	BALANCE (PERCENT)					
LIGHTING	3500.00	1.25	4375.00	A	17700.00	147.50	A-B: 91.5					
KITCHEN	0.00	0.00	0.00	B	16200.00	135.00	B-C: 86.4					
PROCESS	0.00	1.00	0.00	C	14000.00	116.67	C-A: 79.1					
RECEPTACLES	7000.00	1.00	7000.00	TOTAL/AVERAGE	47900.00	133.06	85.7					
MECH HEATING	0.00	1.00	0.00									
MECH COOLING	0.00	1.00	0.00									
MECH YEAR ROUND	15000.00	1.00	15000.00									
APPLIANCE	5000.00	1.00	5000.00									
MISCELLANEOUS	16500.00	1.00	16500.00									
MOTOR	0.00	1.00	0.00									
SPARE	900.00	1.00	900.00									
LARGEST MOTOR 1	ABOVE	0.25	3750.00									
TOTAL	47900.00		52525.00									

PANEL SCHEDULE -		L1BA	TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD 120/208 NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:			150 NONE FLUSH	PHASES: WIRES: SC RATING:	3 4 10000	NEUTRAL BUS: GROUND BUS:	YES YES
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION				
LIGHTING	LITES RSVP	20A 1P	1 500	A	2 500	20A 1P	RECEPTACLE	OUTLETS RSVP				
LIGHTING	LITES COMPUTER ROOM	20A 1P	3 500	B	4 500	20A 1P	RECEPTACLE	OUTLETS CENTRAL RSVP				
LIGHTING	LITES MINI COLLEGE	20A 1P	5 500	C	6 500	20A 1P	RECEPTACLE	N & E RSVP, N & W LIBRARY				
RECEPTACLE	SOUTH MINI COLLEGE	20A 1P	7 500	A	8 1000	20A 1P	RECEPTACLE	COMPUTER LAB				
RECEPTACLE	MINI COLLEGE EXCEPT SOUTH	20A 1P	9 500	B	10 500	20A 1P	RECEPTACLE	LIBRARY SOUTH				
RECEPTACLE	FAR EAST FIRST FLOOR	20A 1P	11 500	C	12 500	20A 1P	RECEPTACLE	MINI COLLEGE OFFICE A W POTTERY				
LIGHTING	LITES ELEVATOR ROOM & OUTLET	20A 1P	13 500	A	14 500	40A 2P	MISCELLANEOUS	SERVER UPS				
LIGHTING	LITES ELEVATOR CAR	20A 1P	15 500	B	16 500	---	MISCELLANEOUS	---				
RECEPTACLE	NEW WALL WEST LAB 2	20A 1P	17 500	C	18 1000	20A 1P	LIGHTING	LITES POTTERY TRACK LITES				
MISCELLANEOUS	DEDICATED LINE SERVER	20A 1P	19 500	A	20 2500	50A 2P	MISCELLANEOUS	KILN				
MISCELLANEOUS	XEROX	20A 1P	21 1000	B	22 2500	---	MISCELLANEOUS	---				
MISCELLANEOUS	SERVER UPS	30A 1P	23 1000	C	24 2500	30A 2P	MISCELLANEOUS	WATER HEATER				
MISCELLANEOUS	LIBRARY_RSVP	20A 1P	25 1000	A	26 2500	---	MISCELLANEOUS	---				
RECEPTACLE	MINI COLLEGE SO OUTLET	20A 1P	27 500	B	28 1000	20A 2P	MISCELLANEOUS	UNKOWN				
RECEPTACLE	RECEPTION DESK	20A 1P	29 500	C	30 1000	---	MISCELLANEOUS	---				
APPLIANCE	FLEX ROOM 128 DRYER	40A 2P	31 2000	A	32 500	20A 1P	RECEPTACLE	REFRIG MINI COLLEGE				
APPLIANCE	---	---	33 2000	B	34 1000	20A 1P	APPLIANCE	MINI COLLEGE MICROWAVE				
APPLIANCE	FLEX ROOM WASHING MACH	20A 1P	35 1200	C	36 5000	---	MECH YEAR ROUND	---				
APPLIANCE	FLEX RM 128 DISHWASHER	20A 1P	37 1000	A	38 5000	60A 3P	MECH YEAR ROUND	ROOF TOP UNIT				
RECEPTACLE	FLEX ROOM 128 COUNTER	20A 1P	39 200	B	40 5000	---	MECH YEAR ROUND	---				
MECH HEATING	UNITS EUH-1 & 2	20A 1P	41 1500	C	42 540	20A 1P	RECEPTACLE	CLASSROOM 135 COUNTER				
LOADS BY TYPE:												
LOAD TYPE	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)	PHASE	CONNECTED LOAD (VA)	CONNECTED LOAD (AMPS)	BALANCE (PERCENT)					
LIGHTING	3500.00	1.25	4375.00	A	18500.00	154.17	A-B: 87.6					
KITCHEN	0.00	0.00	0.00	B	16200.00	135.00	B-C: 96.8					
PROCESS	0.00	1.00	0.00	C	16740.00	139.50	C-A: 90.5					
RECEPTACLES	7740.00	1.00	7740.00	TOTAL/AVERAGE	51440.00	142.89	91.6					
MECH HEATING	1500.00	1.00	1500.00									
MECH COOLING	0.00	1.00	0.00									
MECH YEAR ROUND	15000.00	1.00	15000.00									
APPLIANCE	7200.00	1.00	7200.00									
MISCELLANEOUS	16500.00	0.50	8250.00									
MOTOR	0.00	1.00	0.00									
SPARE	0.00	1.00	0.00									
LARGEST MOTOR 1	ABOVE	0.25	3750.00									
TOTAL	51440.00		47815.00									



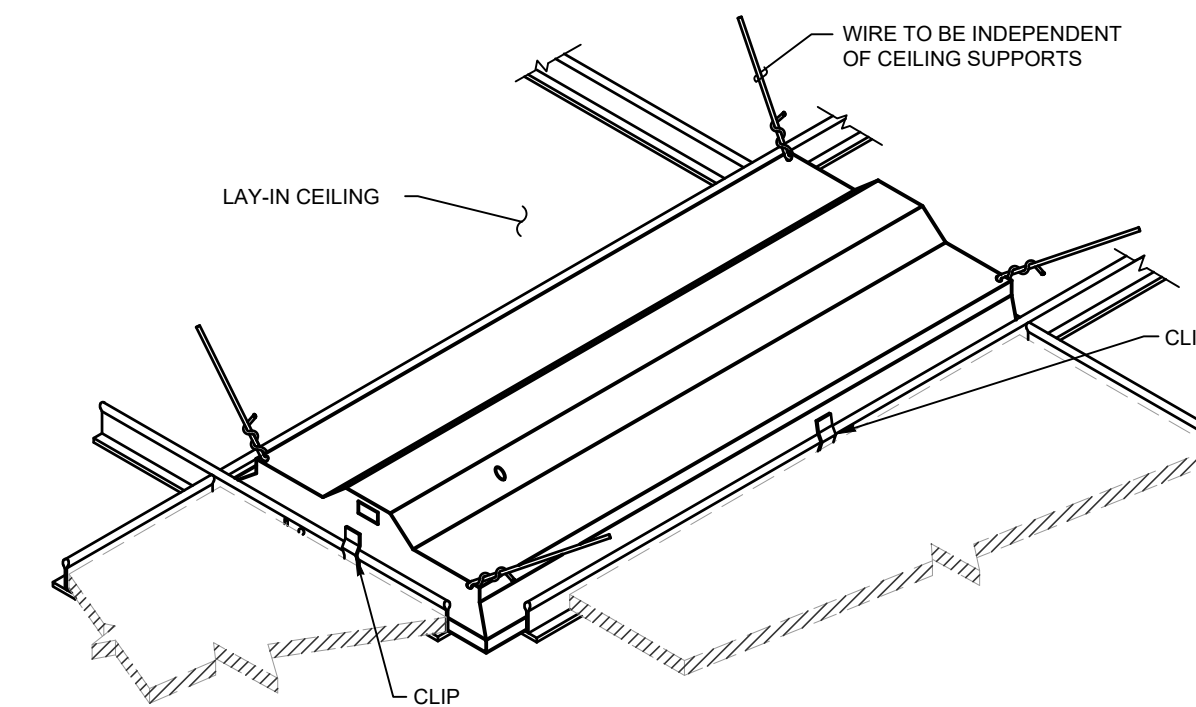
DEVICE MOUNTING HEIGHT



RECESSED LIGHT FIXTURE DETAIL

SCALE: NOT TO SCALE

- NOTE:
- ALL GRID MOUNTED FIXTURES ARE TO BE SUPPORTED FROM THE STRUCTURE ABOVE.
  - 200lb TEST WIRE HANGER AT EACH CORNER OF FIXTURE (TOTAL OF 4) OR 1 CADDY CLIP 515 PER SIDE (TOTAL OF 4)
  - TYPICAL ALL GRID MOUNTED FIXTURES.



NOTICE: DUTY OF COOPERATION

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JANUARY 7, 2025  
Revisions

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1402 BLAKE AVE  
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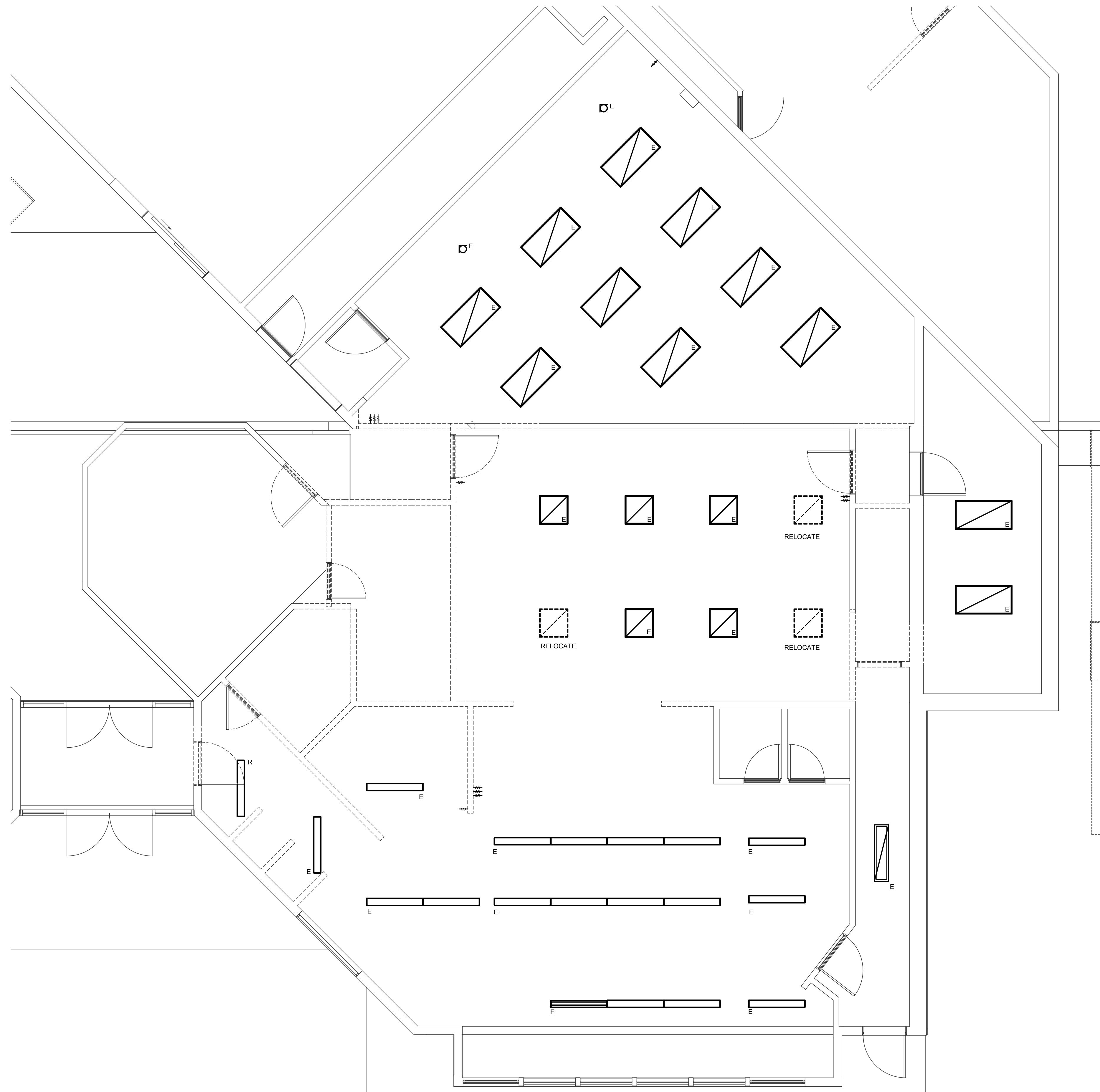
Job Site:  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

ELECTRICAL -  
DETAILS

Sheet Number:

E3-1






**LIGHTING - DEMOLITION FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"



**Land+Shelter**  
 ARCHITECTURE AND PLANNING  
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 t 970.963.0201 info@landandshelter.com

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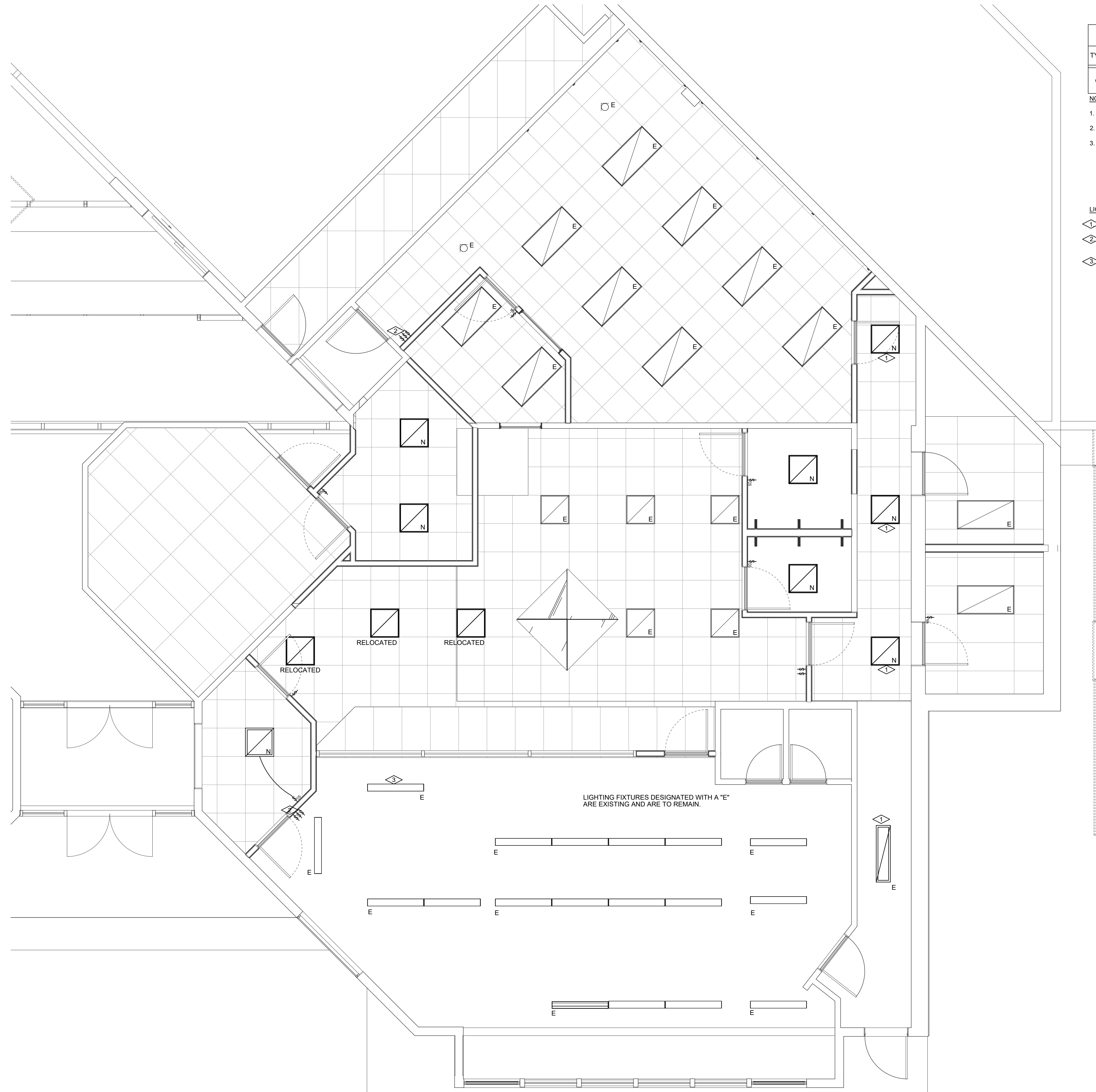
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**Job Site:**  
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 GLENWOOD SPRINGS,  
 COLORADO 81601

LIGHTING -  
 DEMOLITION FLOOR PLAN

**Sheet Number:**  
**ED1-1**



LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER CATALOG NO.	ALTERNATE MANUFACTURER	VOLTAGE MOUNTING	DRIVER LAMP SPECIFICATION	
G1	COOPER METALUX ACHIEVA SELECTABLE 22ARS-L3C3-SQR-UNV	APPROVED EQUIVALENT	120V SURFACE	0-10V LED DIMMING 3500K, 4209LM, 80CRI, 33.6W	2'X2' LED GRID TROFFER WITH SELECTABLE LUMENS AND CCT

**NOTES:**

1. CONTRACTOR TO MATCH EXISTING FIXTURES WITH NEW. FIXTURE SELECTED APPEARS SIMILAR TO FIXTURE IN FIELD. CONTRACTOR MAY SUBMIT ALTERNATES TO ENGINEER FOR REVIEW AND APPROVAL.
2. CONTRACTOR TO ADJUST SETTINGS TO MATCH EXISTING LIGHTING IN AREAS WITH NEW INSTALLED LIGHTS. HIGH OUTPUT WAS USED FOR PURPOSES OF CIRCUITING CALCULATIONS ONLY.
3. PROVIDE ALL APPURTENANCES REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM.

**LIGHTING PLAN KEYED NOTES**

- 1. EXISTING HALLWAY CONTROL TO BE EXTENDED TO NEW HALLWAY LIGHTS.
- 2. EXISTING LIGHTING CONTROLS FOR CLASSROOM/FLEX ROOM TO BE RELOCATED TO THIS LOCATION. CONTRACTOR TO MAINTAIN EXISTING CONTROL SCHEME FOR NEW SWITCH LOCATION.
- 3. CONNECT THIS EXISTING LIGHT TO EXISTING REAR LIGHTING CONTROL ZONE IN CLASSROOM.



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 GLENWOOD SPRINGS,  
 COLORADO 81601

LIGHTING -  
 FLOOR PLAN

Sheet Number:

**E1-1**

**LIGHTING - FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH

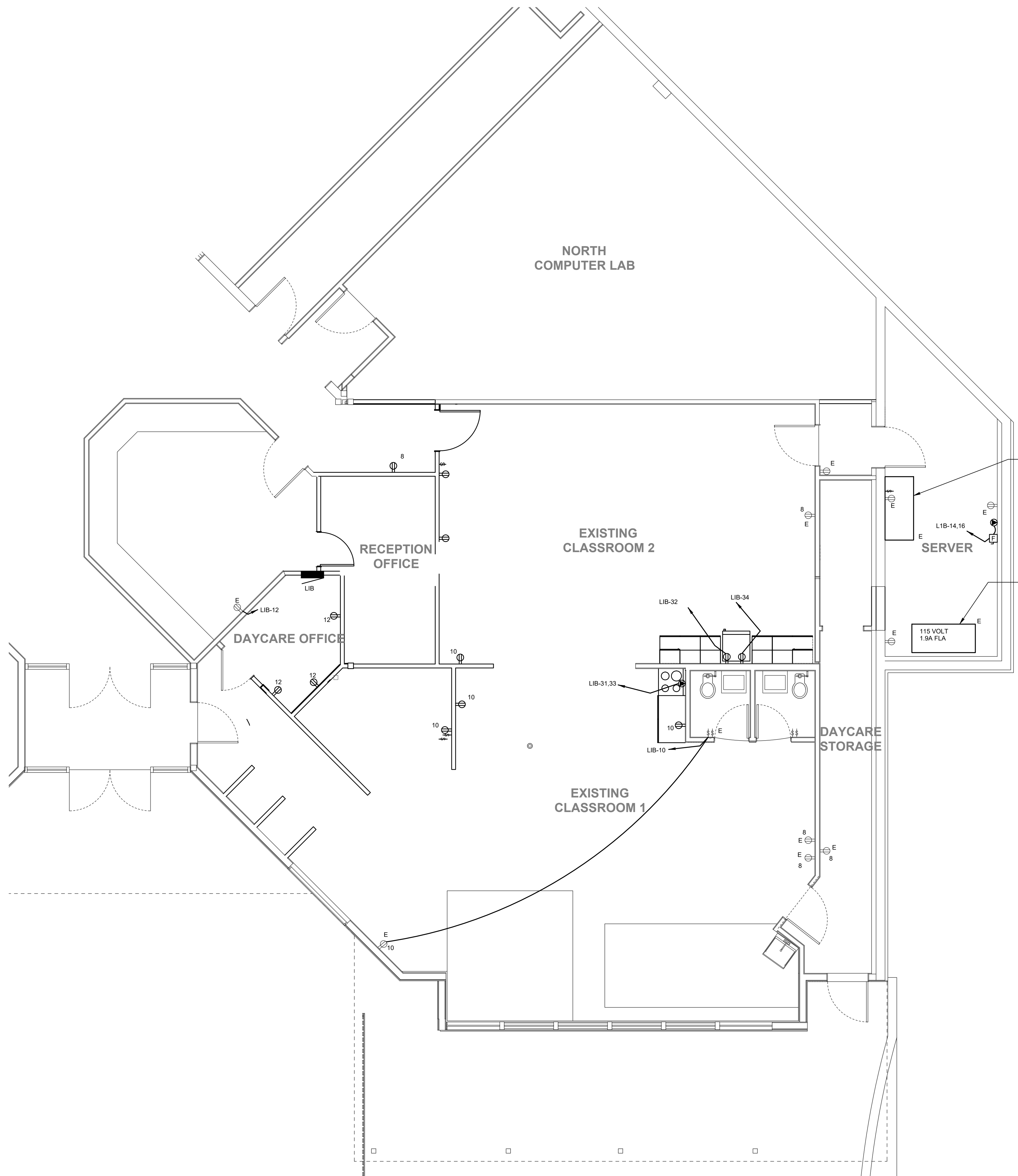




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**Job Site:**  
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 GLENWOOD SPRINGS,  
 COLORADO 81601

ELECTRICAL -  
 EXISTING FLOOR PLAN

Sheet Number:

**ED2-1**

**ELECTRICAL - EXISTING FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH

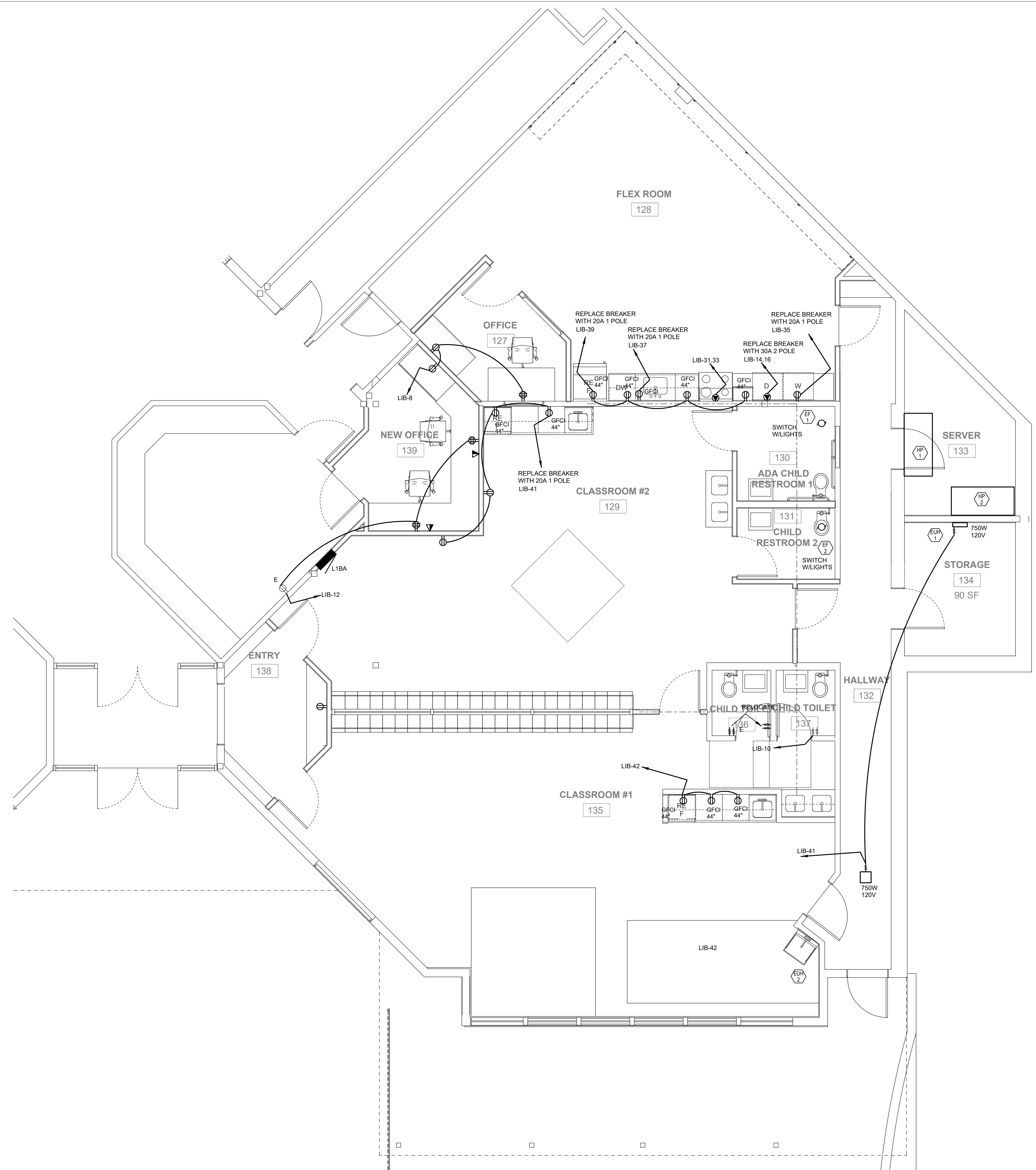




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**ELECTRICAL - FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH

**CMC MINI COLLEGE**  
**1402 BLAKE AVE**  
**100% CONSTRUCTION DOC'S**



**Job Site:**  
 1402 BLAKE AVE  
 GLENWOOD SPRINGS,  
 COLORADO 81601

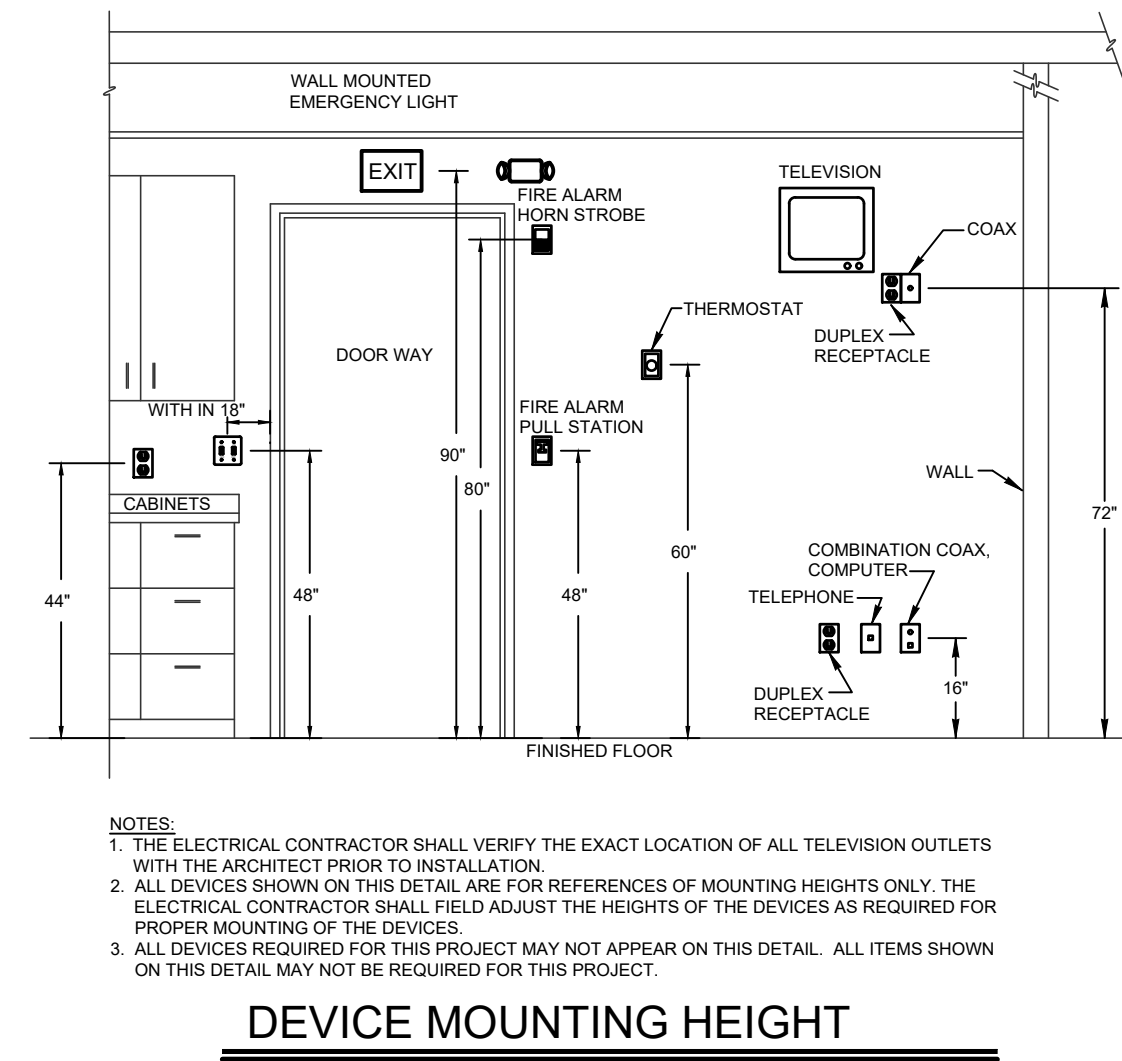
**ELECTRICAL - FLOOR PLAN**

**Sheet Number:**

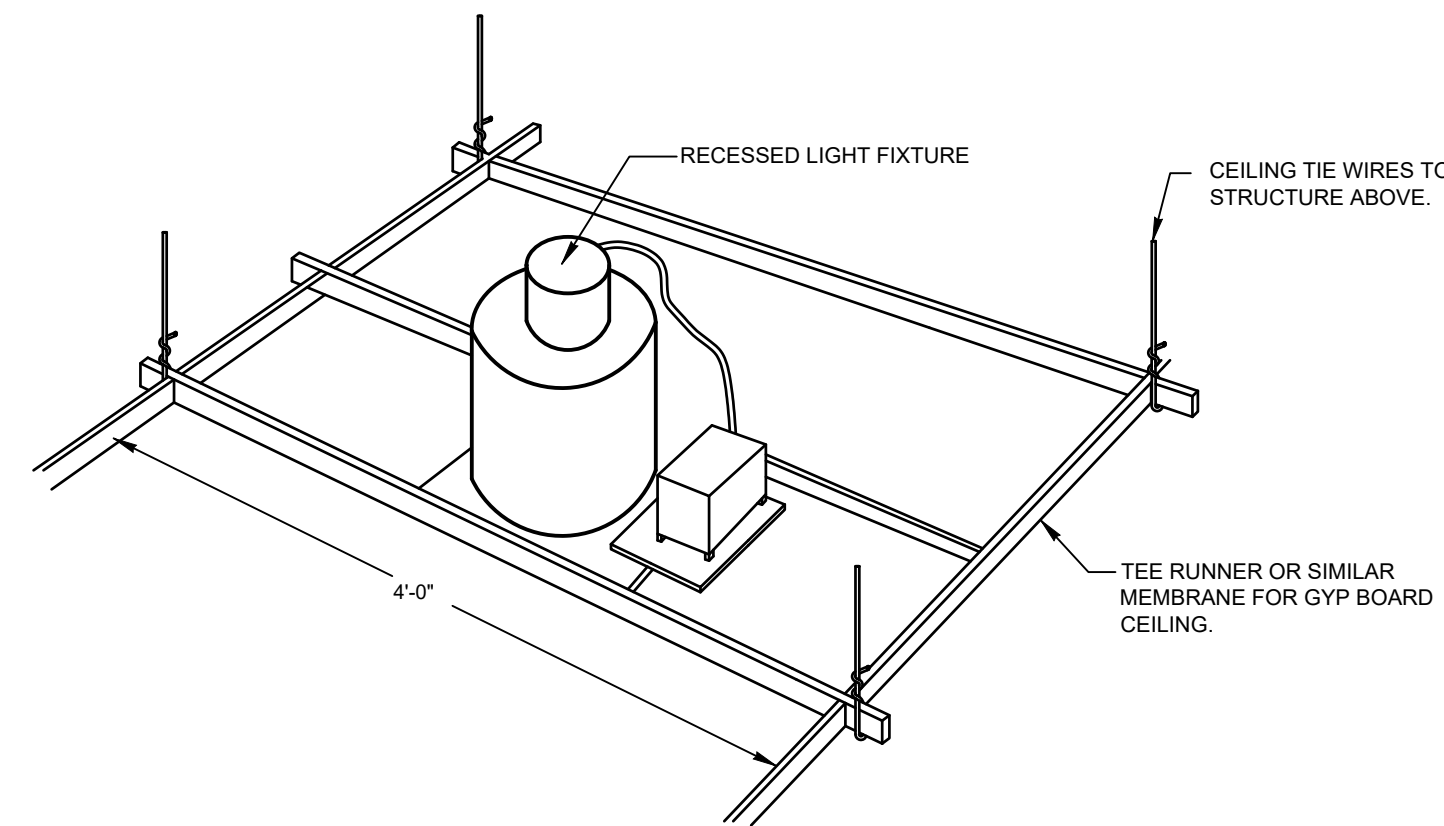
**E2-1**

PANEL SCHEDULE -		LIB	TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD 120/208 NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:			150 NONE FLUSH	PHASES: WIRES: SC RATING:	3 4 10000	NEUTRAL BUS: GROUND BUS:	YES YES
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION				
LIGHTING	LITES RSVP	20A 1P	1 500	A	2 500	20A 1P	RECEPTACLE	OUTLETS RSVP				
LIGHTING	LITES COMPUTER ROOM	20A 1P	3 500	B	4 500	20A 1P	RECEPTACLE	OUTLETS CENTRAL RSVP				
LIGHTING	LITES MINI COLLEGE	20A 1P	5 500	C	6 500	20A 1P	RECEPTACLE	N & E RSVP, N & W LIBRARY				
RECEPTACLE	SOUTH MINI COLLEGE	20A 1P	7 500	A	8 1000	20A 1P	RECEPTACLE	COMPUTER LAB				
RECEPTACLE	MINI COLLEGE EXCEPT SOUTH	20A 1P	9 500	B	10 500	20A 1P	RECEPTACLE	LIBRARY SOUTH				
RECEPTACLE	FAR EAST FIRST FLOOR	20A 1P	11 500	C	12 500	20A 1P	RECEPTACLE	MINI COLLEGE OFFICE A W POTTERY				
LIGHTING	LITES ELEVATOR ROOM & OUTLET	20A 1P	13 500	A	14 500	40A 2P	MISCELLANEOUS	SERVER UPS				
LIGHTING	LITES ELEVATOR CAR	20A 1P	15 500	B	16 500	---	MISCELLANEOUS	---				
RECEPTACLE	NEW WALL WEST LAB 2	20A 1P	17 500	C	18 1000	20A 1P	LIGHTING	LITES POTTERY TRACK LITES				
MISCELLANEOUS	DEDICATED LINE SERVER	20A 1P	19 500	A	20 2500	50A 2P	MISCELLANEOUS	KILN				
MISCELLANEOUS	XEROX	20A 1P	21 1000	B	22 2500	---	MISCELLANEOUS	---				
MISCELLANEOUS	SERVER UPS	30A 1P	23 1000	C	24 2500	30A 2P	MISCELLANEOUS	WATER HEATER				
MISCELLANEOUS	LIBRARY, RSVP	20A 1P	25 1000	A	26 2500	---	MISCELLANEOUS	---				
RECEPTACLE	MINI COLLEGE SO OUTLET	20A 1P	27 500	B	28 1000	20A 2P	MISCELLANEOUS	UNKOWN				
RECEPTACLE	RECEPTION DESK	20A 1P	29 500	C	30 1000	---	MISCELLANEOUS	---				
APPLIANCE	RANGE MINI COLLEGE	40A 2P	31 2000	A	32 500	20A 1P	RECEPTACLE	REFRIG MINI COLLEGE				
APPLIANCE	---	---	33 2000	B	34 1000	20A 1P	APPLIANCE	MINI COLLEGE MICROWAVE				
SPARE	UNALLOCATED FUTURE	15A 1P	35 200	C	36 5000	---	MECH YEAR ROUND	---				
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SPARE	UNALLOCATED FUTURE	20A 1P	41 200	C	42 100	20A 1P	SPARE	UNALLOCATED FUTURE				
LOADS BY TYPE:												
LOAD TYPE	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)	PHASE	CONNECTED LOAD (VA)	CONNECTED LOAD (AMPS)	BALANCE (PERCENT)					
LIGHTING	3500.00	1.25	4375.00	A	17700.00	147.50	A-B: 91.5					
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MOTOR	0.00	1.00	0.00									
SPARE	900.00	1.00	900.00									
LARGEST MOTOR 1	ABOVE	0.25	3750.00									
TOTAL	47900.00		52525.00									

PANEL SCHEDULE -		L1BA	TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD 120/208 NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:			150 NONE FLUSH	PHASES: WIRES: SC RATING:	3 4 10000	NEUTRAL BUS: GROUND BUS:	YES YES
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION				
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MISCELLANEOUS	LIBRARY, RSVP	20A 1P	25 1000	A	26 2500	---	MISCELLANEOUS	---				
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RECEPTACLE	RECEPTION DESK	20A 1P	29 500	C	30 1000	---	MISCELLANEOUS	---				
APPLIANCE	FLEX ROOM 128 DRYER	40A 2P	31 2000	A	32 500	20A 1P	RECEPTACLE	REFRIG MINI COLLEGE				
APPLIANCE	---	---	33 2000	B	34 1000	20A 1P	APPLIANCE	MINI COLLEGE MICROWAVE				
APPLIANCE	FLEX ROOM WASHING MACH	20A 1P	35 1200	C	36 5000	---	MECH YEAR ROUND	---				
APPLIANCE	FLEX RM 128 DISHWASHER	20A 1P	37 1000	A	38 5000	60A 3P	MECH YEAR ROUND	ROOF TOP UNIT				
RECEPTACLE	FLEX ROOM 128 COUNTER	20A 1P	39 200	B	40 5000	---	MECH YEAR ROUND	---				
MECH HEATING	UNITS EUH-1 & 2	20A 1P	41 1500	C	42 540	20A 1P	RECEPTACLE	CLASSROOM 135 COUNTER				
LOADS BY TYPE:												
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SPARE	0.00	1.00	0.00									
LARGEST MOTOR 1	ABOVE	0.25	3750.00									
TOTAL	51440.00		47815.00									



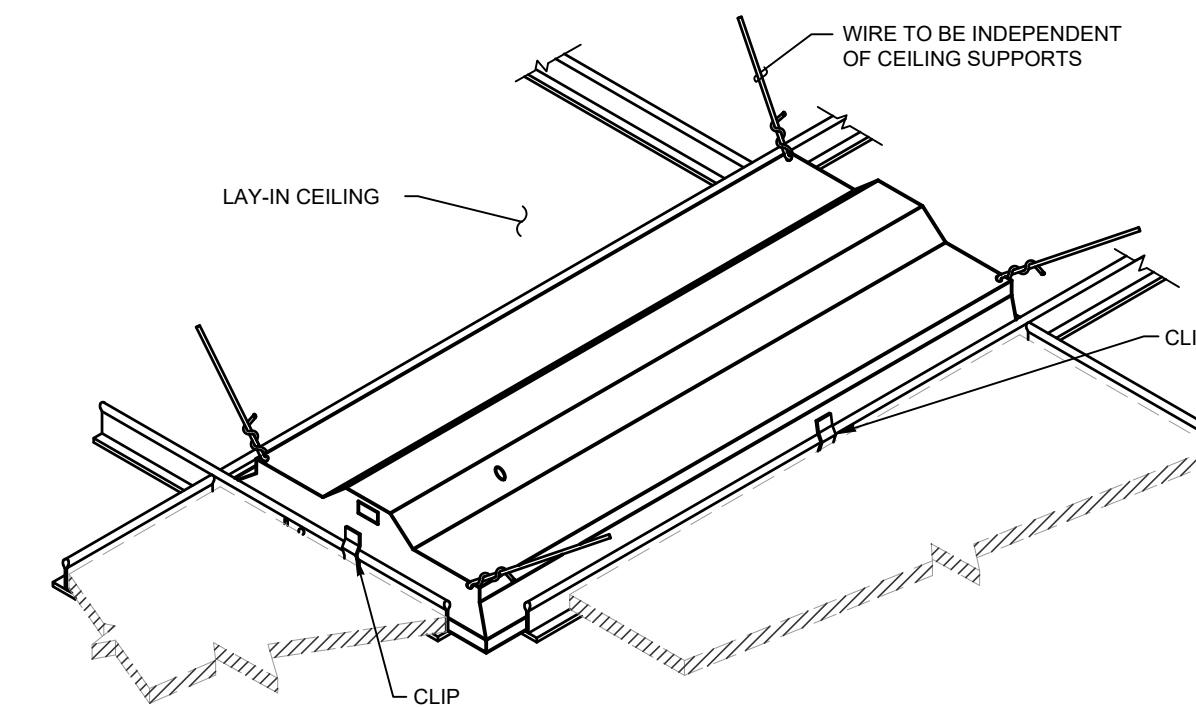
**DEVICE MOUNTING HEIGHT**



**RECESSED LIGHT FIXTURE DETAIL**

SCALE: NOT TO SCALE

- NOTE:  
1. ALL GRID MOUNTED FIXTURES ARE TO BE SUPPORTED FROM THE STRUCTURE ABOVE.  
2. 200lb TEST WIRE HANGER AT EACH CORNER OF FIXTURE (TOTAL OF 4) OR 1 CADDY CLIP 515 PER SIDE (TOTAL OF 4)  
3. TYPICAL ALL GRID MOUNTED FIXTURES.



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100% CONSTRUCTION DOC'S  
JANUARY 7, 2025  
Revisions

**CMC MINI COLLEGE  
1402 BLAKE AVE  
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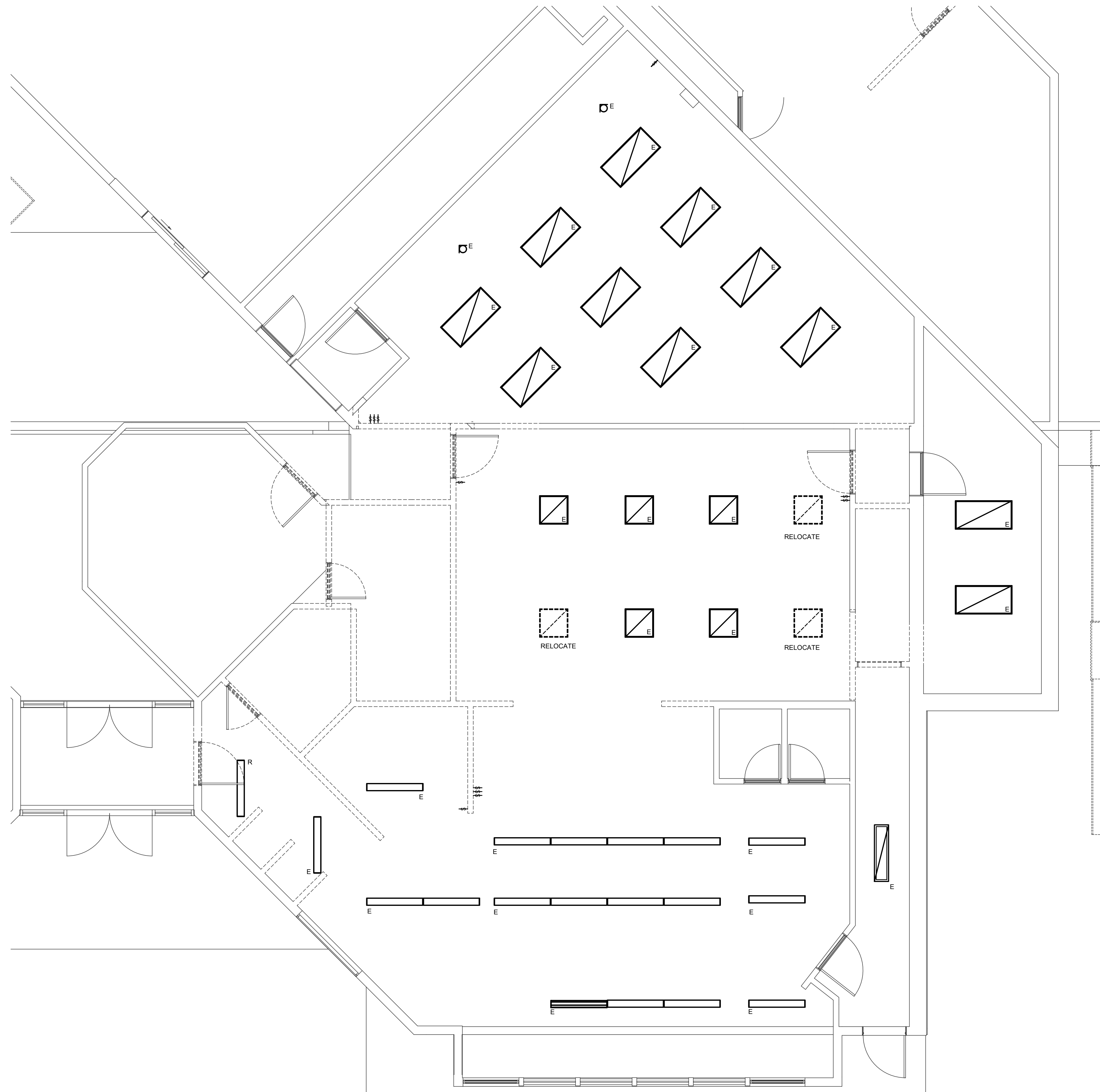


**Job Site:**  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

**ELECTRICAL -  
DETAILS**

**Sheet Number:**

**E3-1**



**LIGHTING - DEMOLITION FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH



**Land+Shelter**  
 ARCHITECTURE AND PLANNING  
 16 North 4th Street, Carbondale, CO 81623  
 t 970.963.0201 info@landandshelter.com

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 Revisions

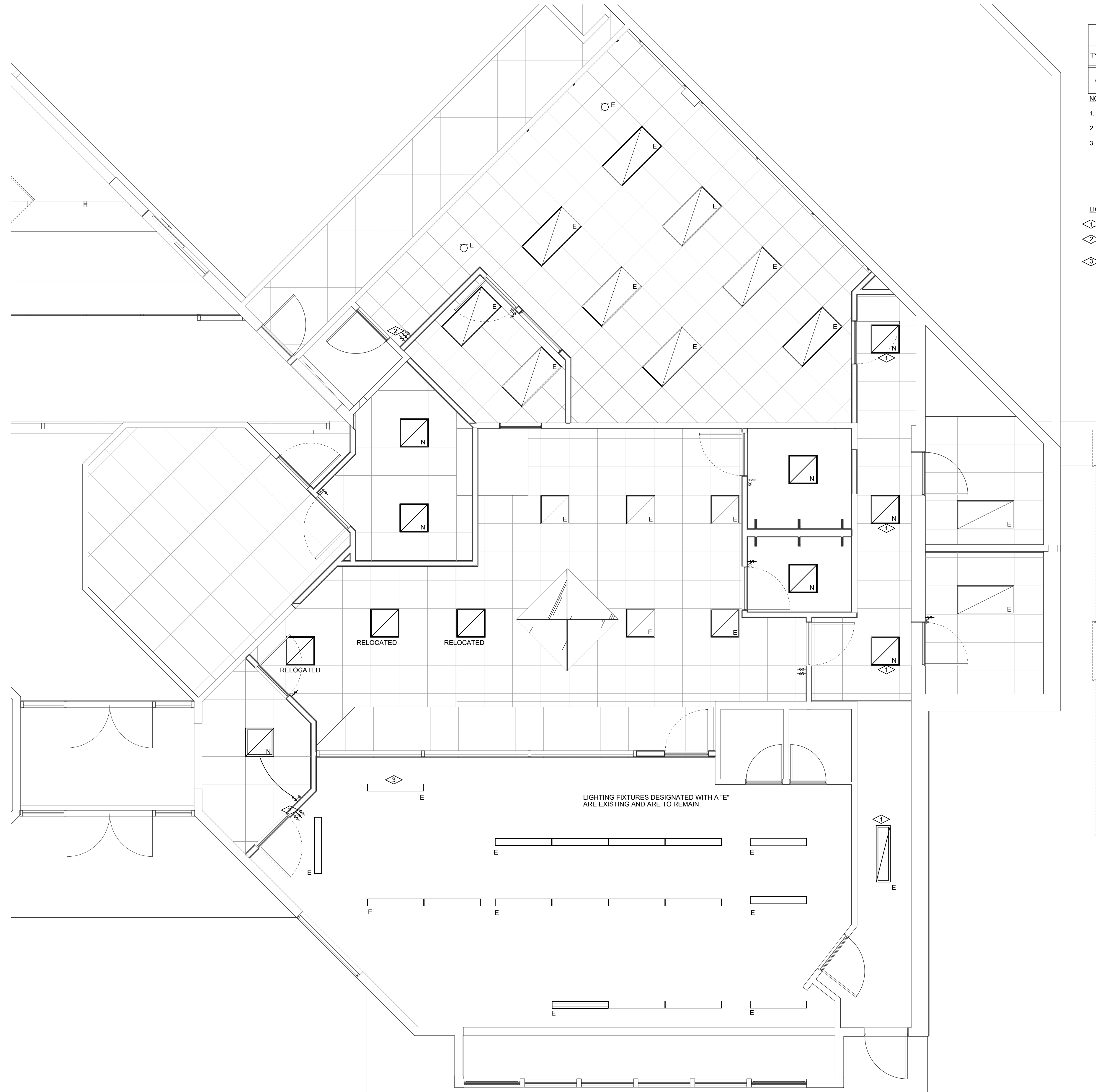
**CMC MINI COLLEGE**  
**1402 BLAKE AVE**  
**100% CONSTRUCTION DOC'S**



**Job Site:**  
 1402 BLAKE AVE  
 GLENWOOD SPRINGS,  
 COLORADO 81601

LIGHTING -  
 DEMOLITION FLOOR PLAN

**Sheet Number:**  
**ED1-1**



LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER CATALOG NO.	ALTERNATE MANUFACTURER	VOLTAGE MOUNTING	DRIVER LAMP SPECIFICATION	
G1	COOPER METALUX ACHIEVA SELECTABLE 22ARS-L3C3-SQR-UNV	APPROVED EQUIVALENT	120V SURFACE	0-10V LED DIMMING 3500K, 4209LM, 80CRI, 33.6W	2'X2' LED GRID TROFFER WITH SELECTABLE LUMENS AND CCT

**NOTES:**

1. CONTRACTOR TO MATCH EXISTING FIXTURES WITH NEW. FIXTURE SELECTED APPEARS SIMILAR TO FIXTURE IN FIELD. CONTRACTOR MAY SUBMIT ALTERNATES TO ENGINEER FOR REVIEW AND APPROVAL.
2. CONTRACTOR TO ADJUST SETTINGS TO MATCH EXISTING LIGHTING IN AREAS WITH NEW INSTALLED LIGHTS. HIGH OUTPUT WAS USED FOR PURPOSES OF CIRCUITING CALCULATIONS ONLY.
3. PROVIDE ALL APPURTENANCES REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM.

**LIGHTING PLAN KEYED NOTES**

- ① EXISTING HALLWAY CONTROL TO BE EXTENDED TO NEW HALLWAY LIGHTS.
- ② EXISTING LIGHTING CONTROLS FOR CLASSROOM/FLEX ROOM TO BE RELOCATED TO THIS LOCATION. CONTRACTOR TO MAINTAIN EXISTING CONTROL SCHEME FOR NEW SWITCH LOCATION.
- ③ CONNECT THIS EXISTING LIGHT TO EXISTING REAR LIGHTING CONTROL ZONE IN CLASSROOM.



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**CMC MINI COLLEGE  
 1402 BLAKE AVE  
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**Job Site:**  
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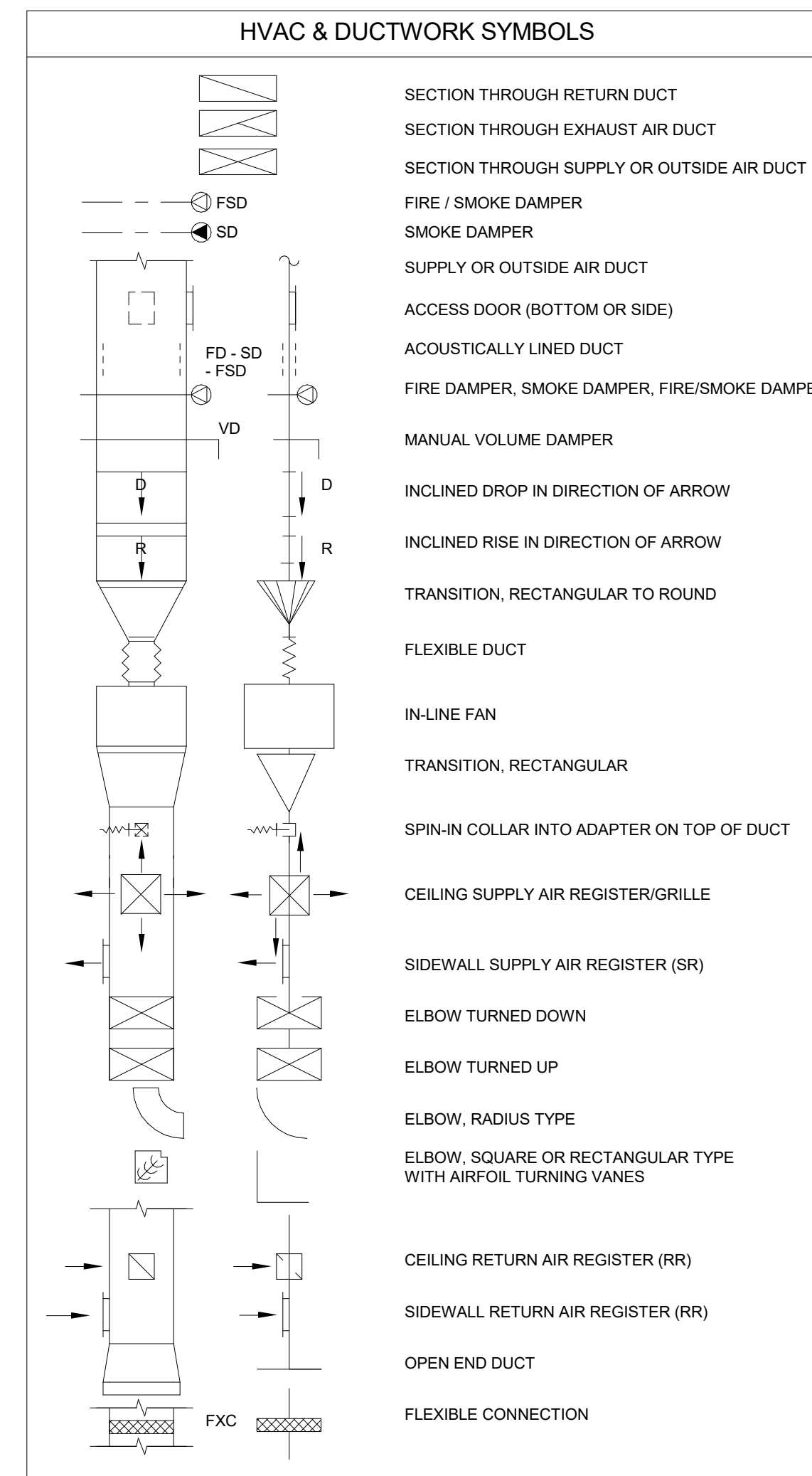
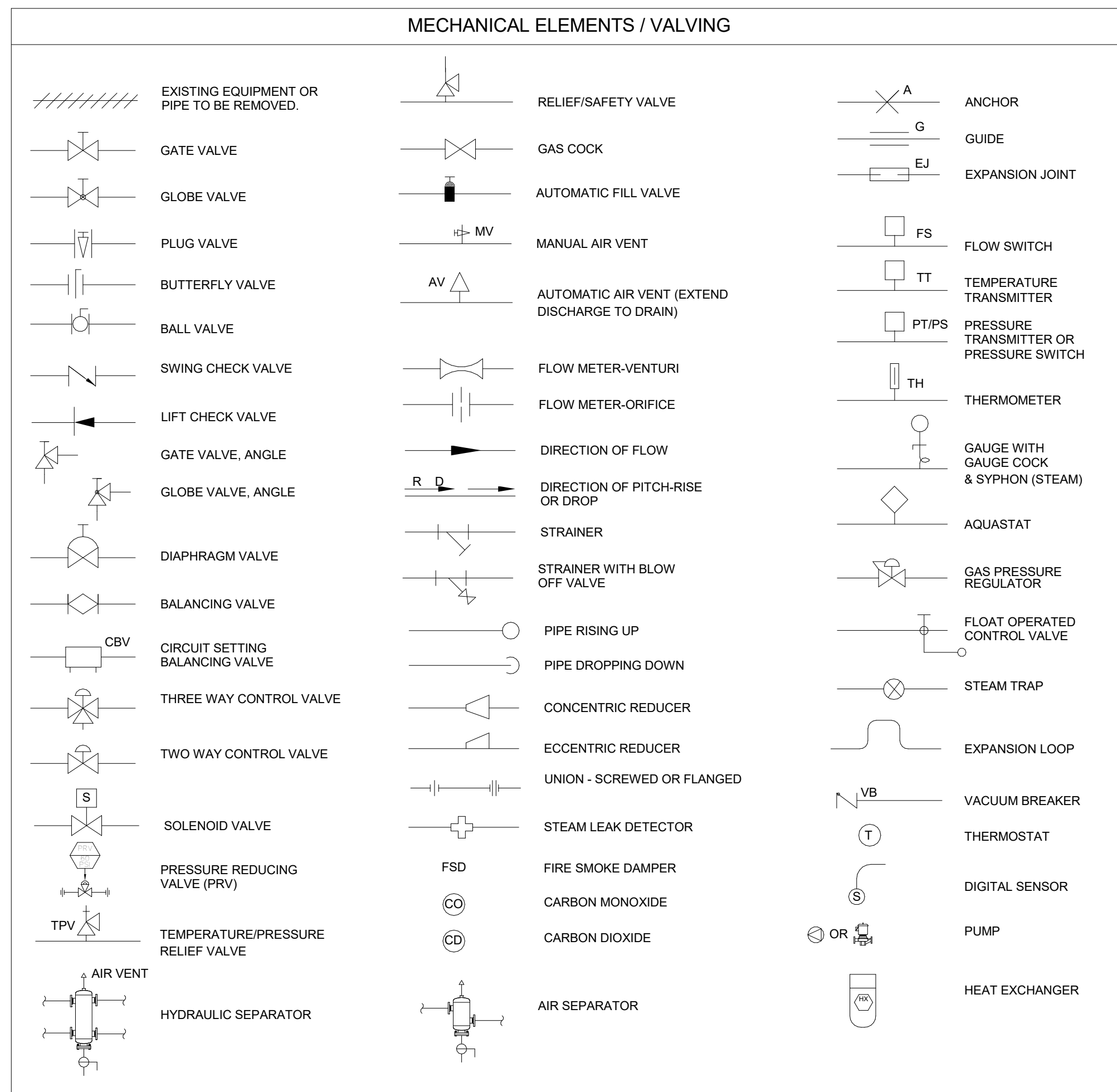
LIGHTING -  
 FLOOR PLAN

Sheet Number:

**E1-1**

**LIGHTING - FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 NORTH





### LINE DESIGNATION SYMBOLS

CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CA	COMPRESSED AIR
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
D	DRAIN
HPR	HEAT PUMP RETURN
HPS	HEAT PUMP SUPPLY
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
G	NATURAL GAS
RH	REFRIGERANT HIGH PRESSURE VAPOR
R	REFRIGERANT LIQUID AND VAPOR LINE
RS	REFRIGERANT SUCTION / VAPOR
SMR	SNOWMELT RETURN
SMS	SNOWMELT SUPPLY
V	VENT PIPING

### MECHANICAL SHEET LIST

Sheet Number	Sheet Name
M0-1	MECHANICAL COVER SHEET
M1-0	MECHANICAL - DEMO PLAN
M1-1	MECHANICAL - MAIN LEVEL PLAN
M3-1	MECHANICAL - SCHEDULES & DETAILS

### RESPONSIBLE DIVISION:

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
EQUIPMENT	23	23	26	--
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	--
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

SUBSCRIPT FOOTNOTES:  
 1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.  
 2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

### ABBREVIATIONS:

44"	MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DF	DRINKING FOUNTAIN	HP	HEAT PUMP	PT	PRESSURE TRANSMITTER
A	AMPS	DIA	DIAMETER	HP	HORSEPOWER	PTAC	PACKAGED TERMINAL AIR CONDITIONER
A.D.	ACCESS DOOR	DISC	DISCHARGE	HR	HOUR	PV	PLUG VALVE
AAV	ADMITTANCE VALVE	DIV	DIVISION	HTR	HEATER	PVC	POLYVINYL CHLORIDE
ABV	ABOVE	DN	DOWN	HWR	HEATING WATER RETURN	QTY	QUANTITY
AC	AIR CONDITIONING UNIT	DS	DUCT SILENCER	HWS	HEATING WATER SUPPLY	RA	RETURN AIR GRILLE / REGISTER
AD	AREA DRAIN (SEE SYMBOLS)	DWG	DRAWING	HX	HEAT EXCHANGER	RCP	REFLECTED CEILING PLAN
AFC	ABOVE FINISHED CEILING	DX	DIRECT EXPANSION	HZ	HERTZ	RD	ROOF DRAIN
AFG	ABOVE FINISHED GRADE	EX	EXISTING	ID	INSIDE DIAMETER	REL	RELIEF
AIC	AMPERE INTERRUPTING CAPACITY	EA	EXHAUST AIR GRILLE/REGISTER	IG	ISOLATED GROUND	REQD	REQUIRED
AFCI	ARC FAULT CIRCUIT INTERRUPTERS	EAT	ENTERING AIR TEMPERATURE	IN	INCHES	RF	RETURN FAN
AFF	ABOVE FINISHED FLOOR	EC	ELECTRICAL CONTRACTOR	INV	INVERT	RH	RELATIVE HUMIDITY
AHU	AIR HANDLING UNIT	ECC	ECCENTRIC	JBOX	JUNCTION BOX	RHC	REHEAT COIL
ALUM	ALUMINUM	EFF	EFFICIENCY	K	KELVIN	RLA	RATED LOAD AMPS
AP	ACCESS PANEL OR DOOR	EF	EXHAUST FAN	KW	KILOWATT	RM	ROOM
ATS	AUTOMATIC TRANSFER SWITCH	EFF	EFFICIENCY	KVA	KILO VOLT - AMPS	RPM	REVOLUTIONS PER MINUTE
AV	AUDIO / VIDEO	EL	ELEVATION	L	LENGTH	SA	SUPPLY AIR GRILLE / REGISTER
AVG	AVERAGE	ELEC	ELECTRIC	LAT	LEAVING AIR TEMPERATURE	SC	SHORT CIRCUIT
AWG	AMERICAN WIRE GAGE	ELEV	ELEVATOR	LV	LAVATORY	SCA	SHORT CIRCUIT AVAILABLE
BAS	BUILDING AUTOMATION SYSTEM	EM	EMERGENCY FUNCTION	LB	POUND	SCCR	SHORT CIRCUIT CURRENT RATING
BB	BASEBOARD	ENT	ENTERING	LD	LINEAR DIFFUSER	SCH	SCHEDULE
BD	BACK DRAFT DAMPER	EMT	ELECTRIC METALLIC TUBE	LF	LINEAR FEET	SD	SMOKE DAMPER
BFP	BACK FLOW PREVENTOR	EQ	EQUAL	LIN	LINEAR	SEF	SMOKE EXHAUST FAN
BL	BOILER	EQUIP	EQUIPMENT	LIQ	LIQUID	SF	SUPPLY FAN
BLDG	BUILDING	EQUIV	EQUIVALENT	LM	LUMEN	SH	SENSIBLE HEAT
BLW	BELW	ES	END SWITCH	LRA	LOCKED ROTOR AMPS	SH	SHOWER
BOB	BOTTOM OF BEAM	ESP	EXTERNAL STATIC PRESSURE	LV	LOUVER	SP	STATIC PRESSURE
BOD	BOTTOM OF DUCT	ET	EXPANSION TANK	LVG	LEAVING	SPD	SURGE PROTECTION DEVICE
BOP	BOTTOM OF PIPE	EWC	ELECTRIC WATER COOLER	LWT	LEAVING WATER TEMPERATURE	SPEC	SPECIFICATION
BSMT	BASEMENT	EWV	ENTERING WATER TEMPERATURE	MBH	THOUSANDS OF BTU PER HOUR	SO	SQUARE
BTU	BRITISH THERMAL UNIT	EX	EXHAUST	MC	MECHANICAL CONTRACTOR	SS	STAINLESS STEEL
C	CHILLER	EXN	EXPANSION	MCA	MINIMUM CIRCUIT AMPACITY	SS	SAFETY SHOWER
CAFCD	COMBINATION ARC FAULT CIRCUIT INTERRUPTERS	EXT	EXTERNAL	MCB	MAIN CIRCUIT BREAKER	STD	STANDARD
CAP	CAPACITY	F	DEGREES FAHRENHEIT	MD	MOTORIZED DAMPER	STL	STEEL
CB	CIRCUIT BREAKER	FA	FREE AREA	MDF	MAIN DISTRIBUTION PANEL	SYS	SYSTEM
CBV	CIRCUIT BALANCING VALVE	FC	FAN COIL UNIT	MED	MEDIUM	TEMP	TEMPERATURE
CCT	CORRELATED COLOR TEMPERATURE	FC	FOOTCANDLE	MFR	MANUFACTURER	TR	TRANSFER GRILLE / REGISTER
CKT	CIRCUIT	FCV	FLOW CONTROL VALVE	MIN	MINIMUM	TR	TAMPER RESISTANT
CFH	CUBIC FEET PER HOUR	FD	FIRE DAMPER	MISC	MISCELLANEOUS	TT	TEMPERATURE TRANSMITTER
CFM	CUBIC FEET PER MINUTE	FD	FLOOR DRAIN	MISC	MISCELLANEOUS	TTB	TELECOMMUNICATIONS TERMINAL BACKBOARD
CHWR	CHILLED WATER RETURN	FIN	FINISHED	MOCPP	MAXIMUM OVERCURRENT PROTECTION	TYP	TYPICAL
CHWS	CHILLED WATER SUPPLY	FLA	FULL LOAD AMPS	MTD	MOUNTED	TX	TRANSFORMER
CI	CAST IRON	FLEX	FLEXIBLE	MJA	MAKE-UP AIR UNIT	UC	UNDERCUT DOOR
CL	CENTER LINE	FLR	FLOOR	N	NEUTRAL	UH	UNIT HEATER
CLG	CEILING	FOB	FLAT ON BOTTOM	NC	NORMALLY CLOSED	UNO	UNLESS NOTED OTHERWISE
CMU	CONCRETE MASONRY UNIT	FOT	FLAT ON TOP	NEG	NEGATIVE	UNOCC	UNOCCUPIED
COL	CLEAN OUT	FP	FIRE PROTECTION	NIC	NOT IN CONTRACT	UR	URINAL
CO	COLUMN	FP	FIRE PUMP	NL	NIGHT / SECURITY LIGHT - DO NOT SWITCH	V	VOLTS
COMP	COMPRESSOR	FPM	FEET PER MINUTE	NO	NORMALLY OPEN	VA	VOLT AMPERE
CONC	CONCRETE	FPS	FEET PER SECOND	NOM	NOMINAL	VA	VALVE
COND	CONDENSATE	FS	FLOW SWITCH	NTS	NOT TO SCALE	VAV	VARIABLE AIR VOLUME UNIT
CONN	CONNECTION	FSD	FIRE/SMOKE DAMPER	OA	OUTSIDE AIR	VFD	VARIABLE FREQUENCY DRIVE
CONT	CONTINUATION	FT	FEET	OBO	OPPOSED BLADE DAMPER	VRF	VARIABLE REFRIGERANT FLOW
CONTR	CONTRACTOR	FXC	FLEXIBLE CONNECTION	OC	ON CENTER	VOLT	VOLTAGE
CRI	COLOR RENDERING INDEX	GND	GROUND	OCC	OCCUPIED	VTR	VENT THROUGH ROOF
CT	COOLING TOWER	GA	GAUGE	OCP	OVER CURRENT PROTECTION	W	WIDTH
CT	CURRENT TRANSFORMER	GAL	GALLON	OD	OUTSIDE DIAMETER	W	WATTS
CU	CUPPER	GALV	GALVANIZED	OL	OVERLOAD	W	WITH
CUH	CABINET UNIT HEATER	GEC	GROUND ELECTRODE CONDUCTOR	ORD	OVERFLOW ROOF DRAIN	WO	WITHOUT
CVB	CONSTANT VOLUME BOX	GF	GROUND FAULT CIRCUIT INTERRUPTER	OZ	OUNCE	WB	WET BULB
CWR	CONDENSER WATER RETURN	GC	GENERAL CONTRACTOR	PBD	PARALLEL BLADE DAMPER	WC	WATER COLUMN
CWS	CONDENSER WATER SUPPLY	GPH	GALLONS PER HOUR	PD	PRESSURE DROP	WC	WATER CLOSET
DB	DRY BULB	GPM	GALLONS PER MINUTE	PH	PHASE	WG	WATER GAUGE
DEPT	DEPARTMENT	GRS/LB	GRAINS PER POUND	POS	POSITIVE PRESSURE	WP	WEATHERPROOF
		H2O	WATER	POS	POINT OF SALES	WPIU	WEATHERPROOF-INUSE
		HB	HOSE BIBB	PRV	PRESSURE REDUCING VALVE	WSR	WITHSTAND RATING
		HD	HEAD (SEE SCHEDULES)	PS	PRESSURE SWITCH	XFMR	TRANSFORMER
				PSI	POUNDS PER SQUARE INCH		

### SUBSTITUTIONS:

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION 1 GENERAL REQUIREMENTS.

### EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.  
 B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIATED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.  
 C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.



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 January 7, 2025  
 Revisions

**CMC MINI COLLEGE  
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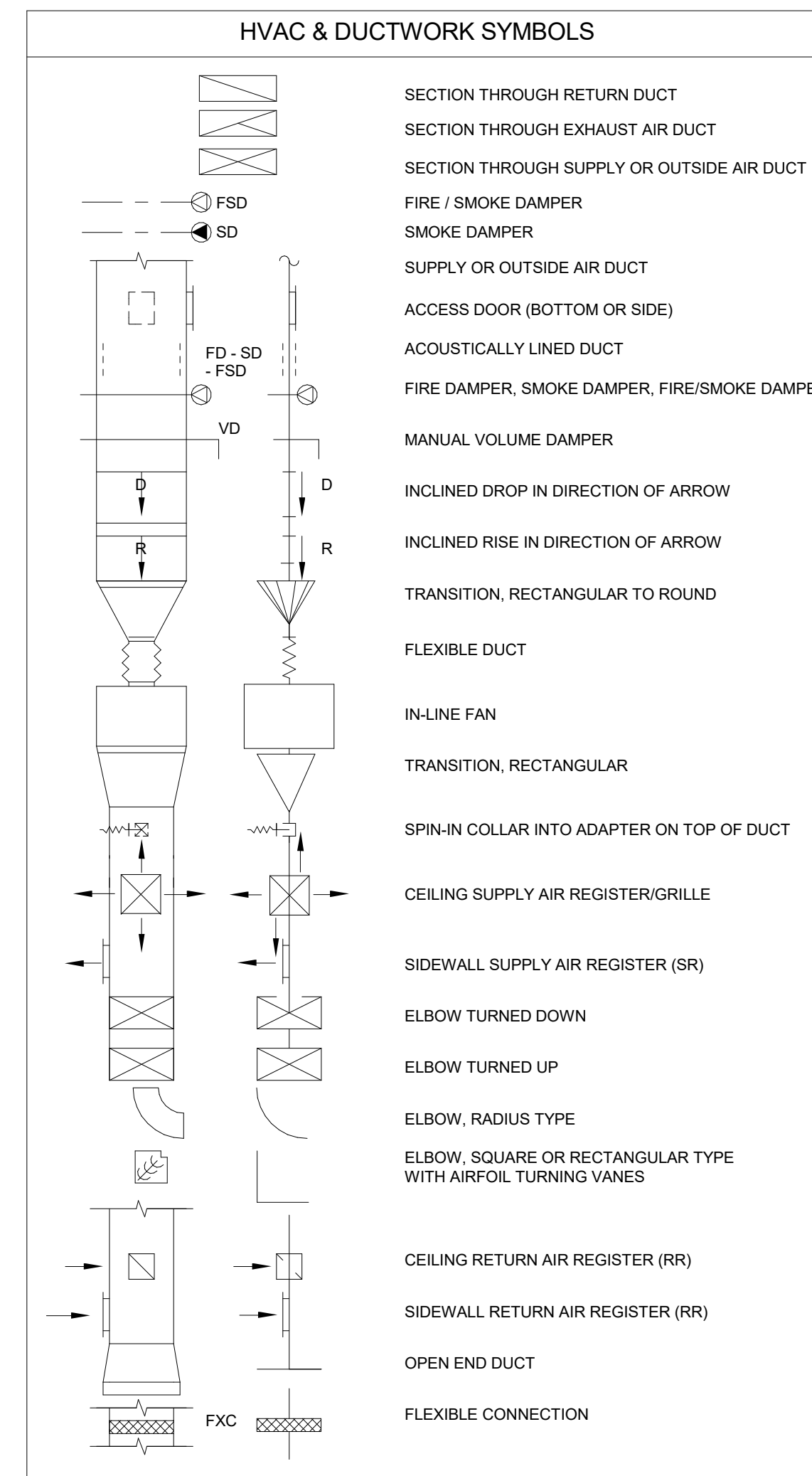
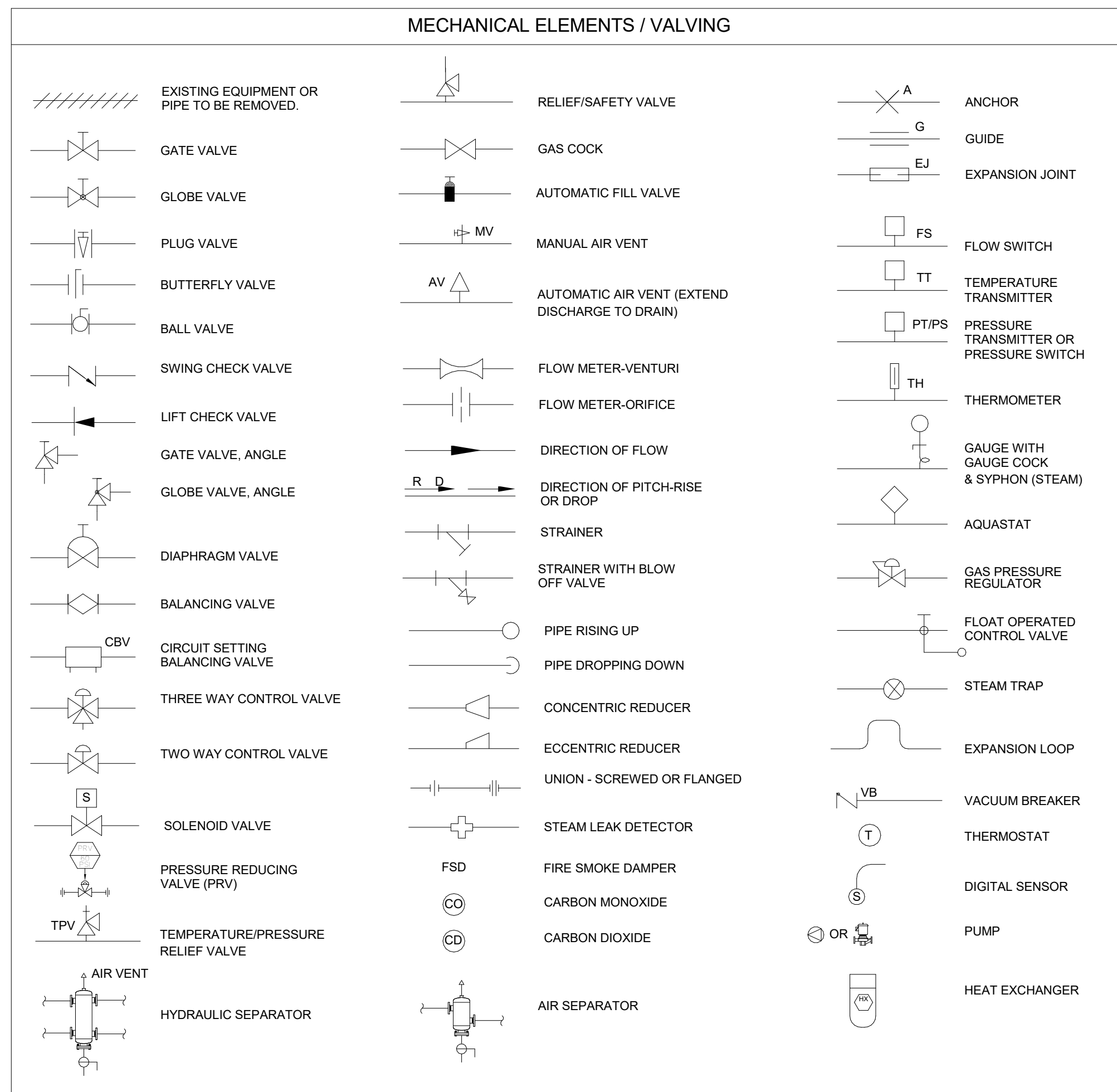


**Job Site:**  
 1402 BLAKE AVE  
 GLENWOOD SPRINGS,  
 COLORADO 81601

**MECHANICAL COVER SHEET**

**Sheet Number:**

**M0-1**



### LINE DESIGNATION SYMBOLS

CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CA	COMPRESSED AIR
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
D	DRAIN
BLDG	BUILDING
HPR	HEAT PUMP RETURN
BLW	BELLOW
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
HWS	HOT WATER SUPPLY
G	NATURAL GAS
RH	REFRIGERANT HIGH PRESSURE VAPOR
R	REFRIGERANT LIQUID AND VAPOR LINE
RS	REFRIGERANT SUCTION / VAPOR
SMR	SNOWMELT RETURN
SMS	SNOWMELT SUPPLY
V	VENT PIPING

### MECHANICAL SHEET LIST

Sheet Number	Sheet Name
M0-1	MECHANICAL COVER SHEET
M1-0	MECHANICAL - DEMO PLAN
M1-1	MECHANICAL - MAIN LEVEL PLAN
M3-1	MECHANICAL - SCHEDULES & DETAILS

### RESPONSIBLE DIVISION:

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ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
EQUIPMENT	23	23	26	--
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	--
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

SUBSCRIPT FOOTNOTES:  
 1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.  
 2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

### ABBREVIATIONS:

44"	MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DF	DRINKING FOUNTAIN	HP	HEAT PUMP	PT	PRESSURE TRANSMITTER
A	AMPS	DIA	DIAMETER	HP	HORSEPOWER	PTAC	PACKAGED TERMINAL AIR CONDITIONER
A.D.	ACCESS DOOR	DIAG	DIAGRAM	HR	HOUR	PV	PLUG VALVE
AAV	ADMITTANCE VALVE	DISC	DISCHARGE	HTR	HEATER	PVC	POLYVINYL CHLORIDE
ABV	ABOVE	DIV	DIVISION	HWR	HEATING WATER RETURN	QTY	QUANTITY
AC	AIR CONDITIONING UNIT	DN	DOWN	HWS	HEATING WATER SUPPLY	RA	RETURN AIR GRILLE / REGISTER
AD	AREA DRAIN (SEE SYMBOLS)	DS	DUCT SILENCER	HX	HEAT EXCHANGER	RCP	REFLECTED CEILING PLAN
AFC	ABOVE FINISHED CEILING	DWG	DRAWING	HZ	HERTZ	RD	ROOF DRAIN
AFG	ABOVE FINISHED GRADE	DX	DIRECT EXPANSION	ID	INSIDE DIAMETER	REL	RELIEF
AIC	AMPERE INTERRUPTING CAPACITY	(E)	EXISTING	IG	ISOLATED GROUND	REQD	REQUIRED
AFCI	ARC FAULT CIRCUIT INTERRUPTERS	EA	EXHAUST AIR GRILLE/REGISTER	IN	INCHES	RF	RETURN FAN
AFF	ABOVE FINISHED FLOOR	EAT	ENTERING AIR TEMPERATURE	INV	INVERT	RH	RELATIVE HUMIDITY
AHU	AIR HANDLING UNIT	EC	ELECTRICAL CONTRACTOR	JBOX	JUNCTION BOX	RHC	REHEAT COIL
ALUM	ALUMINUM	ECC	ECCENTRIC	K	KELVIN	RLA	RATED LOAD AMPS
AP	ACCESS PANEL OR DOOR	EFC	EXHAUST FAN	KW	KILOWATT	RM	ROOM
ATS	AUTOMATIC TRANSFER SWITCH	EFF	EFFICIENCY	KVA	KILO VOLT - AMPS	RPM	REVOLUTIONS PER MINUTE
AV	AUDIO / VIDEO	EL	ELEVATION	L	LENGTH	SA	SUPPLY AIR GRILLE / REGISTER
AVG	AVERAGE	ELEC	ELECTRIC	LAT	LEAVING AIR TEMPERATURE	SC	SHORT CIRCUIT
AWG	AMERICAN WIRE GAGE	ELEV	ELEVATOR	LV	LAVATORY	SCA	SHORT CIRCUIT AVAILABLE
BAS	BUILDING AUTOMATION SYSTEM	EM	EMERGENCY FUNCTION	LB	POUND	SCCR	SHORT CIRCUIT CURRENT RATING
BB	BASEBOARD	ENT	ENTERING	LD	LINEAR DIFFUSER	SCH	SCHEDULE
BD	BACK DRAFT DAMPER	EMT	ELECTRIC METALLIC TUBE	LF	LINEAR FEET	SD	SMOKE DAMPER
BFP	BACK FLOW PREVENTOR	EQ	EQUAL	LIN	LINEAR	SEF	SMOKE EXHAUST FAN
BL	BOILER	EQUIP	EQUIPMENT	LIQ	LIQUID	SF	SUPPLY FAN
BLDG	BUILDING	EQUIV	EQUIVALENT	LM	LUMEN	SH	SENSIBLE HEAT
BLW	BELLOW	ESP	EXTERNAL STATIC PRESSURE	LV	LOUVER	SH	SHOWER
BOB	BOTTOM OF BEAM	ET	EXPANSION TANK	LVG	LEAVING	SP	STATIC PRESSURE
BOD	BOTTOM OF DUCT	EWC	ELECTRIC WATER COOLER	LWT	LEAVING WATER TEMPERATURE	SPD	SURGE PROTECTION DEVICE
BOP	BOTTOM OF PIPE	EWV	ENTERING WATER TEMPERATURE	MBH	THOUSANDS OF BTU PER HOUR	SPEC	SPECIFICATION
HWS	HOT WATER SUPPLY	EX	EXHAUST	MC	MECHANICAL CONTRACTOR	SO	SQUARE
G	NATURAL GAS	EXN	EXPANSION	MCA	MINIMUM CIRCUIT AMPACITY	SS	STAINLESS STEEL
RH	REFRIGERANT HIGH PRESSURE VAPOR	EXT	EXTERNAL	MCB	MAIN CIRCUIT BREAKER	SS	SAFETY SHOWER
R	REFRIGERANT LIQUID AND VAPOR LINE	F	DEGREES FAHRENHEIT	MD	MOTORIZED DAMPER	STD	STANDARD
RS	REFRIGERANT SUCTION / VAPOR	FA	FREE AREA	MDF	MAIN DISTRIBUTION PANEL	STL	STEEL
SMR	SNOWMELT RETURN	FC	FAN COIL UNIT	MED	MEDIUM	SYS	SYSTEM
SMS	SNOWMELT SUPPLY	FC	FOOTCANDLE	MFR	MANUFACTURER	TEMP	TEMPERATURE
V	VENT PIPING	FCV	FLOW CONTROL VALVE	MIN	MINIMUM	TR	TRANSFER GRILLE / REGISTER
		FD	FIRE DAMPER	MISC	MISCELLANEOUS	TR	TAMPER RESISTANT
		FD	FLOOR DRAIN	MLO	MAIN LUG ONLY	TT	TEMPERATURE TRANSMITTER
		FIN	FINISHED	MOCPP	MAXIMUM OVERCURRENT PROTECTION	TTB	TELECOMMUNICATIONS TERMINAL BACKBOARD
		FLA	FULL LOAD AMPS	MTD	MOUNTED	TYP	TYPICAL
		FLEX	FLEXIBLE	MUA	MAKE-UP AIR UNIT	TX	TRANSFORMER
		FLR	FLOOR	N	NEUTRAL	UC	UNDERCUT DOOR
		FOB	FLAT ON BOTTOM	NC	NORMALLY CLOSED	UH	UNIT HEATER
		FOT	FLAT ON TOP	NEG	NEGATIVE	UNO	UNLESS NOTED OTHERWISE
		FP	FIRE PROTECTION	NIC	NOT IN CONTRACT	UNOCC	UNOCCUPIED
		FP	FIRE PUMP	NL	NIGHT / SECURITY LIGHT - DO NOT SWITCH	UR	URINAL
		FPM	FEET PER MINUTE	NO	NORMALLY OPEN	V	VOLTS
		FPS	FEET PER SECOND	NOM	NOMINAL	VA	VOLT AMPERE
		FS	FLOW SWITCH	NTS	NOT TO SCALE	VA	VALVE
		FSD	FIRE/SMOKE DAMPER	OA	OUTSIDE AIR	VAV	VARIABLE AIR VOLUME UNIT
		FT	FEET	OBO	OPPOSED BLADE DAMPER	VFD	VARIABLE FREQUENCY DRIVE
		FXC	FLEXIBLE CONNECTION	OC	ON CENTER	VRF	VARIABLE REFRIGERANT FLOW
		GND	GROUND	OCC	OCCUPIED	VOLT	VOLTAGE
		GA	GAUGE	OCP	OVER CURRENT PROTECTION	W	WIDTH
		GAL	GALLON	OD	OUTSIDE DIAMETER	W	WATTS
		GALV	GALVANIZED	OL	OVERLOAD	W	WITH
		GEC	GROUND ELECTRODE CONDUCTOR	ORD	OVERFLOW ROOF DRAIN	WO	WITHOUT
		GF	GROUND FAULT CIRCUIT INTERRUPTER	OZ	OUNCE	WB	WET BULB
		GC	GENERAL CONTRACTOR	PBD	PARALLEL BLADE DAMPER	WC	WATER COLUMN
		GPH	GALLONS PER HOUR	PD	PRESSURE DROP	WC	WATER CLOSET
		GPM	GALLONS PER MINUTE	PH	PHASE	WG	WATER GAUGE
		GRS/LB	GRAINS PER POUND	POS	POSITIVE PRESSURE	WP	WEATHERPROOF
		H2O	WATER	POS	POINT OF SALES	WPIU	WEATHERPROOF-INUSE
		HB	HOSE BIBB	PRV	PRESSURE REDUCING VALVE	WSR	WITHSTAND RATING
		HD	HEAD (SEE SCHEDULES)	PS	PRESSURE SWITCH	XFMR	TRANSFORMER
				PSI	POUNDS PER SQUARE INCH		

### SUBSTITUTIONS:

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION 1 GENERAL REQUIREMENTS.

### EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.  
 B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIATED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.  
 C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.  
 D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.



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**100% CONSTRUCTION DOC'S**  
 January 7, 2025  
 Revisions

**CMC MINI COLLEGE  
 1402 BLAKE AVE  
 100% CONSTRUCTION DOC'S**



**Job Site:**  
 1402 BLAKE AVE  
 GLENWOOD SPRINGS,  
 COLORADO 81601

**MECHANICAL COVER SHEET**

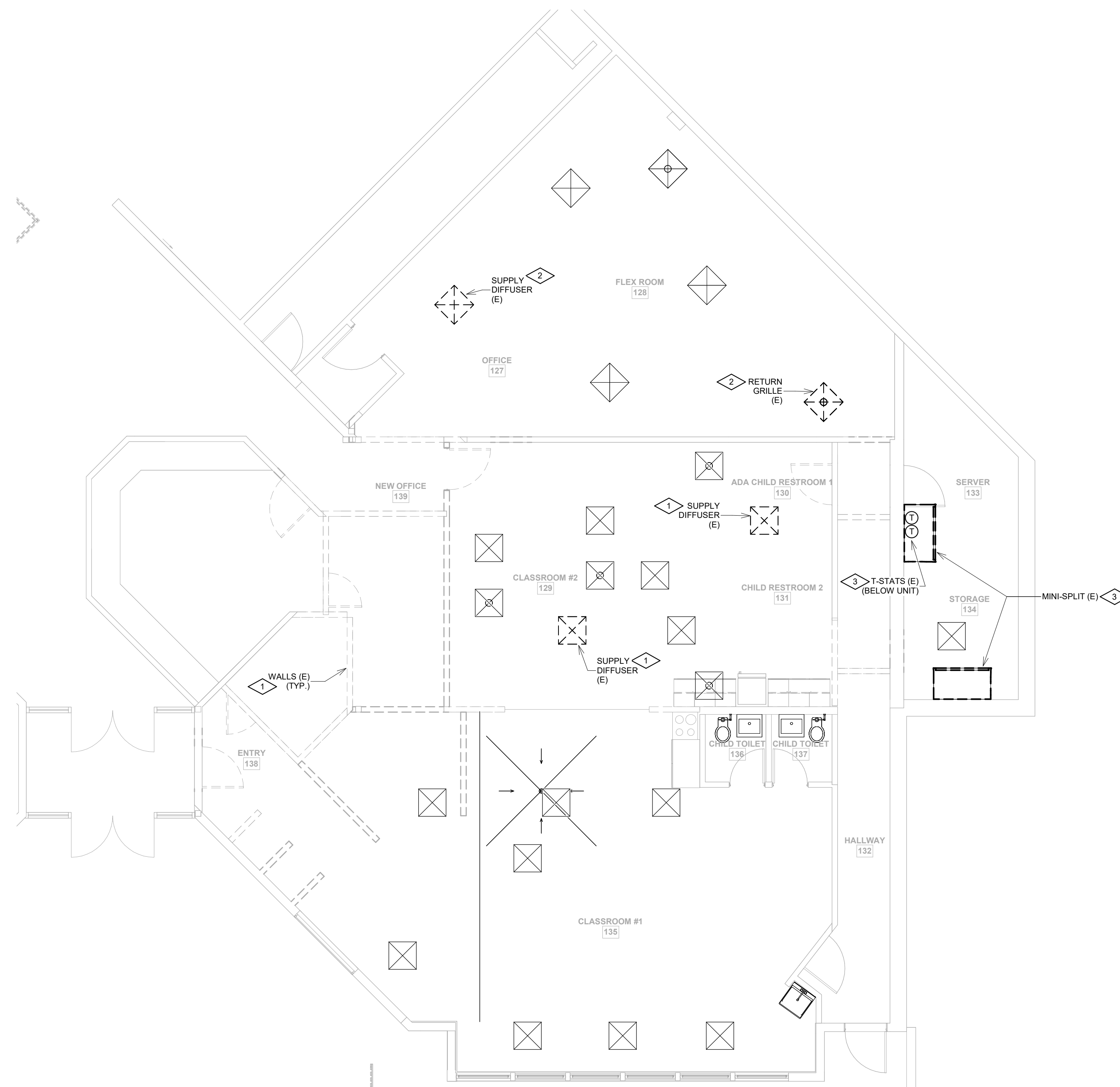
**Sheet Number:**

**M0-1**



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M1-0 MECHANICAL KEYNOTES	
Note Number	Note Text
1	EXISTING ITEM TO BE REMOVED (DEMOPD)
2	EXISTING ITEM TO BE RELOCATED.
3	EXISTING MINI SPLIT TO BE REMOVED (DEMOPD). INCLUDES INDOOR UNIT ON CEILING (SHOWN), RESPECTIVE OUTDOOR UNIT (ON ROOFTOP, NOT SHOWN), AND THERMOSTAT. IF EXISTING REFRIGERANT PIPING IS TO BE RE-USED, THEN CONTRACTOR TO VERIFY THAT EXISTING PIPING IS IN GOOD WORKING CONDITION AND IS THE SAME SIZE AS THE NEW EQUIPMENT REQUIRES.



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**CMC MINI COLLEGE  
1402 BLAKE AVE  
100% CONSTRUCTION DOC'S**



**Job Site:**  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

MECHANICAL - DEMO PLAN

Sheet Number:

**M1-0**

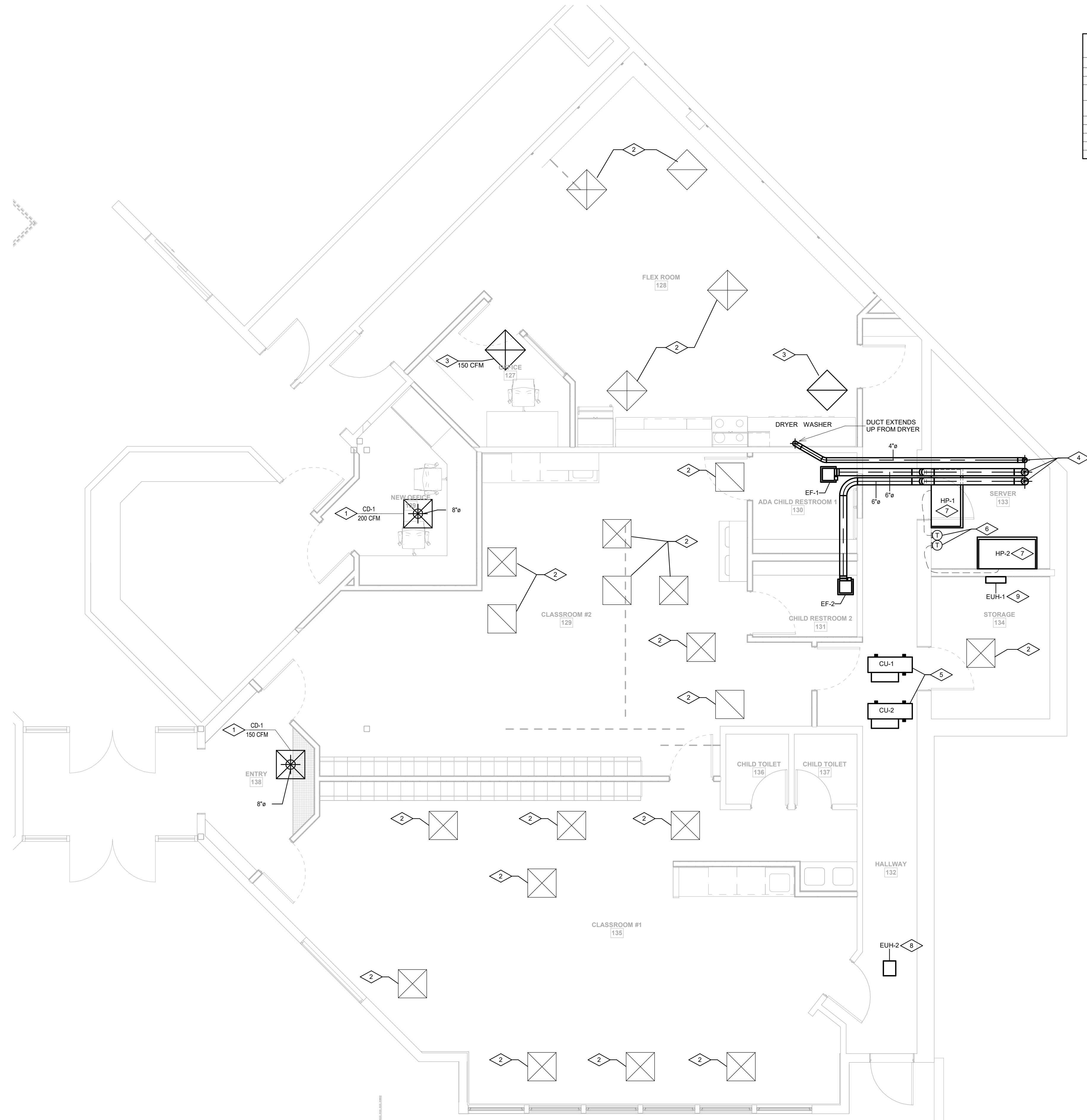
**MECHANICAL - DEMO PLAN** 1  
3/16" = 1'-0"





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M1-1 MECHANICAL KEYNOTES	
Note Number	Note Text
1	NEW SUPPLY AIR TERMINAL. CONNECT TO NEAREST EXISTING DUCT BRANCH. REFER TO PLAN VIEW FOR DUCT SIZE.
2	EXISTING AIR TERMINAL TO REMAIN.
3	EXISTING AIR TERMINAL RELOCATED TO NEARBY LOCATION. COORDINATE NEW LOCATION WITH GRID CEILING, WALLS AND/OR LIGHTING FIXTURES.
4	EXHAUST DUCT CONTINUES UP THROUGH ROOF PENETRATION. ENSURE THAT OUTLET IS A MINIMUM OF 10 FEET AWAY FROM ANY OUTDOOR AIR INTAKE OPENINGS, IN ACCORDANCE WITH THE 2018 IMC SECTION 401.4.
5	NEW OUTDOOR CONDENSING UNITS LOCATED ON ROOFTOP. REFER TO NOTE 1 ON EQUIPMENT SCHEDULE, SHEET M3-1.
6	NEW THERMOSTATS INSTALLED IN SAME LOCATION AS PREVIOUS REMOVED THERMOSTATS.
7	CEILING MOUNTED, SURFACE.
8	CEILING MOUNTED, RECESSED.
9	WALL MOUNTED, SURFACE OR RECESSED.



**MECHANICAL GENERAL NOTES:**

- DRAWING IS DIAGRAMMATIC IN NATURE. LOCATIONS AND SIZES MAY VARY. DURING FIELD COORDINATION & INSTALLATION OF MECHANICAL, PLUMBING, & ELECTRICAL DRAWINGS DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK. VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
- DUCT DIMENSIONS DO NOT REFLECT ADDITIONAL DIMENSIONS FOR INSULATION. ALL DUCTING SHALL BE INSULATED WITH NOT LESS THAN R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND WHERE LOCATED OUTSIDE THE BUILDING WITH NOT LESS THAN R-8 INSULATION IN CLIMATE ZONES 9 THROUGH 4 AND NOT LESS THAN R-12 INSULATION IN CLIMATE ZONES 5 THROUGH 8, WHERE LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY NOT LESS THAN R-8 INSULATION IN CLIMATE ZONES 9 THROUGH 4 AND NOT LESS THAN R-12 INSULATION IN CLIMATE ZONES 5 THROUGH 8, GARFIELD COUNTY IS CLIMATE ZONE 5B).
- COORDINATE FINAL LOCATION OF THERMOSTAT WITH OWNER PRIOR TO INSTALLATION. IF THERMOSTAT IS LOCATED ON EXTERIOR WALL PROVIDE THERMOSTAT WITH INSULATED BACKING.
- ALL REFRIGERANT LINES SHALL BE INSULATED IN A WORKMAN LIKE MANNER PER MANUFACTURER'S INSTRUCTIONS. REFRIGERANT LINES SET LONGEST LENGTHS SHALL BE 75'.
- ROUTE CONDENSATE FROM CONDENSING MECHANICAL EQUIPMENT TO CONDENSATE NEUTRALIZATION KITS. CONDENSATE FROM NEUTRALIZATION KITS SHALL BE DISCHARGED INDIRECTLY THROUGH AIR GAP TO NEAREST FLOOR DRAIN.
- MECHANICAL CONTRACTOR SHALL FIELD LOCATE EXISTING DUCTWORK PRIOR TO CONSTRUCTION. MECHANICAL CONTRACTOR SHALL COORDINATE TIE IN CONNECTION POINTS OF NEW SUPPLY DIFFUSERS WITH EXISTING DUCTWORK AS NECESSARY.
- CONTRACTOR SHALL CLEAN AND SERVICE ALL EXISTING EQUIPMENT TO REMAIN. CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO REMAIN IS PROPERLY FUNCTIONING PRIOR TO RE-USING EQUIPMENT. CONTRACTOR TO INSURE THAT FINAL MECHANICAL SYSTEM WILL OPERATE AS INTENDED ON PROVIDED DRAWINGS.
- MECHANICAL EQUIPMENT MANUFACTURERS AS SCHEDULED ON MECHANICAL DRAWINGS ARE SUGGESTED MANUFACTURERS. UNLESS OTHERWISE NOTED OTHERWISE DUE TO OWNERS REQUIREMENTS AND PREFERENCES, MECHANICAL CONTRACTOR CAN SUBMIT EQUIVALENT EQUIPMENT FROM MANUFACTURERS THAT DIFFER FROM SCHEDULED MECHANICAL EQUIPMENT. ALTERNATE MANUFACTURERS OF MECHANICAL EQUIPMENT WILL BE REVIEWED FOR EQUIVALENCE OF PERFORMANCE AND FUNCTIONALITY BY ENGINEER.
- SINGLE PHASE HEAT PUMP CONDENSER MODULES SHALL BE PROVIDED WITH LOCAL POWER SOURCE PROTECTION. POWER SOURCE PROTECTION DEVICE SHALL BE BETWEEN MAIN POWER SUPPLIED TO THE UNIT AND INTERNAL COMPONENTS. POWER PROTECTION DEVICE SHALL PROVIDE PROTECTION FROM VOLTAGE SAG AND SPORADIC FREQUENCY. POWER PROTECTION DEVICE SHALL AUTOMATICALLY SHUT OFF CONDENSER MODULE UPON DETECTION OF POWER EVENT. PHASE PROTECTION DEVICE SHALL AUTOMATICALLY ENERGIZE AND START UP CONDENSER MODULE UPON POWER EVENT ENDING. POWER MONITOR PROTECTION DEVICE SHALL BE SIMILAR/EQUIVALENT TO ICM #493 WITH 2-POLE CONFIGURATIONS.
- WHERE EQUIPMENT REQUIRING ACCESS OR APPLIANCES ARE LOCATED ON AN ELEVATED STRUCTURE OR THE ROOF OF A BUILDING SUCH THAT PERSONNEL WILL HAVE TO CLIMB HIGHER THAN 16 FEET ABOVE GRADE TO ACCESS SUCH EQUIPMENT OR APPLIANCES, AN INTERIOR OR EXTERIOR MEANS OF ACCESS SHALL BE PROVIDED. SUCH ACCESS SHALL NOT REQUIRE CLIMBING OVER OBSTRUCTIONS GREATER THAN 30 INCHES IN HEIGHT OR WALKING ON ROOFS HAVING A SLOPE GREATER THAN 4 UNITS VERTICAL IN 12 UNITS HORIZONTAL. SUCH ACCESS SHALL NOT REQUIRE THE USE OF PORTABLE LADDERS. WHERE ACCESS INVOLVES CLIMBING OVER PARAPET WALLS, THE HEIGHT SHALL BE MEASURED TO THE TOP OF THE PARAPET WALL. PERMANENT LADDERS SHALL COMPLY WITH REQUIREMENTS LISTED IN SECTION 306.5 OF THE 2018 INTERNATIONAL MECHANICAL CODE.
- WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE INSTALLED ON A ROOF HAVING A SLOPE OF 3 UNITS VERTICAL IN 12 UNITS HORIZONTAL OR GREATER AND HAVING AN EDGE MORE THAN 30 INCHES ABOVE GRADE AT SUCH EDGE, A LEVEL PLATFORM SHALL BE PROVIDED ON EACH SIDE OF THE APPLIANCE OR EQUIPMENT TO WHICH ACCESS IS REQUIRED FOR SERVICE, REPAIR OR MAINTENANCE. THE PLATFORM SHALL BE NOT LESS THAN 30" IN ANY DIMENSION AND SHALL BE PROVIDED WITH GUARDS. PLATFORM SHALL BE DESIGNED SUCH THAT EQUIPMENT MAINTENANCE ACCESS IS MAINTAINED PER MANUFACTURER'S INSTALLATION REQUIREMENTS (I.E. ACCESS PANELS AND DOORS CAN BE OPENED AND COMPONENTS CAN BE REMOVED AND MAINTAINED PER MANUFACTURER REQUIREMENTS). THE GUARDS SHALL EXTEND NOT LESS THAN 42 INCHES ABOVE THE PLATFORM. SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH DIAMETER SPHERE AND SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE INTERNATIONAL BUILDING CODE. ACCESS SHALL NOT REQUIRE WALKING ON ROOFS HAVING A SLOPE GREATER THAN 4 UNITS VERTICAL IN 12 UNITS HORIZONTAL. WHERE ACCESS INVOLVES OBSTRUCTIONS GREATER THAN 30 INCHES IN HEIGHT, SUCH OBSTRUCTIONS SHALL BE PROVIDED WITH LADDERS INSTALLED IN ACCORDANCE WITH SECTION 306.5 OR STAIRWAYS INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE INTERNATIONAL BUILDING CODE IN THE PATH OF TRAVEL TO AND FROM APPLIANCES, FANS OR EQUIPMENT REQUIRING SERVICE.
- GUARDS SHALL BE PROVIDED WHERE VARIOUS COMPONENTS THAT REQUIRE SERVICE AND ROOF HATCH OPENINGS ARE LOCATED WITHIN 10 FEET OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL EXTEND NOT LESS THAN 30 INCHES BEYOND EACH END OF COMPONENTS THAT REQUIRE SERVICE AND EACH END OF THE ROOF HATCH PARALLEL TO THE ROOF EDGE. THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42 INCHES ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH DIAMETER SPHERE AND SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE INTERNATIONAL BUILDING CODE. NOTE - GUARDS ARE NOT REQUIRED WHERE FALL ARREST/RESTRAINT ANCHORAGE DEVICES THAT COMPLY WITH ANSI/ASSP Z359.1 ARE INSTALLED.

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**100% CONSTRUCTION DOC'S**  
January 7, 2025  
Revisions

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**1402 BLAKE AVE**  
**100% CONSTRUCTION DOC'S**



**Job Site:**  
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GLENWOOD SPRINGS,  
COLORADO 81601

**MECHANICAL - MAIN LEVEL PLAN**

**Sheet Number:**

**M1-1**

**MECHANICAL - MAIN LEVEL PLAN** 2  
1/4" = 1'-0"



MECHANICAL PROVISIONS

- SCOPE OF WORK
  - THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
  - ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
  - THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
  - ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

- THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

- SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. FLEXIBLE DUCT WORK

- FLEXIBLE TYPE DUCT SHALL BE OF TWO ELEMENT SPIRAL CONSTRUCTION COMPOSED OF A CORROSION RESISTANT METAL SUPPORTING SPIRAL AND COATED FABRIC WITH A MINERAL BASE. FLEXIBLE DUCT CONNECTORS SHALL BE LISTED BY U.L., CLASS 1 DUCTS, AND SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50.
- USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO NO MORE THAN 6 LINEAR FEET PER RUN.
- CONTRACTOR SHALL BE CAREFUL SO AS NOT TO KINK OR COLLAPSE FLEXIBLE DUCT.

5. REFRIGERANT

- PIPING CONTRACTOR SHALL PROVIDE AND INSTALL REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND IN SUCH A WAY AS TO BE INCONSPICUOUS AND FREE FROM ANY POSSIBLE CONDENSATION.
- INSULATE REFRIGERANT LINES WITH ARMOUR-FLEX TYPE INSULATION. SHALL BE TYPE "K" COPPER TUBING, WITH WROUGHT COPPER SOLDER TYPE FITTINGS SUITABLE FOR CONNECTION WITH SILVER SOLDER.

6. DUCTWORK

- THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS.
- ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.
- CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.
- ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
- ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
- ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.
- ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1-1/2" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOIL FACING.
- ALL SUPPLY AND RETURN DUCTWORK 15 FEET DOWNSTREAM OF THE HVAC UNIT SHALL BE INTERNALLY LINED WITH A 1/2" ACOUSTICAL DUCT LINER UNLESS OTHERWISE NOTED ON THE DRAWINGS.

7. DRAINAGE PIPING

- (CONDENSATE) SHALL BE SCHEDULE 40 PVC PIPE WITH SOLVENT JOINTS. PITCH HORIZONTAL LINES 1" IN 10'-0". CONDENSATE DRAINS SHALL BE ROUTED TO FLOOR DRAIN, ROOF DRAIN OR INDIRECT WASTE DRAIN.

8. HVAC CONTROLS

- CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.

9. ELECTRICAL

- CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.

10. PIPE SUPPORTS

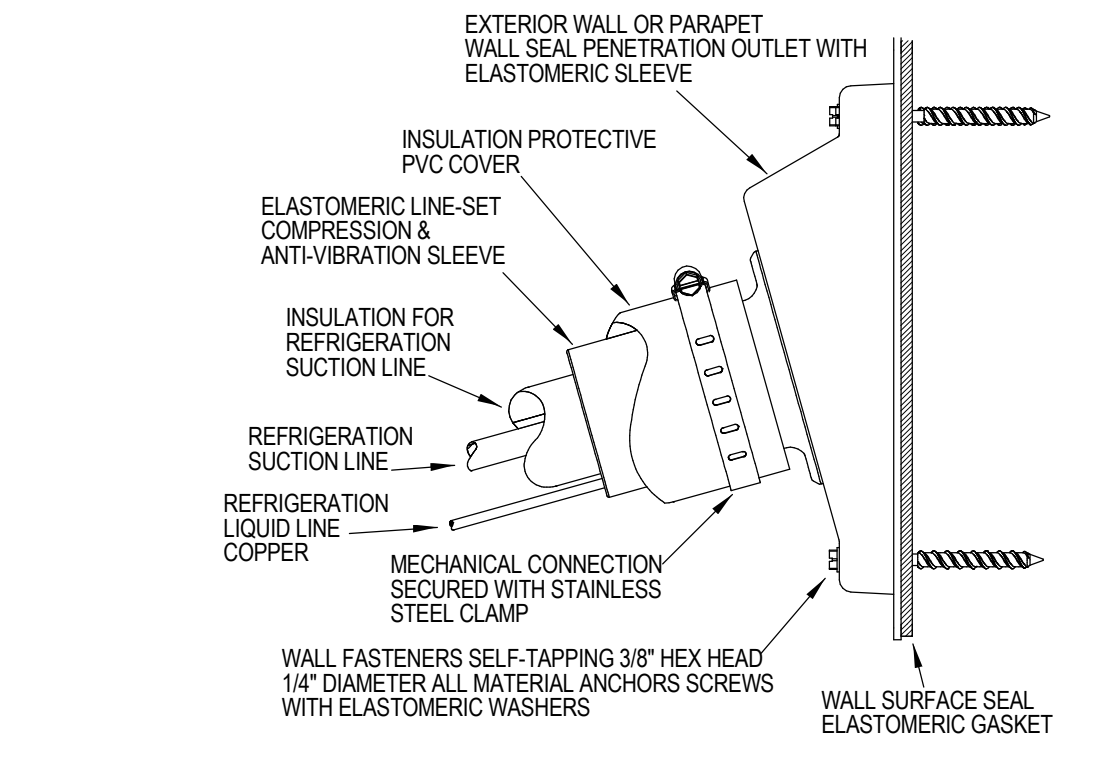
- ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE OR METAL STRAP TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL NOT EXCEED 8 FEET FOR ALL PIPING. PLASTIC PIPING TO BE SUPPORTED EVERY 4 FEET.

11. GAS PIPING

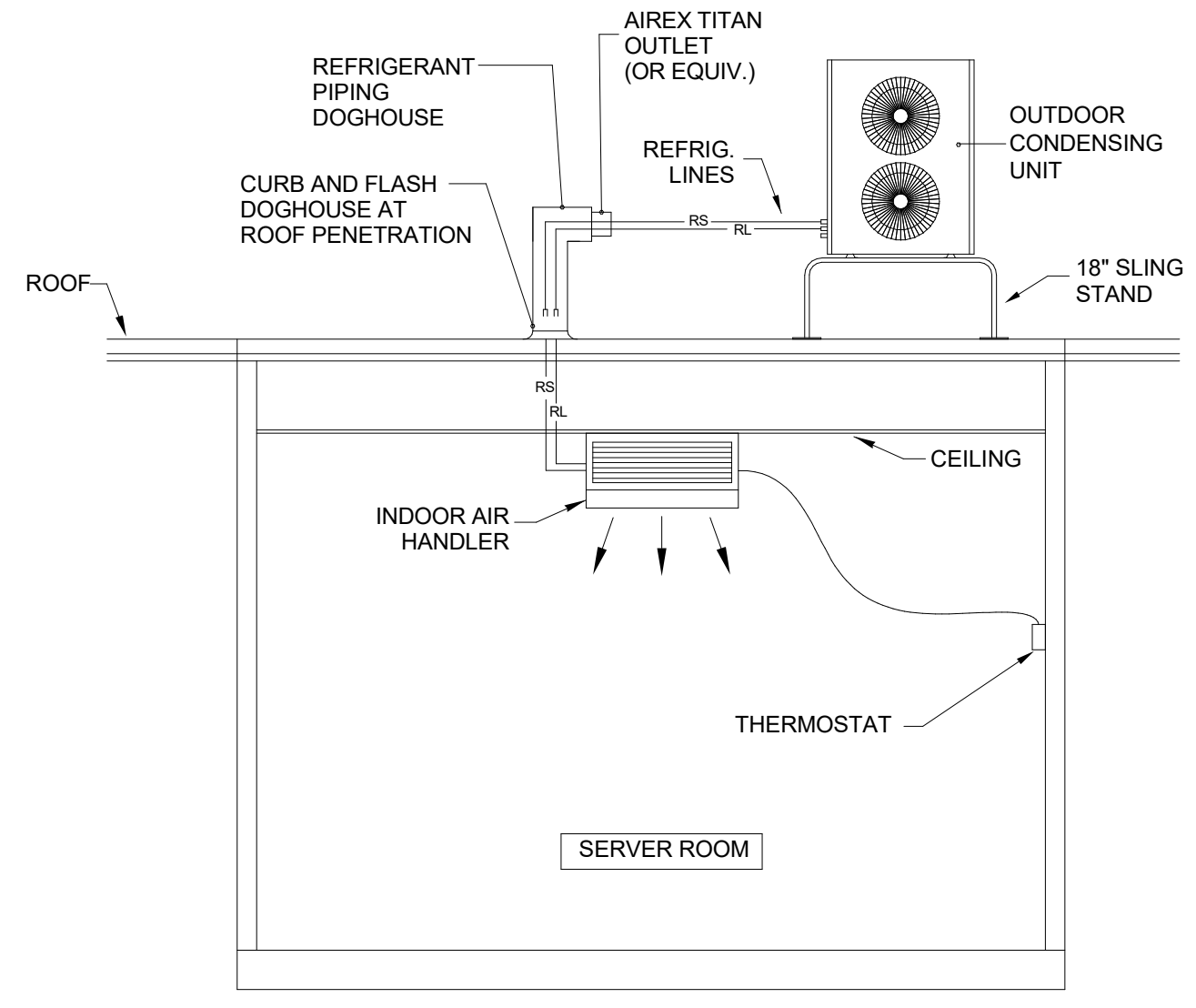
- PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH MALLEABLE IRON FITTINGS. WHERE GAS PIPE CONNECTS TO EQUIPMENT, IT SHALL BE PROVIDED WITH A DRIP LEG THE FULL SIZE OF THE RUNOUT. A 100% SHUT-OFF VALVE AND A UNION. GAS PIPING CONTAINING PRESSURE GREATER THAN 9" W.G. SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH WELDED JOINTS.

12. MISCELLANEOUS

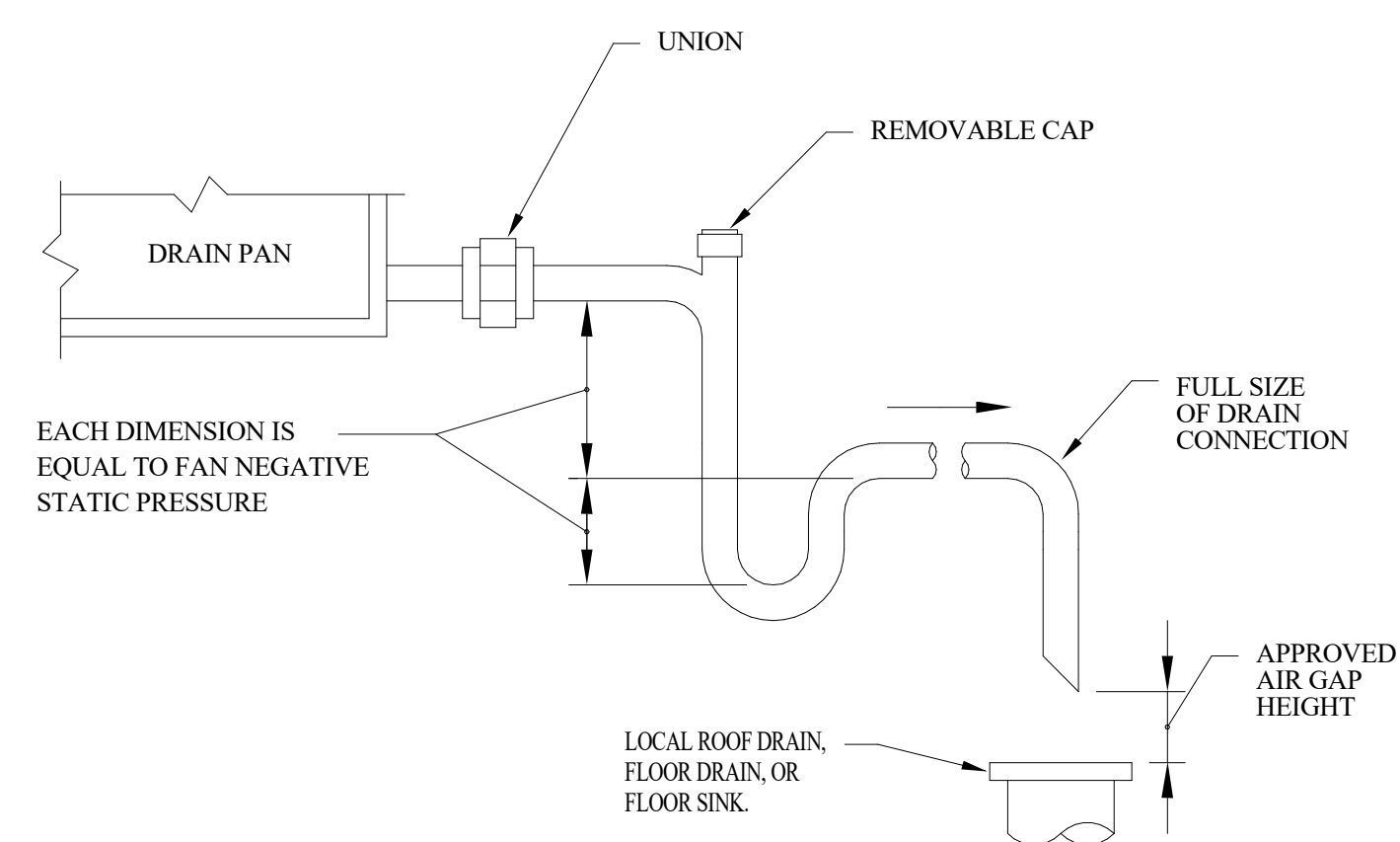
- ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE, TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.
- DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS.
- VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
- THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
- PEX TUBING, IF PEX TUBING IS USED AS AN APPROVED ALTERNATE FOR APPLICATIONS WHERE METALLIC PIPING IS THE BASIS OF DESIGN, THE PEX MANUFACTURER SHALL SUBMIT SHOP DRAWINGS CLEARLY INDICATING THAT THE DESIGN HAS BEEN ANALYZED AND MODIFIED, AS REQUIRED TO MAINTAIN SCHEDULED HYDRONIC SYSTEM PARAMETERS. ANY DESIGN RESULTING IN INCREASED SYSTEM PRESSURE DROP AS A RESULT OF IMPROPER PEX SIZING OR DESIGN SHALL NOT BE PERMITTED.
- TESTING AND BALANCING
  - THE HVAC SYSTEM SHALL BE TESTED AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.
- GUARANTEE
  - MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
  - FOR THE SAME PERIOD, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.



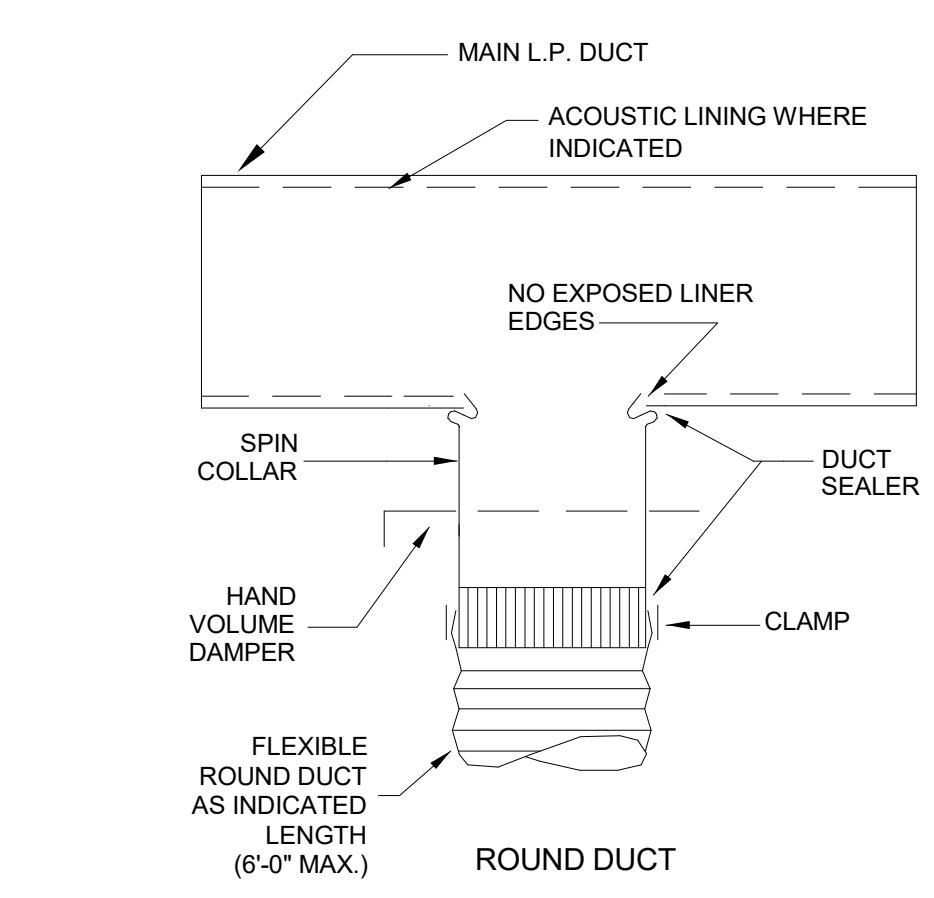
REFRIGERATION PIPE PENETRATION DETAIL



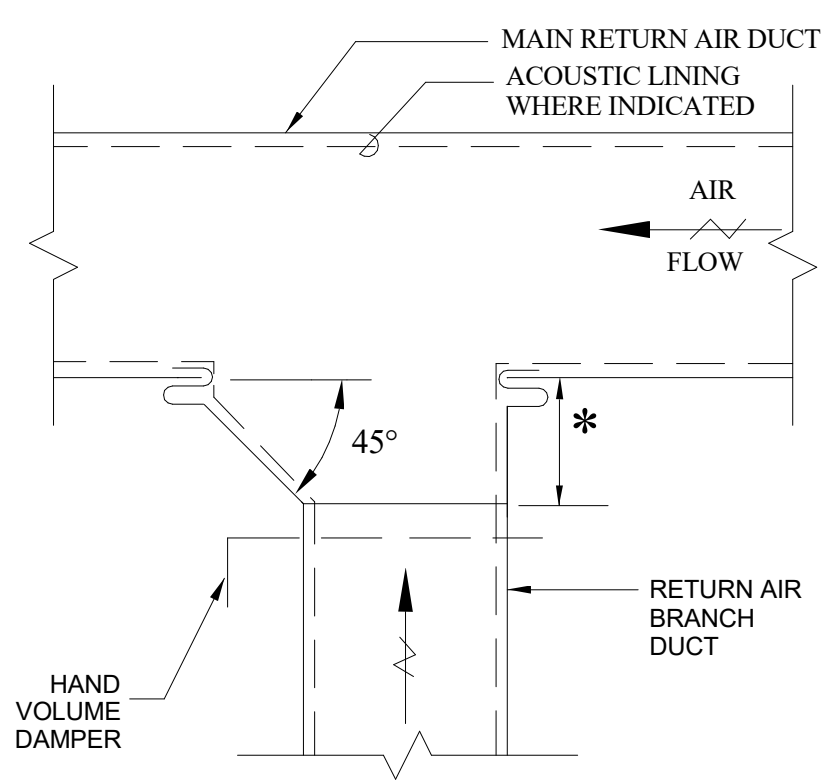
DUCTLESS MINI-SPLIT SYSTEM DETAIL



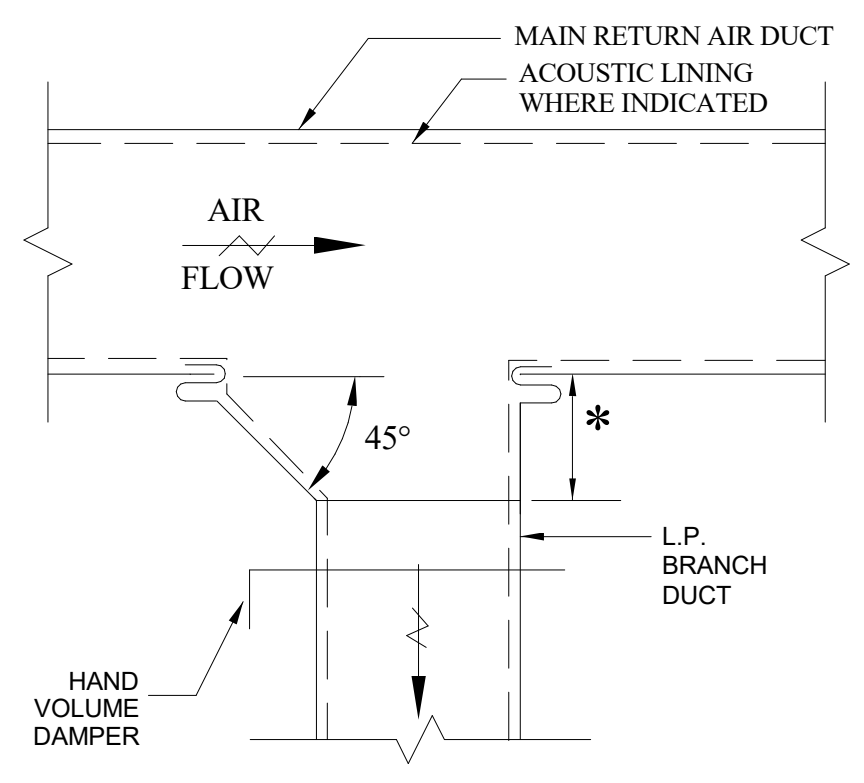
CONDENSATE DRAIN DETAIL



TYPICAL LOW PRESSURE BRANCH DUCT TAKE-OFF



TYPICAL RETURN AIR BRANCH DUCT TAKE-OFF



TYPICAL SUPPLY AIR BRANCH DUCT TAKE-OFF

EQUIPMENT NO.	SERVICE	LOCATION	NOM. COOLING CAPACITY (BTU/HR)	NOM. HEATING CAPACITY (BTU/HR)	SUPPLY AIRFLOW (CFM)	HSPF2 EFF.	REFRIG. PIPING SIZE (IN)			ELECTRICAL			MANUFACTURER	MODEL #	OPTIONS/ACCESSORIES	
							LIQUID	VAPOR		VOLTS	PHASE	FREQ.				MCA
HP-1	SERVER ROOM	CEILING	24,000	26,000	670	9.2	3/8	5/8		230 V	1	60 Hz	1 A	MITSUBISHI	PCA-A24KA8	SEE NOTE 1
HP-2	SERVER ROOM (FOR REDUNDANCY)	CEILING	24,000	26,000	670	9.2	3/8	5/8		230 V	1	60 Hz	1 A	MITSUBISHI	PCA-A24KA8	SEE NOTE 1

NOTES:  
1. PROVIDE WITH CEILING MOUNTING KITS, WIRED THERMOSTAT, POWER DISCONNECT, LINESET RECOMMENDED BY MANUFACTURER. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

EQUIPMENT NO.	SERVICE	LOCATION	NOM. COOLING CAPACITY (BTU/HR)	SEER2 EFF.	REFRIG. PIPING SIZE (IN)			ELECTRICAL			MANUFACTURER	MODEL #	OPTIONS/ACCESSORIES		
					LIQUID	VAPOR		VOLTS	PHASE	FREQ.				MCA	MOCPC
CU-1	HP-1	ROOFTOP	24,000	21	3/8	5/8		230 V	1	60 Hz	19 A	26 A	MITSUBISHI	PUZ-A24NH47	SEE NOTE 1
CU-2	HP-2	ROOFTOP	24,000	21	3/8	5/8		230 V	1	60 Hz	19 A	26 A	MITSUBISHI	PUZ-A24NH47	SEE NOTE 1

NOTES:  
1. PROVIDE WITH MITSUBISHI WB-PA5 WIND BAFFLE, QSMS180M 18" HIGH SLING STAND. PROVIDE WITH REQUIRED SERVICE CLEARANCES AND INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE REFRIGERANT PIPE INSULATION AND LINESET PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR TO ENSURE THAT THE INSTALLED LOCATION OF THESE OUTDOOR CONDENSING UNITS (INCLUDING ALL REFRIGERANT PIPING AND ACCESSORIES) DOES NOT INTERFERE WITH ANY EMERGENCY EGRESS PATHS ON THE ROOFTOP.

EQUIPMENT NO.	SERVICE	LOCATION	EXHAUST AIRFLOW (CFM)	EXHAUST E.S.P.	POWER (W)	SPEED (RPM)	MOTOR			MANUFACTURER	MODEL #	OPTIONS/ACCESSORIES
							VOLTS	PHASE	FREQ.			
EF-1	ADA CHILD RESTROOM 1	CEILING	110	0.375	17	1,089	120 V	1	60 Hz	PANASONIC	FV-0511VK3	SEE NOTE 1
EF-2	ADA CHILD RESTROOM 2	CEILING	110	0.375	17	1,089	120 V	1	60 Hz	PANASONIC	FV-0511VK3	SEE NOTE 1

NOTES:  
1. CEILING MOUNTED EXHAUST FAN; HOUSING TO BE 26 GAUGE STEEL WITH ZINC-ALUMINUM-MAGNESIUM COATING. MOTOR TO BE BRUSHLESS ECM TYPE. PROVIDE WITH MOUNTING FRAME, ARCHITECTURAL GRILLE, BACKDRAFT DAMPER, PANASONIC FV-MSV1 MOTION SENSOR & FV-VS15VK1 MULTISPEED SWITCH WITH TIME DELAY.

TYPE MARK	SERVICE	LOCATION	BTU/HR	POWER	ELECTRICAL			MANUFACTURER	MODEL #	OPTIONS/ACCESSORIES	
					AMPS	VOLTS	FREQ.				
EUH-1	STORAGE 134	WALL	2,559	750 W	6.3 A	120 V	1	60 Hz	INDEECO	930W-R1500T2-W	SEE NOTE 1
EUH-2	HALLWAY 132	CEILING, RECESSED	2,559	750 W	6.3 A	120 V	1	60 Hz	INDEECO	941F-U1500-W	SEE NOTE 2

NOTES:  
1. PROVIDE WITH INDEECO WIF-RSM-W SURFACE MOUNTING FRAME FOR NON-RECESSED UNIT OR INDEECO WIX-RBB-W BACKBOX FOR RECESSED MOUNTING. MOUNTING KIT WITH TAMPER PROOF INTEGRAL DOUBLE-POLE THERMOSTAT. MOUNTING BOX SHALL BE HEAVY GAGE STEEL WITH KNOCKOUTS FOR POWER LEADS.  
2. PROVIDE WITH INDEECO FIF-AS1-W BACKBOX FOR RECESSED MOUNTING. MOUNTING KIT WITH TAMPER PROOF INTEGRAL DOUBLE-POLE THERMOSTAT. MOUNTING BOX SHALL BE HEAVY GAGE STEEL WITH KNOCKOUTS FOR POWER LEADS.

EQUIPMENT NO.	MOUNTING TYPE	DIFFUSER SIZE	FINISH	MANUFACTURER	MODEL #	OPTIONS/ACCESSORIES

NOTES:  
1. STEEL CONSTRUCTION. PROVIDE WITH CEILING MOUNTING FRAME. OWNER/ARCHITECT TO CONFIRM FINISH.



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Release of these plans contemplates further cooperation among the owner, his or her contractor, and the architect. Design and construction are complex. Although the architect and his/her consultants have performed their services with due care and diligence, they cannot guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a simple notice to the architect shall relieve the architect from responsibility for all consequences. Changes made from the plans without consent of the architect are unauthorized and shall relieve the designer from all consequences arising out of such changes.

100% CONSTRUCTION DOC'S  
January 7, 2025  
Revisions

**CMC MINI COLLEGE**  
**1402 BLAKE AVE**  
**100% CONSTRUCTION DOC'S**



**Job Site:**  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

**MECHANICAL - SCHEDULES & DETAILS**

Sheet Number:

**M3-1**

**PLUMBING PIPE DESIGNATIONS**

LINE TYPE	DESCRIPTION
140	HIGH TEMPERATURE (140°) WATER PIPE
---	COLD WATER PIPE (CW)
CA	COMPRESSED AIR
DC	DECONTAMINATION PIPING
DER	DEIONIZED WATER RETURN
DES	DEIONIZED WATER SUPPLY
DIS	DISTILLED WATER SUPPLY
DIR	DISTILLED WATER RETURN
CD	EQUIPMENT CONDENSATE DRAIN
FP	FIRE MAIN
GW	GREASE WASTE PIPE
HE	HELIUM
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
---	HOT WATER RECIRCULATION (HWR)
---	HOT WATER PIPE (HW)
H2	HYDROGEN
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
MA	MEDICAL AIR
G	NATURAL GAS PIPE
N2	NITROGEN
N2O	NITROUS OXIDE
ORD	OVERFLOW STORM WATER PIPE
O2	OXYGEN
PG	PROPANE GAS
RD	ROOF DRAIN PIPE
---	SOIL OR WASTE PIPE
S/O	SOIL / OIL WASTE PIPE
TWR	TOWER WATER RETURN
TWS	TOWER WATER SUPPLY
VAC	VACUUM
---	VENT PIPE (V)

**PLUMBING ELEMENTS / VALVING**

LINE TYPE	DESCRIPTION	LINE TYPE	DESCRIPTION
	PRESSURE REDUCING VALVE (PRV)		PIPE RISING UP
	GATE VALVE		PIPE DROPPING DOWN
	GLOBE VALVE		UNION - SCREWED OR FLANGED
	PLUG VALVE		PRESSURE TRANSMITTER OR PRESSURE SWITCH
	BUTTERFLY VALVE		THERMOMETER/TEMPERATURE INDICATOR
	BALL VALVE		GAUGE WITH GAUGE COCK/ PRESSURE INDICATOR
	SWING CHECK VALVE		BACKFLOW PREVENTOR (REDUCED ZONE)
	LIFT CHECK VALVE		BACKFLOW PREVENTOR (DOUBLE CHECK VALVE ASSEMBLY)
	GATE VALVE, ANGLE		WATER HAMMER ARRESTER
	GLOBE VALVE, ANGLE		CIRCUIT SETTING
	TEMPERATURE AND PRESSURE RELIEF VALVE		HOSE BIBB
	RELIEF/SAFETY VALVE		ROOF DRAIN
	GAS COCK		FLOOR DRAIN
	GAS PRESSURE REGULATOR		AREA DRAIN
	STRAINER		FLOOR CLEAN OUT
	STRAINER WITH BLOW OFF VALVE		FLOOR SINK
	WATER HEATER		CLEAN OUT TO GRADE
	WATER METER		WALL CLEAN OUT
	PRESSURE GAGE		FLEXIBLE-CONNECTION
	TEMPERATURE GAGE		CHECK VALVE
			VACUUM BREAKER

**RESPONSIBLE DIVISION:**

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

EQUIPMENT	FURNISHED	SET	POWER WIRED	CONTROL WIRED
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	--
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

**SUBSCRIPT FOOTNOTES:**

- MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS
- IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

**ABBREVIATIONS:**

44"	MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DF	DRINKING FOUNTAIN	HP	HEAT PUMP	PT	PRESSURE TRANSMITTER
A	AMPS	DIA	DIAMETER	HP	HORSEPOWER	PTAC	PACKAGED TERMINAL AIR CONDITIONER
A.D	ACCESS DOOR	DIAG	DIAGRAM	HR	HOUR	HR	HOUR
ADV	ADMITTANCE VALVE	DIFF	DIFFERENTIAL	HT	HEIGHT	PV	PLUG VALVE
ABV	ABOVE	DISCH	DISCHARGE	HTR	HEATER	PVC	POLYVINYL CHLORIDE
AC	AIR CONDITIONING UNIT	DIV	DIVISION	HWR	HEATING WATER RETURN	QTY	QUANTITY
AC	ABOVE COUNTER	DN	DOWN	HWS	HEATING WATER SUPPLY	RA	RETURN AIR GRILLE / REGISTER
AD	AREA DRAIN (SEE SYMBOLS)	DS	DUCT SILENCER	HX	HEAT EXCHANGER	RCP	REFLECTED CEILING PLAN
AFC	ABOVE FINISHED CEILING	DWG	DRAWING	HZ	HERTZ	RD	ROOF DRAIN
AFG	ABOVE FINISHED GRADE	DX	DIRECT EXPANSION	ID	INSIDE DIAMETER	REL	RELIEF
AIC	AMPERE INTERRUPTING CAPACITY	(E)	EXISTING	IG	ISOLATED GROUND	REQD	REQUIRED
AFCI	ARC FAULT CIRCUIT INTERRUPTERS	EA	EXHAUST AIR GRILLE/REGISTER	IN	INCHES	RF	RETURN FAN
AFF	ABOVE FINISHED FLOOR	EAT	ENTERING AIR TEMPERATURE	INV	INVERT	RH	RELATIVE HUMIDITY
AHU	AIR HANDLING UNIT	EC	ELECTRICAL CONTRACTOR	JBOX	JUNCTION BOX	RHC	REHEAT COIL
ALUM	ALUMINUM	ECC	ECCENTRIC	K	KELVIN	RLA	RATED LOAD AMPS
AP	ACCESS PANEL OR DOOR	EF	EXHAUST FAN	KW	KILOWATT	RM	ROOM
ATS	AUTOMATIC TRANSFER SWITCH	EFF	EFFICIENCY	KVA	KILO VOLT - AMPS	RPM	REVOLUTIONS PER MINUTE
AV	AUDIO / VIDEO	EL	ELEVATION	L	LENGTH	SA	SUPPLY AIR GRILLE / REGISTER
AVG	AVERAGE	ELEC	ELECTRIC	LAT	LEAVING AIR TEMPERATURE	SC	SHORT CIRCUIT AVAILABLE
AWG	AMERICAN WIRE GAGE	ELEV	ELEVATOR	LV	LAVATORY	SCCR	SHORT CIRCUIT CURRENT RATING
BAS	BUILDING AUTOMATION SYSTEM	EM	EMERGENCY FUNCTION	LB	POUND	SCH	SCHEDULE
BB	BASEBOARD	ENT	ENTERING	LD	LINEAR DIFFUSER	SD	SMOKE DAMPER
BD	BACK DRAFT DAMPER	EQ	EQUAL	LF	LINEAR FEET	SEF	SMOKE EXHAUST FAN
BFP	BACK FLOW PREVENTOR	EQUIP	EQUIPMENT	LIQ	LIQUID	SF	SUPPLY FAN
BL	BOILER	EQUIV	EQUIVALENT	LM	LUMEN	SH	SENSIBLE HEAT
BLDG	BUILDING	ESP	EXTERNAL STATIC PRESSURE	LRA	LOCKED ROTOR AMPS	SH	SHOWER
BLW	BELOW	ET	EXPANSION TANK	LV	LOUVER	SP	STATIC PRESSURE
BOB	BOTTOM OF BEAM	EWC	ELECTRIC WATER COOLER	LVG	LEAVING	SPD	SURGE PROTECTION DEVICE
BOD	BOTTOM OF DUCT	EWT	ENTERING WATER TEMPERATURE	LWT	LEAVING WATER TEMPERATURE	SPEC	SPECIFICATION
BOP	BOTTOM OF PIPE	MBH	THOUSANDS OF BTU PER HOUR	MBH	THOUSANDS OF BTU PER HOUR	SQ	SQUARE
BSMT	BASEMENT	MC	MECHANICAL CONTRACTOR	MCA	MINIMUM CIRCUIT AMPACITY	SS	STAINLESS STEEL
BTU	BRITISH THERMAL UNIT	MCB	MAIN CIRCUIT BREAKER	MCB	MAIN CIRCUIT BREAKER	SS	SAFETY SHOWER
C	CHILLER	EXT	EXTERNAL	MD	MOTORIZED DAMPER	STD	STANDARD
CAFCI	COMBINATION ARC FAULT CIRCUIT INTERRUPTERS	F	DEGREES FAHRENHEIT	MDP	MAIN DISTRIBUTION PANEL	STL	STEEL
CAP	CAPACITY	FA	FREE AREA	MED	MEDIUM	SYS	SYSTEM
CB	CIRCUIT BREAKER	FC	FAN COIL UNIT	MFR	MANUFACTURER	TEMP	TEMPERATURE
CBV	CIRCUIT BALANCING VALVE	FC	FOOTCANDLE	MIN	MINIMUM	TR	TRANSFER GRILLE / REGISTER
CCT	CORRELATED COLOR TEMPERATURE	FCV	FLOW CONTROL VALVE	MISC	MISCELLANEOUS	TR	TAMPER RESISTANT
CKT	CIRCUIT	FD	FIRE DAMPER	MLO	MAIN LUG ONLY	TT	TEMPERATURE TRANSMITTER
CFH	CUBIC FEET PER HOUR	FD	FLOOR DRAIN	MOC	MAXIMUM OVERCURRENT PROTECTION	TTB	TELECOMMUNICATIONS TERMINAL BACKBOARD
CFM	CUBIC FEET PER MINUTE	FIN	FINISHED	MTD	MOUNTED	TYP	TYPICAL
CHWR	CHILLED WATER RETURN	FLA	FULL LOAD AMPS	MJA	MAKE-UP AIR UNIT	TX	TRANSFORMER
CHWS	CHILLED WATER SUPPLY	FLEX	FLEXIBLE	N	NEUTRAL	UC	UNDERCUT DOOR
CI	CAST IRON	FLR	FLOOR	N	NEUTRAL	UH	UNIT HEATER
CJ	CENTER LINE	FOB	FLAT ON BOTTOM	NC	NORMALLY CLOSED	UNO	UNLESS NOTED OTHERWISE
CLG	CEILING	FOT	FLAT ON TOP	NEG	NEGATIVE	UNOCC	UNOCCUPIED
CMU	CONCRETE MASONRY UNIT	FP	FIRE PROTECTION	NL	NIGHT / SECURITY LIGHT - DO NOT SWITCH	UR	URINAL
COL	CLEAN OUT	FPM	FEET PER MINUTE	NL	NIGHT / SECURITY LIGHT - DO NOT SWITCH	V	VOLTS
CO	COLUMN	FPS	FEET PER SECOND	NOM	NORMALLY OPEN	VA	VOLT AMPERE
COMP	COMPRESSOR	FS	FLOW SWITCH	NOM	NOMINAL	VA	VALVE
CONC	CONCRETE	FSD	FIRE/SMOKE DAMPER	NTS	NOT TO SCALE	VAV	VARIABLE AIR VOLUME UNIT
COND	CONDENSATE	FT	FEET	OA	OUTSIDE AIR	VFD	VARIABLE FREQUENCY DRIVE
CONN	CONNECTION	FXC	FLEXIBLE CONNECTION	OB	OPPOSED BLADE DAMPER	VRF	VARIABLE REFRIGERANT FLOW
CONT	CONTINUATION	GND	GROUND	OC	ON CENTER	VOLT	VOLTAGE
CONTR	CONTRACTOR	GAL	GALLON	OCC	OCCUPIED	VTR	VENT THROUGH ROOF
CRI	COLOR RENDERING INDEX	GALV	GALVANIZED	OCP	OVER CURRENT PROTECTION	W	WIDTH
CT	COOLING TOWER	GEC	GROUND ELECTRODE CONDUCTOR	OD	OUTSIDE DIAMETER	W	WATTS
CT	CURRENT TRANSFORMER	GF	GROUND FAULT CIRCUIT INTERRUPTER	OL	OVERLOAD	W	WITH
CU	COPPER	GU	GENERAL CONTRACTOR	ORD	OVERFLOW ROOF DRAIN	W/O	WITHOUT
CUH	CABINET UNIT HEATER	GPH	GALLONS PER HOUR	OZ	OUNCE	WB	WET BULB
CVB	CONSTANT VOLUME BOX	GPM	GALLONS PER MINUTE	PBD	PARALLEL BLADE DAMPER	WC	WATER COLUMN
CWR	CONDENSER WATER RETURN	GRLB	GRAINS PER POUND	PD	PRESSURE DROP	WC	WATER CLOSET
CWS	CONDENSER WATER SUPPLY	H2O	WATER	PH	PHASE	WG	WATER GAUGE
DB	DRY BULB	HB	HOSE BIBB	POS	POSITIVE PRESSURE	WPI	WEATHERPROOF INUSE
DEPT	DEPARTMENT	HD	HEAD (SEE SCHEDULES)	POS	POINT OF SALES	WSR	WITHSTAND RATING
				PS	PRESSURE SWITCH	XFMR	TRANSFORMER
				PSI	POUNDS PER SQUARE INCH		

**PLUMBING SHEET LIST**

Sheet Number	Sheet Name
P0-1	PLUMBING COVER SHEET
P1-1	PLUMBING - MAIN LEVEL PLAN
P3-1	PLUMBING SCHEDULES



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**SUBSTITUTIONS:**

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

**EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:**

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS ALSO INCLUDES THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

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100% CONSTRUCTION DOC'S  
January 7, 2025  
Revisions

**CMC MINI COLLEGE  
1402 BLAKE AVE  
100% CONSTRUCTION DOC'S**



**Job Site:**  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

**PLUMBING COVER SHEET**

**Sheet Number:**

**P0-1**



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P1-1 PLUMBING KEYNOTES	
Note Number	Note Text
1	CONNECT TO EXISTING
2	DISHWASHER WATER SUPPLY CONNECTED IN ACCORDANCE WITH 2018 IPC SECTION 409.2. DISHWASHER WASTE CONNECTED TO KITCHEN SINK WASTE IN ACCORDANCE WITH 2018 IPC SECTION 409.4.

**PLUMBING GENERAL NOTES:**

- DRAWING IS DIAGRAMMATIC IN NATURE. LOCATIONS AND SIZES MAY VARY DURING FIELD COORDINATION & INSTALLATION OF MECHANICAL, PLUMBING, & ELECTRICAL. DRAWINGS DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK. VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
- PIPE DIMENSIONS DO NOT REFLECT ADDITIONAL DIMENSIONS FOR INSULATION. ALL PIPING SHALL BE INSULATED PER 2018 IECC CODE REQUIREMENTS.
- ROUTE CONDENSATE FROM CONDENSING MECHANICAL EQUIPMENT TO CONDENSATE NEUTRALIZATION KITS. CONDENSATE FROM NEUTRALIZATION KITS SHALL BE DISCHARGED INDIRECTLY THROUGH AIR GAP TO NEAREST FLOOR DRAIN.
- ALL PLUMBING FIXTURES WITH QUICK CLOSING VALVES ON DOMESTIC COLD/HOT WATER SHALL BE PROVIDED WITH WATER HAMMER ARRESTOR.
- PROVIDE ISOLATION VALVES AT GROUP RESTROOMS TO ALLOW FOR TOTAL ISOLATION OF THE ENTIRE RESTROOM GROUP FROM THE REST OF THE DOMESTIC COLD, HOT AND HOT RE-CIRCULATION SYSTEMS.
- ALL PLUMBING FIXTURES SHALL BE VENTED BY PLUMBING CONTRACTOR PER IPC REQUIREMENTS.
- CONTRACTOR SHALL CLEAN AND SERVICE ALL EXISTING EQUIPMENT/PLUMBING FIXTURES TO REMAIN. CONTRACTOR SHALL VERIFY ALL EQUIPMENT/PLUMBING FIXTURES ARE PROPERLY FUNCTIONING PRIOR TO RE-USING EQUIPMENT/FIXTURES. CONTRACTOR TO INSURE THAT FINAL PLUMBING SYSTEM WILL OPERATE AS INTENDED ON PROVIDED DRAWINGS.
- PLUMBING FIXTURE MANUFACTURERS AS SCHEDULED ON PLUMBING DRAWINGS ARE SUGGESTED MANUFACTURER'S AND MODELS. UNLESS NOTED OTHERWISE DUE TO OWNER/CLIENT REQUIREMENTS AND PREFERENCES, PLUMBING CONTRACTOR CAN SUBMIT EQUIVALENT FIXTURES FROM MANUFACTURERS THAT DIFFER FROM SCHEDULED PLUMBING FIXTURES. ALTERNATE MANUFACTURERS OF PLUMBING FIXTURES WILL BE REVIEWED FOR EQUIVALENCE OF PERFORMANCE AND FUNCTIONALITY BY ENGINEER.
- ALL EXTERIOR METALLIC NATURAL GAS PIPING SHALL BE TREATED WITH CORROSIVE INHIBITOR COATING. COATING SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATION SO THAT COATING MAINTAINS INTEGRITY OF GAS PIPING. COATING SHALL BE UV RESISTANT.
- PRIOR TO BIDDING OR BEGINNING ANY CONSTRUCTION, CONTRACTOR SHALL OBSERVE EXISTING CONDITIONS IN FIELD. CONTRACTOR SHALL OBSERVE AND CONFIRM FIELD LOCATIONS OF EXISTING DOMESTIC WATER AND SANITARY SEWER FOR SERVICE CONNECTIONS. CONTRACTOR SHALL VERIFY EXISTING SANITARY WASTE SEWER INVERT AT ANTICIPATED TIE IN LOCATION. CONFIRM NO OBSTACLES ARE IN PATH OF ANTICIPATED GRAVITY SANITARY SEWER TIE IN LOCATION AND INVERT IS ADEQUATE.

**NOTICE: DUTY OF COOPERATION**

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**100% CONSTRUCTION DOC'S**  
January 7, 2025  
Revisions

**CMC MINI COLLEGE  
1402 BLAKE AVE  
100% CONSTRUCTION DOC'S**

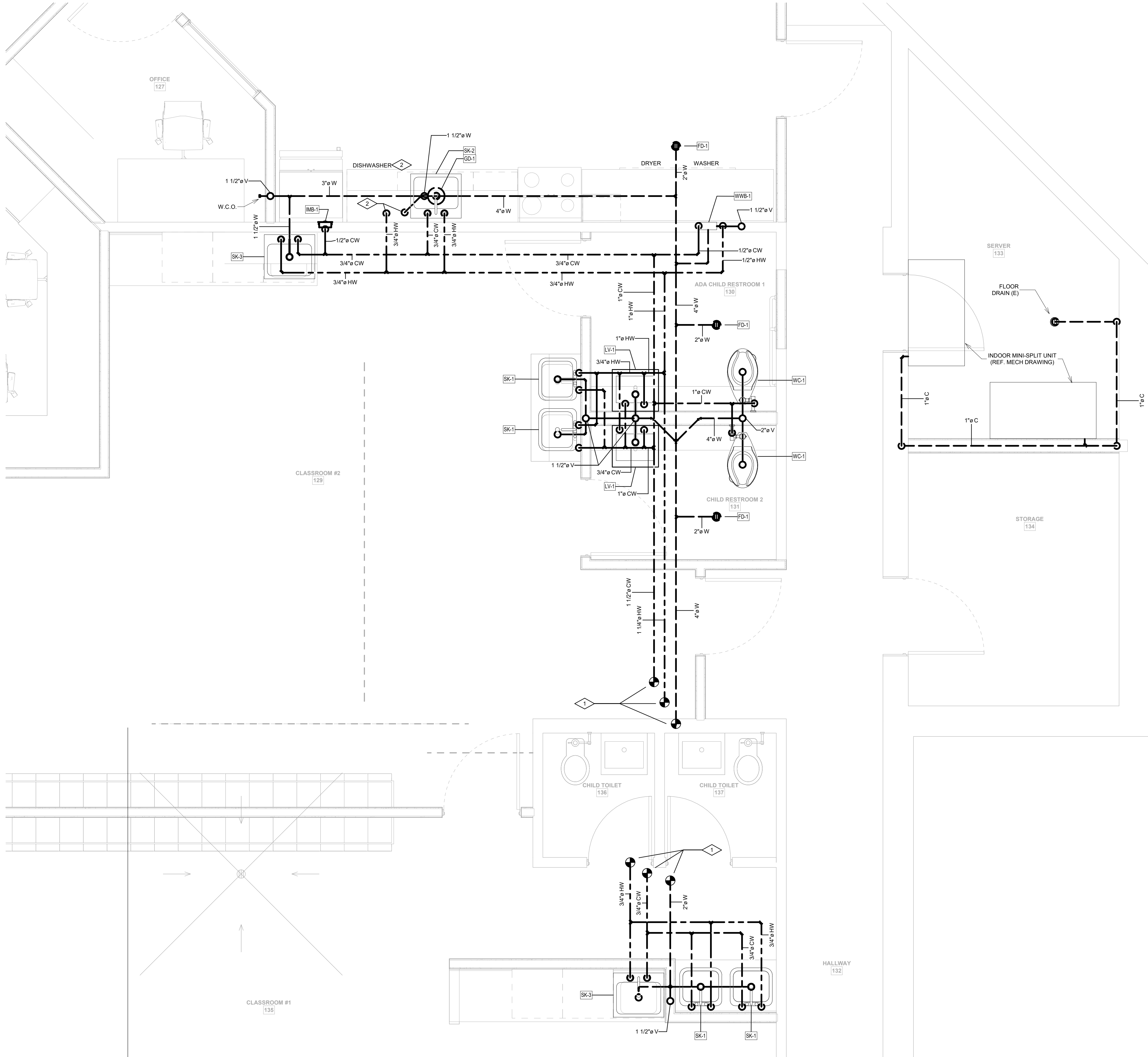


**Job Site:**  
1402 BLAKE AVE  
GLENWOOD SPRINGS,  
COLORADO 81601

**PLUMBING - MAIN  
LEVEL PLAN**

**Sheet Number:**

**P1-1**



**PLUMBING - MAIN LEVEL PLAN** 1  
1/2" = 1'-0"





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### PLUMBING FIXTURE SCHEDULE

TYPE MARK	MANUFACTURER	MODEL #	TRIM	PIPE CONNECTIONS				OPTIONS/ ACCESSORIES
				SW	VENT	CW	HW	
FD-1	ZURN	Z415-B21	NICKEL BRONZE	2"	1-1/2"	-	-	PROVIDE WITH POLISHED NICKEL BRONZE STRAINER, MECHANICAL TRAP SEAL EQUIVALENT TO J.R. SMITH QUAD CLOSE TRAP SEAL ASSE 1072 RATED.
GD-1	INSINKERATOR	BADGER 5	-	2"	1-1/2"	-	-	PROVIDE WITH POLISHED NICKEL BRONZE STRAINER, MECHANICAL TRAP SEAL EQUIVALENT TO J.R. SMITH QUAD CLOSE TRAP SEAL ASSE 1072 RATED.
IMB-1	QATEY	38579	-	-	-	1/2"	-	PROVIDE WITH 1/4 TURN VALVE, WATER HAMMER ARRESTOR.
LV-1	KOHLER	K-1997-1	VITREOUS CHINA	2"	1-1/2"	3/4"	3/4"	PROVIDE WITH PRO-FLOW PFWS02857 SINGLE-HOLE FAUCET, ZURN Z1231 WALL MOUNT CARRIER, ZURN Z8743-PC DRAIN AND ZURN ZW3870XL THERMOSTATIC MIXING VALVE.
SK-1	ELKAY	ECTRU21179T	STAINLESS STEEL	2"	1-1/2"	3/4"	3/4"	PROVIDE WITH ELKAY LK406GN054 FAUCET AND KOHLER K-8801 DRAIN.
SK-2	ELKAY	ELUH2317	STAINLESS STEEL	2"	1-1/2"	3/4"	3/4"	PROVIDE WITH AMERICAN STANDARD MONTERREY 6114 FAUCET AND KOHLER K-8801 DRAIN.
SK-3	ELKAY	DSESR1272Z	STAINLESS STEEL	2"	1-1/2"	3/4"	3/4"	PROVIDE WITH AMERICAN STANDARD MONTERREY 6114 FAUCET AND KOHLER K-8801 DRAIN.
WC-1	ZURN	Z5675-BWL	VITREOUS CHINA	4"	2"	1"	-	CHILDREN'S FLOOR MOUNTED TOILET, 10.5" HIGH BOWL HEIGHT. PROVIDE WITH ZURN Z6000-HET MANUAL FLUSH VALVE. PROVIDE WITH SEAT.
WWB-1	QATEY	38479	FIRE RATED PLASTIC	2"	1-1/2"	1/2"	1/2"	PROVIDE WITH 1/4 TURN VALVES, 2" WASTE CONNECTION, WATER HAMMER ARRESTOR.

#### PLUMBING SPECIFICATION

##### 1. SCOPE OF WORK

A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.

B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION), ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.

C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.

D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED AS EQUAL" BY THE ENGINEER OR ARCHITECT.

##### 2. PERMITS

A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

##### 3. SHOP DRAWINGS

A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

##### 4. DOMESTIC WATER SUPPLY PIPING

A. UNDERGROUND: PROVIDE TYPE "K" SOFT DRAWN COPPER TUBING WITH BRAZED CONNECTIONS.

B. ABOVE GROUND: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI SOLDER JOINTS, COPPER OR BRASS FITTINGS. ALL SOLDER TO BE "NO LEAD" TYPE.

C. ALL HOT WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.

D. ALL COLD WATER PIPING TO BE INSULATED WITH 1/2" FOAM INSULATION.

##### 5. SANITARY/STORM DRAINAGE AND VENT PIPING

###### A. ABOVE GRADE:

-2" BELOW: SCHEDULE 40 GALV. STEEL PIPE WITH SCREWED ENDS OR SOLID CORE SCHEDULE 40 PVC WITH SOLVENT JOINTS OR DWV COPPER WITH SOLDER JOINTS. ALL SOLDER TO BE "NO LEAD" TYPE.

-3" AND ABOVE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SOLID CORE SCHEDULE 40 PVC WITH SOLVENT JOINTS.

B. BELOW GRADE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SOLID CORE SCHEDULE 40 PVC WITH SOLVENT JOINTS.

C. PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILINGS AND SHALL NOT CROSS FIRE RATED WALLS, CEILINGS, OR FLOORS.

D. DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.

E. DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST 1/4" PER FOOT, AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN 1/8" PER FOOT.

F. ALL VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES.

G. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.

H. PVC USED TO BE SOLID CORE TYPE SCHEDULE 40 PVC.

##### 7. PIPE SUPPORTS

A. ABOVE GRADE: ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE AND PERFORATED METAL TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL BE AS SPECIFIED IN INTERNATIONAL PLUMBING CODE (LATEST EDITION).

B. BELOW GRADE: EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH.

-INTERIOR: THE PIPE SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE AT ANY POINT.

-EXTERIOR: THE WATER PIPE SHALL HAVE A MINIMUM OF 60° OF COVER AND THE SANITARY WASTE PIPE SHALL HAVE A MINIMUM OF 24" OF COVER.

##### 8. MISCELLANEOUS

A. COORDINATE INSTALLATION OF ALL ROOFS FLASHING AT ROOF PENETRATIONS.

B. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS AND DIMENSIONS AT THE JOB SITE.

C. THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION. THE EXACT DIMENSIONS OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT THE AVAILABLE SPACE.

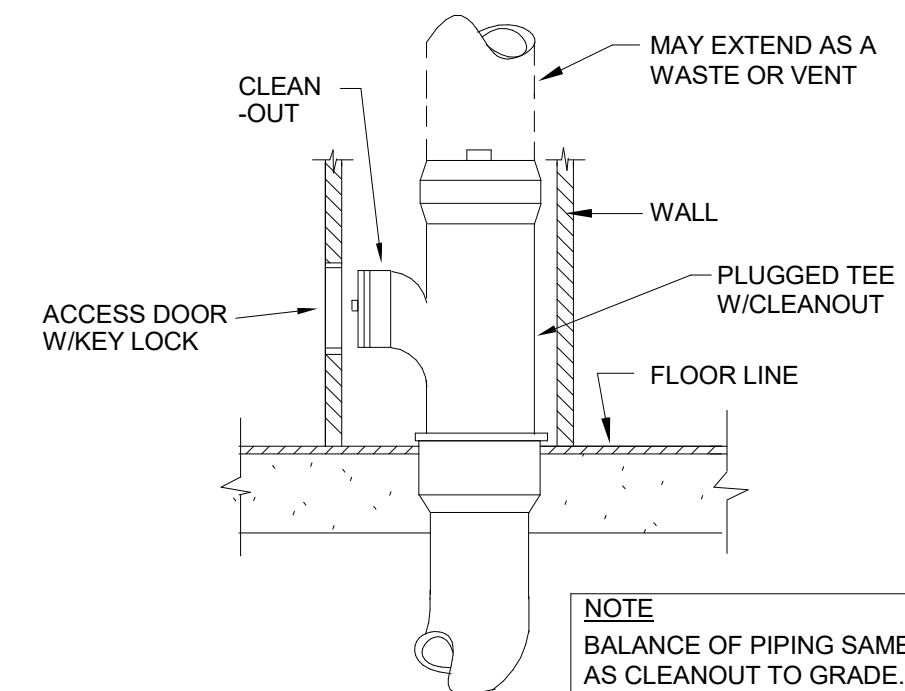
##### 9. TESTING

A. PLUMBING SYSTEM SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION).

##### 10. GUARANTEE

A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.

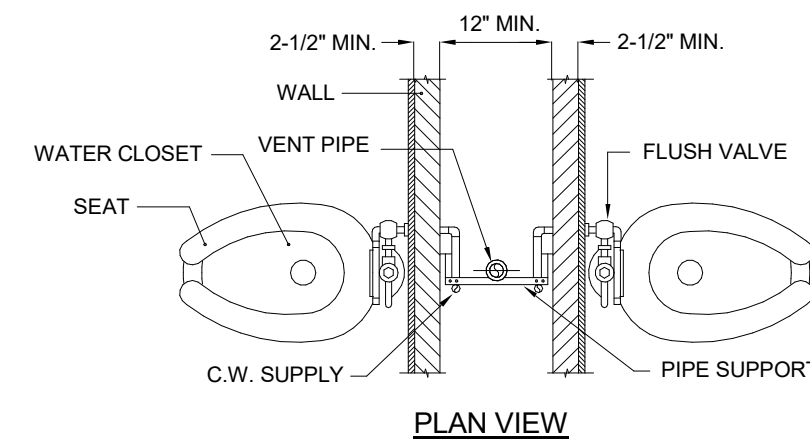
B. FOR THE SAME PERIOD THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.



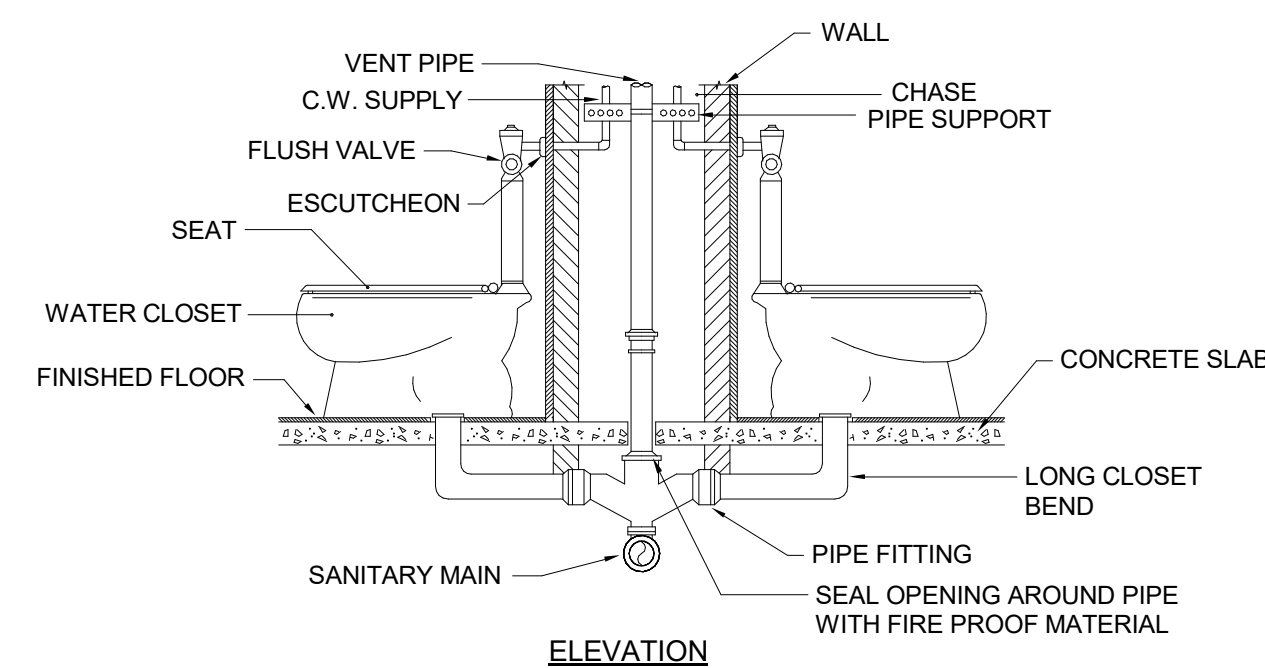
#### WALL CLEANOUT DETAIL

NOT TO SCALE

**NOTES**  
1. FOR CONTINUATION OF PIPING SEE PLANS.  
2. MINIMUM CHASE SPACE SHOWN MUST BE CLEAR SPACE. NO STEEL STUDS OR OTHER IMPEDIMENTS CAN BE INSTALLED IN THIS SPACE.

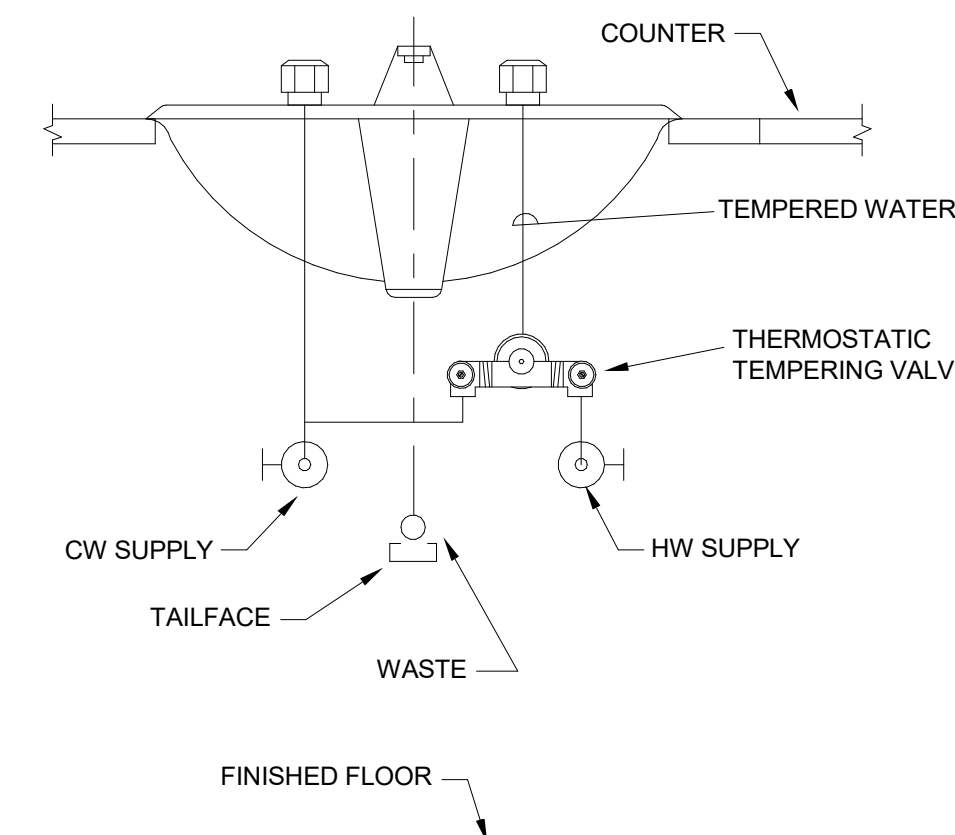


#### PLAN VIEW



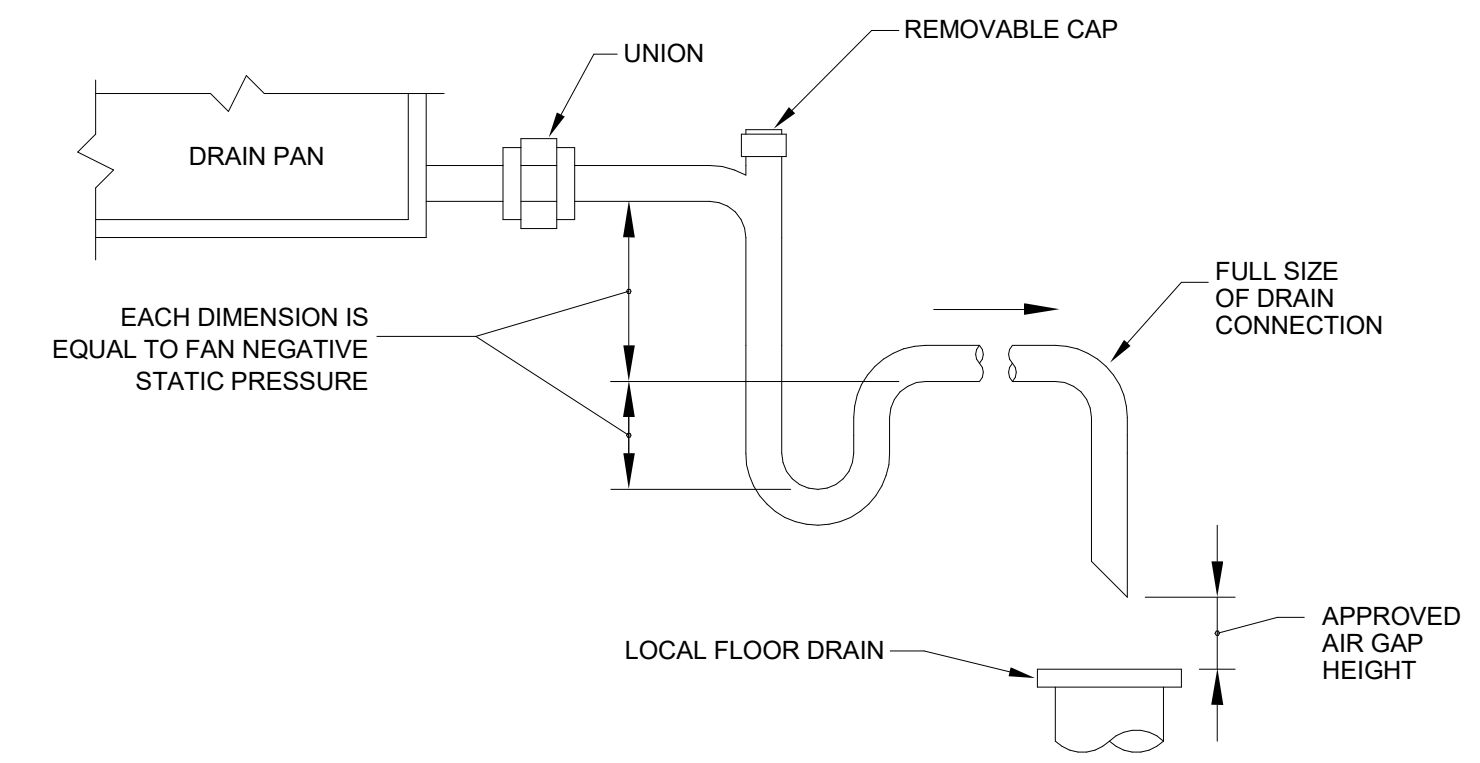
#### BACK-TO-BACK FLOOR MOUNTED WATER CLOSET DETAIL

NOT TO SCALE



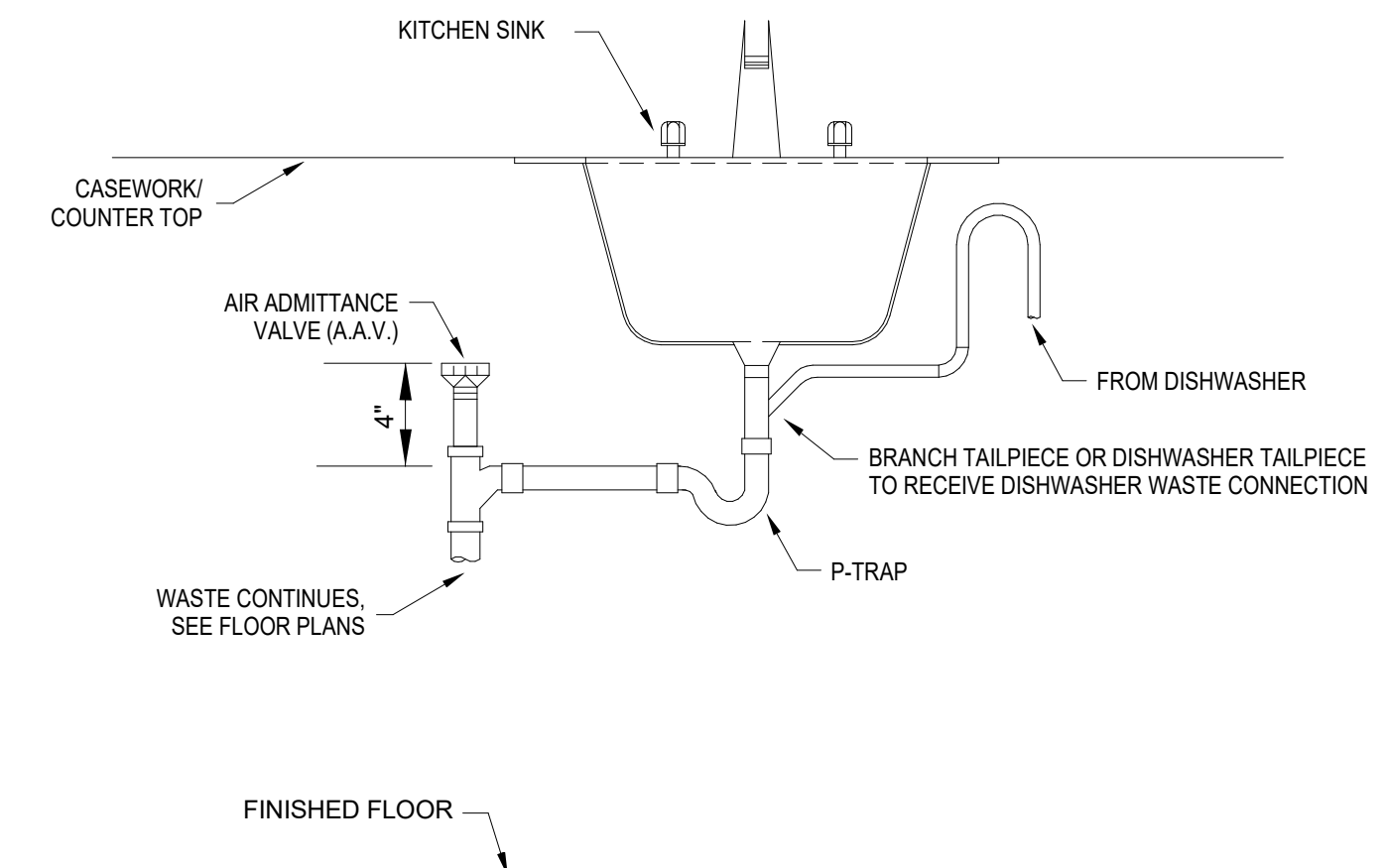
#### LOCAL MIXING VALVE DETAIL

NOT TO SCALE



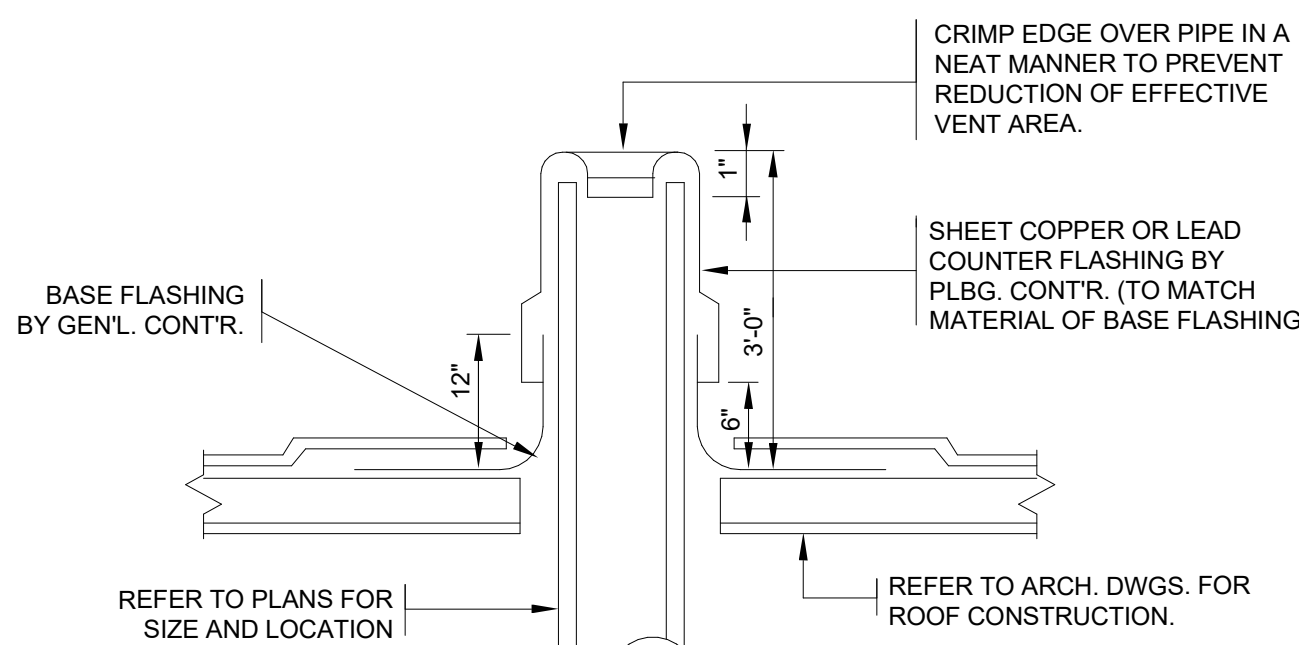
#### CONDENSATE DRAIN DETAIL

NOT TO SCALE



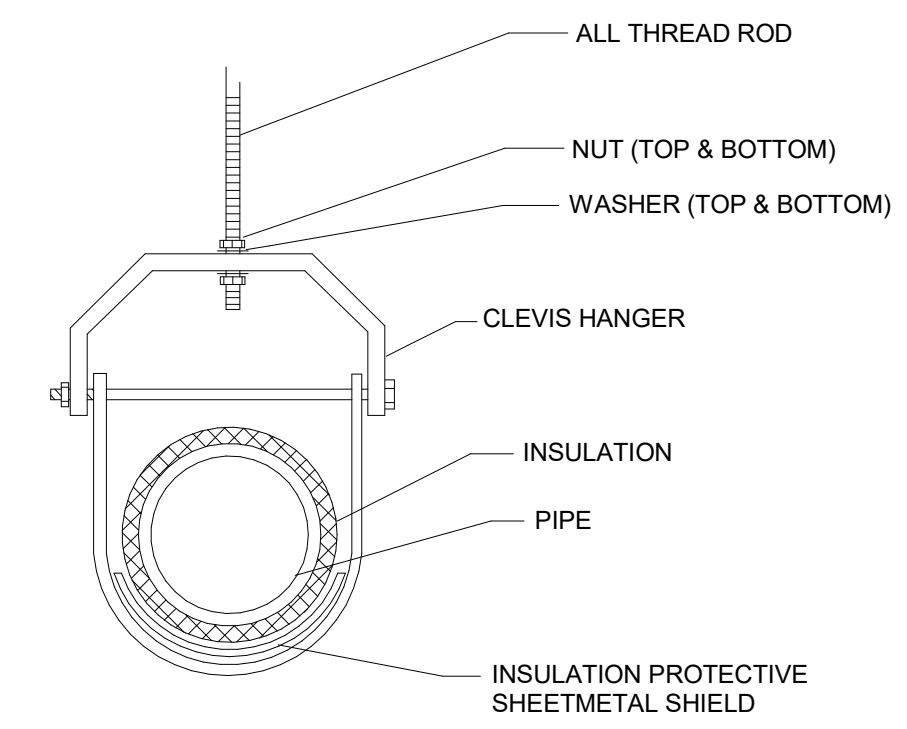
#### AAV FOR USE WITH KITCHEN SINK AND DISHWASHER DETAIL

NOT TO SCALE



#### PLUMBING VENT THROUGH FLAT ROOF DETAIL

NOT TO SCALE



#### TYPICAL CLEVIS HANGER DETAIL

NOT TO SCALE

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**PLUMBING  
SCHEDULES**

**Sheet Number:**

**P3-1**