GENERAL MECHANICAL SYMBOLS

- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- POINT WHERE EXISTING IS TO BE DEMOLISHED
- NUMBER OF DETAIL ON SHEET
- NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- CONTINUATION SYMBOL
- Room 11 — ROOM NAME AND NUMBER
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT
- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 2" VTR — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MU/A	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
D	DEGREE	O	OXYGEN
DB	DRY BULB	O/A	OUTSIDE AIR
DCW	DOMESTIC COLD WATER	PD	PRESSURE DROP
DHW	DOMESTIC HOT WATER	PIV	POST INDICATOR VALVE
DIA	DIAMETER	PLBG	PLUMBING
DN	DOWN	PRESS	PRESSURE
DW	DISTILLED WATER	PRV	PRESSURE REDUCING VALVE
EA	EACH	PSI	POUNDS PER SQUARE INCH
EAT	ENTERING AIR TEMPERATURE	PSIG	POUNDS PER SQUARE INCH GAUGE
ELEC	ELECTRICAL	PWR	POWER
EQUIP	EQUIPMENT	R	DUCT RISER
EWC	ELECTRIC WATER COOLER	R/A	RETURN AIR
EWT	ENTERING WATER TEMPERATURE	RCP	RADIANT CEILING PANEL
E/A	EXHAUST AIR	RD	ROOF DRAIN
EXIST	EXISTING	RDO	ROOF DRAIN OVERFLOW
F	DEGREES FAHRENHEIT	REC	RECESSED
FCO	FLOOR CLEAN OUT	RED	REDUCER
FD	FLOOR DRAIN	RH	RELATIVE HUMIDITY
FD	FIRE DAMPER	RL/A	RELIEF AIR
FDV	FIRE DEPARTMENT VALVE	RM	ROOM
FL	FLOOR	RPM	REVOLUTIONS PER MINUTE
FO	FUEL OIL	RW	RAIN WATER
FOV	FUEL OIL VENT	SF	SQUARE FOOT
FOR	FUEL OIL RETURN	S/A	SUPPLY AIR
FOS	FUEL OIL SUPPLY	SAN	SANITARY
FPM	FEET PER MINUTE	SF	SQUARE FOOT
FS	FLOOR SINK	SD	SMOKE DAMPER
FT	FOOT/FEET	SM	SURFACE MOUNT
FTR	FIN TUBE RADIATION	SP	STANDPIPE
GAL	GALLON	SP	STATIC PRESSURE
GC	GENERAL CONTRACTOR	STM	STEAM
GPM	GALLONS PER MINUTE	T	THERMOSTAT
GW	GREASE WASTE	TD	TRENCH DRAIN
HB	HOSE BIB	TDR	TEMPERATURE DROP
HP	HORSE POWER	TEMP	TEMPERATURE
HTG	HEATING	TYP	TYPICAL
HTR	HEATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

HVAC SYMBOLS

DAMPER TAGS

- F — FIRE DAMPER
- S — SMOKE DAMPER
- M — MOTORIZED DAMPER
- B — MANUAL BALANCING DAMPER
- D — BACKDRAFT DAMPER
- C — COMBINATION FIRE/SMOKE DAMPER

HVAC SYMBOLS

- 18"x8" — SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
- 18"/8"FO — OVAL DUCT SIZE TAG (WIDTH / HEIGHT)
- 18"Ø — ROUND DUCT SIZE TAG (DIAMETER)
- 18"Ø I.D. 18"Ø O.D. — EXISTING DUCT TAG
- DUCT BEING DEMOLISHED
- 16"Ø I.D. 16"Ø O.D. — SUPPLY AIR - LOW PRESSURE
- SUPPLY AIR - MEDIUM PRESSURE
- CONDITIONED OUTSIDE AIR
- OUTSIDE AIR
- RETURN AIR
- TRANSFER AIR
- EXHAUST AIR
- RELIEF AIR
- GREASE EXHAUST AIR
- SMOKE EXHAUST AIR
- EXHAUST GAS FLUE
- COMBUSTION AIR
- DROP — RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — ROUND SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — RECTANGULAR RETURN/TRANSFER AIR DUCT RISE
- DROP — ROUND RETURN/TRANSFER AIR DUCT RISE
- DROP — RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE
- DROP — ROUND EXHAUST/RELIEF AIR DUCT RISE

GRILLES, REGISTERS & DIFFUSERS SYMBOLS AND TAGS

CEILING — ID — CFM — NECK SIZE — BLOW PATTERNS (4-WAY, 3-WAY, 2-WAY, 2-WAY CORNER, 1-WAY)

- SQUARE SUPPLY DIFFUSER — CD1 /100 6"Ø
- RECTANGULAR SUPPLY DIFFUSER — CD1 /200 8"x8"
- ROUND SUPPLY DIFFUSER — CD5 /400 12"Ø
- SQUARE RETURN GRILLE — RG1 /500 12"x12"
- RECTANGULAR RETURN GRILLE — RG2 /180 8"Ø
- SQUARE EXHAUST GRILLE — EG2 /300 12"Ø
- RECTANGULAR EXHAUST GRILLE — EG3 /150 8"x8"
- PLENUM RETURN GRILLE WITH SOUND BOOT — RG4 /800 24"x24"
- LINEAR BAR GRILLES — LB1 /300 48"x6"
- SIDEWALL — SWS1 /300 14"x14"; SWR1 /600 28"x12"; SWE1 /400 16"x16"
- LINEAR SLOT — TYPE (SEE SCHEDULE) — LS1 /300 2/1.00"/5'-0"/10"Ø — CFM — NUMBER OF SLOTS / SLOT WIDTH / ACTIVE SLOT LENGTH (PLENUM LENGTH) NECK SIZE — 5' - 0" SECTION TOTAL TRACK LENGTH

MECHANICAL EQUIPMENT TAGS

- HEATING COIL FLOW — V-XX-XX — Htg: 3.7 GPM — VAV BOX
- BOTTOM OF EQUIPMENT ELEVATION — V-XX-XX 10' - 0"
- EXISTING EQUIPMENT TO REMAIN — (E)V-XX
- EXISTING RELOCATED EQUIPMENT — (R)V-XX
- EQUIPMENT BY OTHERS (REFER TO OTHER DISCIPLINE FOR ADDITIONAL INFORMATION) — V-XX
- RTU-XX 590 lb — OPERATING WEIGHT NOT INCLUDING CURB
- RTU-XX 4.0 ton — NOMINAL COOLING CAPACITY — ROOFTOP UNIT
- RTU-XX 115000 Btu/h 115 CFH — FUEL INPUT GAS PIPE FLOW

DATA DEVICE TAGS

SYMBOL — EQUIPMENT ID

- CARBON DIOXIDE SENSOR — CO2 — TH — RTU-XX — TEMPERATURE & HUMIDITY SENSOR
- CARBON MONOXIDE SENSOR — CO — TS — VAV-XX — TEMPERATURE SENSOR
- NITROGEN DIOXIDE SENSOR — NO2 — T — THERMOSTAT
- HUMIDITY SENSOR — HS — MS — MANUAL SWITCH
- HUMIDISTAT — H — S — SENSOR

PIPING SYMBOLS

- CHWR — CHILLED WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CD — CONDENSATE DRAINAGE
- CWR — CONDENSER WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- GWR — GEOTHERMAL WATER RETURN
- GWS — GEOTHERMAL WATER SUPPLY
- HWR — HEATING WATER RETURN
- HWS — HEATING WATER SUPPLY
- NG — NATURAL GAS
- PG — PROPANE GAS
- REF-L — REFRIGERANT-LIQUID
- REF-S — REFRIGERANT-SUCTION
- REF-HG — REFRIGERANT-HOT GAS
- STM — STEAM
- CDR — CONDENSATE RETURN
- CWV — COMBINATION WASTE & VENT
- CA — COMPRESSED AIR
- DCW — DOMESTIC COLD WATER
- S-CW — SOFT COLD WATER
- F-CW — FILTERED COLD WATER
- NPCW — NON-POTABLE COLD WATER
- RO — REVERSE OSMOSIS WATER
- DHW — HOT WATER
- DHW 140° — HOT WATER 140°
- DHW-R — HOT WATER RECIRCULATION
- DHW-R 140° — HOT WATER RECIRCULATION 140°
- NPHW — NON-POTABLE HOT WATER
- GV — GREASE VENT
- GW — GREASE WASTE
- IW — INDIRECT WASTE
- OV — OIL VENT
- OW — OIL WASTE
- PD — PUMP DISCHARGE
- V — SANITARY VENT
- W — SANITARY SEWER
- SHWR — SOLAR HOT WATER RETURN
- SHWS — SOLAR HOT WATER SUPPLY
- RD — ROOF DRAIN
- RDO — ROOF DRAIN OVERFLOW
- PIPE DROP; PIPE RISE; PIPE TEE; CAP
- 4"; 2"; PLUG; 4" REDUCING 45 DEGREE TEE; 45 DEGREE TEE

PIPE ACCESSORY TAGS

- 2" DOM. WM — DOMESTIC WATER METER
- 2" BALANCING — BALANCING VALVE
- 2" SHUTOFF — 1/4 TURN BALL VALVE
- 2" CHECK — CHECK VALVE
- 2" TMV — 3-WAY MIXING VALVE
- 2" M-CNTRL — MOTORIZED CONTROL VALVE
- 2" 3-WAY CNTRL — 3 WAY MOTORIZED CONTROL VALVE
- 2" PRV — PRESSURE REDUCING VALVE
- 3/8" SOLENOID — REFRIGERANT SOLENOID VALVE
- 2" BUTTERFLY — BUTTERFLY VALVE

DRAIN TAGS

DRAIN SIZE — TYPE (SEE SCHEDULE)

- FLOOR DRAIN — 4" FD-1
- FLOOR DRAIN — 2" FD-1P — "P" - INDICATES PRIMER CONNECTION
- FLOOR SINK — 4" FS-4
- HUB DRAIN — 4" FD-13 — 8 WFU — FIXTURE UNITS
- 4" AD-6 — AREA DRAIN
- 4" DD-29 — DECK DRAIN
- 4" RD-12 — FLOW CONTROL DRAIN
- 4" RD-1 — ROOF DRAIN
- ROOF AREA SERVED BY DRAIN — 6" RD-1 4000 SF — COMBINATION DRAINS

PLUMBING FIXTURE TAGS

- TYPE (SEE SCHEDULE) — L-1
- FIXTURE UNITS — 1.5 CWFU 1.5 HWFU
- L-1 1 WFU
- U-1
- WATER CLOSET - WALL HUNG - ADA — WC-1A
- WC-1
- PIPE ACCESSORY TAG
- 4" WCO

* NOTE *
THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

MECHANICAL SHEET INDEX

BID PACKAGE NOTES

SHEET REVISIONS WILL BE ISSUED ACCORDING TO THEIR BID PACKAGE.
(EX: ASI-1/BP-1)

NOTES:
BID PACKAGE 1
CIVIL / UNDERGROUND MEP / FOUNDATION
(**BC**.............ISSUED FOR BIDDING AND CONSTRUCTION)
(**RO**.............ISSUED FOR REFERENCE ONLY)

BID PACKAGE 2
LANDSCAPE / STRUCTURAL / ARCHITECTURAL / MECH., PLUMBING, & FIRE / ELECTRICAL / KITCHEN
(**BC**............ISSUED FOR BIDDING AND CONSTRUCTION)
(**RR/WR**.....RE-RELEASED w/ REVISIONS)

design west | architects
LOGAN UT 84321 — 255 SOUTH 300 WEST
SALT LAKE CITY UT 84103 — 795 NORTH 400 WEST

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK: DATE: DESCRIPTION:

PROJECT #: 23717
DRAWN BY: Author
CHECKED BY: LW
ISSUED: 05/02/2024

MECHANICAL TITLE SHEET

FIRE PROTECTION GENERAL NOTES

1. NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
3. COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
4. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
5. PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. <u>REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE.</u> THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
6. THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
7. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
8. PROVIDE A COMPLETE WET TYPE FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE FLOOR PLAN AND CEILING TYPES INCLUDING MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
9. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
10. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
11. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
12. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
13. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
14. AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
15. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
16. AN INSPECTOR'S TEST CONNECTION SHALL BE PROVIDED FOR EACH FIRE SPRINKLER ZONE. THIS CONTRACTOR SHALL PROVIDE FIXED PIPING FROM THE TEST CONNECTION TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE TEST. (EXTERIOR DISCHARGE OF THE TEST CONNECTION SHALL BE PERMITTED ONLY BY SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER.)
17. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
18. ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
19. THIS DRAWING INDICATES A GENERAL PIPING ARRANGEMENT AND SUGGESTED SIZING ONLY. THIS CONTRACTOR SHALL DETERMINE THE ACTUAL PIPE SIZING REQUIRED AND COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS.
20. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.

PLUMBING GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
7. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
13. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
16. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
17. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL.
18. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
19. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
20. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
21. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
22. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
    A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER, DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
    B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
    C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

MECHANICAL GENERAL NOTES

1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
5. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
6. PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
7. INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
8. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS, REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.
9. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
10. PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
11. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
12. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
13. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
14. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
15. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH SCHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
16. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MINIMUM 24" X 24".
17. FLEX DUCT IS REQUIRED FOR ALL DIFFUSERS AND GRILLES INSTALLED IN LAY-IN CEILINGS. FOR DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALL BE EXTENDED ALL THE WAY TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.
18. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
19. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR.
20. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.
21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 5'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
22. REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS.
23. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPING SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
25. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
26. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

MECHANICAL PIPING GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
4. ALL VALVES SHALL BE INSTALLED SO THAT VALVES REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
5. PROVIDE AIR VENT AT HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.
6. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION AND TAGGED.
7. PROVIDE ISOLATION VALVES AT EACH EXIT/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
8. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL PLANS OR SPECIFICATIONS.

PROJECT GENERAL NOTES

1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

<u>* NOTE *</u>
ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.

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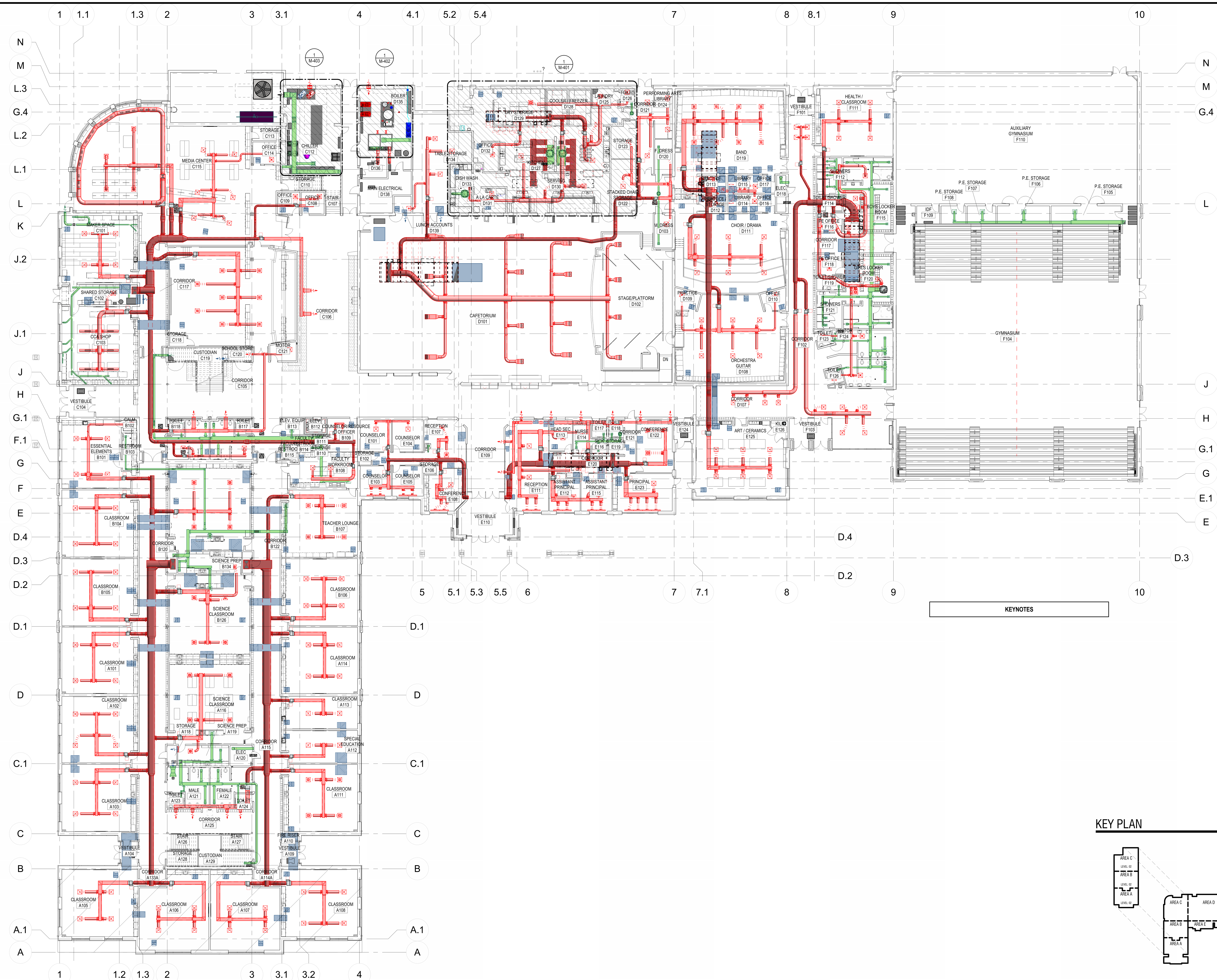
ISSUED:	05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL GENERAL NOTES

M-001



MECHANICAL HVAC PLAN - LEVEL 01 - OVERALL
1/16" = 1'-0"

KEYNOTES

KEY PLAN

AREA C
AREA B
AREA A
AREA D
AREA E
AREA F

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STATE OF UTAH

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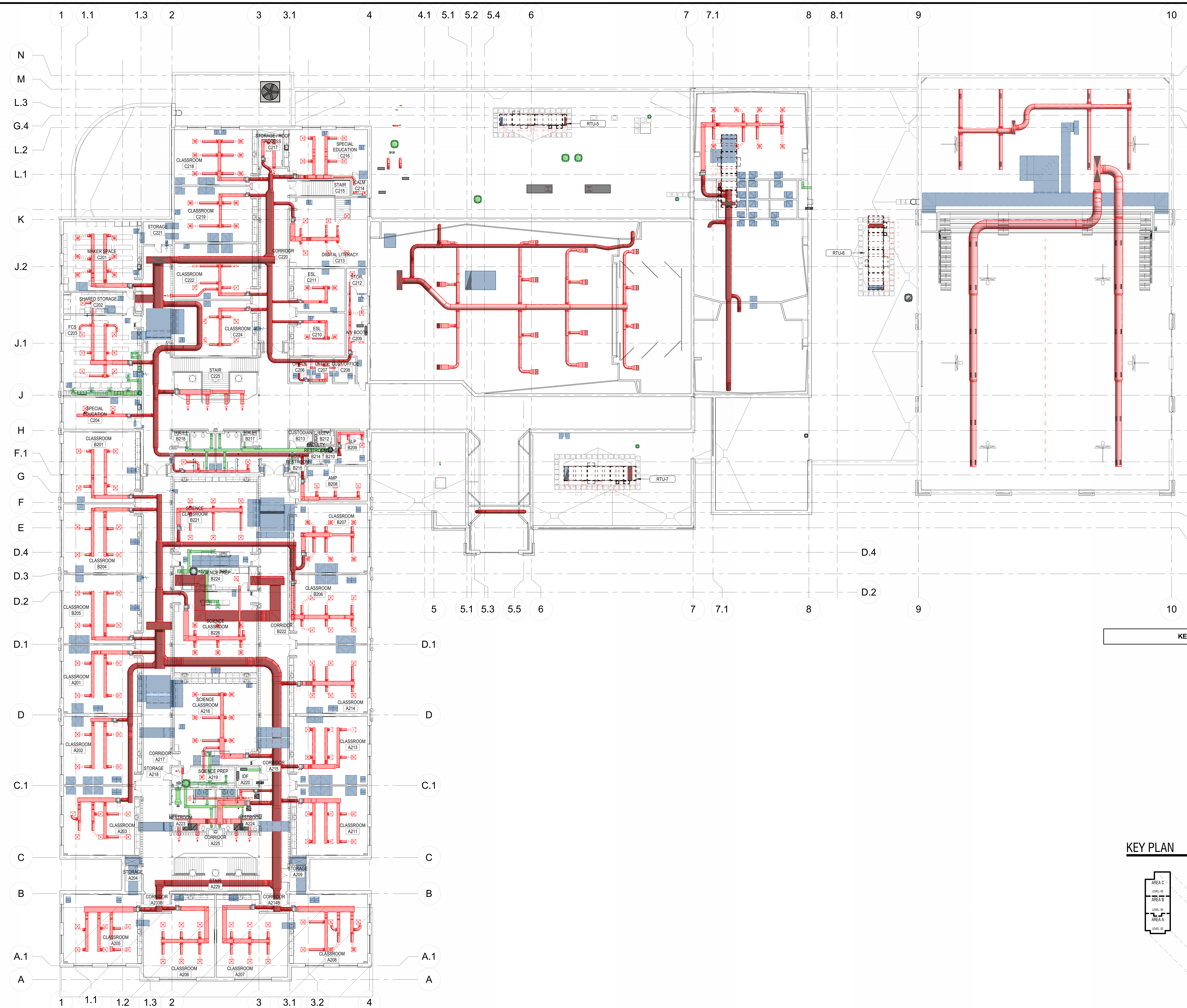
MECHANICAL HVAC PLAN - LEVEL 01 - OVERALL

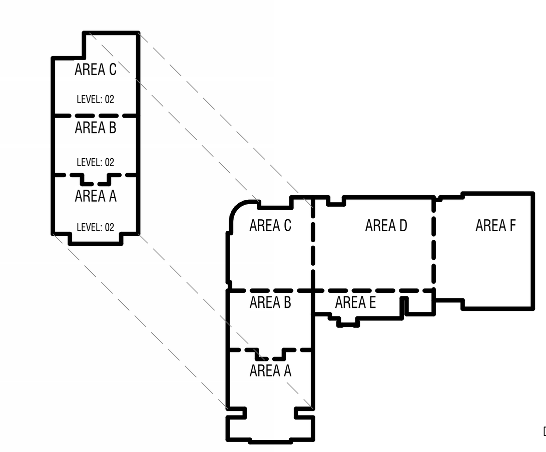
M-101



1 M-102 MECHANICAL HVAC PLAN - LEVEL 02 - OVERALL
1/16" = 1'-0"

KEYNOTES

KEY PLAN



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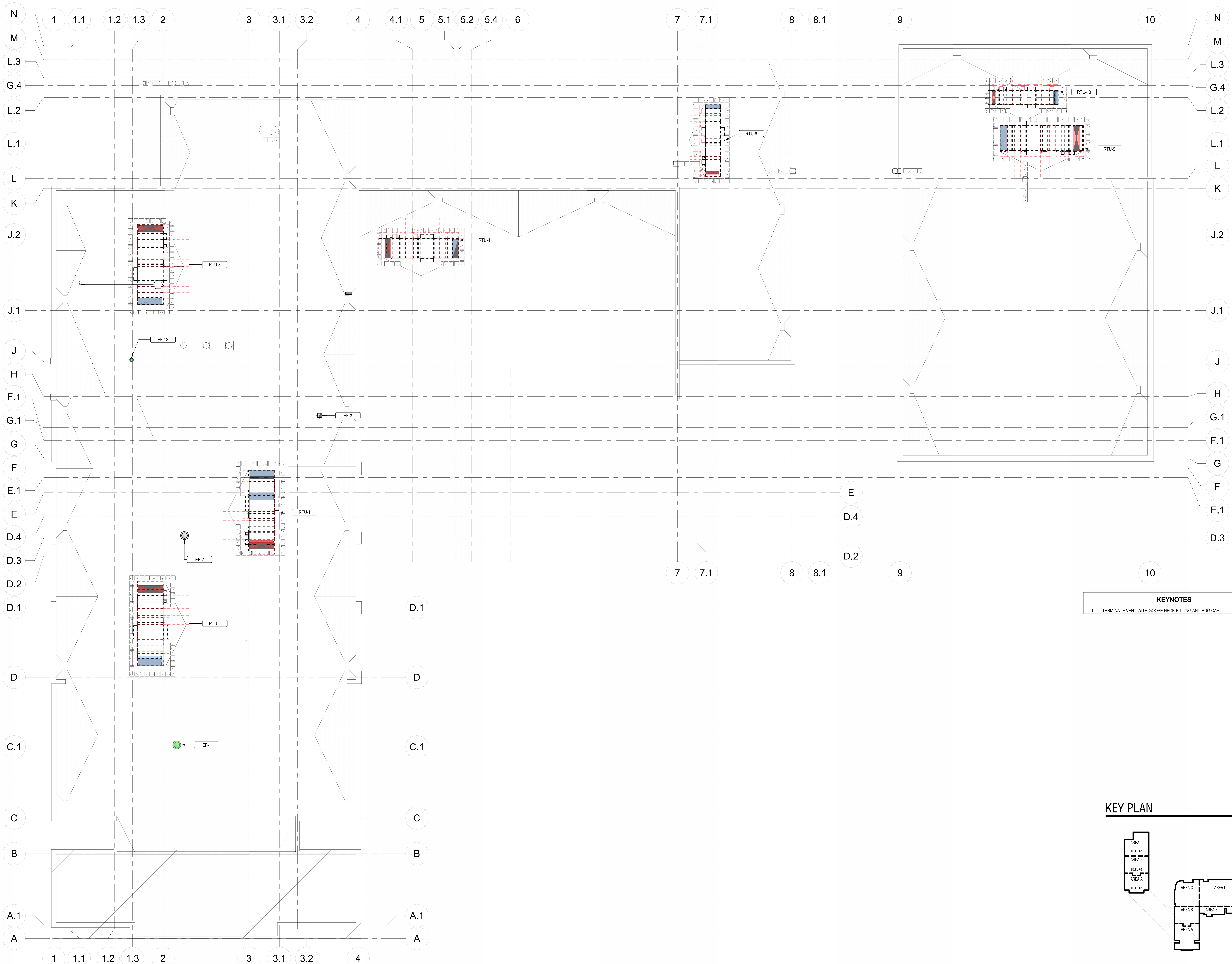
MECHANICAL HVAC PLAN - LEVEL 02 - OVERALL

M-102



1 MECHANICAL HVAC PLAN - ROOF - OVERALL
M-103 1/16" = 1'-0"

KEYNOTES

1 TERMINATE VENT WITH GOOSE NECK FITTING AND BUG CAP

KEY PLAN

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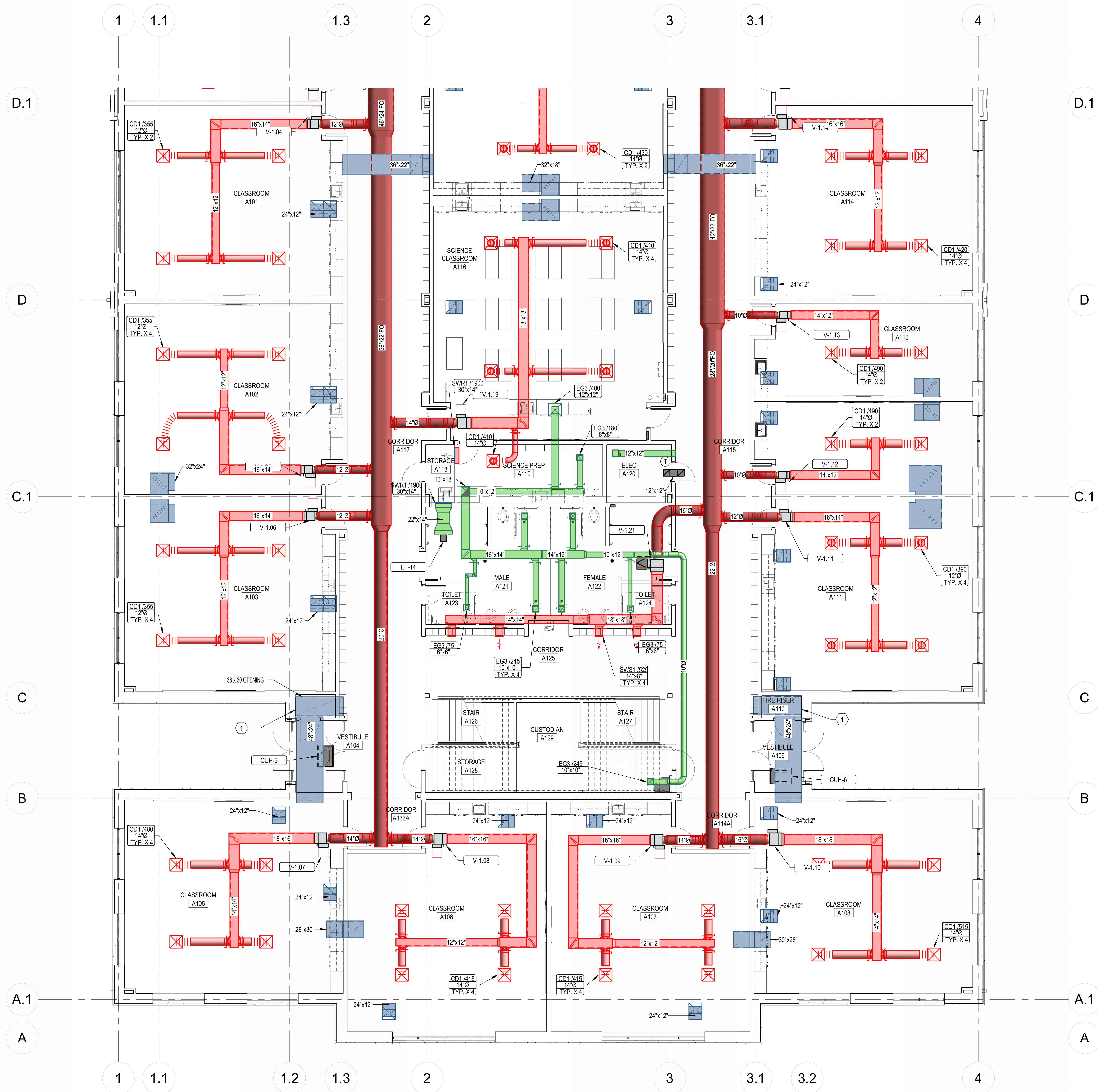
MECHANICAL HVAC PLAN - ROOF - OVERALL

M-103

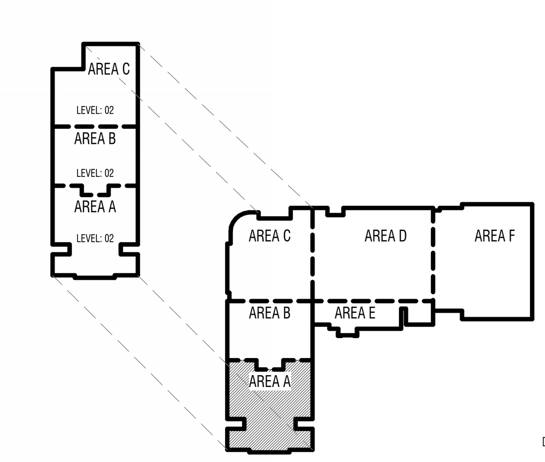
KEYNOTES

1 88 X 34 SHAFT SHALL HAVE 1" DUCT LINER INSTALLED ON ALL SURFACES.



1 MECHANICAL HVAC PLAN - LEVEL 01 - AREA A
M-111.A 1/8" = 1'-0"

KEY PLAN



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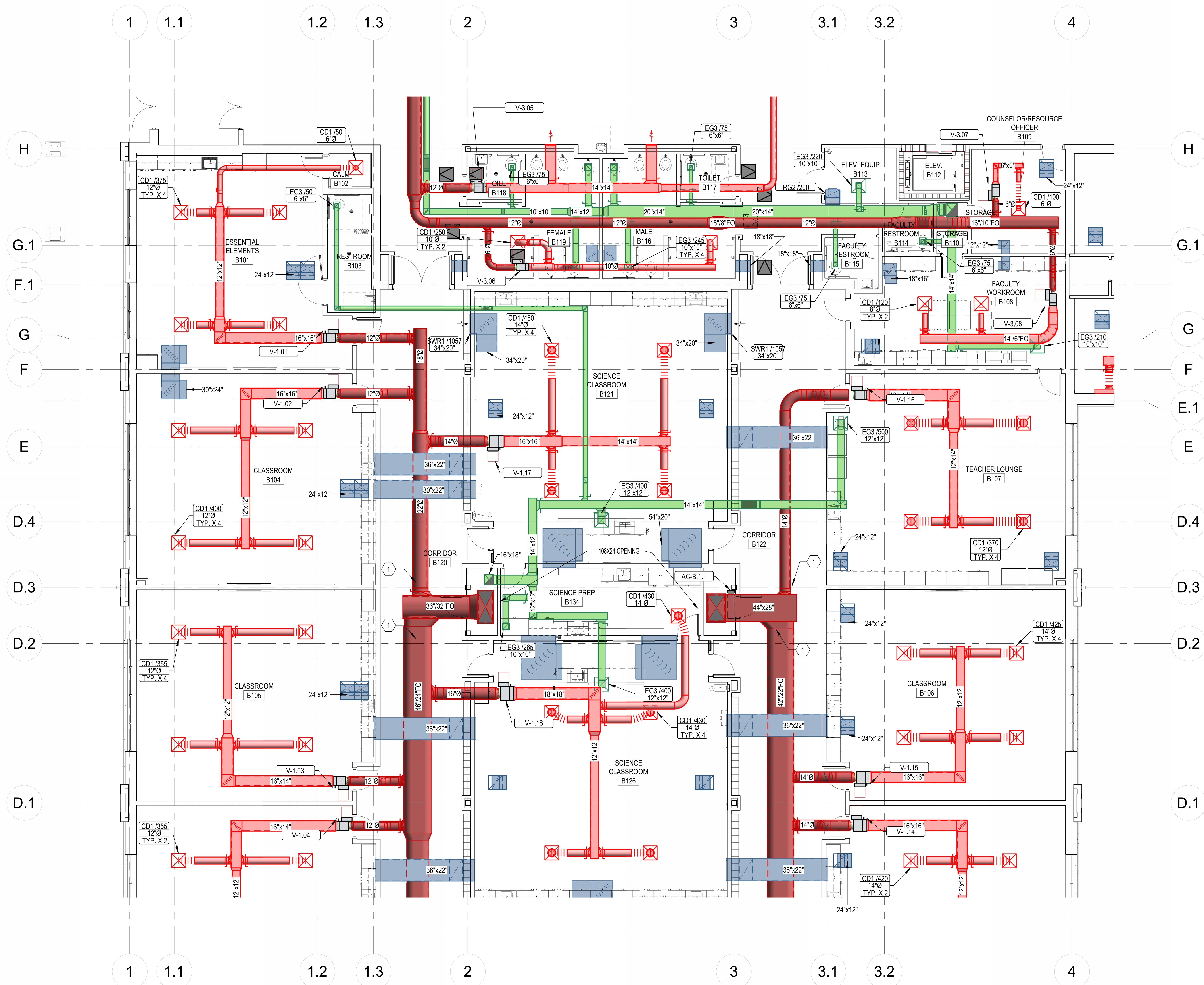
MECHANICAL HVAC PLAN - LEVEL 01 - AREA A

M-111.A

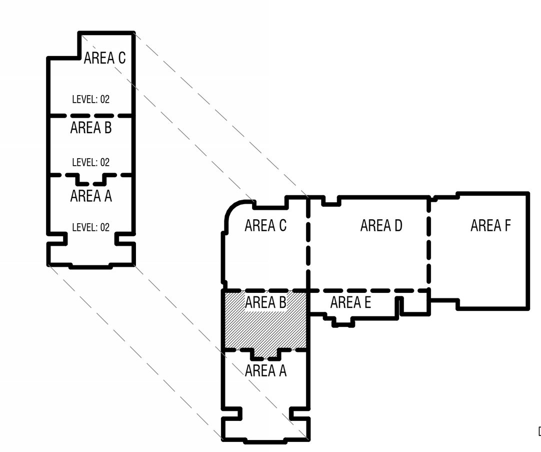
KEYNOTES

1 ALL MEDIUM PRESSURE DUCTWORK FROM THE AIR HANDLER TO 20 FEET DOWN STREAM OF THE AIR HANDLER SHALL BE DOUBLE WALL DUCTWORK WITH 2" THICK INSULATION AND INNER DUCT AS SPECIFIED IN THE DOUBLE-WALL DUCT SPECIFICATIONS.



1 MECHANICAL HVAC PLAN - LEVEL 01 - AREA B
M-111.B 1/8" = 1'-0"

KEY PLAN



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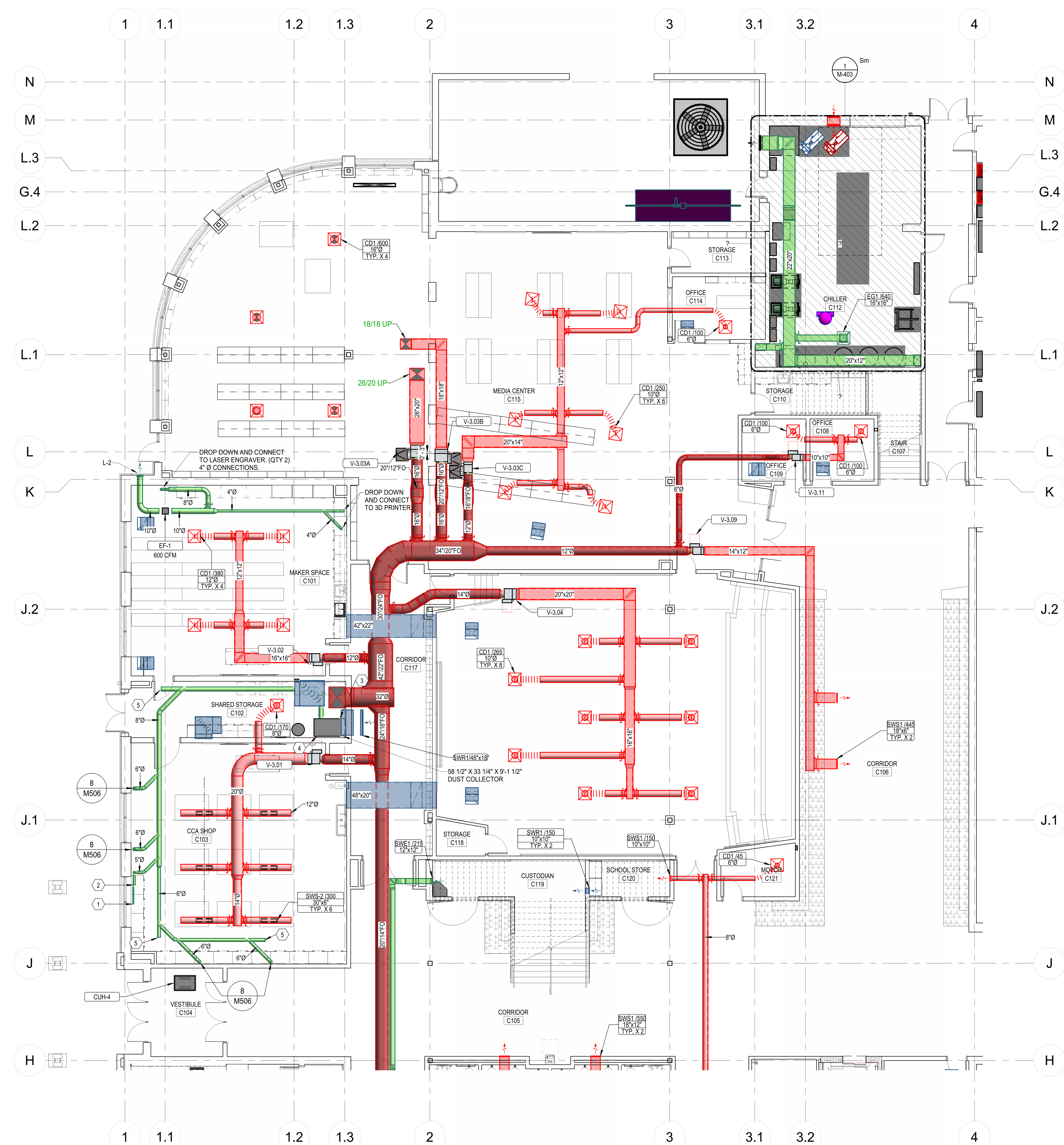
STATE OF UTAH

MECHANICAL HVAC PLAN - LEVEL 01 - AREA B

M-111.B

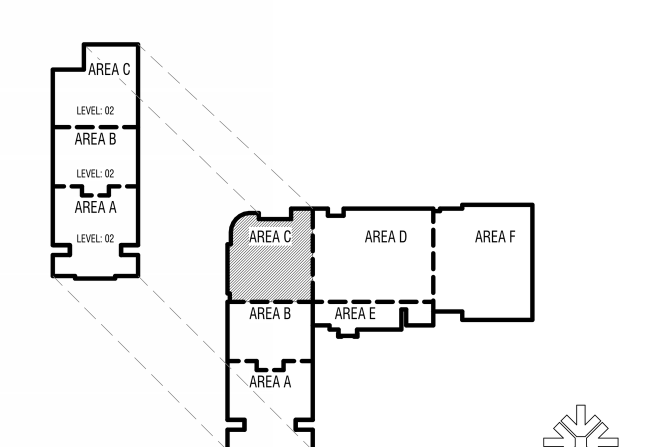
KEYNOTES

1. CONNECT 2" HOSE TO OSCILLATING SANDER
2. CONNECT 4" HOSE TO BELT SANDER
3. CONNECT TO 8" DUST COLLECTOR CONNECTION POINT
4. OWNER PROVIDED CONTRACTOR INSTALLED DUST COLLECTOR
5. SAWDUST DUCT CLEANOUT



1 MECHANICAL HVAC PLAN - LEVEL 01 - AREA C
M-111.C 1/8" = 1'-0"

KEY PLAN



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MECHANICAL HVAC PLAN - LEVEL 01 - AREA C

M-111.C

KEYNOTES

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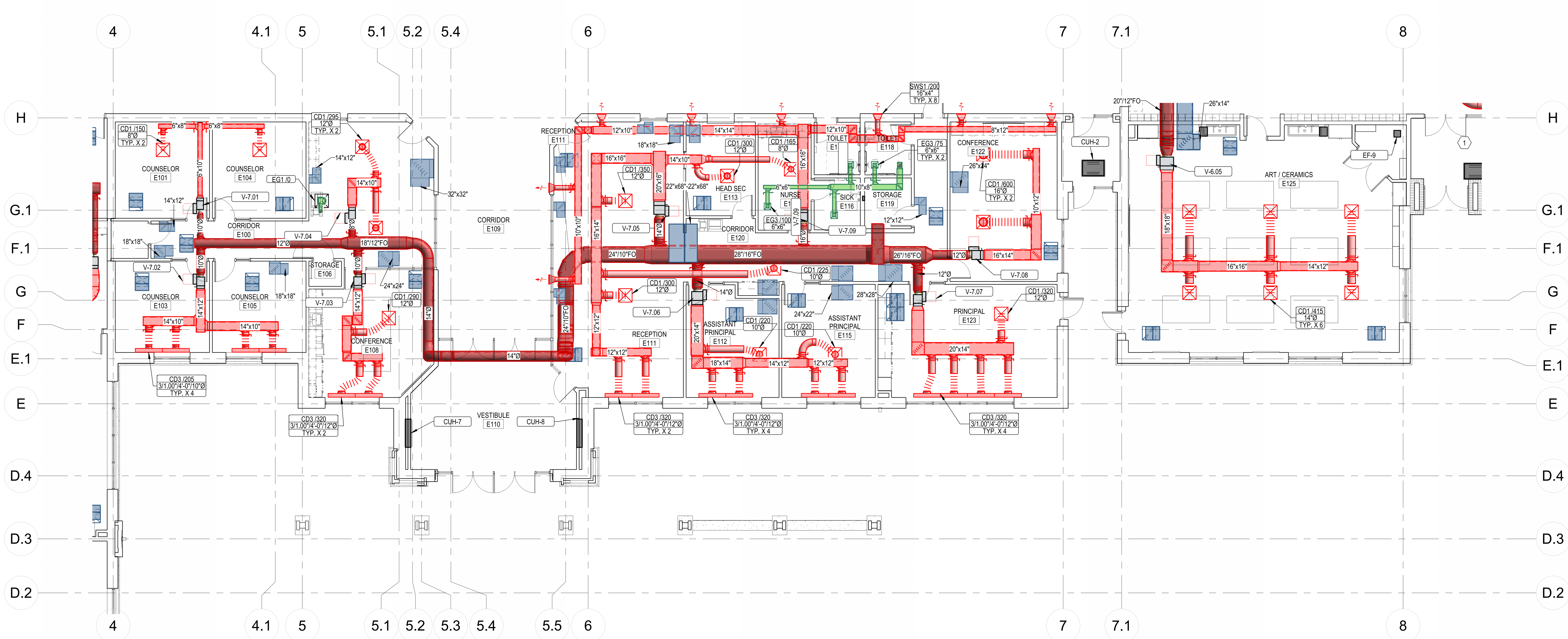
MECHANICAL HVAC PLAN - LEVEL 01 - AREA D

M-111.D

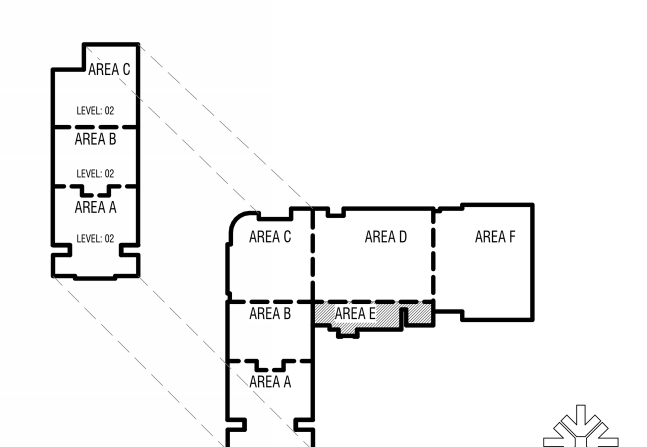
KEYNOTES

1 INSTALL EF-9 AT THE UNDERSIDE OF THE ROOF DECK AND DISCHARGE THRU H-1. CONNECT KILN VENT TO EF-9 AND INTERLOCK EF-9 WITH THE KILN CONTROLS AS NOTED ON THE EXHAUST AIR FAN SCHEDULE.



1 M-111.E MECHANICAL HVAC PLAN - LEVEL 01 - AREA E
1/8" = 1'-0"

KEY PLAN



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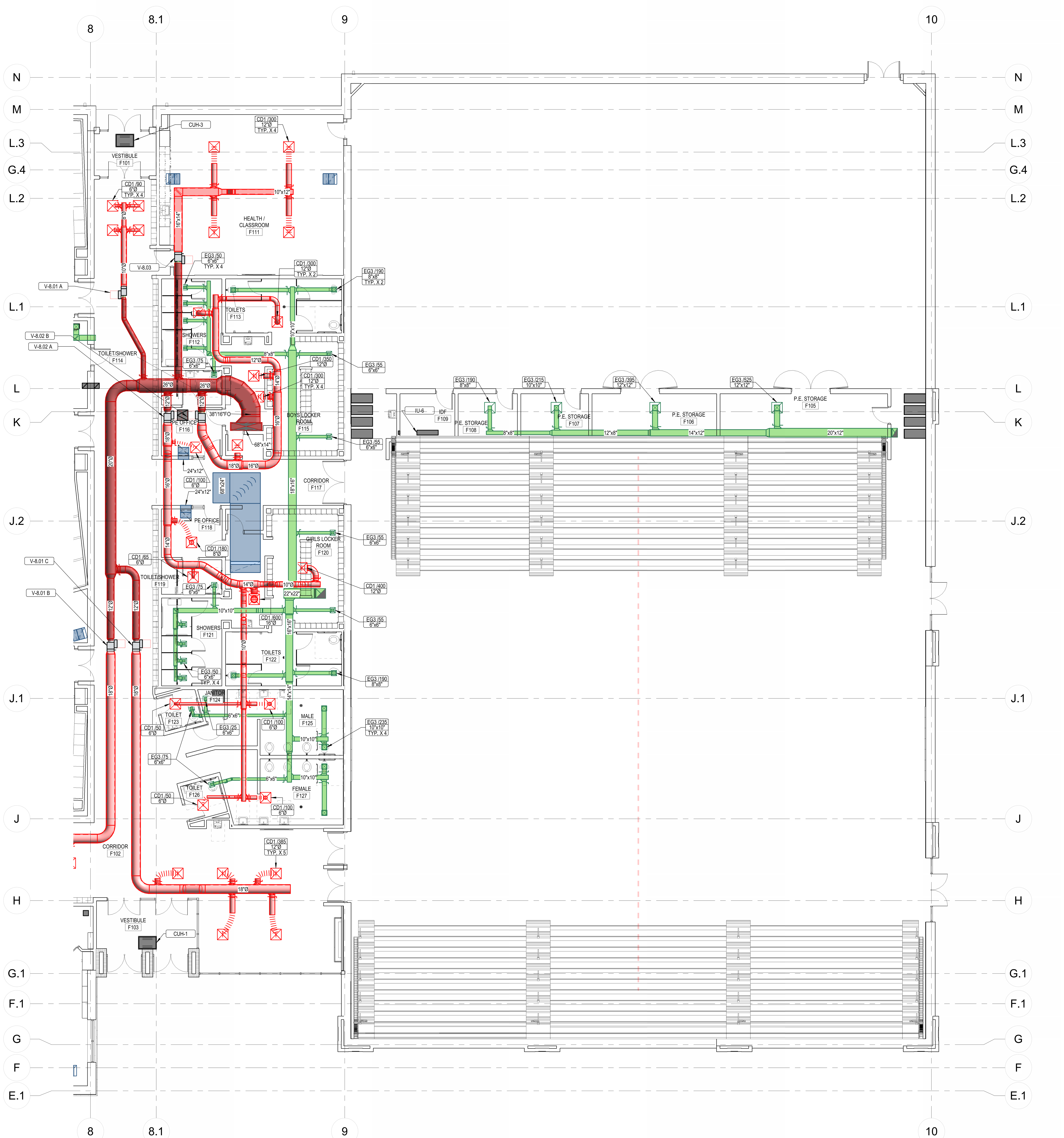
MECHANICAL HVAC PLAN - LEVEL 01 - AREA E

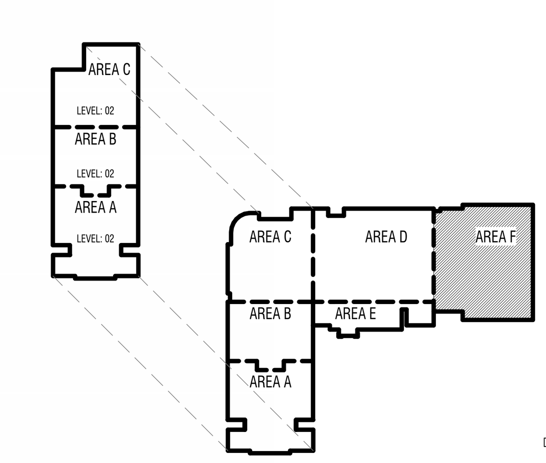
M-111.E

KEYNOTES



1
M-111.F
MECHANICAL HVAC PLAN - LEVEL 01 - AREA F
1/8" = 1'-0"

KEY PLAN



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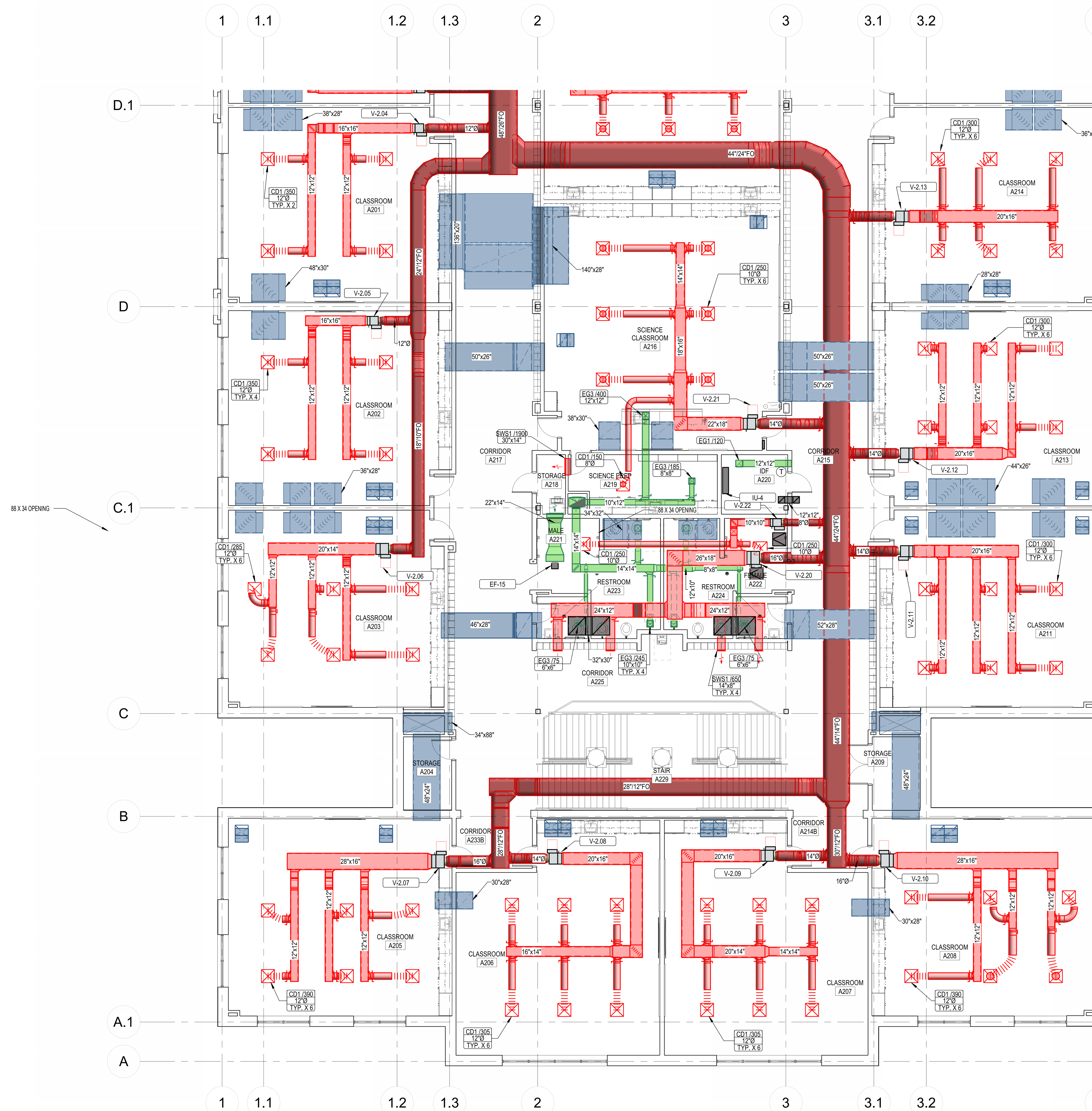
MECHANICAL HVAC PLAN - LEVEL 01 - AREA F

M-111.F

KEYNOTES



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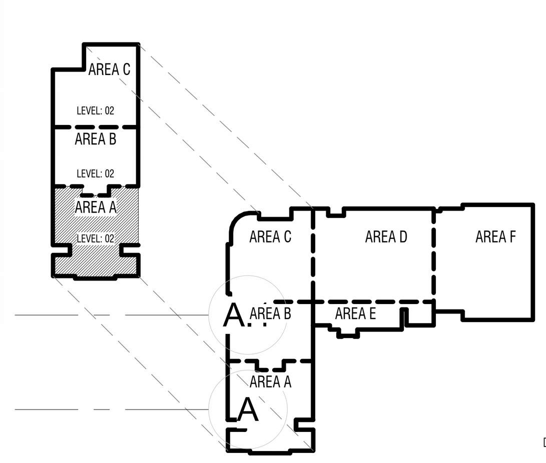

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1 MECHANICAL HVAC PLAN - LEVEL 02 - AREA A
M-112.A 1/8" = 1'-0"

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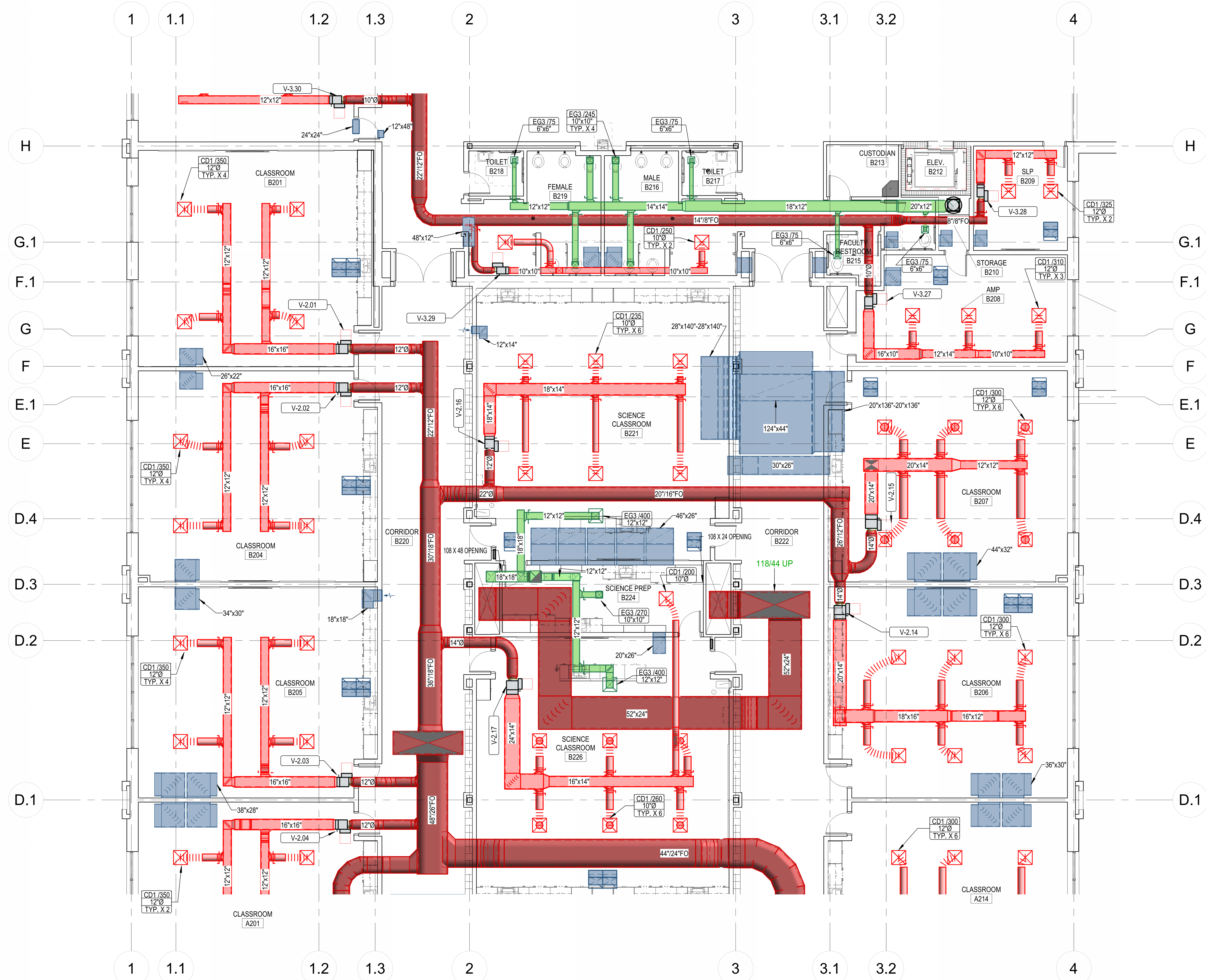
MECHANICAL HVAC PLAN - LEVEL 02 - AREA A

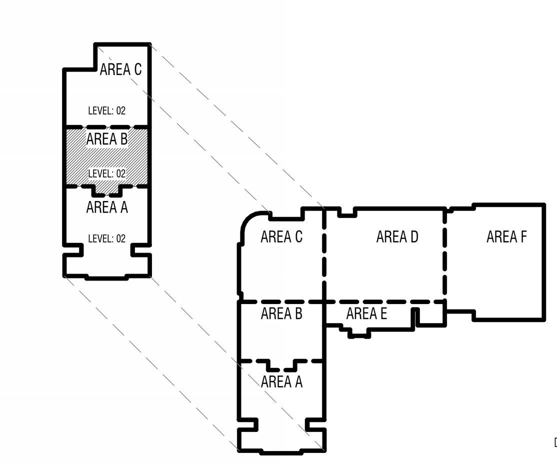
M-112.A

KEYNOTES



1 M-112.B MECHANICAL HVAC PLAN - LEVEL 02 - AREA B
1/8" = 1'-0"

KEY PLAN



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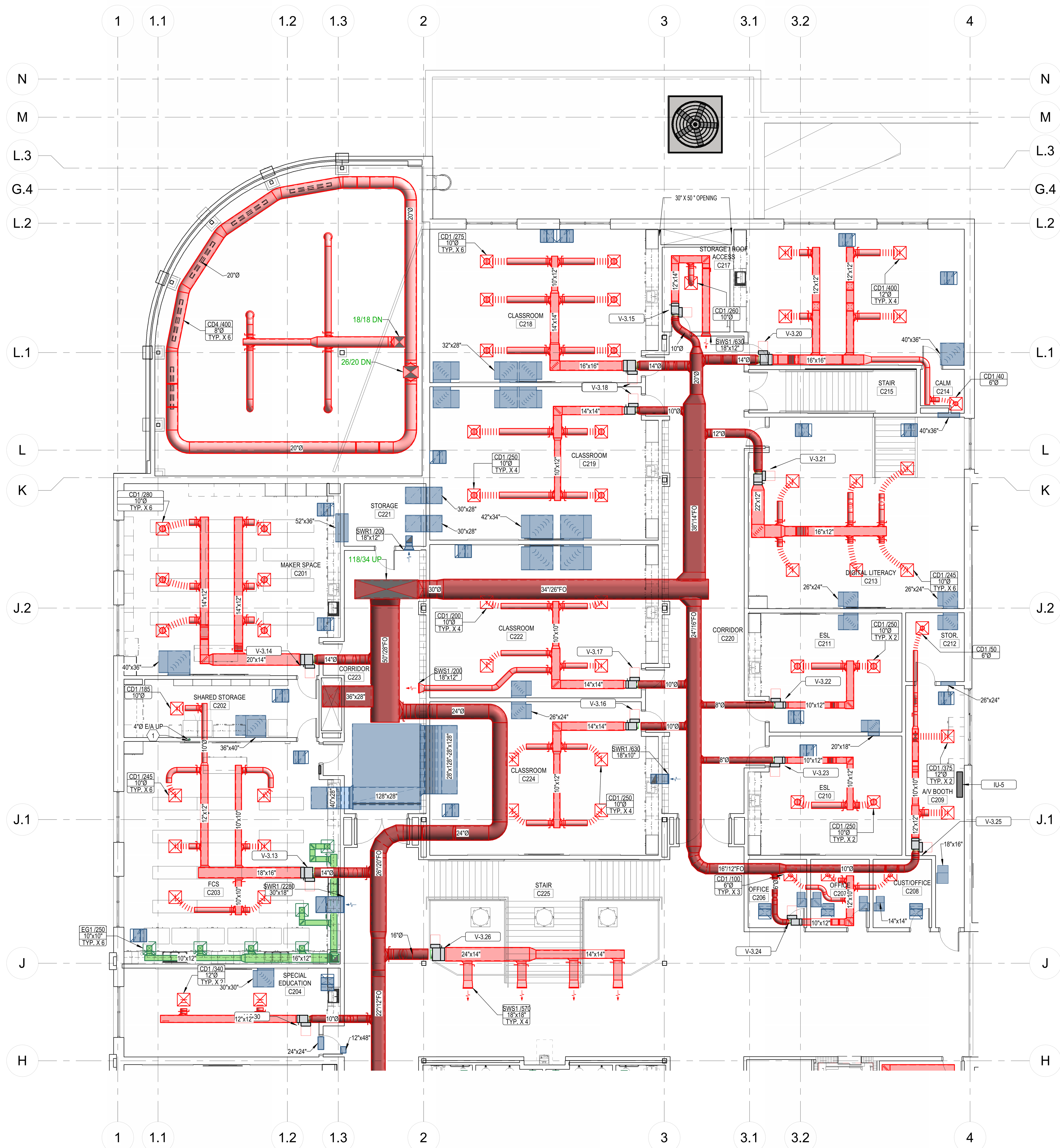
MECHANICAL HVAC PLAN - LEVEL 02 - AREA B

M-112.B

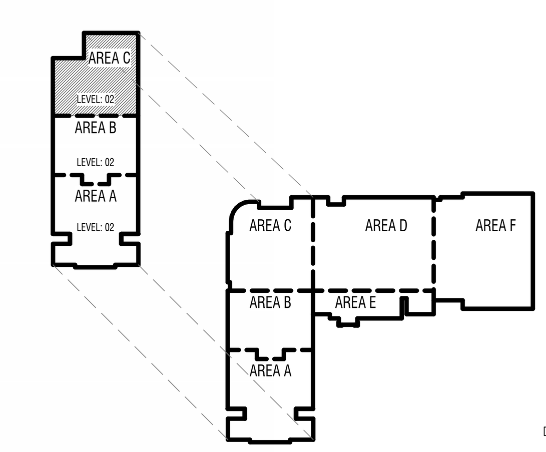
KEYNOTES

1 INSTALL A RECESSED DRYER VENT BOX IN THE WALL FOR THE CLOTHES DRYER. BOX SHALL BE CENTERED ON THE DRYER AND THE BOTTOM OF THE BOX SHALL BE AT FLOOR LEVEL.



MECHANICAL HVAC PLAN - LEVEL 02 - AREA C
1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

design west | architects
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795 NORTH 400 WEST SALT LAKE CITY UT 84103

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VBFA Project #: 23717

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

DESCRIPTION:
MARK: DATE:

PROJECT #:	23717
DRAWN BY:	Author
CHECKED BY:	LW
ISSUED:	05/02/2024

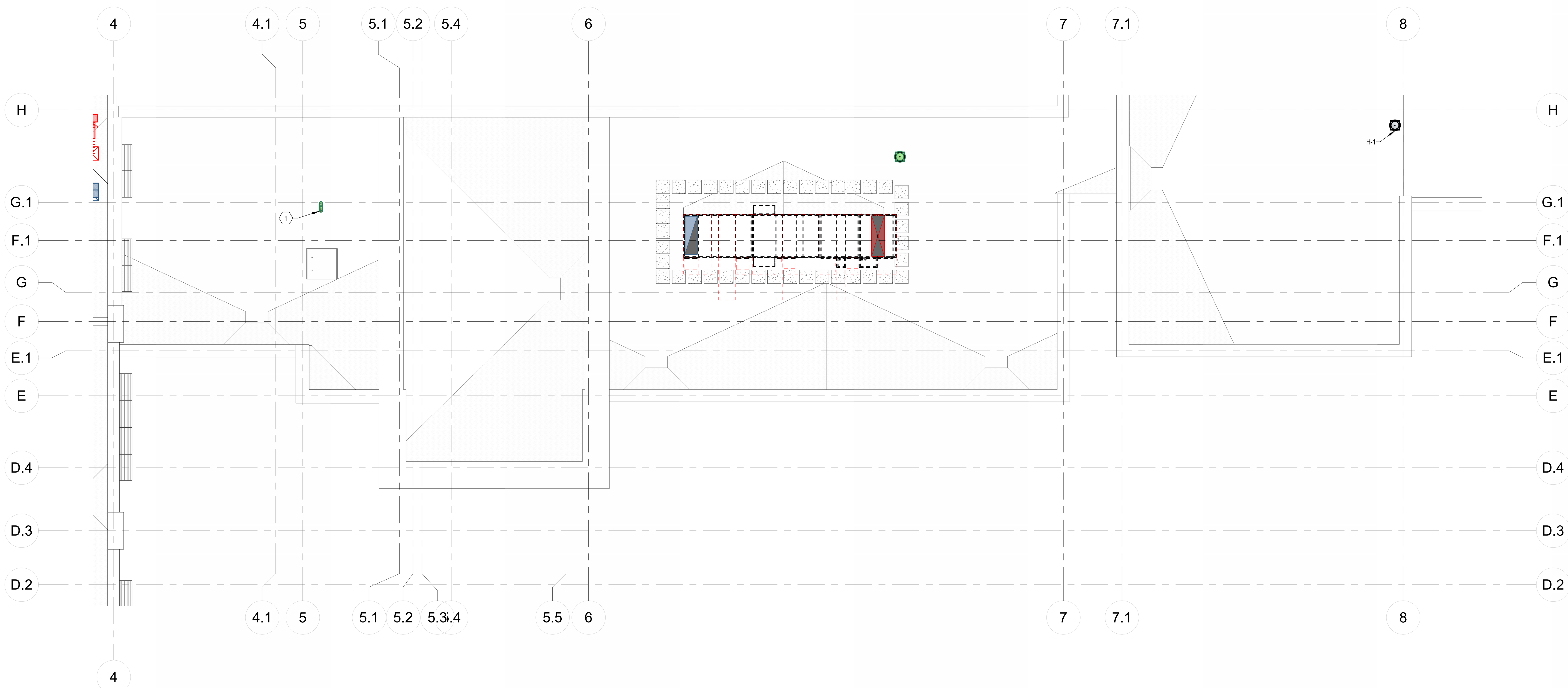
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL HVAC PLAN - LEVEL 02 - AREA C

M-112.C

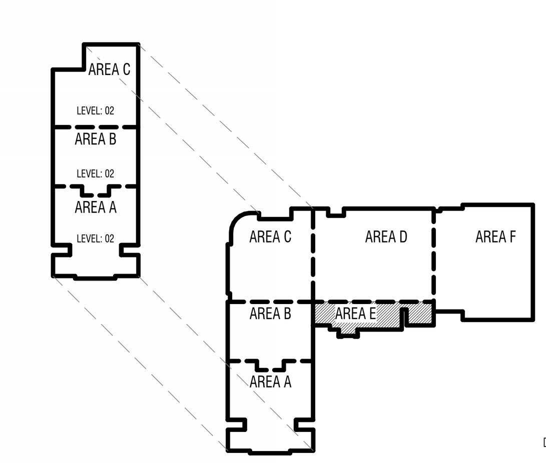
KEYNOTES

1 TERMINATE VENT WITH GOOSE NECK FITTING AND BUG CAP



1 M-112.E MECHANICAL HVAC PLAN - ROOF - AREA E
1/8" = 1'-0"

KEY PLAN



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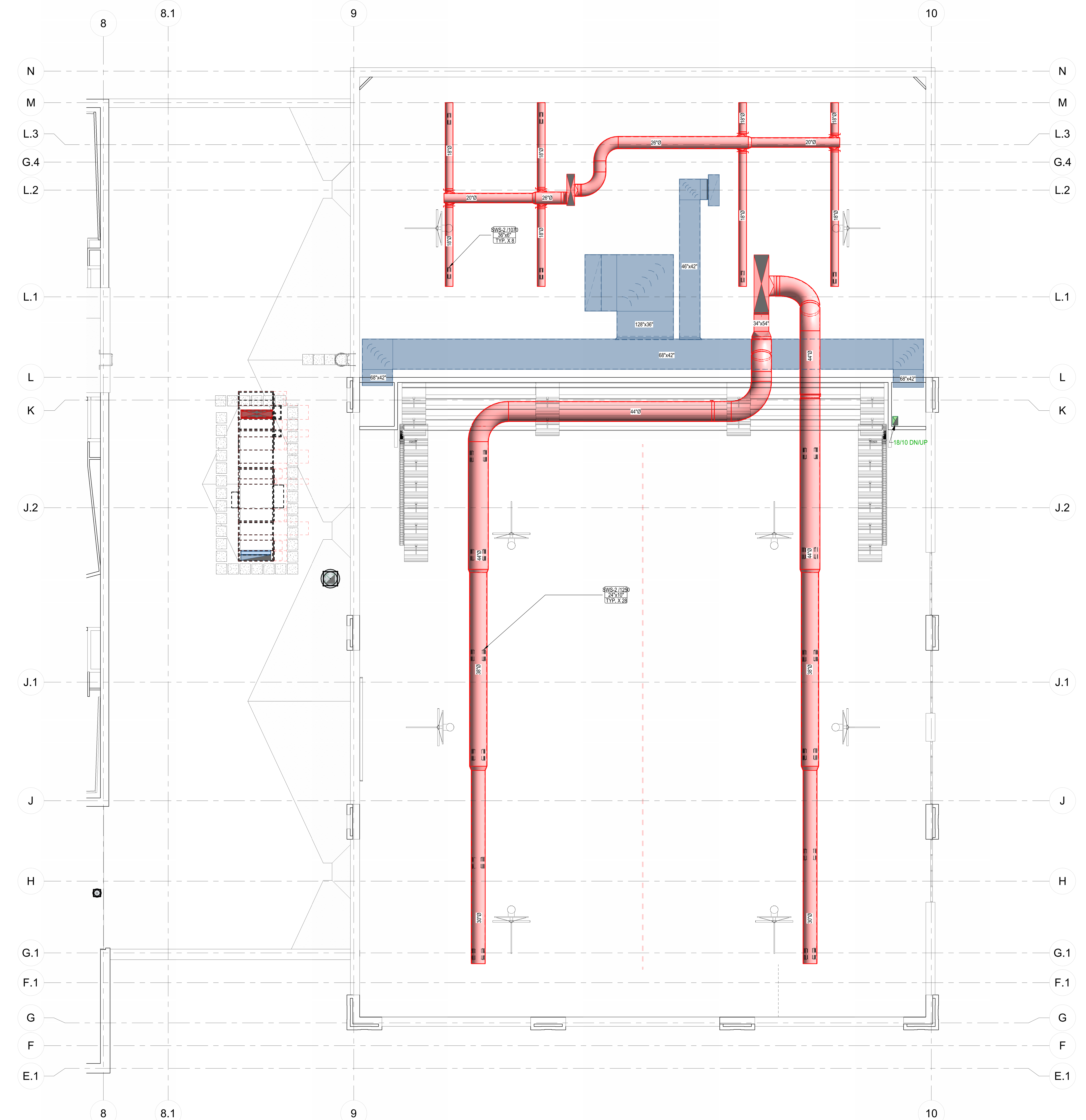
MECHANICAL HVAC PLAN - ROOF - AREA E

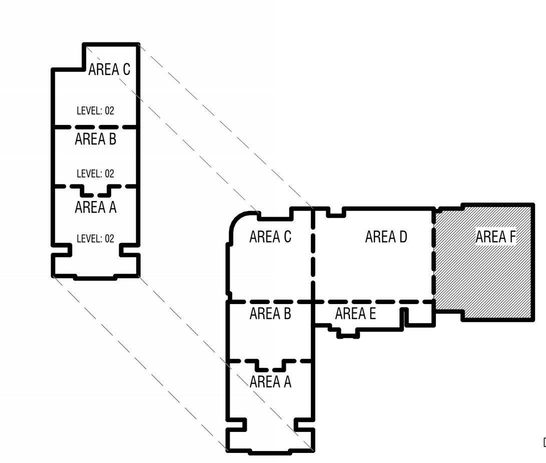
M-112.E

KEYNOTES



1
M-112.F
MECHANICAL HVAC PLAN - LEVEL 02 - AREA F
1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL
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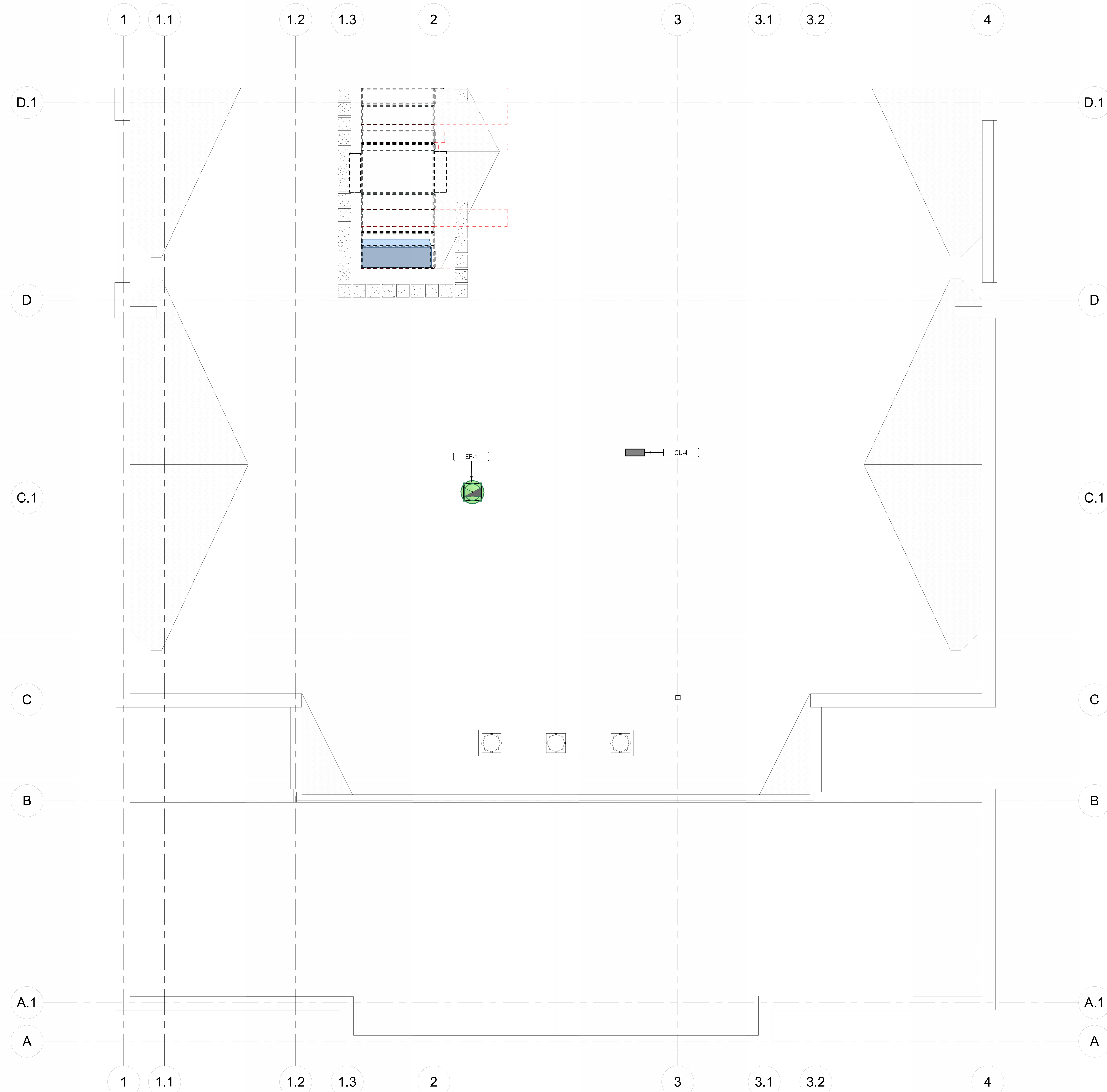
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

CONSTRUCTION DOCUMENTS

MECHANICAL HVAC PLAN - LEVEL 02 - AREA F

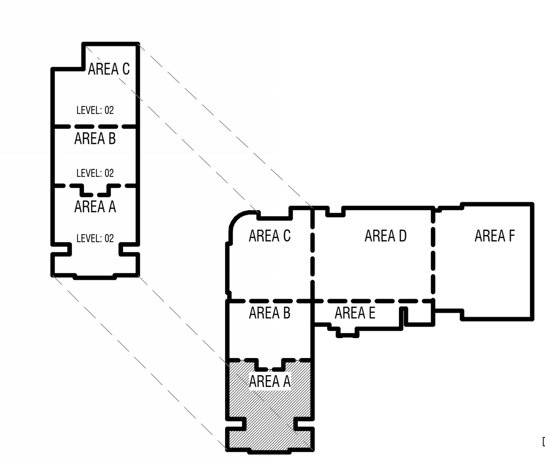
M-112.F

KEYNOTES



1 M-113.A MECHANICAL HVAC PLAN - ROOF - AREA A
1/8" = 1'-0"

KEY PLAN



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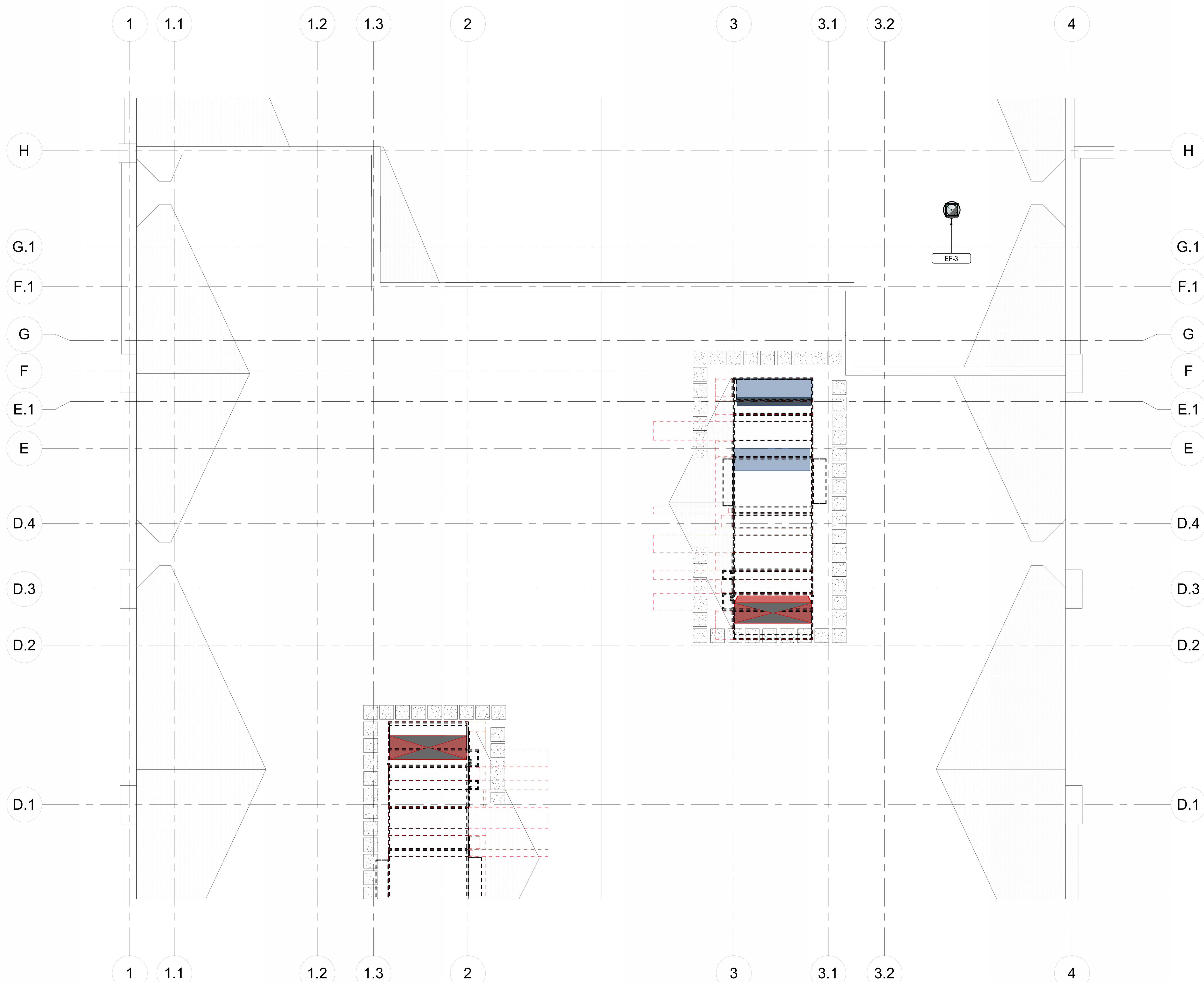
MECHANICAL HVAC PLAN - ROOF - AREA A

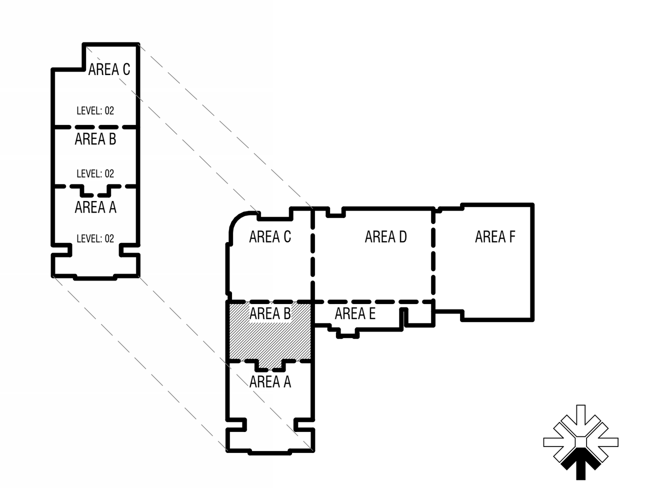
M-113.A

KEYNOTES



1 M-113.B MECHANICAL HVAC PLAN - ROOF - AREA B
1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL

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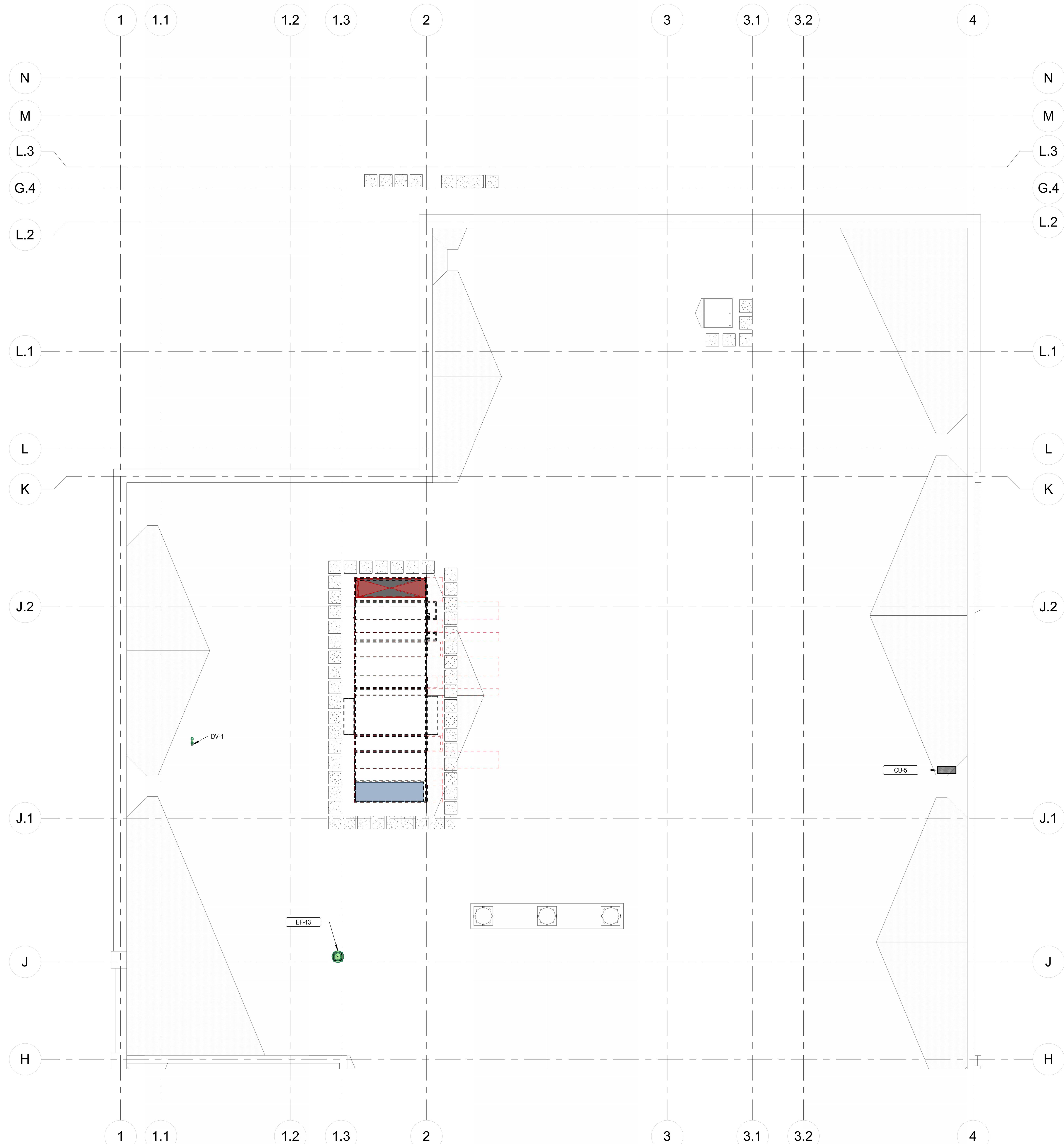
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL HVAC PLAN - ROOF - AREA B

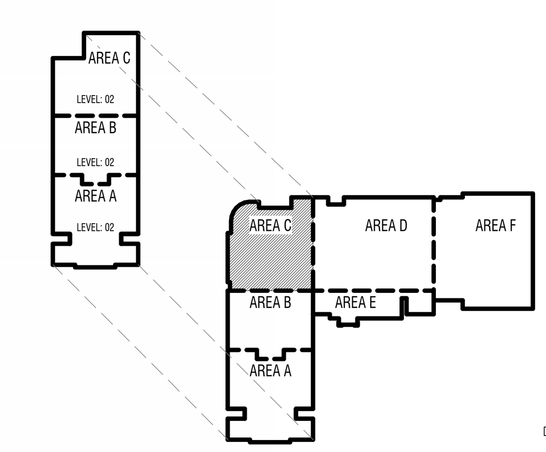
M-113.B

KEYNOTES



1 M-113.C MECHANICAL HVAC PLAN - ROOF - AREA C
1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

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STATE OF UTAH

MECHANICAL HVAC PLAN - ROOF - AREA C

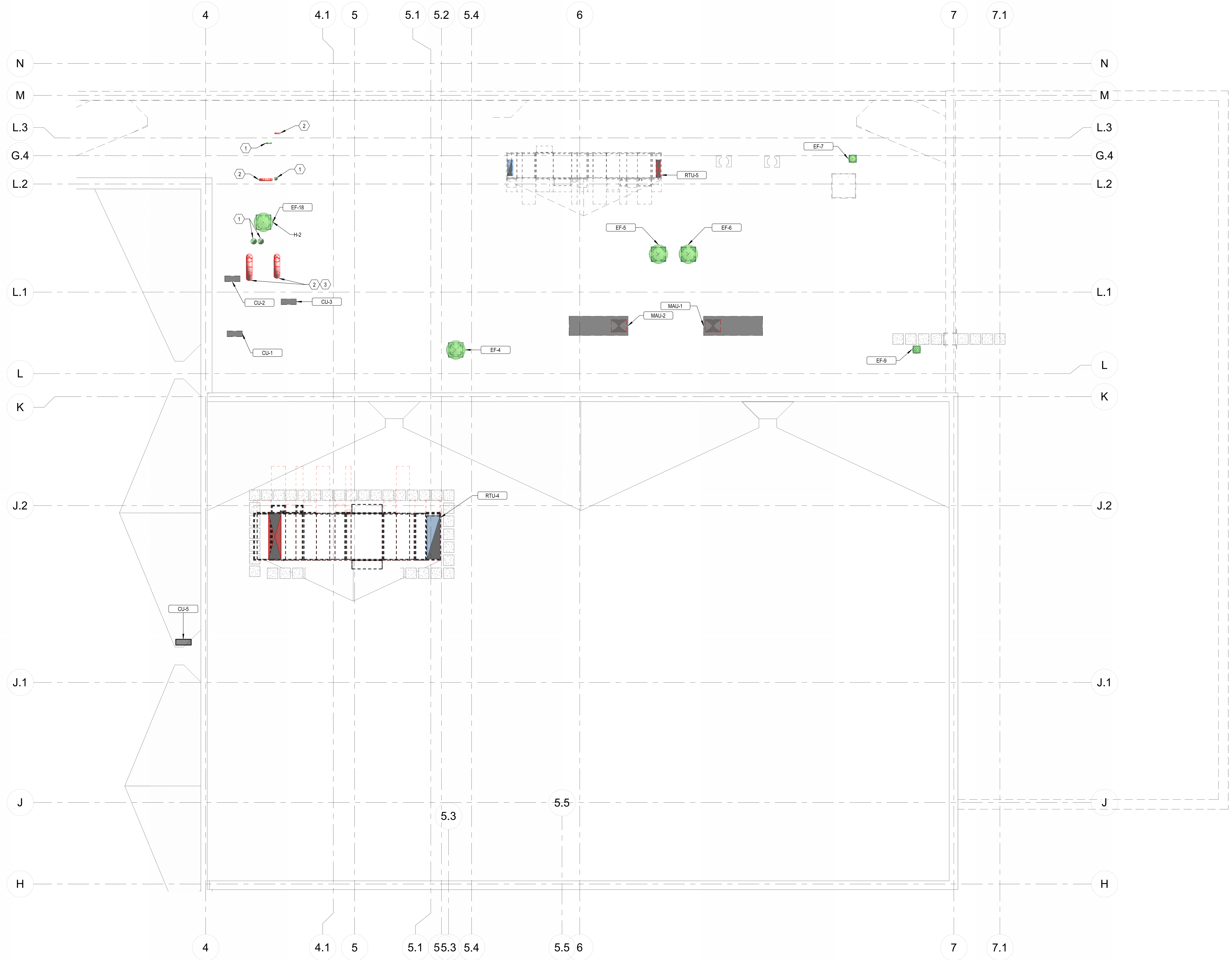
M-113.C

1	2	3	4	5	6

E
D
C
B
A

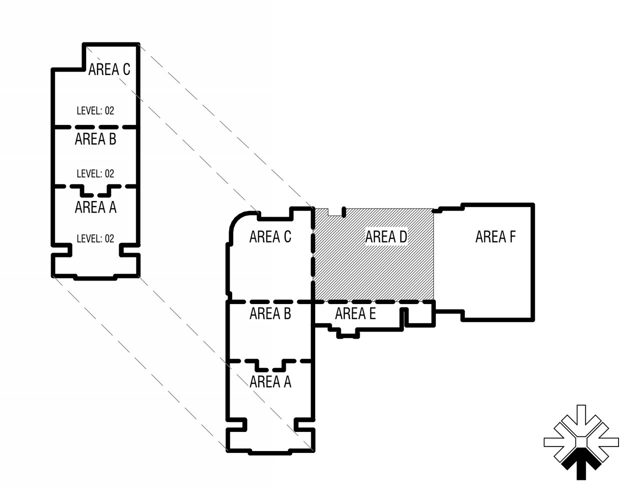
KEYNOTES

1 TERMINATE WITH MANUFACTURER APPROVED VENT TERMINATION AT MINIMUM 48" ABOVE FINISHED ROOF.
2 PROVIDE WITH DOWNTURNED GOOSENECK AND BIRDSCREEN. MINIMUM DISTANCE FROM FINISHED ROOF TO OPENING OF DOWNTURNED GOOSENECK SHALL BE 36 INCHES.
3 INTAKE SHALL BE INSTALLED A MINIMUM OF 48" FROM BOILER VENT TERMINATION.



1 M-113.D MECHANICAL HVAC PLAN - ROOF - AREA D
1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL

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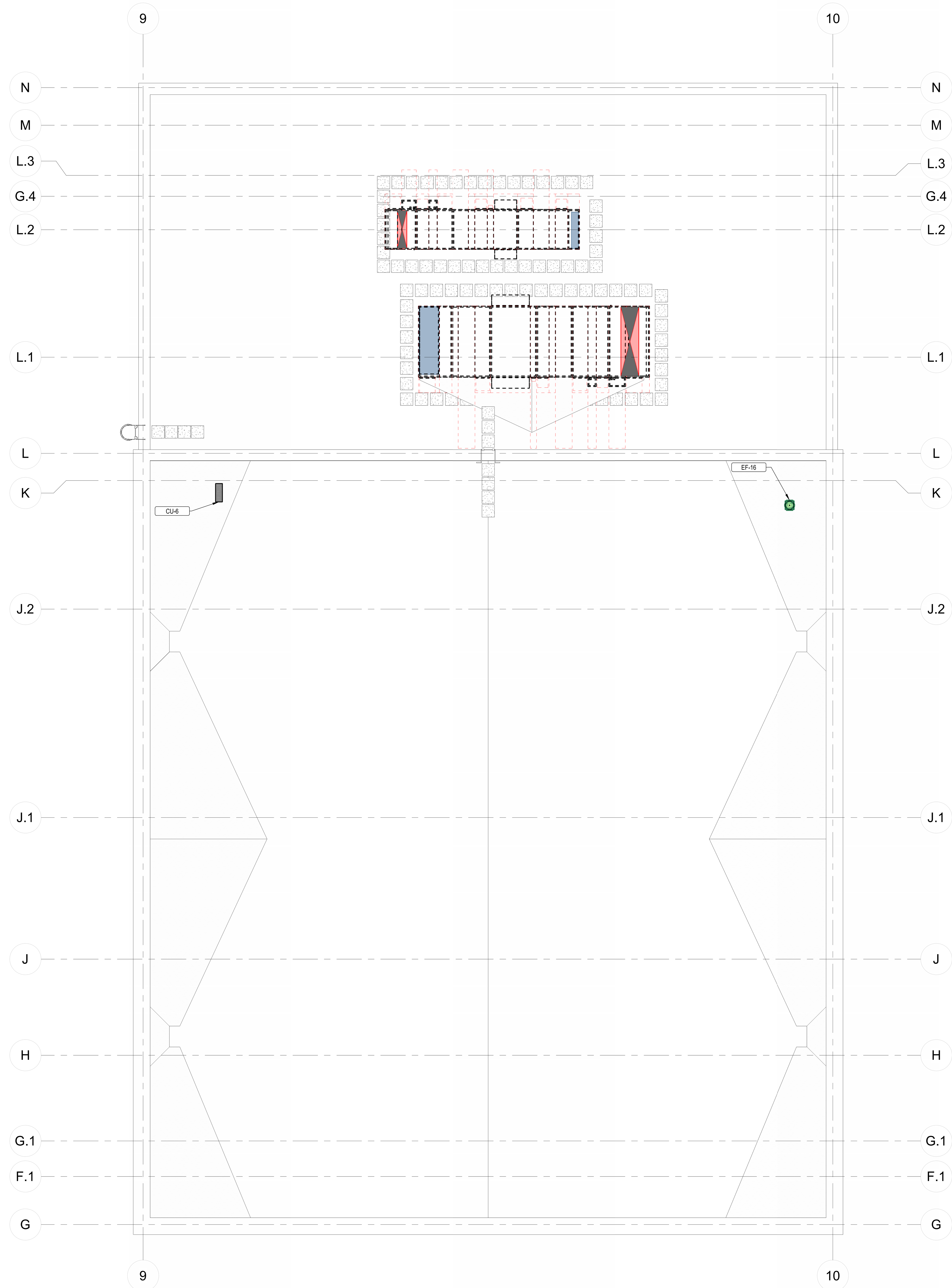
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL HVAC PLAN - ROOF - AREA D

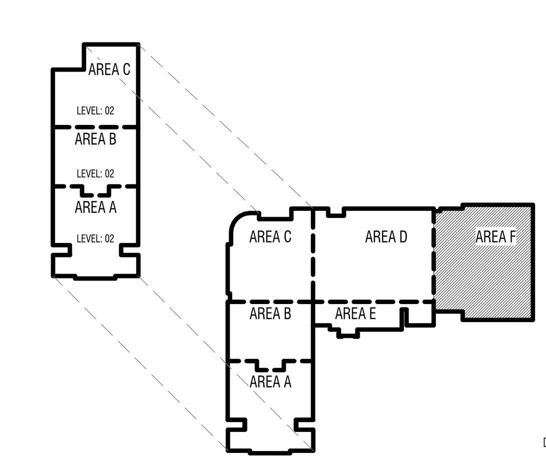
M-113.D

KEYNOTES



1 M-113.F MECHANICAL HVAC PLAN - ROOF - AREA F
1/8" = 1'-0"

KEY PLAN



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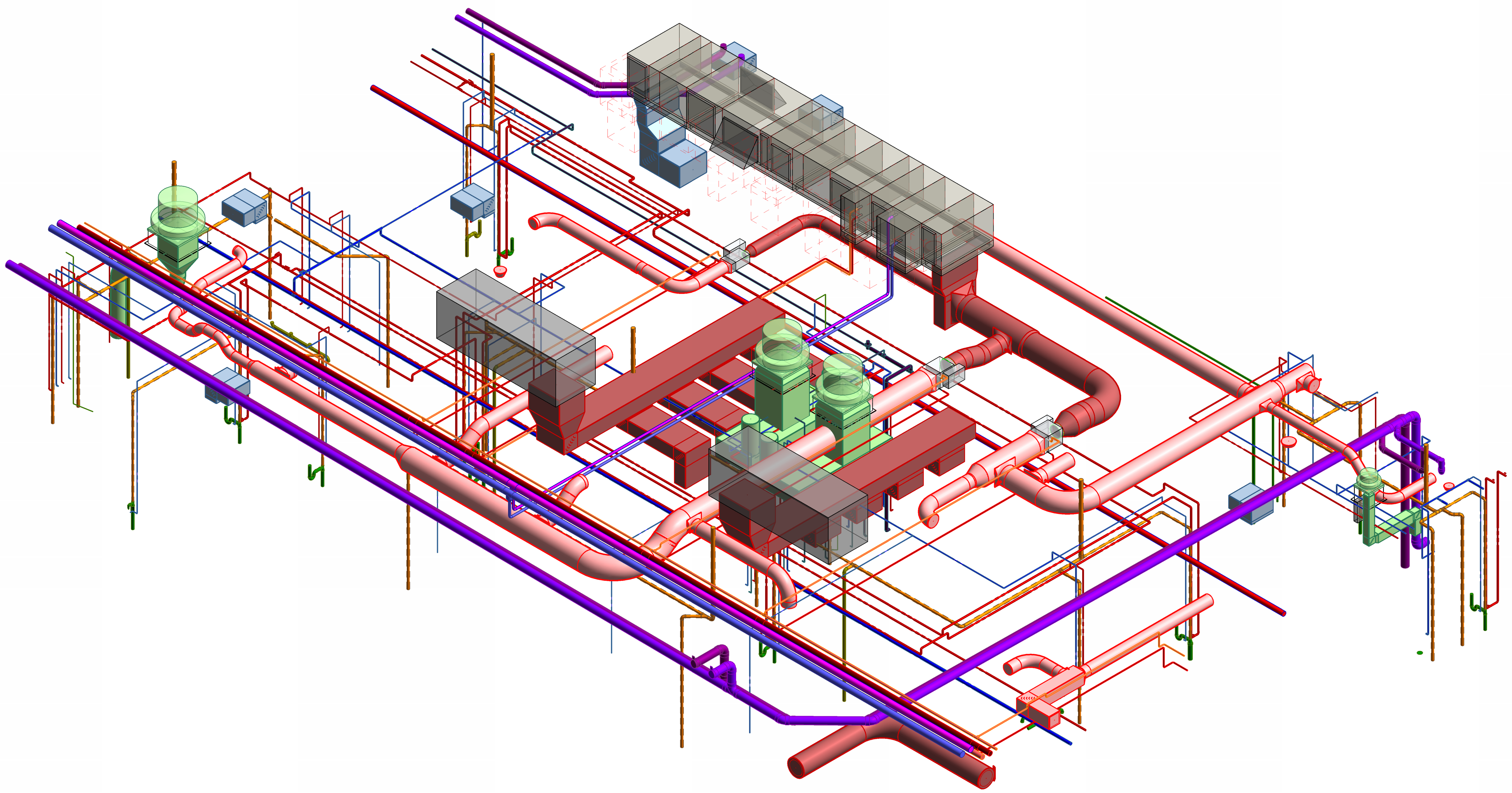
MECHANICAL HVAC PLAN - ROOF - AREA F

M-113.F

KEYNOTES



1 / M-301 ISOMETRIC - MECHANICAL HVAC & MECHANICAL PIPING - KITCHEN

design west architects
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NIBLEY MIDDLE SCHOOL

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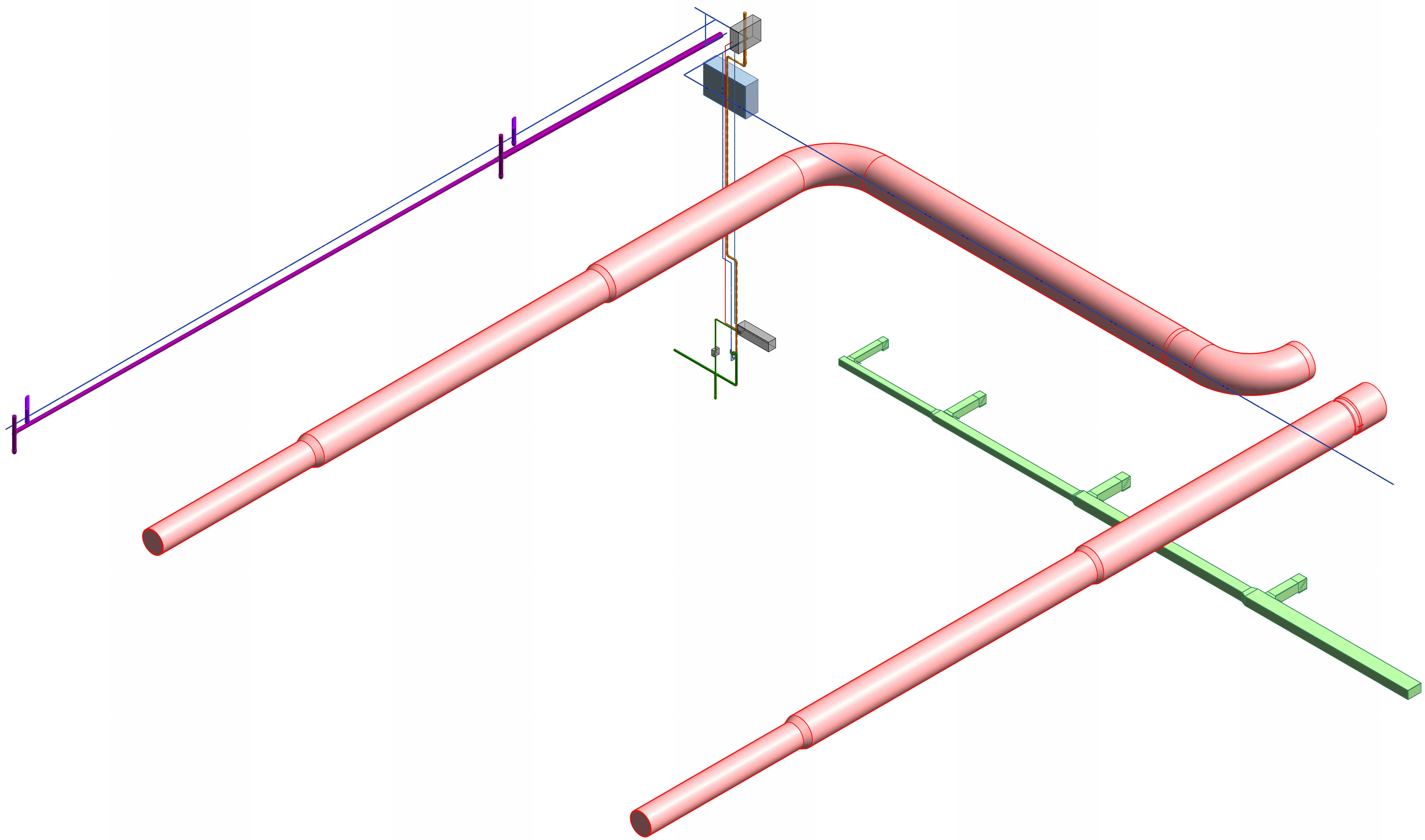
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

CONSTRUCTION DOCUMENTS

MECHANICAL ISOMETRIC VIEWS

M-301

KEYNOTES



1
M-302
ISOMETRIC - MECHANICAL HVAC & PIPING - GYMNASIUM

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

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PROJECT #:	23717
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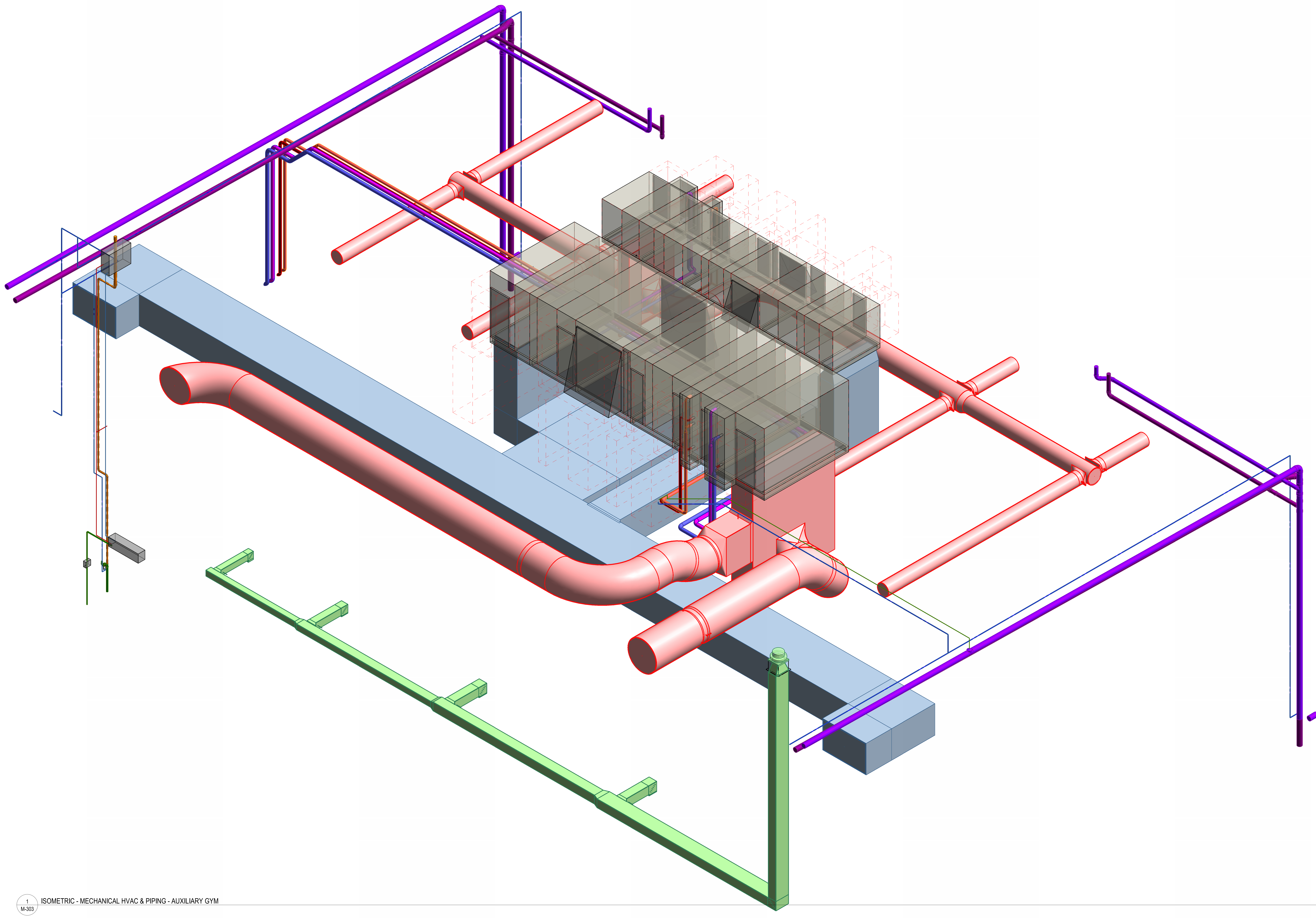
ISSUED:	05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL
ISOMETRIC VIEWS

M-302

KEYNOTES



1 M-303 ISOMETRIC - MECHANICAL HVAC & PIPING - AUXILIARY GYM

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255 SOUTH 300 WEST LOGAN UT 84321
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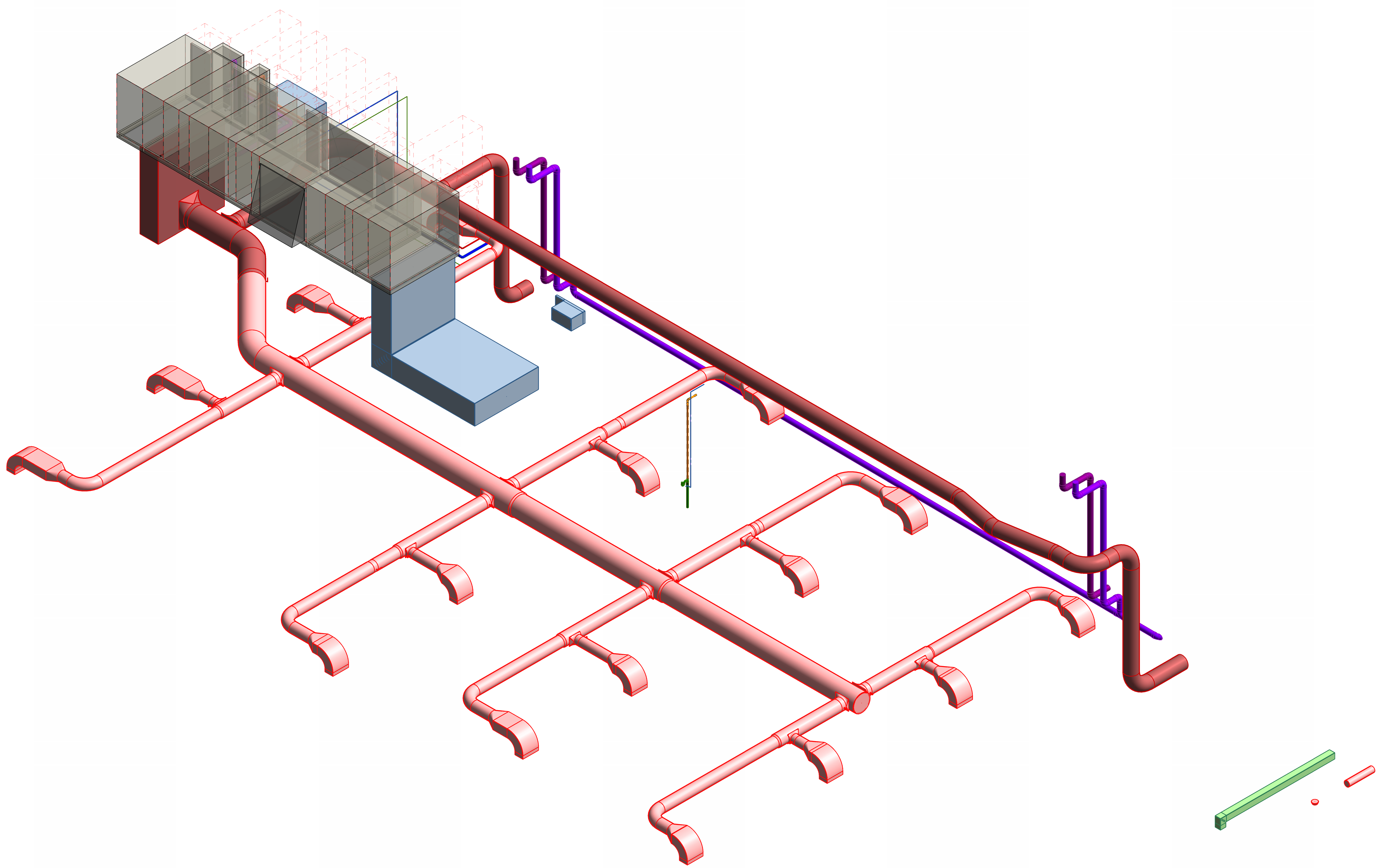
JEDEDIAH L JENKINS
STATE OF UTAH

CONSTRUCTION DOCUMENTS

MECHANICAL ISOMETRIC VIEWS

M-303

KEYNOTES



1
M-304
ISOMETRIC - MECHANICAL HVAC & PIPING - CAFETORIUM

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

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ISSUED:	05/02/2024

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No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

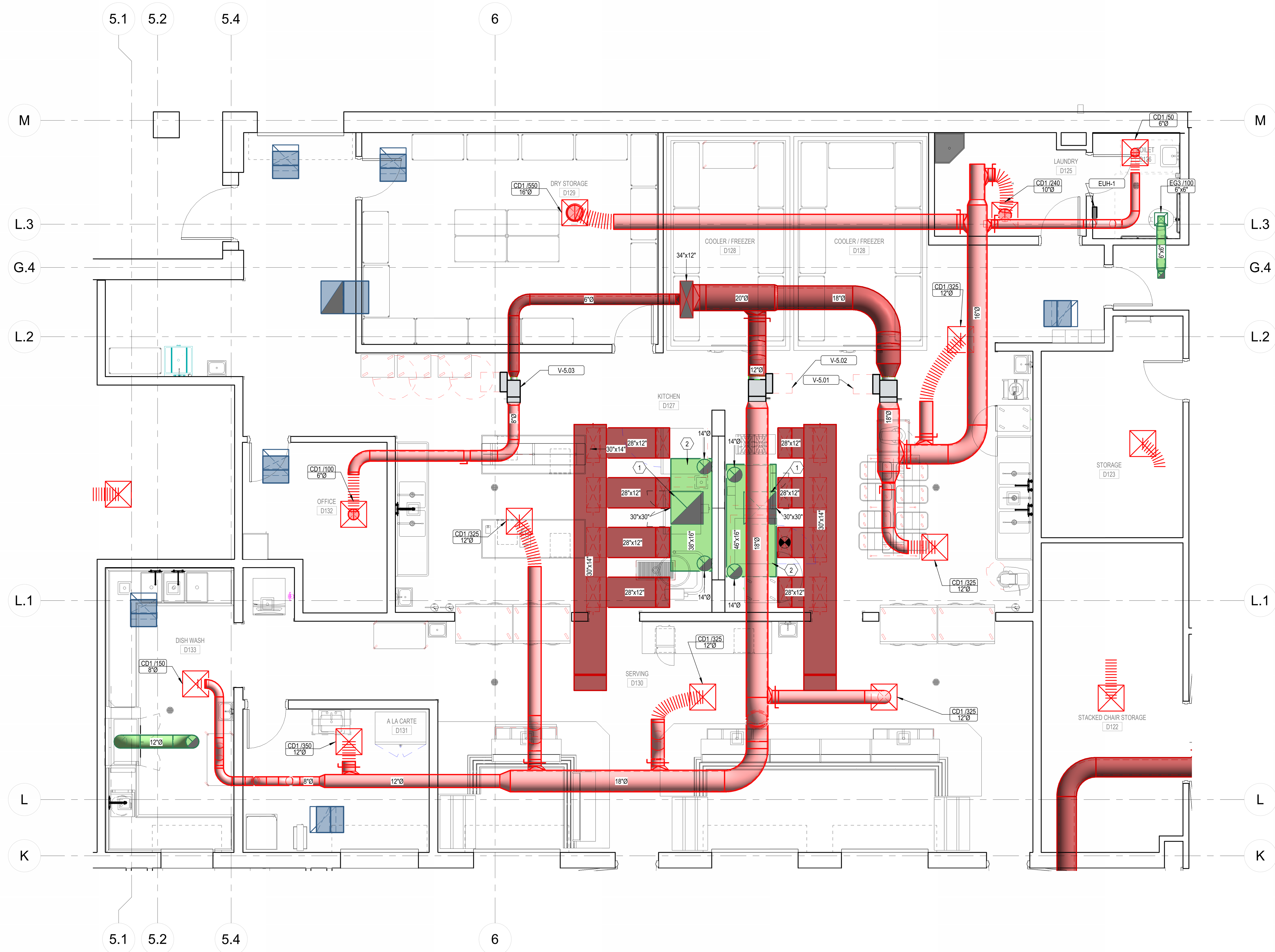
MECHANICAL
ISOMETRIC VIEWS

M-304

KEYNOTES

1 GREASE DUCT UP TO EXHAUST FAN ABOVE.

2 GREASE DUCT TEST: ALL DUCT SERVING TYPE 1 EXHAUST HOODS SHALL BE LEAK TESTED IN THE PRESENCE OF CODE OFFICIAL. TESTING SHALL BE CONDUCTED PRIOR TO WRAPPING OR CONCEALING THE DUCTWORK. THE LEAK TEST SHALL BE A LIGHT TEST OR APPROVED ALTERNATE IN ACCORDANCE WITH THE 2021 IMC SECTION 506.3.2.5. THE LEAK TEST SHALL BE PERFORMED ON THE ENTIRE DUCT SYSTEM, INCLUDING THE DUCT HOOD CONNECTION.



1 ENLARGED MECHANICAL HVAC PLAN - KITCHEN
M-401
1/4" = 1'-0"

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

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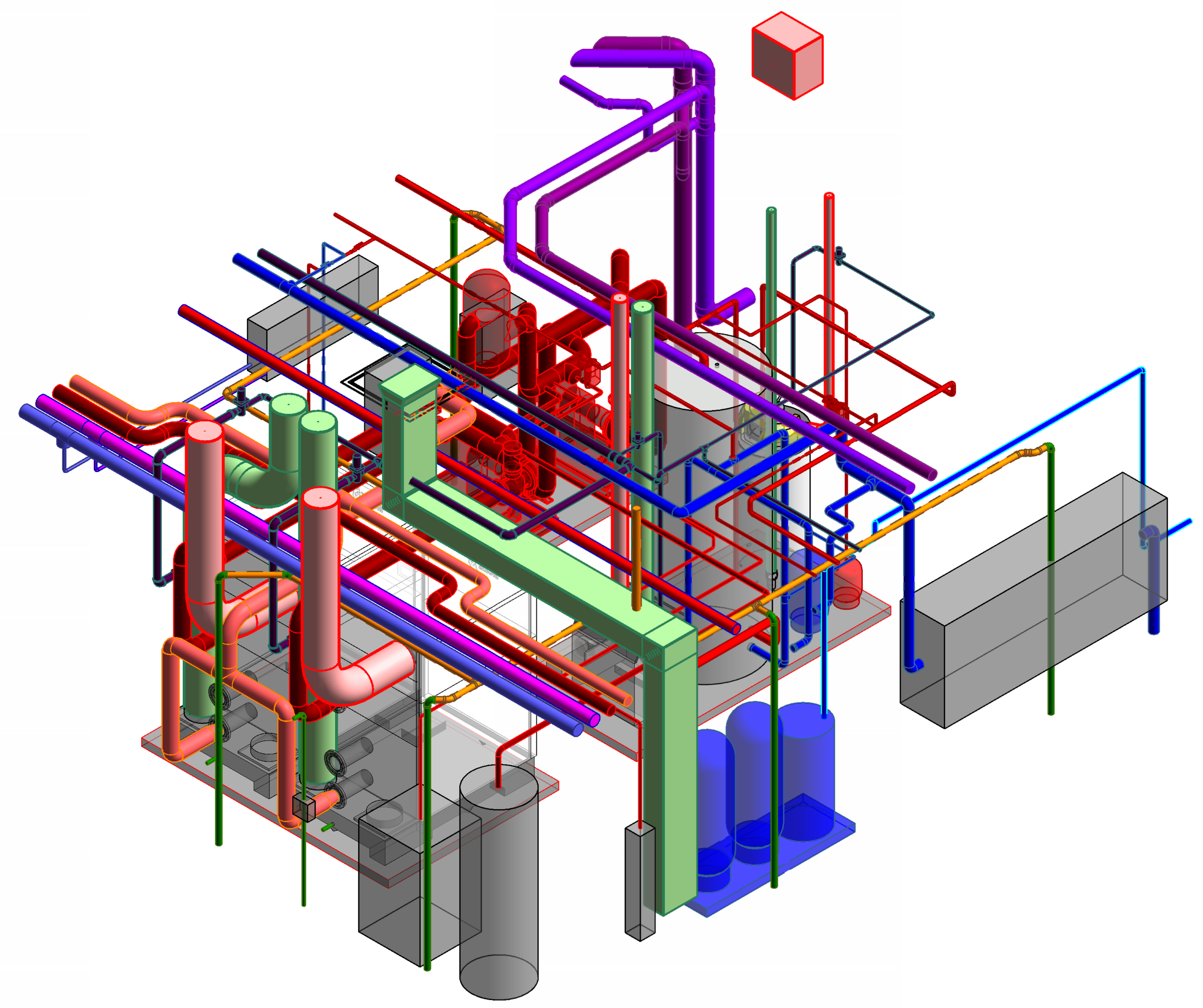
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL ENLARGED VIEWS

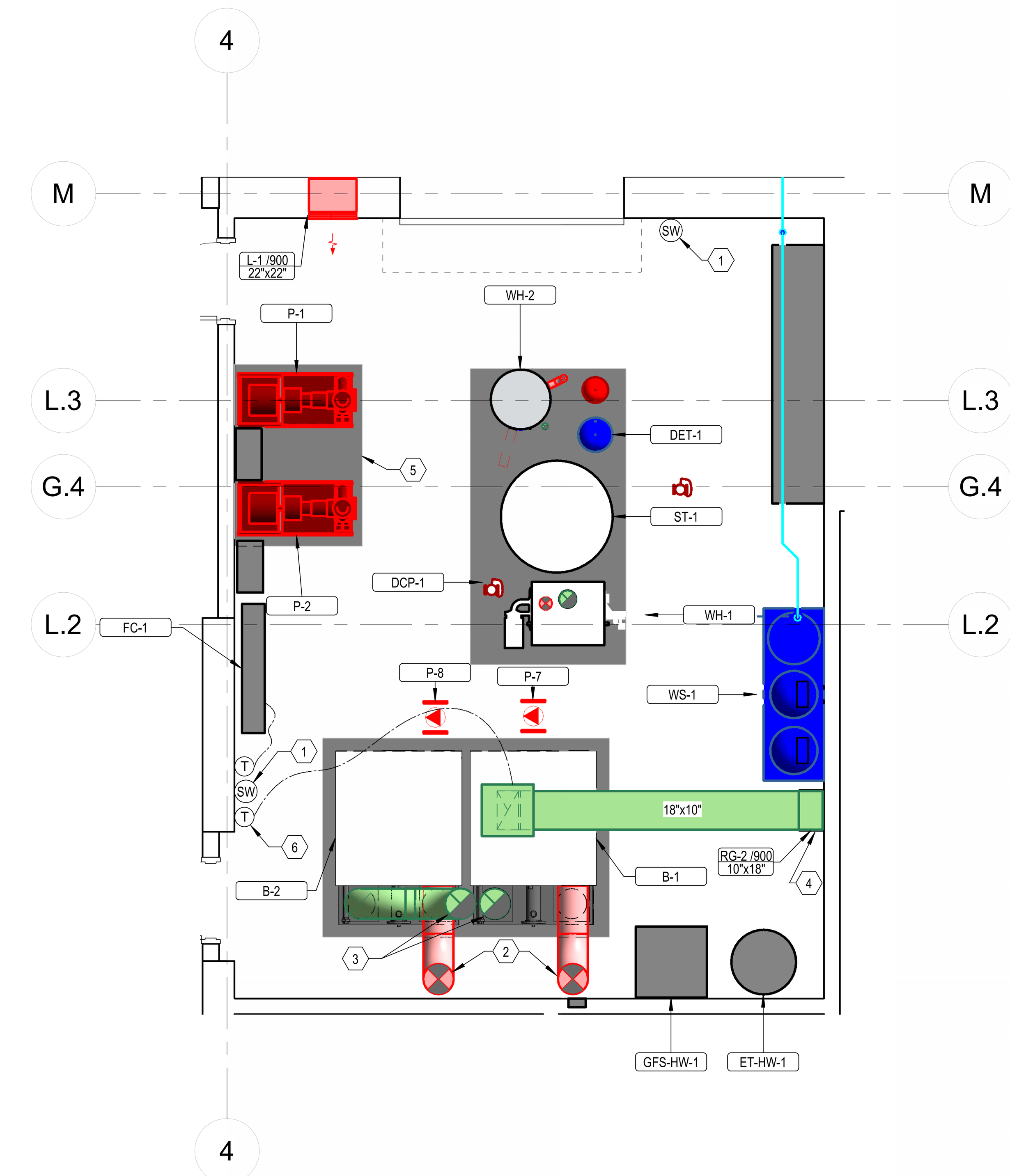
M-401

KEYNOTES

1. EMERGENCY BOILER ROOM SHUTDOWN SWITCH. SWITCH SHALL BE INTERLOCKED WITH ALL GAS FIRED EQUIPMENT IN BOILER ROOM FOR SHUTDOWN. PROVIDE LIFT OPEN CLEAR COVER.
2. 14" COMBUSTION AIR INTAKE DUCT. FLASH AND COUNDERFLASH INTAKE DUCT THRU ROOF. INSTALL WITH GOOSENECK FITTING, IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES TO PREVENT MOISTURE FROM ENTERING DUCT. INTAKE SHALL BE INSTALLED NO LESS THAN 1-FOOT ABOVE POTENTIAL SNOW ACCUMULATION, AND NO LESS THAN 4-FT HORIZONTAL AND 4-FT VERTICAL DISTANCE FROM BOILER FLUE OUTLETS.
3. 14' BOILER FLUE THRU ROOF.
4. MACHINERY ROOM EXHAUST DUCT. DROP DOWN AGAINST WALL AND TERMINATE 1'-0" AFFL.
5. ALL EQUIPMENT IN MECHANICAL ROOM TO BE INSTALLED ON 6" HOUSEKEEPING PADS.
6. MACHINERY ROOM VENTILATION FAN WITH VARIABLE SPEED MOTOR, INTERLOCK WITH THERMOSTAT.



2 M-402 ISOMETRIC - MECHANICAL HVAC & MECHANICAL PIPING PLAN - BOILER ROOM



1 M-402 ENLARGED MECHANICAL HVAC PLAN - BOILER ROOM
1/4" = 1'-0"

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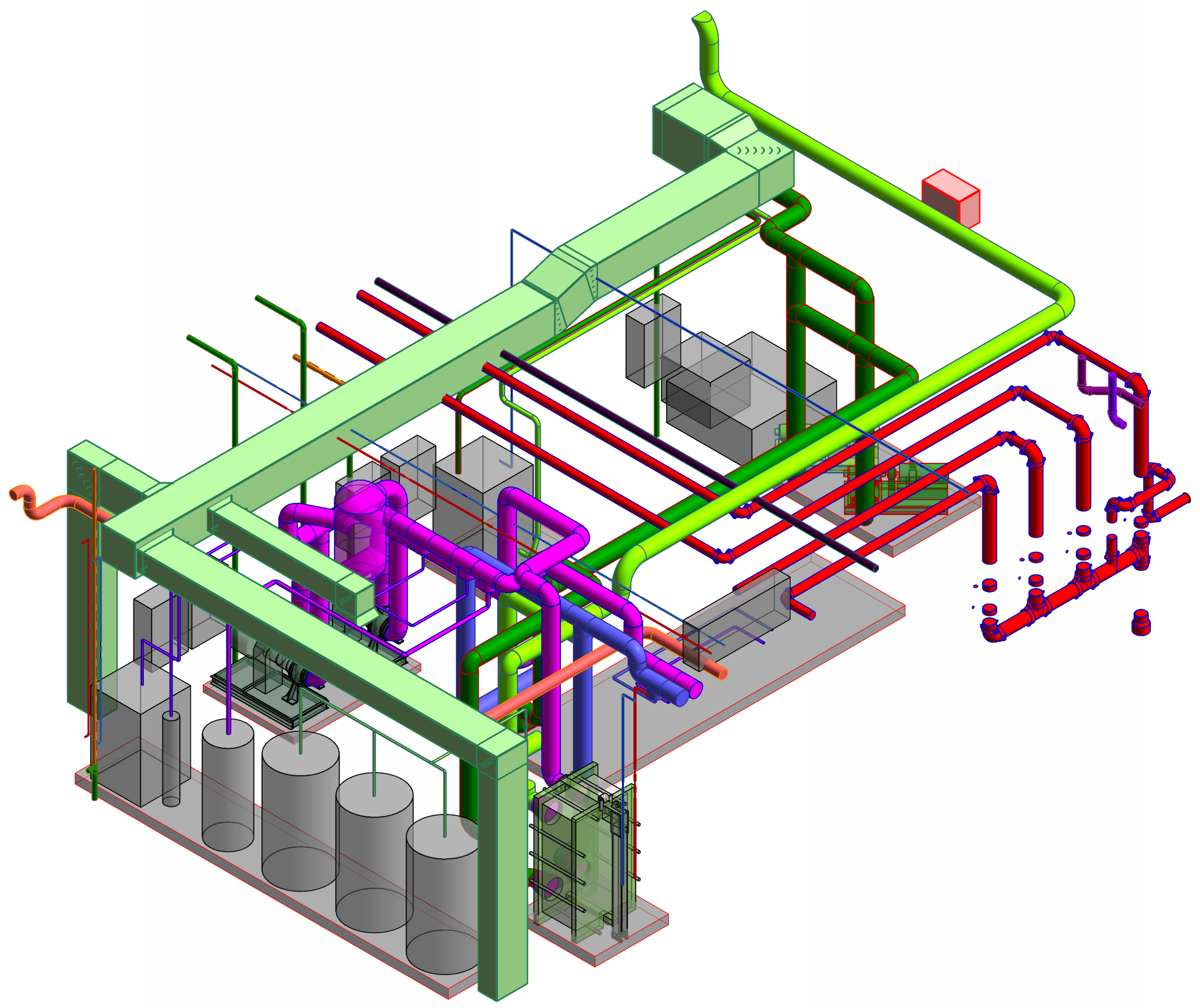
MECHANICAL ENLARGED VIEWS

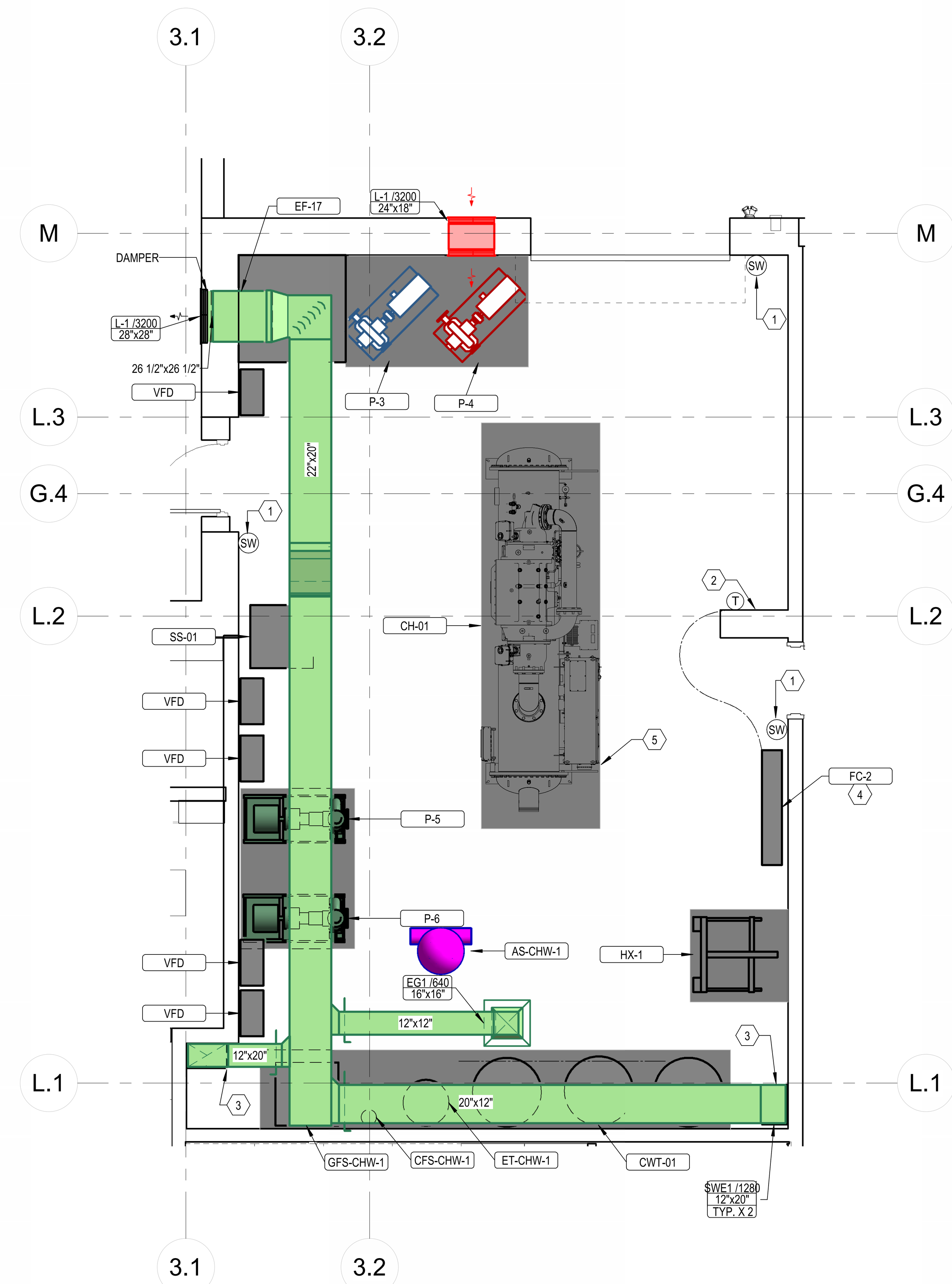
M-402

KEYNOTES

1 EMERGENCY CHILLER SHUT-OFF SWITCH SHALL BE INTERLOCKED WITH ALL EQUIPMENT IN CHILLER ROOM FOR SHUT-OFF. PROVIDE LIFT OPEN CLEAR COVER.
2 REFRIGERANT MONIT0R SYSTEM. MOUNT ON WALL NEAR CHILLER. SAMPLING POINT SHALL BE PIPED TO A POINT NEAR THE CHILLER AT AN ELEVATION OF 18-INCHES ABOVE FINISHED FLOOR.
3 MACHINERY ROOM EXHAUST DUCT. DROP DOWN AGAINST WALL AND TERMINATE 1'-0" AFFL.
4 HANG FROM TRUSSES. MOUNT HORIZONTALLY.
5 ALL EQUIPMENT IN MECHANICAL ROOM TO BE INSTALLED ON 6" HOUSEKEEPING PADS.



2 M-403 ISOMETRIC - MECHANICAL HVAC & MECHANICAL PIPING PLAN - CHILLER ROOM



1 M-403 ENLARGED MECHANICAL HVAC PLAN - CHILLER ROOM
1/4" = 1'-0"

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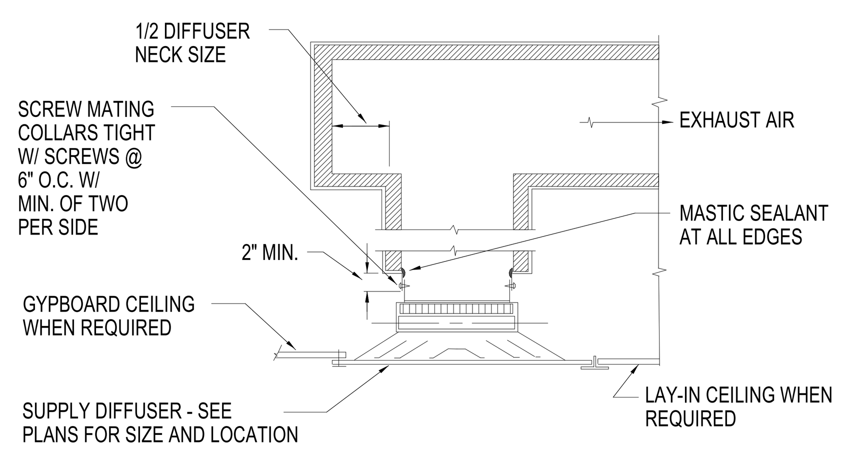
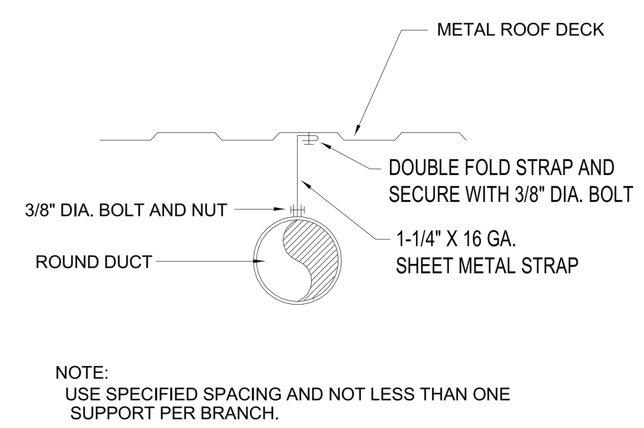
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL ENLARGED VIEWS

M-403

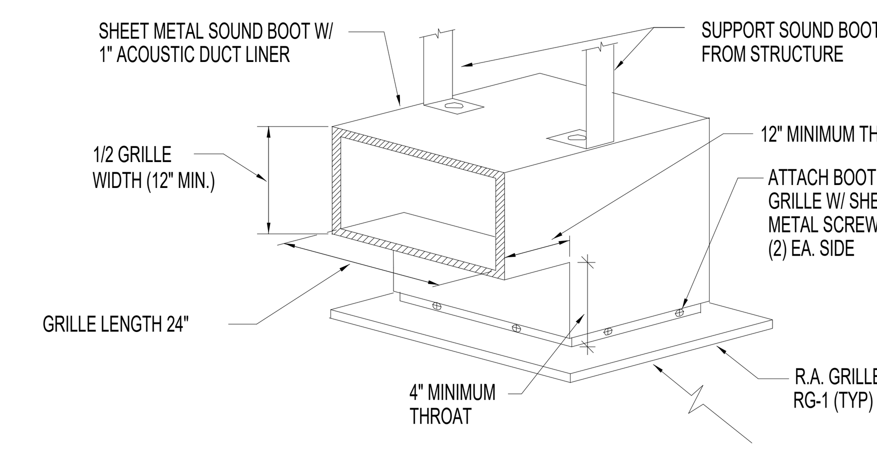


13 M-501 TYPICAL EXHAUST GRILLE DETAIL
NO SCALE

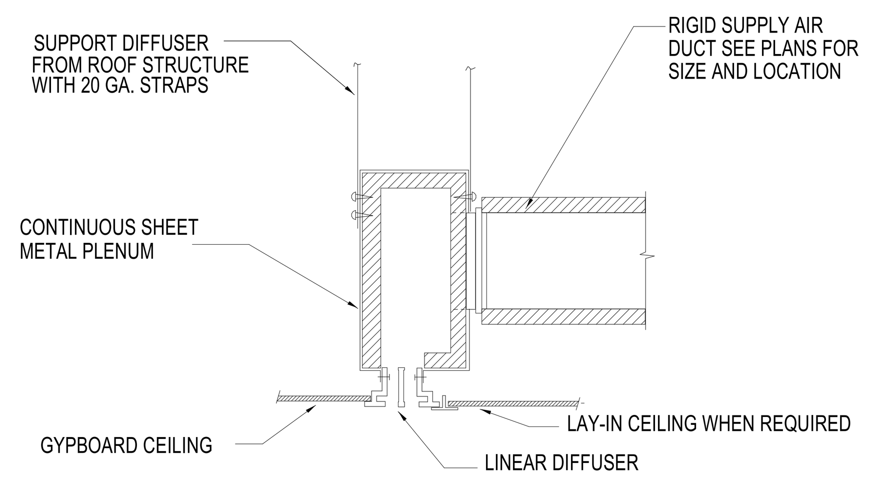


NOTE:
USE SPECIFIED SPACING AND NOT LESS THAN ONE SUPPORT PER BRANCH.

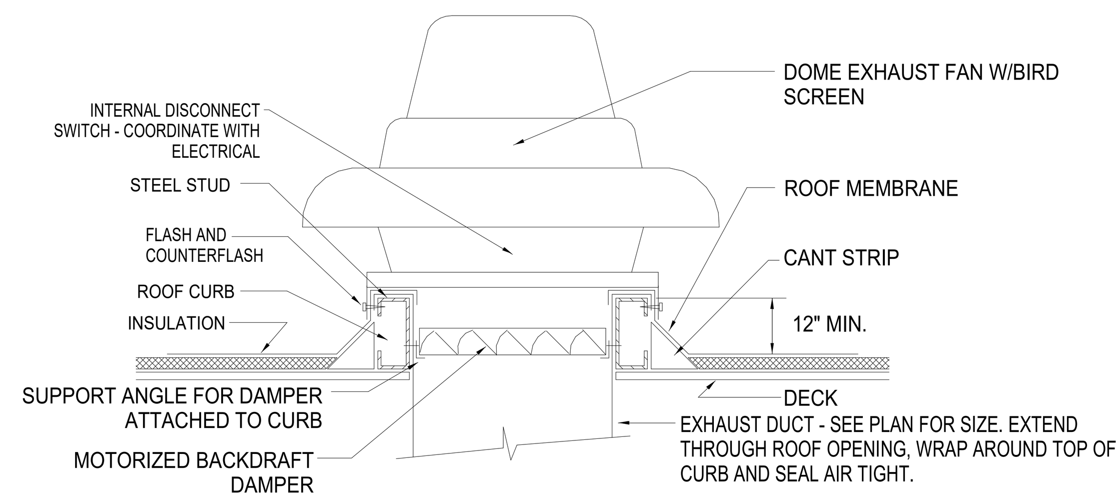
12 M-501 ROUND DUCT SUPPORT DETAIL
NO SCALE



11 M-501 R.A. GRILLE WITH SOUND BOOT
NO SCALE



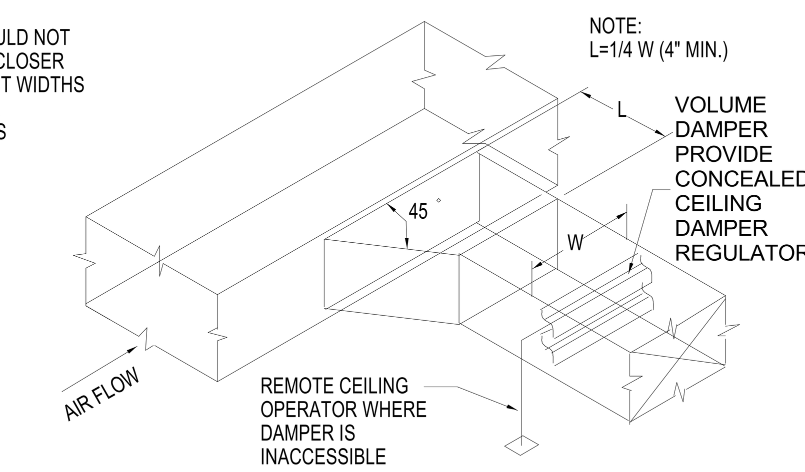
10 M-501 LINEAR DIFFUSER & PLENUM DETAIL
NO SCALE



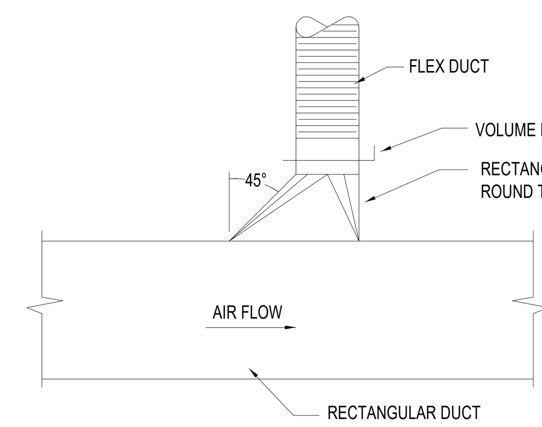
9 M-501 EXHAUST FAN DETAIL
NO SCALE

NOTE:
DAMPERS SHOULD NOT BE INSTALLED CLOSER THAN TWO DUCT WIDTHS TO ELBOWS OR INTERSECTIONS

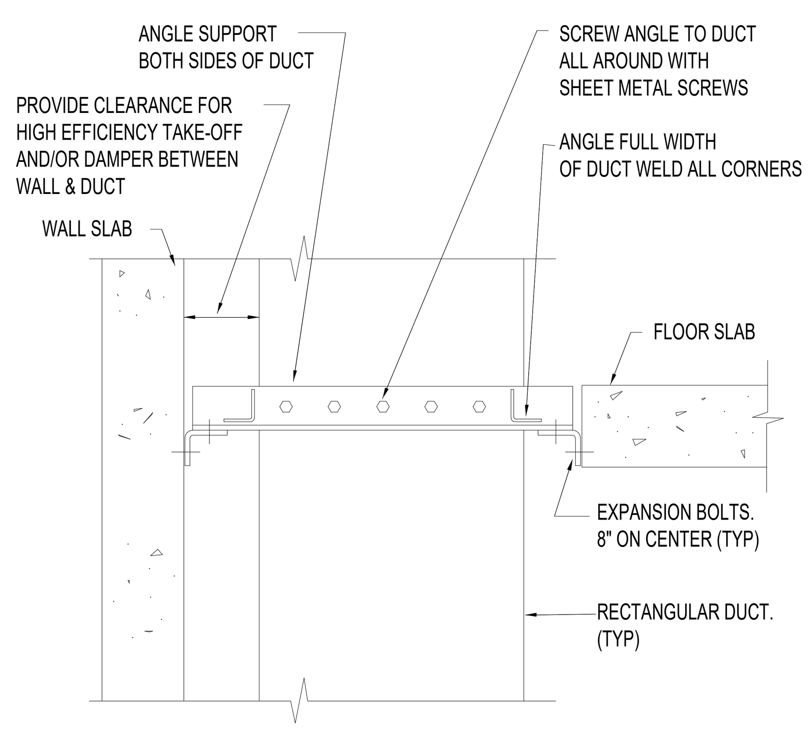
NOTE:
L=1/4 W (4" MIN.)



8 M-501 BRANCH DUCT TAKE-OFF & DAMPER
NO SCALE

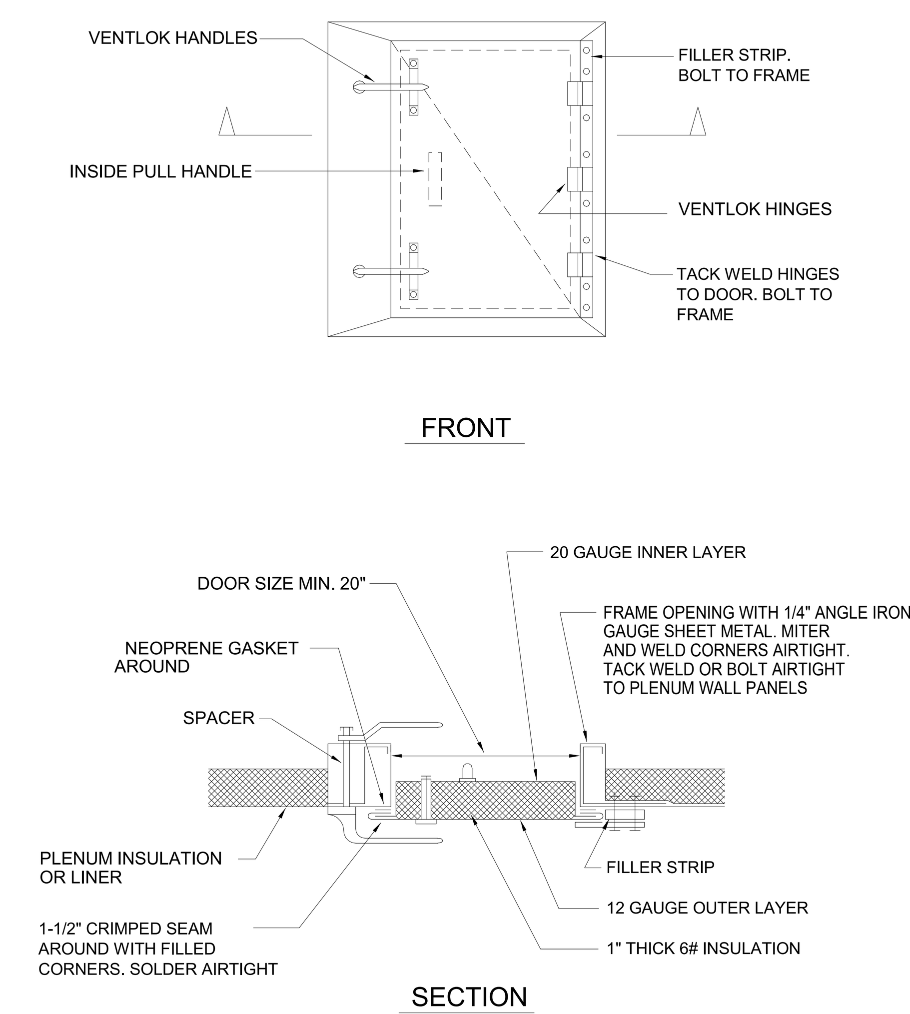


7 M-501 HIGH EFFICIENCY TAKE-OFF DETAIL
NO SCALE



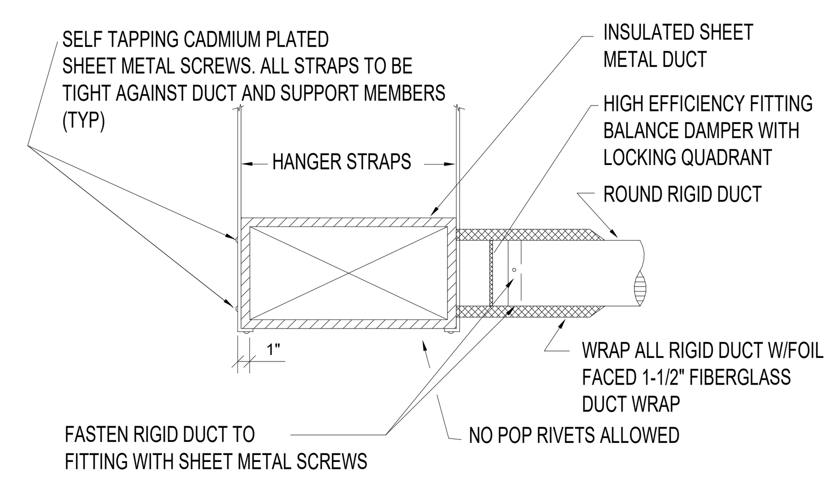
NOTES:
1. SUPPORT DUCT AT EACH FLOOR.
2. SUPPORT OF ROUND DUCT SIMILAR EXCEPT SCREW CLAMP TO DUCT SAME SIZE AS DUCT OUTSIDE DIAMETER AND BOLT CLAMP TO ANGLE SUPPORTS.
3. SUZE SUPPORT ANGLES AND DUCT CLAMPS AS REQUIRED TO SUPPORT WEIGHT OF DUCTWORK.
4. OMIT SCREWS AT FUME EXHAUST DUCTS AND BOLT ANGLES TO DUCT COMPANION ANGLE FLANGES.

6 M-501 DUCT RISER SUPPORT IN CHASE DETAIL
NO SCALE

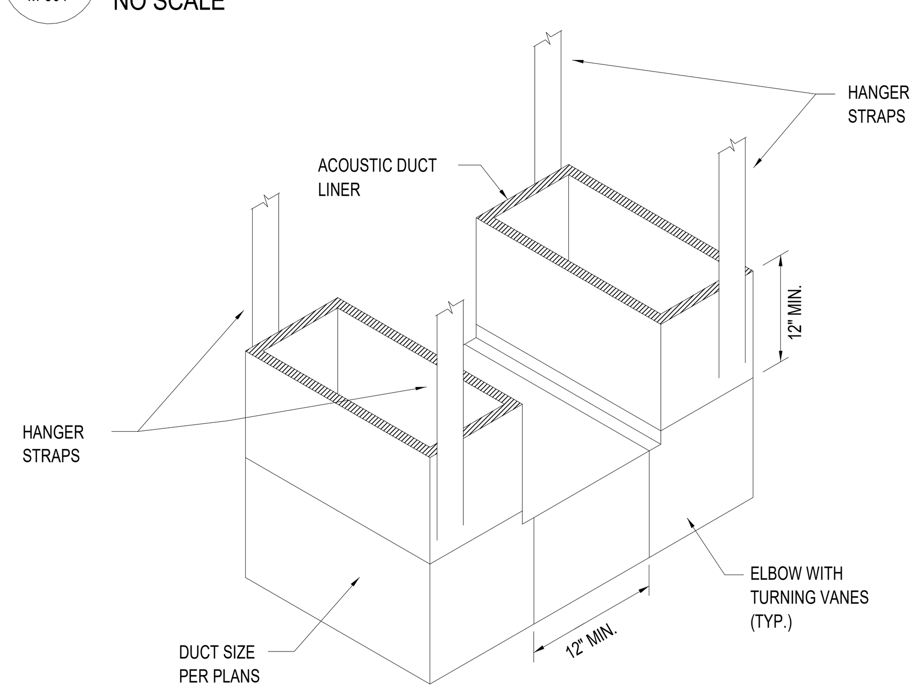


NOTES:
1. BOLTED JOINTS SET IN MASTIC FOR AIRTIGHT JOINT.
2. DOORS SHALL BE A MINIMUM 2'-6" x 1'-8" UNLESS SHOWN OTHERWISE

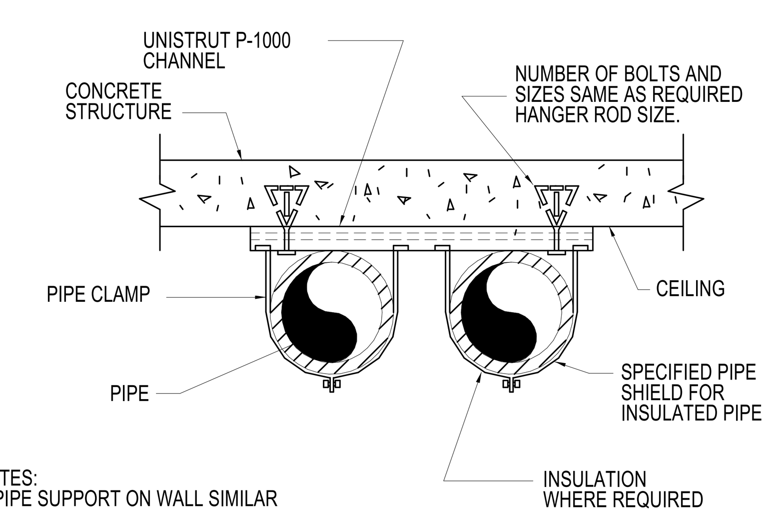
5 M-501 PLENUM DOOR
NO SCALE



4 M-501 HIGH EFFICIENCY TYPE FITTING
NO SCALE

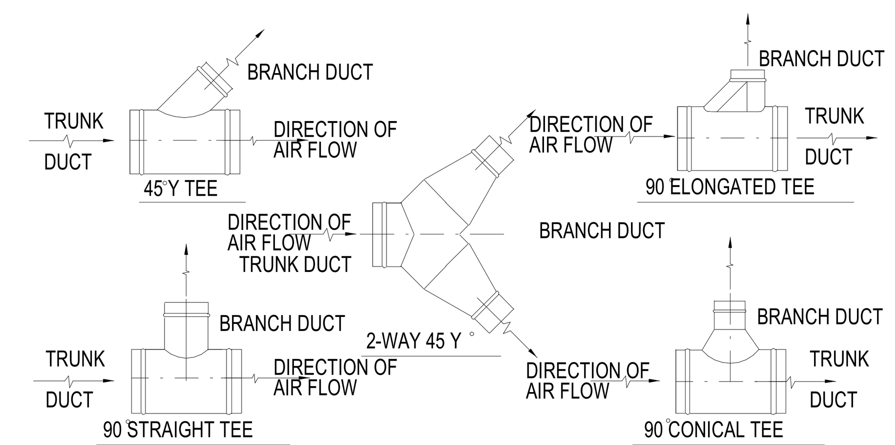


3 M-501 RETURN AIR TRANSFER DUCT DETAIL
NO SCALE



NOTES:
1. PIPE SUPPORT ON WALL SIMILAR

2 M-501 PIPE SUPPORT ON CEILING
NO SCALE



1 M-501 ROUND DUCT BRANCH TAKE-OFFS DETAILS
NO SCALE

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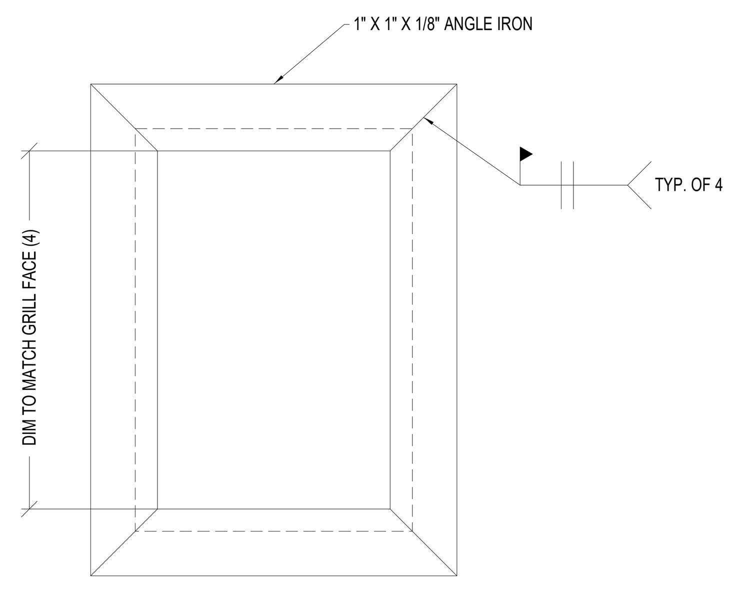
DESCRIPTION:	DATE:	MARK:

PROJECT #:	23717
DRAWN BY:	Author
CHECKED BY:	LW
ISSUED:	05/02/2024

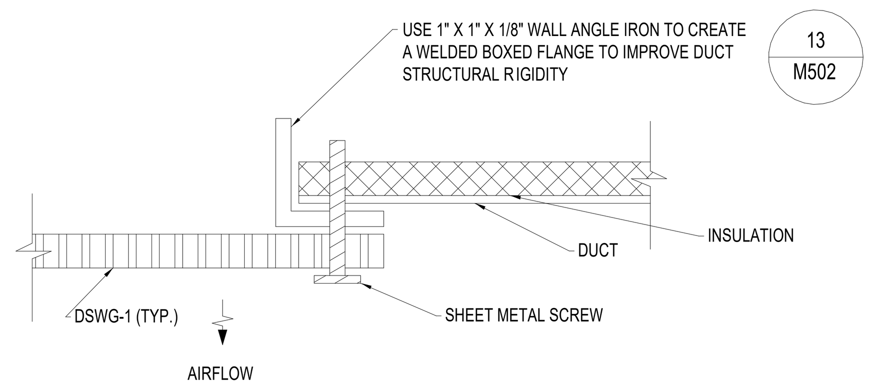
CONSTRUCTION DOCUMENTS

MECHANICAL DETAILS

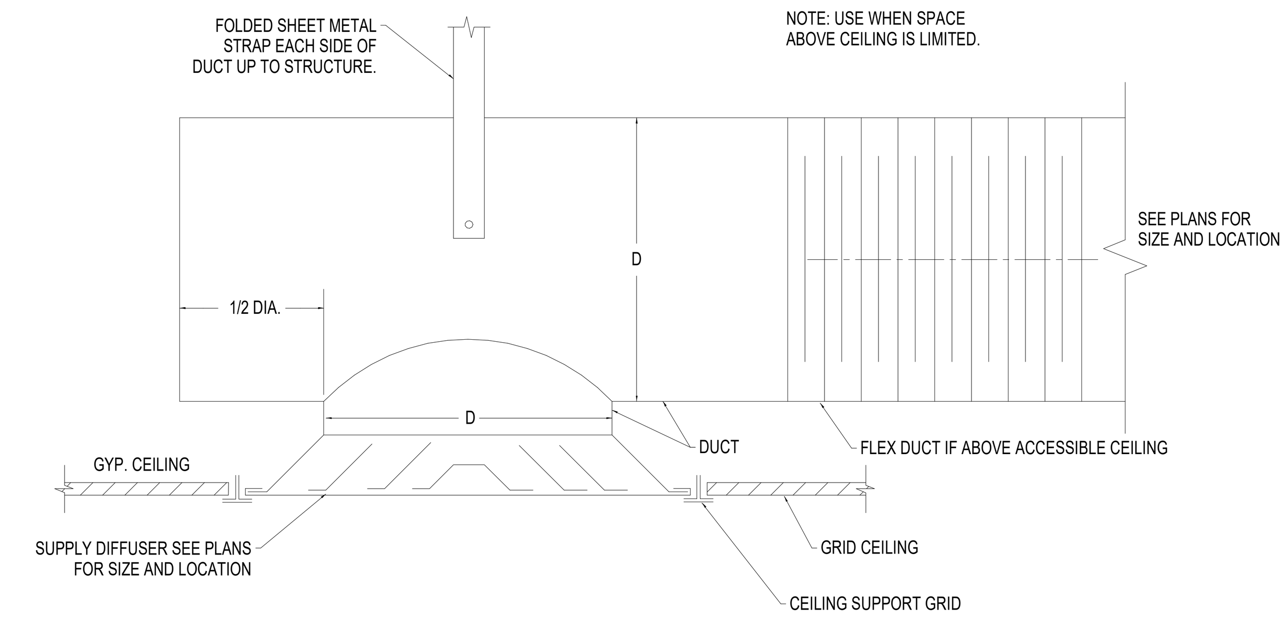
M-501



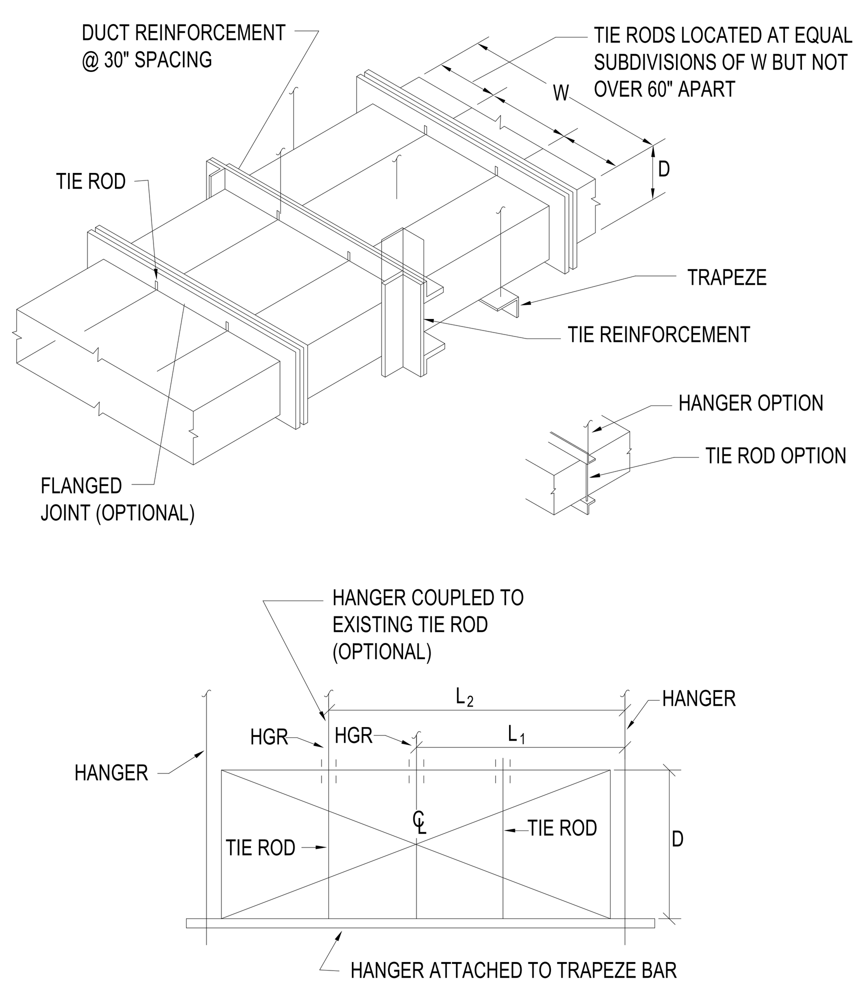
14 M-502 DUCT MOUNTED WELDED BOX DETAIL
NO SCALE

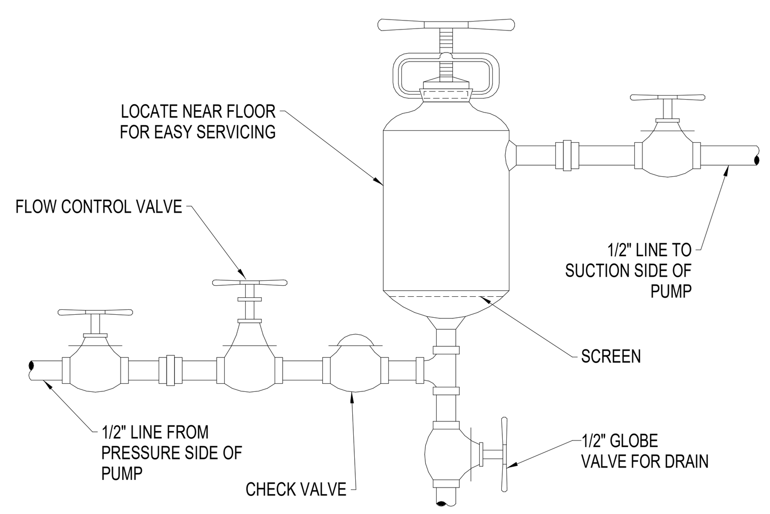


13 M-502 DUCT MOUNTED DISPLACEMENT DIFFUSER DETAIL
NO SCALE



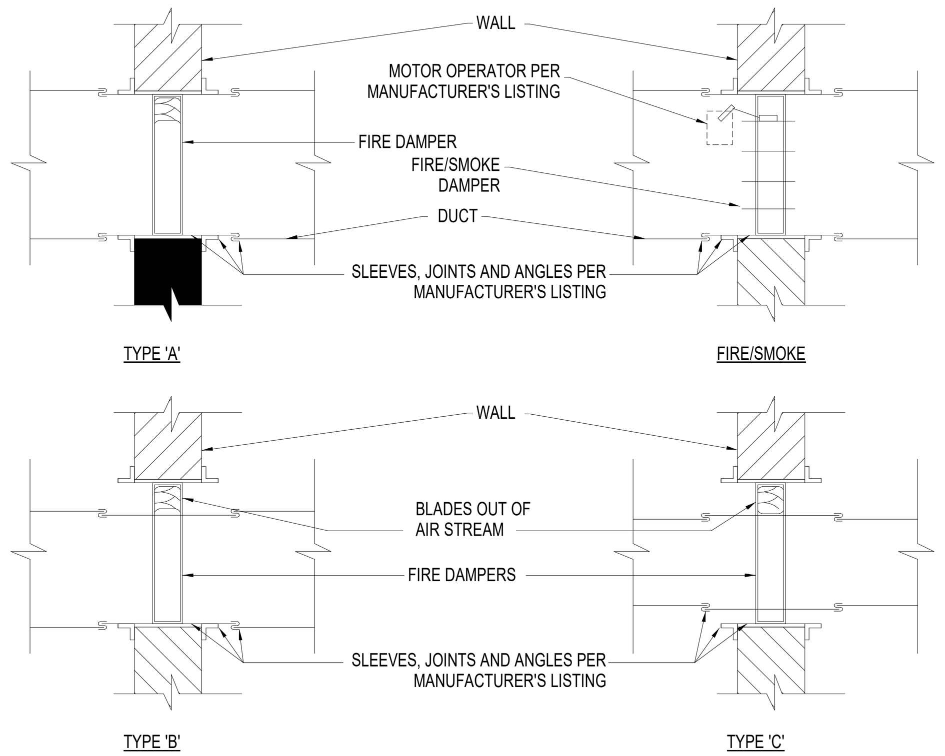
12 M-502 TIGHT SPACE SUPPLY DIFFUSER DETAIL
NO SCALE



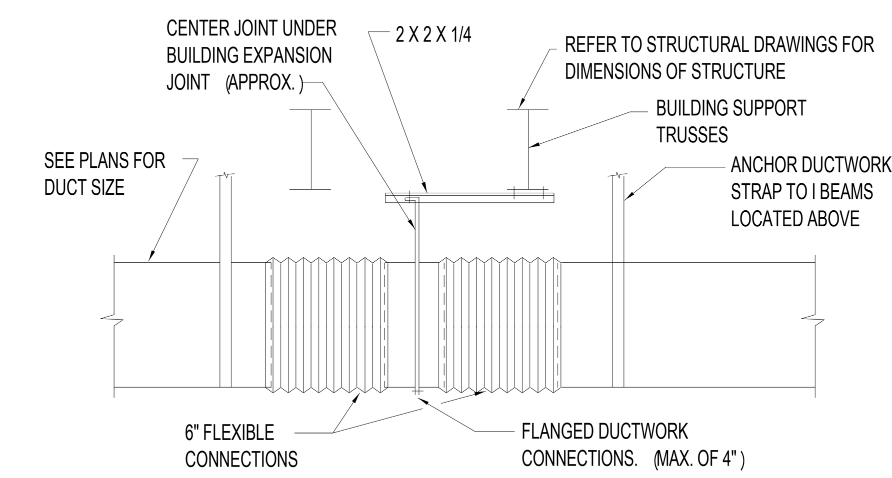


11 M-502 POT TYPE CHEMICAL FEEDER DETAIL
NO SCALE

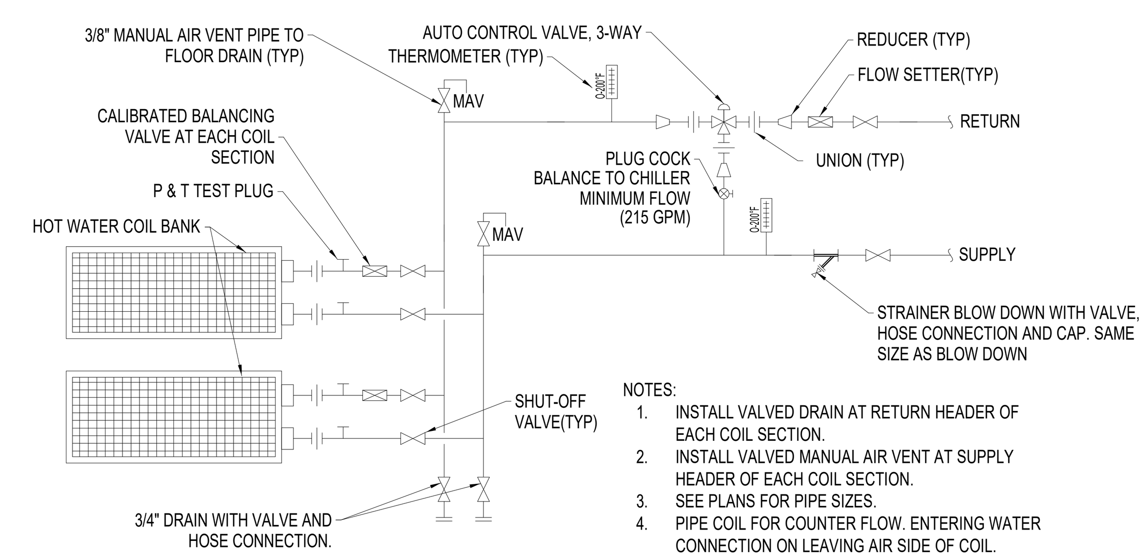
10 M-502 LARGE DUCT REINFORCEMENT DETAIL
NO SCALE



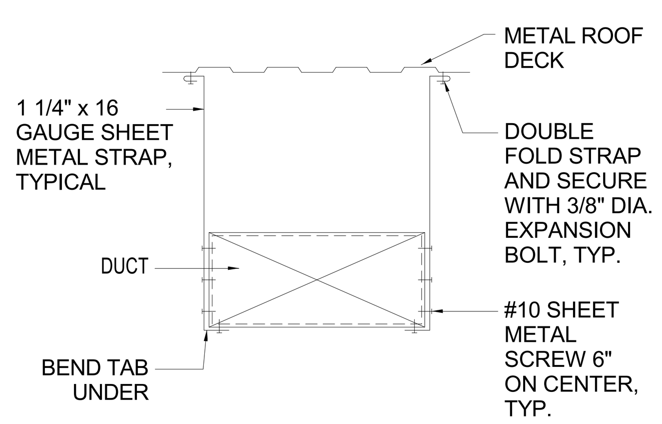
9 M-502 FIRE DAMPER & FIRE/SMOKE DAMPER DETAILS
NO SCALE



8 M-502 DUCT EXPANSION JOINT DETAIL
NO SCALE

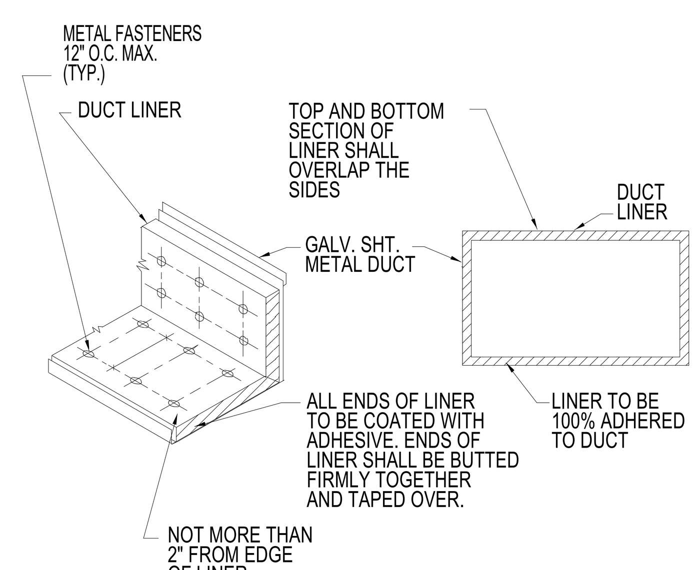


5 M-502 PRE-HEAT COIL (HC-2) & CHILLED WATER COOLING COIL (CC-3) SCHEMATIC
NO SCALE

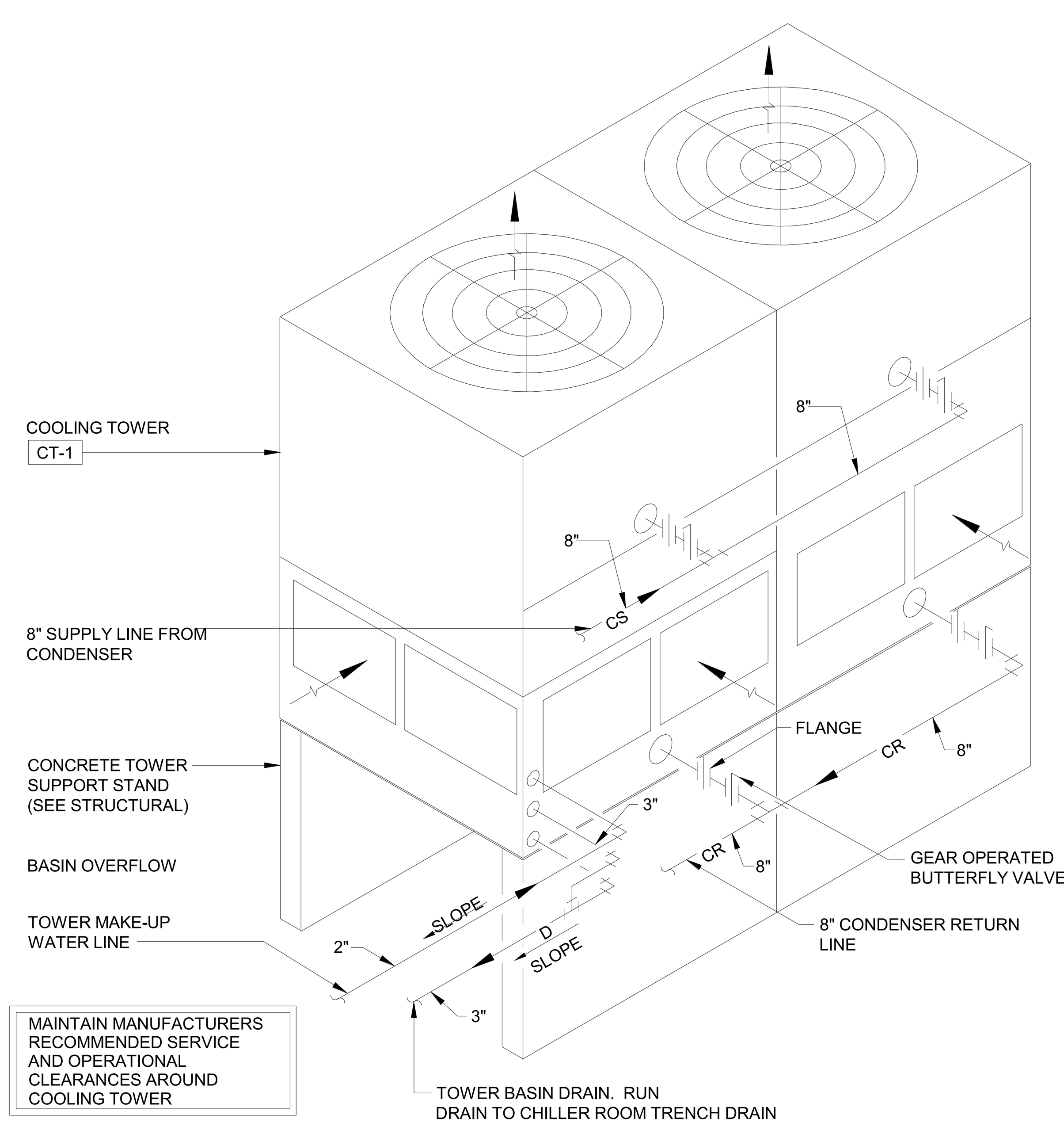


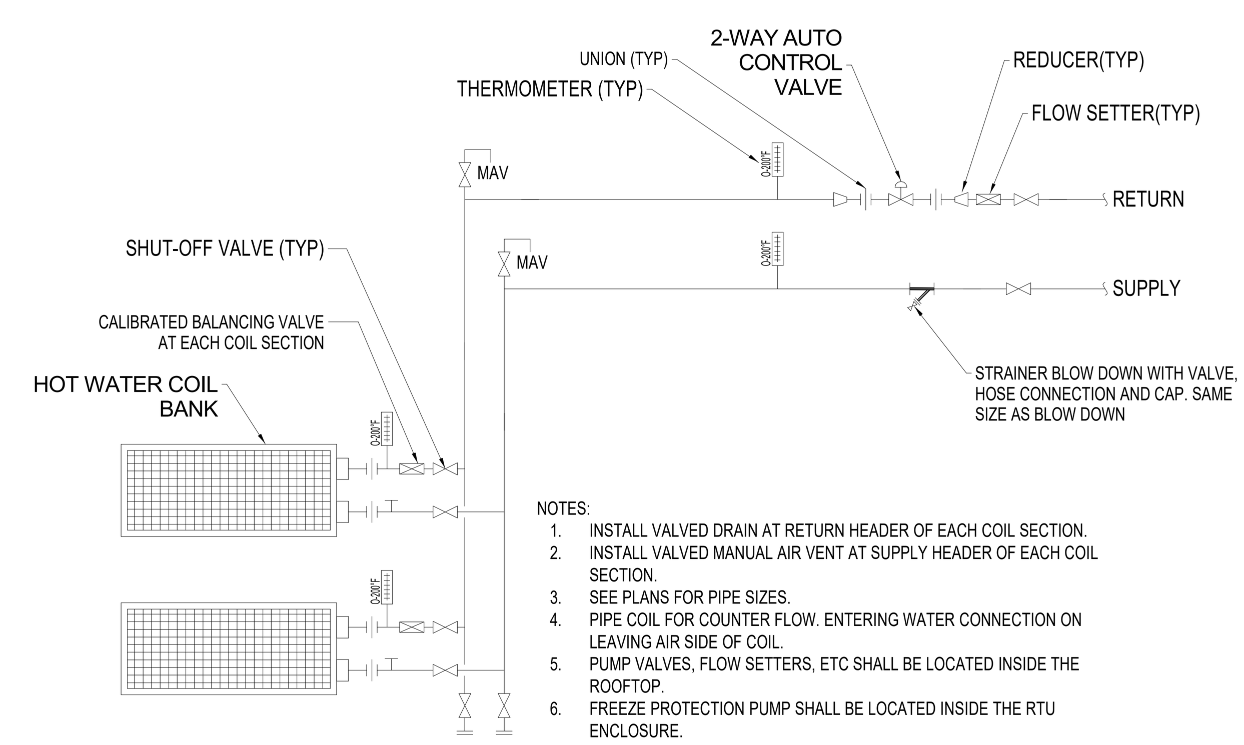
NOTE:
USE SPECIFIED SPACING AND NOT LESS THAN ONE SUPPORT PER BRANCH.

7 M-502 RECTANGULAR DUCT SUPPORT
NO SCALE

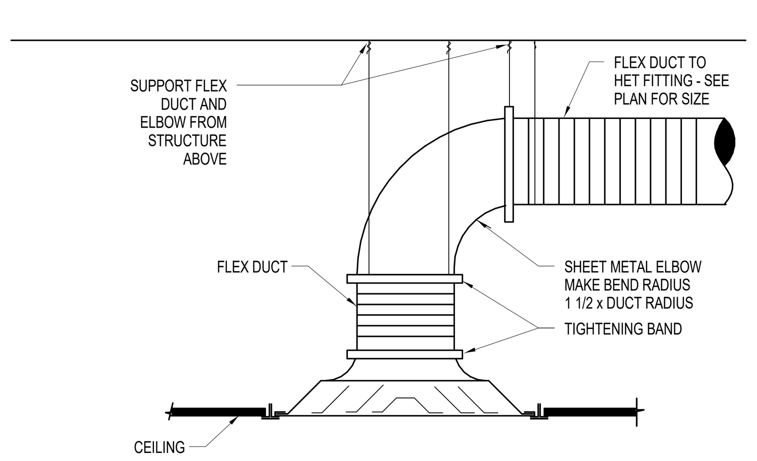


6 M-502 DUCT LINER DETAIL
NO SCALE





1 M-502 PRE-HEAT COIL, CHILLED WATER COIL, HC-1, HC-3, CC-1, CC-2 SCHEMATIC
NO SCALE



4 M-502 DIFFUSER CONNECTION DETAIL
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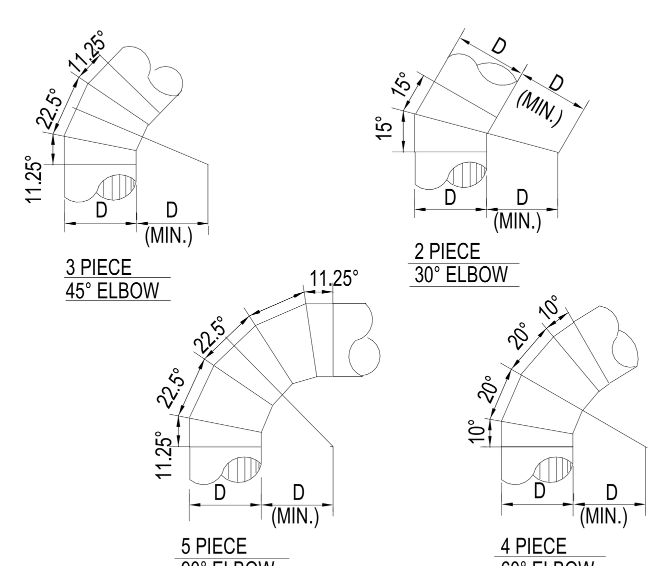

3 M-502 ROUND DUCT ELBOW DETAILS
NO SCALE

2 M-502 COOLING TOWER DETAIL
NO SCALE

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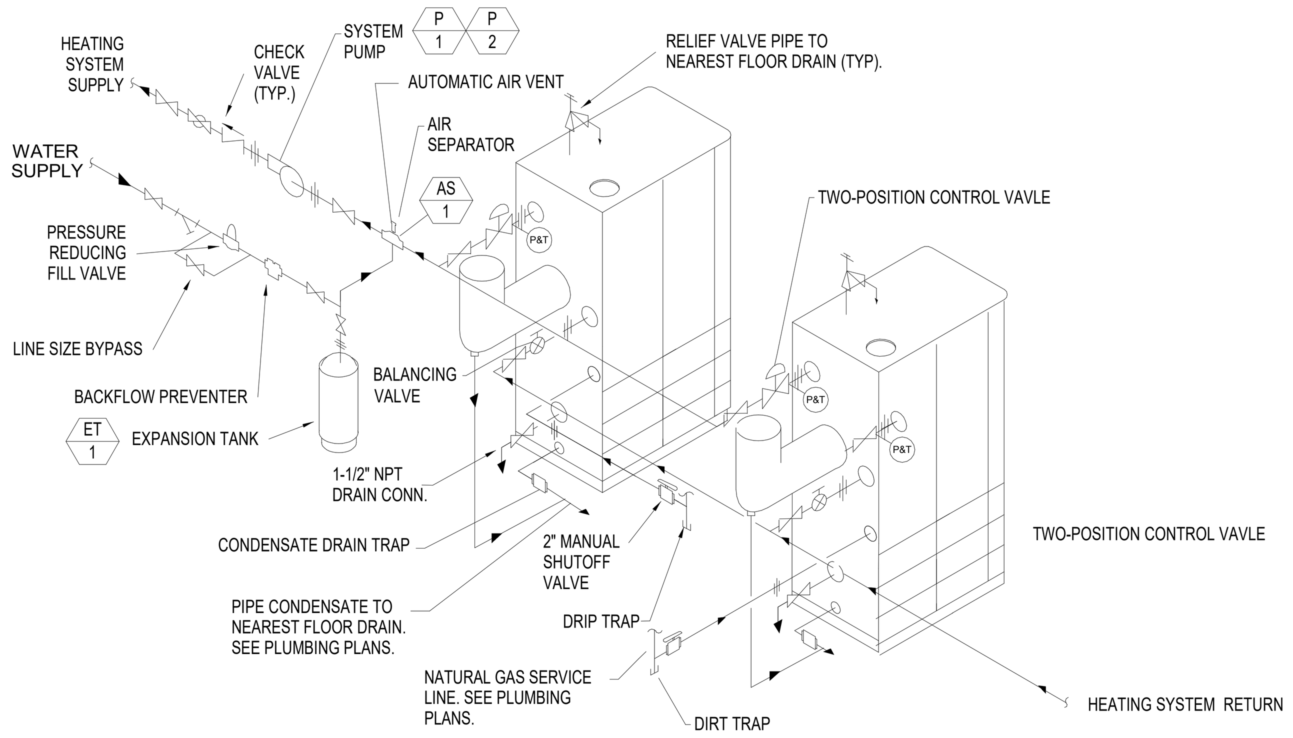
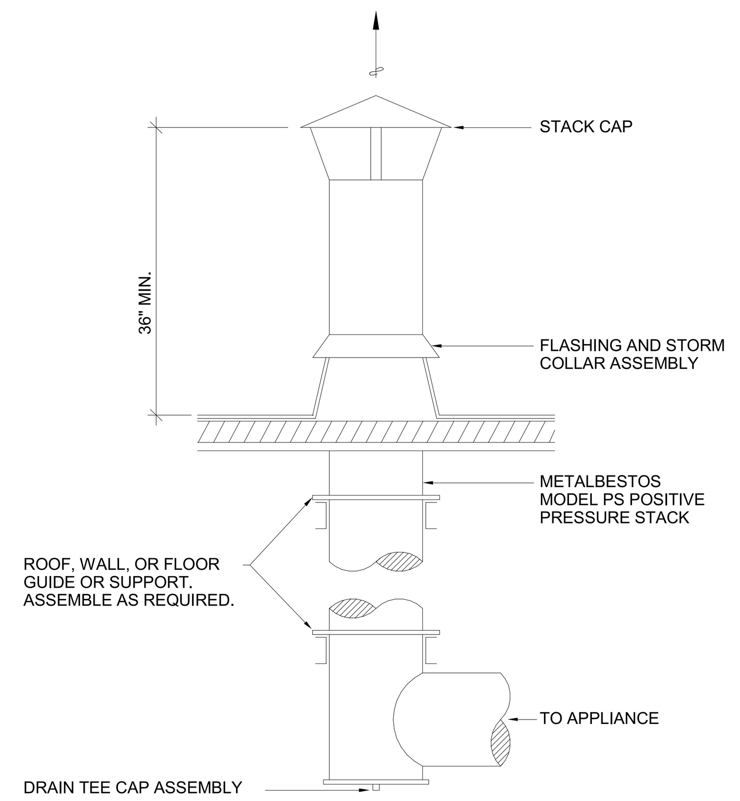
MECHANICAL DETAILS
M-502



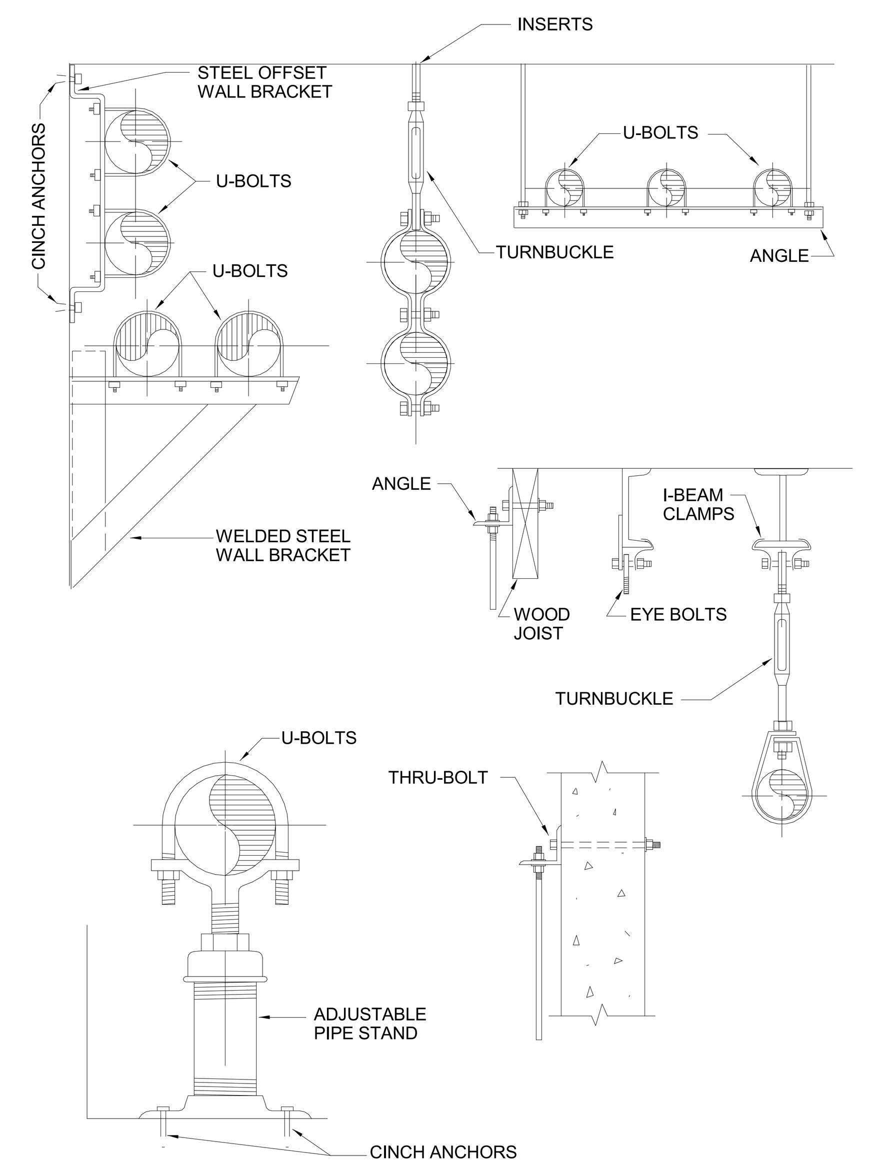
NOTES:
1. SHELL DRAIN VALVE AND CONDENSATE DRAIN TRAP SHOULD BE ARRANGED TO PERMIT THE FLUIDS TO DRAIN FREELY, BY GRAVITY, TO A CONVENIENT FLOOR DRAIN. RELIEF VALVE SHOULD BE PIPED VERTICALLY TO A HEIGHT 18" ABOVE FLOOR.
2. LOCATE WATER INLET AND OUTLET FITTINGS (i.e. UNIONS, ELBOWS, ETC.) A MINIMUM OF 6" FROM BOILER FITTINGS TO PREVENT INTERFERENCE WITH REMOVAL OF BOILER PANELS AND COVERS. ALL PIPING AND ELECTRIC CONNECTIONS (SERVICE SWITCHES, CONDUIT BOXES) SHOULD LIKEWISE BE 6" AWAY FROM SIDE PANELS.

16 M-503 BOILER PIPING SCHEMATIC
NO SCALE

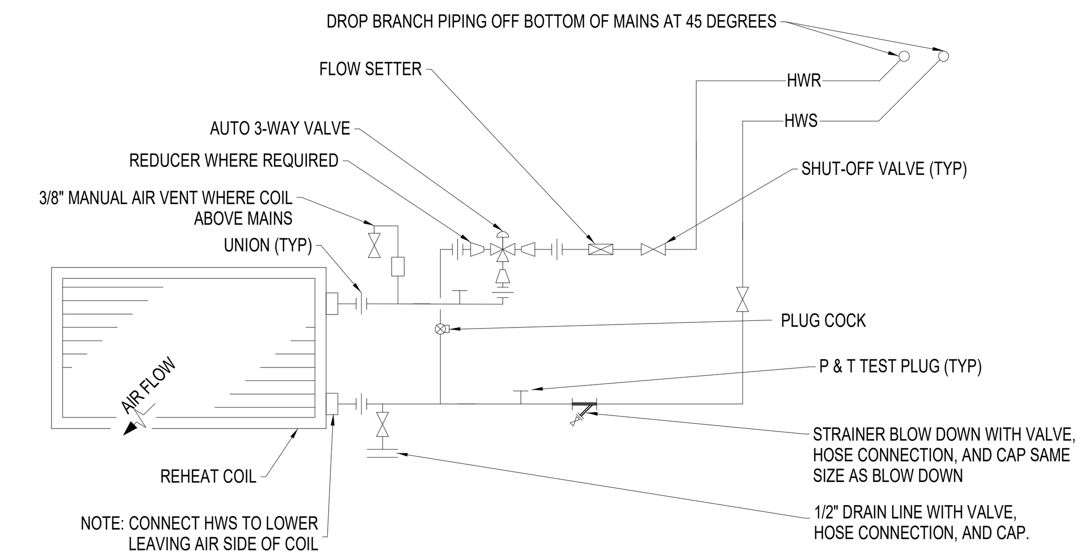


NOTE: PROVIDE ADJUSTABLE LENGTHS FOR EXPANSION,GUIDES, SUPPORTS, FITTINGS, ETC AS REQUIRED FOR A COMPLETE ASSEMBLY.

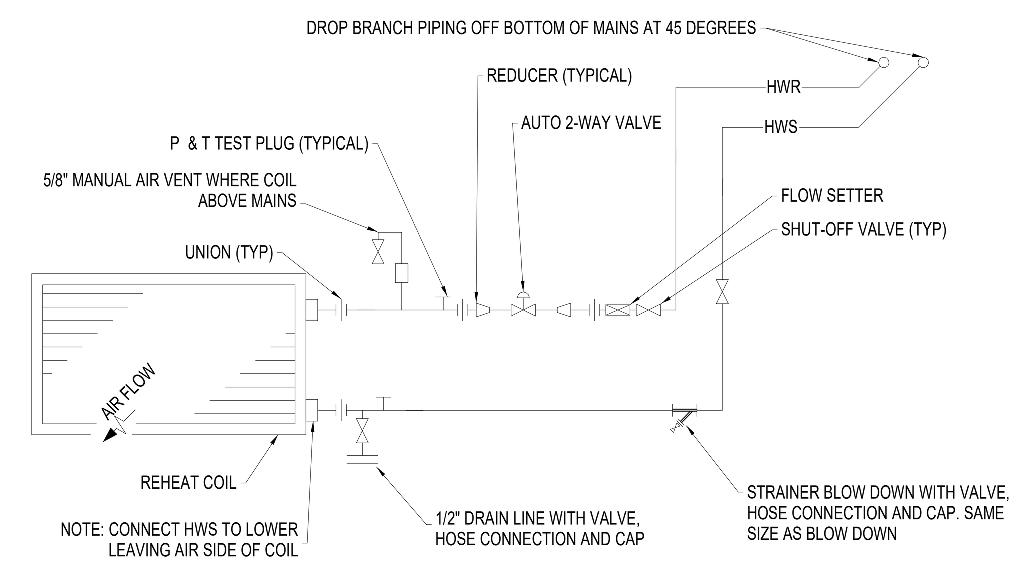
14 M-503 BOILER PRESSURE TYPE STACK DETAIL
NO SCALE



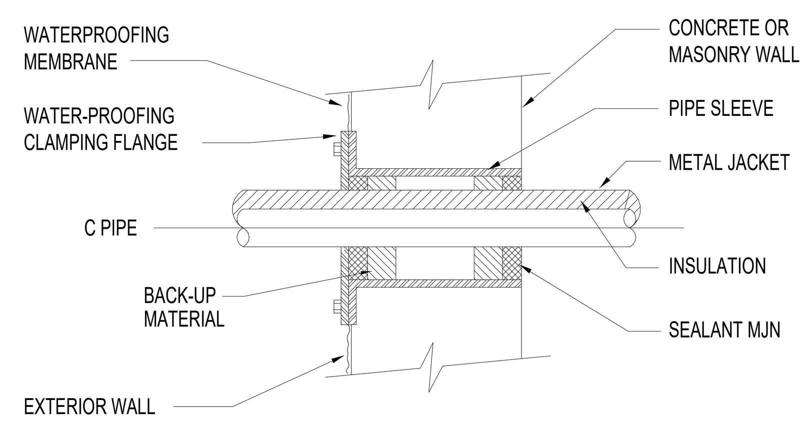
10 M-503 TYPICAL PIPE SUPPORT DETAIL
NO SCALE



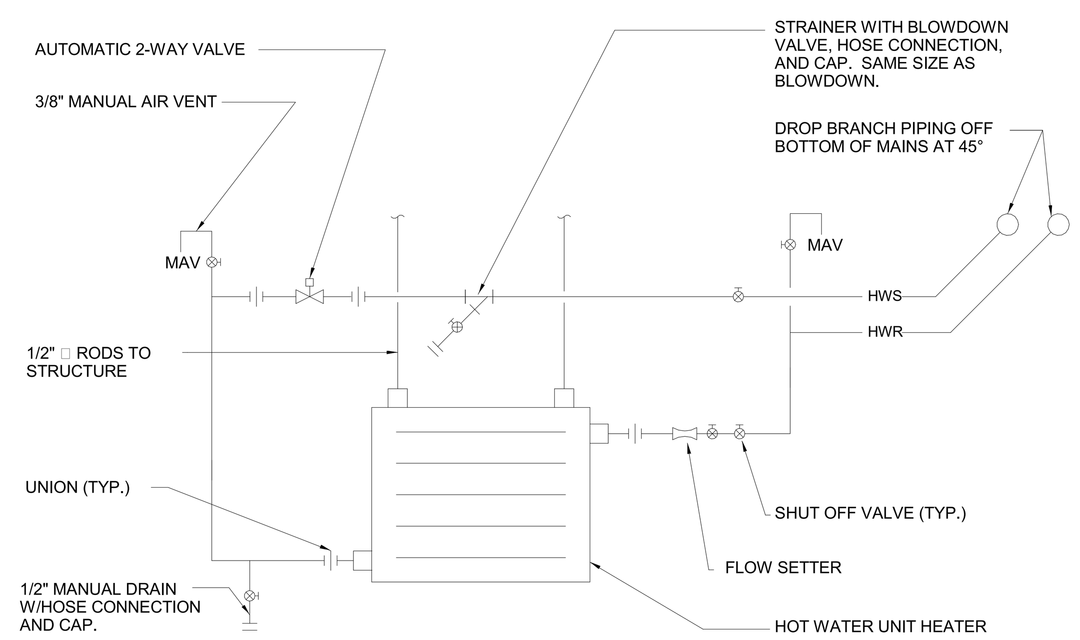
16 M-503 VAV BOX PIPING DETAIL WITH 3-WAY AUTO-VALVE
NO SCALE



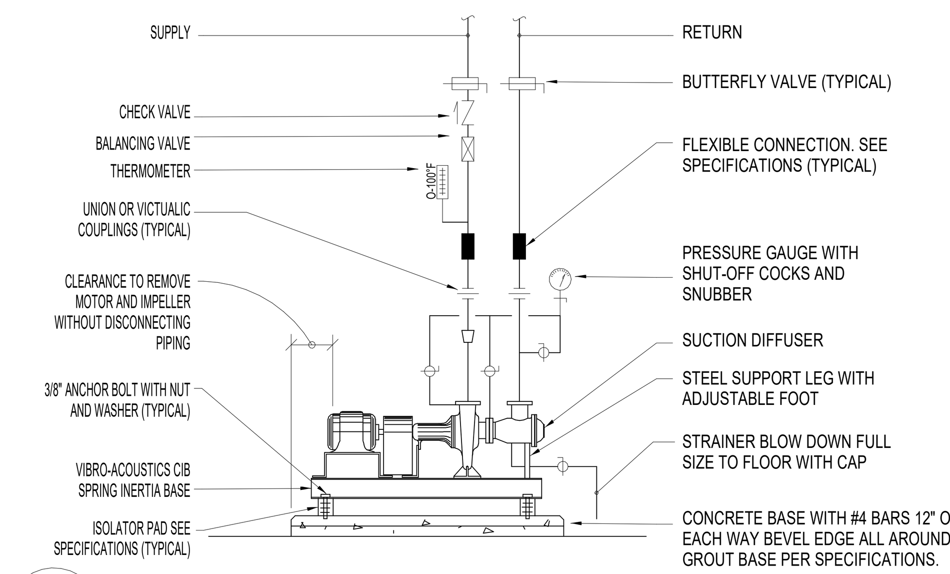
13 M-503 VAV BOX PIPING DETAIL WITH 2-WAY AUTO-VALVE
NO SCALE



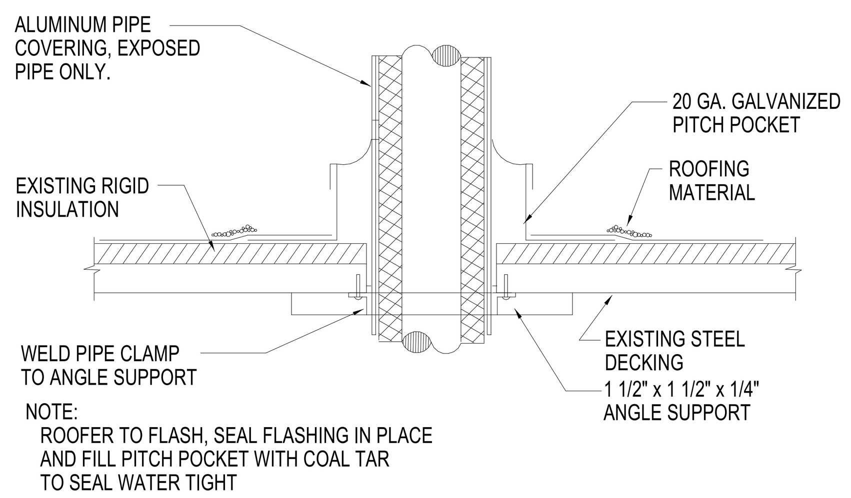
15 M-503 PIPE SLEEVE THRU EXTERIOR WALL OR FOUNDATION WALL (BELOW GRADE)
NO SCALE



11 M-503 HOT WATER UNIT HEATER PIPING
NO SCALE

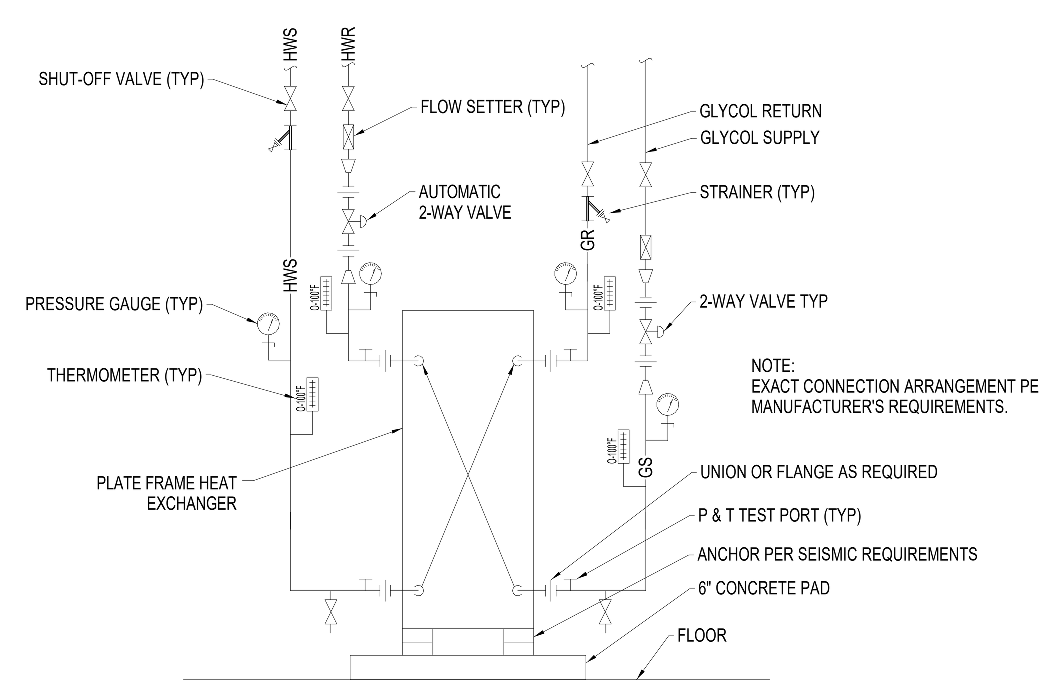


9 M-503 BASED MOUNTED PUMP CONNECTION DETAIL
NO SCALE



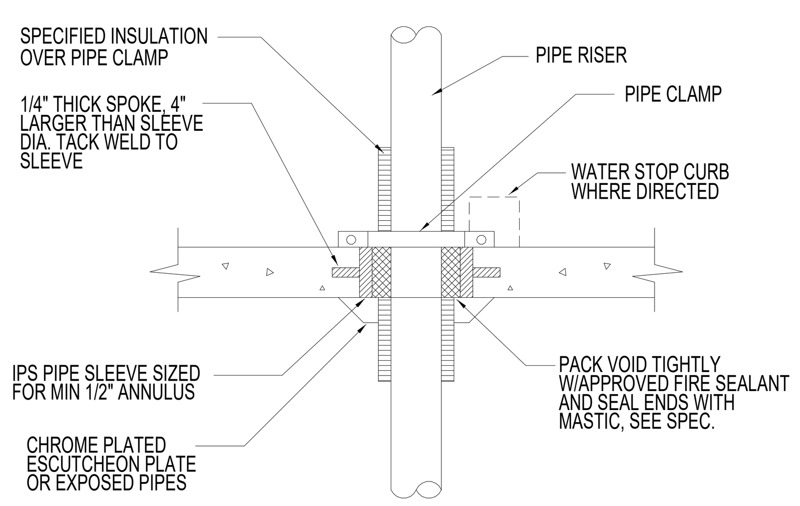
NOTE:
ROOFER TO FLASH, SEAL FLASHING IN PLACE AND FILL PITCH POCKET WITH COAL TAR TO SEAL WATER TIGHT

12 M-503 PIPE PENETRATION AT ROOF
NO SCALE

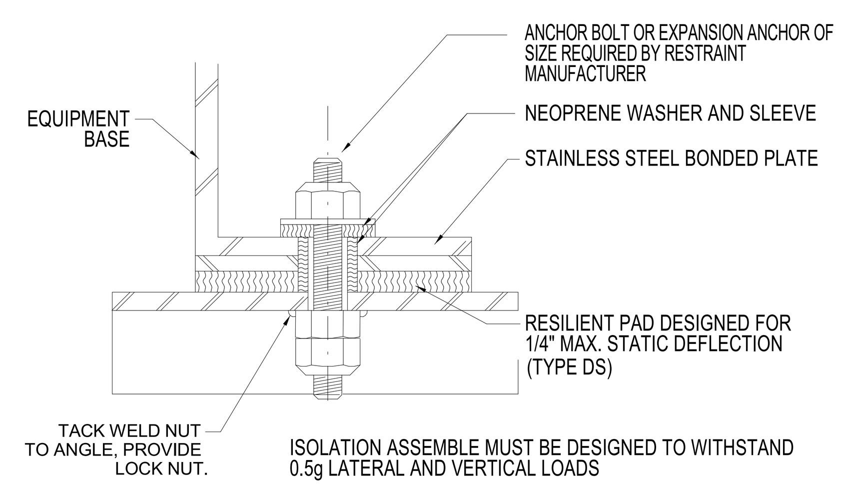


NOTE:
EXACT CONNECTION ARRANGEMENT PER MANUFACTURER'S REQUIREMENTS.

6 M-503 HOT WATER TO GLYCOL HEAT EXCHANGER PIPING DETAIL
NO SCALE

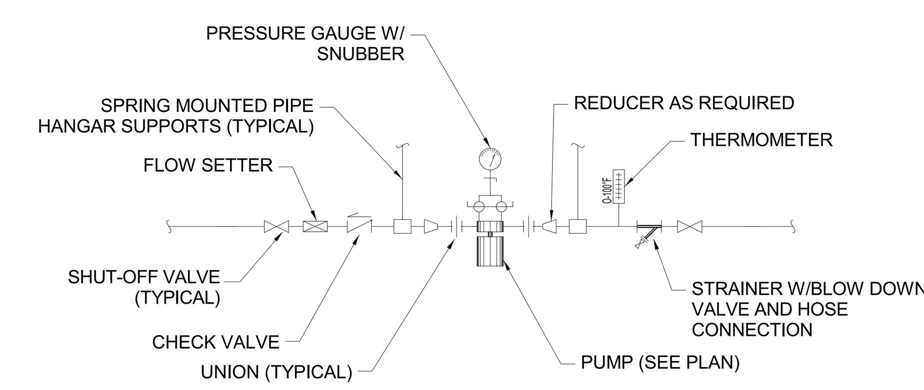


8 M-503 PIPE THROUGH FLOOR SLAB DETAIL
NO SCALE

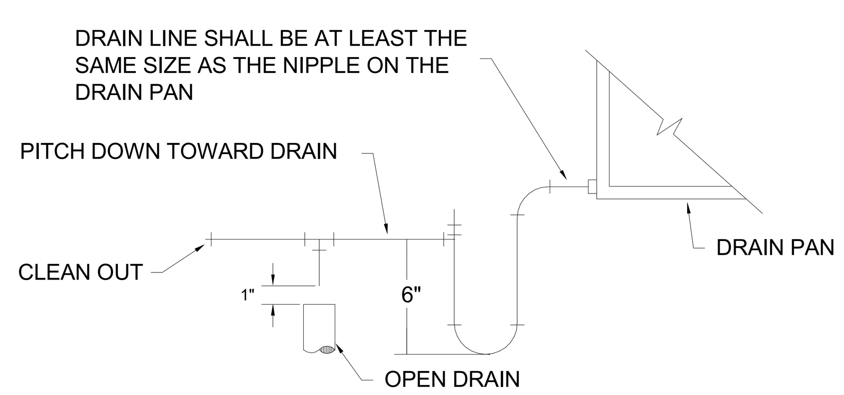


ISOLATION ASSEMBLE MUST BE DESIGNED TO WITHSTAND 0.5g LATERAL AND VERTICAL LOADS

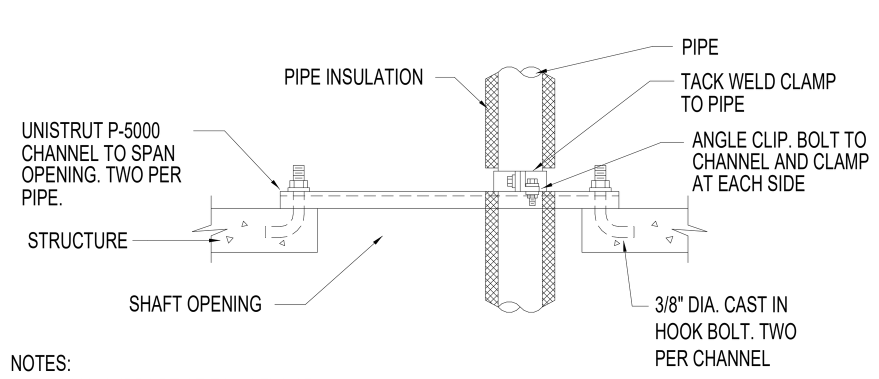
7 M-503 RESILIENT PAD ISOLATOR RESTRAINT DETAIL
NO SCALE



5 M-503 IN-LINE PUMP DETAIL
NO SCALE

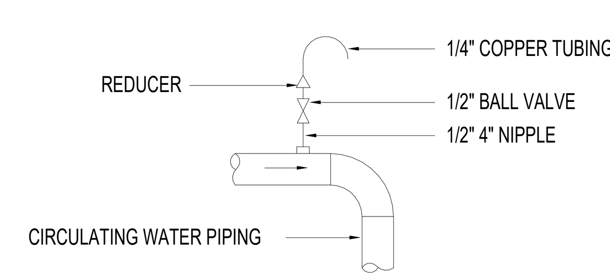


4 M-503 AIR HANDLING UNIT DRAIN TRAP
NO SCALE



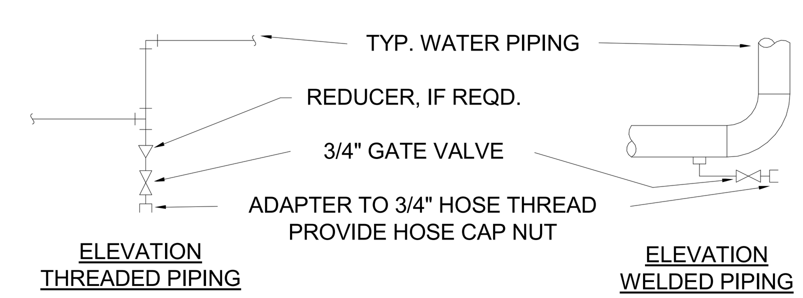
NOTES:
1. TYPICAL SUPPORT AT EACH FLOOR.
2. FOR MULTIPLE PIPES INSTALL CHANNELS IN PARALLEL AND PROVIDE ADDITIONAL FRAMING. SIZES OF FRAMING MEMBERS AS REQUIRED TO SUPPORT TOTAL WEIGHT OF PIPE.
3. INSULATE CLAMP AT CHILLED WATER PIPE ONLY.

3 M-503 PIPE RISER SUPPORT DETAIL
NO SCALE



NOTES:
1. VENT ALL HIGH POINTS AS INDICATED ABOVE.
2. IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN.

2 M-503 TYPICAL AIR VENT
NO SCALE



NOTES:
1. DRAIN ALL LOW POINTS AS INDICATED ABOVE.
2. WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS LOCATE DRAIN AT BOTTOM OF SCALE POCKET.

1 M-503 TYPICAL DRAIN VALVE CONNECTION
NO SCALE

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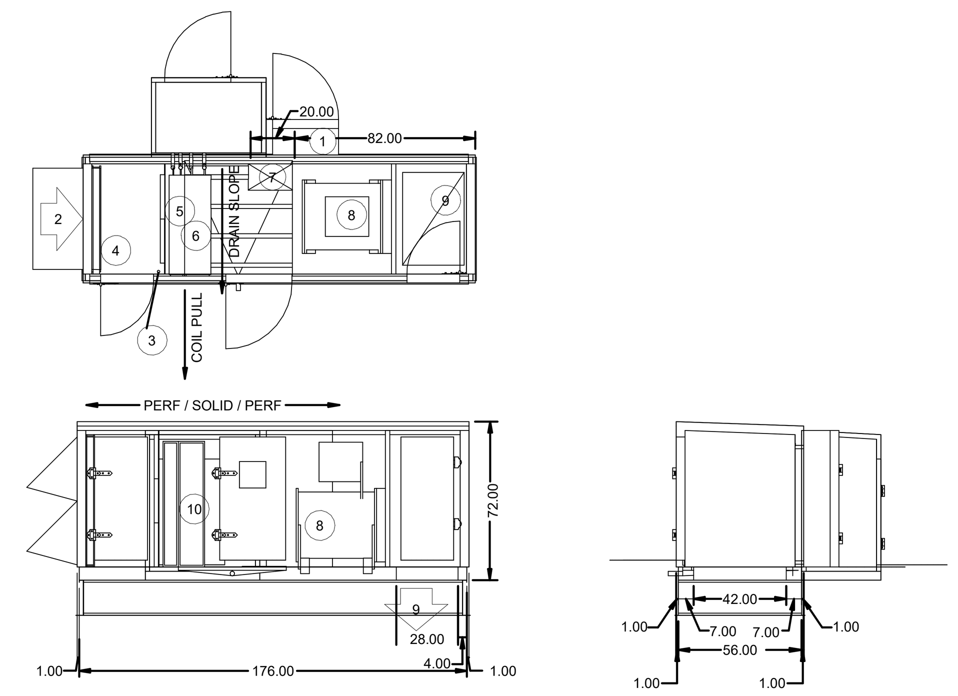
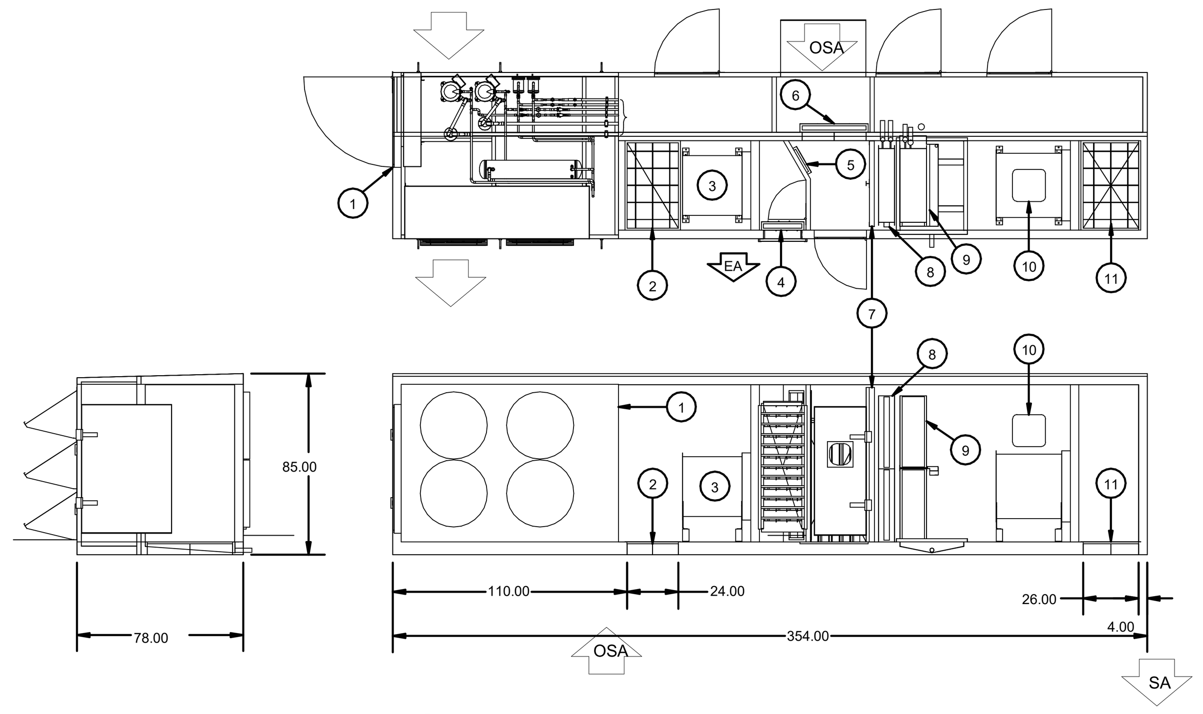


7 M-504 CUSTOM ROOFTOP UNIT RTU-5
NO SCALE

NOTES

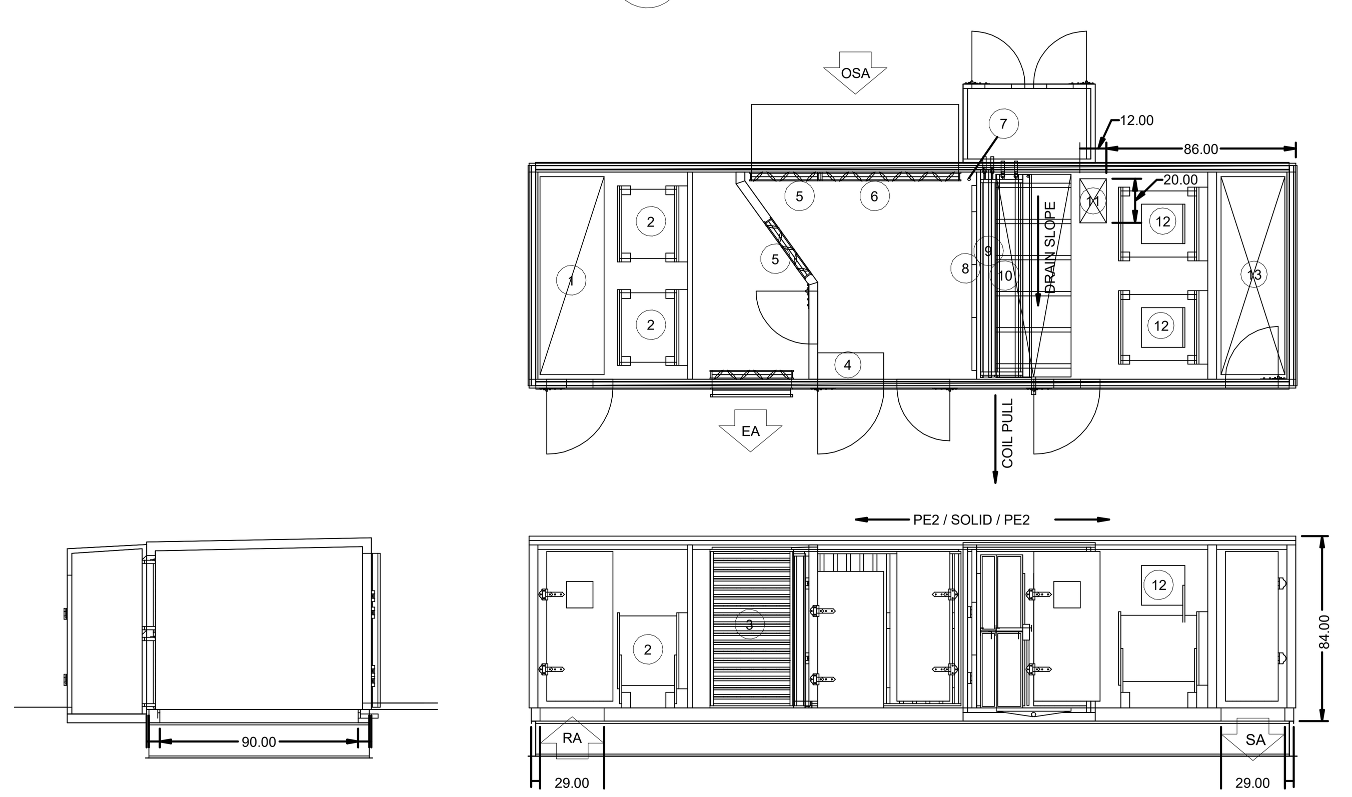
1. VFD ENCLOSURE SINGLE POINT 460/3/60 & SINGLE POINT 110/1/60
2. OUTSIDE AIR OPENING W/ 46" X 58" DAMPER
3. EMERGENCY DRAIN
4. MERV-8 FILTERS
5. 55.5" FH X 42" FL HEATING COIL
6. 55.5" FH X 42" FL COOLING COIL
7. PIPE CHASE
8. MAX SIZE QSL 222 SHORT CASE SUPPLY FAN
9. 28" X 48" SUPPLY AIR OPENING
10. RETURN AIR FANS



5 M-504 CUSTOM ROOFTOP UNIT RTU-6
NO SCALE

NOTES

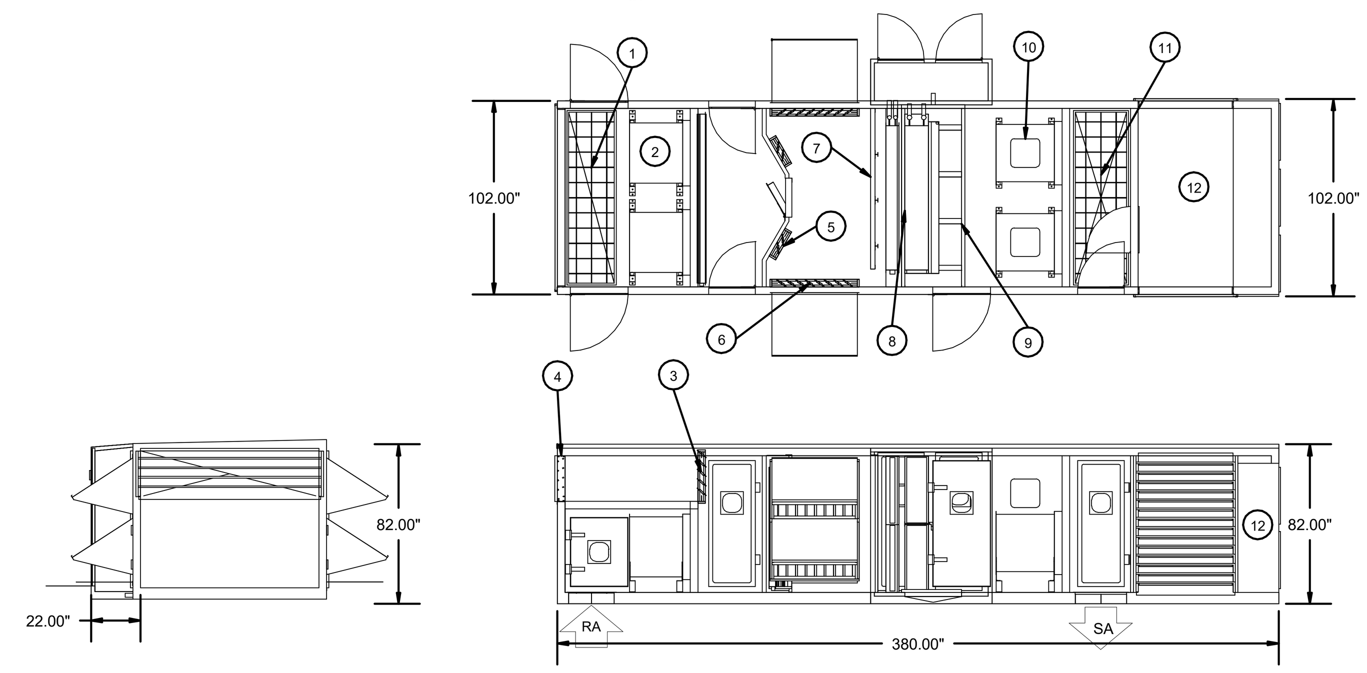
1. 20A1LD30-2 CU
2. 40" X 24" RETURN AIR OPENING WITH GRATE
3. (1) 5 ATAD 71 RETURN FAN
4. 58" LONG Xx 18" HIGH EXHAUST AIR DAMPER
5. 68" BLADE LEN X 12" HEIGHT RETURN AIR DAMPER
6. 56" BLADE LEN X 30" HEIGHT OUTSIDE AIR DAMPER
7. (6) 20" X 24" FILTERS
8. (2) 33" FH 34.5" FL HEATING COILS
9. (2) 33" FH X 85" FL COOLING COILS (DX COOLED)
10. (1) 10 QSL 222s SUPPLY FANS
11. 40" X 26" SUPPLY AIR OPENING WITH GRATE



4 M-504 CUSTOM ROOFTOP UNIT RTU-7
NO SCALE

NOTES

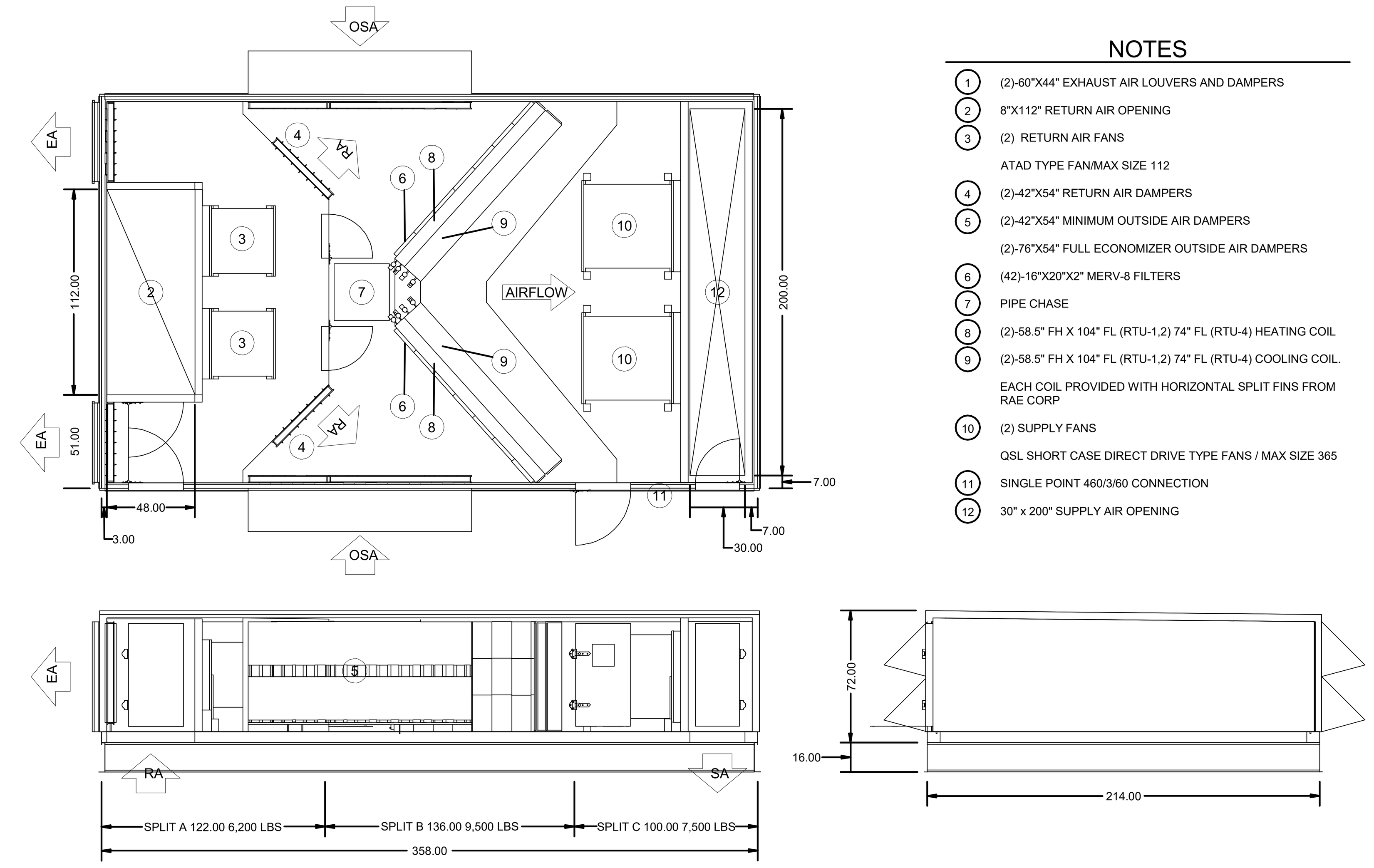
1. 29" X 90" RETURN AIR OPENING
2. (2) ATAD-80 RETURN FAN
3. 70" BLADE LEN X 36 HEIGHT EXHAUST AIR DAMPER (OPPOSED BLADE)
4. VFD ENCLOSURE SINGLE POINT 460/3/60 & SINGLE POINT 110/1/60
5. 68" BLADE LEN X 30" HEIGHT RETURN AIR DAMPER (OPPOSED BLADE)
5. 68" BLADE LEN X 30" HEIGHT, MINIMUM FLOW - OUTSIDE AIR DAMPER (OPPOSED BLADE)
6. 68" BLADE LEN X 62 HEIGHT, SECOND - OUTSIDE AIR DAMPER (OPPOSED BLADE) W/ HOOD
7. EMERGENCY DRAIN
8. (9)-24" X 24" X 2" / (3)-12" X 24" X 2" MERV-8 FILTERS
9. (2)-34.5" FH X 85" FL HEATING COIL
10. (2)-34.5" FH X 85" FL COOLING COIL
11. PIPE CHASE
12. (2) QSL 222 SHORT CASE SUPPLY FAN
13. 29" X 90" SUPPLY AIR OPENING



2 M-504 CUSTOM ROOFTOP UNIT RTU-8
NO SCALE

NOTES

1. 90" X 24" RETURN AIR OPENING WITH GRATE
2. (2) 7.5 ATAD 80 RETURN FANS
3. 89" LONG X 26" HIGH EXHAUST AIR DAMPER
4. 94" X 24" EXHAUST AIR OPENING
5. (2) 62" LONG X 15" HIGH RETURN AIR DAMPER
6. (2) 62" LONG X 45" HIGH OUTSIDE AIR DAMPER
7. (9) 24" X 24" FILTERS (3) 12" X 24" FILTERS
8. (3) 40.5" FH 71" FL HEATING COILS
9. (2) 34.5" FH X 76" FL COOLING COILS (DX COOLED)
10. (2) 15 QSL 222s SUPPLY FANS
11. 90" X 27" SUPPLY AIR OPENING WITH GRATE
12. COMPRESSORS, PIPING, ELECTRICAL



6 M-504 CUSTOM ROOFTOP UNIT RTU'S - 1 & 2
NO SCALE

NOTES

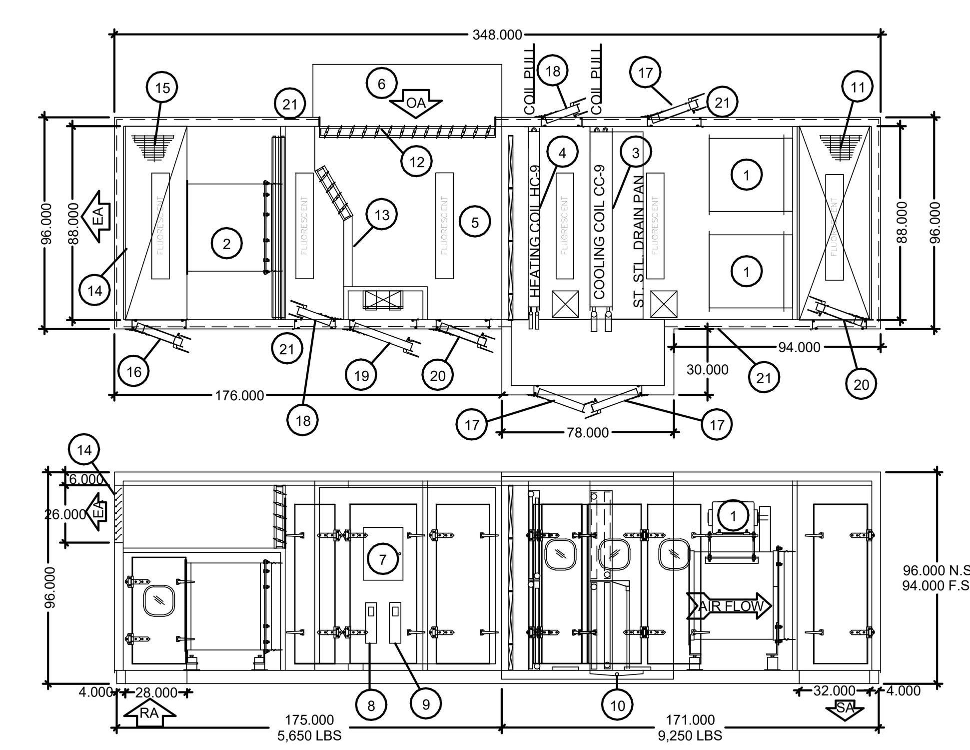
1. (2)-60"X44" EXHAUST AIR LOUVERS AND DAMPERS
2. 8"X112" RETURN AIR OPENING
3. (2) RETURN AIR FANS

   ATAD TYPE FAN/MAX SIZE 112
4. (2)-42"X54" RETURN AIR DAMPERS
5. (2)-42"X54" MINIMUM OUTSIDE AIR DAMPERS

   (2)-76"X54" FULL ECONOMIZER OUTSIDE AIR DAMPERS
6. (42)-16"X20"X2" MERV-8 FILTERS
7. PIPE CHASE
8. (2)-58.5" FH X 104" FL (RTU-1,2) 74" FL (RTU-4) HEATING COIL
9. (2)-58.5" FH X 104" FL (RTU-1,2) 74" FL (RTU-4) COOLING COIL.

   EACH COIL PROVIDED WITH HORIZONTAL SPLIT FINS FROM RAE CORP
10. (2) SUPPLY FANS

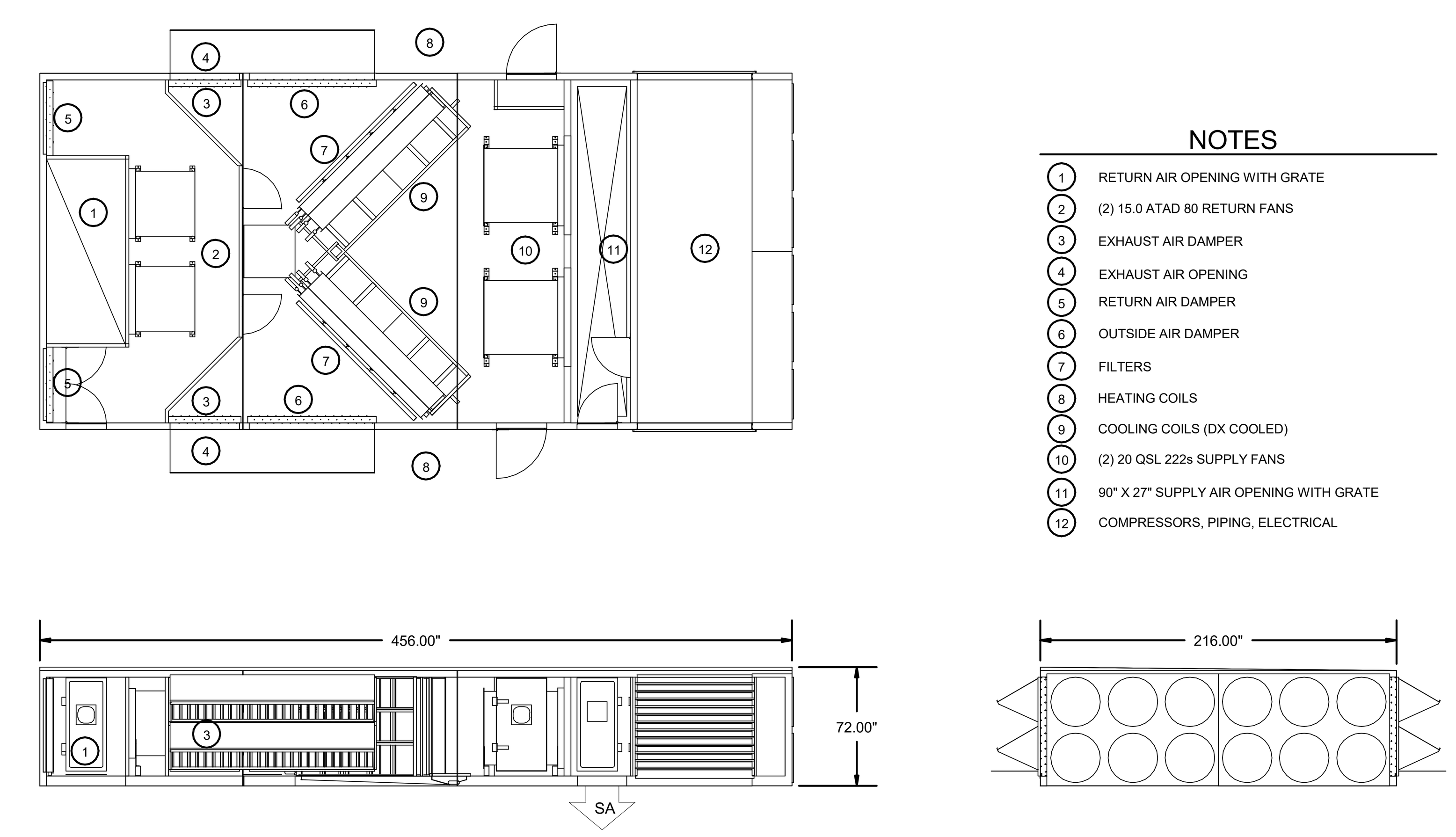
    QSL SHORT CASE DIRECT DRIVE TYPE FANS / MAX SIZE 365
11. SINGLE POINT 460/3/60 CONNECTION
12. 30" x 200" SUPPLY AIR OPENING



3 M-504 CUSTOM ROOFTOP UNIT RTU-3
NO SCALE

NOTES

1. (2) SUPPLY FAN TWIN CITY QSL 245 FAN SHORT CASE
2. RETURN FAN TWIN CITY ATAD 100
3. COOLING COIL (WATER)x2 86" W X 40.5" H, 6 ROW
4. HEATING COIL (WATER)X2 86" W X 40.5" H
5. 2" FILTER 30%
6. WEATHER HOOD
7. CONTROL CABINET (18" W X 24" H X 8" D)
8. RETURN FAN VFD (ABB ACH550)
9. SUPPLY FAN VFD (ABB ACH550)
10. 1 1/2" NPT CONDENSATE DRAIN
11. 88" X 32" SUPPLY AIR OPENING W/ SERVICE GRATE [18.66 SF]
12. 96" X 80" OUTSIDE AIR
13. 80" X 27" RETURN AIR
14. 80" X 26" EXHAUST AIR
15. 88" X 28" RETURN AIR OPENING
16. 24" X 48" ACCESS DOOR W/ WINDOW
17. 24" X 72" ACCESS DOOR W/ WINDOW
18. 18" X 72" ACCESS DOOR (TYP. OF 4)
19. 30" X 72" CONTROLS ACCESS DOOR
20. 24" X 72" ACCESS DOOR
21. LIFT POINT



1 M-504 CUSTOM ROOFTOP UNIT RTU-4
NO SCALE

NOTES

1. RETURN AIR OPENING WITH GRATE
2. (2) 15.0 ATAD 80 RETURN FANS
3. EXHAUST AIR DAMPER
4. EXHAUST AIR OPENING
5. RETURN AIR DAMPER
6. OUTSIDE AIR DAMPER
7. FILTERS
8. HEATING COILS
9. COOLING COILS (DX COOLED)
10. (2) 20 QSL 222s SUPPLY FANS
11. 90" X 27" SUPPLY AIR OPENING WITH GRATE
12. COMPRESSORS, PIPING, ELECTRICAL

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www.vbfa.com
VBFA Project #: 23717

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:
MARK: DATE:

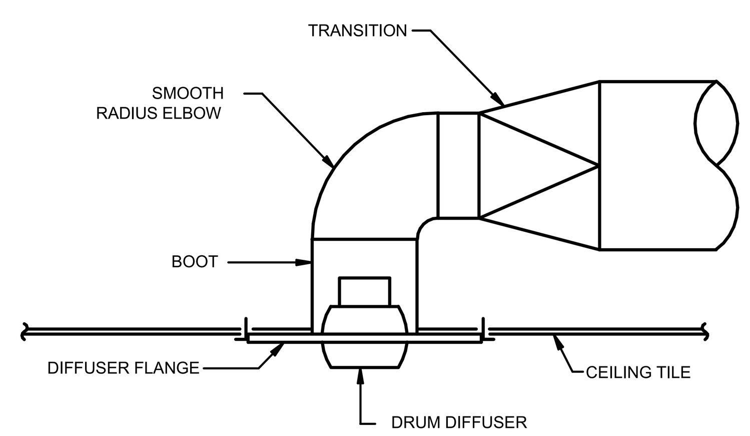
CONSTRUCTION DOCUMENTS

PROJECT #:	23717
DRAWN BY:	Author
CHECKED BY:	LW
ISSUED:	05/02/2024

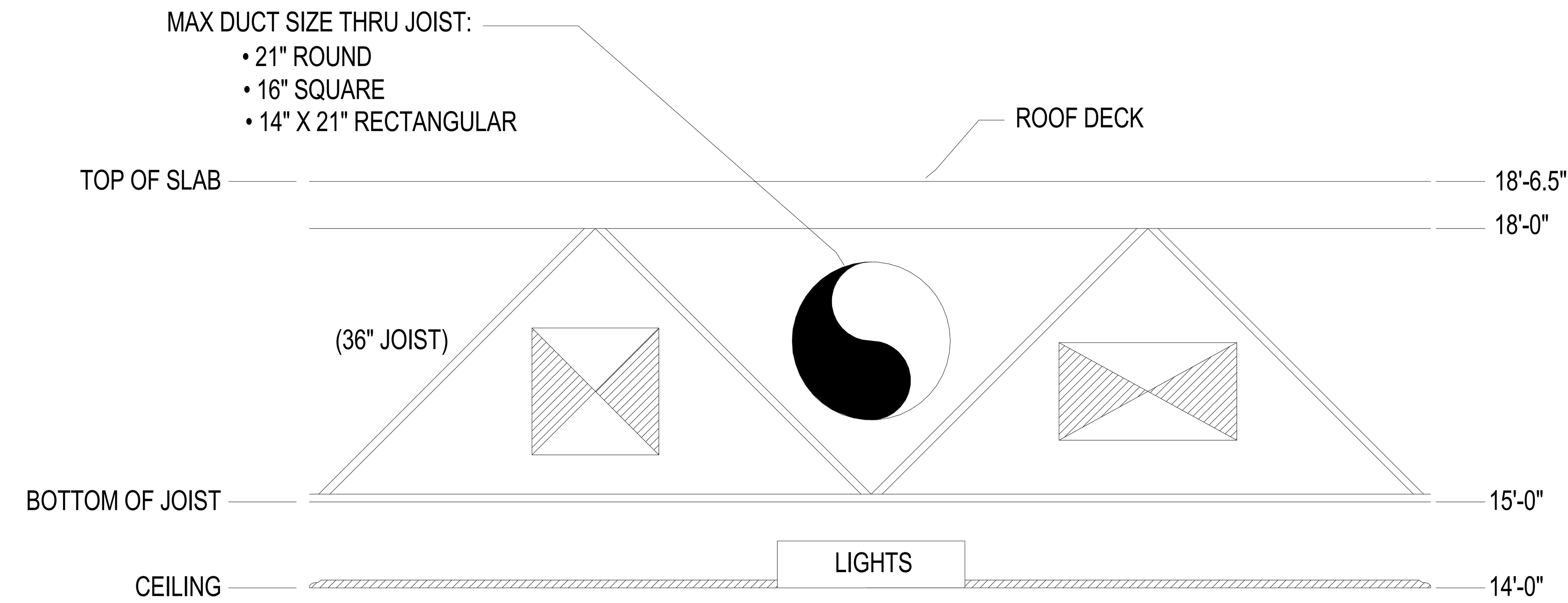
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL DETAILS

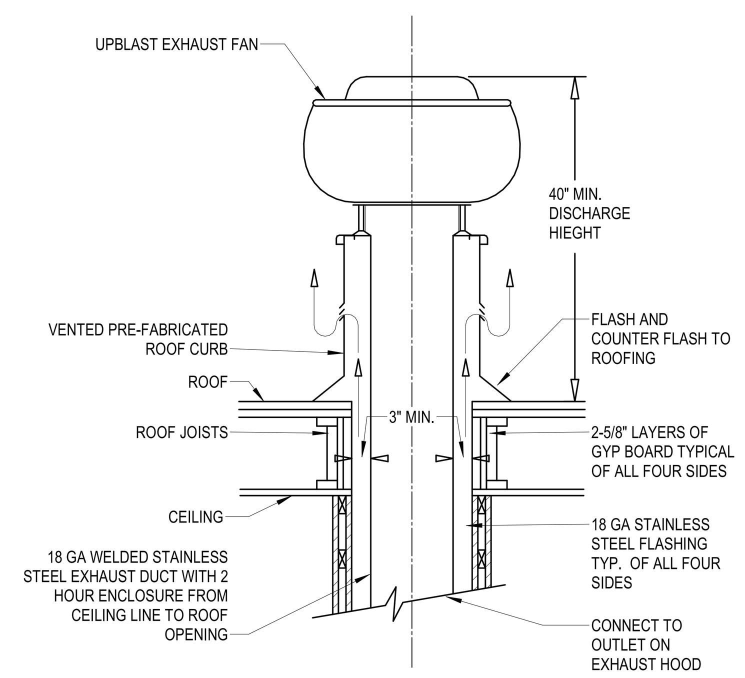
M-504



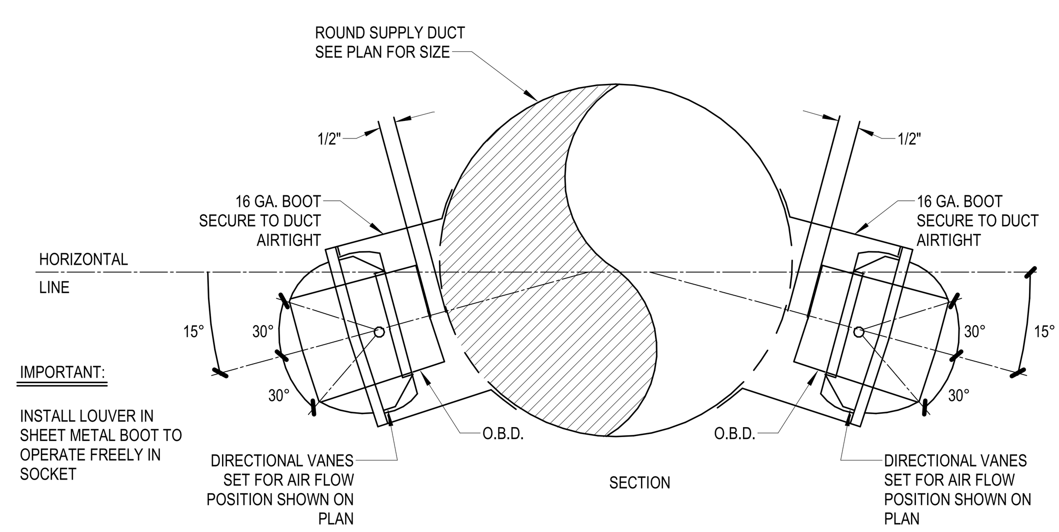
3 M-505 DRUM DIFFUSER DETAIL
NO SCALE



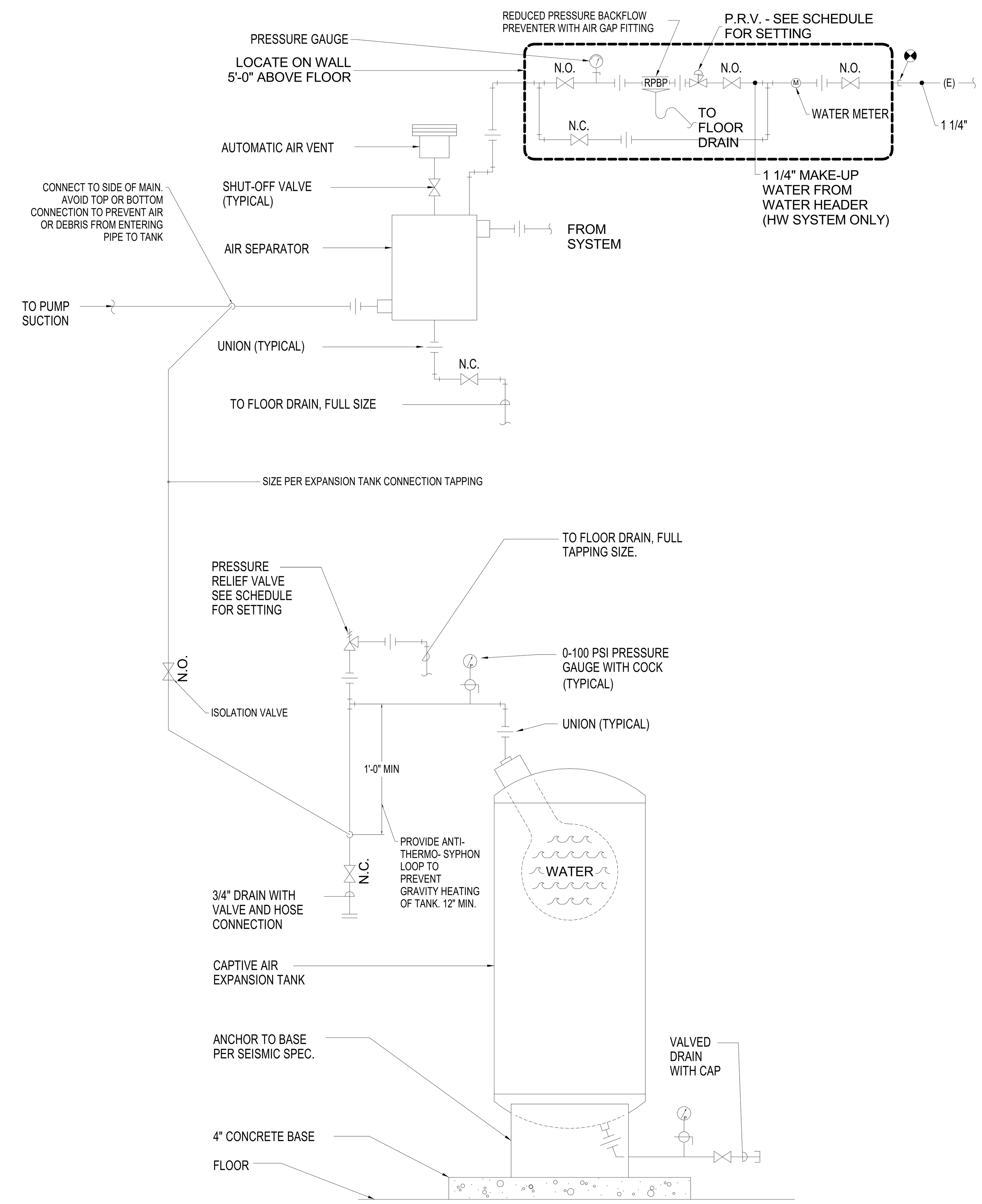
2 M-505 CEILING ALLOCATION CHART
NO SCALE



1 M-505 GREASE HOOD DUCT ROOF PENETRATION DETAIL
12" = 1'-0"



2 M-505 DRUM LOUVER DETAIL
12" = 1'-0"



1 M-505 EXPANSION TANK DETAIL
NO SCALE

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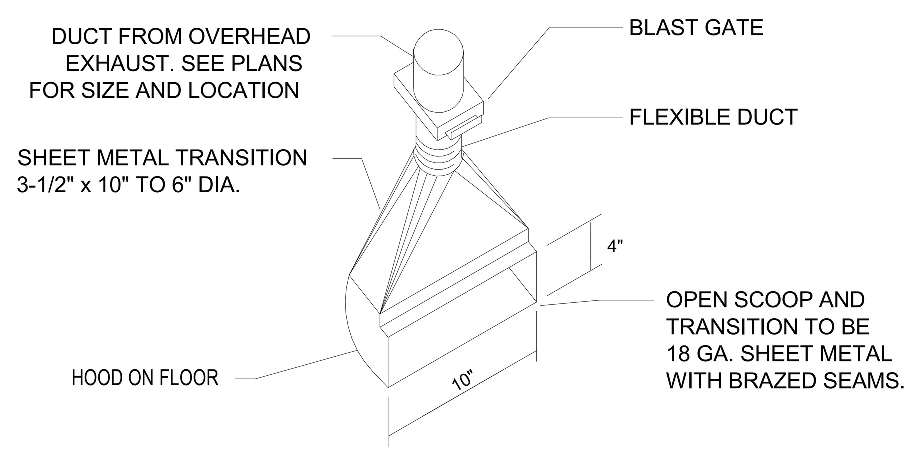
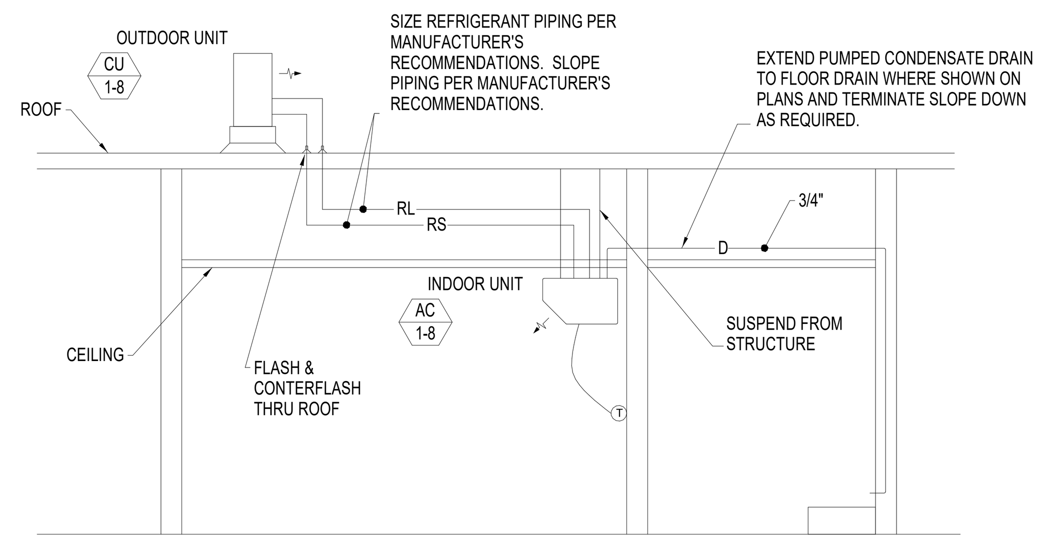
STATE OF UTAH

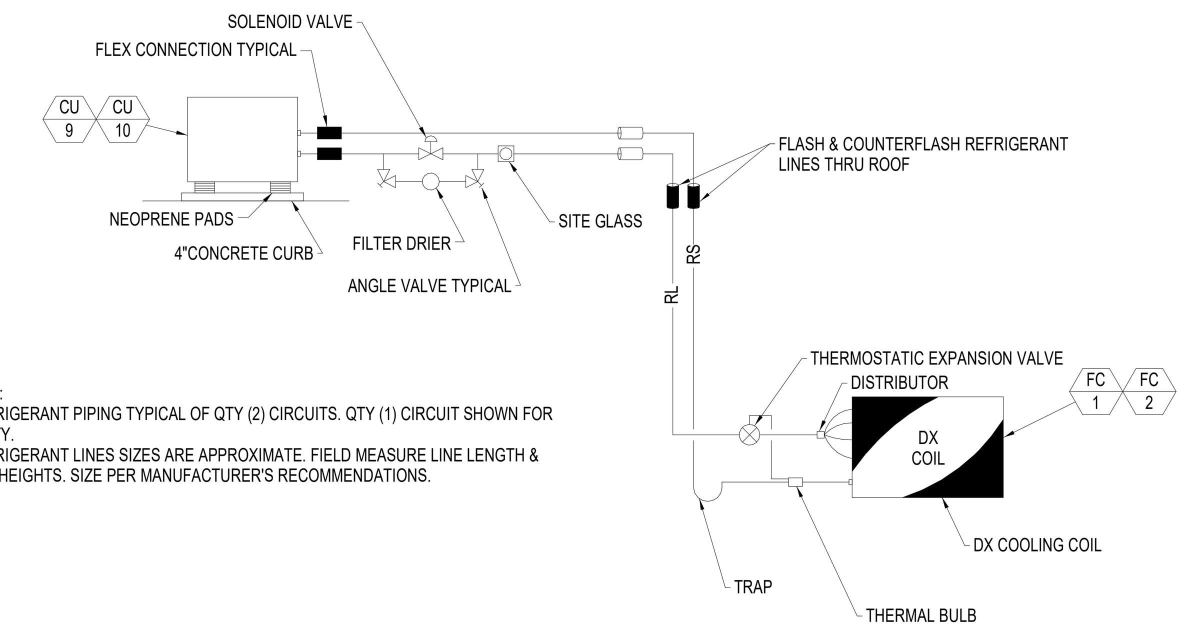
MECHANICAL DETAILS
M-505



8
M-506
FLOORSWEEP
NO SCALE

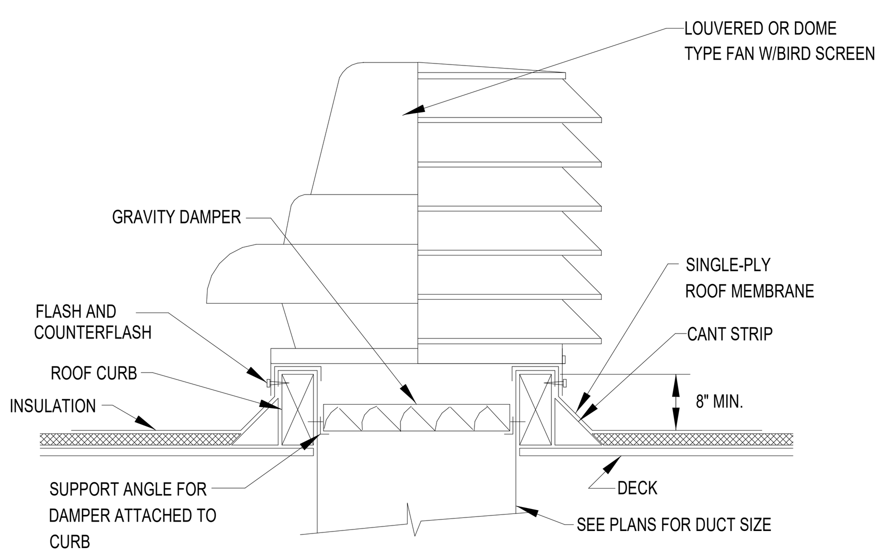


7
M-506
SPLIT SYSTEM CONDITIONING UNIT DETAIL
NO SCALE

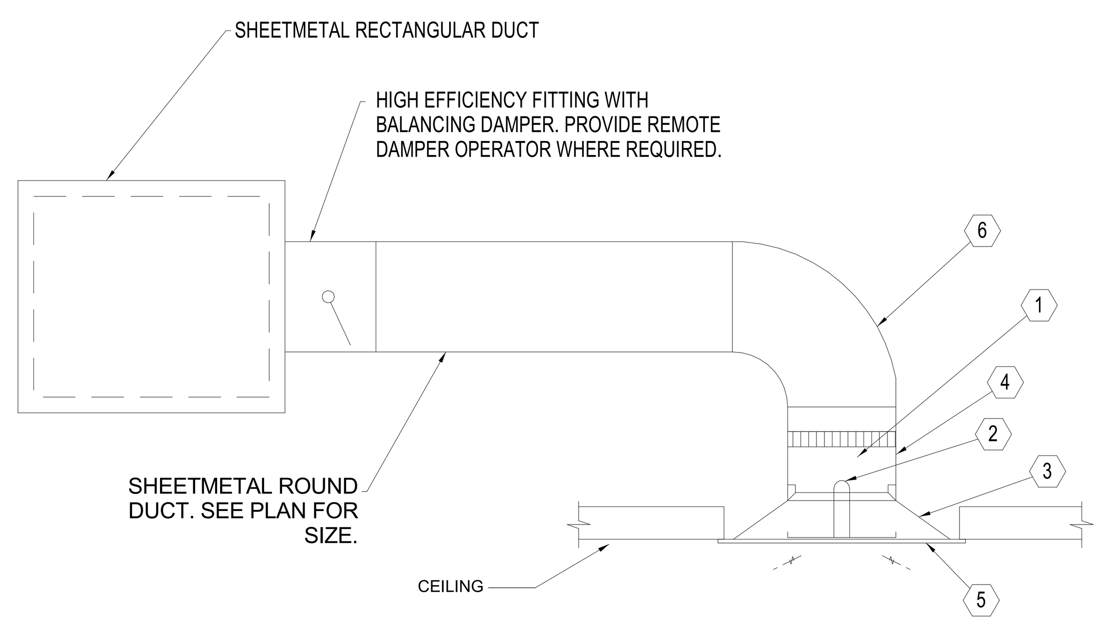


NOTES:
1. REFRIGERANT PIPING TYPICAL OF QTY (2) CIRCUITS. QTY (1) CIRCUIT SHOWN FOR CLARITY.
2. REFRIGERANT LINES SIZES ARE APPROXIMATE. FIELD MEASURE LINE LENGTH & RISER HEIGHTS. SIZE PER MANUFACTURER'S RECOMMENDATIONS.

6
M-506
CONDENSING UNIT/COOLING COIL DETAIL
NO SCALE

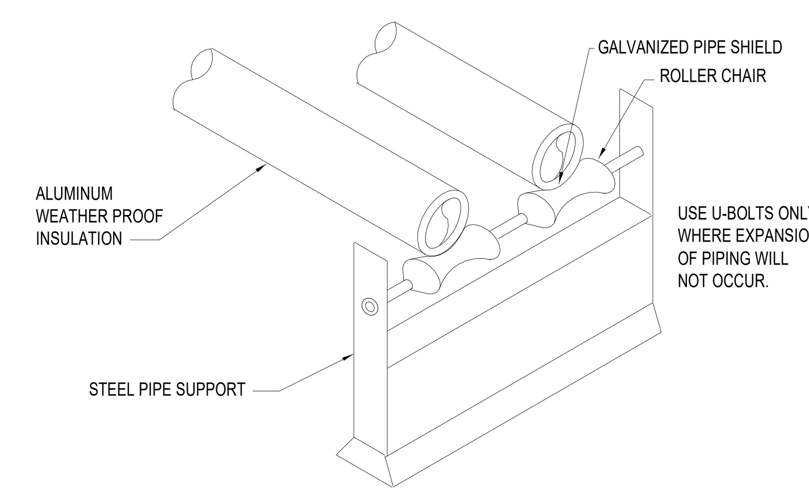


9
M-506
ROOF HOOD DETAIL
NO SCALE

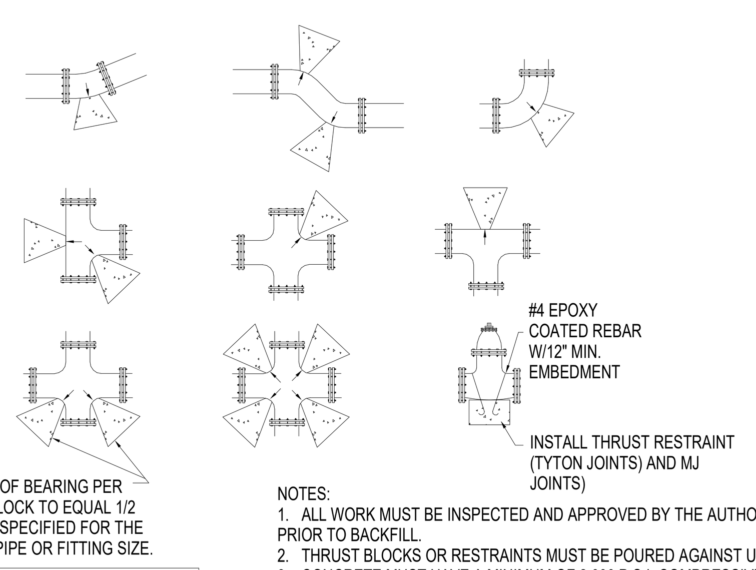


1. ACTUATOR (LOCATION MAY VARY)
2. FUSIBLE LINK.
3. MOUNTING ANGLES AND FASTENERS.
4. INTEGRAL SLEEVE DAMPER FRAME.
5. SURFACE MOUNT CEILING DIFFUSER PROVIDE MOUNTING CLIPS FOR LAY-IN TYPE.
6. RIGID CONNECTING DUCT.

5
M-506
CEILING DIFFUSER WITH FIRE DAMPER
NO SCALE



4
M-506
CHILLER WATER PIPE SUPPORT AT CHILLER DETAIL
NO SCALE

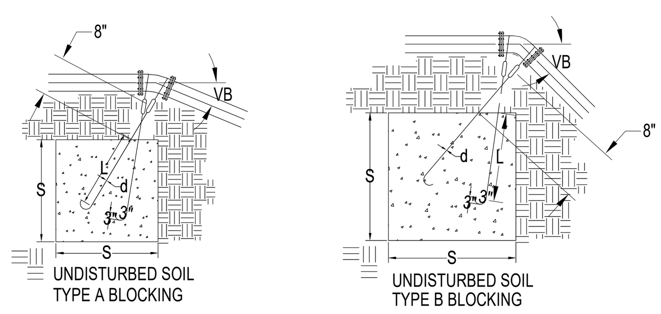


THE AREA OF BEARING PER THRUST BLOCK TO EQUAL 1/2 THE AREA SPECIFIED FOR THE LARGEST PIPE OR FITTING SIZE.

MINIMUM BEARING AREA IN SQ. FT.					
SIZE OF PIPE	TEES, VALVES DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2	3	2	2	2
6"	4	5.5	3	1.5	1
8"	6.5	9.5	5	2.75	1.5
12"	14	20	11	5.5	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6
20"	27	52	28.5	14.5	16
24"	53	74	41	21	53
30"	81	114	62	32	16

NOTES:
1. ALL WORK MUST BE INSPECTED AND APPROVED BY THE AUTHORIZING AUTHORITY PRIOR TO BACKFILL.
2. THRUST BLOCKS OR RESTRAINTS MUST BE POURED AGAINST UNDISTURBED SOIL.
3. CONCRETE MUST HAVE A MINIMUM OF 2,000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
4. CONCRETE MUST BE ALLOWED TO CURE FOR 5 DAYS PRIOR TO PRESSURIZING WATER LINES OR HAVE ADDITIONAL, APPROVED THRUST RESTRAINTS INSTALLED PRIOR TO PRESSURIZATION OF THE WATER LINE.
5. ALL PIPE JOINTS ARE TO BE LEFT ACCESSIBLE.
6. REINFORCING STEEL BARS ARE TO BE EPOXY COATED IN ACCORDANCE WITH AWWA RECOMMENDATIONS. EPOXY IS TO BE A MINIMUM THICKNESS OF 15 MIL.
7. ALL EXPOSED METAL SURFACES ARE TO BE COATED WITH CHEVRON POLY FM-1 GREASE AND WRAPPED WITH 8 MIL. MINIMUM THICKNESS OF POLYETHYLENE SHEETING OR TUBING.
8. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS THAT ARE NOT SHOWN REQUIRE A SPECIAL DESIGN.
9. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING OR RESTRAINING DETAILS TAKE PRECEDENCE OVER THIS STANDARD.
10. RESTRAIN SIZING ASSUMES A MAXIMUM OPERATING PRESSURE OF 150 P.S.I., TEST PRESSURE OF 200 P.S.I., AND A 2,000 LBS. SOIL BEARING STRESS. OPERATING PRESSURES IN EXCESS OF 150 P.S.I. OR SOILS WITH LESS THAN A MINIMUM OF 2,000 LBS. BEARING STRESS WILL REQUIRE A SPECIAL DESIGN.
11. MINIMUM YIELD STRENGTH OF THE STEEL TIE DOWNS IS TO BE 70,000 P.S.I.
12. INSTALL APPROPRIATELY SIZED THRUST BLOCKING ON ALL BLIND FLANGES, MJ PLUGS AND CAPS.
13. LOCKING RESTRAINT DEVICES MAY BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKING. (AT THE OPTION OF THE ENGINEER)

3
M-506
DIRECT BEARING THRUST RESTRAINTS
NO SCALE



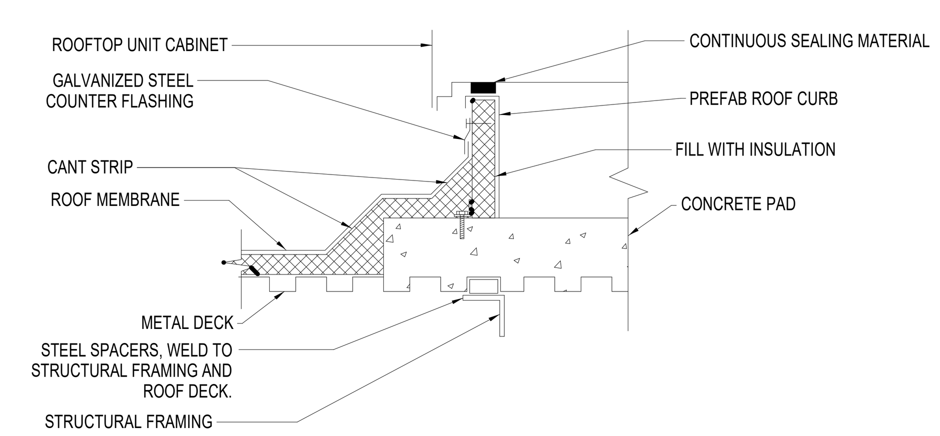
TYPE A BLOCKING FOR 11 1/4° - 22 1/2° VERT. BENDS					
	VB		S	d	L
PIPE SIZE NOMIN. DIAMETER - INCH	VERTICAL BEND DEGREES	NO. OF CU FT. OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACK OR REBAR - INCH	DEPTH OF RODS IN CONCRETE FT.
4"	11 1/4°	8	2.0	5/8"	1.5
	22 1/2°	15.6	2.5	#4	2.0
6"	11 1/4°	15.6	2.5	#4	2.0
	22 1/2°	34.3	3.25	#4	2.0
8"	11 1/4°	27	3.0	#4	2.0
	22 1/2°	64	4.0	#4	2.0
12"	11 1/4°	64	4.0	#4	2.0
	22 1/2°	125	5.0	#4	3.0
16"	11 1/4°	107	4.25	#5	3.0
	22 1/2°	216	6.0	#5	4.0
20"	11 1/4°	138	5.17	#5	3.5
	22 1/2°	334	6.94	#5	4.0
24"	11 1/4°	240	6.22	#5	4.0
	22 1/2°	476	7.81	#5	4.0
30"	11 1/4°	369	7.17	#5	4.0
	22 1/2°	733	9.02	#5	4.0

TYPE B BLOCKING FOR 45° VERTICAL BENDS					
	VB		S	d	L
PIPE SIZE NOMIN. DIAMETER - INCH	VERTICAL BEND DEGREES	NO. OF CU FT. OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACK OR REBAR - INCH	DEPTH OF RODS IN CONCRETE FT.
4"	45°	1	3.0	5/8" #4	2.0
6"		2.37	4.0	5/8" #4	2.5
8"		3.97	4.75	5/8" #4	2.0
12"		9.04	6.25	5/8" #4	4.0
16"		17.24	7.75	#5 #5	4.0
20"		26.52	5.17	#5 #5	4.0
24"		37.82	10.07	#5 #5	4.0
30"		58.26	11.63	#5 #5	4.0

NOTES:
1. ALL WORK MUST BE INSPECTED AND APPROVED BY THE AUTHORIZING AUTHORITY PRIOR TO BACK FILL.
2. THRUST BLOCKS OR RESTRAINS MUST BE PLACED ON UNDISTURBED SOIL.
3. CONCRETE MUST HAVE A MINIMUM OF 2,000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
4. CONCRETE MUST BE ALLOWED TO CURE FOR 5 DAYS PRIOR TO PRESSURIZING THE WATER LINES OR HAVE ADDITIONAL APPROVED THRUST RESTRAINS INSTALLED PRIOR TO PRESSURIZATION OF THE WATER LINE.
5. MINIMUM YIELD STRENGTH OF THE STAINLESS STEEL TIE DOWNS ARE TO BE 70,000 P.S.I.
6. REINFORCING STEEL BARS TO BE EPOXY COATED IN ACCORDANCE WITH AWWA RECOMMENDATIONS. THE EPOXY IS TO HAVE A MINIMUM THICKNESS OF 15 MILS.
7. ALL EXPOSED METAL SURFACES ARE TO BE COATED WITH CHEVRON POLY FM-1 GREASE AND WRAPPED WITH A MINIMUM OF 8 MILS. THICKNESS OF POLYETHYLENE SHEETING OR TUBING.
8. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE A SPECIAL DESIGN.
9. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING OR RESTRAINING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
10. RESTRAINT SIZING ASSUMES A MAXIMUM OPERATING PRESSURE OF 150 P.S.I., OPERATING PRESSURE RANGES IN EXCESS OF 150 P.S.I. WILL REQUIRE A SPECIAL DESIGN.

2
M-506
TIE DOWN THRUST RESTRAINTS
NO SCALE

NOTE: ANCHOR ROOFTOP UNIT AND PREFAB ROOF CURB PER SEISMIC RESTRAINT REQUIREMENTS.



1
M-506
ROOFTOP UNIT CURB ON CONCRETE PAD DETAIL
NO SCALE

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DRAWN BY: Author
CHECKED BY: LW
ISSUED: 05/02/2024

CONSTRUCTION DOCUMENTS

STATE OF UTAH

MECHANICAL DETAILS
M-506

AIR HANDLER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	AIR: SUPPLY AIRFLOW (CFM)	COMPONENTS: FANS	COMPONENTS: COILS	ELECTRICAL: LIGHTING AND OUTLET VOLT/PH/HZ	PHYSICAL: CABINET LENGTH/WIDTH/HEIGHT (IN)	PHYSICAL: WEIGHT (LB)	NOTES
RTU-1	DAIKIN OAH071GBCM	AREA A,B	32403	SF-RTU-1, RF-RTU-1	CC-RTU-1, HC-RTU-1	120/1/60	420/136/110	16817	1
RTU-2	DAIKIN OAH082GBCM	AREA A,B	37205	SF-RTU-1, RF-RTU-2	CC-RTU-2, HC-RTU-2	120/1/60	426/136/112	18145	1
RTU-3	DAIKIN OAH082GBCM	AREA C	34705	SF-RTU-1, RF-RTU-3	CC-RTU-3, HC-RTU-3	120/1/60	424/136/112	18145	1
RTU-4	DAIKIN OAH045GBCM	AREA D	21240	SF-RTU-1, RF-RTU-4	CC-RTU-4, HC-RTU-4	120/1/60	398/106/84	11504	1
RTU-5	DAIKIN OAH008GBCM	AREA D	3290	SF-RTU-1, RF-RTU-5	CC-RTU-5, HC-RTU-5	120/1/60	326/58/40	4179	1
RTU-6	DAIKIN OAH021GBCM	AREA D	8856	SF-RTU-1, RF-RTU-6	CC-RTU-6, HC-RTU-6	120/1/60	356/82/58	6817	1
RTU-7	DAIKIN OAH025GBCM	AREA E	10555	SF-RTU-1, RF-RTU-7	CC-RTU-7, HC-RTU-7	120/1/60	354/76/72	7061	1
RTU-8	DAIKIN OAH018GBCM	AREA F	8425	SF-RTU-1, RF-RTU-8	CC-RTU-8, HC-RTU-8	120/1/60	364/80/52	6717	1
RTU-9	DAIKIN OAH071GBCM	AREA F	30000	SF-RTU-1, RF-RTU-9	CC-RTU-9, HC-RTU-9	120/1/60	418/136/100	17235	1
RTU-10	DAIKIN OAH020GBCM	AREA F	8695	SF-RTU-1, RF-RTU-10	CC-RTU-10, HC-RTU-10	120/1/60	348/76/60	6510	1

1. UNIT COMPLETE WITH 2" FILTERS.

AIR SEPARATOR SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: FLOW (GPM)	WORKING FLUID	HEAD LOSS (FT)	SYSTEM PRESSURE (PSIG)	PHYSICAL: DIA./HEIGHT (IN)	NOTES
AS-CHW-01	TACO AC08F-125	CHILLER ROOM C112	TANK, INLINE, STRAINER	1037.8	30% P GLY	3	60	20/45.5	1
ASHW-1	TACO 4908AD-125	BOILER ROOM D135	TANK, HIGH EFF, AIR/DIRT	662.9	30% P GLY	3	60	18/41.5	1

1. ASME CERTIFIED

AIR HANDLER HYDRONIC COIL SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	USAGE	AIR: AIRFLOW RATE (CFM)	LOAD (BTU/H)	SENSIBLE LOAD (BTU/H)	ENTERING TEMP. DB/WB (°F)	LEAVING TEMP. DB/WB (°F)	STATIC PRESSURE (IN. H2O)	HYDRONIC: FLOW RATE (GPM)	ENTERING/LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	PHYSICAL: NO. COILS	MINIMUM FACE AREA (FT²)	MINIMUM NO. ROWS/FINS PER INCH	NOTES
CC-RTU-1	DAIKIN	RTU-1	COOLING	32403	992870	889533	81.8/62.2	51.8/50.6	0.57	170.7	42/54.1	30% P GLY	16.3	2	66.62	6/10	
CC-RTU-2	DAIKIN	RTU-2	COOLING	37205	1131106	1005771	81.4/62.2	51.9/50.7	0.56	194.1	42/54.2	30% P GLY	15.8	2	76.88	6/10	
CC-RTU-3	DAIKIN	RTU-3	COOLING	34705	1063615	965902	82.5/62.2	52.1/50.6	0.47	187.6	42/53.8	30% P GLY	14.9	2	76.88	6/9	
CC-RTU-4	DAIKIN	RTU-4	COOLING	21240	720509	620259	83.8/63.7	51.9/51.2	0.67	127.5	42/53.8	30% P GLY	10.2	2	42.62	6/12	
CC-RTU-5	DAIKIN	RTU-5	COOLING	3290	93487	81263	79/61.8	52/51.1	0.46	15.9	42/54.2	30% P GLY	12.5	1	7.5	5/12	
CC-RTU-6	DAIKIN	RTU-6	COOLING	8856	278770	246816	82.3/62.6	51.9/50.8	0.46	47.5	42/54.2	30% P GLY	14.6	1	20.12	5/12	
CC-RTU-7	DAIKIN	RTU-7	COOLING	10555	282590	240695	76.6/60	51.7/50.3	0.46	46.8	42/53.7	30% P GLY	9.7	2	23.62	6/9	
CC-RTU-8	DAIKIN	RTU-8	COOLING	8425	257842	235773	82.4/62	51.8/50.4	0.62	44.8	42/54	30% P GLY	12.3	1	16.75	8/7	
CC-RTU-9	DAIKIN	RTU-9	COOLING	30000	933250	830187	82.4/62.5	52.2/50.8	0.46	165.3	42/53.8	30% P GLY	15.3	2	66.62	6/9	
CC-RTU-10	DAIKIN	RTU-10	COOLING	8695	245623	229421	80.6/61	51.8/50.1	0.5	43.8	42/53.7	30% P GLY	14	1	18.38	6/9	
HC-RTU-1	DAIKIN	RTU-1	HEATING	23885	451084	451084	39.5	60.1	0.09	23.6	160/119.8	30% P GLY	3.3	2	65	1/8	
HC-RTU-2	DAIKIN	RTU-2	HEATING	32960	691642	691642	37.4	60.3	0.12	35.9	160/119.4	30% P GLY	6.3	2	70	1/11	
HC-RTU-3	DAIKIN	RTU-3	HEATING	27108	703424	703424	31.5	59.8	0.19	37.2	160/120.2	30% P GLY	4.5	2	70	1/12	
HC-RTU-4	DAIKIN	RTU-4	HEATING	21240	578538	578538	30.6	60.3	0.14	30.1	160/119.5	30% P GLY	1.5	2	41.25	2/7	
HC-RTU-5	DAIKIN	RTU-5	HEATING	3290	28421	28421	50.6	60	0.14	2	160/129.9	30% P GLY	0.2	1	4.38	1/7	
HC-RTU-6	DAIKIN	RTU-6	HEATING	8230	190387	190387	34.6	59.9	0.07	10	160/119.9	30% P GLY	3.6	1	19.25	1/7	
HC-RTU-7	DAIKIN	RTU-7	HEATING	6950	76391	76391	50	62	0.11	4.3	160/122.5	30% P GLY	0.3	1	16.25	1/6	
HC-RTU-8	DAIKIN	RTU-8	HEATING	4645	144102	144102	26.7	60.6	0.13	7.1	160/117.4	30% P GLY	2.7	1	16	1/6	
HC-RTU-9	DAIKIN	RTU-9	HEATING	30000	1450254	1450254	36.8	89.6	0.15	76.8	160/120.3	30% P GLY	3	2	65	2/10	
HC-RTU-10	DAIKIN	RTU-10	HEATING	8540	353636	353636	44.5	89.7	0.17	19.3	160/121.5	30% P GLY	3.3	1	17.5	2/9	

MAKE-UP AIR HANDLER UNIT SCHEDULE

ID	MANUFACTURER	MODEL NO	LOCATION	OUTSIDE AIR FLOW RATE (CFM)	EXTERNAL STATIC PRESSURE DROP (IN H20)	HEATING: ENTER/LEAVING AIR TEMP. DB (DEG. F)	INPUT HEATING LOAD (MBH)	OUTPUT HEATING LOAD (MBH)	FUEL TYPE	MAX DIMENSIONS L x W x H (IN)	MAX OPERATING WEIGHT (LBS)	EVAP COOLER	MOTOR: HP	MOTOR: VOLT/PH/HZ	NOTES
MAU-1	GREENHECK	IGX-P116-H22-MF	KITCHEN	2981	0.75	-20	287.7	233.1	NAT GAS	133 X 44 X 45	1700	YES	1.5	460/3/60	(1)(2)(3)(4)(5)(6)
MAU-2	GREENHECK	IGX-P116-H22-MF	KITCHEN	2981	0.75	-20	287.7	233.1	NAT GAS	133 X 44 X 45	1700	YES	1.5	460/3/60	(1)(2)(3)(4)(5)(6)

(1) ALL CAPACITIES BASED AT 4,800 FEET ELEVATION.

(2) UNIT COMPLETE WITH SPRING VIBRATION ISOLATED ROOF CURB. MATCH ROOF CURB TO SUPPORT UNIT.

(3) SUPPLIED WITH VENT CAP AND COMBUSTION AIR OPENING.

(4) INTERLOCK UNIT WITH KITCHEN HOOD CONTROL PANEL, DIV. 26.

(5) EQUIPPED WITH FACTORY MOUNTED STARTER & DISCONNECT.

(6) TYPE UNIT: 100% OUTSIDE AIR ROOFTOP MAKE-UP AIR HANDLING UNIT, COMPLETE WITH THE FOLLOWING OPTIONS:

A) DOWN DISCHARGE PLENUM.

B) STAINLESS STEEL HEAT EXCHANGER.

C) MODULATING GAS VALVE DOWN TO 30% AND DUCT TEMPERATURE SENSOR. SET TEMPERATURE SENSOR AT 65 DEG-F LEAVING AIR TEMPERATURE.

D) EVAPORATIVE COOLER TO BLOWER FAN TRANSITION.

E) FACTORY MOUNTED DISCONNECT.

CONDENSATE NEUTRALIZER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	QTY	TYPE	CONDENSATE DEVICE: INPUT LOAD (BTU/H)	EFFICIENCY (%)	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NPT FITTING (IN)	NOTES
CN-1	AXIOM NT25	BOILER ROOM D135	1	STANDARD	5000000	96	17.5/13.5/8	1	
CN-2	AXIOM NT25	BOILER ROOM D135	1	STANDARD	5000000	96	17.5/13.5/8	1	

COOLING TOWER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FAN AIRFLOW (CFM)	AMBIENT TEMP. DB/WB (°F)	FLUID: FLOW RATE (GPM)	ENTERING/LEAVING TEMP. (°F)	WORKING FLUID	INLET/OUTLET HEAD LOSS (FT)	ELECTRICAL, FAN: MOTOR QUAN.	MOTOR SIZE (HP)	MOTOR SPEED (RPM)	TOWER AND CONTROL CIRCUIT VOLT/PH/HZ	PHYSICAL: OPERATING WEIGHT (LB)	LENGTH/WIDTH/HEIGHT (IN)	NOTES
CT-01 CELL A	EVAPCO AT 19-2J9	MECH. YARD	OPEN, COUNTERFLOW, AXIAL	50800	95/96	810	90/80	WATER	5	1	15	1750	460/3/60 - 120/1/60	7090	107.5/101.5/140.4	1-7

1. UNIT PROVIDED WITH LOW SOUND FAN.

2. UNIT SHALL BE ALL STAINLESS STEEL CONSTRUCTION.

3. PROVIDE BASIN PLATFORM, LADDERS, LADDER EXTENSIONS AS REQUIRED.

4. PROVIDE WITH VIBRATION SWITCHES.

5. UNIT COMLPETE WITH A 10 KW, 480V/3PH SUMP HEATER. PROVIDE TRANSFORMER FOR A CONTROL CIRCUIT AT 120V/1PH.

6. TOWER SITS ON SUPPORT. SEE STRUCTURAL DRAWINGS.

7. UNIT COMPLETE WITH SUMP SWEEPER PIPING, MINIMUM SWEEPER FLOW RATE 89 GPM AT 20 PSI.

HYDRONIC BOILER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FUEL TYPE	MINIMUM INPUT LOAD (BTU/H)	MINIMUM INPUT FLOW (CFH)	OUTPUT LOAD (BTU/H)	FLUID: FLOW RATE (GPM)	ENTERING/LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	ELECTRICAL: MOTOR QUAN.	MOTOR SIZE (HP)	MOTOR VOLT/PH/HZ	CONTROL CIRCUIT VOLT/PH/HZ	PHYSICAL: STACK DIAMETER (IN)	LENGTH/WIDTH/HEIGHT (IN)	NOTES
B-1	CLEAVER-BROOKS CFC-E 5000	BOILER ROOM D135	COND, FORCED, DUAL RET	NAT GAS	5000000	5000	4400000	282.4	126.7/160	30% P GLY	5	1	10.73	460/3/60	120/1/60	1@14	80.6/58.7/93.6	1
B-2	CLEAVER-BROOKS CFC-E 5000	BOILER ROOM D135	COND, FORCED, DUAL RET	NAT GAS	5000000	5000	4400000	282.4	126.7/160	30% P GLY	5	1	10.73	460/3/60	120/1/60	1@14	80.6/58.7/93.6	1

1. ASME CERTIFIED

CHEMICAL FEED SYSTEM SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: WORKING FLUID	TOTAL VOLUME (GAL)	STATIC FILL PRESSURE (PSIG)	PRESSURE RATING (PSIG)	ELECTRICAL: VOLT/PH/HZ	ALARM PANEL	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NPT FITTING (IN)	TANK SIZE (GAL)	NOTES
CWT-01	WEST CONDENSER WATER TREATMENT	CHILLER ROOM C112	CHEMICAL FEEDER	WATER	1688.4	4	0	120/1/60	-----	108/36/66	1	50	1-3

1. PROVIDE THREE DOUBLE WALL CONTAINMENT POLY TANKS: (1) SCALE INHIBITOR, (2) BIOCIDE, ONE INJECTION PUMP PER TANK MOUNTED ON SS SHELF ABOVE TANKS

2. WALL MOUNTED CONTROLLER. SOLIDS SEPARATOR BLOW DOWN SHALL BE CONTROLLED BY TOWER TREATMENT CONTROLLER

3. ESTIMATED WEIGHT: 50 LBS.

WATER-COOLED CHILLER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	REFRIG.	LOAD (TONS)	FLUID: DESCRIPTION	FLOW RATE (GPM)	ENTERING/LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	ELECTRICAL: MAX KW	TOTAL MCA	TOTAL MOCP	MAXIMUM UNIT EFFICIENCY (KW/TON)	EFFICIENCY RATING	CHILLER AND CONTROL CIRCUIT VOLT/PH/HZ	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NOTES
CH-1	CARRIER 19MV-21L21K259E35	CHILLER RM	MAG BEARING	R513A	270	EVAPORATOR	686.9	54/44	30% P GLY	18.2	150	252	450	0.542	0.5330 (NPLV)	460/3/60 - 120/1/60	158/52/100	1-7
						CONDENSER	749	80/90	WATER	14.6								

1. WITH FACTORY SOUND ATTENUATION, STARTER AND DISCONNECT

2. UNIT WITH MODULATION CAPACITY DOWN TO 15% OF MAXIMUM LOAD AND RUN AT 55 CHWS AND 59 CHWR

3. UNIT WITH FACTORY VSD/DISCONNECT, FILTER, BACNET NETWORK INTERFACE CARD

4. MINIMUM EVAPORATOR FLOW = 350 GPM, CONDENSER = 375.4 GPM.

5. UNIT COMPLETE WITH ECONOMIZER.

6. UNIT WITH INLET GUIDE VANES, VFD AND MAGNETIC BEARING COMPRESSORS

7. PROVIDE WITH MARINE BOX ON CONDENSER WATER INLET.

GRILLES, REGISTERS AND DIFFUSERS

ID	MANUFACTURER	MODEL	MAX NC	DESCRIPTION
CD-1	PRICE	SPD	30	SQUARE PLAQUE FACE CEILING DIFFUSERS. REMOVABLE FACE, FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. COLOR AND FINISH AS SELECTED BY ARCHITECT FROM STANDARD COLORS
CD-2	PRICE	SDS 100	30	2 SLOT LINEAR CEILING DIFFUSER WITH FULLY ADJUSTABLE AIR PATTERN AND FLOW CONTROL VANES FOR ONE OR TWO WAY THROW PATTERN. UNITS SHALL HAVE 1" SLOTS AND INSULATED PLENUM WITH ROUND DUCT CONNECTION. FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED. UNIT SHALL BE CURVED FACE FOR EXPOSED DUCT MOUNTING AS REQUIRED.
CD-3	PRICE	SDS 100	30	3 SLOT LINEAR CEILING DIFFUSER WITH FULLY ADJUSTABLE AIR PATTERN AND FLOW CONTROL VANES FOR ONE OR TWO WAY THROW PATTERN. UNITS SHALL HAVE 1" SLOTS AND INSULATED PLENUM WITH ROUND DUCT CONNECTION. FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED. UNIT SHALL BE CURVED FACE FOR EXPOSED DUCT MOUNTING AS REQUIRED.
CD-4	PRICE	SDS 100	30	4 SLOT LINEAR CEILING DIFFUSER WITH FULLY ADJUSTABLE AIR PATTERN AND FLOW CONTROL VANES FOR ONE OR TWO WAY THROW PATTERN. UNITS SHALL HAVE 1" SLOTS AND INSULATED PLENUM WITH ROUND DUCT CONNECTION. FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED. UNIT SHALL BE CURVED FACE FOR EXPOSED DUCT MOUNTING AS REQUIRED.
DV-1	SEIHO SFZ 4	--		EXTERNAL DRYER VENT, ALL ALUMINUM CONSTRUCTION, CLEAR ANODIZED FINISH.
RG-1	PRICE	PDDR	30	PERFORATED FACE RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. AIR QUANTITY SHALL MATCH ROOM SUPPLY OR EXHAUST AIR QUANTITY. COLOR AND FINISH AS SELECTED BY ARCHITECT.
RG-2	PRICE	90	30	HEAVY DUTY RETURN GYM GRILLE. PERFORATED FACE RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. STEEL OPPOSED BLADE DAMPER. INCLUDING 30° BLADE DEFLECTION.
EG-1	PRICE	80	30	CRATE TYPE CEILING EXHAUST AIR UNIT, WITH OBD. REMOVABLE FACE AND CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. UNITS SHALL HAVE 1/2" x 1/2" x 1/2" SQUARES.
SWE-1	PRICE	535	30	SIDEWALL RETURN AIR GRILLE. HORIZONTAL STATIONARY 45° DEFLECTION VANES SET ON 1/2 INCH CENTER. COLOR AND FINISH AS SELECTED BY ARCHITECT
SWR-1	PRICE	535	30	SIDEWALL RETURN AIR GRILLE. HORIZONTAL STATIONARY 45° DEFLECTION VANES SET ON 1/2 INCH CENTER. COLOR AND FINISH AS SELECTED BY ARCHITECT
SWS-1	PRICE	520	30	DOUBLE DEFLECTION HIGH SIDEWALL SUPPLY REGISTER. VERTICAL FRONT WITH HORIZONTAL REAR DEFLECTION ADJUSTABLE VANES SPACED AT 3/4 INCH O.C. COMPLETE WITH OBD AND REMOVABLE CORE. COLOR AND FINISH AS SELECTED BY ARCHITECT.
SWS-2	PRICE	HCD1	30	DRUM LOUVER SUPPLY GRILLE WITH ROTATABLE DRUM HAVING MECHANISM TO FIX DRUM ANGLE. VARIABLE VOLUME, STEEL FRAME, ALUMINUM VANES AND DRUM. MOUNTING FRAME C/W COUNTER SUNK HOLES FOR DUCT MOUNTING. ADJUSTABLE THROUGH 60 DEGREES.

1. PROVIDE CD-1 FOR ALL CEILING SUPPLY DIFFUSERS UNLESS NOTED OTHERWISE.

2. PROVIDE RG-1 FOR ALL CEILING RETURN GRILLES UNLESS NOTED OTHERWISE.

3. PROVIDE EG-1 FOR ALL CEILING EXHAUST GRILLES UNLESS NOTED OTHERWISE.

EXPANSION TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: WORKING FLUID	MIN. TANK/ACCEPTANCE VOLUME (GAL)	MINIMUM FILL PRESSURE (PSIG)	MAXIMUM WORKING PRESSURE (PSIG)	RELIEF VALVE PRESSURE (PSIG)	PHYSICAL: TANK SIZE (GAL)	DIA./HEIGHT (IN)	NPT FITTING (IN)	NOTES
ET-CHW-01	TACO CA300-125	CHILLER ROOM C112	VERT, BLADDER, FULL	30% P GLY	64.3/33.8	19.2	54	60	79	24/59	1.5	1
ET-HW-1	TACO CA800-125	BOILER RROM D135	VERT, BLADDER, FULL	30% P GLY	192.9/101.3	19.2	54	60	211	30/89	1.5	1

1. ASME CERTIFIED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

VBFA
40 W. Cache Valley Blvd.
Building 1, Suite B
Logan, UT
O: (435)752-5081
www.vbfa.com
VBFA Project #: 23717

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #: 23717
DRAWN BY: Author
CHECKED BY: LW
ISSUED: 05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL SCHEDULES

M-601

FAN COIL SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	FAN: EXTERNAL STATIC PRESSURE (IN. H2O)	COILS: COOLING COIL MEDIUM	ELECTRICAL: TOTAL MCA	MOTOR QTY & SIZE (HP)	VOLT/PH/HZ	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
FC-1	IEC CXB08-DY*-C*-*6	BOILER D135	HORIZONTAL, CABINET	840	0.15	HYDRONIC	2.5	1@0.167	120/1/60	43.3/17.5/10	
FC-2	IEC CXB08-DY*-C*-*6	CHILLER C112	HORIZONTAL, CABINET	690	0.15	HYDRONIC	2.5	1@0.167	120/1/60	43.3/17.5/10	

FAN COIL, HYDRONIC COIL SCHEDULE

ID	USAGE	AIR: AIRFLOW RATE (CFM)	LOAD (BTU/H)	SENSIBLE LOAD (BTU/H)	ENTERING TEMP. DB/WB (°F)	LEAVING TEMP. DB/WB (°F)	HYDRONIC: FLOW RATE (GPM)	ENTERING/ LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	2-PIPE HYDRONIC CHANGEOVER	PHYSICAL: MINIMUM NO. ROWS/ FINS PER INCH	NOTES
FC-1	COOLING	485	8300	8100	75/60.7	56/54.2	2.2	44/52	30% P GLY	5	----	2/10	
FC-2	COOLING	465	7900	7800	75/60.7	56/54.2	2.1	44/52	30% P GLY	5	----	2/10	

RETURN/RELIEF AIR FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	QTY	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	TOTAL STATIC PRESSURE (IN. H2O)	EXTERNAL STATIC PRESSURE (IN. H2O)	FAN: FAN SPEED (RPM)	FAN WHEEL DIA. (IN)	ELECTRICAL: MOTOR BHP (HP)	MAX MOTOR SPEED (RPM)	VOLT/PH/HZ	NOTES
RF-RTU-1	DAIKIN	RTU-1	6	FORWARD CURVED	5167	0.84	0.7	1846	17.71	4	2600	460/3/60	
RF-RTU-2	DAIKIN	RTU-2	5	FORWARD CURVED	6921	1.1	0.96	1377	22.05	6.1	1700	460/3/60	
RF-RTU-3	DAIKIN	RTU-3	5	FORWARD CURVED	6392	1.09	0.96	1309	22.05	6.1	1700	460/3/60	
RF-RTU-4	DAIKIN	RTU-4	5	FORWARD CURVED	4290	1.09	0.96	1662	17.71	4	2140	460/3/60	
RF-RTU-5	DAIKIN	RTU-5	1	FORWARD CURVED	3000	1.12	1	1403	17.71	2.3	1730	460/3/60	
RF-RTU-6	DAIKIN	RTU-6	2	FORWARD CURVED	4403	1.12	0.99	1716	17.71	6.6	2600	460/3/60	
RF-RTU-7	DAIKIN	RTU-7	2	FORWARD CURVED	5188	1.12	0.99	1919	17.71	4	2140	460/3/60	
RF-RTU-8	DAIKIN	RTU-8	2	FORWARD CURVED	2803	0.84	0.71	1256	17.71	4	2140	460/3/60	
RF-RTU-9	DAIKIN	RTU-9	5	FORWARD CURVED	5800	0.62	0.5	1113	22.05	6.1	1700	460/3/60	
RF-RTU-10	DAIKIN	RTU-10	2	FORWARD CURVED	4348	0.63	0.5	1564	17.71	6.6	2600	460/3/60	

EXHAUST AIR FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	QTY	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	TOTAL STATIC PRESSURE (IN. H2O)	EXTERNAL STATIC PRESSURE (IN. H2O)	MAX AIR TEMP. (°F)	FAN: FAN SPEED (RPM)	FAN WHEEL DIA. (IN)	STATIC EFF. (%)	ELECTRICAL: MOTOR SIZE (HP)	MOTOR BHP (HP)	MOTOR SPEED (RPM)	VOLT/PH/HZ	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
EF-1	TWIN CITY BCRD 160D	SCIENCE A	1	ROOF, DOME DOWNBLAST, BELT	3665	0.45	0.45	75	1459	16.5	32.7	1	0.788	1800	460/3/60	33.8/33.8/35.3	1,2,3,6
EF-2	TWIN CITY BCRD 160D	SCIENCE B	1	ROOF, DOME DOWNBLAST, BELT	2685	0.45	0.45	75	1157	16.5	46	0.5	0.41	1800	120/1/60	33.8/33.8/35.3	1,2,3,6
EF-3	TWIN CITY BCRD 160D	TOILET B	1	ROOF, DOME DOWNBLAST, BELT	3280	0.45	0.45	75	1271	16.5	40.8	0.75	0.534	1800	460/3/60	33.8/33.8/35.3	1,2,3,6
EF-4	TWIN CITY BCRD 120D	DISHWASHER	1	ROOF, DOME DOWNBLAST, BELT	1050	0.37	0.37	75	1081	13.5	50.2	0.25	0.123	1800	120/1/60	30.9/30.9/33.4	1,2,4,5
EF-5	TWIN CITY BCRUR 180BMP	KITCHEN HOOD	1	ROOF, DOME UPBLAST, BELT, KIT	3400	1	1	75	1368	18.25	47.3	1.5	1.132	1800	460/3/60	37/37/37	1,7,8,9
EF-6	TWIN CITY BCRUR 180BMP	KITCHEN HOOD	1	ROOF, DOME UPBLAST, BELT, KIT	3400	1	1	75	1368	18.25	47.3	1.5	1.132	1800	460/3/60	37/37/37	1,7,8,9
EF-7	TWIN CITY BCRD 085D	DRESSING	1	ROOF, DOME DOWNBLAST, BELT	500	0.42	0.42	75	1495	10.5	54.9	0.25	0.06	1800	120/1/60	27.9/27.9/28	1,2,3,6
EF-8	TWIN CITY BCRD 160D	LOCKERS	1	ROOF, DOME DOWNBLAST, BELT	3305	0.45	0.45	75	1345	16.5	37.2	1	0.625	1800	120/1/60	33.8/33.8/35.3	1,2,3,6
EF-9	ENVIROVENT 2	KILN	1	FORWARD CURVED VENT SET	140	0.57	0.57	160	-	-	-	0.25	0.216	-	115/1/60	-	10
EF-10	TWIN CITY BCRD-070D	ADMIN	1	ROOF, DOME DOWNBLAST, BELT	200	0.42	0.42	75	1654	8.5	31.5	0.25	0.042	1800	120/1/60	25.9/25.9/25.3	1,2,3,6
EF-11	GREENHECK SP-LP0511	ELEC A120	1	CEILING/WALL, CENTRIF, DIRECT	80	0.25	0.25	75	773	-	60	.1	0.01	773	120/1/60	10/10/4	1,3,11
EF-12	GREENHECK SP-LP0511	ELEC D118	1	CEILING/WALL, CENTRIF, DIRECT	80	0.25	0.25	75	773	-	60	.1	0.01	773	120/1/60	10/10/4	1,3,11
EF-13	GREENHECK CUBE-160	FCS 203	1	ROOF, UPBLAST, BELT	1500	0.5	0.5	75	875	-	57	0.25	0.25	1750	115/1/60	29/29/42	1,2,3,6
EF-14	GREENHECK CSP-A2150	A120	1	INLINE FAN	1900	0.27	0.27	75	790		14	0.63	0.63	790	115/1/60	15/35/15	1,3
EF-15	GREENHECK CSP-A2150	A220	1	INLINE FAN	1900	0.27	0.27	75	790		14	0.63	0.63	790	115/1/60	15/35/15	1,3
EF-16	TWIN CITY BCRD 1200	PE STORAGE	1	ROOF, DOME DOWNBLAST, BELT	1325	0.33	0.33	72	1566	13.5	55.8	0.5	0.385	1800	208/3/60	30.9/30.9/33.4	1,2,3,6
EF-17	GREENHECK AER-20-VG	CHILLER C112	1	AXIAL SIDE WALL, DIRECT	3200	0.283	0.283	72	1696	-	39	0.5	0.36	1750	115/1/60	32.43/26.33/26.33	1,3,12
EF-18	GREENHECK GB-140	BOILER D135	1	ROOF, DOME DOWNBLAST, BELT	900	0.3	0.3	72	799	-	50	0.25	0.11	1750	115/1/60	28/28/36	1,2,3,6
EF-19	GREENHECK SP-A200	RECEPTION/CO...	1	CEILING, CENTRIF, DIRECT	220	0.22	0.22	75	900	-	31	0.02	0.02	-	115/60/1	12/14/2011	1,3

1. ALL CAPACITIES AT 4800 FT ELEVATION.
2. ROOF MOUNTED EXHAUST FAN. COMPLETE WITH 18" PRE-FAB ROOF CURB, MOTORIZED BACKDRAFT DAMPER, BIRD SCREEN, & INTERNAL THERMAL OVERLOAD PROTECTION. DISCONNECT BY DIV. 26.
3. CONTROL: ATC
4. STATIC PRESSURE & AIRFLOW BASED ON PRELIMINARY DISHWASHER EXHAUST HOOD REQUIREMENTS OF 1050 CFM & 0.37" W.G. S.P. DUCT CONNECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SUPPLIED HOOD EXHAUST AND PRESSURE REQUIREMENTS PRIOR TO SUBMITTING EXHAUST FAN FOR APPROVAL.
5. CONTROL: INTERLOCK WITH DISHWASHER BY DIV. 26.
6. INTERLOCK WITH MOTORIZED DAMPER.
7. ROOF MOUNTED KITCHEN GREASE HOOD EXHAUST FAN (UL-762 RATED), COMPLETE WITH HINGED PREFABRICATED ROOF CURB, FAN DISCHARGE TO BE 40 IN. MIN. FROM WALL, EXHAUST DUCT INSIDE CURB TO EXTEND 18 IN MIN ABOVE ROOF DECK, PROVIDE INTEGRAL OVERLOAD PROTECTION AND GREASE TERMINATOR KIT.
8. UNIT COMPLETE WITH CLEANOUT PORT, GREASE TRAP AND DRAIN CONNECTION, STARTER AND DISCONNECT.
9. HOOD EXHAUST: EXTERNAL STATIC PRESSURE LISTED IS BASED ON THE COORDINATED HOOD PRESSURE DROPS. HOOD PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE ACTUAL AIRFLOW AND STATIC PRESSURE DROP WITH KITCHEN SUPPLIER PRIOR TO SUBMITTING EXHAUST FAN FOR APPROVAL.
10. UNIT COMPLETE WITH ENVIROLINK FAN INTERLOCK, DUAL INTAKE KIT, AND EXTENSION KITS AS REQUIRED. CONTRACTOR SHALL INTERLOCK FAN CONTROLS WITH KILN CONTROLS. INSTALL PER MANUFACTURER REQUIREMENTS.
11. UNIT COMPLETE WITH GRILLE.
12. UNIT COMPLETE WITH GRAVITY BACKDRAFT DAMPER, VARI-GREEN MOTOR AND CONTROL, AND WALL HOUSING.

HOOD SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	STATIC PRESSURE (IN. WATER)	PHYSICAL: INLET HEIGHT ABOVE ROOF (IN)	TOTAL HEIGHT (IN)	THROAT LENGTH / WIDTH (IN)	NOTES
H-1	GREENHECK GRSR 8	AREA E ROOF	GRAVITY	EXHAUST	140	0.015	18	37	8/8	1,2
H-2	GREENHECK GRSI 24	BOILER RM ROOF	GRAVITY	INTAKE	900	0.014	18	41	24/24	1,2

1. HOOD COMPLETE WITH 18" ROOF CURB.
2. HOOD COMPLETE WITH GRAVITY BACK DRAFT DAMPER.

LOUVER SCHEDULE

ID	MANUFACTURER	MODEL	DESCRIPTION
L-1	AIROLITE	K6776	WALL LOUVER , STATIONARY 6 INCH THICK 35 BLADE, 12 GA., EXT. ALUMINUM BLADES, 8 GA. EXT. ALUMINUM JAMBS. CHANNEL FRAME. COLOR BY ARCHITECT.
L-2	SEIHO	SFX-N 10	ALUMINUM ROUND VENT CAP WITH INSECT SCREEN. COLOR BY ARCHITECT.

AIR HANDLER SUPPLY AIR FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	QTY	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	TOTAL STATIC PRESSURE (IN. H2O)	EXTERNAL STATIC PRESSURE (IN. H2O)	FAN: FAN SPEED (RPM)	FAN WHEEL DIA. (IN)	ELECTRICAL: MOTOR BHP (HP)	MAX MOTOR SPEED (RPM)	VOLT/PH/HZ	NOTES
SF-RTU-1	DAIKIN	RTU-1	6	PLENUM, CENTRIFUGAL	5401	3.44	2.06	2490	17.71	6.6	2600	460/3/60	
SF-RTU-2	DAIKIN	RTU-2	5	PLENUM, CENTRIFUGAL	7441	3.48	2.06	1744	24.8	11.6	1950	460/3/60	
SF-RTU-3	DAIKIN	RTU-3	5	PLENUM, CENTRIFUGAL	6941	3.45	2.06	1950	24.8	11.6	1950	460/3/60	
SF-RTU-4	DAIKIN	RTU-4	5	PLENUM, CENTRIFUGAL	4248	3.6	2.06	2302	17.71	6.6	2600	460/3/60	
SF-RTU-5	DAIKIN	RTU-5	1	PLENUM, CENTRIFUGAL	3290	3.38	2.06	2094	17.71	6.6	2600	460/3/60	
SF-RTU-6	DAIKIN	RTU-6	2	PLENUM, CENTRIFUGAL	4428	3.35	2.06	2281	17.71	6.6	2600	460/3/60	
SF-RTU-7	DAIKIN	RTU-7	2	PLENUM, CENTRIFUGAL	5278	3.34	2.06	2444	17.71	6.6	2600	460/3/60	
SF-RTU-8	DAIKIN	RTU-8	2	PLENUM, CENTRIFUGAL	4213	2.79	1.31	2115	17.71	6.6	2600	460/3/60	
SF-RTU-9	DAIKIN	RTU-9	5	PLENUM, CENTRIFUGAL	6000	2.08	0.75	1495	22.05	6.1	1700	460/3/60	
SF-RTU-10	DAIKIN	RTU-10	2	PLENUM, CENTRIFUGAL	4348	2.13	0.75	1979	17.71	6.6	2600	460/3/60	

FLUID FILTER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	ELECTRICAL: MOTOR (HP)	VOLT/PH/HZ	FLUID: FLOW RATE (GPM)	WORKING FLUID	HEAD LOSS (FT)	PHYSICAL: CONNECT SIZE (IN)	NOTES
SS-01	PUROFLUX PF64-020	CHILLER ROOM	CENTRIFUGAL	5	480/3/60	100	WATER	16	2	1,2,3

(1) SKID MOUNTED PUMP; BASKET PRE-STRAINER, AND AUTOMATIC BALL VALVE WITH TIMER FOR SOLIDS REMOVAL.
(2) INLET AND OUTLET PRESSURE GUAGES; FULLY ASSEMBLED ON SKID; ALL INTERCONNECTING PIPING AND VALVES; UL LISTED NEMA 4X ENCLOSURE STARTER AND CONTROLS.
(3) UNIT COMPLETE WITH INLET & OUTLET ISOLATION VALVES; AUTOMATIC BALL VALVE; PLC; PREMIUM EFFICIENT MOTOR.

GLYCOL FEED SYSTEM SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: WORKING FLUID	TOTAL VOLUME (GAL)	STATIC FILL PRESSURE (PSIG)	PRESSURE RATING (PSIG)	ELECTRICAL: VOLT/PH/HZ	ALARM PANEL	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NPT FITTING (IN)	TANK SIZE (GAL)	NOTES
GFS-HW-01	AXIOM SF100-L	BOILER D135	STANDARD	30% P GLY	3090.5	25.7	125	120/1/60	-----	33/33/53	0.5	100	1
GFS-CHW-01	AXIOM SF100-L	CHILLER C112	STANDARD	30% P GLY	1586.4	19.2	125	120/1/60	-----	33/33/53	0.5	100	1

1. PROVIDE WITH PRESSURE SWITCH PER MANUFACTURER'S REQUIREMENTS. CONTROLS CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED POWER TO PRESSURE SWITCH.

HYDRONIC-TO-HYDRONIC HEAT EXCHANGER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	USAGE	LOAD (BTU/H)	SOURCE MEDIUM (HYDRONIC): FLOW RATE (GPM)	ENTERING/ LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	TRANSFER MEDIUM (HYDRONIC): FLOW RATE (GPM)	ENTERING/ LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	PHYSICAL: DIA./ LENGTH/ NO. PLATES (IN/IN)	SURFACE AREA (FT²)	NOTES
HX-1	TACO PF 130-131-1-XX	CHILLER ROOM...	PLATE & FRAME	COOLING	2232000	808.4	44/49.5	WATER	15	937.5	58/53	30% P GLY	15	/43.7/131	1805.11	

SPLIT SYSTEM INDOOR UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	USAGE	AIR: AIRFLOW RATE (CFM)	LOAD (BTU/H)	SENSIBLE LOAD (BTU/H)	ENTERING TEMP. DB/WB (°F)	LEAVING TEMP. DB/WB (°F)	FAN: EXTERNAL STATIC PRESSURE (IN. H2O)	VRF: REFRIGERANT	ELECTRICAL: TOTAL MCA	VOLT/PH/HZ	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
IU-1	DAIKIN FTX36WVJU9	D138	WALL MOUNTED	COOLING	635	36,000	22890	80/67	56/54.2	0	R-410A	16.6	208/1/60	10/47/13	1,2
IU-2	DAIKIN FTX36WVJU9	D136	WALL MOUNTED	COOLING	635	36,000	22890	80/67	56/54.2	0	R-410A	16.6	208/1/60	10/47/13	1,2
IU-3	DAIKIN FTX36WVJU9	D137	WALL MOUNTED	COOLING	635	36,000	22890	80/67	56/54.2	0	R-410A	16.6	208/1/60	10/47/13	1,2
IU-4	DAIKIN FTX36WVJU9	A220	WALL MOUNTED	COOLING	635	36,000	22890	80/67	56/54.2	0	R-410A	16.6	208/1/60	10/47/13	1,2
IU-5	DAIKIN FTX30WVJU9	C209	WALL MOUNTED	COOLING	611	30,000	19940	80/67	56/54.2	0	R-410A	16.6	208/1/60	10/47/13	1,2
IU-6	DAIKIN FTX36WVJU9	F109	WALL MOUNTED	COOLING	635	36,000	22890	80/67	56/54.2	0	R-410A	16.6	208/1/60	10/47/13	1,2

1. UNIT COMPLETE WITH INLINE CONDENSATE PUMP, WIRELESS REMOTE, AND DIII-NET/BACNET MS/TP COMMUNICATION ADAPTOR.
2. INDOOR UNIT IS POWERED BY THE OUTDOOR UNIT.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	REFRIG.	USAGE	LOAD (BTU/H)	AIR: AMBIENT ENTERING TEMP. DB/WB (°F)	ELECTRICAL: TOTAL MCA	SEER2	HEAT PUMP CIRCUIT VOLT/PH/HZ	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
CU-1	DAIKIN POLARA RK36WMVJU9	SEE DRAWINGS	SCREW	R-410A	HEATING	0	0	16.6	15.9	208/1/60	12/34/28	1
					COOLING	36,000	95/75					
CU-2	DAIKIN POLARA RK36WMVJU9	SEE DRAWINGS	SCREW	R-410A	HEATING	0	0	16.6	15.9	208/1/60	12/34/28	1
					COOLING	36,000	95/75					
CU-3	DAIKIN POLARA RK36WMVJU9	SEE DRAWINGS	SCREW	R-410A	HEATING	0	0	16.6	15.9	208/1/60	12/34/28	1
					COOLING	36,000	95/75					
CU-4	DAIKIN POLARA RK36WMVJU9	SEE DRAWINGS	SCREW	R-410A	HEATING	0	0	16.6	15.9	208/1/60	12/34/28	1
					COOLING	36,000	95					
CU-5	DAIKIN POLARA RK30WMVJU9	SEE DRAWINGS	SCREW	R-410A	HEATING	0	0	16.6	17.5	208/1/60	12/34/28	1
					COOLING	30,000	95/75					
CU-6	DAIKIN POLARA RK36WMVJU9	SEE DRAWINGS	SCREW	R-410A	HEATING	0	0	16.6	15.9	208/1/60	12/34/28	1
					COOLING	36,000	94.1/64.7					

1. UNIT COMPLETE WITH LOW AMBIENT KIT AND HAIL GUARD.

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

VBFA
40 W. Cache Valley Blvd.
Building 1, Suite B
Logan, UT
O: (435)752-5081
www.vbfa.com
VBFA Project #: 23717

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #: 23717
DRAWN BY: Author
CHECKED BY: LW
ISSUED: 05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L. JENKINS
STATE OF UTAH

MECHANICAL SCHEDULES
M-602

PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: FLOW RATE (GPM)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PUMP: EFFICIENCY (%)	PUMP: CONSTRUCTION CASING / IMPELLER	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR BHP (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH/HZ	NOTES
P-1	TACO FI4013D	BOILER RM	BASE-MOUNTED, END SUCTION	662.9	30% P GLY	96	81	IRON / BRONZE	25	24.18	1760	460/3/60	1,4
P-2	TACO FI4013D	BOILER RM	BASE-MOUNTED, END SUCTION	662.9	30% P GLY	96	81	IRON / BRONZE	25	24.18	1760	460/3/60	1,4
P-3	TACO TA1224	CHILLER RM	HORIZ, SPLIT CASE, DBL SUCTION, SINGLE-STAGE	811.2	WATER	48	82	IRON / BRONZE	15	11.9	1760	460/3/60	2-3
P-4	TACO TA1224	CHILLER RM	HORIZ, SPLIT CASE, DBL SUCTION, SINGLE-STAGE	811.2	WATER	48	82	IRON / BRONZE	15	11.9	1760	460/3/60	2-3
P-5	TACO FI5011D	CHILLER RM	BASE-MOUNTED, END SUCTION	955	30% P GLY	103	86	IRON / BRONZE	30	29.9	1760	460/3/60	4-5
P-6	TACO FI5011D	CHILLER RM	BASE-MOUNTED, END SUCTION	955	30% P GLY	103	86	IRON / BRONZE	30	29.9	1760	460/3/60	4-5
P-7	TACO KV4007D	BOILER RM	VERTICAL, CLOSE COUPLED	315	30% P GLY	22	77	IRON / BRONZE	3	2.26	1760	460/3/60	4
P-8	TACO KV4007D	BOILER RM	VERTICAL, CLOSE COUPLED	315	30% P GLY	22	77	IRON / BRONZE	3	2.26	1760	460/3/60	4

1. UNIT COMPLETE WITH SUCTION DIFFUSER.
2. VFD BY ELECTRICAL, PROVIDE IN ACCORDANCE WITH DIV 26 SPECIFICATION. VFD TO BE PROTECTED BY NEMA 3R ENCLOSURE.
3. PROVIDE WITH TOTALLY ENCLOSED FAN COOLED (TEFC) MOTOR.
4. VFD BY ELECTRICAL, PROVIDE IN ACCORDANCE WITH DIV 26 SPECIFICATION
5. SUCTION DIFFUSER MODEL (SUCTION SIDE): SD050050, NON-GROOVED

SOUND TRAP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. H2O)	DYNAMIC INSERTION LOSS: OCTAVE BAND 1 63 HZ (DB)	OCTAVE BAND 2 125 HZ (DB)	OCTAVE BAND 3 250 HZ (DB)	OCTAVE BAND 4 500 HZ (DB)	OCTAVE BAND 5 1000 HZ (DB)	OCTAVE BAND 6 2000 HZ (DB)	OCTAVE BAND 7 4000 HZ (DB)	OCTAVE BAND 8 8000 HZ (DB)	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
DST-1			ELBOW	49871	0.5									36/88/88	
DST-2			ELBOW	58604	0.5									36/96/96	
DST-3			ELBOW	53124	0.5									36/92/92	
DST-4			ELBOW	31434	0.5									36/70/70	
DST-5			ELBOW	4220	0.5									36/26/26	
DST-6			ELBOW	13704	0.5									36/46/46	
DST-7			ELBOW	17759	0.5									36/54/54	
DST-8			ELBOW	11210	0.5									36/42/42	
DST-9			ELBOW	49236	0.5									36/88/88	
DST-10			ELBOW	13390	0.5									36/46/46	

ELECTRIC UNIT HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	USE TYPE	AIR: AIRFLOW RATE (CFM)	AIR: HEATING CAPACITY (BTU/H)	ELECTRICAL: HEATING CAPACITY (KW)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: CABINET DIMENSIONS LxWxH (IN)	PHYSICAL: WEIGHT (LBS)	NOTES
EUH-1	QMARK AWH4404F	TOILET D126	ELECTRIC	HEATING	100	5118	1.5	1/8	1550	208/1/60	4x15.75X19.252	25	(1)(2)(3)

(1) CAPACITY BASED AT 4,300 FEET ELEVATION.
(2) COMPLETE WITH FACTORY MOUNTED DISCONNECT AND BUILT-IN THERMOSTAT. SET TO 60F. FUSE PROTECTION BY DIVISION 26.
(3) UNIT COMPLETE WITH SURFACE MOUNTED BOX AND ACCESSORIES.

HYDRONIC UNIT HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	USAGE	AIR: AIRFLOW RATE (CFM)	AIR: LOAD (BTU/H)	AIR: ENTERING TEMP. DB (°F)	AIR: LEAVING TEMP. DB (°F)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/ LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	ELECTRICAL: MOTOR QUAN	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: MINIMUM NO. ROWS	NOTES
CUH-1	MODINE CW 0065	VESTIBULE F103	CAB, CEILING, MS	HEATING	495	25700	50	107.7	2	160/134	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-2	MODINE CW 0045	VESTIBULE E114	CAB, CEILING, LS	HEATING	270	12000	50	99.4	1	160/145.9	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-3	MODINE CW 0065	VESTIBULE F101	CAB, CEILING, MS	HEATING	495	25700	50	107.7	2	160/151	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-4	MODINE CW 0065	VESTIBULE C104	CAB, CEILING, MS	HEATING	495	25700	50	107.7	2	160/150	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-5	MODINE CW 0065	VESTIBULE A104	CAB, CEILING, MS	HEATING	495	25700	50	107.7	2	160/149.2	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-6	MODINE CW 0065	VESTIBULE A109	CAB, CEILING, MS	HEATING	495	25700	50	107.7	2	160/150.5	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-7	MODINE CW 0060	VESTIBULE E110	CAB, WALL, MS	HEATING	495	25700	50	107.7	2	160/134	30% P GLY	2	1	0.4	120/1/60	1	1
CUH-8	MODINE CW 0060	VESTIBULE E110	CAB, WALL, MS	HEATING	495	25700	50	107.7	2	160/134	30% P GLY	2	1	0.4	120/1/60	1	1

(1) UNIT COMPLETE WITH HIGH STATIC PSC MOTOR.

HYDRONIC SINGLE DUCT TERMINAL UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	INLET SIZE (IN)	USAGE	AIR: HEATING AIRFLOW (CFM)	AIR: MAXIMUM AIRFLOW (CFM)	AIR: MINIMUM AIRFLOW (CFM)	AIR: LOAD (BTU/H)	AIR: ENTERING TEMP. DB (°F)	AIR: LEAVING TEMP. DB (°F)	AIR: STATIC PRESSURE (IN. H2O)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/ LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PHYSICAL: MINIMUM NO. ROWS/ FINS PER INCH	SOUND: NC LEVEL: RADIATED/ DISCHARGE	NOTES
V-1.01	TITUS DESV 12	ESSENTIAL ELEMENTS B101, CALM B102, RESTROOM B103	BASIC, NO ATTEN	12	HEATING	1500	1550	428	56400	55	95.4	0.65	3.3	160/124	30% P GLY	2	3/10	20/15	
V-1.02	TITUS DESV 12	CLASSROOM B104	BASIC, NO ATTEN	12	HEATING	1600	1600	428	59300	55	94.8	0.65	3.5	160/124.3	30% P GLY	2	3/10	20/15	
V-1.03	TITUS DESV 12	CLASSROOM B105	BASIC, NO ATTEN	12	HEATING	1400	1420	428	56400	55	95.4	0.65	3.3	160/124	30% P GLY	2	3/10	18/14	
V-1.04	TITUS DESV 12	CLASSROOM A101	BASIC, NO ATTEN	12	HEATING	700	1420	315	26900	55	96.2	0.65	1.7	160/126.1	30% P GLY	2	2/10	22/20	
V-1.05	TITUS DESV 12	CLASSROOM A102	BASIC, NO ATTEN	12	HEATING	700	1420	428	27200	55	96.7	0.65	1.8	160/128	30% P GLY	2	2/10	21/17	
V-1.06	TITUS DESV 12	CLASSROOM A103	BASIC, NO ATTEN	12	HEATING	1400	1420	428	56400	55	95.4	0.65	3.3	160/124	30% P GLY	2	3/10	18/14	
V-1.07	TITUS DESV 14	CLASSROOM A105	BASIC, NO ATTEN	14	HEATING	1915	1920	559	73800	55	96.4	0.65	4.7	160/127.3	30% P GLY	2	3/10	15/14	
V-1.08	TITUS DESV 14	CLASSROOM A106	BASIC, NO ATTEN	14	HEATING	805	1660	315	31000	55	96.3	0.65	2.6	160/134.7	30% P GLY	2	2/10	24/22	
V-1.09	TITUS DESV 14	CLASSROOM A107	BASIC, NO ATTEN	14	HEATING	830	1660	315	32000	55	96.4	0.65	2.7	160/135	30% P GLY	2	2/10	24/22	
V-1.10	TITUS DESV 16	CLASSROOM A108	BASIC, NO ATTEN	16	HEATING	1930	2060	428	74400	55	96.4	0.65	4.8	160/127.6	30% P GLY	2	3/10	22/17	
V-1.11	TITUS DESV 12	SPECIAL EDUCATION A111	BASIC, NO ATTEN	12	HEATING	785	1565	219	30200	55	96.3	0.65	2.5	160/134.4	30% P GLY	2	2/10	20/18	
V-1.12	TITUS DESV 10	SPECIAL EDUCATION A112	BASIC, NO ATTEN	10	HEATING	355	975	219	14300	55	98.4	0.65	1.7	160/142.3	30% P GLY	2	2/10	20/18	
V-1.13	TITUS DESV 10	CLASSROOM A113	BASIC, NO ATTEN	10	HEATING	710	975	428	27600	55	96.7	0.65	2.3	160/134.8	30% P GLY	2	3/10	20/15	
V-1.14	TITUS DESV 14	CLASSROOM A114	BASIC, NO ATTEN	14	HEATING	710	1680	428	27600	55	96.7	0.65	2.3	160/134.8	30% P GLY	2	2/10	20/15	
V-1.15	TITUS DESV 14	CLASSROOM B106	BASIC, NO ATTEN	14	HEATING	720	1685	428	27700	55	96.4	0.65	2.3	160/134.6	30% P GLY	2	2/10	20/15	
V-1.16	TITUS DESV 12	TEACHER LOUNGE B107	BASIC, NO ATTEN	12	HEATING	660	1485	315	25400	55	96.3	0.65	2.4	160/137.5	30% P GLY	2	2/10	22/20	
V-1.17	TITUS DESV 14	SCIENCE CLASSROOM B121	BASIC, NO ATTEN	14	HEATING	1700	1800	428	63000	55	94.8	0.65	3.8	160/125.1	30% P GLY	2	3/10	20/15	
V-1.18	TITUS DESV 16	SCIENCE CLASSROOM B126, SCIENCE PREP B134	BASIC, NO ATTEN	16	HEATING	1935	2150	428	72400	55	95.2	0.65	4.7	160/127.6	30% P GLY	2	3/10	21/15	
V-1.19	TITUS DESV 14	SCIENCE CLASSROOM A116, SCIENCE PREP A119	BASIC, NO ATTEN	14	HEATING	2040	2040	428	78600	55	95.2	0.65	5.4	160/129.4	30% P GLY	2	3/10	22/17	
V-1.21	TITUS DESV 16	CORRIDOR A125, CORRIDOR B122, STAIR A126, CORRIDOR A117, STAIR A127, CORRIDOR A115, CORRIDOR A133A, STORAGE A128, CUSTODIAN A129, CORRIDOR A114A, CORRIDOR B120	BASIC, NO ATTEN	16	HEATING	220	2130	428	8200	55	95	0.65	1.4	160/147.7	30% P GLY	2	2/10	22/17	
V-2.01	TITUS DESV 12	CLASSROOM B201	BASIC, NO ATTEN	12	HEATING	1120	1400	315	43200	55	96.4	0.65	2.9	160/128.4	30% P GLY	2	3/10	23/21	
V-2.02	TITUS DESV 12	CLASSROOM B204	BASIC, NO ATTEN	12	HEATING	1120	1400	428	56400	55	95.4	0.65	3.3	160/124	30% P GLY	2	3/10	18/14	
V-2.03	TITUS DESV 12	CLASSROOM B205	BASIC, NO ATTEN	12	HEATING	1120	1400	428	56400	55	95.4	0.65	3.3	160/124	30% P GLY	2	3/10	18/14	
V-2.04	TITUS DESV 12	CLASSROOM A201	BASIC, NO ATTEN	12	HEATING	1095	1400	315	42200	55	96.4	0.65	2.8	160/128.1	30% P GLY	2	3/10	23/21	
V-2.05	TITUS DESV 12	CLASSROOM A202	BASIC, NO ATTEN	12	HEATING	1400	1400	428	56400	55	95.4	0.65	3.3	160/124	30% P GLY	2	3/10	18/14	
V-2.06	TITUS DESV 14	CLASSROOM A203	BASIC, NO ATTEN	14	HEATING	1700	1710	559	74500	55	95	0.65	4.9	160/128	30% P GLY	2	3/10	16/14	
V-2.07	TITUS DESV 16	CLASSROOM A205	BASIC, NO ATTEN	16	HEATING	2340	2340	559	89700	55	96.4	0.65	4.5	160/118.5	30% P GLY	2	3/10	17/16	
V-2.08	TITUS DESV 14	CLASSROOM A206	BASIC, NO ATTEN	14	HEATING	1235	1830	428	48500	55	97.2	0.65	2.8	160/123.5	30% P GLY	2	2/10	21/15	
V-2.09	TITUS DESV 14	CLASSROOM A207	BASIC, NO ATTEN	14	HEATING	1240	1830	428	47800	55	96.4	0.65	3.8	160/133.7	30% P GLY	2	2/10	21/15	
V-2.10	TITUS DESV 16	CLASSROOM A208	BASIC, NO ATTEN	16	HEATING	2300	2340	559	90300	55	97.2	0.65	4.5	160/118.4	30% P GLY	2	3/10	17/16	
V-2.11	TITUS DESV 14	CLASSROOM A211	BASIC, NO ATTEN	14	HEATING	1690	1800	428	65100	55	96.4	0.65	3.9	160/125.2	30% P GLY	2	3/10	21/15	
V-2.12	TITUS DESV 14	CLASSROOM A213	BASIC, NO ATTEN	14	HEATING	1800	1800	559	74500	55	95	0.65	4.9	160/128	30% P GLY	2	3/10	16/14	
V-2.13	TITUS DESV 14	CLASSROOM A214	BASIC, NO ATTEN	14	HEATING	1800	1800	559	70600	55	94.9	0.65	4.5	160/127	30% P GLY	2	3/10	15/14	
V-2.14	TITUS DESV 14	CLASSROOM B206	BASIC, NO ATTEN	14	HEATING	1105	1810	428	42600	55	96.4	0.65	3.2	160/132.2	30% P GLY	2	2/10	21/15	
V-2.15	TITUS DESV 14	CLASSROOM B207	BASIC, NO ATTEN	14	HEATING	1300	1810	428	49100	55	95.6	0.65	2.8	160/123	30% P GLY	2	2/10	21/15	
V-2.16	TITUS DESV 12	SCIENCE CLASSROOM B221	BASIC, NO ATTEN	12	HEATING	800	1400	315	30000	55	95.3	0.65	2.5	160/134.8	30% P GLY	2	2/10	20/18	
V-2.17	TITUS DESV 14	SCIENCE CLASSROOM B226, SCIENCE PREP B224	BASIC, NO ATTEN	14	HEATING	1760	1760	559	82900	55	95.1	0.65	5.6	160/128.9	30% P GLY	2	3/10	17/16	
V-2.20	TITUS DESV 16	CORRIDOR A225, CORRIDOR B222, STORAGE A204, CORRIDOR A217, CORRIDOR A233B, CORRIDOR A215, CORRIDOR A214B, CORRIDOR B220, STORAGE A218, STAIR A229, STORAGE A209	BASIC, NO ATTEN	16	HEATING	1465	2600	559	28300	55	75.7	0.65	2.9	160/140	30% P GLY	2	3/10	23/22	
V-2.21	TITUS DESV 14	SCIENCE CLASSROOM A216, SCIENCE PREP A219	BASIC, NO ATTEN	14	HEATING	1650	1650	428	80100	55	95	0.65	5.3	160/128.3	30% P GLY	2	2/10	22/17	
V-2.22	TITUS DESV 10	RESTROOM A223, MALE A221, FEMALE A222, RESTROOM A224	BASIC, NO ATTEN	10	HEATING	500	500	315	37400	55	94.8	0.65	2.4	160/127.2	30% P GLY	2	2/10	19/18	
V-3.01	TITUS DESV 14	SHARED STORAGE C102, CCA SHOP C103	BASIC, NO ATTEN	14	HEATING	1095	1975	428	42100	55	96.3	0.65	3.2	160/132.3	30% P GLY	2	2/10	21/15	
V-3.02	TITUS DESV 12	MAKER SPACE C101	BASIC, NO ATTEN	12	HEATING	800	1510	428	31200	55	96.9	0.65	2.3	160/131.5	30% P GLY	2	2/10	18/14	
V-3.03.A	TITUS DESV 16	MEDIA CENTER C115, STORAGE C113, OFFICE C114	BASIC, NO ATTEN	16	HEATING	2084	2400	0	28200	55	71.6	0.65	2.9	160/140	30% P GLY	2	3/10	0/0	
V-3.03.B	TITUS DESV 16	MEDIA CENTER C115, STORAGE C113, OFFICE C114	BASIC, NO ATTEN	16	HEATING	2084	2400	0	28200	55	71.6	0.65	2.9	160/140	30% P GLY	2	3/10	0/0	
V-3.03.C	TITUS DESV 12	MEDIA CENTER C115, STORAGE C113, OFFICE C114	BASIC, NO ATTEN	12	HEATING	1316	1500	0	28200	55	71.6	0.65	2.9	160/140	30% P GLY	2	3/10	0/0	
V-3.04	TITUS DESV 14	FORUM C116, STORAGE C118	BASIC, NO ATTEN	14	HEATING	2100	2100	559	80800	55	95	0.65	5.4	160/128.5	30% P GLY	2	3/10	17/15	
V-3.05	TITUS DESV 12	SCHOOL STORE C120, FACULTY RESTROOM B115, FACULTY RESTROOM B114, CUSTODIAN C119, CORRIDOR C117, CORRIDOR C105	BASIC, NO ATTEN	12	HEATING	320	1320	315	11900	55	94.8	0.65	1.9	160/146.9	30% P GLY	2	1/10	22/20	
V-3.06	TITUS DESV 6	FEMALE B119, TOILET B118, MALE B116, TOILET B117	BASIC, NO ATTEN	8	HEATING	500	500	315	37400	55	94.8	0.65	2.4	160/127.2	30% P GLY	2	3/10	19/18	
V-3.07	TITUS DESV 06	COUNSELOR/ RESOURCE OFFICER B109, STORAGE B111	BASIC, NO ATTEN	6	HEATING	100	100	79	5600	55	95	0.65	1.9	160/153.8	30% P GLY	2	1/10	10/0	
V-3.08	TITUS DESV 6	FACULTY WORKROOM B108, STORAGE B110	BASIC, NO ATTEN	6	HEATING	240	240	140	12300	55	95.7	0.65	1.2	160/138.5	30% P GLY	2	2/10	14/15	
V-3.09	TITUS DESV 10	CORRIDOR C106, STAIR C107	BASIC, NO ATTEN	10	HEATING	820	890	315	30800	55	95.4	0.65	2.6	160/135.1	30% P GLY	2	3/10	18/17	
V-3.11	TITUS DESV 06	OFFICE C108, OFFICE C109, STORAGE C110, CORRIDOR C111	BASIC, NO ATTEN	6	HEATING	135	345	79	5100	55	95.6	0.65	1.2	160/151.2	30% P GLY	2	1/10	15/14	
V-3.13	TITUS DESV 14	FCS C203, SHARED STORAGE C202	BASIC, NO ATTEN	14	HEATING	1510	1645	428	58300	55	96.4	0.65	3.4	160/124	30% P GLY	2	2/10	19/14	
V-3.14	TITUS DESV 14	MAKER SPACE C201	BASIC, NO ATTEN	14	HEATING	1685	1680	428	65000	55	96.4	0.65	3.9	160/125.2	30% P GLY	2	3/10	20/15	
V-3.15	TITUS DESV 10	STORAGE / ROOF ACCESS C217, STAIR C215, CORRIDOR C220	BASIC, NO ATTEN	10	HEATING	890	890	315	29500	55	96.4	0.65	2.4	160/134	30% P GLY	2	3/10	17/15	
V-3.16	TITUS DESV 10	CLASSROOM C224	BASIC, NO ATTEN	10	HEATING	700	1000	315	26300	55	95.4	0.65	2.1	160/133.7	30% P GLY	2	3/10	18/17	
V-3.17	TITUS DESV 10	CLASSROOM C222	BASIC, NO ATTEN	10	HEATING	700	1000	315	26300	55	95.4	0.65	2.1	160/133.7	30% P GLY	2	3/10	18/17	
V-3.18	TITUS DESV 10	CLASSROOM C219	BASIC, NO ATTEN	10	HEATING	770	1000	315	28500	55	94.8	0.65	2.3	160/133.9	30% P GLY	2	3/10	17/15	
V-3.19	TITUS DESV 14	CLASSROOM C218	BASIC, NO ATTEN	14	HEATING	1635	1650	428	63000	55	96.4	0.65	3.8	160/125	30% P GLY	2	2/10	20/15	
V-3.20	TITUS DESV 14	STOR. C214, SPECIAL EDUCATION C216	BASIC, NO ATTEN	14	HEATING	1610	1640	428	62000	55	96.4	0.65	3.7	160/124.7	30% P GLY	2	2/10	20/15	
V-3.21	TITUS DESV 12	DIGITAL LITERACY C213	BASIC, NO ATTEN	12	HEATING	800	1475	315	30800	55	96.3	0.65	2.5	160/134.8	30% P GLY	2	2/10	22/20	
V-3.22	TITUS DESV 8	ESL C211	BASIC, NO ATTEN	8	HEATING	500	500	219	22200	55	94.8	0.65	3	160/144.5	30% P GLY	2	3/10	20/18	
V-3.23	TITUS DESV 8	ESL C210	BASIC, NO ATTEN	8	HEATING	500	500	219	22200	55	94.8	0.65	3	160/144.5	30% P GLY	2	3/10	20/18	
V-3.24	TITUS DESV 06	OFFICE C206, CUST/OFFICE C208, OFFICE C207	BASIC, NO ATTEN	6	HEATING	300	300	79	5000	55	95	0.65	1.2	160/151.2	30% P GLY	2	2/10	13/11	
V-3.25	TITUS DESV 10	A/V BOOTH C209, STOR. C212	BASIC, NO ATTEN	8	HEATING	283	800	140	10900	55	96.4	0.65	1.2	160/141.2	30% P GLY	2	2/10	23/20	
V-3.26	TITUS DESV 16	CUSTODIAN B213, CORRIDOR C223, FACULTY RESTROOM B215, STORAGE C221, STAIR C225, FACULTY RESTROOM B214, COORIDOR C205	BASIC, NO ATTEN	16	HEATING	1911	2280	559	73700	55	96.4	0.65	4.7	160/127.3	30% P GLY	2	3/10	17/16	
V-3.27	TITUS DESV 10	AMP B208, STORAGE B210	BASIC, NO ATTEN	10	HEATING	550	920	219	21200	55	96.3	0.65	2.1	160/139.4	30% P GLY	2	2/10	20/18	
V-3.28	TITUS DESV 08	SLP B209	BASIC, NO ATTEN	8	HEATING	430	650	140	16100	55	95.3	0.65	1.7	160/140.1	30% P GLY	2	2/10	20/18	
V-3.29	TITUS DESV 6	FEMALE B219, TOILET B218, MALE B216, TOILET B217	BASIC, NO ATTEN	6	HEATING	349	500	219	14200	55	98.7	0.65	1.7	160/142.5	30% P GLY	2	3/10	23/20	
V-3.30	TITUS DESV 10	SPECIAL EDUCATION C204	BASIC, NO ATTEN	10	HEATING	680	680	219	26200	55	96.4	0.65	2.5	160/138.5	30% P GLY	2	3/10	20/19	
V-4.03	TITUS DESV 10	STACKED CHAIR STORAGE D122, STORAGE D123, M. DRESS D103, F. DRESS D120	BASIC, NO ATTEN	10	HEATING	650	650	140	19700	55	87.8	0.65	1.9	160/137.9	30% P GLY	2	3/10	22/19	
V-4.04	TITUS DESV 10	PERFORMING ARTS LIBRARY D124, CORRIDOR D121	BASIC, NO ATTEN	10	HEATING	725	725	140	22200	55	87.8	0.65	1.8	160/134	30% P GLY	2	3/10	23/20	
V-4.05	TITUS DESV 10	LUNCH ACCOUNTS D139, TABLE STORAGE D134	BASIC, NO ATTEN	10	HEATING	990	990	219	30200	55	87.8	0.65	1.9	160/127.3	30% P GLY	2	3/10	22/19	
V-5.01	TITUS DESV 14	DISH WASH D133, A LA CARTE D131, SERVING D130, KITCHEN D127, LAUNDRY D125, TOILET D126, DRY STORAGE 129	BASIC, NO ATTEN	12	HEATING	1490	1490	559	73500	55	96.4	0.65	4.7	160/127.4	30% P GLY	2	3/10	18/17	
V-5.02	TITUS DESV 14	DISH WASH D133, A LA CARTE D131, SERVING D130, KITCHEN D127, LAUNDRY D125, TOILET D126	BASIC, NO ATTEN	14	HEATING	1475	1475	559	73500	55	96.4	0.65	4.7	160/127.4	30% P GLY	2	2/10	18/17	
V-5.03	TITUS DESV 6	OFFICE D132	BASIC, NO ATTEN	6	HEATING	100	100	219	21200	55	96.4	0.65	1.9	160/136.2	30% P GLY	2	1/10	20/17	
V-6.01	TITUS DESV 16	BAND D119	BASIC, NO ATTEN	16	HEATING	2040	2040	428	94000	55	95.4	0.65	4.8	160/118.7	30% P GLY	2	3/10	23/18	
V-6.02	TITUS DESV 14	CHOIR / DRAMA D111	BASIC, NO ATTEN	14	HEATING	1200	1750	428	48100	55	98.1	0.65	2.8	160/123.8	30% P GLY	2	2/10	21/15	
V-6.03	TITUS DESV 10	OFFICE D117, OFFICE D116, LIBRARY D115, PRACTICE / STORAGE D112, LIBRARY D114, PRACTICE D113	BASIC, NO ATTEN	10	HEATING	400	600	79	14900	55	95.1	0.65	1.2	160/133.8	30% P GLY	2	2/10	23/20	
V-6.04	TITUS DESV 14	OFFICE D110, PRACTICE D109, ORCHESTRA GUITAR D108	BASIC, NO ATTEN	14	HEATING	1665	2021	428	64000	55	96.3	0.65	3.8	160/124.9	30% P GLY	2	3/10	22/17	
V-6.05	TITUS DESV 16	ART / CERAMICS E125	BASIC, NO ATTEN	16	HEATING	2465	2465	559	95100	55	96.5	0.65	4.8	160/118.6	30% P GLY	2	3/10	18/17	
V-7.01	TITUS DESV 6	COUNSELOR E101, COUNSELOR E104	BASIC, NO ATTEN	6	HEATING	170	300	107	6300	55	95	0.65	1.1	160/147.9	30% P GLY	2	1/10	14/15	
V-7.02	TITUS DESV 10	COUNSELOR E105, COUNSELOR E103	BASIC, NO ATTEN	10	HEATING	790	820	219	30300	55	96.3	0.65	2.5	160/134.3	30% P GLY	2	3/10	20/18	
V-7.03	TITUS DESV 10	CONFERENCE E108, STORAGE E106	BASIC, NO ATTEN	10	HEATING	620	930	219	23900	55	96.5	0.65	2.5	160/140.4	30% P GLY	2	3/10	22/19	
V-7.04	TITUS DESV 08	RECEPTION E107, CORRIDOR E100, STORAGE E102	BASIC, NO ATTEN	8	HEATING	325	590	140	12400	55	96	0.65	1.4	160/141.7	30% P GLY	2	2/10	19/18	
V-7.05	TITUS DESV 14	RECEPTION E111, STORAGE E119, HEAD SEC E113, NURSE E114, TOILET E118, CORRIDOR E120, TOILET E117, CORRIDOR E121, SICK E116	BASIC, NO ATTEN	14	HEATING	1085	1815	428	41700	55	96.3	0.65	3.2	160/132.4	30% P GLY	2	2/10	21/15	
V-7.06	TITUS DESV 14	ASSISTANT PRINCIPAL E115, ASSISTANT PRINCIPAL E112	BASIC, NO ATTEN	14	HEATING	980	1720	428	37700	55	96.4	0.65	2.8	160/131.5	30% P GLY	2	2/10	20/15	
V-7.07	TITUS DESV 12	PRINCIPAL E123	BASIC, NO ATTEN	12	HEATING	1240	1600	428	48600	55	97.1	0.65	2.8	160/123.5	30% P GLY	2	3/10	20/15	
V-7.08	TITUS DESV 12	CONFERENCE E122	BASIC, NO ATTEN	12	HEATING	565	1200	315	21700	55	96.3	0.65	1.9	160/136.5	30% P GLY	2	2/10	20/18	
V-7.09	TITUS DESV 12	CORRIDOR E109, CORRIDOR D106	BASIC, NO ATTEN	12	HEATING	1175	1600	428	45200	55	96.4	0.65	3.1	160/129.1	30% P GLY	2	3/10	20/15	
V-8.01 A	TITUS DESV 16	CORRIDOR F117, CORRIDOR F102, CORRIDOR D107	BASIC, NO ATTEN	6	HEATING	250	360	838	92700	55	96.4	0.65	4.6	160/118.2	30% P GLY	2	2/10	39/27	
V-8.01 B	TITUS DESV 16	CORRIDOR F117, CORRIDOR F102, CORRIDOR D107	BASIC, NO ATTEN	16	HEATING	1077	1550	838	92700	55	96.4	0.65	4.6	160/118.2	30% P GLY	2	2/10	39/27	
V-8.01 C	TITUS DESV 16	CORRIDOR F117, CORRIDOR F102, CORRIDOR D107	BASIC, NO ATTEN	16	HEATING	1077	1550	838	92700	55	96.4	0.65	4.6	160/118.2	30% P GLY	2	2/10	39/27	
V-8.02 A	TITUS DESV 16	TOILET/SHOWER F119, PE OFFICE F118, TOILETS F122, TOILET F126, TOILET F123, JANITOR F124, SHOWERS F121, MALE F125, FEMALE F127, GIRLS LOCKER ROOM F120	BASIC, NO ATTEN	16	HEATING	1180	1550	559	47400	55	98.1	0.65	3.4	160/130.7	30% P GLY	2	2/10	22/21	
V-8.02 B	TITUS DESV 16	TOILET/SHOWER F114, TOILETS F113, PE OFFICE F116, SHOWERS F112, BOYS LOCKER ROOM F115	BASIC, NO ATTEN	16	HEATING	1180	1550	559	47400	55	98.1	0.65	3.4	160/130.7	30% P GLY	2	2/10	22/21	
V-8.03	TITUS DESV 12	HEALTH / CLASSROOM F111	BASIC, NO ATTEN	12	HEATING	1060	1200	315	40800	55	96.4	0.65	2.6	160/127.8	30% P GLY	2	3/10	20/18	

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CACHE COUNTY SCHOOL DISTRICT

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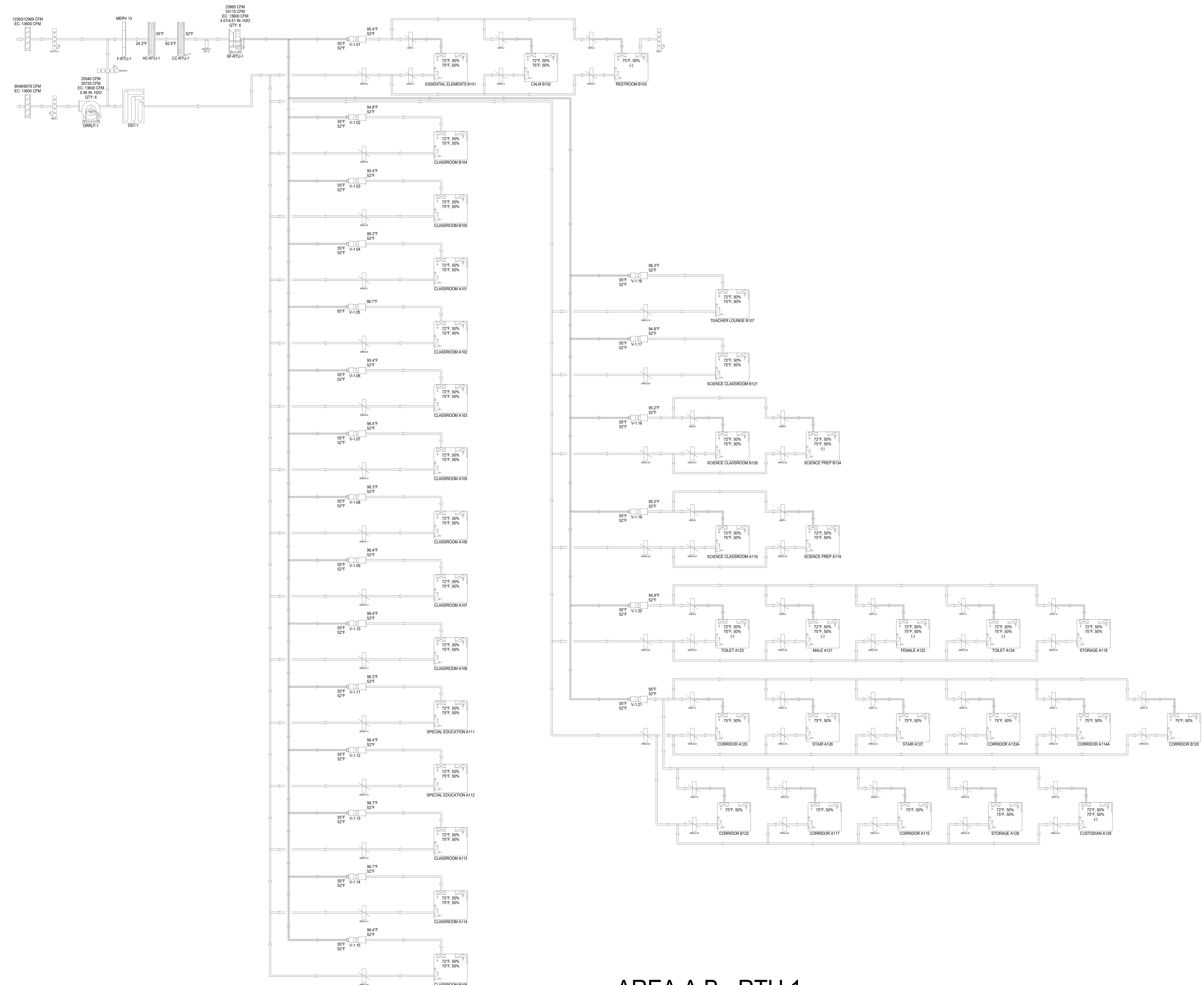
ISSUED: 05/02/2024

CONSTRUCTION DOCUMENTS

MECHANICAL SCHEDULES

M-603



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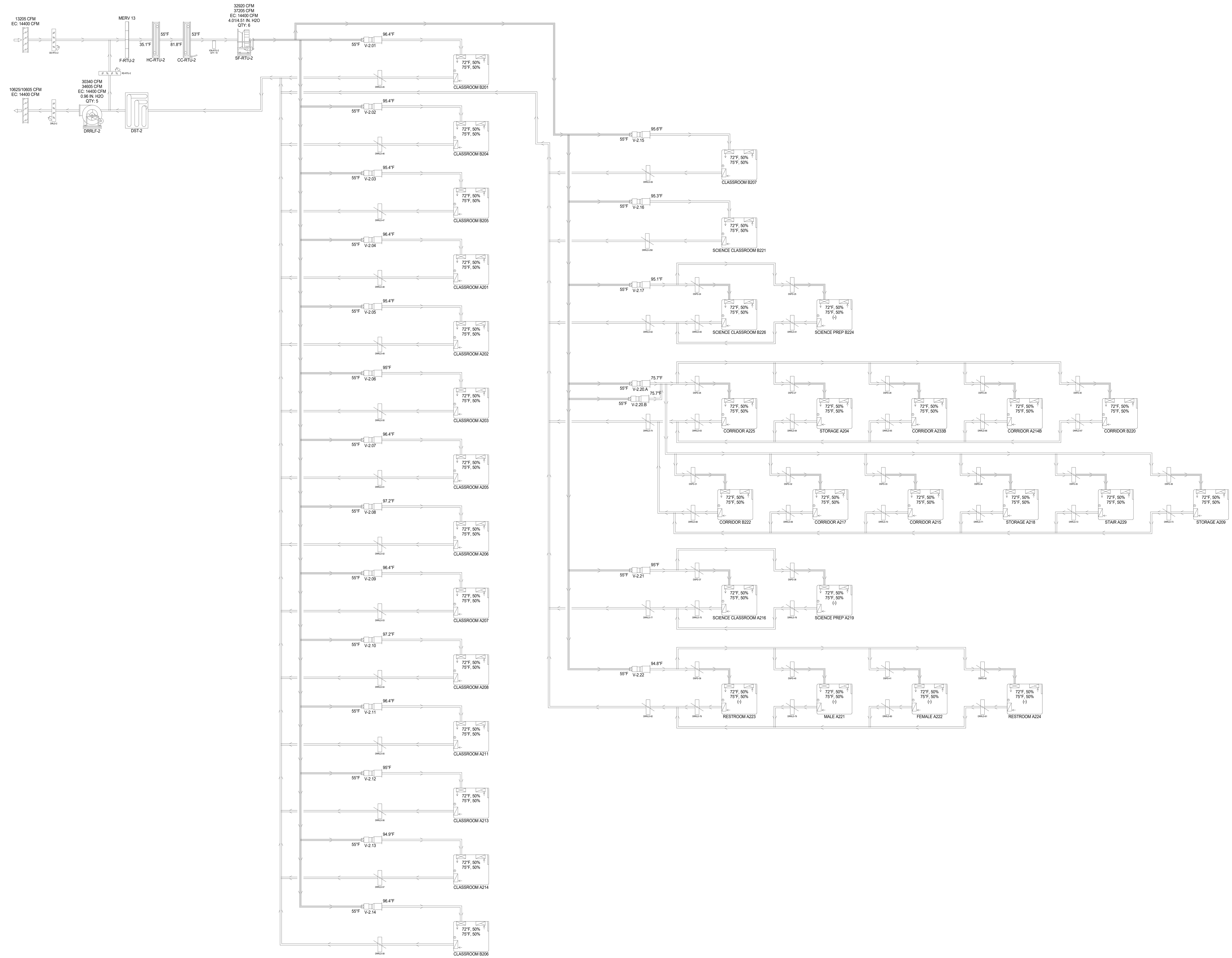
MECHANICAL SCHEMATICS

M-701



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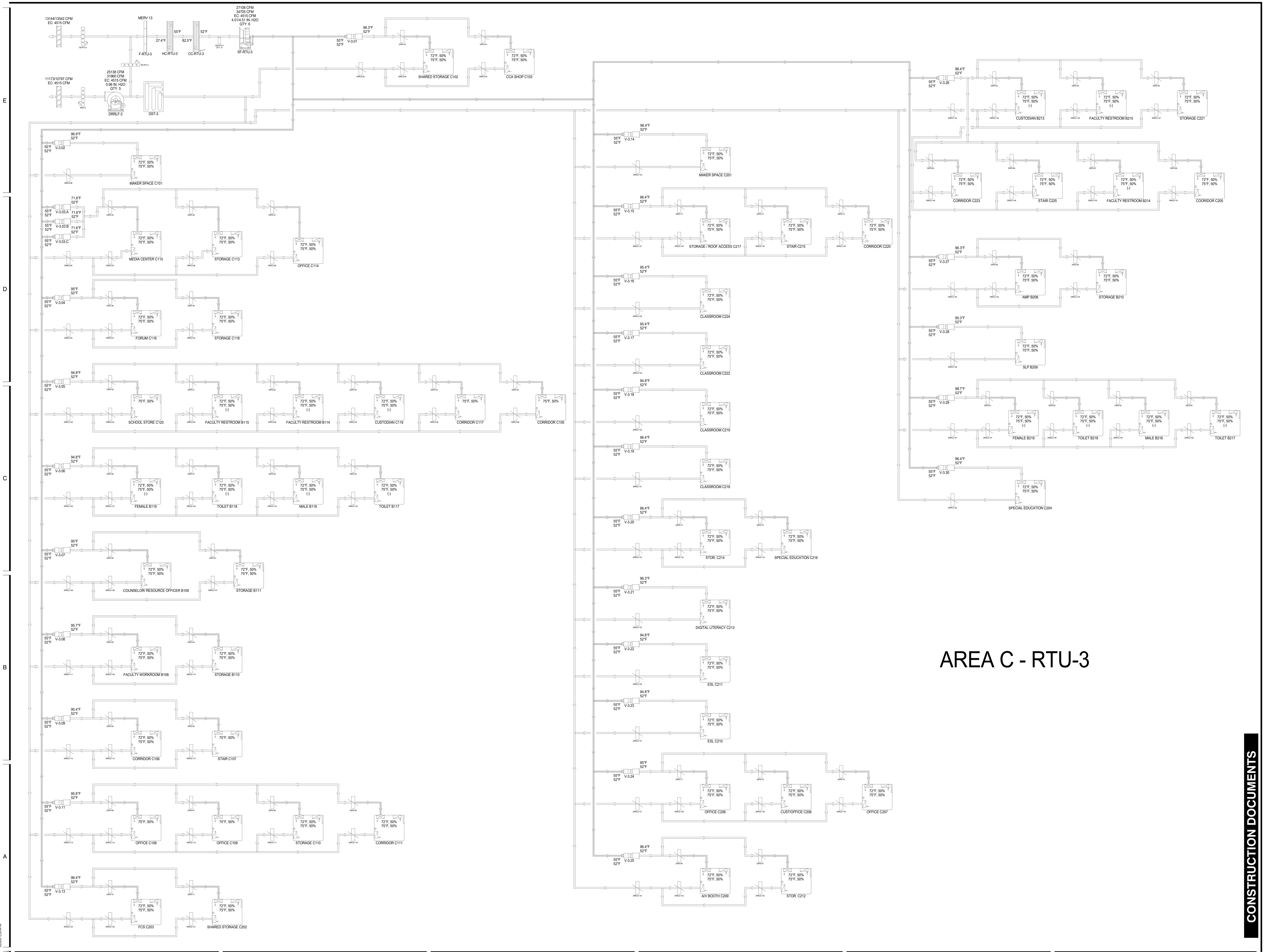
MECHANICAL SCHEMATICS

M-702



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NIBLEY MIDDLE SCHOOL

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MECHANICAL SCHEMATICS

M-703

AREA D - RTU-4, RTU-5, RTU-6

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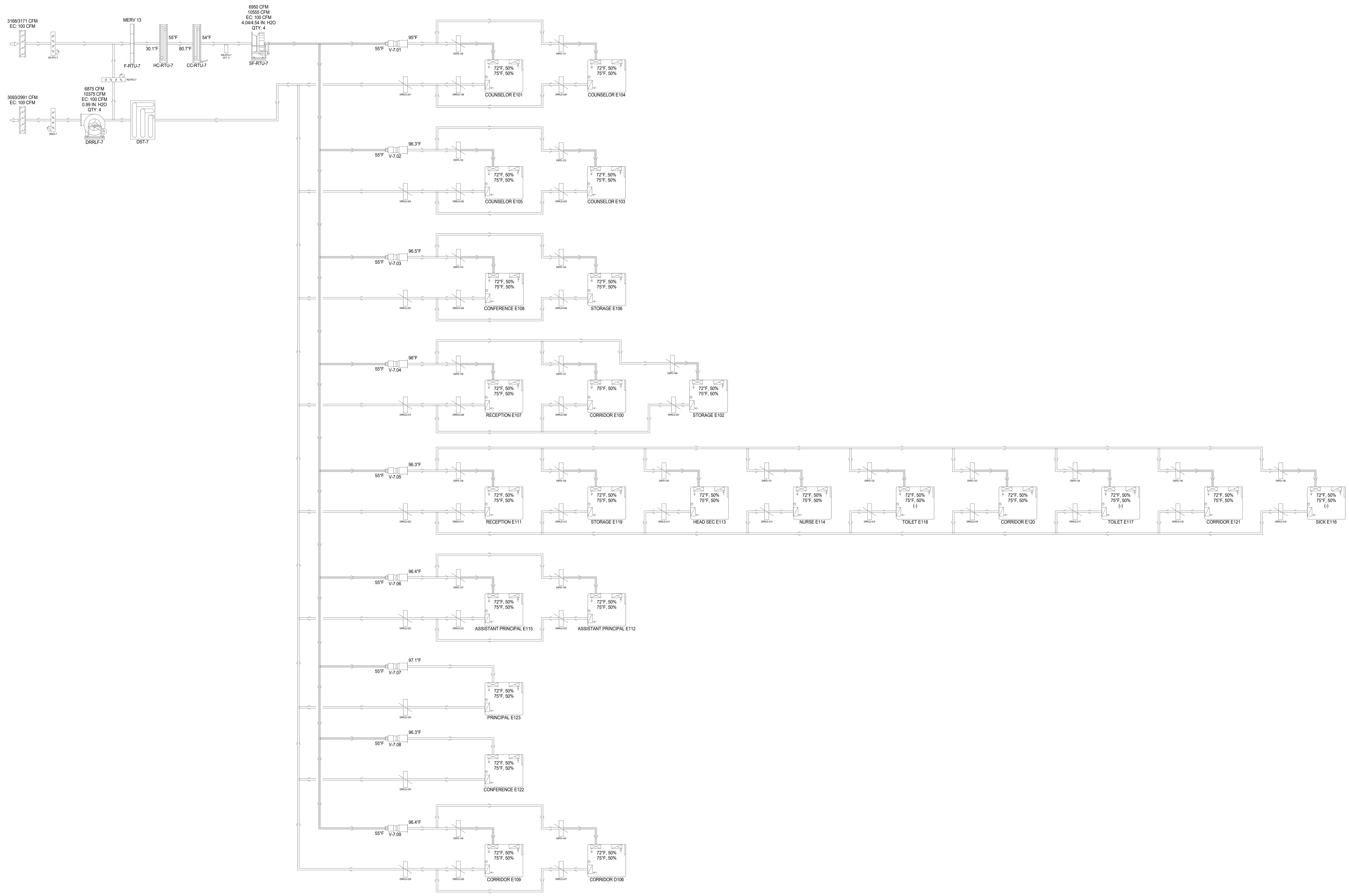
MECHANICAL SCHEMATICS
M-704



AREA E - RTU-7

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795 NORTH 400 WEST
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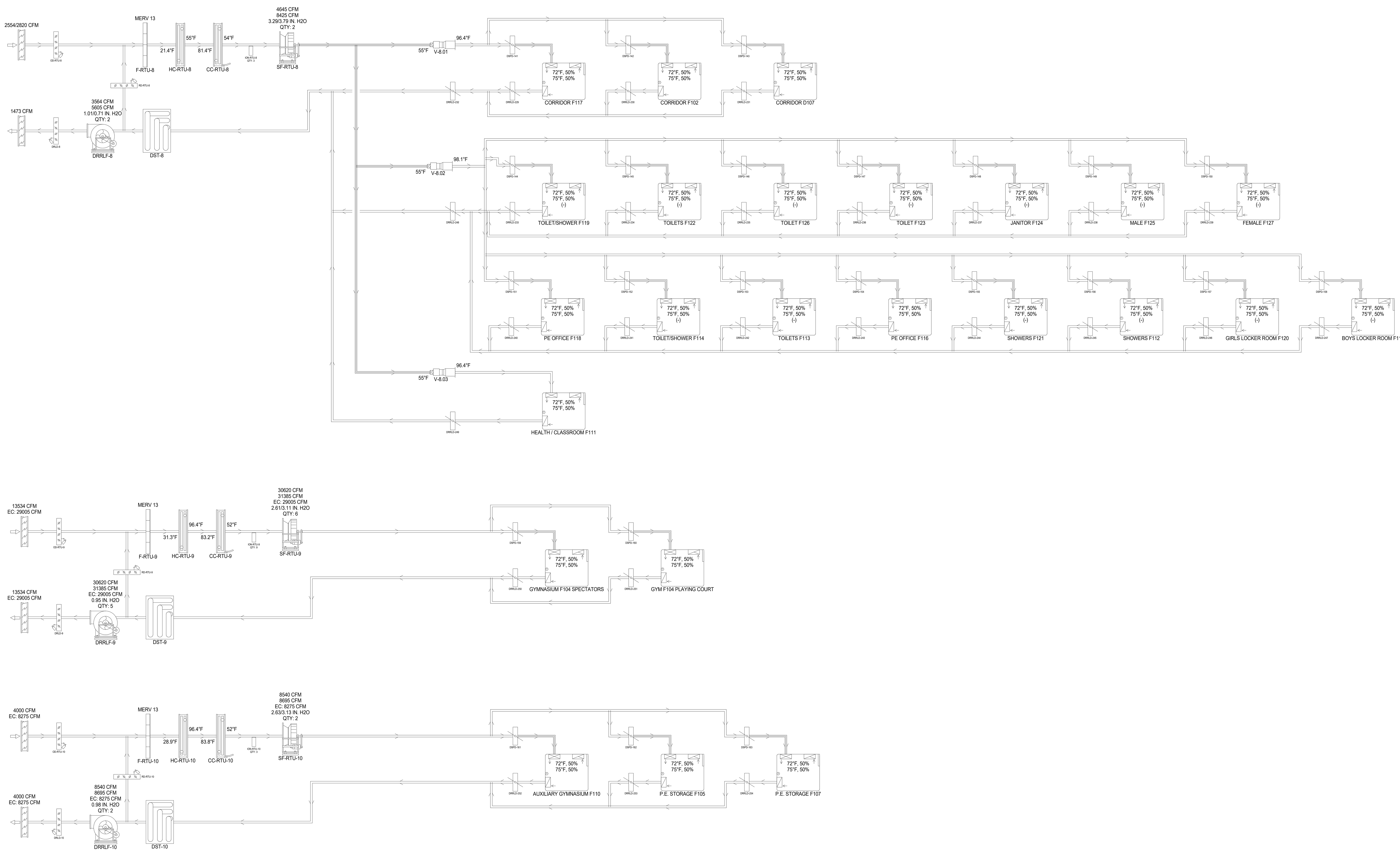
MECHANICAL SCHEMATICS

M-705



AREA F - RTU-8, RTU-9 , RTU-10

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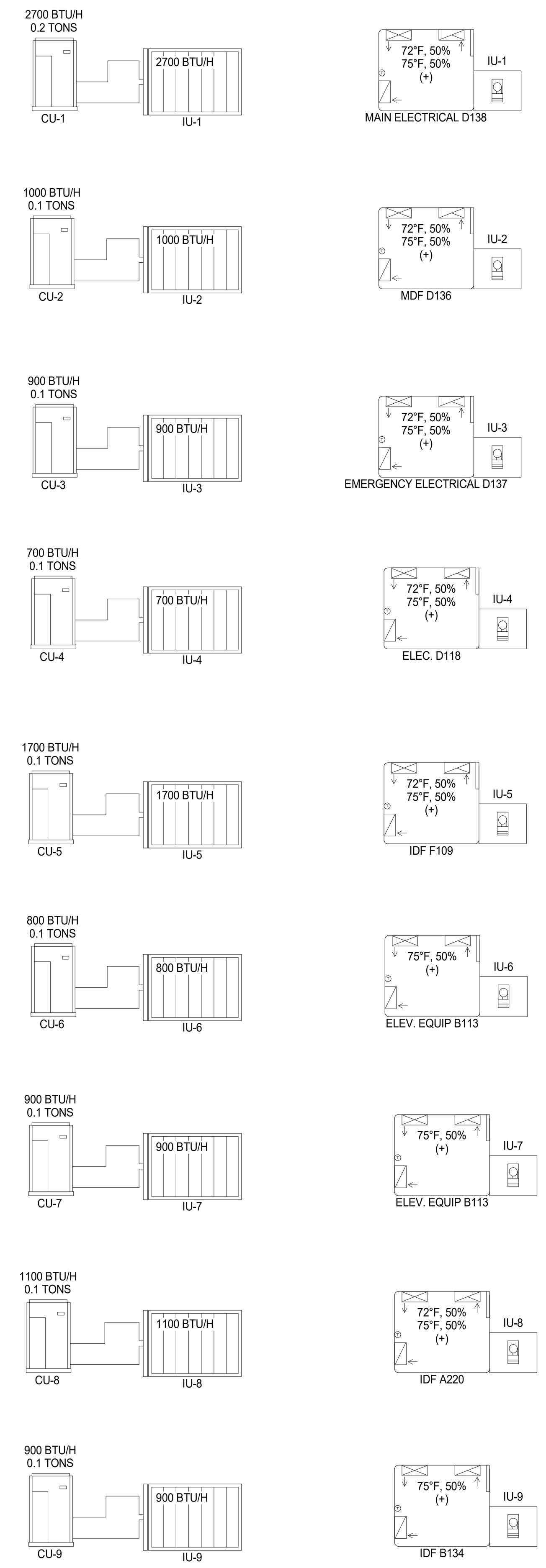
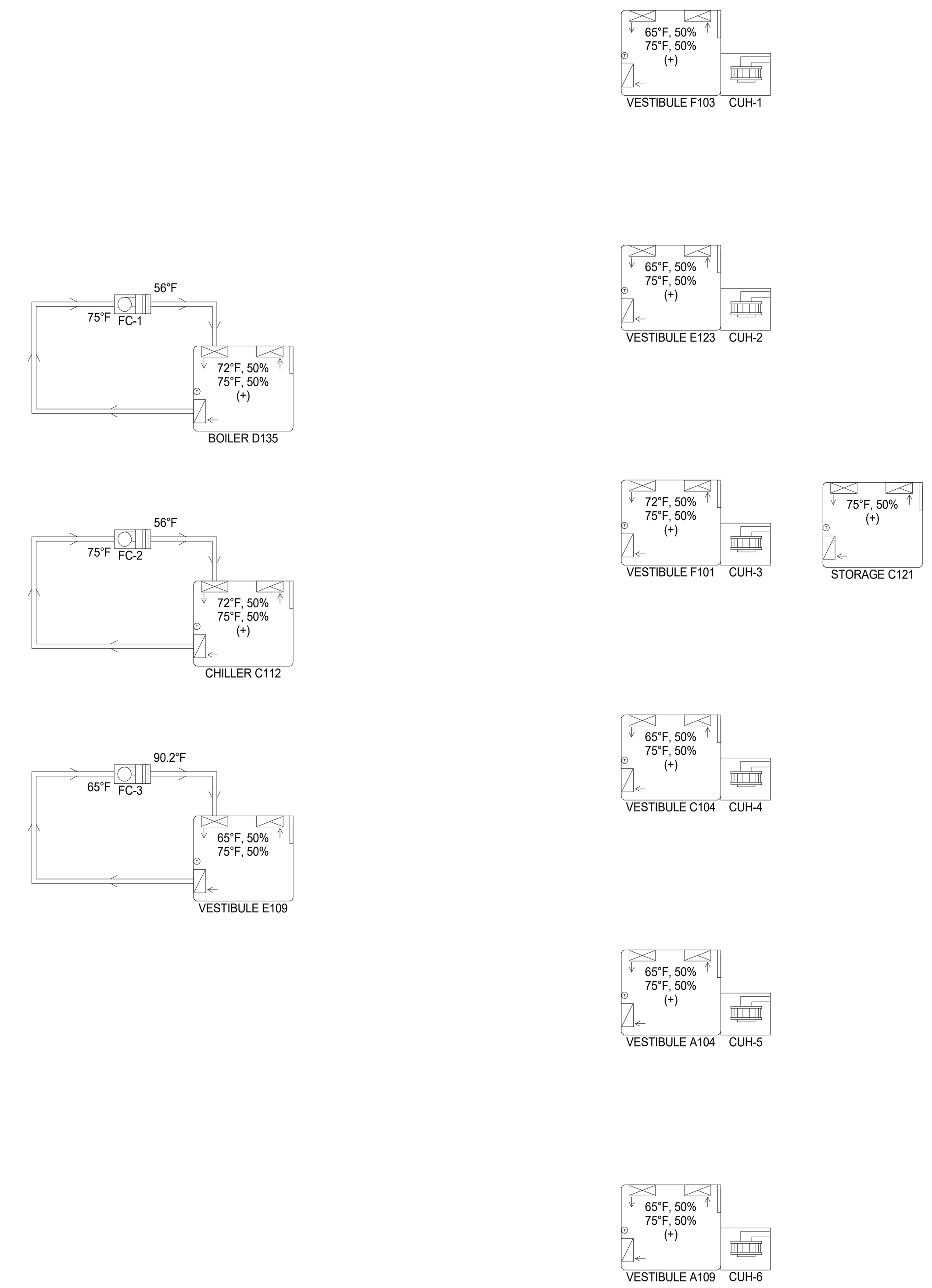
MECHANICAL SCHEMATICS

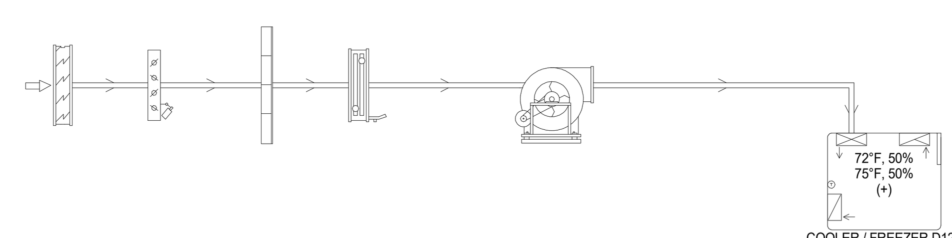
M-706



HEAT PUMPS - COOLING ONLY



VESTIBULE - HEATING ONLY



KITCHEN FREEZER - FOR REFERENCE ONLY

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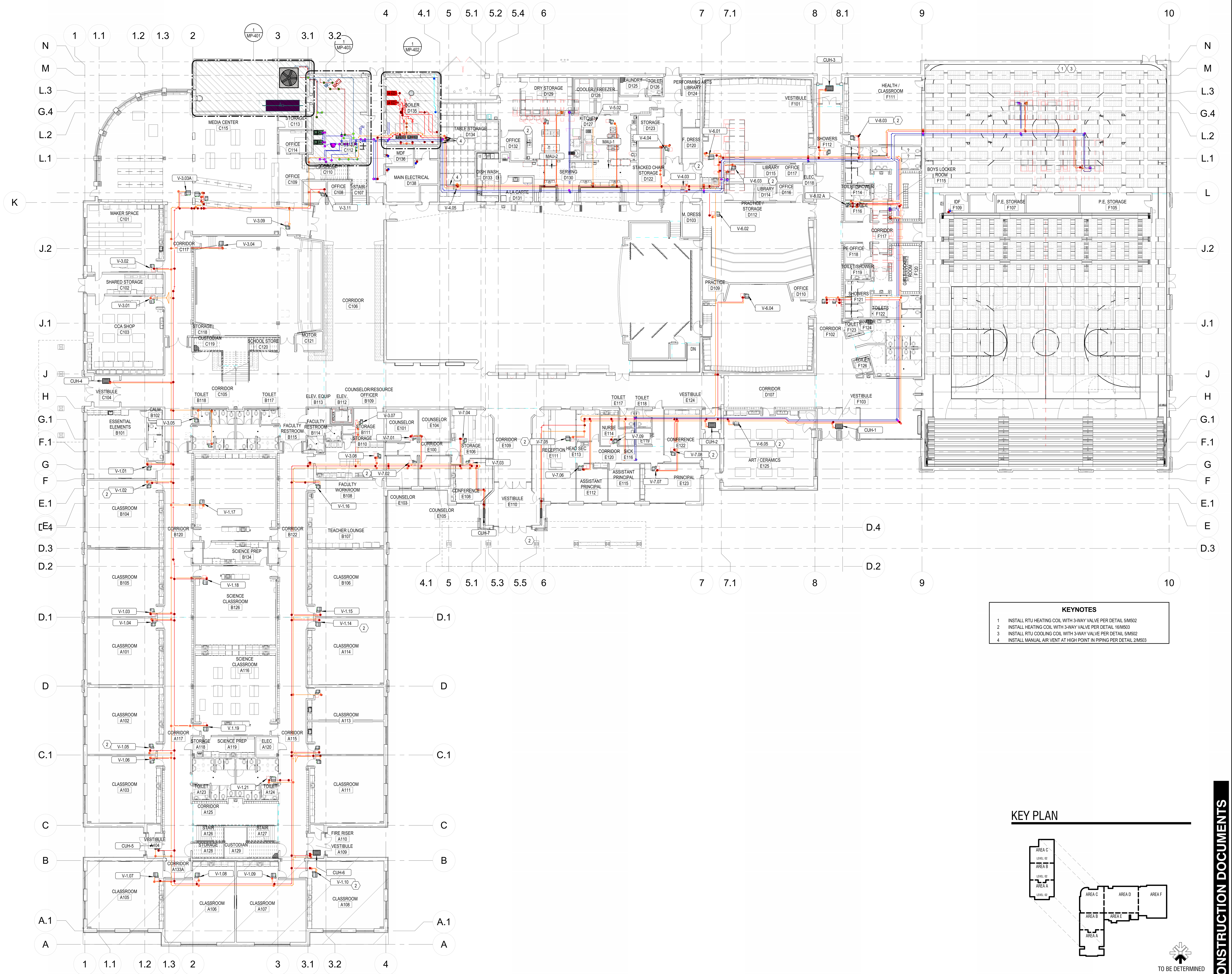
MECHANICAL SCHEMATICS

M-707



1 MP-101 MECHANICAL PIPING PLAN - LEVEL 01 - OVERALL
1/16" = 1'-0"

KEYNOTES

1	INSTALL RTU HEATING COIL WITH 3-WAY VALVE PER DETAIL 5/M502
2	INSTALL HEATING COIL WITH 3-WAY VALVE PER DETAIL 16/M503
3	INSTALL RTU COOLING COIL WITH 3-WAY VALVE PER DETAIL 5/M502
4	INSTALL MANUAL AIR VENT AT HIGH POINT IN PIPING PER DETAIL 2/M503

KEY PLAN

TO BE DETERMINED

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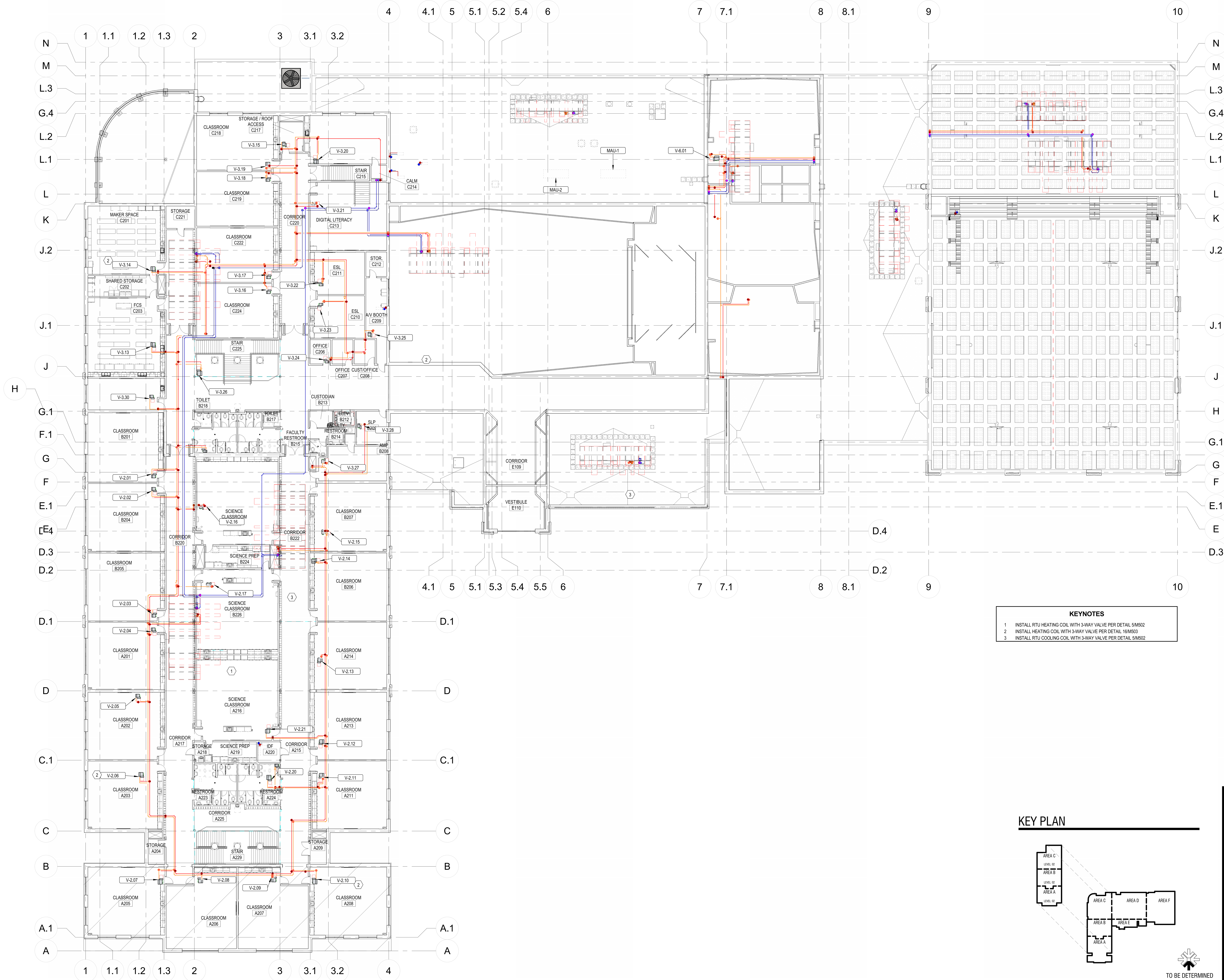
MECHANICAL PIPING PLAN - LEVEL 01 - OVERALL

MP-101



KEYNOTES

1	INSTALL RTU HEATING COIL WITH 3-WAY VALVE PER DETAIL 5/M502
2	INSTALL HEATING COIL WITH 3-WAY VALVE PER DETAIL 16/M503
3	INSTALL RTU COOLING COIL WITH 3-WAY VALVE PER DETAIL 5/M502

KEY PLAN

TO BE DETERMINED

1 MP-102 MECHANICAL PIPING PLAN - LEVEL 02 - OVERALL
1/16" = 1'-0"

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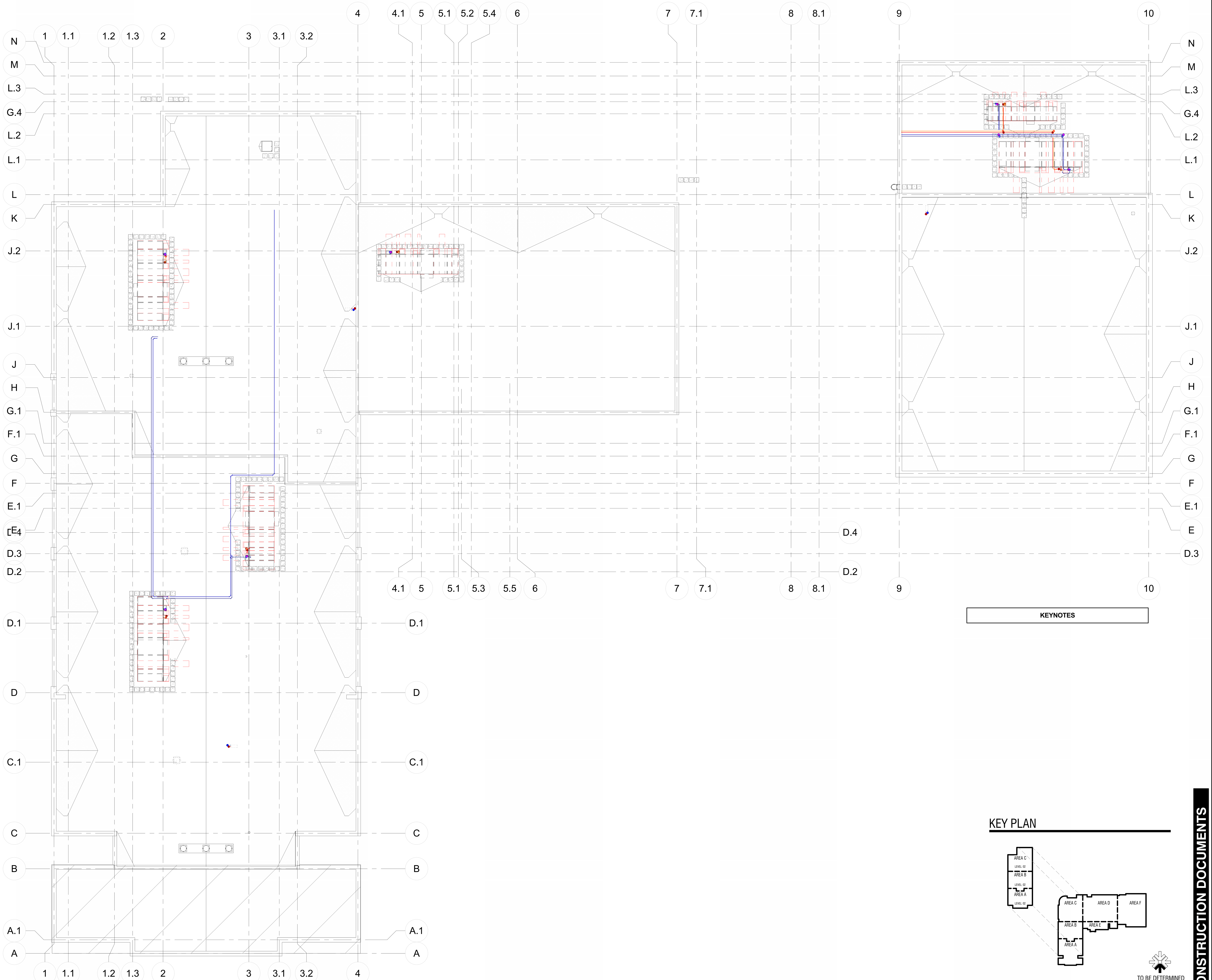
ISSUED: 05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

CONSTRUCTION DOCUMENTS

MECHANICAL PIPING PLAN - LEVEL 02 - OVERALL

MP-102



KEYNOTES

KEY PLAN

TO BE DETERMINED

1 MP-103 MECHANICAL PIPING PLAN - ROOF - OVERALL
1/16" = 1'-0"

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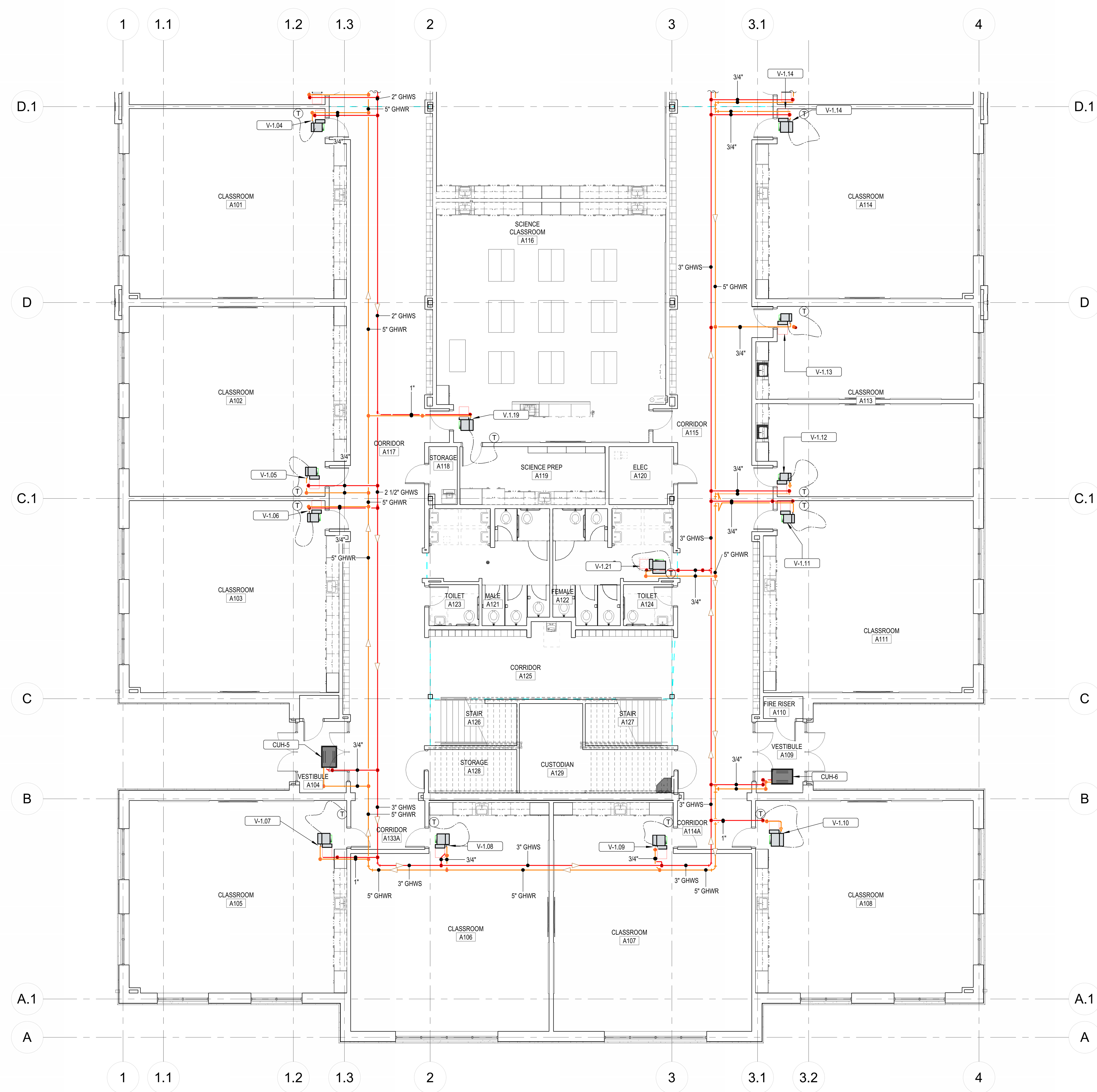
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL PIPING PLAN - ROOF - OVERALL

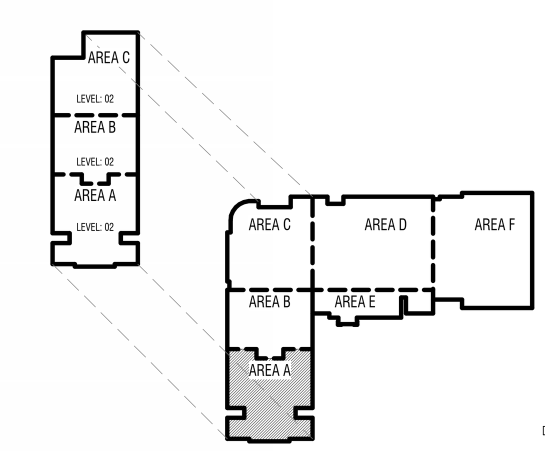
MP-103

KEYNOTES



1 MP-111.A MECHANICAL PIPING PLAN - LEVEL 01 - AREA A
1/8" = 1'-0"

KEY PLAN



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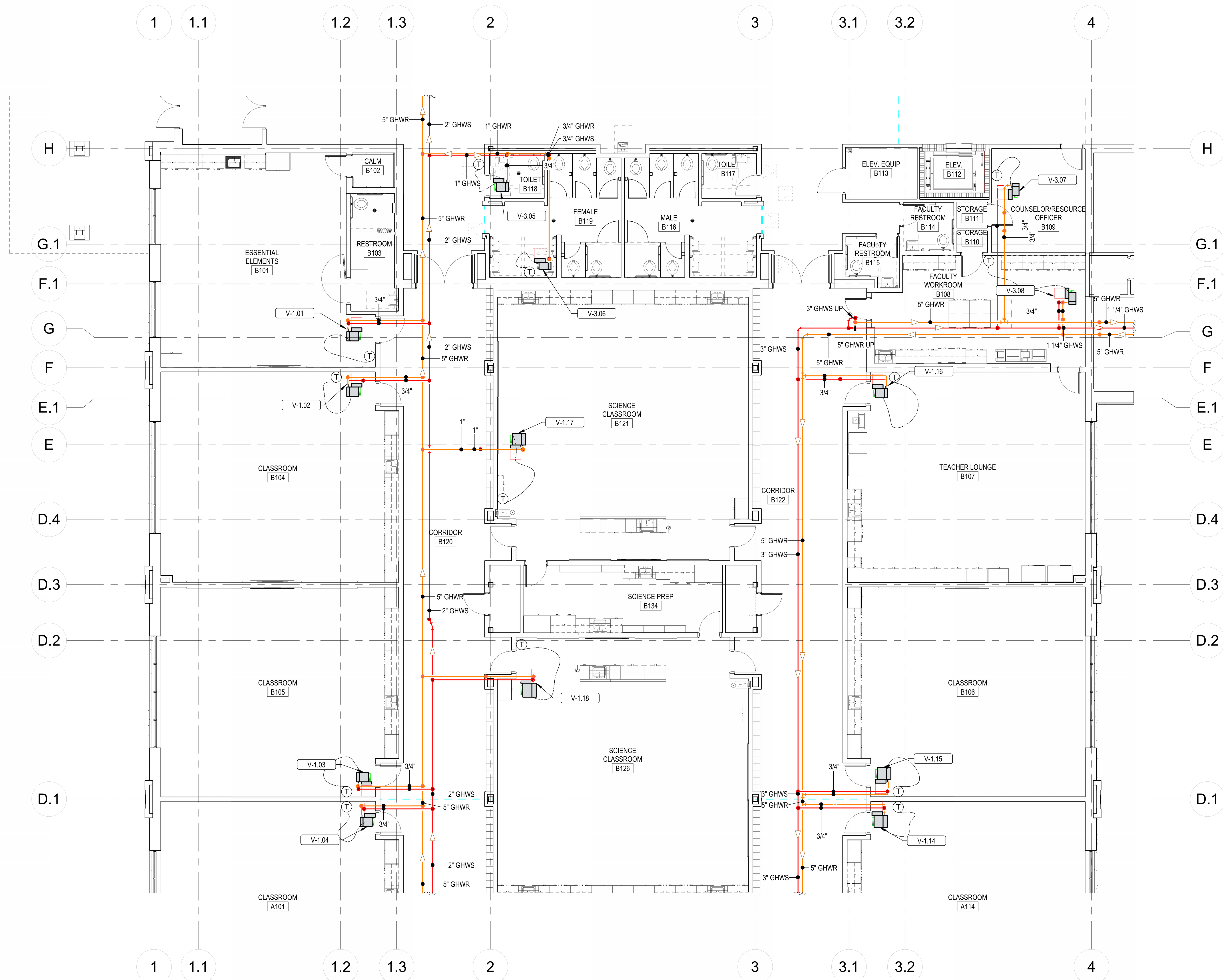
MECHANICAL PIPING PLAN - LEVEL 01 - AREA A

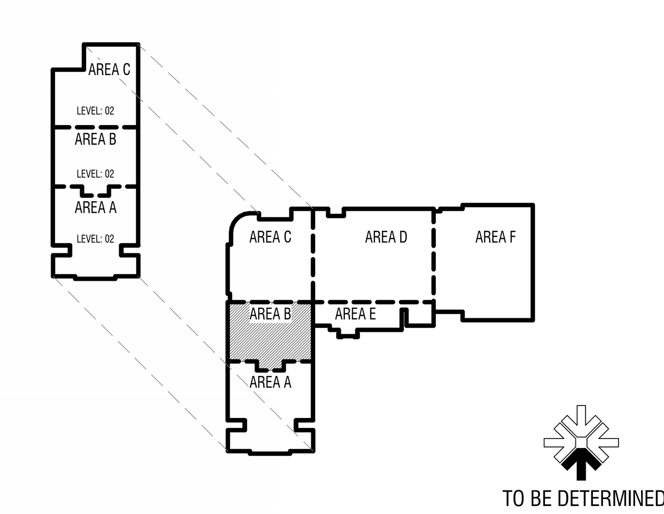
MP-111.A

KEYNOTES



1 MP-111.B MECHANICAL PIPING PLAN - LEVEL 01 - AREA B
1/8" = 1'-0"

KEY PLAN



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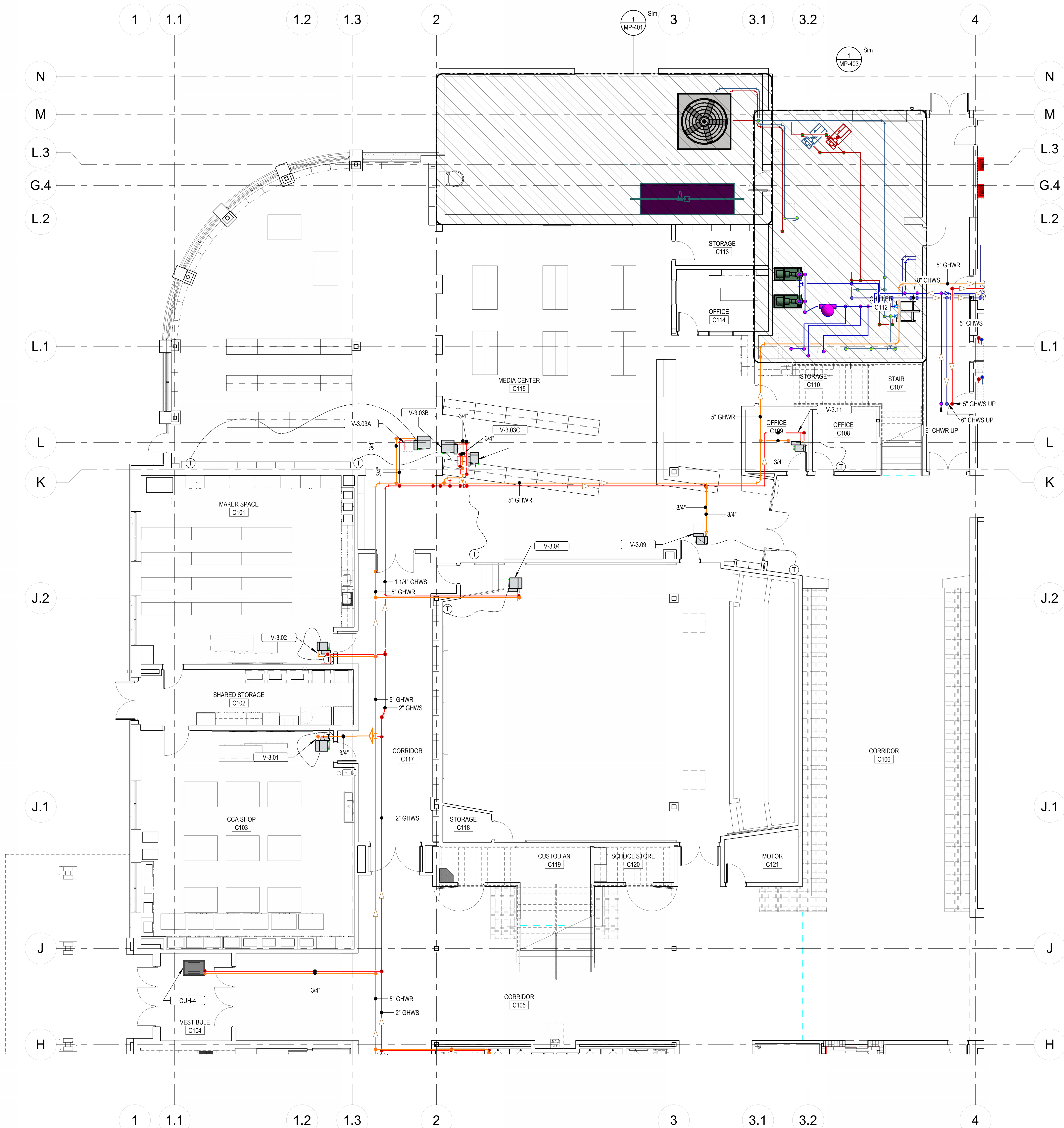
MECHANICAL PIPING PLAN - LEVEL 01 - AREA B

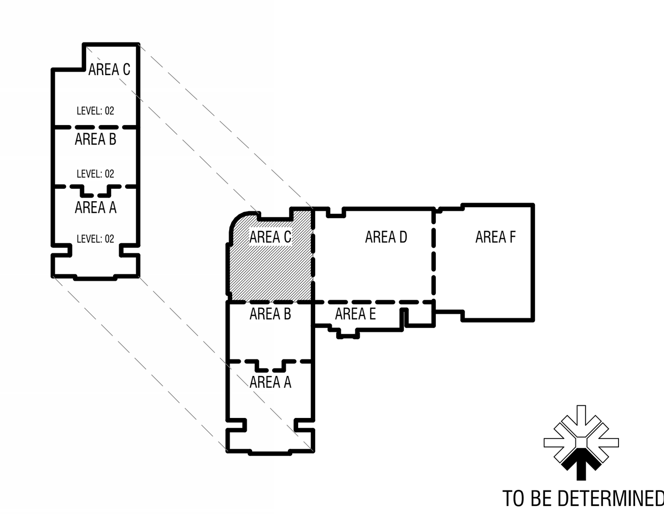
MP-111.B

KEYNOTES



1 MP-111.C MECHANICAL PIPING PLAN - LEVEL 01 - AREA C
1/8" = 1'-0"

KEY PLAN



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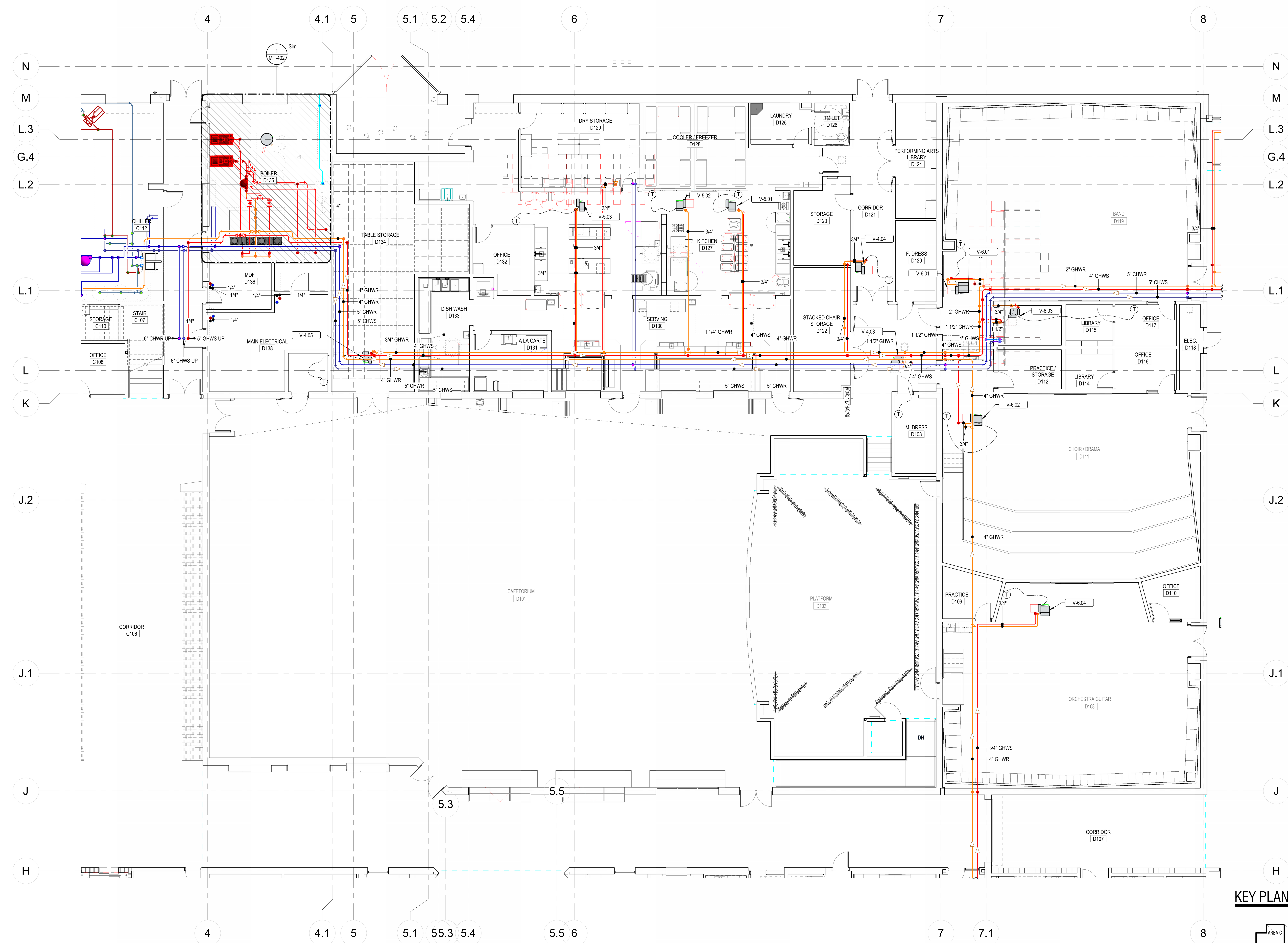
MECHANICAL PIPING PLAN - LEVEL 01 - AREA C

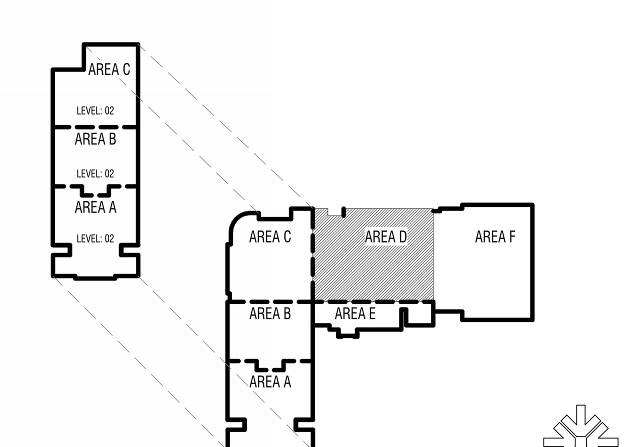
MP-111.C

KEYNOTES



1 MP-111.D MECHANICAL PIPING PLAN - LEVEL 01 - AREA D
1/8" = 1'-0"

KEY PLAN



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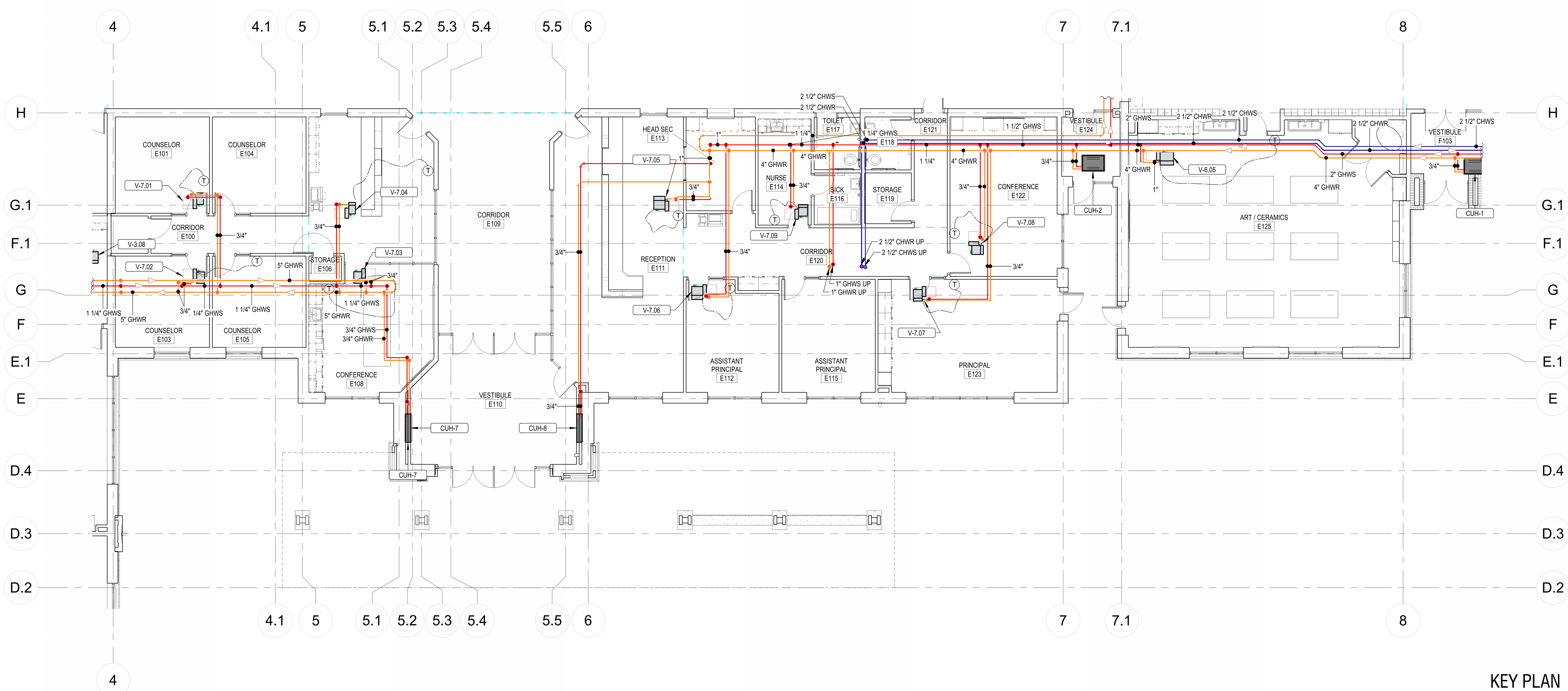
MECHANICAL PIPING PLAN - LEVEL 01 - AREA D

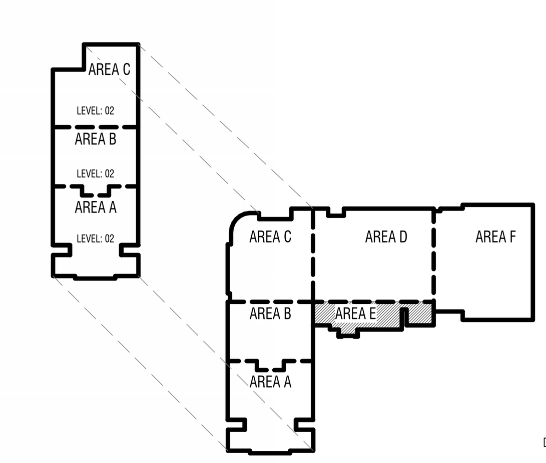
MP-111.D

KEYNOTES



1 MECHANICAL PIPING PLAN - LEVEL 01 - AREA E
MP-111.E 1/8" = 1'-0"

KEY PLAN



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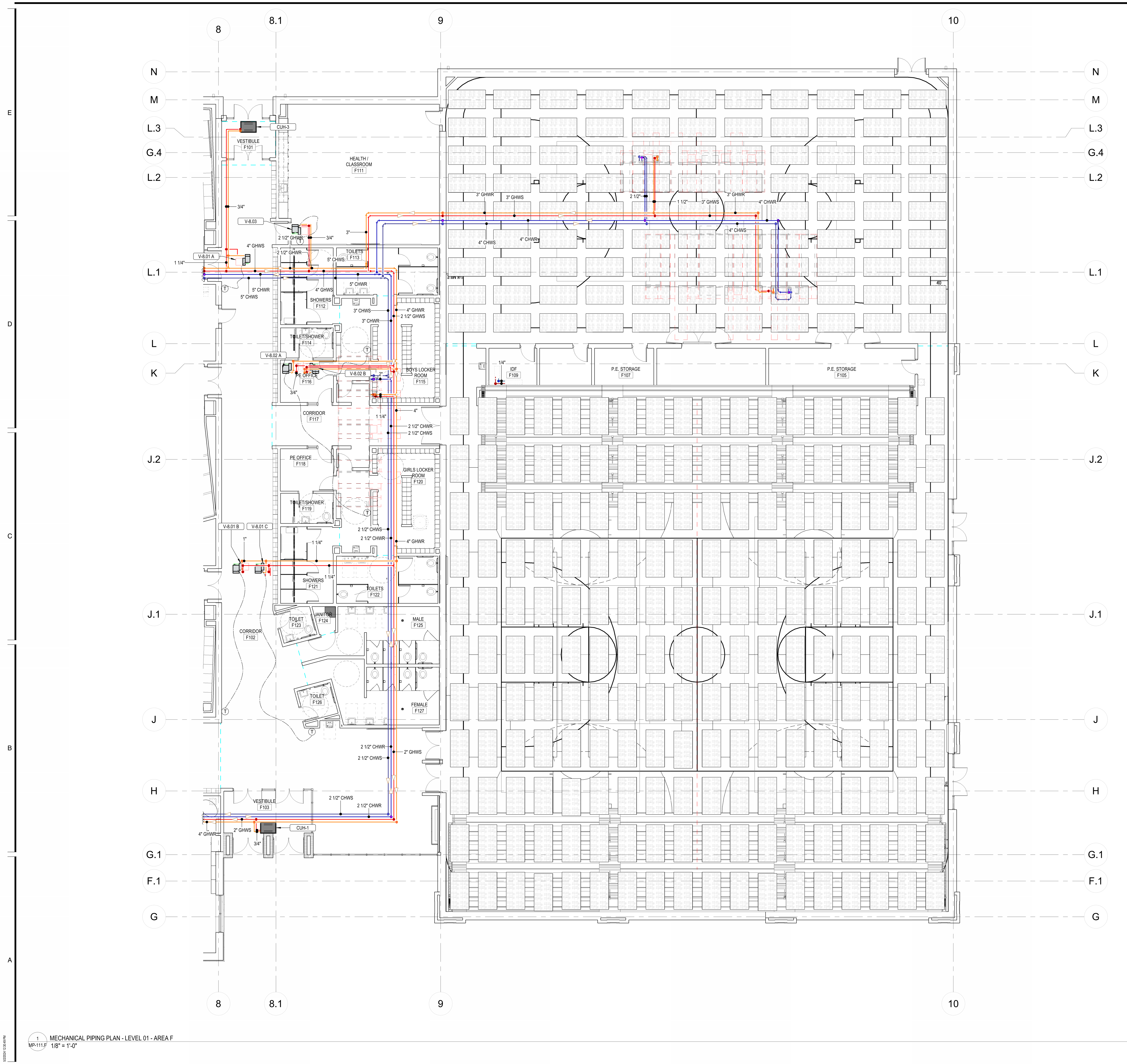
MECHANICAL PIPING PLAN - LEVEL 01 - AREA E

MP-111.E

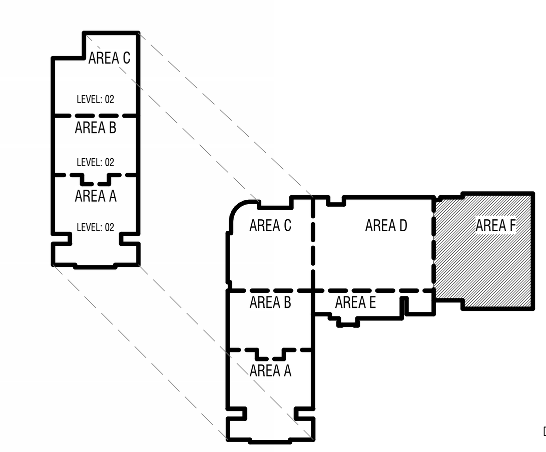


1
MP-111.F
MECHANICAL PIPING PLAN - LEVEL 01 - AREA F
1/8" = 1'-0"

1 2 3 4 5 6

KEYNOTES

KEY PLAN



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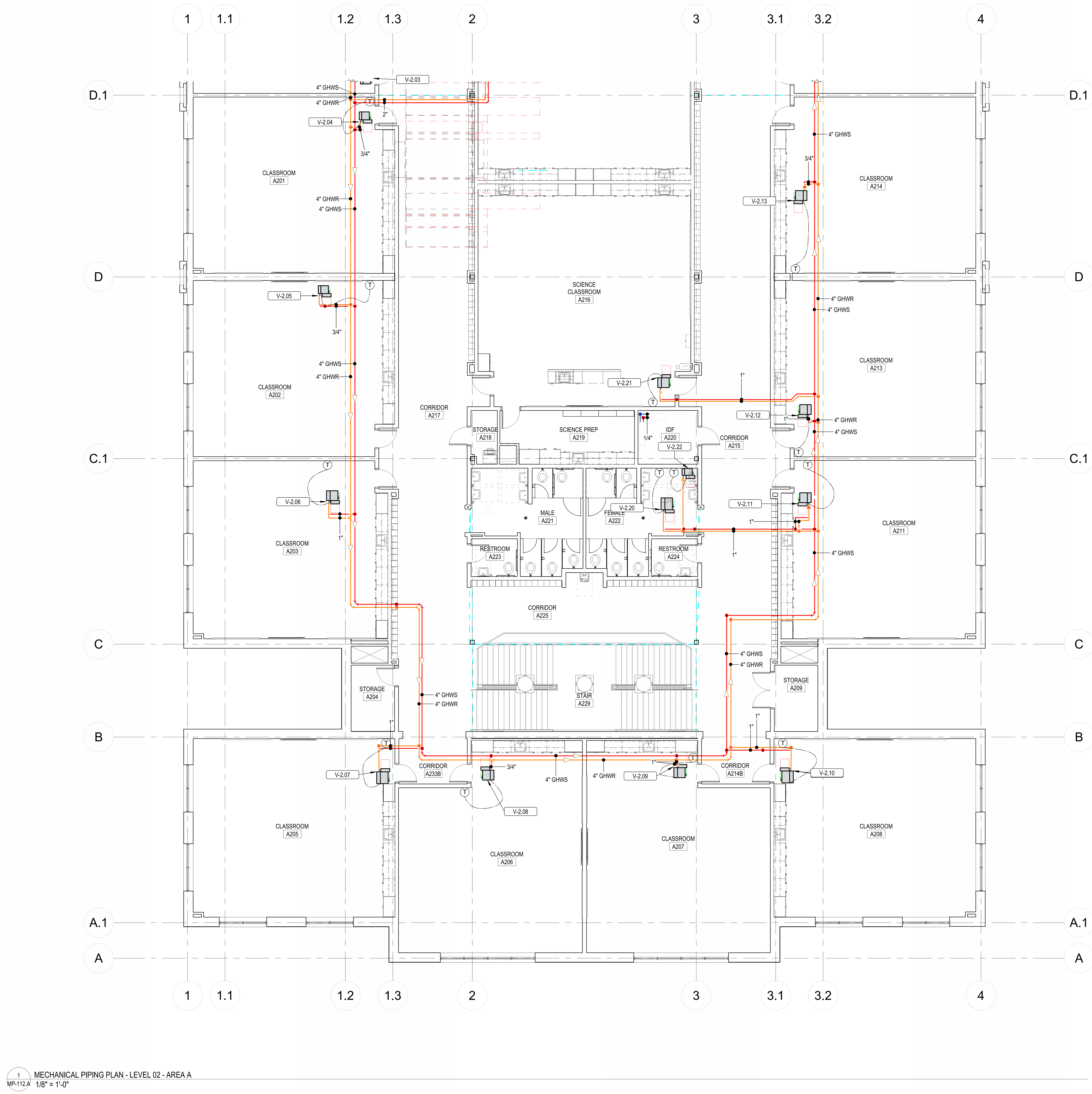
MECHANICAL PIPING PLAN - LEVEL 01 - AREA F

MP-111.F



1 MP-112.A MECHANICAL PIPING PLAN - LEVEL 02 - AREA A
1/8" = 1'-0"

KEY PLAN

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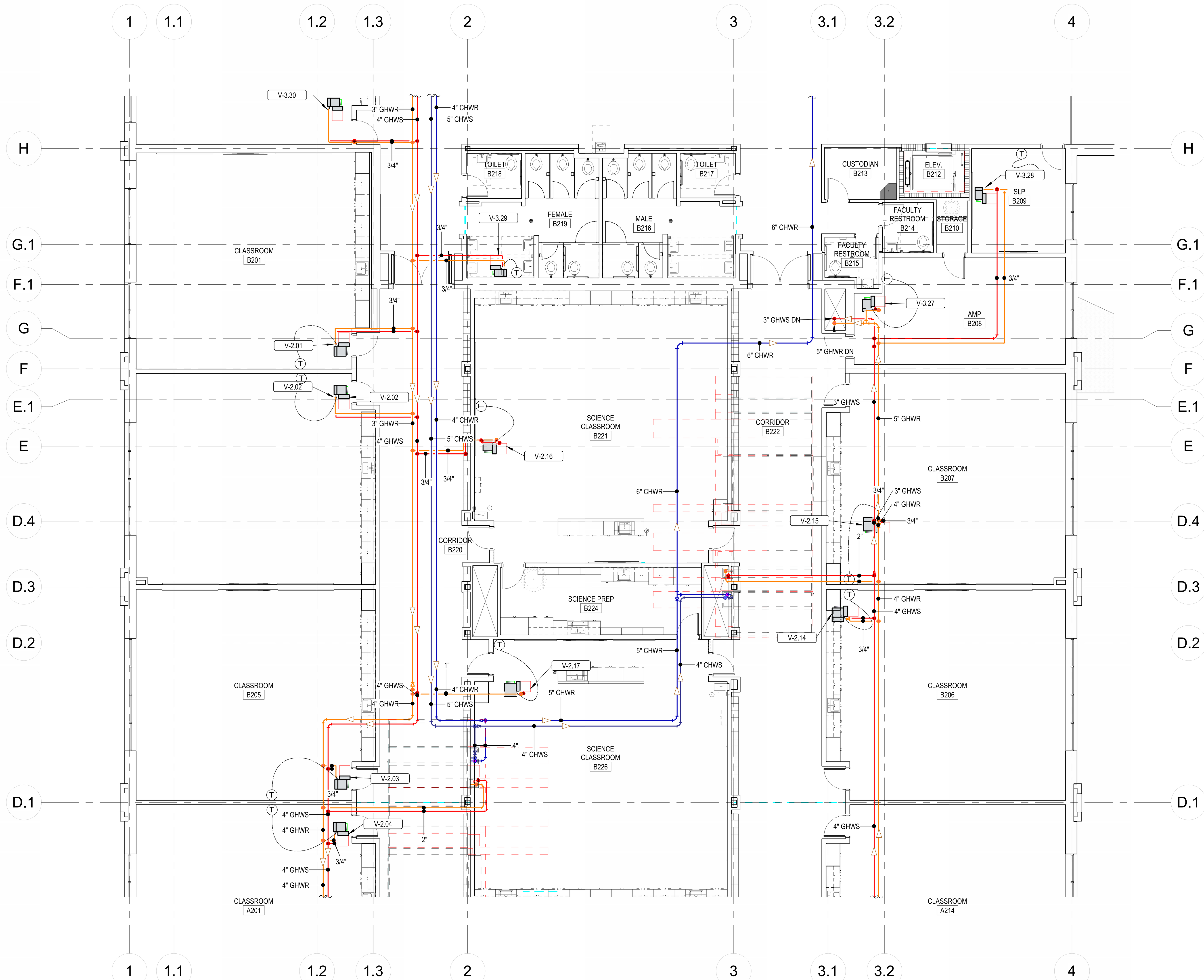
MECHANICAL PIPING PLAN - LEVEL 02 - AREA A

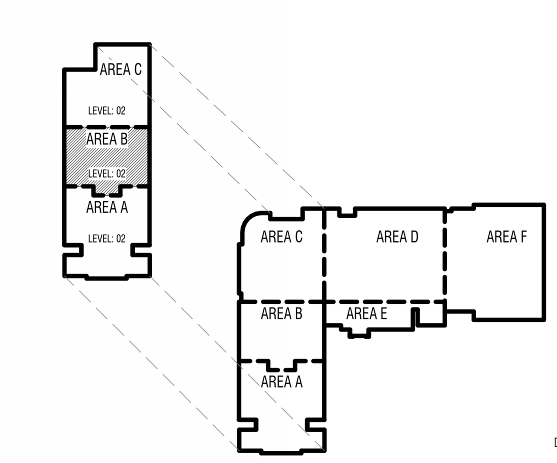
MP-112.A

KEYNOTES



1 MP-112.B MECHANICAL PIPING PLAN - LEVEL 02 - AREA B
1/8" = 1'-0"

KEY PLAN



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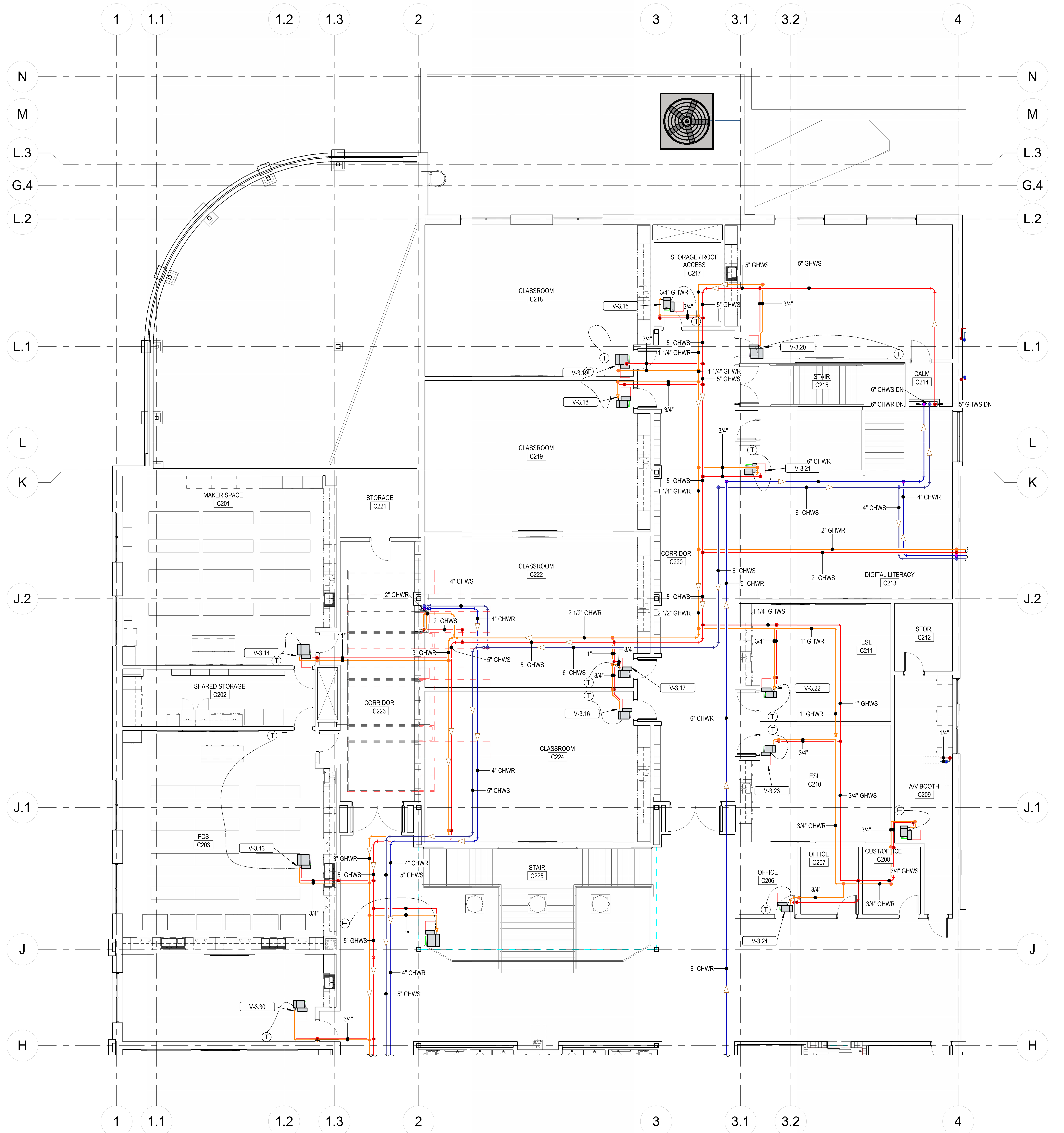
MECHANICAL PIPING PLAN - LEVEL 02 - AREA B

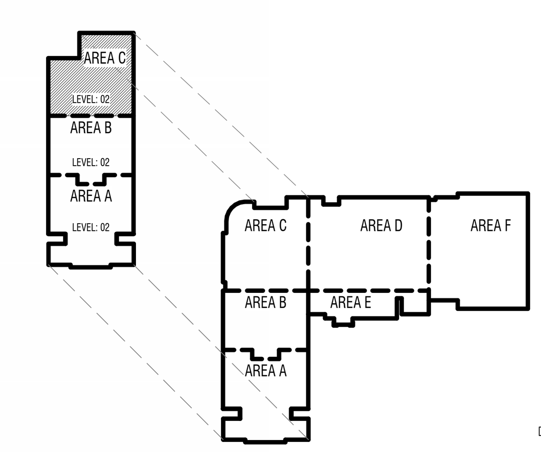
MP-112.B

KEYNOTES



1 MECHANICAL PIPING PLAN - LEVEL 02 - AREA C
MP-112.C 1/8" = 1'-0"

KEY PLAN



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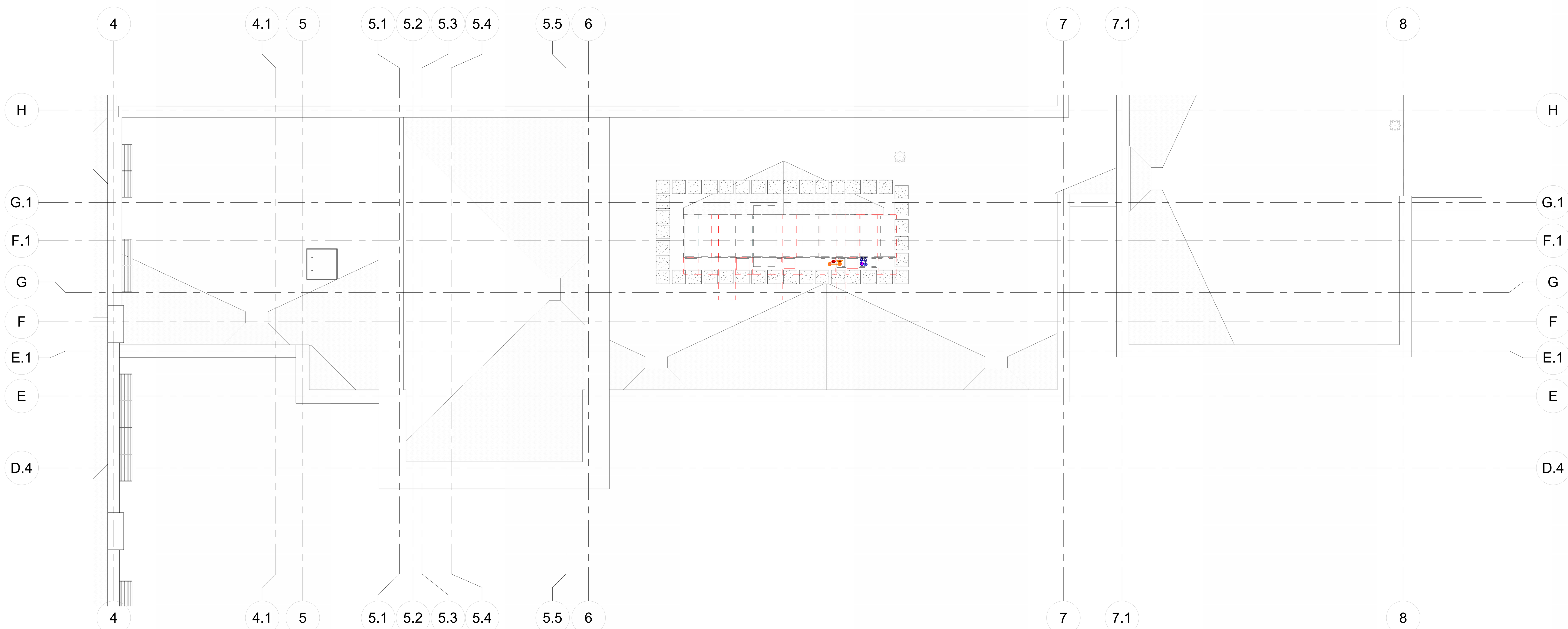
MECHANICAL PIPING PLAN - LEVEL 02 - AREA C

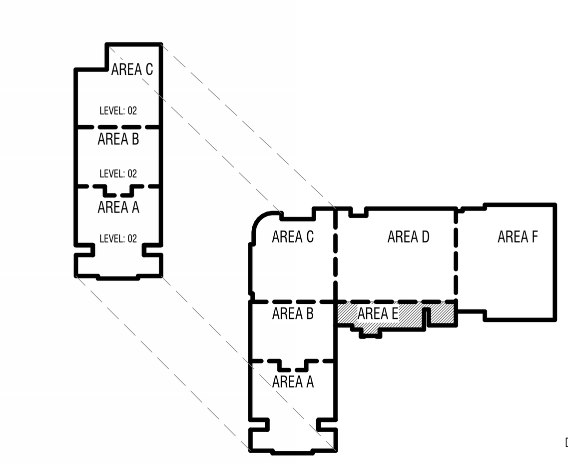
MP-112.C

KEYNOTES



1 MP-112.E MECHANICAL PIPING PLAN - ROOF - AREA E
1/8" = 1'-0"

KEY PLAN



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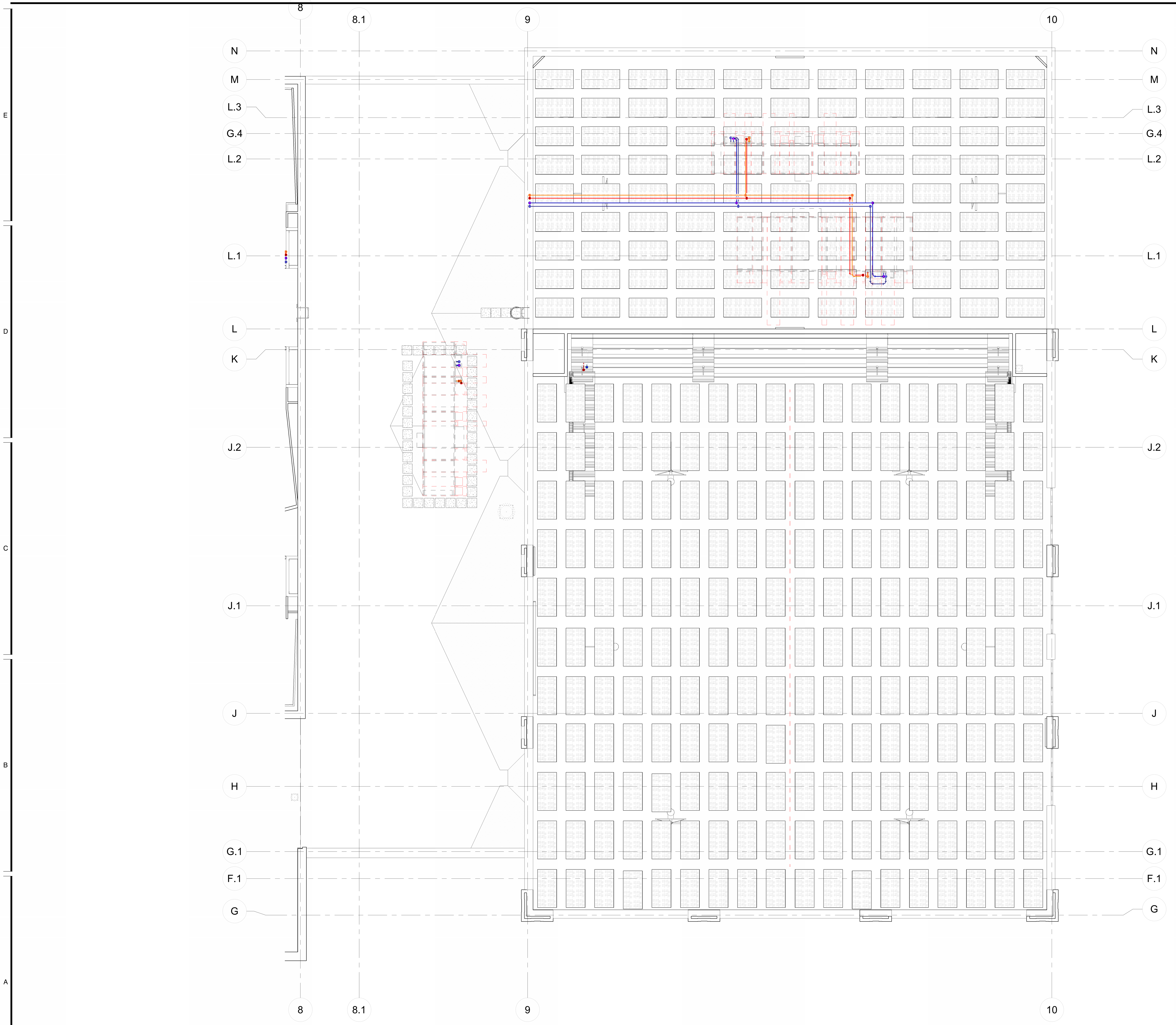
MECHANICAL PIPING PLAN - ROOF - AREA E

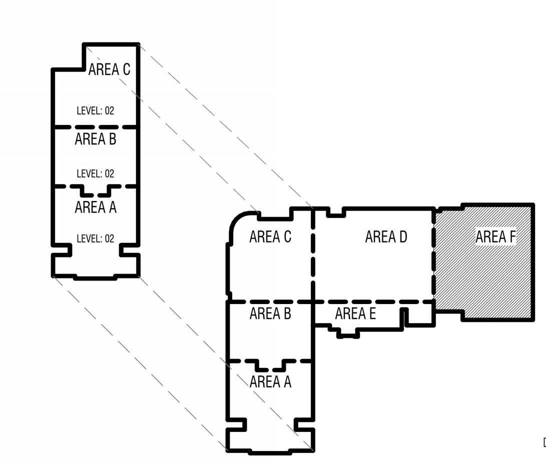
MP-112.E

KEYNOTES



1 MP-112.F MECHANICAL PIPING PLAN - LEVEL 02 - AREA F
1/8" = 1'-0"

KEY PLAN



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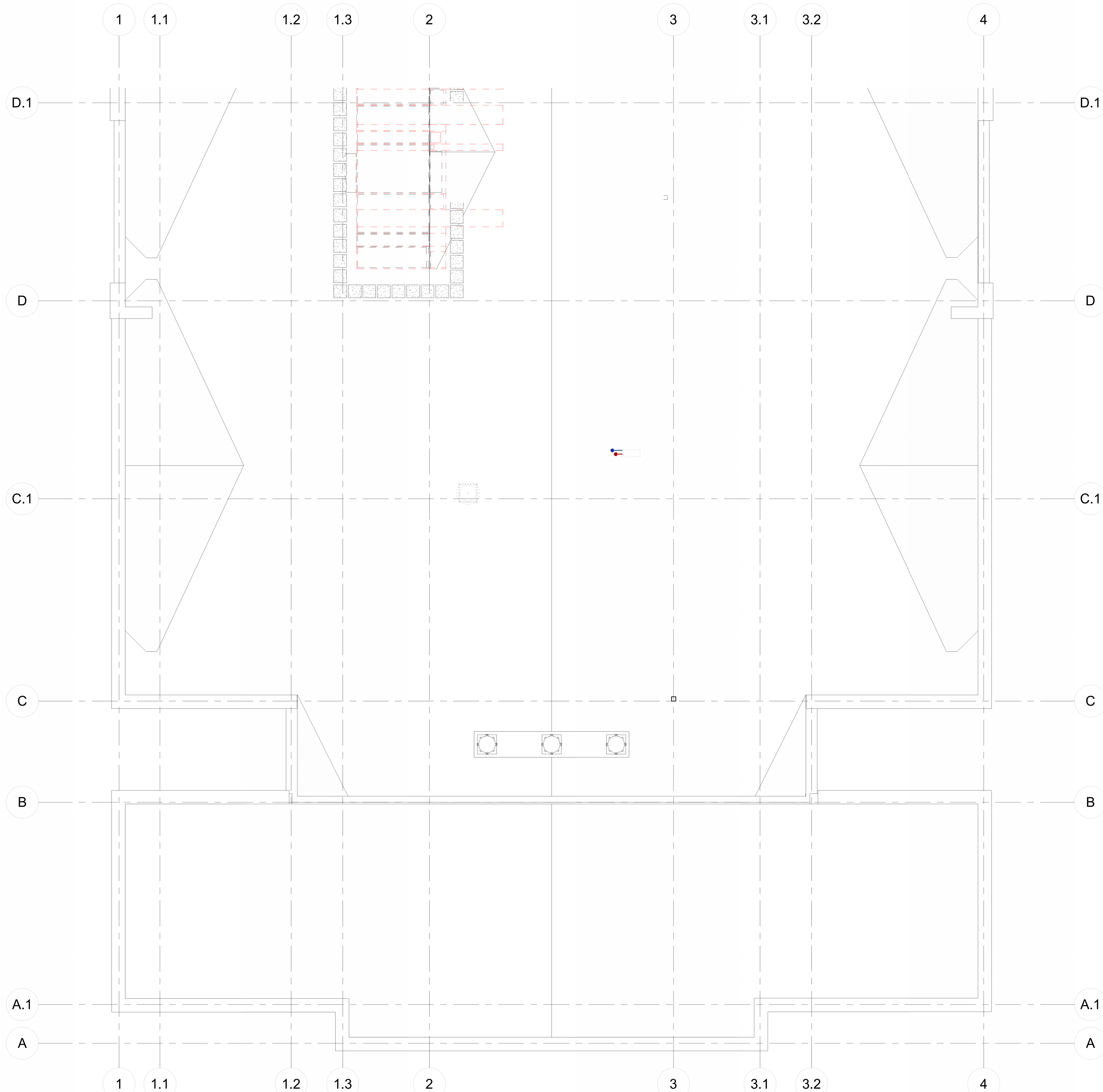
ISSUED:	05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL PIPING PLAN - LEVEL 02 - AREA F

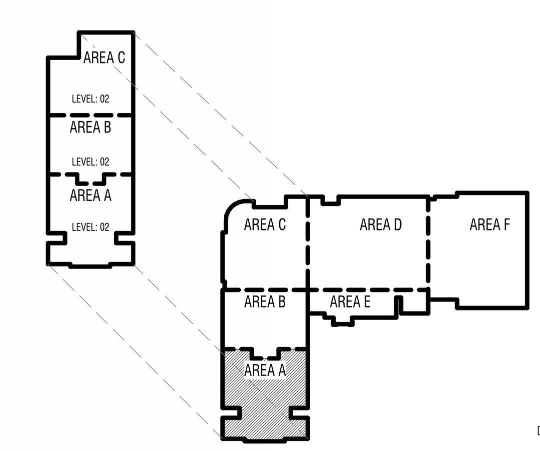
MP-112.F

KEYNOTES



1 MP-113.A MECHANICAL PIPING PLAN - ROOF - AREA A
1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

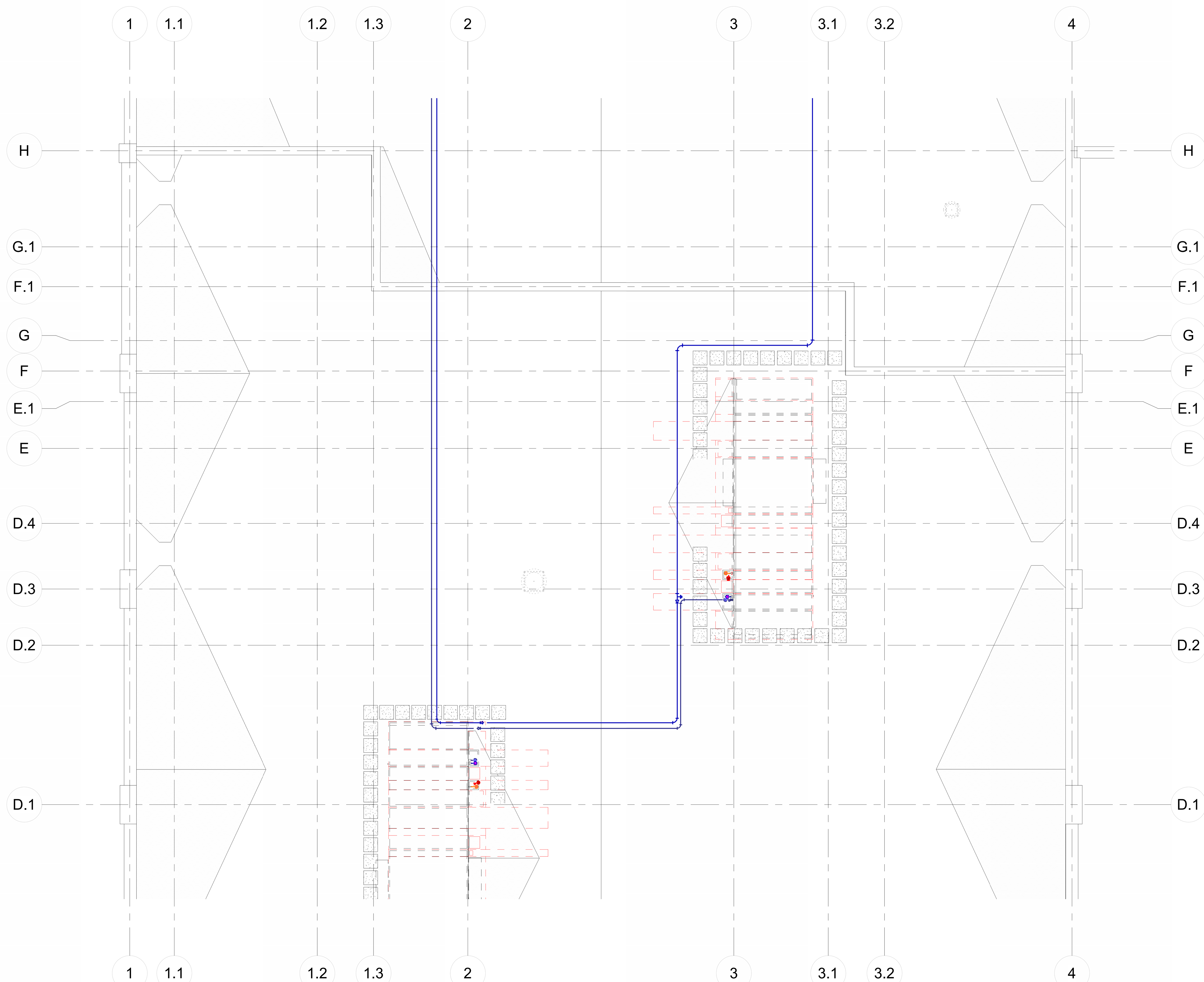
PROJECT #: 23717
DRAWN BY: Author
CHECKED BY: LW
ISSUED: 05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL PIPING PLAN - ROOF - AREA A

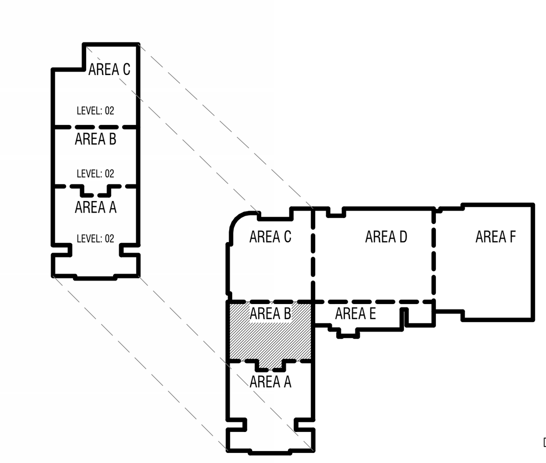
MP-113.A

KEYNOTES



1 MP-113.B MECHANICAL PIPING PLAN - ROOF - AREA B
1/8" = 1'-0"

KEY PLAN



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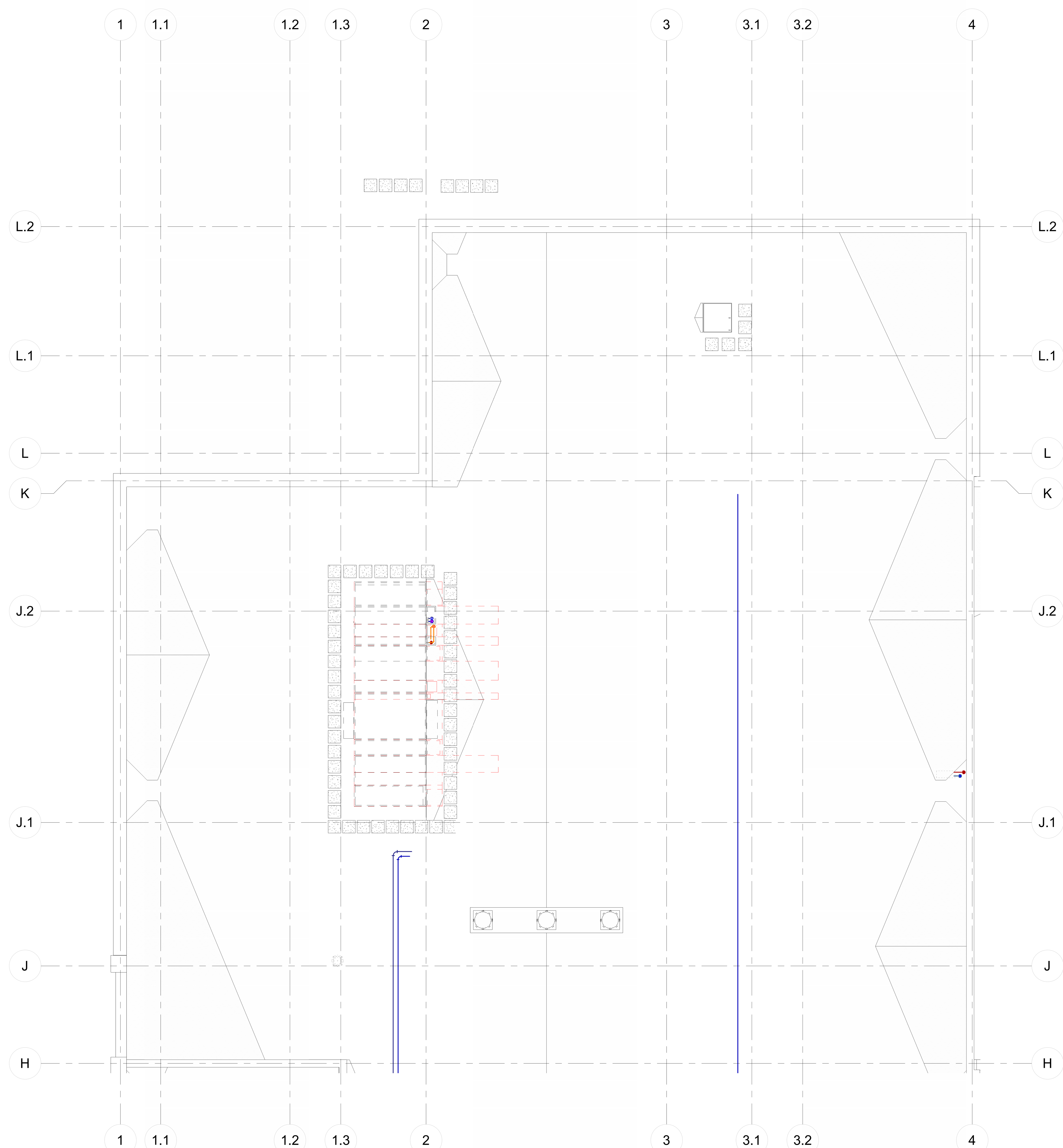
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL PIPING PLAN - ROOF - AREA B

MP-113.B

KEYNOTES



1 MP-113.C MECHANICAL PIPING PLAN - ROOF - AREA C
1/8" = 1'-0"

KEY PLAN

AREA C
AREA D
AREA F
AREA B
AREA E
AREA A

TO BE DETERMINED

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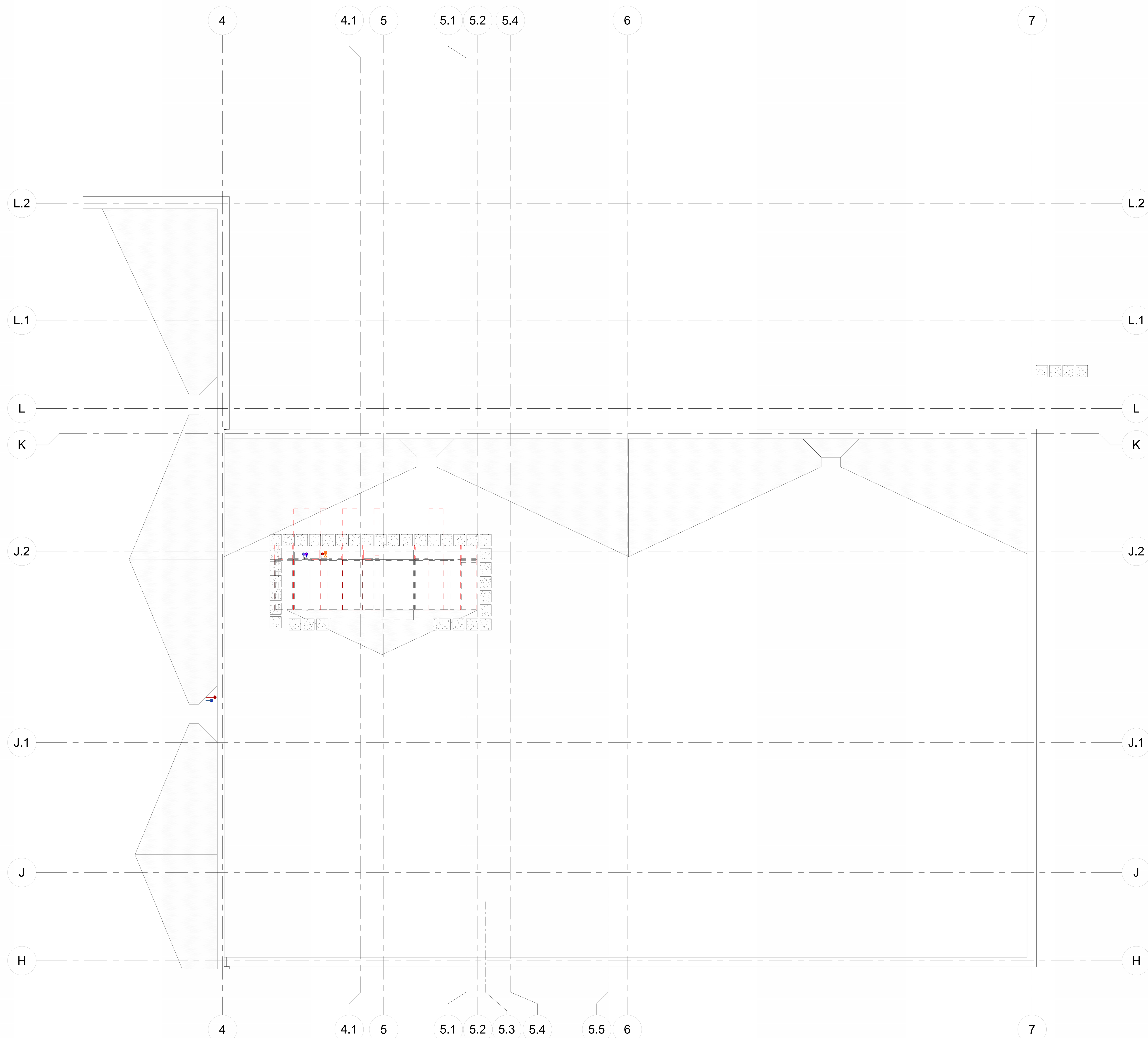
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL PIPING PLAN - ROOF - AREA C

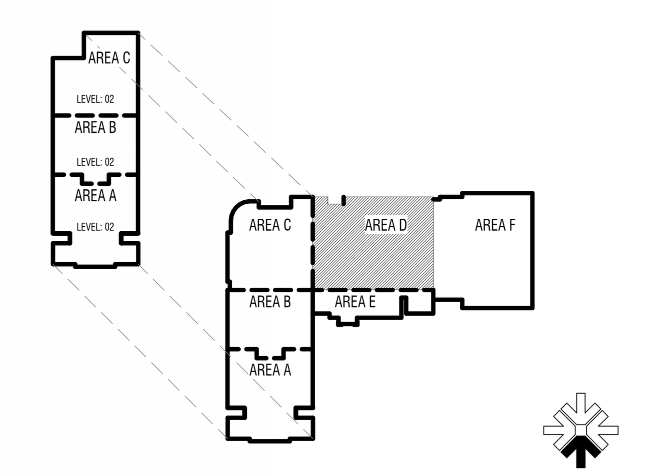
MP-113.C

KEYNOTES



1
MP-113.D
MECHANICAL PIPING PLAN - ROOF - AREA D
1/8" = 1'-0"

KEY PLAN



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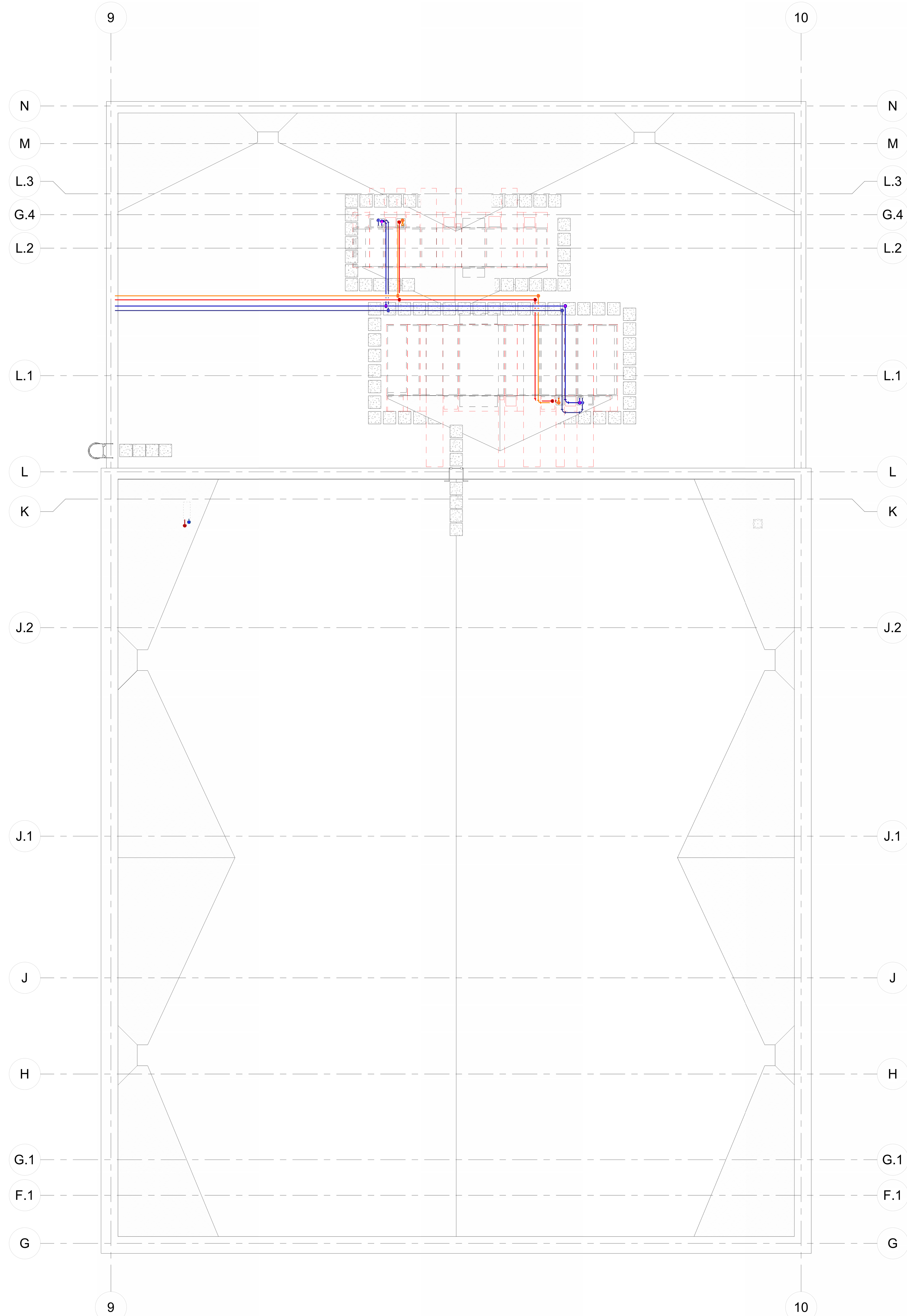
MECHANICAL PIPING PLAN - ROOF - AREA D

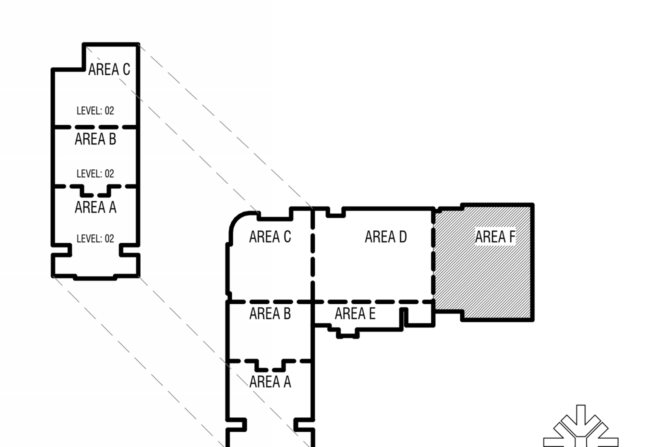
MP-113.D



1 MP-113.F MECHANICAL PIPING PLAN - ROOF - AREA F
1/8" = 1'-0"

KEYNOTES

KEY PLAN



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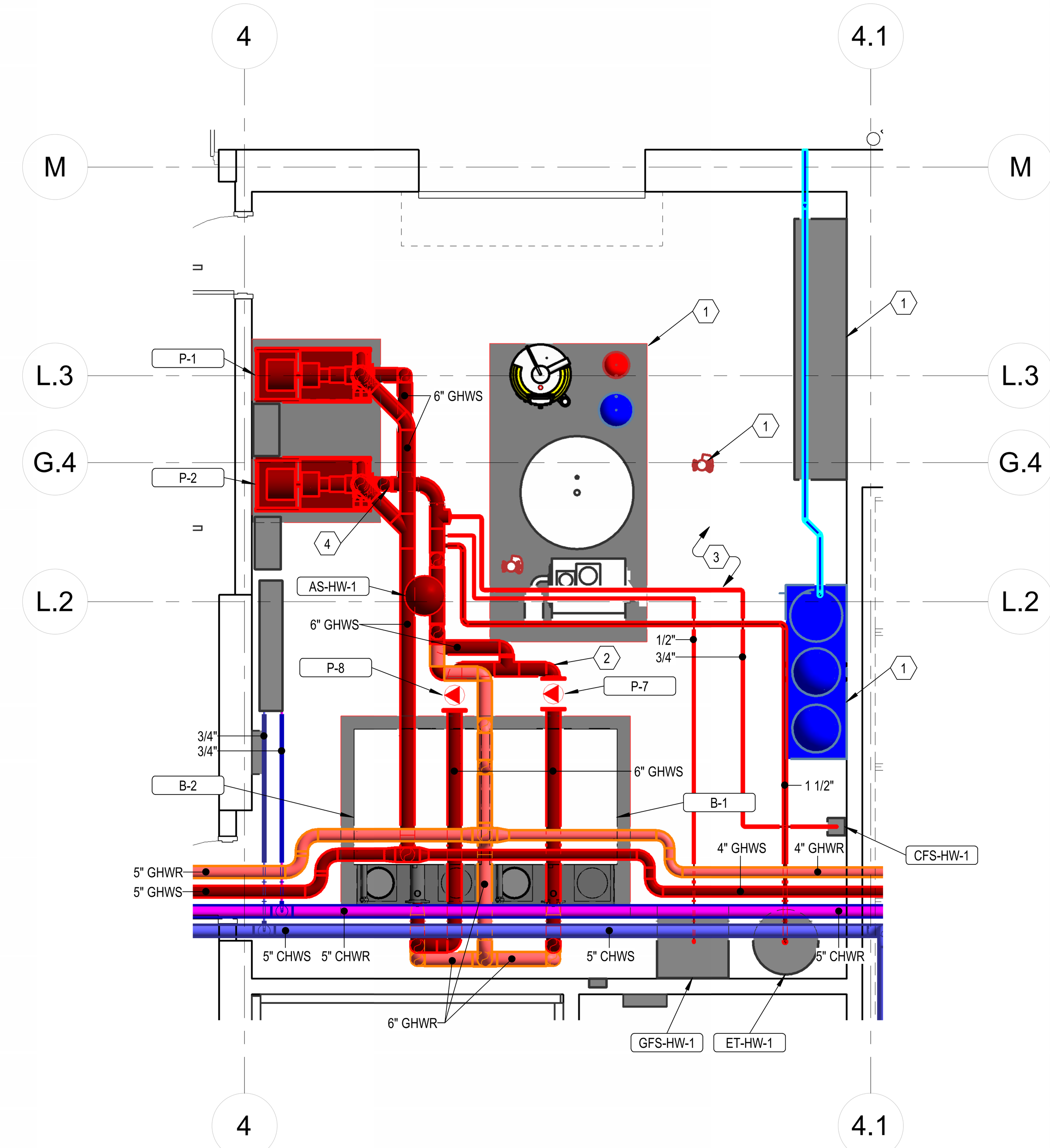
JEDEDIAH L JENKINS
STATE OF UTAH

MECHANICAL PIPING PLAN - ROOF - AREA F

MP-113.F

KEYNOTES

1 PLUMBING EQUIPMENT. SEE PLUMBING PLANS.
2 MINIMUM OVERHEAD PIPE OR DUCT CLEARANCE TO BE 7'-6", TYPICAL.
3 MAINTAIN PROPER CLEARANCE IN ISLE FOR FUTURE REPLACEMENT OF BOILERS AND OTHER EQUIPMENT.
4 REFER TO PIPING SCHEMATIC FOR ALL PIPING COMPONENTS AND DETAILS, TYPICAL.



1 MP-402 ENLARGED MECHANICAL PIPING PLAN - BOILER ROOM
1/4" = 1'-0"

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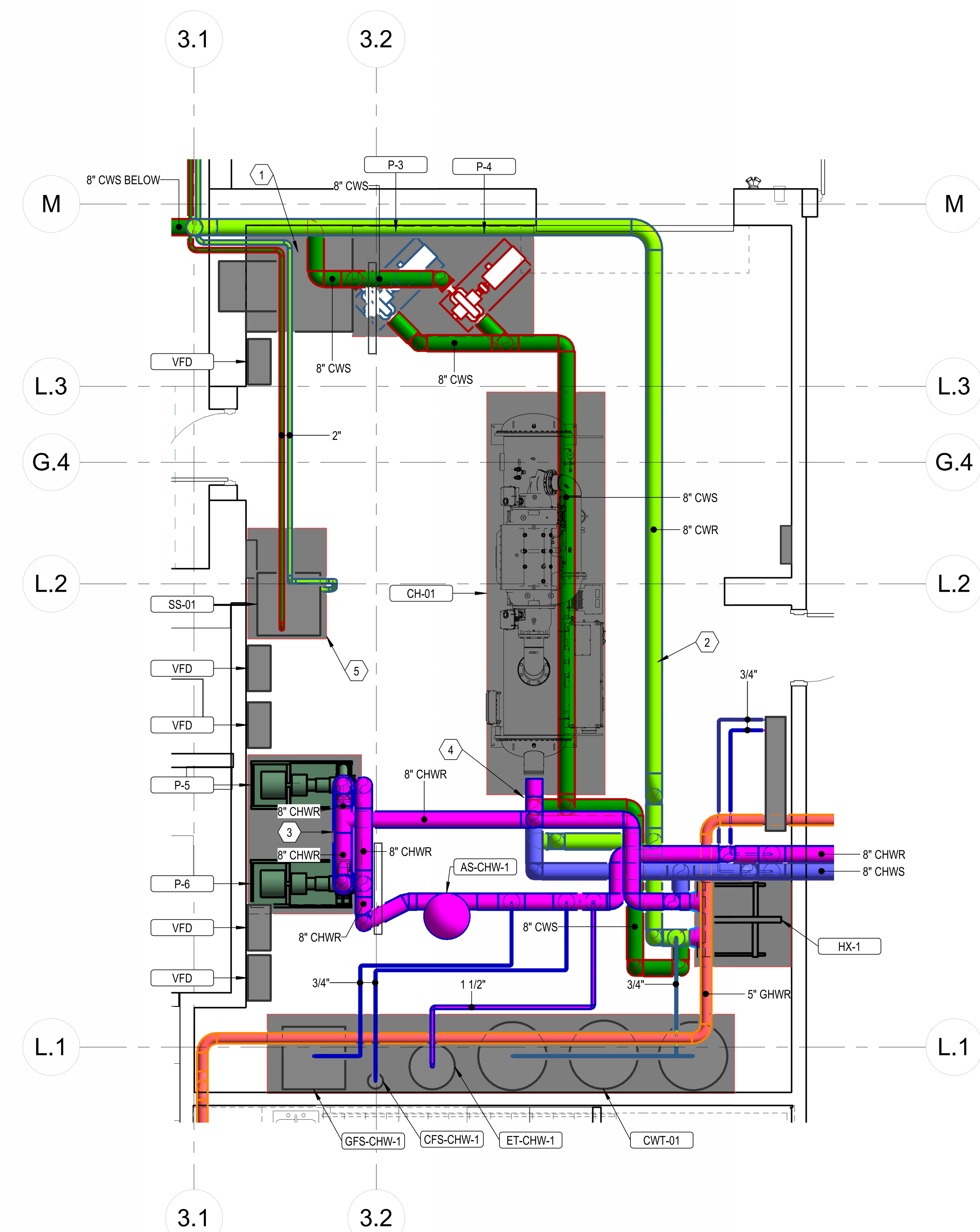
CONSTRUCTION DOCUMENTS

MECHANICAL PIPING ENLARGED VIEWS

MP-402

KEYNOTES

1 SUMP FOR COOLING TOWER. SEE PLUMBING PLANS.
2 MINIMUM OVERHEAD PIPE OR DUCT CLEARANCE TO BE 7'-6", TYPICAL.
3 BYPASS LINE BELOW 8" CHWR. SEE COOLING SYSTEM SCHEMATIC.
4 REFER TO PIPING SCHEMATIC FOR ALL PIPING COMPONENTS AND DETAILS, TYPICAL.
5 ALL EQUIPMENT IN MECHANICAL ROOM TO BE INSTALLED ON 6" HOUSEKEEPING PADS.



1
MP-403
ENLARGED MECHANICAL PIPING PLAN - CHILLER ROOM
1/4" = 1'-0"

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NIBLEY MIDDLE SCHOOL

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ISSUED:	05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

CONSTRUCTION DOCUMENTS

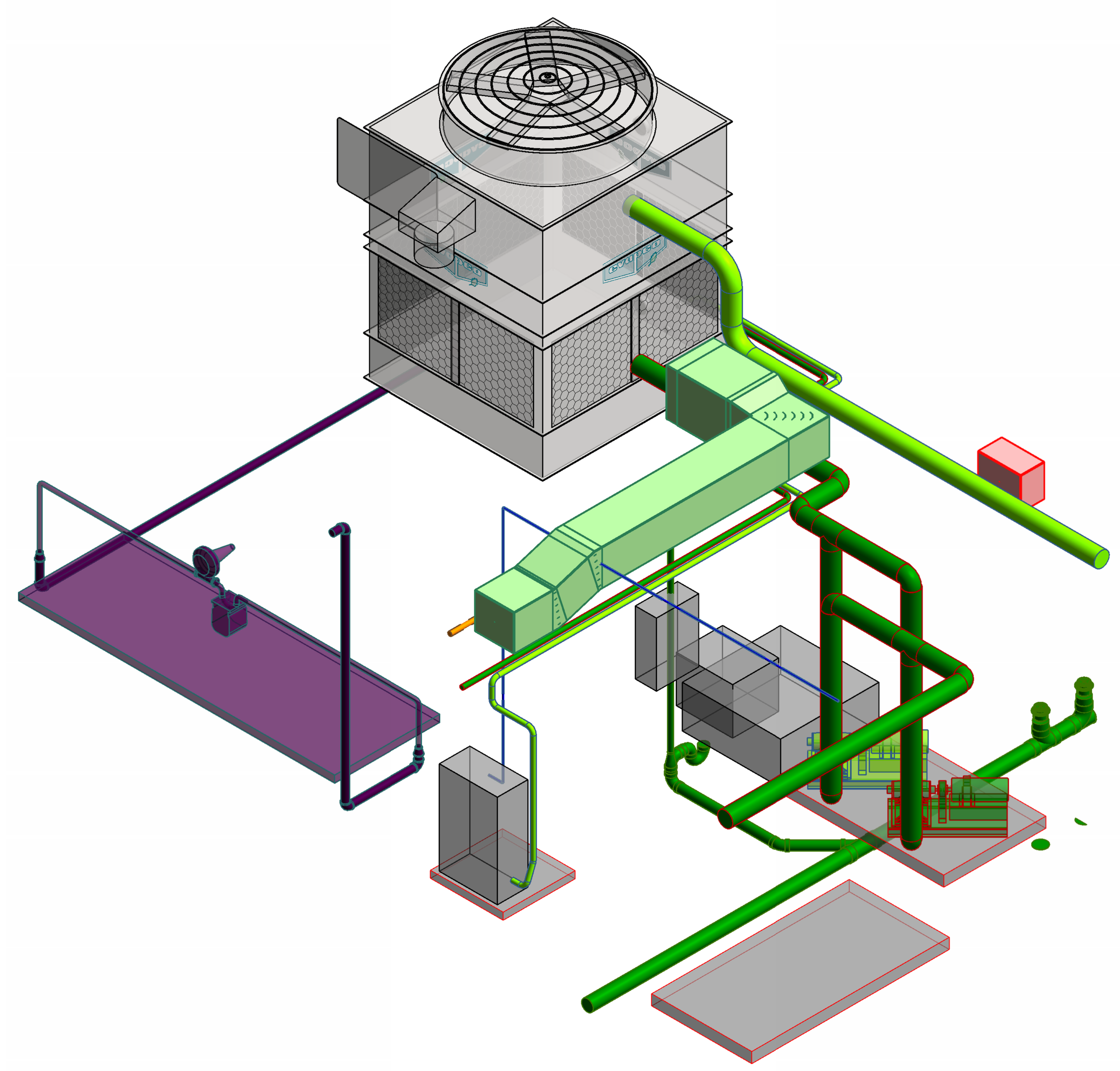
MECHANICAL PIPING ENLARGED VIEWS

MP-403

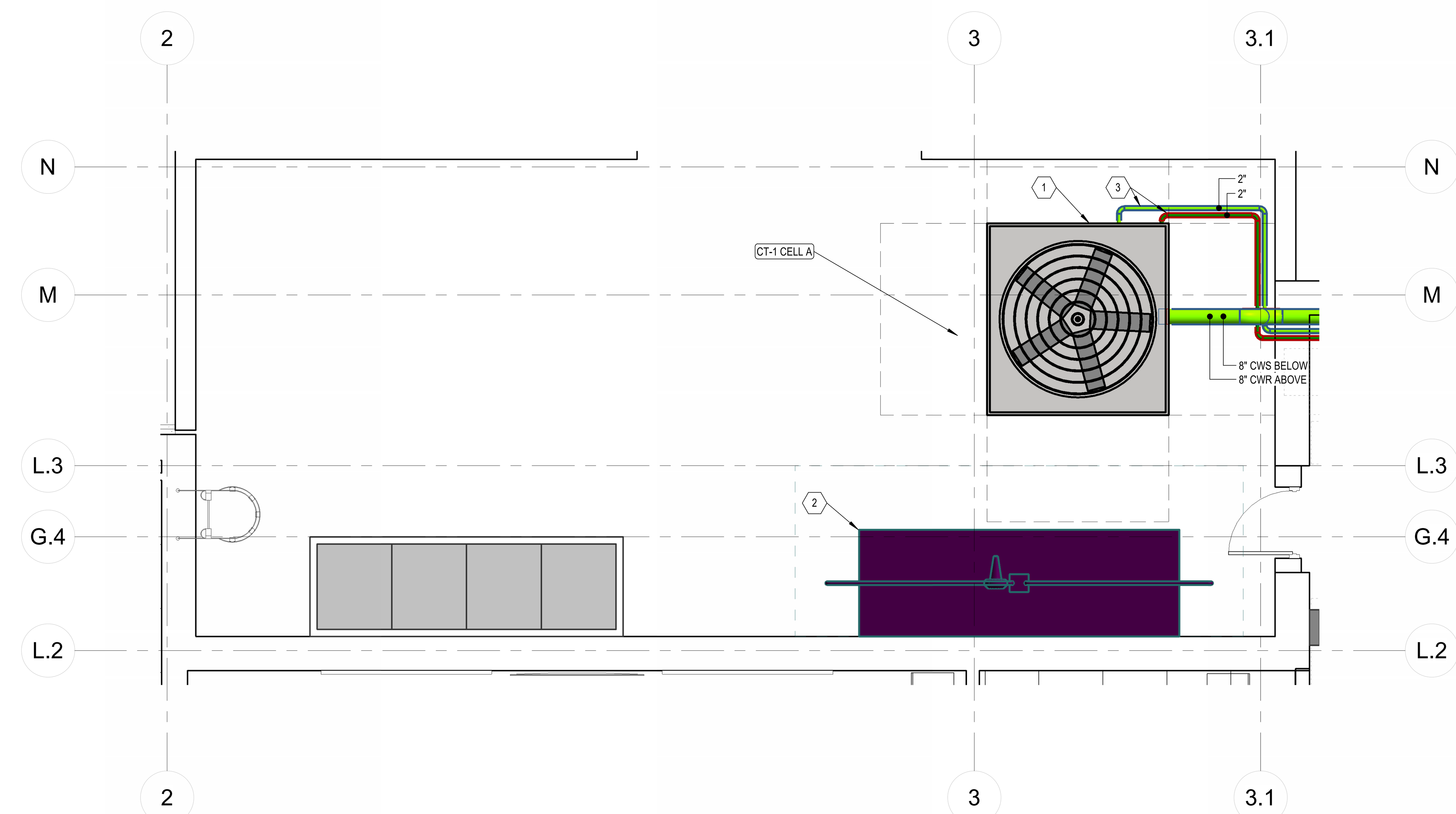
KEYNOTES

1 GREASE DUCT UP TO EXHAUST FAN ABOVE.
2 GREASE DUCT TEST: ALL DUCT SERVING TYPE 1 EXHAUST HOODS SHALL BE LEAK TESTED IN THE PRESENCE OF CODE OFFICIAL. TESTING SHALL BE CONDUCTED PRIOR TO WRAPPING OR CONCEALING THE DUCTWORK. THE LEAK TEST SHALL BE A LIGHT TEST OR APPROVED ALTERNATE IN ACCORDANCE WITH THE 2021 IMC SECTION 506.3.2.5. THE LEAK TEST SHALL BE PERFORMED ON THE ENTIRE DUCT SYSTEM, INCLUDING THE DUCT HOOD CONNECTION.

1. INSTALL COOLING TOWER ON STRUCTURAL SUPPORTS. TOP OF COOLING TOWER SHALL BE EVEN WITH THE TOP OF MECHANICAL YARD WALL.
2. NATURAL GAS METER.
3. 2" PIPING FROM FLUID FILTER SERVES BASIN SWEEPER PIPING AT COOLING TOWER. COORDINATE FINAL CONNECTIONS WITH FURNISHED EQUIPMENT.



2 MP-401 ISOMETRIC - MECHANICAL HVAC & MECHANICAL PIPING - COOLING TOWER



1 MP-401 ENLARGED MECHANICAL PIPING PLAN - COOLING TOWER
1/4" = 1'-0"

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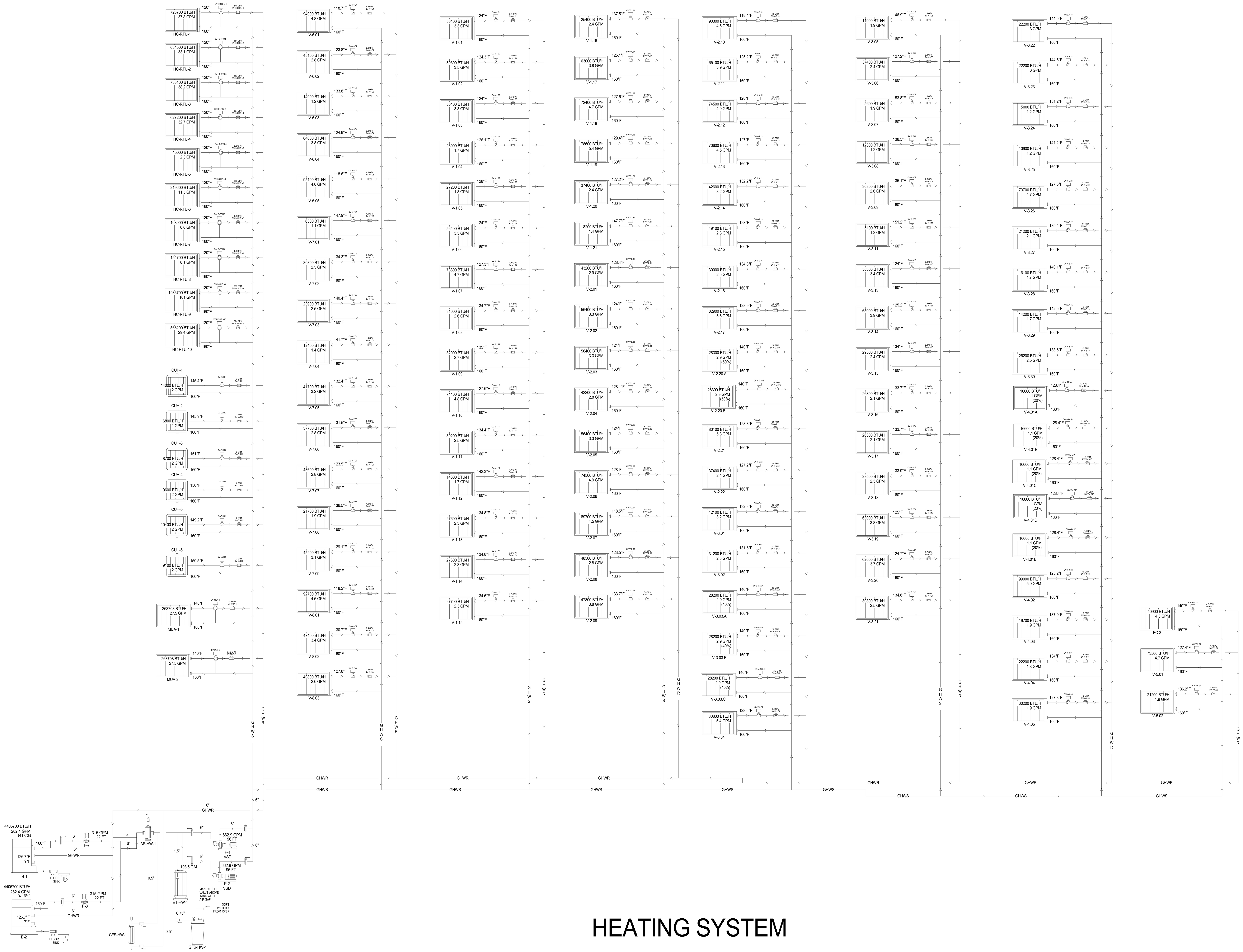
MECHANICAL PIPING ENLARGED VIEWS

MP-401



HEATING SYSTEM

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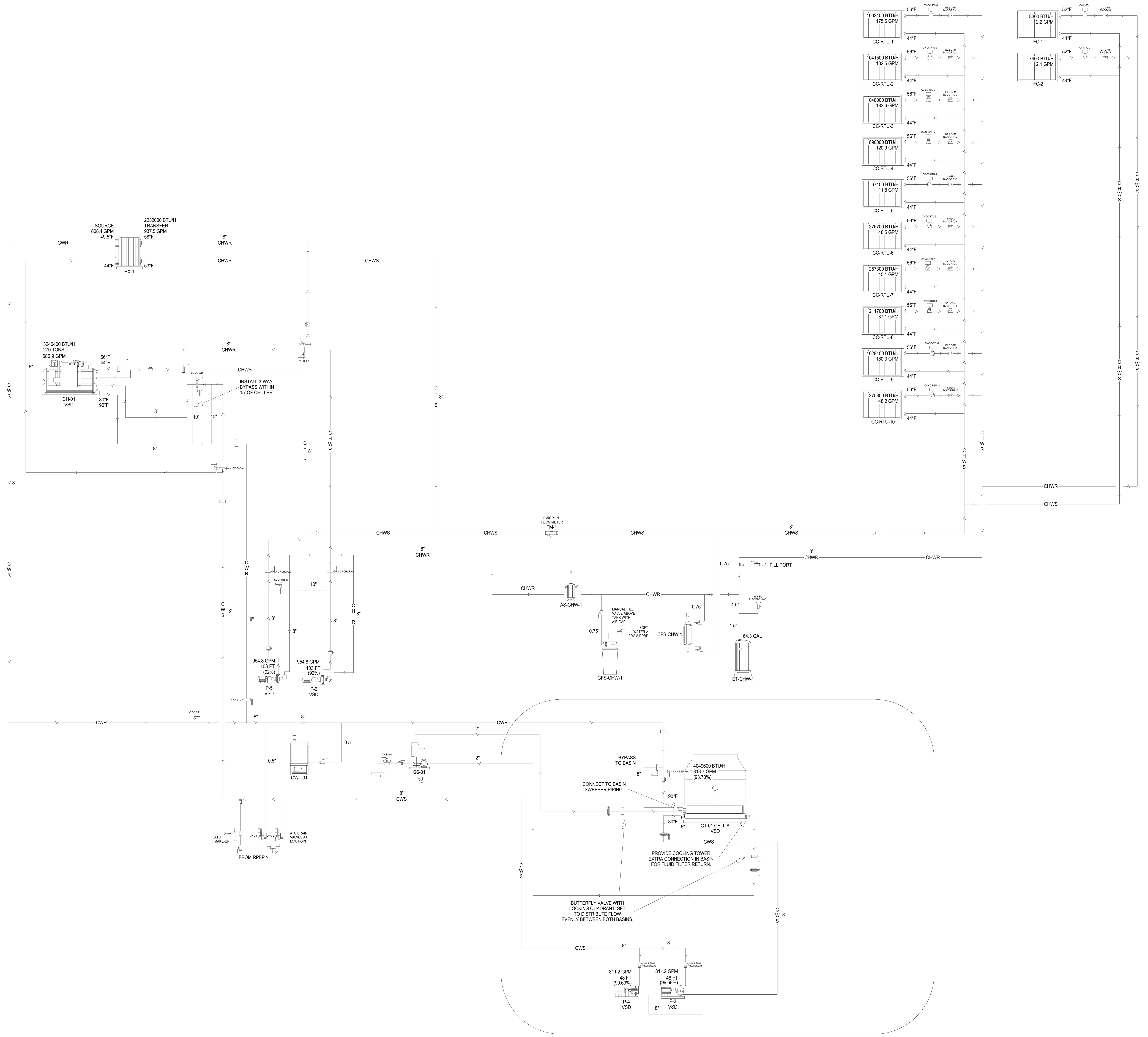
CONSTRUCTION DOCUMENTS

MECHANICAL PIPING SCHEMATICS

MP-701



COOLING SYSTEM

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MECHANICAL PIPING SCHEMATICS

MP-702

GENERAL MECHANICAL SYMBOLS

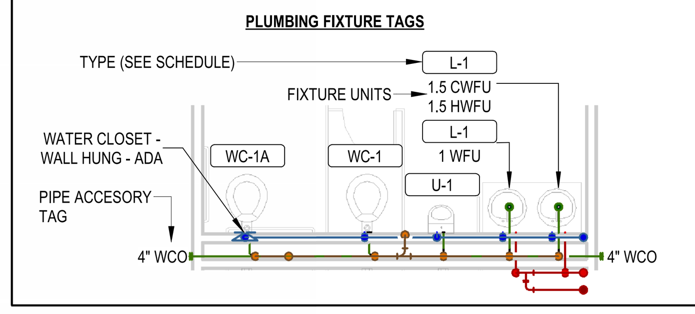
Symbol	Description
#	REVISION NUMBER - SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	POINT WHERE EXISTING IS TO BE DEMOLISHED
	NUMBER OF DETAIL ON SHEET
	NUMBER OF SHEET WHERE DETAIL APPEARS
1	KEYNOTE
	CONTINUATION SYMBOL
	ROOM NAME AND NUMBER
	ITEM TO BE DEMOLISHED
	AREA NOT IN CONTRACT
2"	PIPE SIZE TAG (DIAMETER)
	ABOVE GROUND PIPING
2" VTR	PIPE SLOPE TAG
	BELOW GROUND PIPING
INVERT: -105' - 1"	PIPE INVERT ELEVATION TAG
(E)	EXISTING PIPE TAG
	PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MU/A	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EWC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FD	FIRE DAMPER	RH	RELATIVE HUMIDITY
FDV	FIRE DEPARTMENT VALVE	RL/A	RELIEF AIR
FL	FLOOR	RM	ROOM
FO	FUEL OIL	RPM	REVOLUTIONS PER MINUTE
FOV	FUEL OIL VENT	RW	RAIN WATER
FOR	FUEL OIL RETURN	SF	SQUARE FOOT
FOS	FUEL OIL SUPPLY	S/A	SUPPLY AIR
FPM	FEET PER MINUTE	SAN	SANITARY
FS	FLOOR SINK	SF	SQUARE FOOT
FT	FOOT/FEET	SD	SMOKE DAMPER
FTR	FIN TUBE RADIATION	SM	SURFACE MOUNT
GAL	GALLON	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

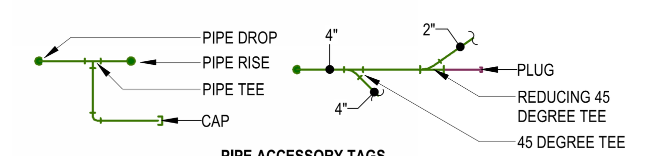
PLUMBING AND PIPING SYMBOLS

PLUMBING FIXTURE TAGS



PLUMBING AND PIPING SYMBOLS

Tag	Description
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CD	CONDENSATE DRAINAGE
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
GWR	GEOTHERMAL WATER RETURN
GWS	GEOTHERMAL WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
NG	NATURAL GAS
PG	PROPANE GAS
REF-L	REFRIGERANT-LIQUID
REF-S	REFRIGERANT-SUCTION
REF-HG	REFRIGERANT-HOT GAS
STM	STEAM
CDR	CONDENSATE RETURN
CWV	COMBINATION WASTE & VENT
CA	COMPRESSED AIR
DCW	DOMESTIC COLD WATER
NPCW	NON-POTABLE COLD WATER
S-CW	SOFT COLD WATER
F-CW	FILTERED COLD WATER
RO	REVERSE OSMOSIS WATER
DHW	HOT WATER
DHW 140°	HOT WATER 140°
DHW-R	HOT WATER RECIRCULATION
DHW-R 140°	HOT WATER RECIRCULATION 140°
NPHW	NON-POTABLE HOT WATER
GV	GREASE VENT
GW	GREASE WASTE
IW	INDIRECT WASTE
OV	OIL VENT
OW	OIL WASTE
PD	PUMP DISCHARGE
V	SANITARY VENT
W	SANITARY WASTE
SHWR	SOLAR HOT WATER RETURN
SHWS	SOLAR HOT WATER SUPPLY
RD	ROOF DRAINAGE
RDO	ROOF DRAIN OVERFLOW
CO2	CARBON DIOXIDE
HE	HELIUM
IA	INSTRUMENT AIR
MA	MEDICAL AIR
MV	MEDICAL VACUUM
N2	NITROGEN
N2O	NITROUS OXIDE
O2	OXYGEN
WAGD	WASTE ANESTHESIA GAS DISPOSAL



PIPE ACCESSORY TAGS

2" DOM. WM DOMESTIC WATER METER	2" M-CNTRL MOTORIZED CONTROL VALVE
2" BALANCING BALANCING VALVE	2" 3-WAY CNTRL 3 WAY MOTORIZED CONTROL VALVE
2" SHUTOFF 1/4 TURN BALL VALVE	2" PRV PRESSURE REDUCING VALVE
2" CHECK CHECK VALVE	3/8" SOLENOID REFRIGERANT SOLENOID VALVE
2" TMV 3-WAY MIXING VALVE	2" BUTTERFLY BUTTERFLY VALVE

DRAIN TAGS

DRAIN SIZE

Drain	Tag	Note	Tag	Drain
FLOOR DRAIN	4" FD-1	TYPE (SEE SCHEDULE)	4" AD-6	AREA DRAIN
FLOOR DRAIN	2" FD-1P	"P" - INDICATES PRIMER CONNECTION	4" DD-29	DECK DRAIN
FLOOR SINK	4" FS-4		4" RD-12	FLOW CONTROL DRAIN
HUB DRAIN	4" FD-13 8 WFU	FIXTURE UNITS	4" RD-1	ROOF DRAIN
		ROOF AREA SERVED BY DRAIN	6" RD-1 4000 SF	COMBINATION DRAINS

PLUMBING GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
7. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
13. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
16. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
17. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL.
18. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
19. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
20. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
21. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
22. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
    A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS, USE 4" NPS FOR LARGER. DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
    B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
    C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

PROJECT GENERAL NOTES

1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. ALL DEVICES LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

NOTE

ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

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BID PACKAGE NOTES

SHEET REVISIONS WILL BE ISSUED ACCORDING TO THEIR BID PACKAGE.
(EX: ASI-1/BP-1)

NOTES:

BID PACKAGE 1
CIVIL / UNDERGROUND MEP / FOUNDATION
(**BC**............ISSUED FOR BIDDING AND CONSTRUCTION)
(**RO**............ISSUED FOR REFERENCE ONLY)

BID PACKAGE 2
LANDSCAPE / STRUCTURAL / ARCHITECTURAL / MECH., PLUMBING, & FIRE / ELECTRICAL / KITCHEN
(**BC**...........ISSUED FOR BIDDING AND CONSTRUCTION)
(**RR/WR**.....RE-RELEASED w/ REVISIONS)

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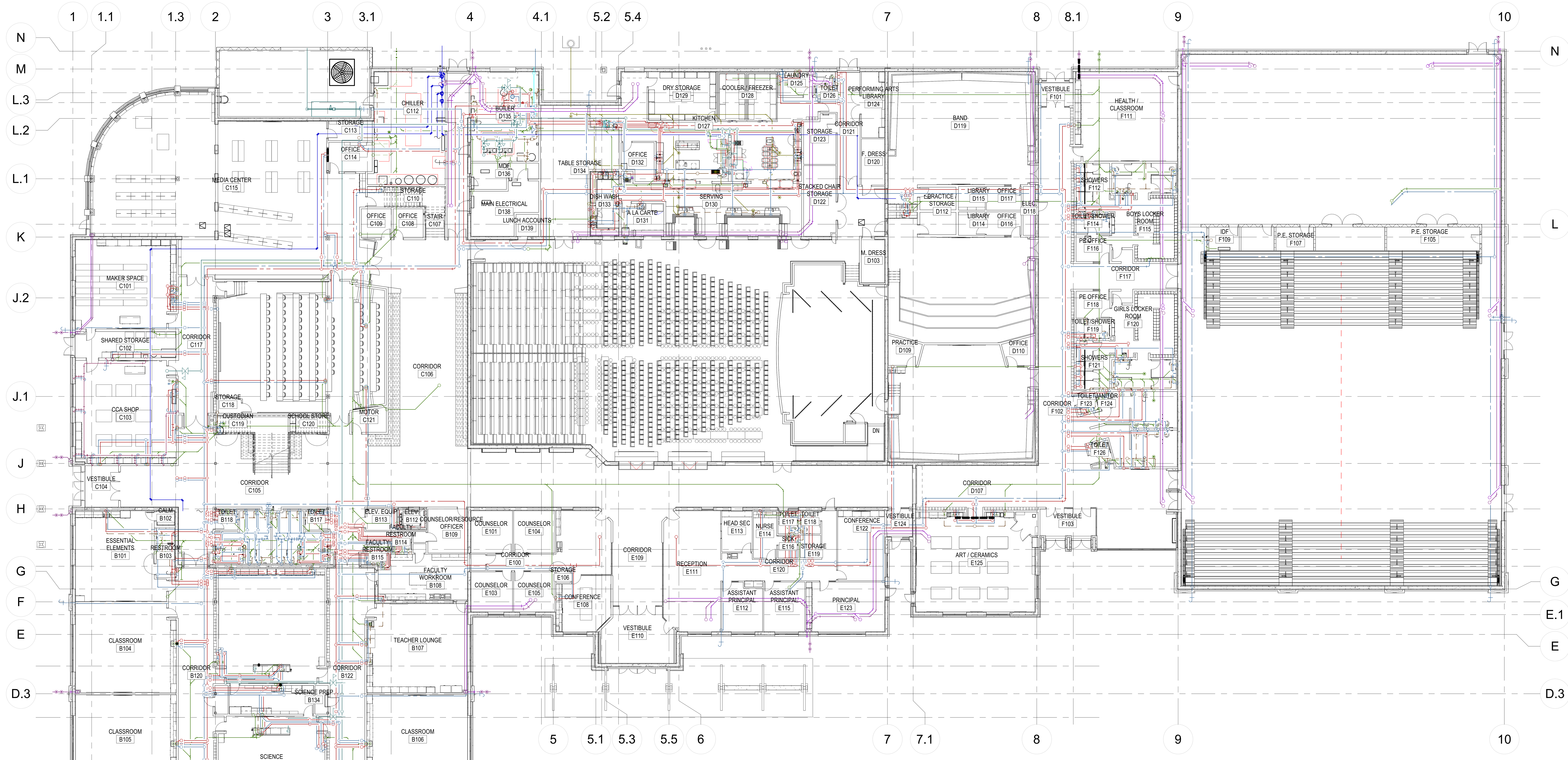
CONSTRUCTION DOCUMENTS

PLUMBING TITLE SHEET

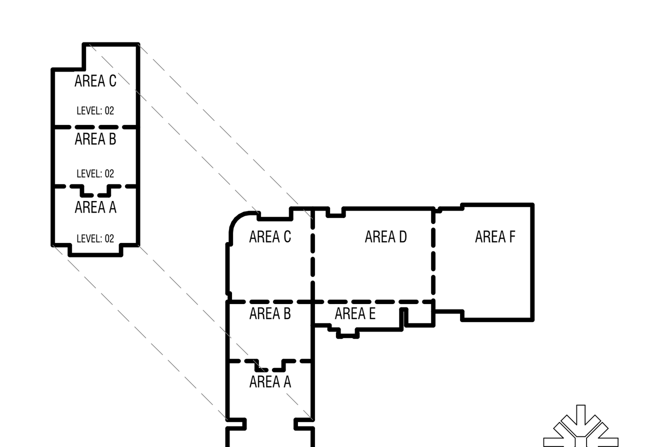
P-000



KEYNOTES

1 BID ALTERNATE 1: THE DEFINED AREA IS BID ALTERNATE 1 AND SHALL BE REMOVED IF THE BID ALTERNATE IS NOT ACCEPTED.

KEY PLAN



TO BE DETERMINED

1 P-101 PLUMBING PLAN - LEVEL 01 - OVERALL
1/16" = 1'-0"

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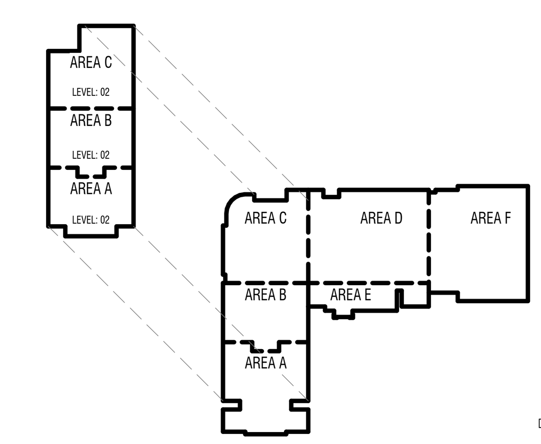
PLUMBING PLAN - LEVEL 01 - OVERALL

P-101

KEYNOTES

1 BID ALTERNATE 1: THE DEFINED AREA IS BID ALTERNATE 1 AND SHALL BE REMOVED IF THE BID ALTERNATE IS NOT ACCEPTED.

KEY PLAN



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1 PLUMBING PLAN - LEVEL 02 - OVERALL
P-102 1/16" = 1'-0"

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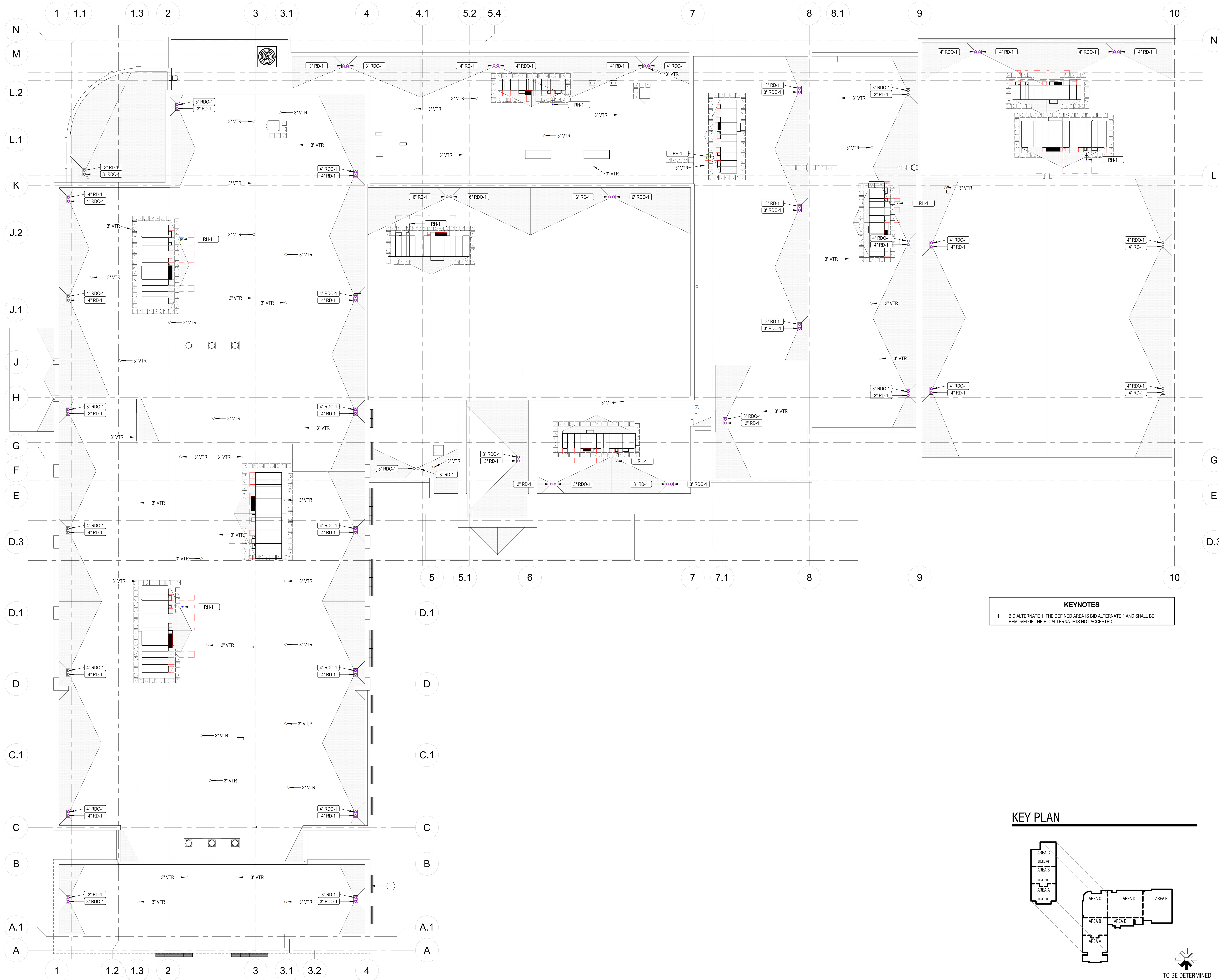
JEDEDIAH L JENKINS
STATE OF UTAH

CONSTRUCTION DOCUMENTS

PLUMBING PLAN - LEVEL 02 - OVERALL

P-102



KEYNOTES

1 BID ALTERNATE 1: THE DEFINED AREA IS BID ALTERNATE 1 AND SHALL BE REMOVED IF THE BID ALTERNATE IS NOT ACCEPTED.

KEY PLAN

TO BE DETERMINED

1 P-103 PLUMBING PLAN - ROOF - OVERALL
1/16" = 1'-0"

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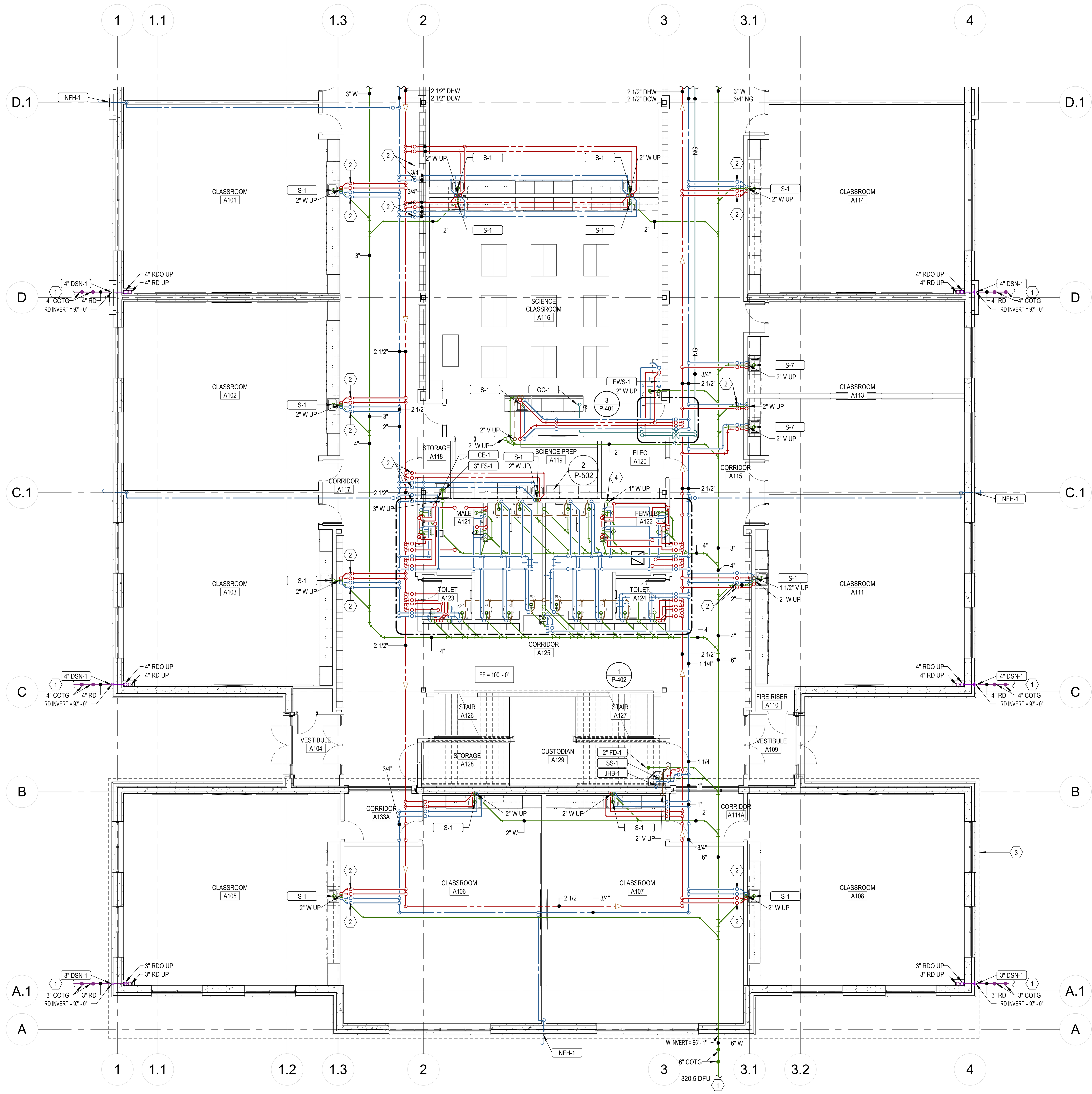
STATE OF UTAH

PLUMBING PLAN - ROOF - OVERALL

P-103

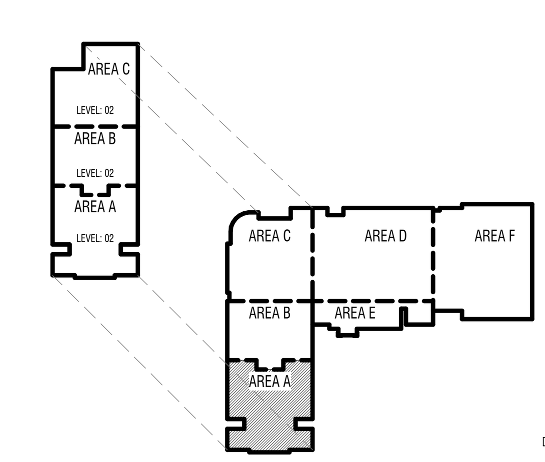
KEYNOTES

1 SEE CIVIL PLANS FOR CONTINUATION.
2 DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
3 BID ALTERNATE 1: THE DEFINED AREA IS BID ALTERNATE 1 AND SHALL BE REMOVED IF THE BID ALTERNATE IS NOT ACCEPTED.
4 CONDENSATE WALL BOX. SEE DETAIL 7/P-502. SEE ARCHITECT FOR MOUNTING HEIGHT.



1 P-111.A PLUMBING PLAN - LEVEL 01 - AREA A
1/8" = 1'-0"

KEY PLAN



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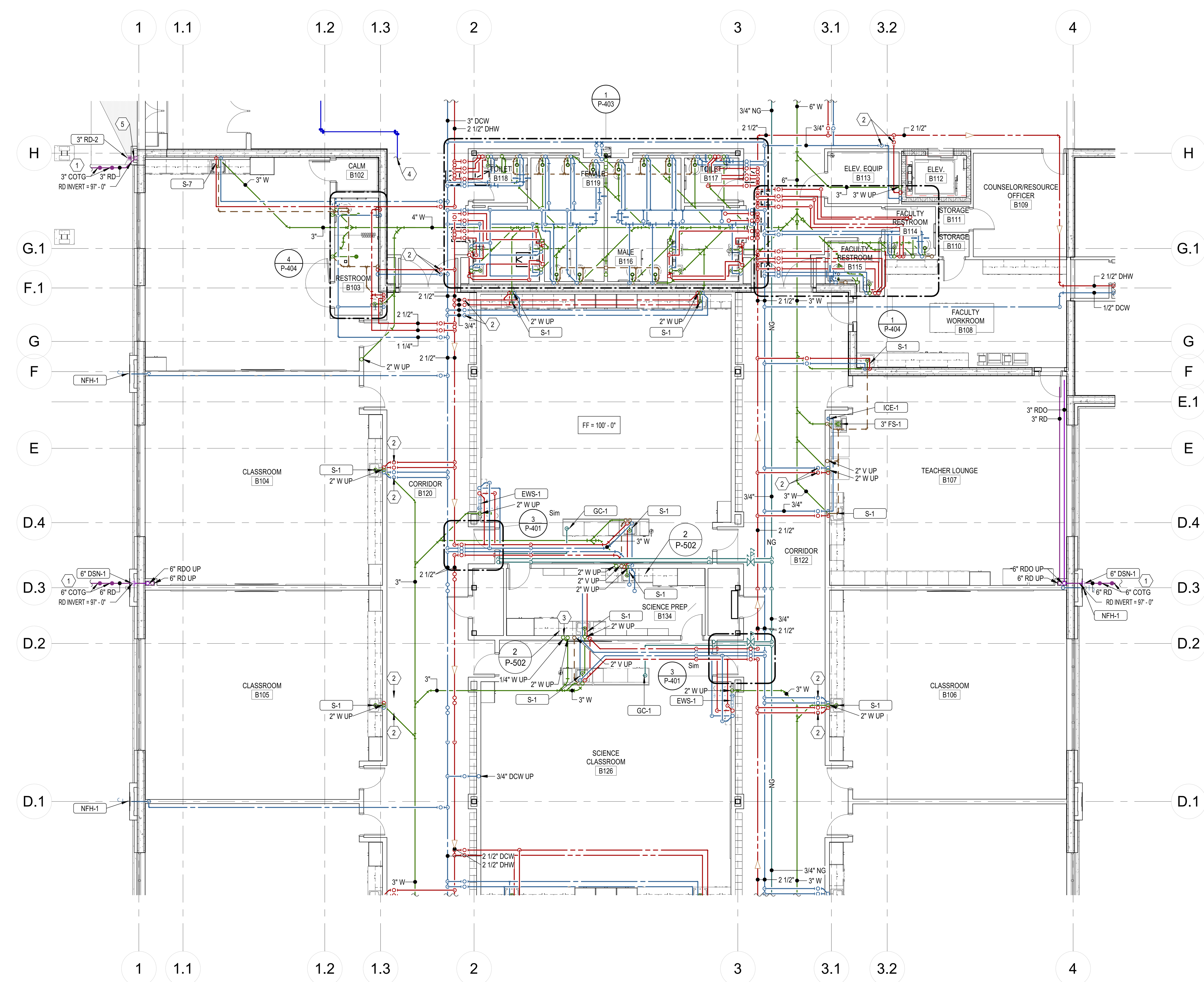
PLUMBING PLAN - LEVEL 01 - AREA A

P-111.A

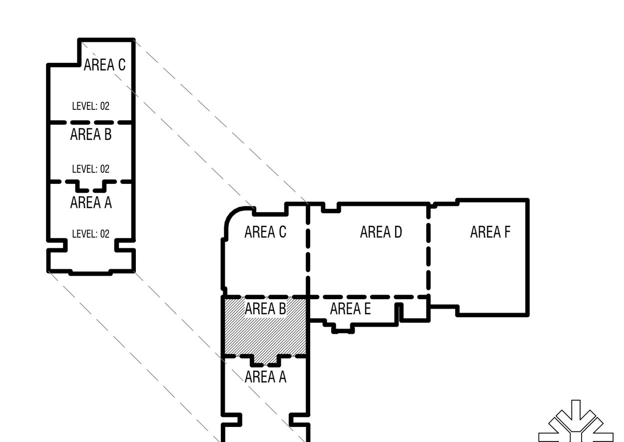
KEYNOTES

1	SEE CIVIL PLANS FOR CONTINUATION.
2	DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
3	CONDENSATE WALL BOX. SEE DETAIL 7/P-502. SEE ARCHITECT FOR MOUNTING HEIGHT.
4	FIRE PROTECTION MAIN CONTINUES TO SERVE ALL SPRINKLER IN CLASSROOM FIRE ZONE.
5	HEAT TRACE RD PIPING. 3 WATTS PER LINEAL FOOT. APPROXIMATELY 45 WATTS.



1 P-111.B PLUMBING PLAN - LEVEL 01 - AREA B
1/8" = 1'-0"

KEY PLAN



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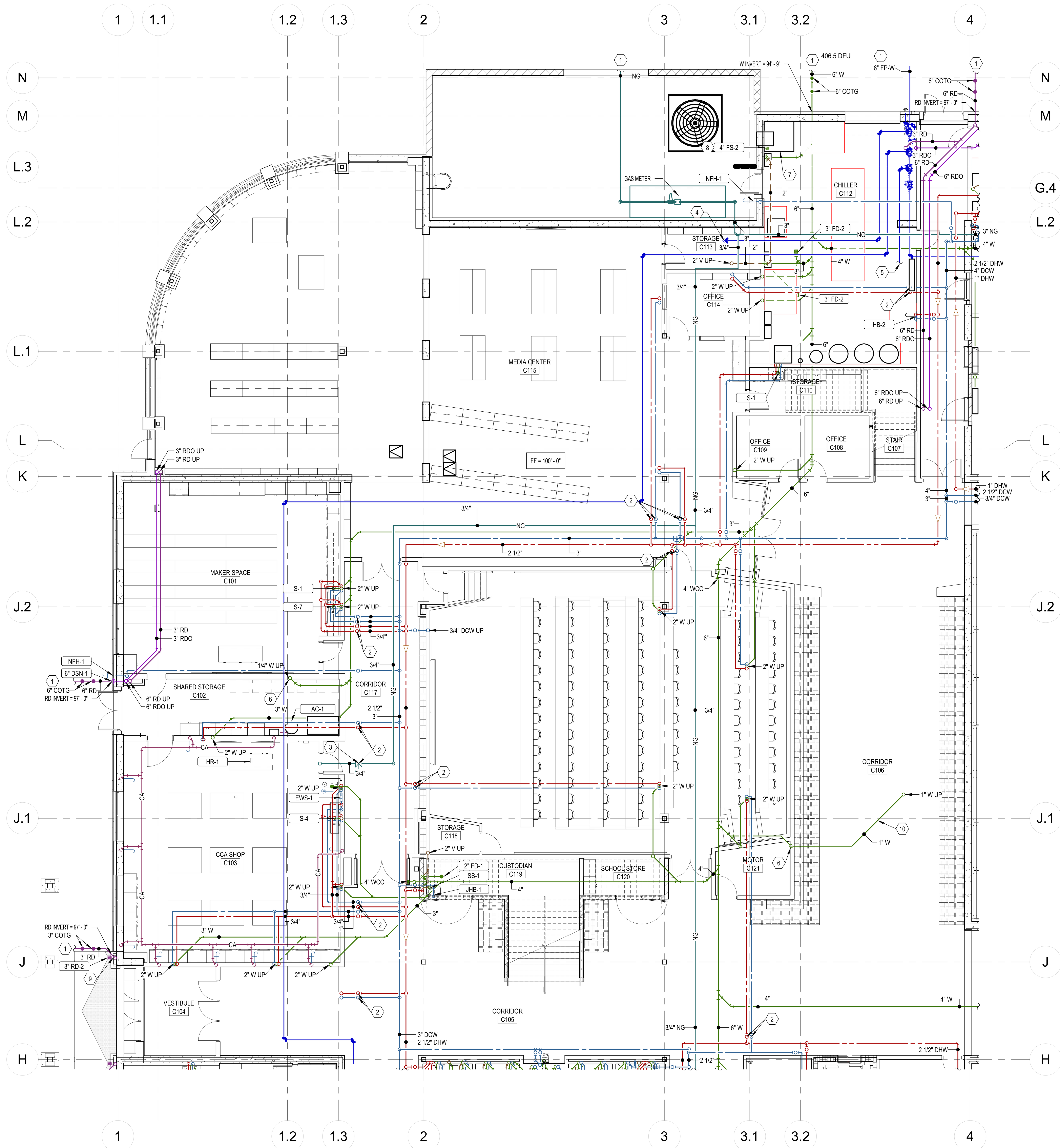
PLUMBING PLAN - LEVEL 01 - AREA B

P-111.B

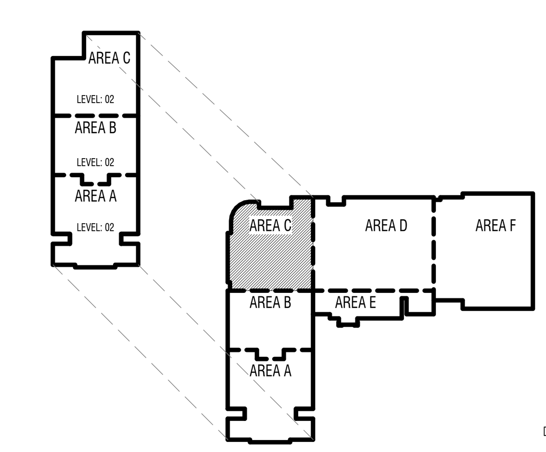


1
P-111.C
PLUMBING PLAN - LEVEL 01 - AREA C
1/8" = 1'-0"

KEYNOTES

1. SEE CIVIL PLANS FOR CONTINUATION.
2. DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
3. 2 PSIG TO 4 OZ GAS PRESSURE REGULATOR. 34 CFH. VENT TO OUTSIDE.
4. RISE TO SERVER SECOND FLOOR FIRE SPRINKLERS.
5. CONTINUES TO SERVE SPRINKLERS IN THE AUDITORIUM FIRE AREA.
6. CONDENSATE WALL BOX. SEE DETAIL 7/P-502. SEE ARCHITECT FOR MOUNTING HEIGHT.
7. 4'X4'X2' DEEP, ABOVE GROUND, SUMP FOR COOLING TOWER DRAIN. 4" OUTLET DRAIN.
8. 4" FS-2 AT BOTTOM OF COOLING TOWER DRAIN SUMP. FLOOR SINK TO HAVE DEEP SEAL P-TRAP AND TRAP GUARD.
9. HEAT TRACE RD PIPING. 3 WATTS PER LINEAL FOOT. APPROXIMATELY 45 WATTS.
10. SLOPE CONDENSATE DRAIN 1% TO DROP.

KEY PLAN



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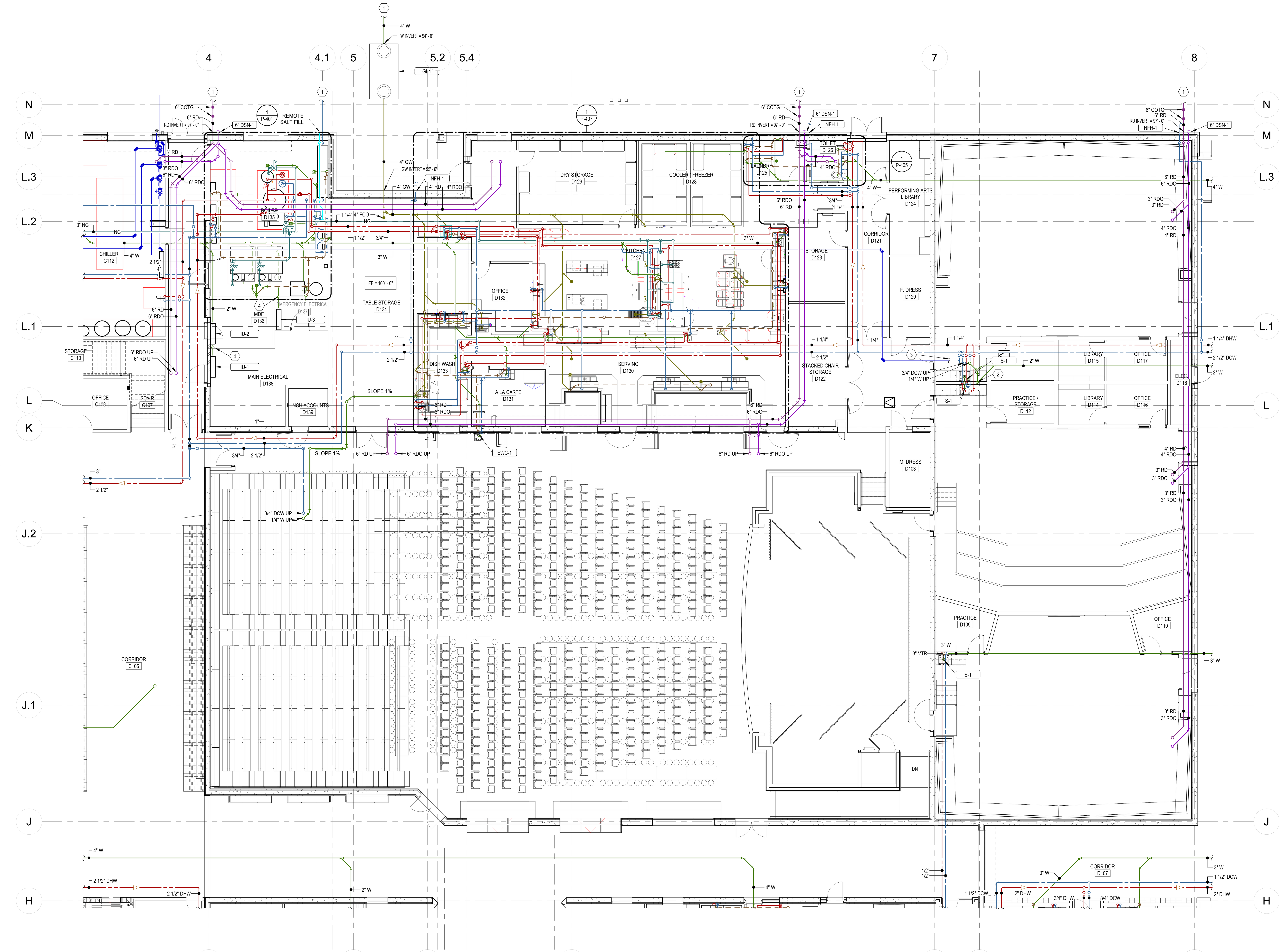
STATE OF UTAH

PLUMBING PLAN - LEVEL 01 - AREA C

P-111.C

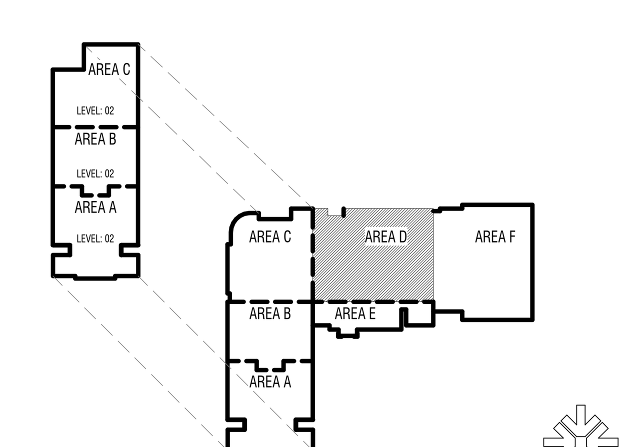


PLUMBING PLAN - LEVEL 01 - AREA D
1/8" = 1'-0"

KEYNOTES

1. SEE CIVIL PLANS FOR CONTINUATION.
2. DROP DRAIN LINE DOWN IN WALL AND STUB OUT AND EXTEND TO FLOOR SINK.
3. FIRE PROTECTION MAIN CONTINUES TO SERVE ALL SPRINKLER IN GYM FIRE ZONE.
4. CONDENSATE WALL BOX. SEE DETAIL 7/P-502. SEE ARCHITECT FOR MOUNTING HEIGHT.

KEY PLAN



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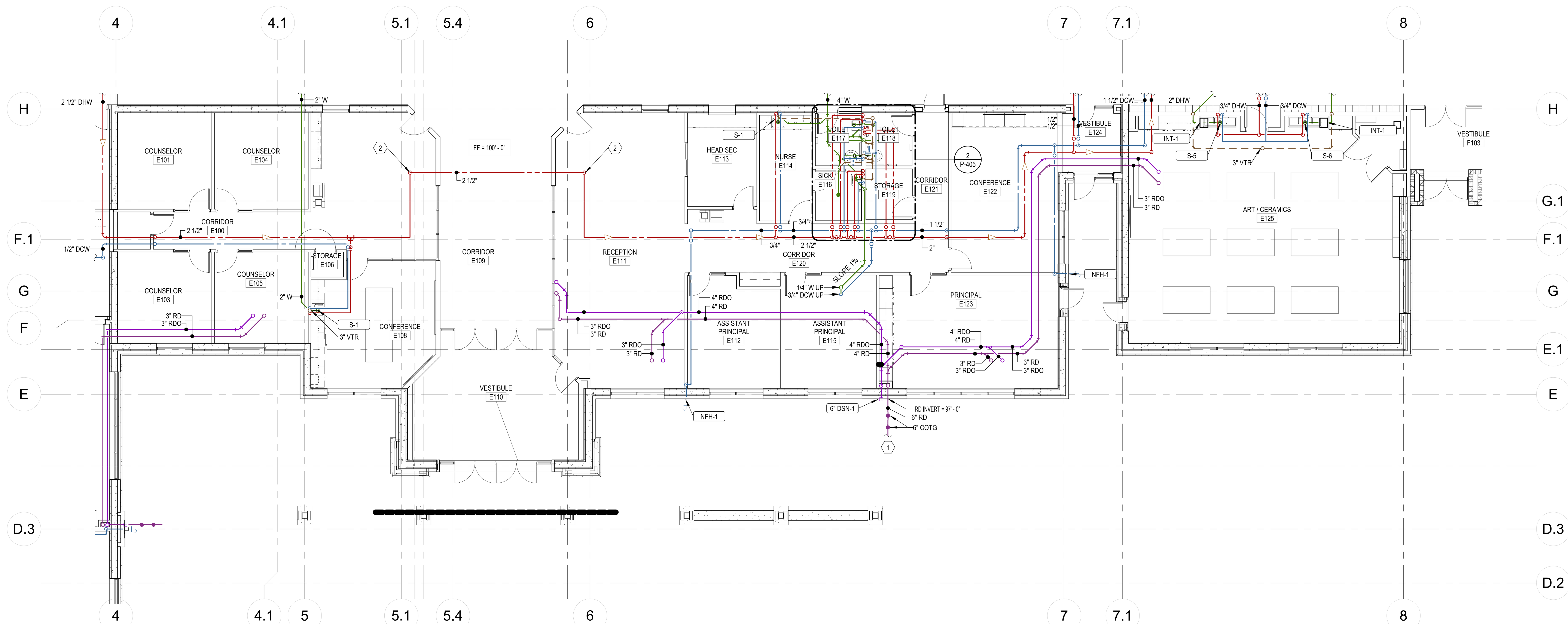
JEDEDIAH L JENKINS
STATE OF UTAH

PLUMBING PLAN - LEVEL 01 - AREA D

P-111.D

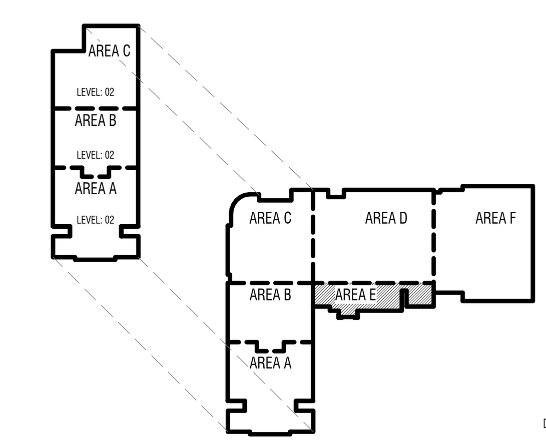
KEYNOTES

1 SEE CIVIL PLANS FOR CONTINUATION.
2 DWH MAIN UP IN CHASE TO RUN HIGH OVER CORRIDOR.



1 PLUMBING PLAN - LEVEL 01 - AREA E
P-111.E
1/8" = 1'-0"

KEY PLAN



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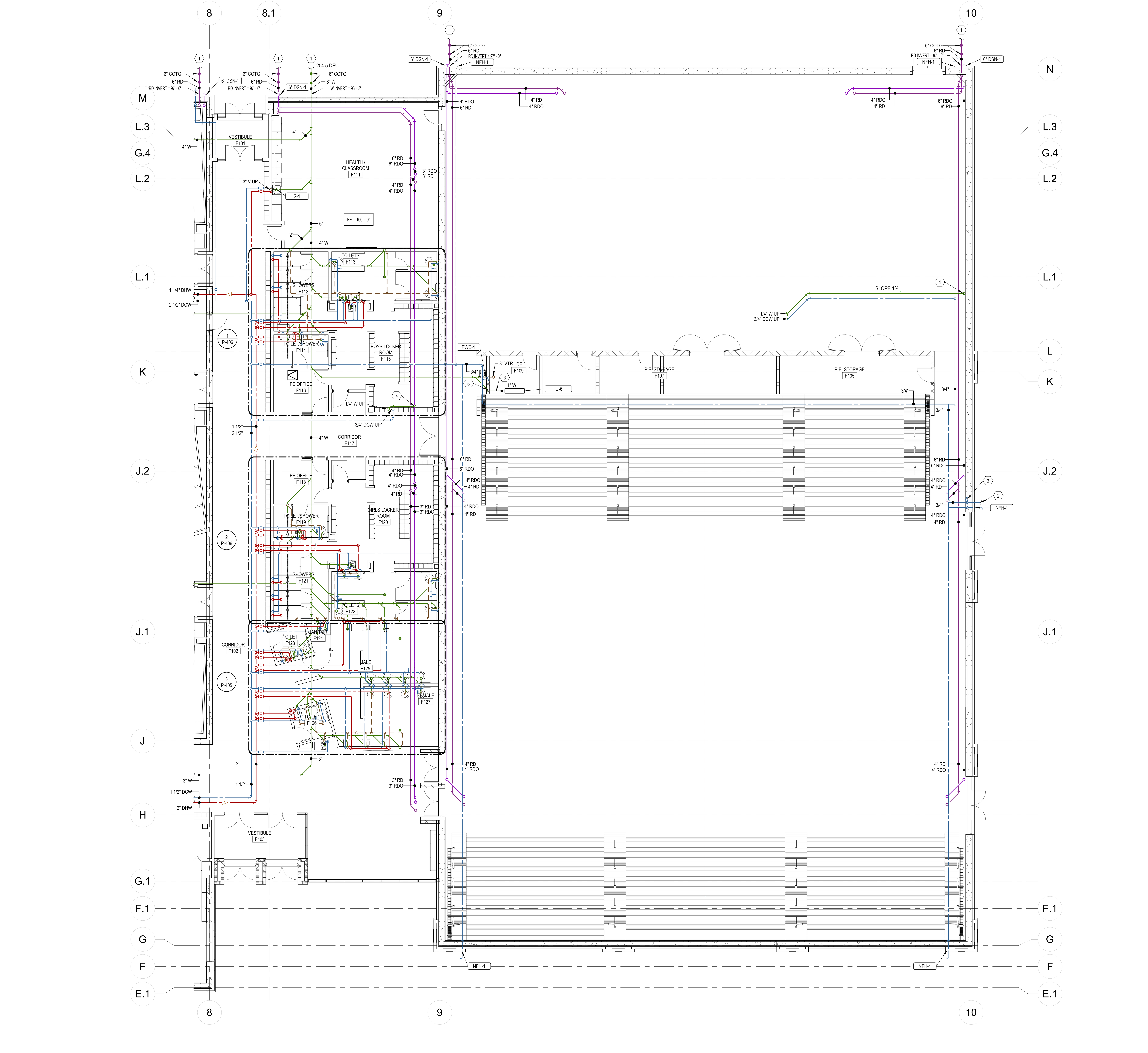
PLUMBING PLAN - LEVEL 01 - AREA E

P-111.E

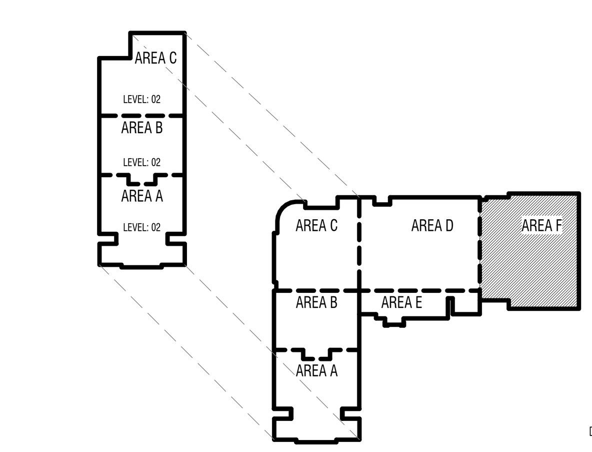


1 PLUMBING PLAN - LEVEL 01 - AREA F
P-111.F 1/8" = 1'-0"

KEYNOTES

1 SEE CIVIL PLANS FOR CONTINUATION.
2 BURIED 3/4" DCW TO MAINTENANCE SHED. SEE CIVIL PLANS FOR CONTINUATION.
3 ISOLATION VALVE AND AIR QUICK CONNECT FOR "BLOW OUT" WINTERIZATION. SEE DETAIL 6/P-502.
4 SLOPE 1/4" DRAIN LINE 1% TO RDO LINE. CONNECT TO TOP OF RDO LINE.
5 CONDENSATE WALL BOX. SEE DETAIL 7/P-502. SEE ARCHITECT FOR MOUNTING HEIGHT.
6 SLOPE CONDENSATE DRAIN 1% TO DROP.

KEY PLAN



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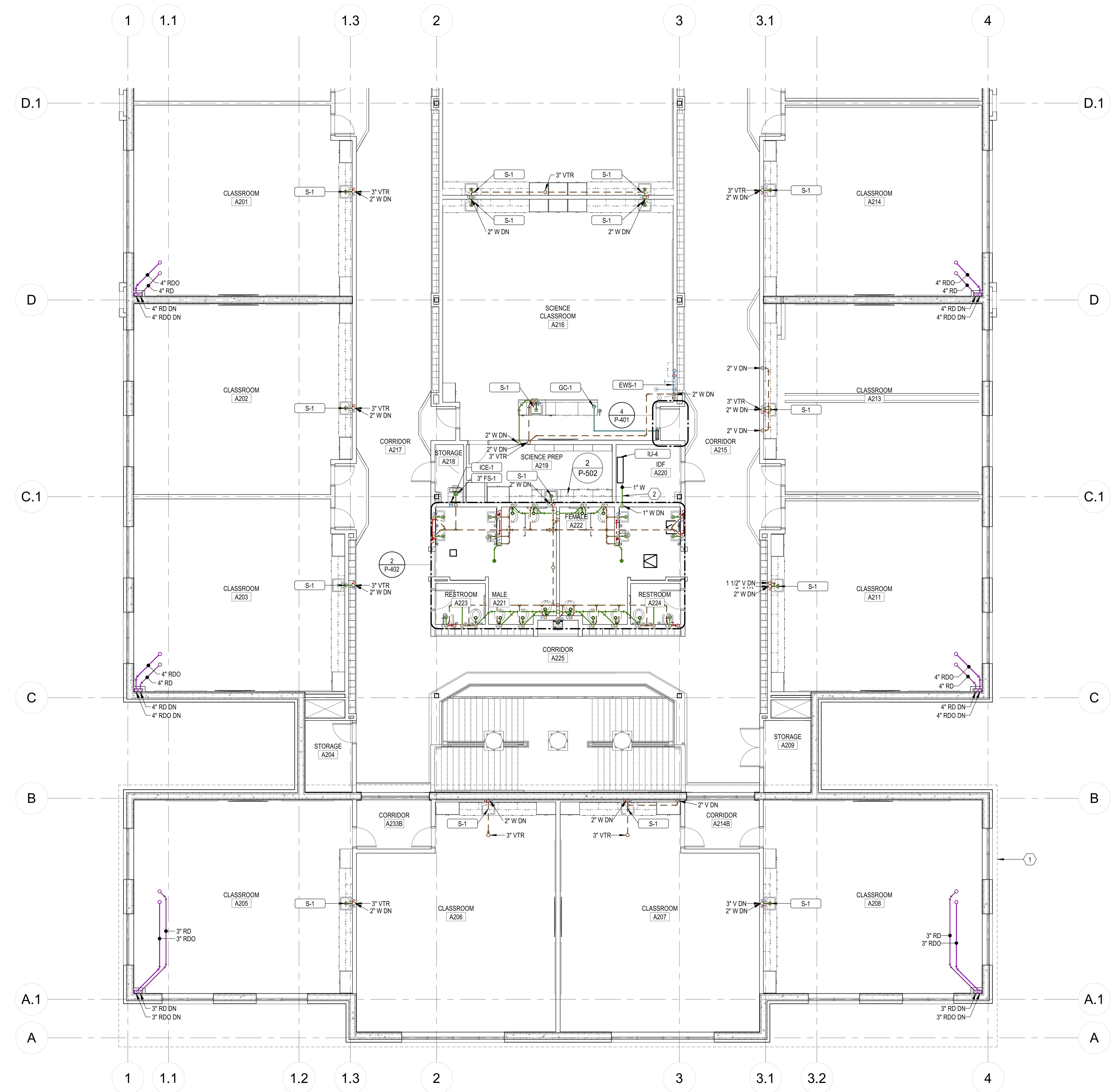
STATE OF UTAH

PLUMBING PLAN - LEVEL 01 - AREA F

P-111.F

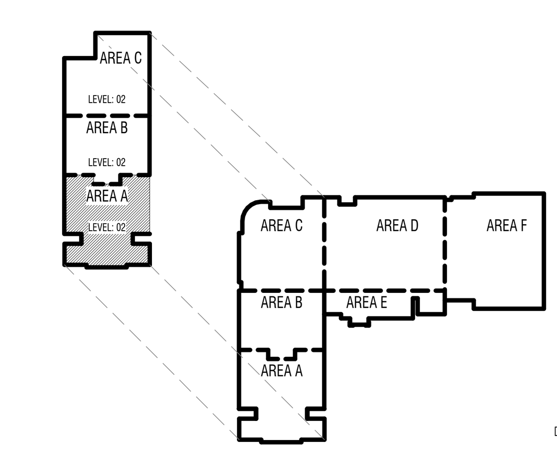
KEYNOTES

1 BID ALTERNATE 1: THE DEFINED AREA IS BID ALTERNATE 1 AND SHALL BE REMOVED IF THE BID ALTERNATE IS NOT ACCEPTED.
2 SLOPE CONDENSATE DRAIN 1% TO DROP.



1 P-112.A PLUMBING PLAN - LEVEL 02 - AREA A
1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

PROJECT #:	23717
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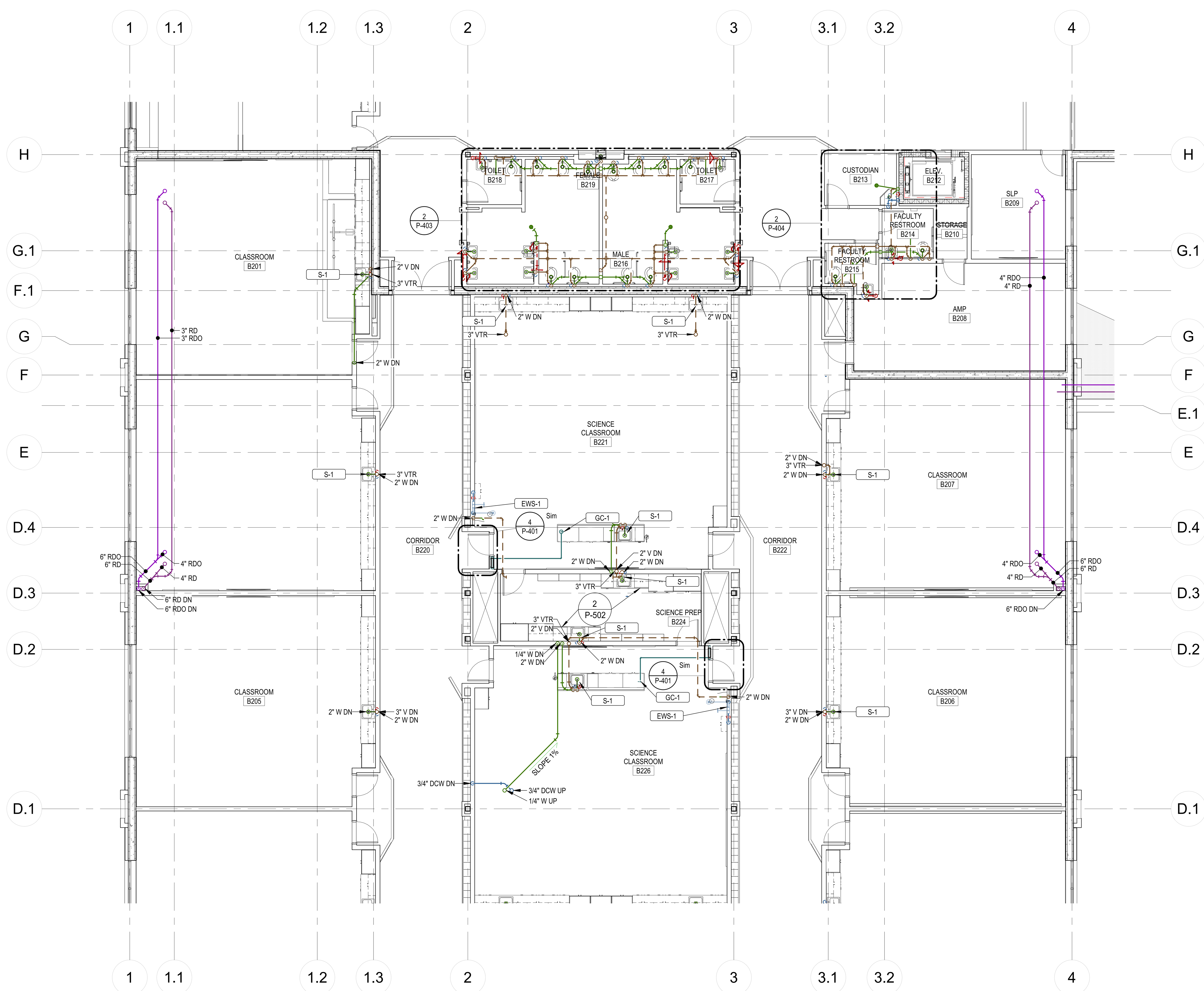
ISSUED:	05/02/2024

PLUMBING PLAN - LEVEL 02 - AREA A

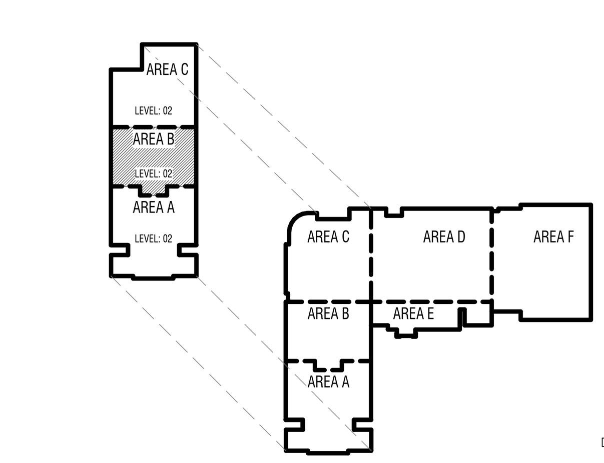
P-112.A

KEYNOTES



1 P-112.B PLUMBING PLAN - LEVEL 02 - AREA B
1/8" = 1'-0"

KEY PLAN



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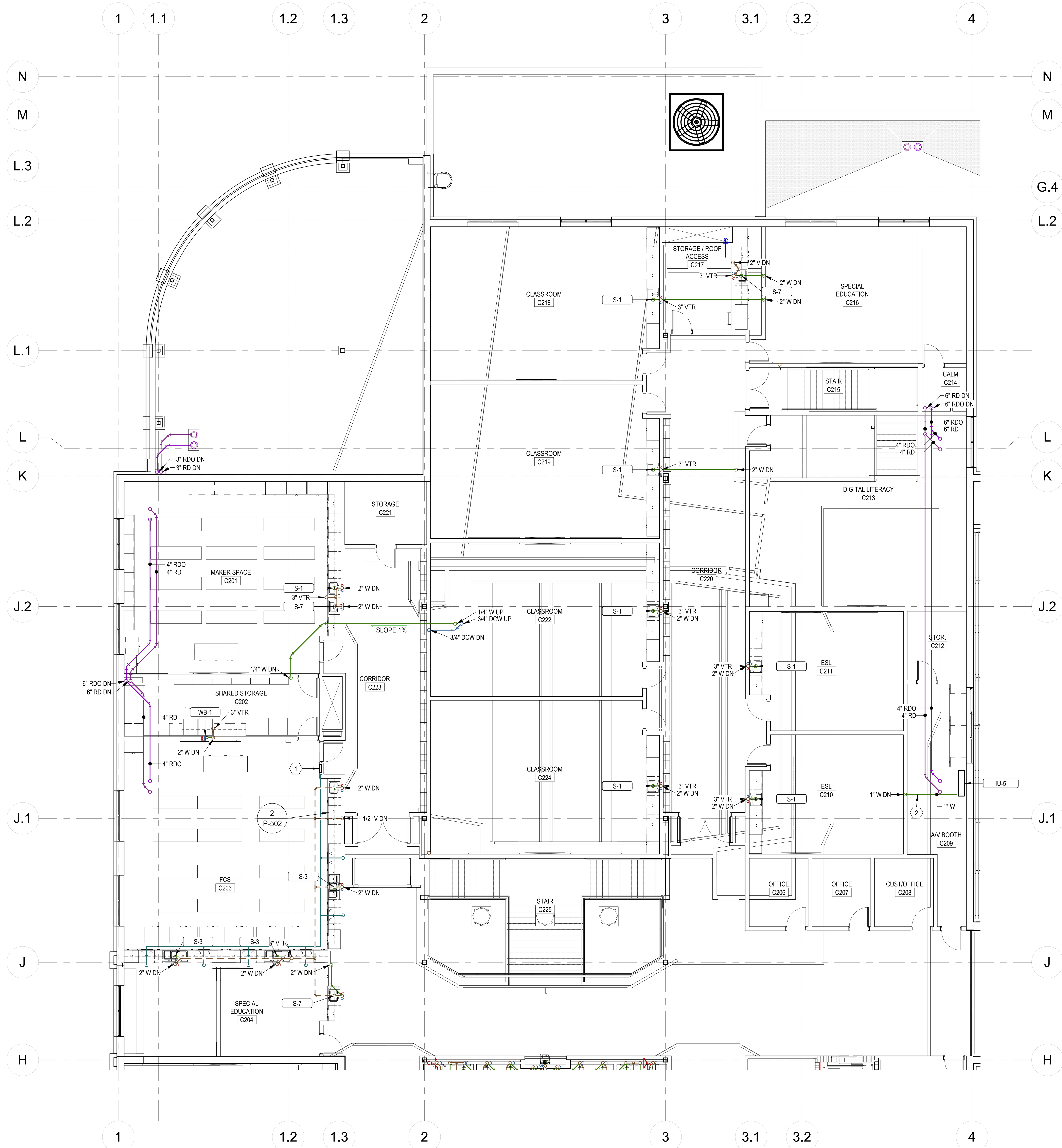
CONSTRUCTION DOCUMENTS

PLUMBING PLAN - LEVEL 02 - AREA B

P-112.B

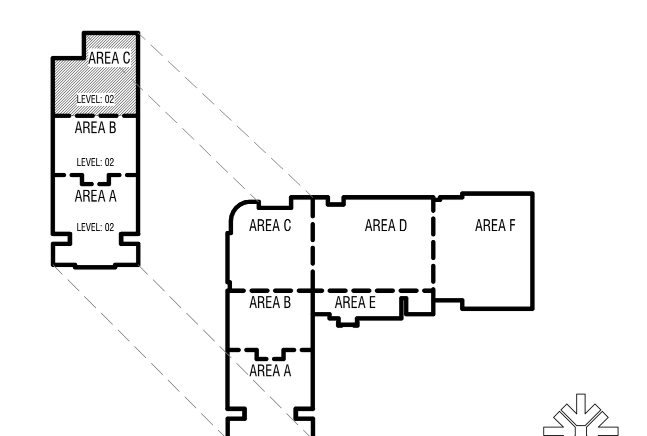
KEYNOTES

1. PROVIDE AND INSTALL METCRAFT GAS VALVE MODEL A605QR ENCLOSURE WITH STAINLESS STEEL DOOR, FLUSH MOUNT 16" X 16" X 4" STANDARD ASSEMBLY WITH GROMMETS OR EQUIVALENT. SEE DETAIL 3/P-502.
2. SLOPE CONDENSATE DRAIN 1% TO DROP.



1 PLUMBING PLAN - LEVEL 02 - AREA C
P-112.C 1/8" = 1'-0"

KEY PLAN



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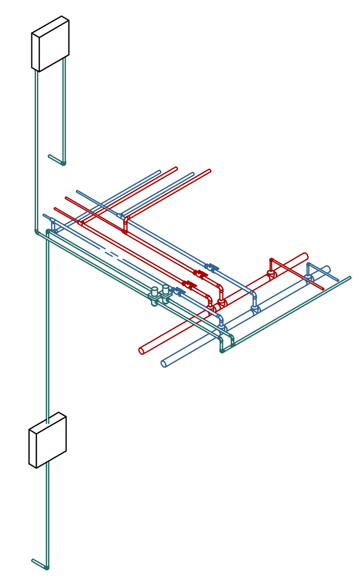
CONSTRUCTION DOCUMENTS

PLUMBING PLAN - LEVEL 02 - AREA C

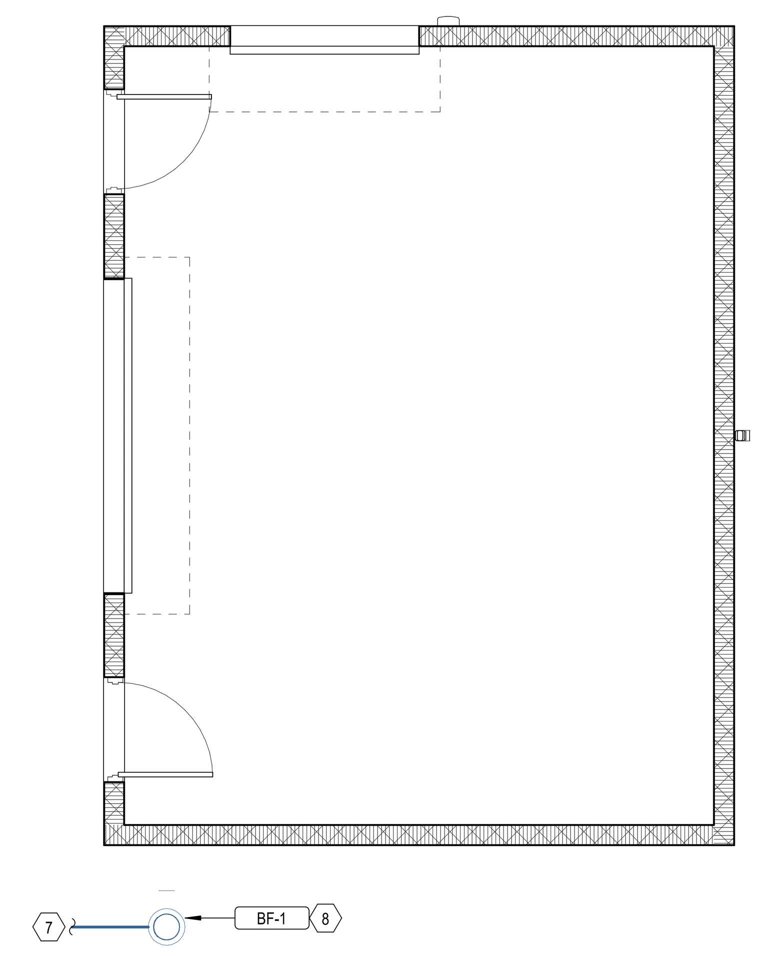
P-112.C

KEYNOTES

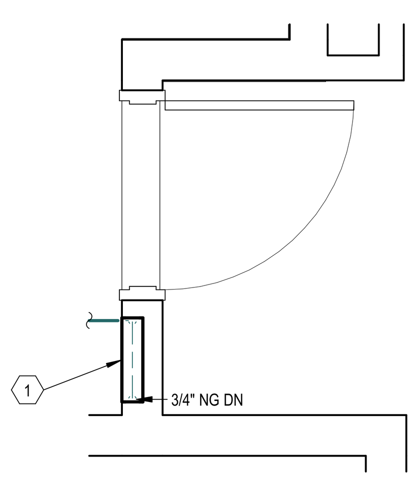
1 PROVIDE AND INSTALL METCRAFT GAS VALVE MODEL A605QR ENCLOSURE WITH STAINLESS STEEL DOOR, FLUSH MOUNT 16" X 16" X 4" STANDARD ASSEMBLY WITH GROMMETS OR EQUIVALENT. SEE DETAIL 3/P-502.
2 DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
3 2 PSIG TO 4 OZ GAS PRESSURE REGULATOR. 5682 CFH. VENT TO OUTSIDE.
4 2 PSIG TO 4 OZ GAS PRESSURE REGULATOR. 568 CFH. VENT TO OUTSIDE.
5 2 PSIG TO 4 OZ GAS PRESSURE REGULATOR. 226 CFH. VENT TO OUTSIDE.
6 2 PSIG TO 4 OZ GAS PRESSURE REGULATOR. 34 CFH. VENT TO OUTSIDE.
7 SEE CIVIL PLANS FOR CONTINUATION.
8 OUTDOOR BOTTLE FILLING STATION. SEE ARCHITECT FOR EXACT LOCATION. DRAIN TO GRAVEL SUMP, BY CIVIL, SEE DETAIL 8/P-502.
9 SLEEVE WALL FOR 2" SALT FILL LINE. SEAL PENETRATON WEATHER TIGHT. PROVIDE AND INSTALL SALT FILL CONNECTION AND CAP.
10 SALT FILL PIPING SHALL BE SOLID CORE PVC WITH LONG-SWEEP STAINLESS STEEL ELBOWS.



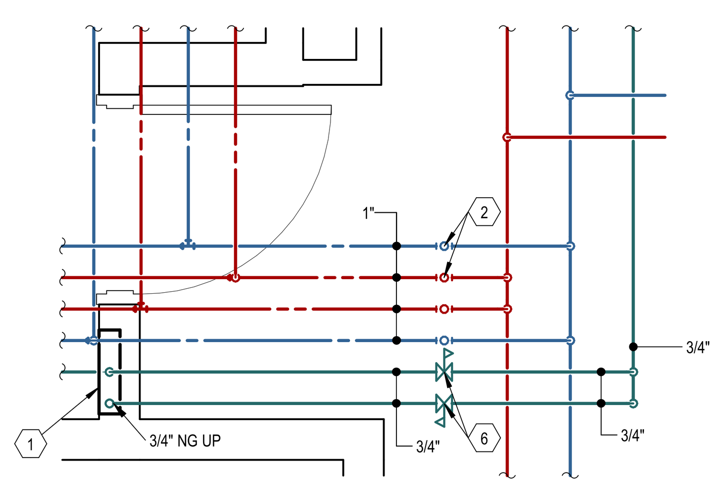
5 P-401 SCIENCE CLASSROOM PLUMBING VALVES



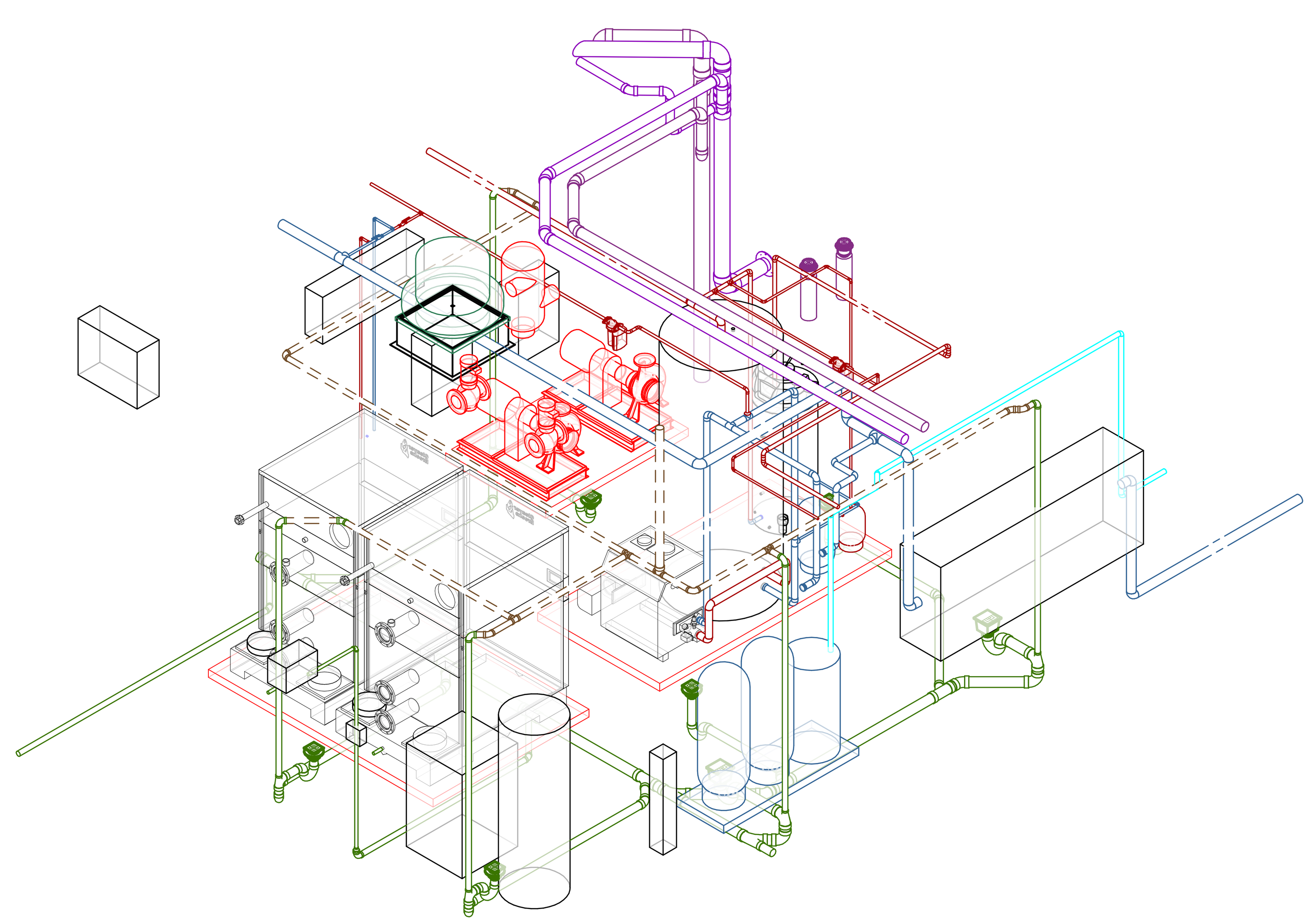
6 P-401 MAINTENANCE SHED PLUMBING PLAN
1/4" = 1'-0"



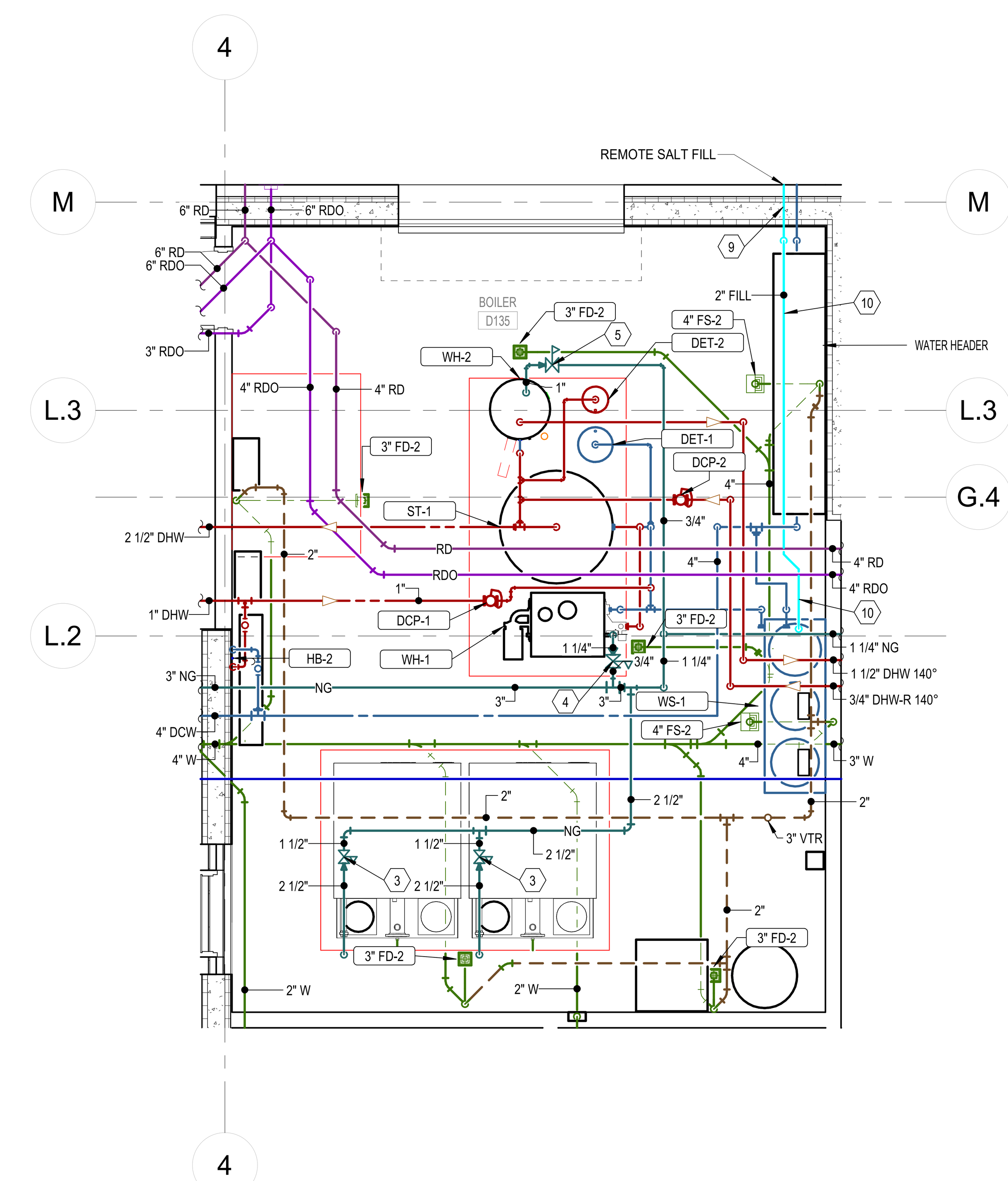
4 P-401 LEVEL 2 SCIENCE CLASSROOM TYPICAL PLUMBING
1/2" = 1'-0"



3 P-401 LEVEL 1 SCIENCE CLASSROOM TYPICAL PLUMBING
1/2" = 1'-0"



2 P-401 BOILER ROOM



1 P-401 BOILER ROOM PLUMBING PLAN
1/4" = 1'-0"

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ISSUED: 05/02/2024

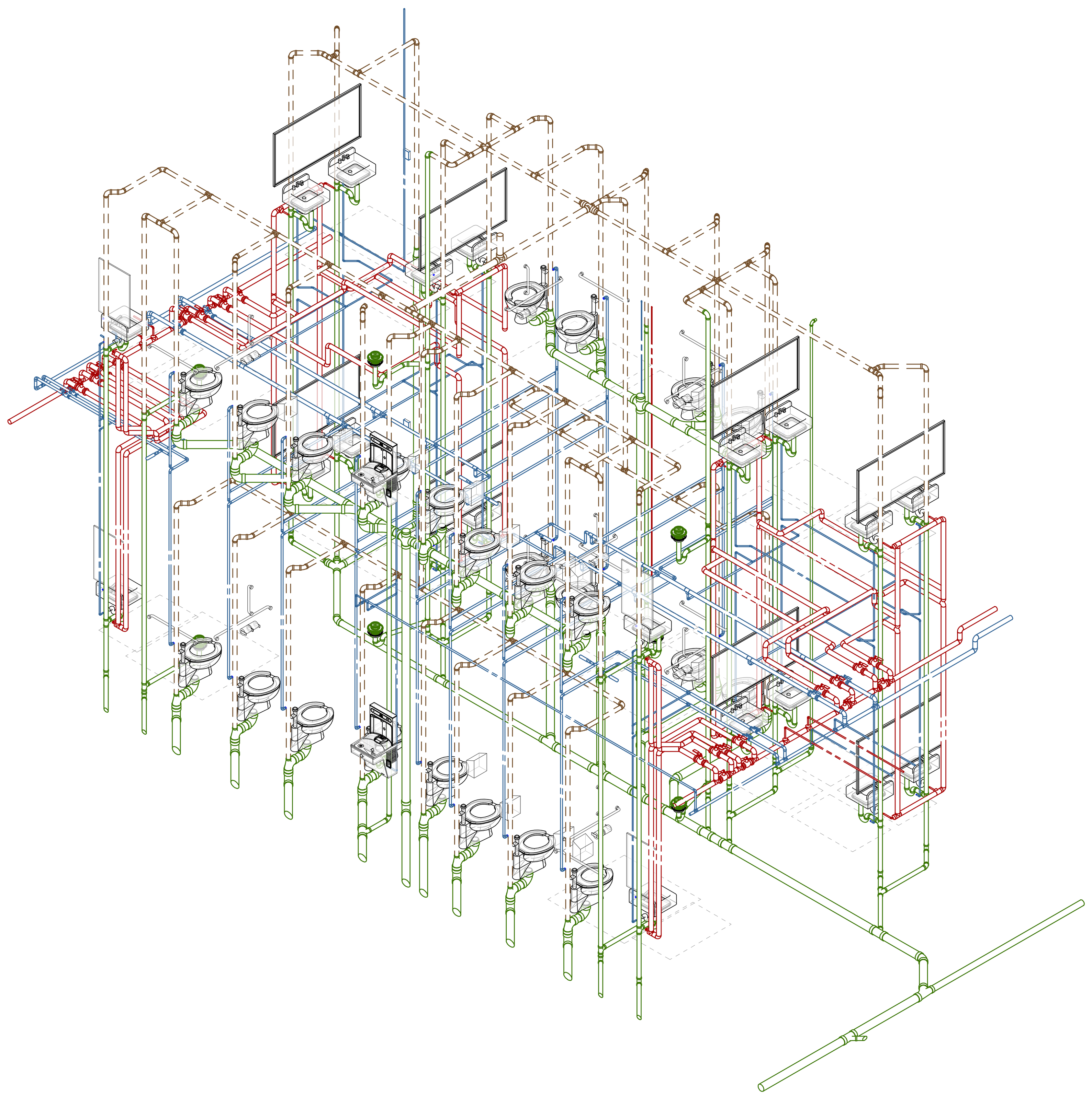
CONSTRUCTION DOCUMENTS

PLUMBING ENLARGED VIEWS

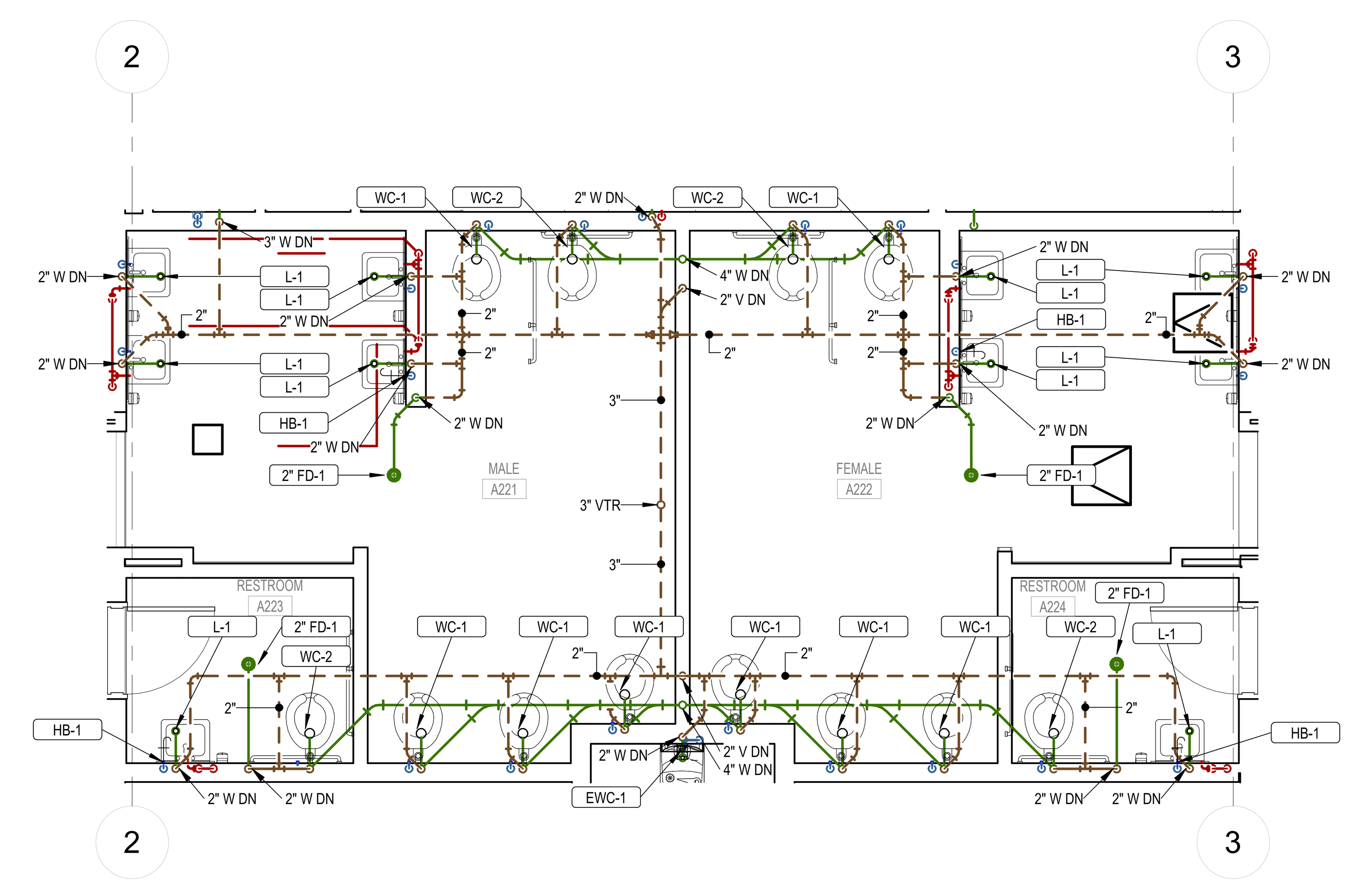
P-401

KEYNOTES

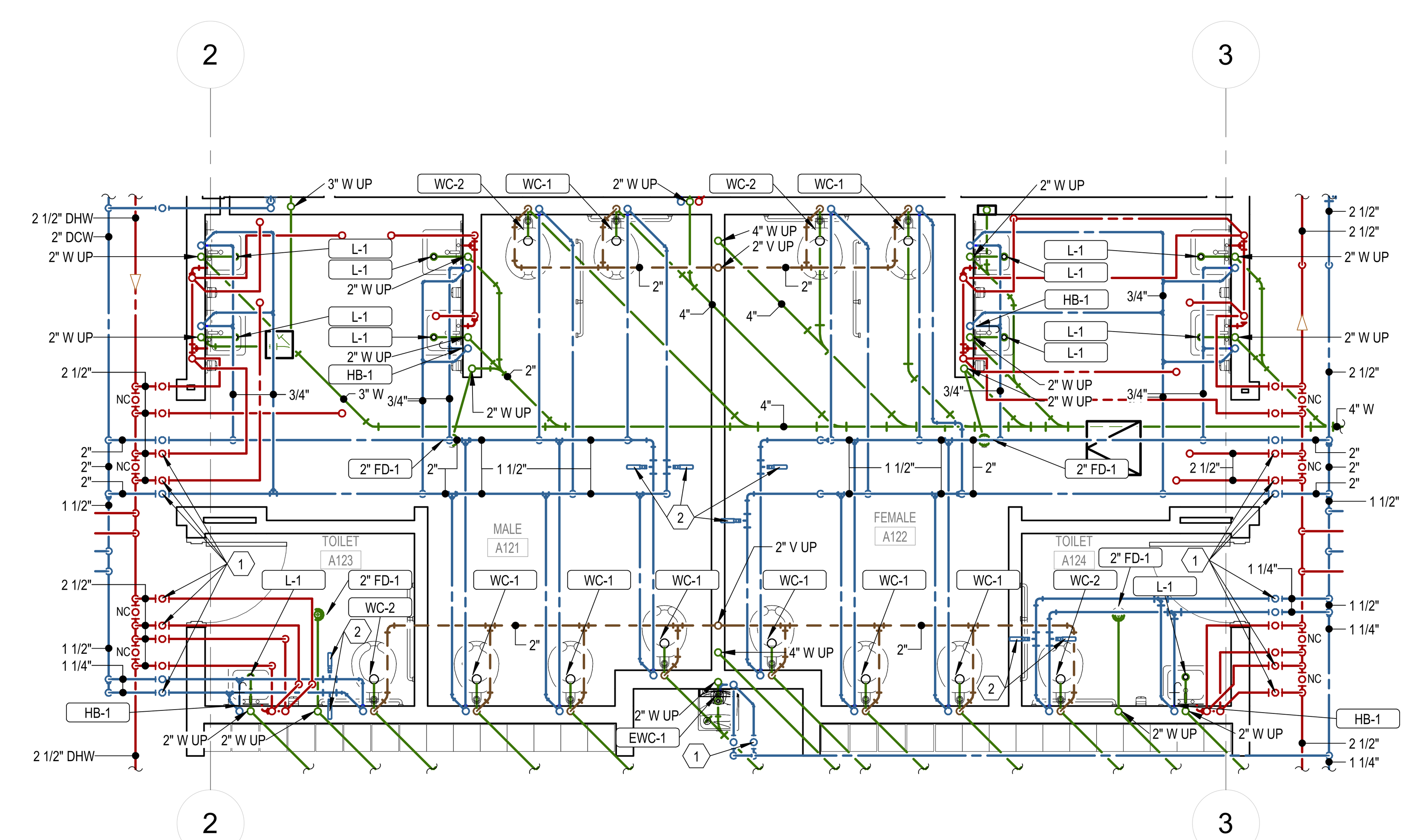
1. DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
2. WATER HAMMER ARRESTOR. WATTS 15M2 OR SIMILAR. SIZE, LOCATE, AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



3 P-402 CLASS SOUTH TOILET ROOMS



2 P-402 MALE A221/ FEMALE A222 PLUMBING PLAN
1/4" = 1'-0"



1 P-402 MALE A121/ FEMALE A122 PLUMBING PLAN
1/4" = 1'-0"

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CHECKED BY:	LW
ISSUED:	05/02/2024

REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

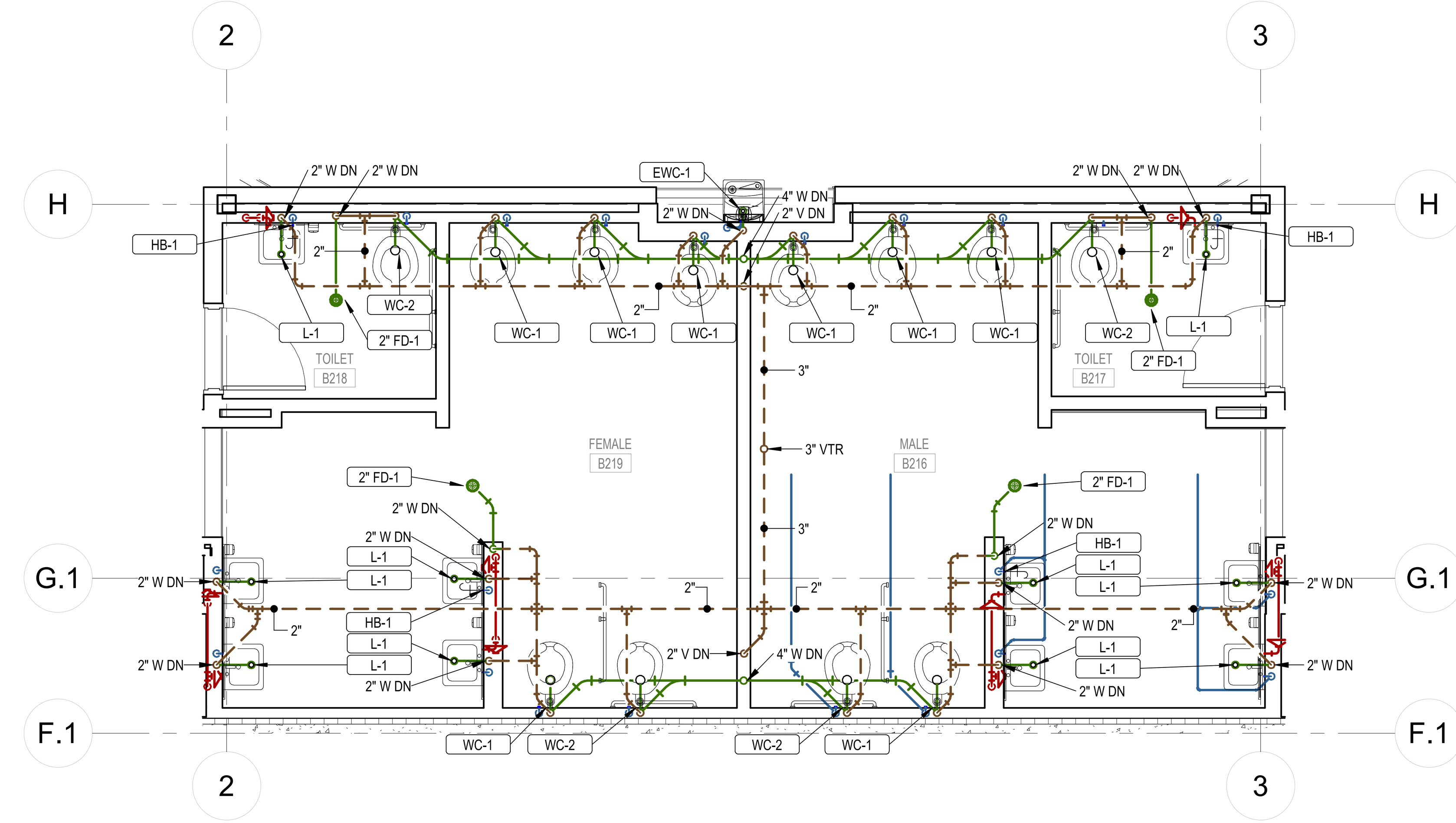
PLUMBING
ENLARGED VIEWS

P-402

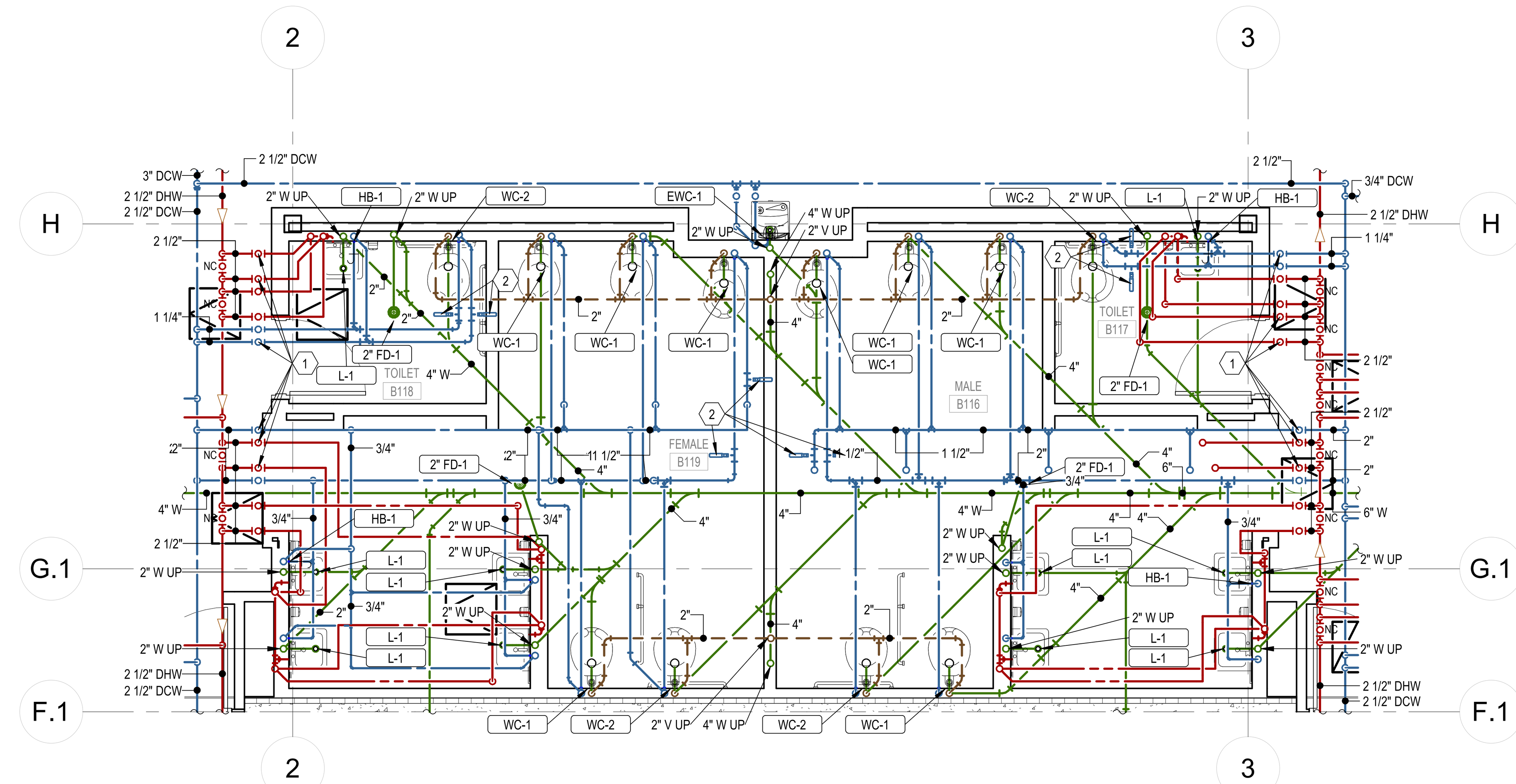
KEYNOTES

1 DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.

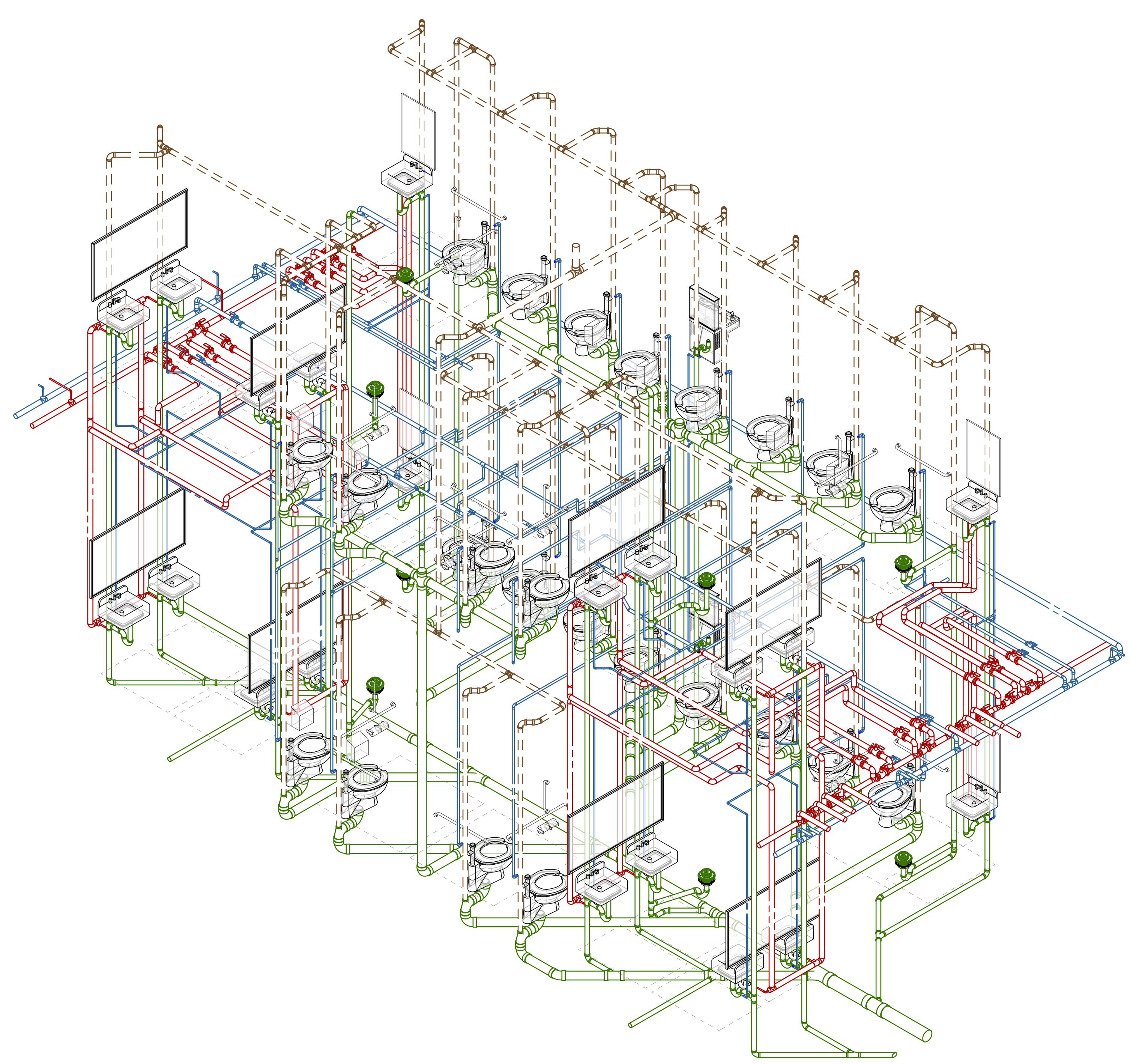
2 WATER HAMMER ARRESTOR. WATTS 15M2 OR SIMILAR. SIZE, LOCATE, AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



2 P-403 FEMALE B219/ MALE B216 PLUMBING PLAN
1/4" = 1'-0"



1 P-403 FEMALE B119/ MALE B116 PLUMBING PLAN
1/4" = 1'-0"



3 P-403 CLASS NORTH TOILET ROOMS

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REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

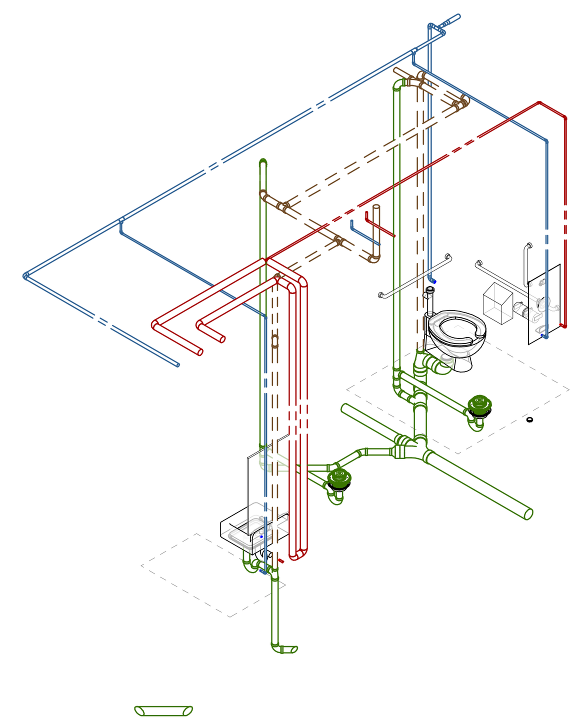
CONSTRUCTION DOCUMENTS

PLUMBING
ENLARGED VIEWS

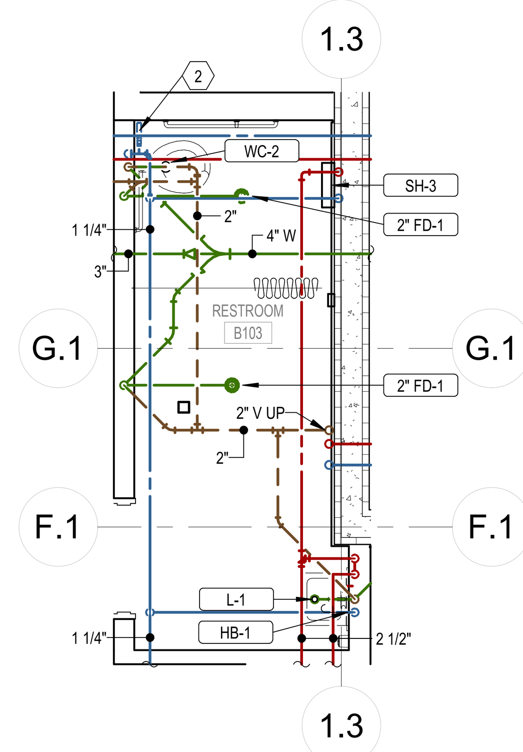
P-403

KEYNOTES

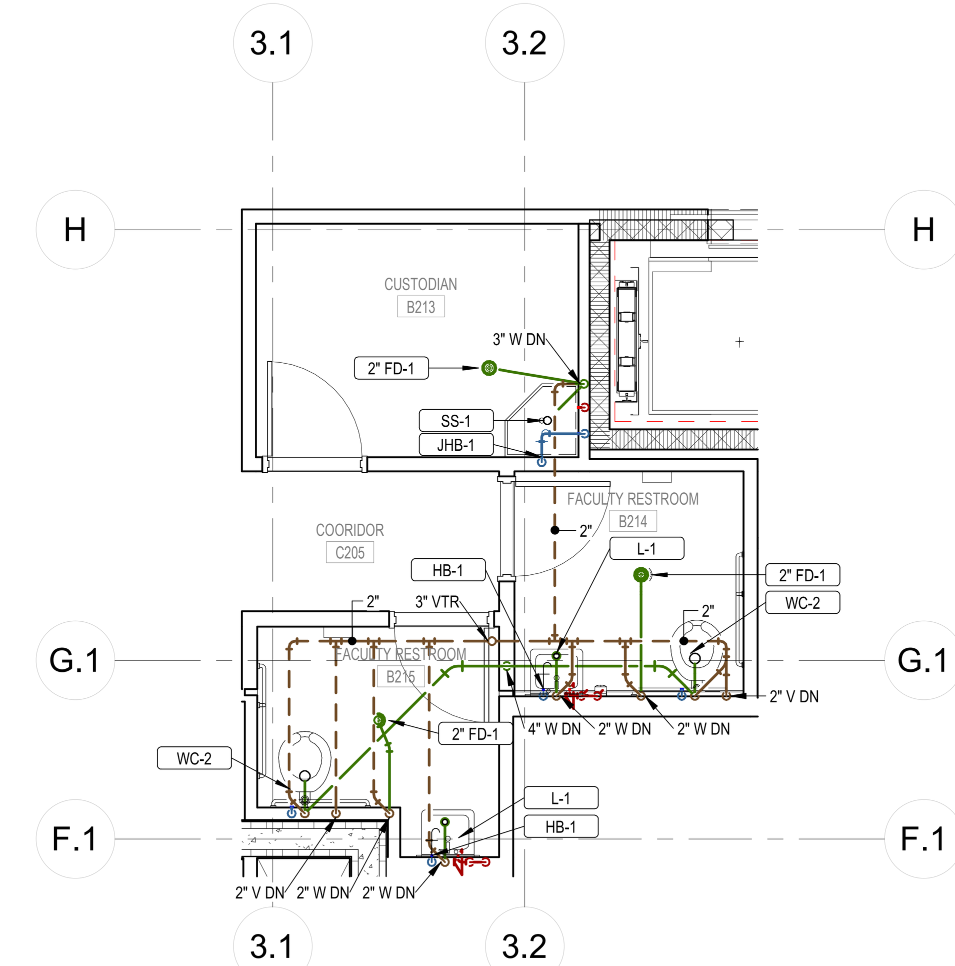
1. DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
2. WATER HAMMER ARRESTOR. WATTS 15M2 OR SIMILAR. SIZE, LOCATE, AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



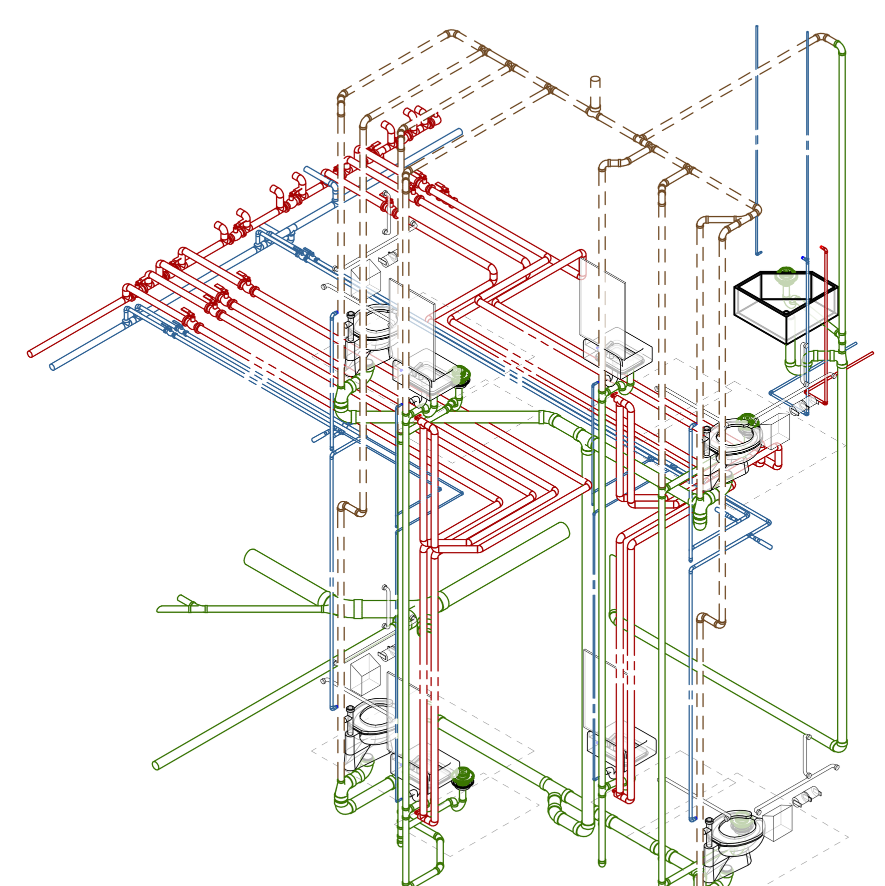
5 P-404 RESTROOM B103



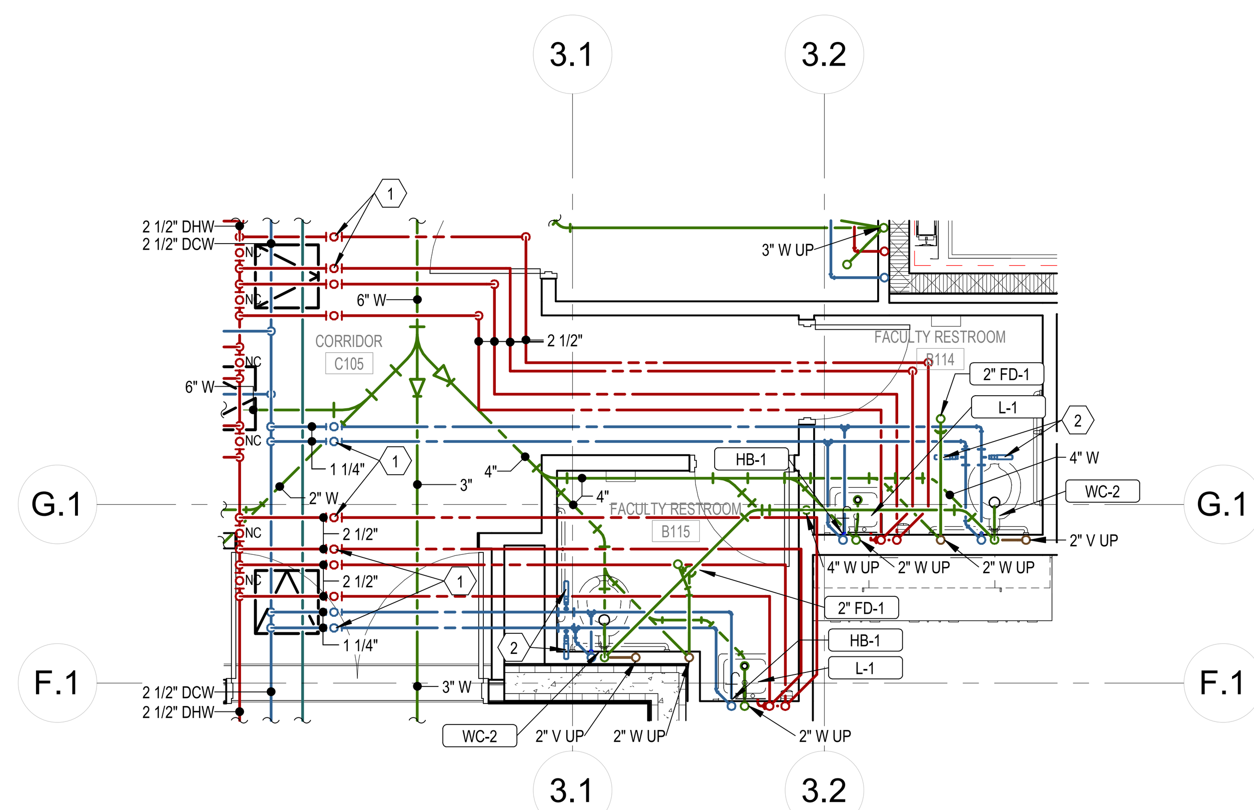
4 P-404 RESTROOM B103 PLUMBING PLAN
1/4" = 1'-0"



2 P-404 TOILET B215/B214 PLUMBING PLAN
1/4" = 1'-0"



3 P-404 CLASS NORTH B TOILET ROOMS



1 P-404 TOILET B115/B114 PLUMBING PLAN
1/4" = 1'-0"

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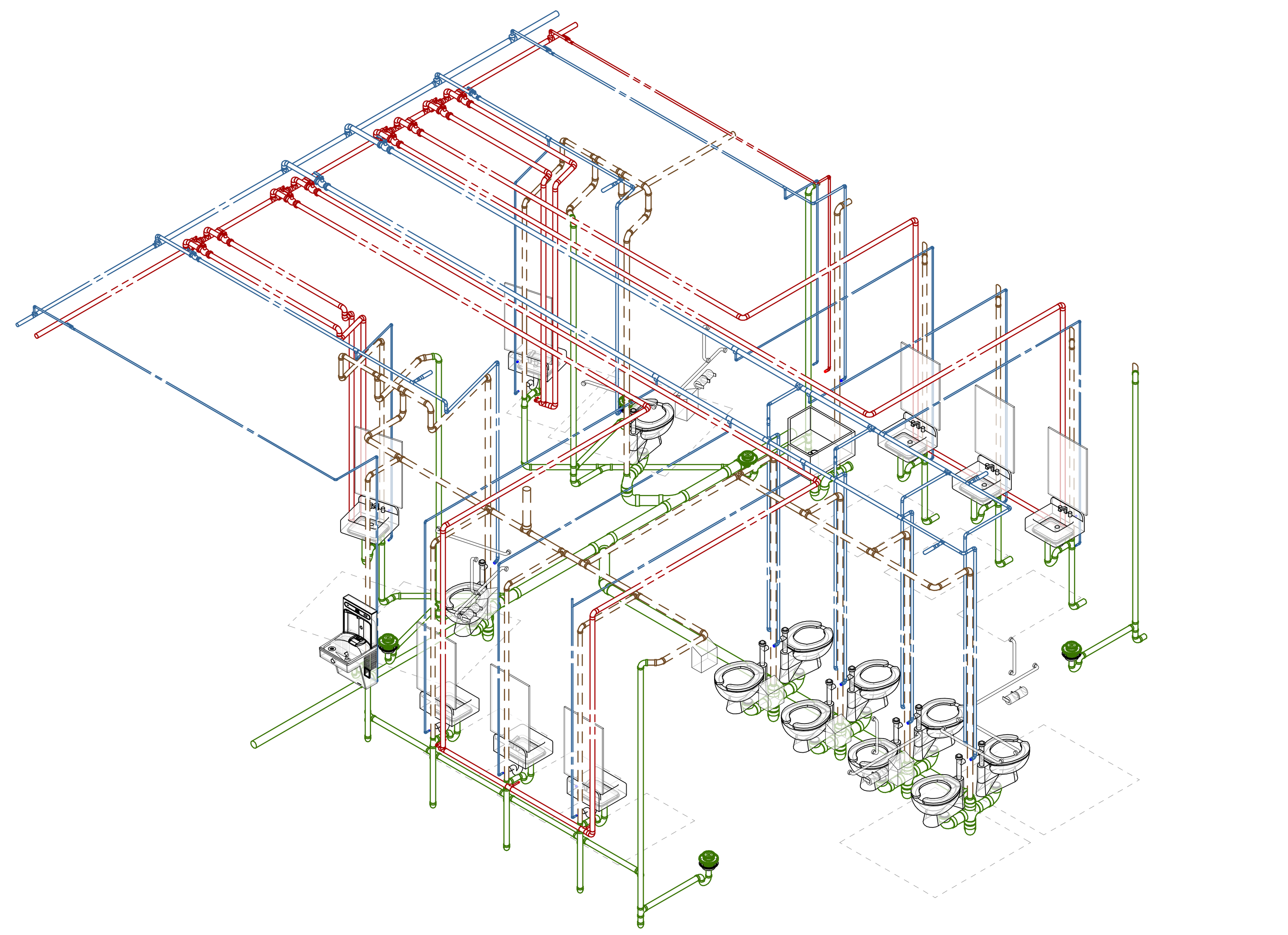
CONSTRUCTION DOCUMENTS

PLUMBING ENLARGED VIEWS

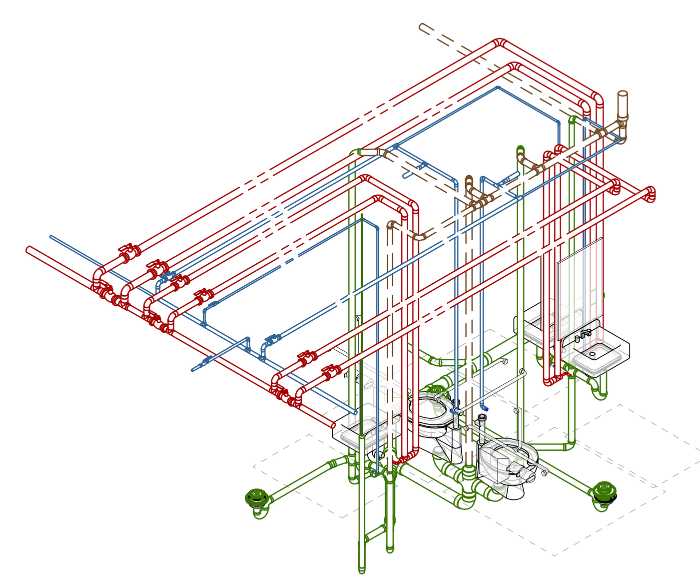
P-404

KEYNOTES

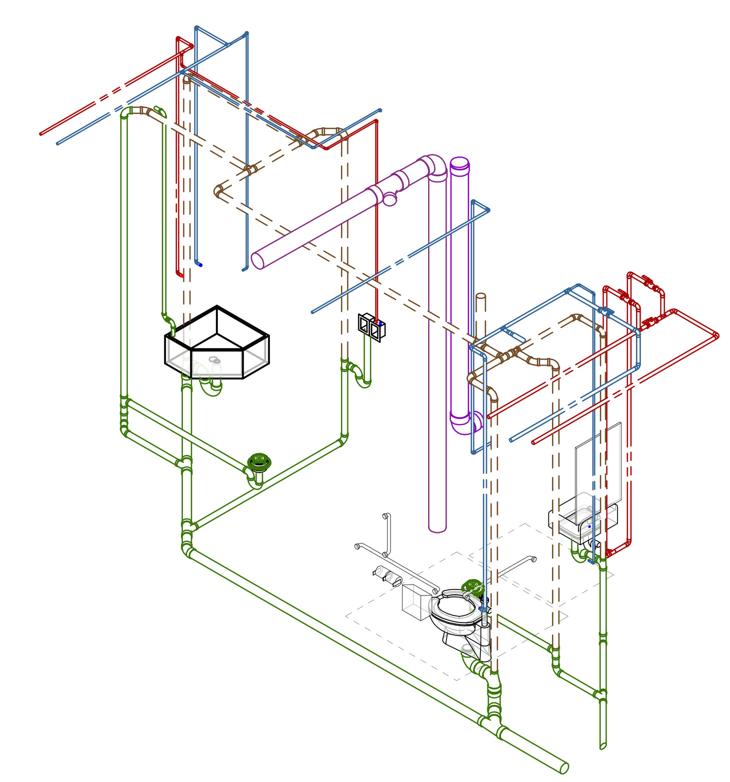
1. DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
2. WATER HAMMER ARRESTOR. WATTS 15M2 OR SIMILAR. SIZE, LOCATE, AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



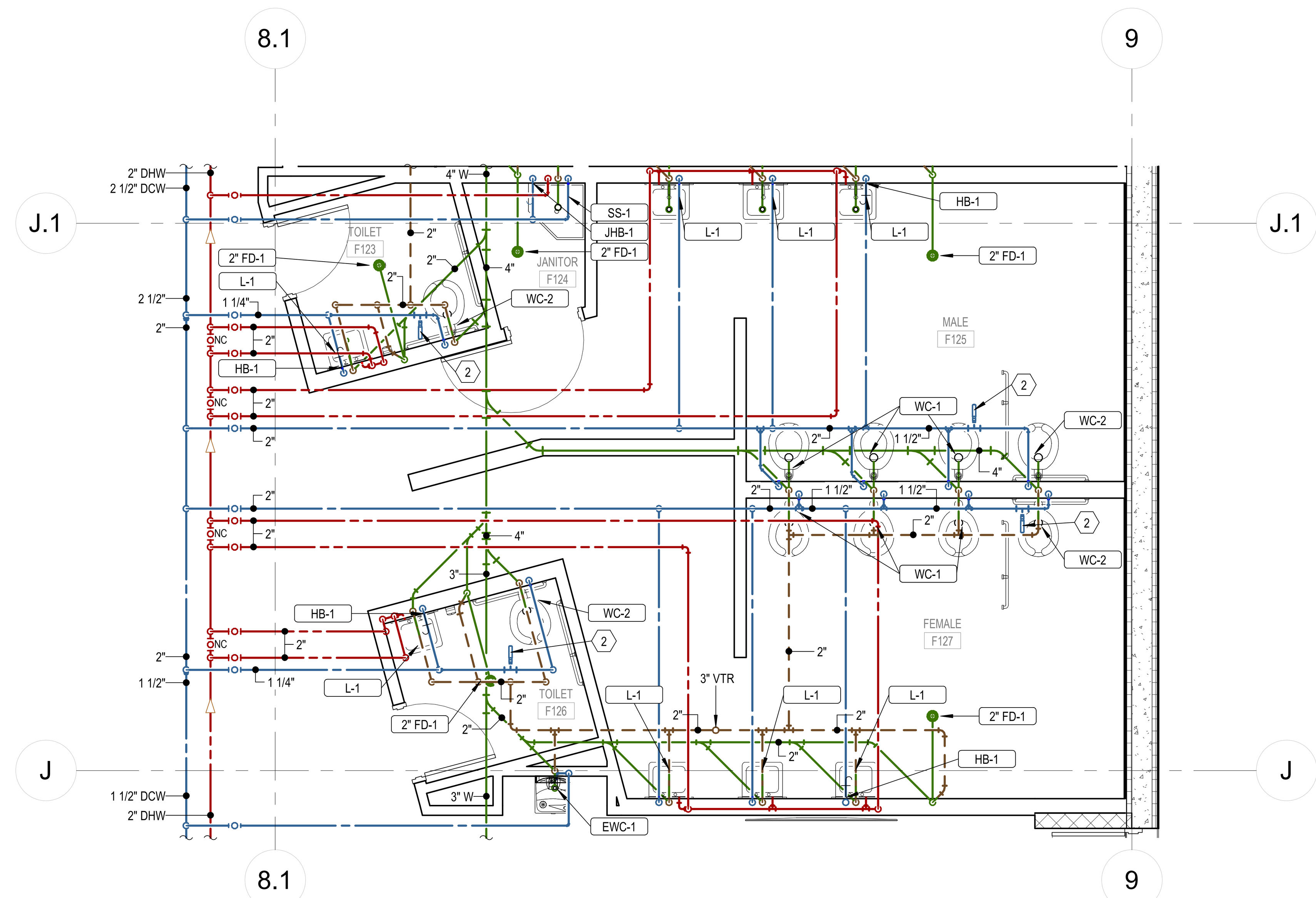
6 P-405 MALE F125/ FEMALE F127



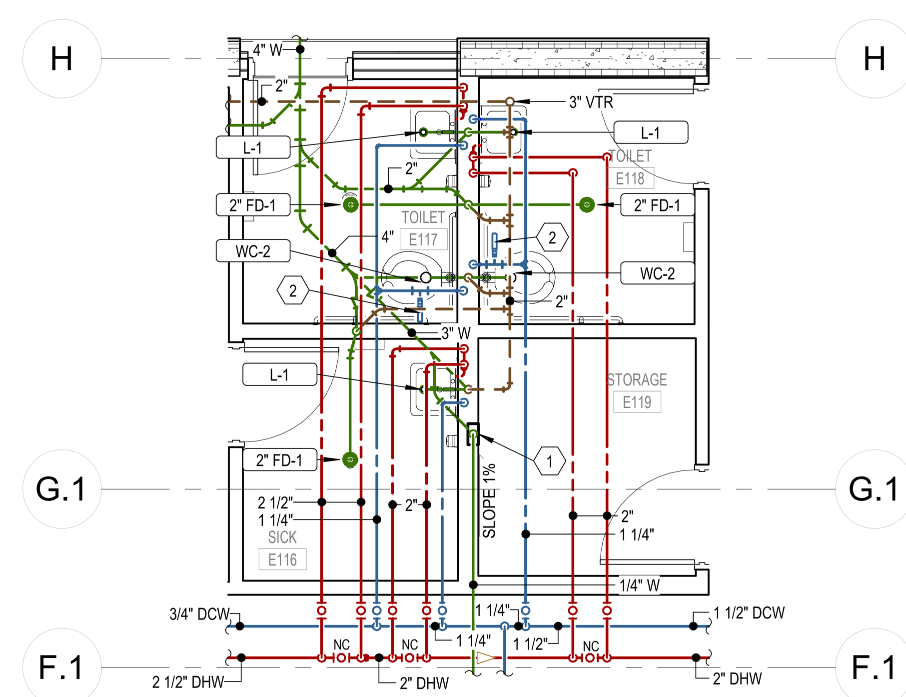
5 P-405 TOILET E117/E118



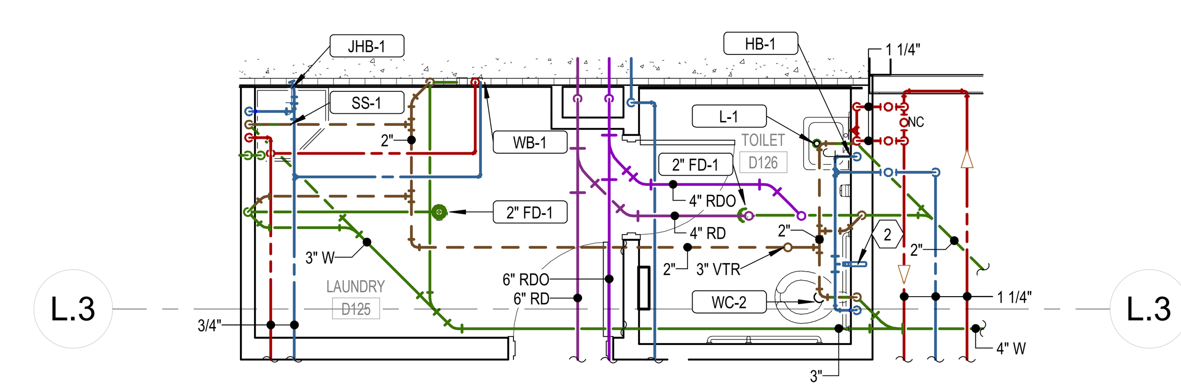
4 P-405 TOILET D126



3 P-405 MALE F125/ FEMALE F127 PLUMBING PLAN
1/4" = 1'-0"



2 P-405 TOILET E117/E118 PLUMBING PLAN
1/4" = 1'-0"



1 P-405 TOILET D126 PLUMBING PLAN
1/4" = 1'-0"

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NIBLEY MIDDLE SCHOOL

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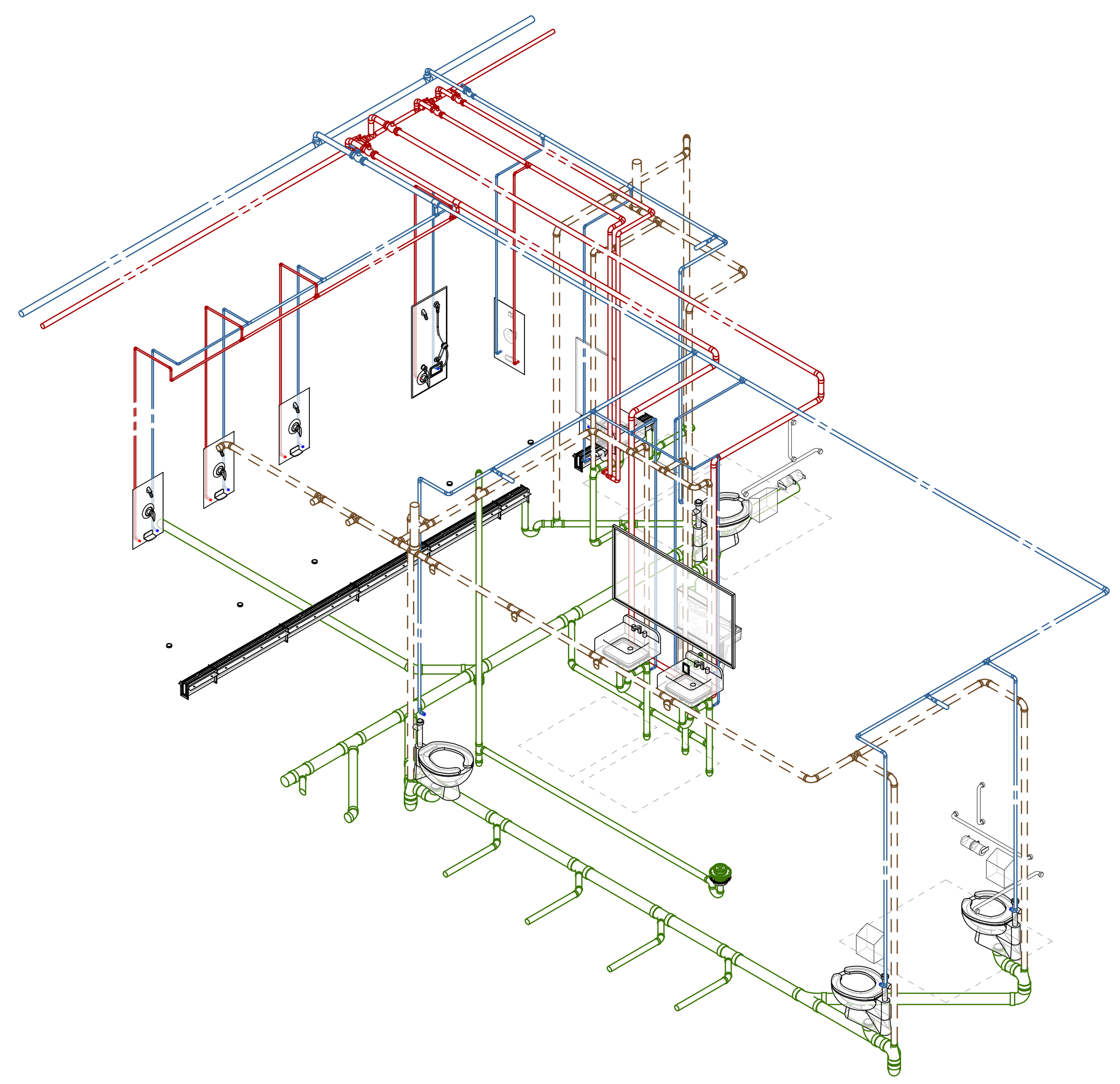
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
JEDEDIAH L JENKINS
STATE OF UTAH

PLUMBING
ENLARGED VIEWS

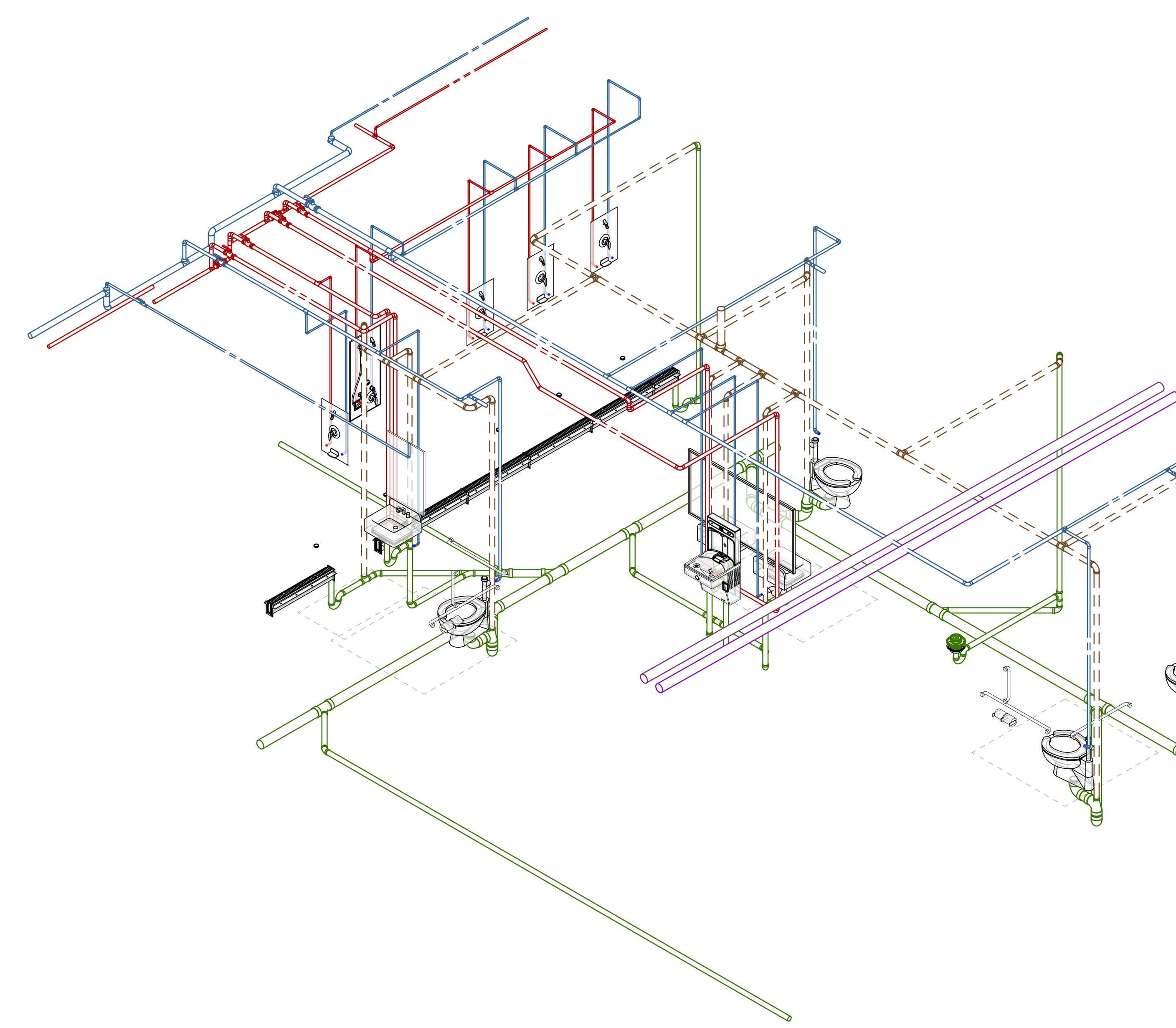
P-405

KEYNOTES

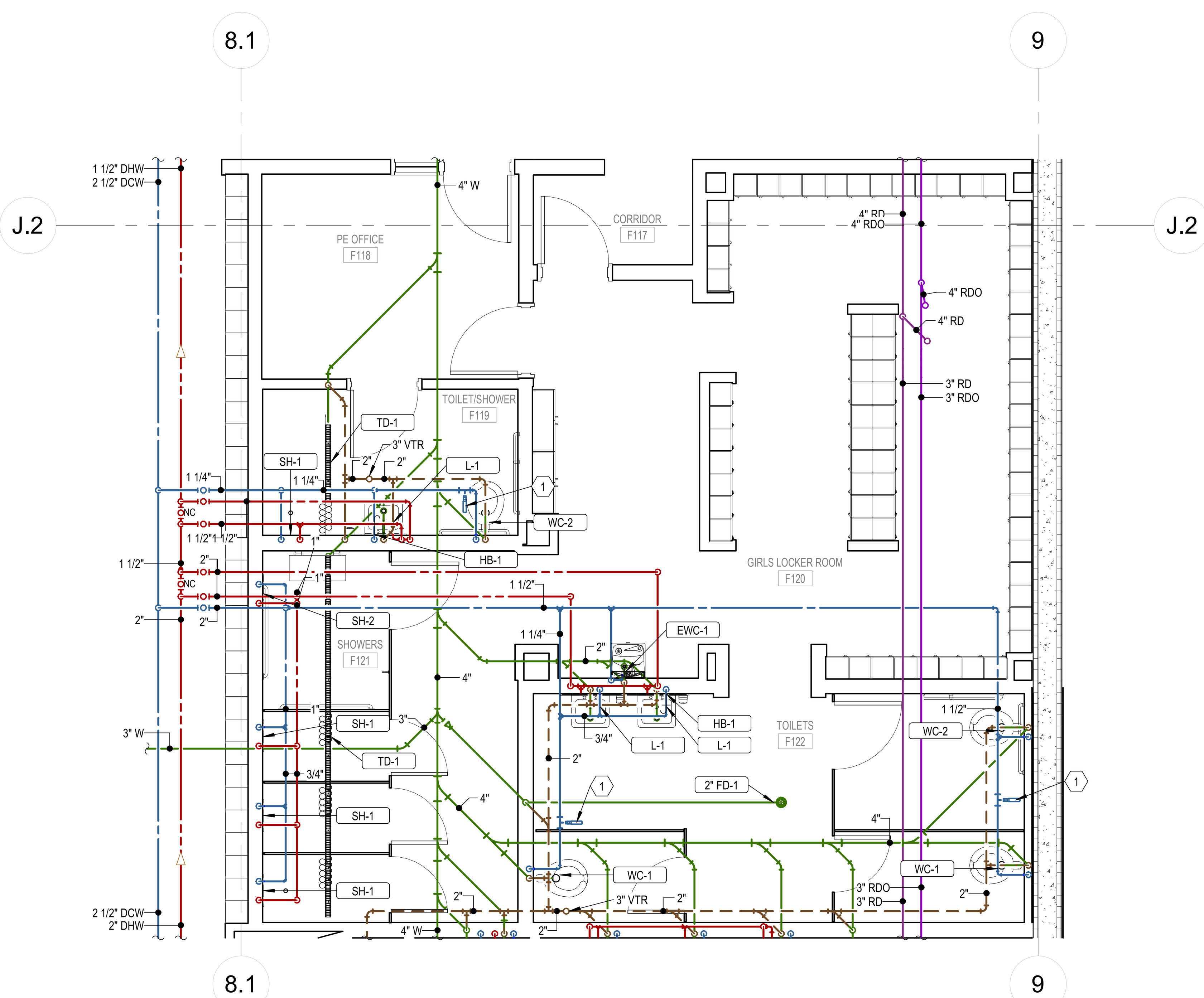
1. DOMESTIC WATER SERVES FIXTURE ABOVE. TAG VALVE WITH ROOM NUMBER SERVED.
2. WATER HAMMER ARRESTOR. WATTS 15M2 OR SIMILAR. SIZE, LOCATE, AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



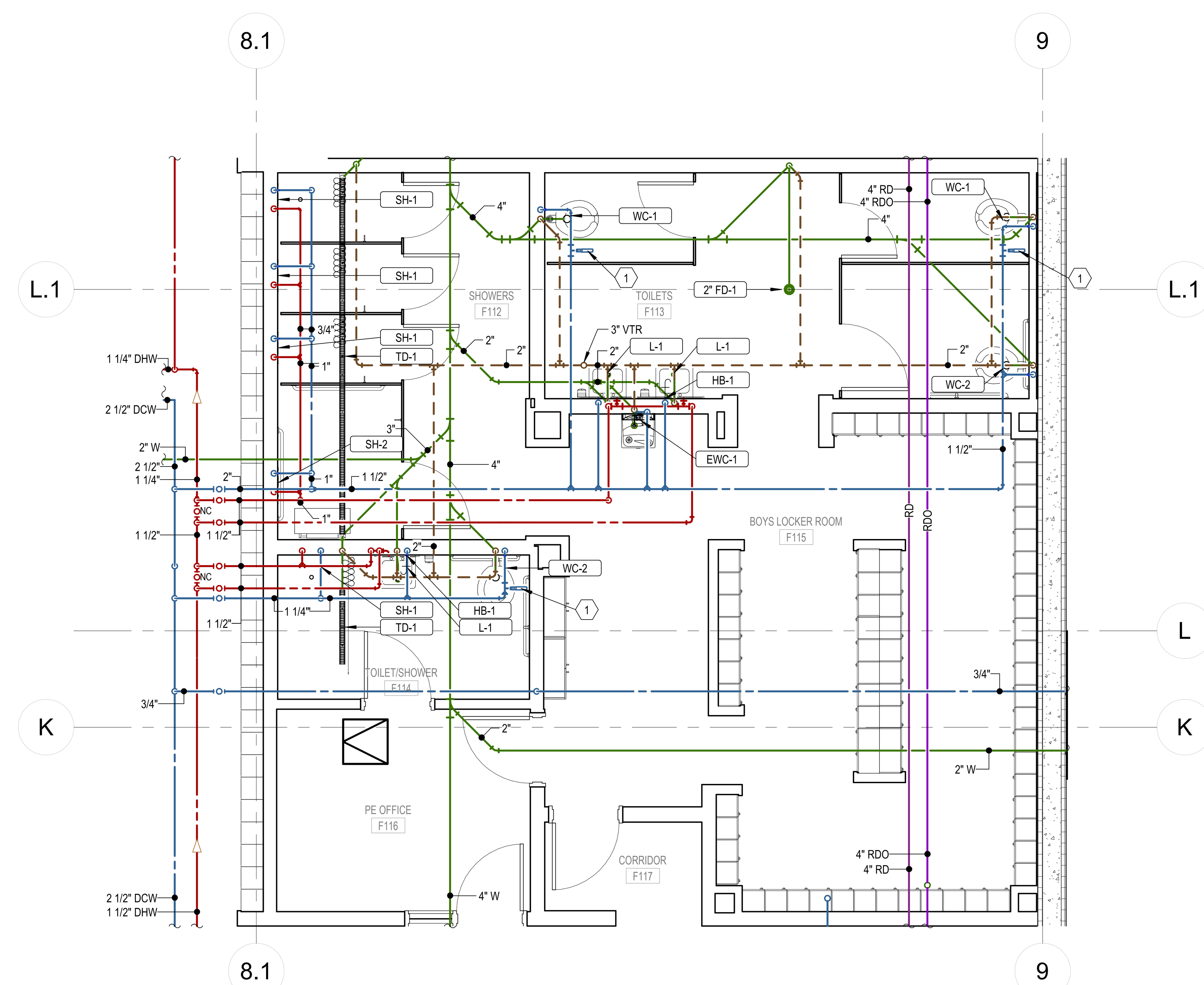
4 P-406 GIRLS LOCKER ROOM



3 P-406 BOYS LOCKER ROOM



2 P-406 GIRLS LOCKER ROOM PLUMBING PLAN
1/4" = 1'-0"



1 P-406 BOYS LOCKER ROOM PLUMBING PLAN
1/4" = 1'-0"

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STATE OF UTAH

CONSTRUCTION DOCUMENTS

PLUMBING
ENLARGED VIEWS

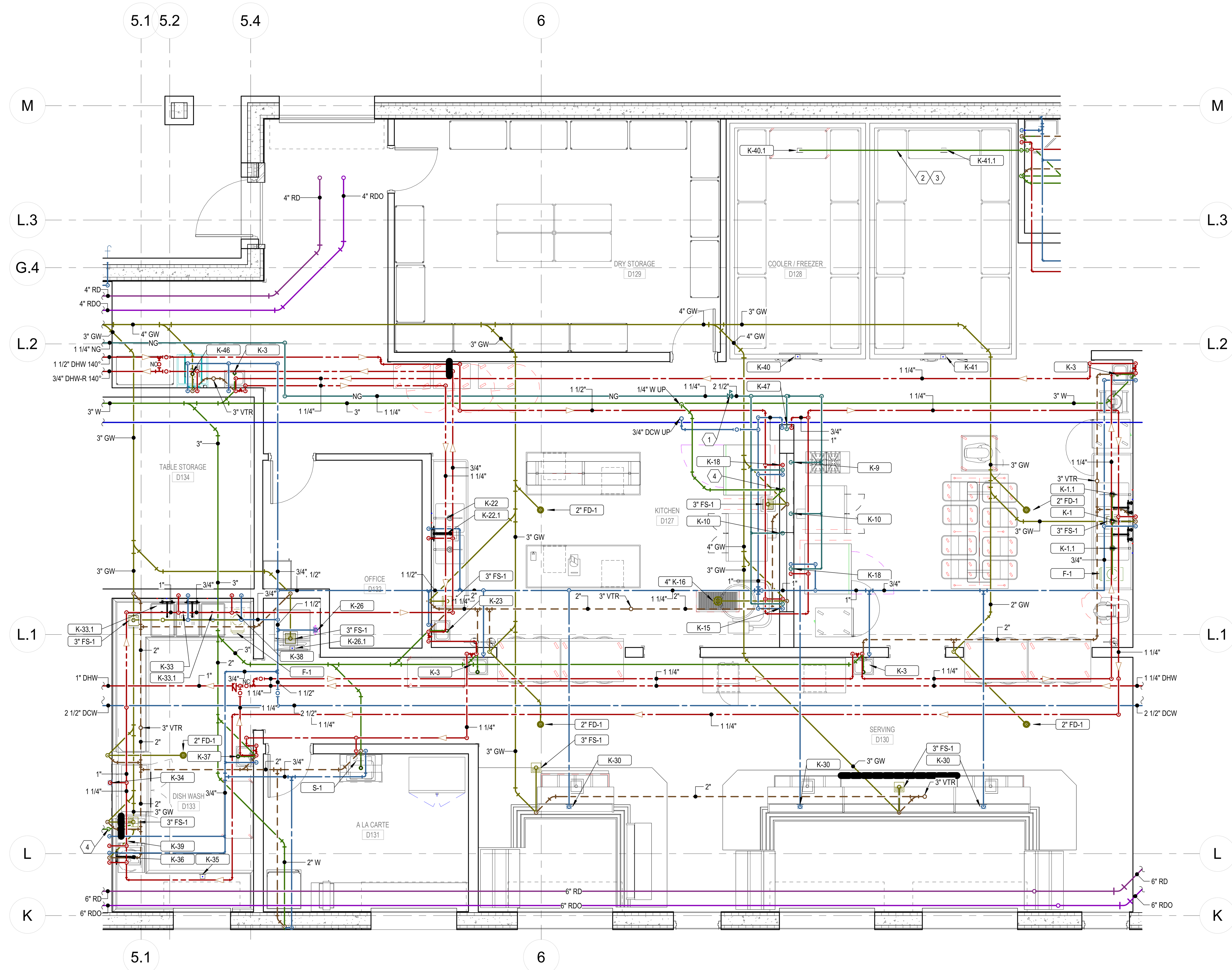
P-406

KEYNOTES

1 2 PSIG TO 4 OZ GAS PRESSURE REGULATOR. 1545 CFH. VENT TO OUTSIDE.
2 HEAT TRACE AND INSULATE CONDENSATE DRAIN 3 WATTS PER LINEAL FOOT THROUGH COOLER/FREEZER. APPROXIMATELY 50 WATTS.
3 SLOPE CONDENSATE DRAIN TO SERVICE SINK. DROP IN WALL AND STUB OUT 6" ABOVE THE RIM OF THE SERVICE SINK. ELBOW DOWN INTO SINK.
4 DROP DRAIN LINE DOWN IN WALL AND STUB OUT AND EXTEND TO FLOOR SINK.

GENERAL NOTES

1. FLOOR SINKS SHALL BE MOUNTED FLUSH WITH THE FLOOR.



1 P-407 KITCHEN PLUMBING PLAN
1/4" = 1'-0"

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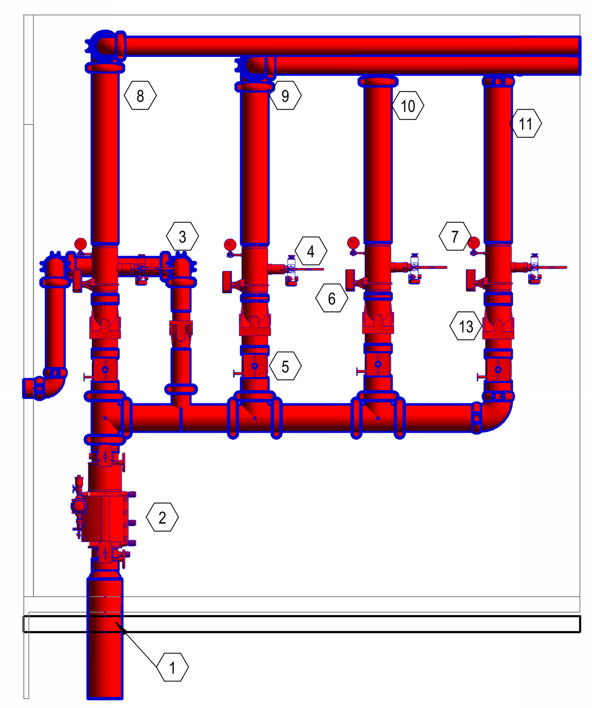
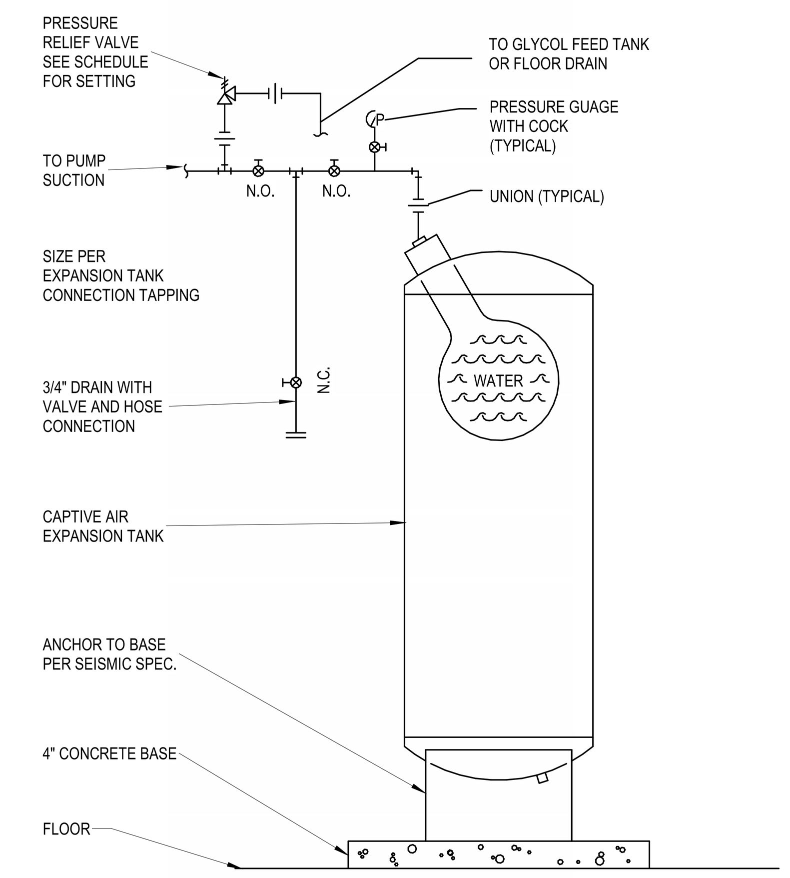
PLUMBING ENLARGED VIEWS
P-407

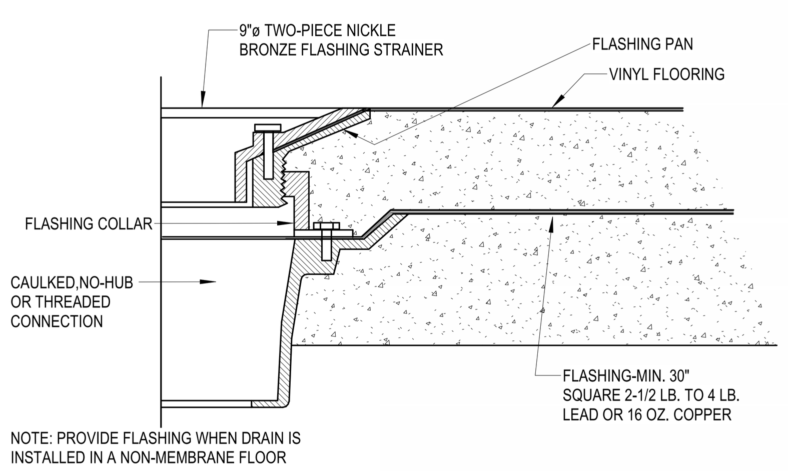


14 P-501 FIRE RISER

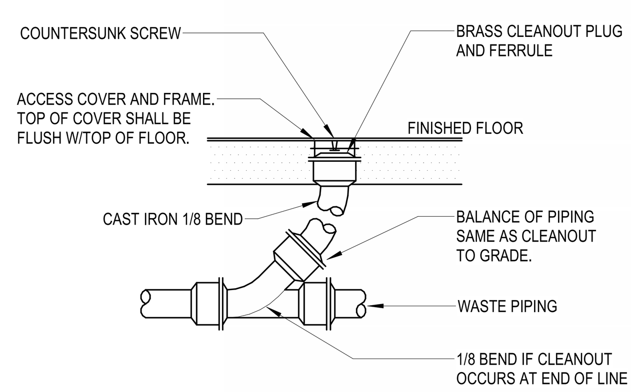
1. IN BUILDING RISER WITH FLEXIBLE FILL FOR SEISMIC REQUIREMENTS.
2. DOUBLE CHECK VALVE BACKFLOW PREVENTER WITH ISOLATION VALVING. WIRING OF TAMPERS BY DIVISION 28.
3. FEED OUT TO FDC, COMPLETE WITH CHECK VALVE.
4. DRAIN TO EXTERIOR OF BUILDING WITHIN 2-FT OF GRADE.
5. BUTTERFLY VALVE WITH TAMPER SWITCH, TYPICAL. WIRING BY DIVISION 28.
6. FLOW SWITCH, TYPICAL OF EACH SYSTEM RISER. WIRING BY DIVISION 28.
7. PRESSURE GAUGE, TYPICAL.
8. INSPECTORS TEST AND DRAIN ORIFICE, TYPICAL.
9. FEED TO LEVEL 2 FIRE ZONE.
10. FEED TO LEVEL 1 CLASSROOM FIRE ZONE.
11. FEED TO LEVEL 1 AUDITORIUM FIRE ZONE.
12. FEED TO LEVEL 1 GYM FIRE ZONE.
13. CHECK VALVE, TYPICAL OF EACH SYSTEM RISER.



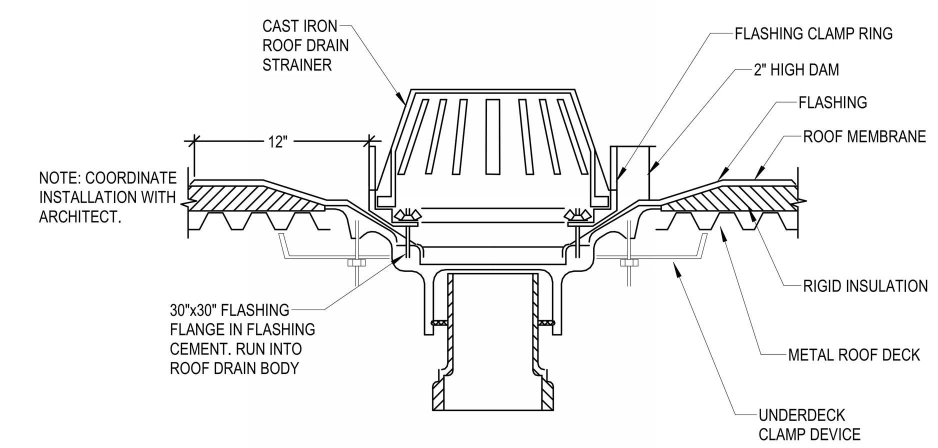
13 P-501 EXPANSION TANK DETAIL
12" = 1'-0"



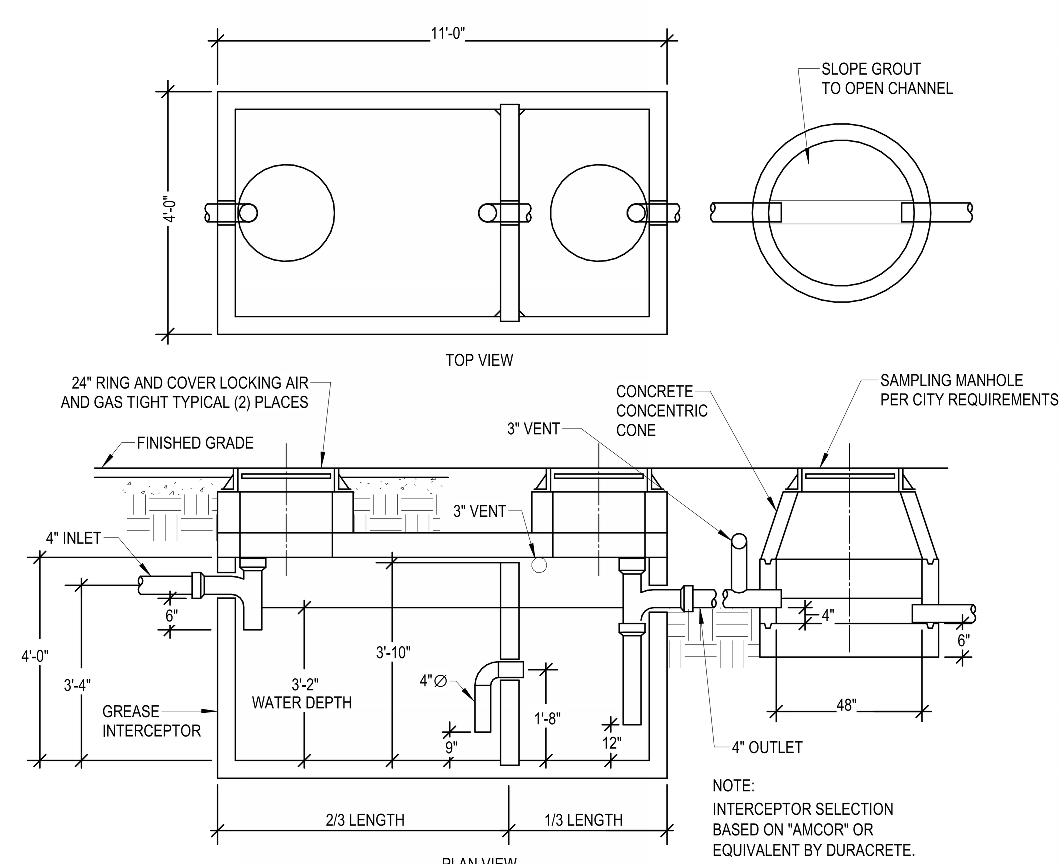
12 P-501 FLOOR DRAIN DETAIL
12" = 1'-0"



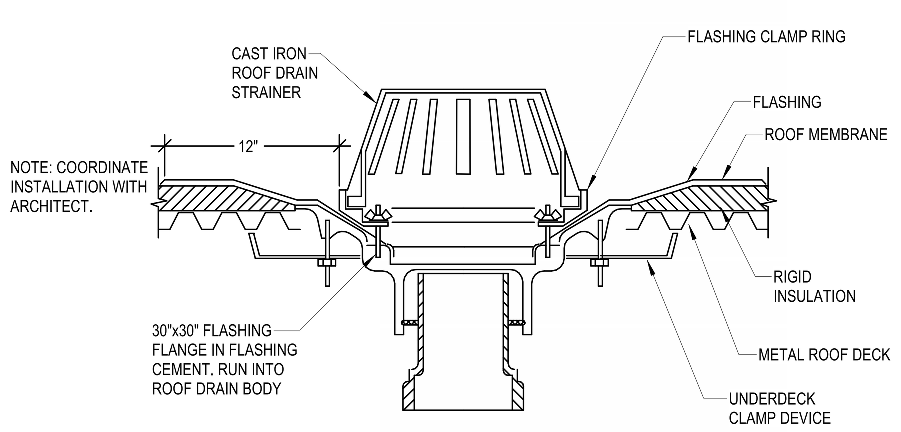
11 P-501 FLOOR CLEANOUT DETAIL
12" = 1'-0"



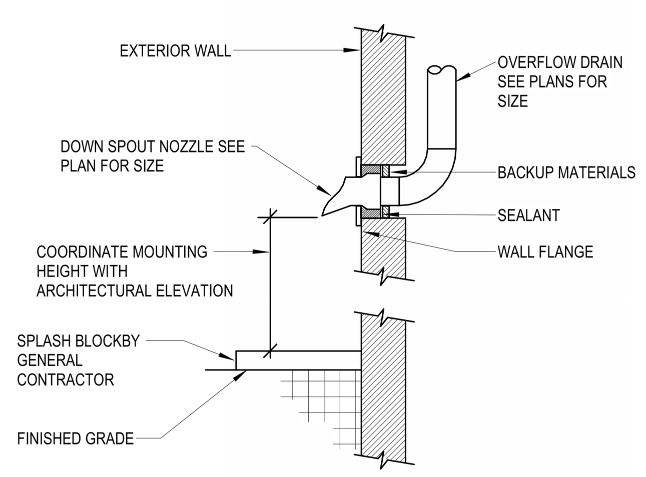
10 P-501 ROOF DRAIN OVERFLOW DETAIL
12" = 1'-0"



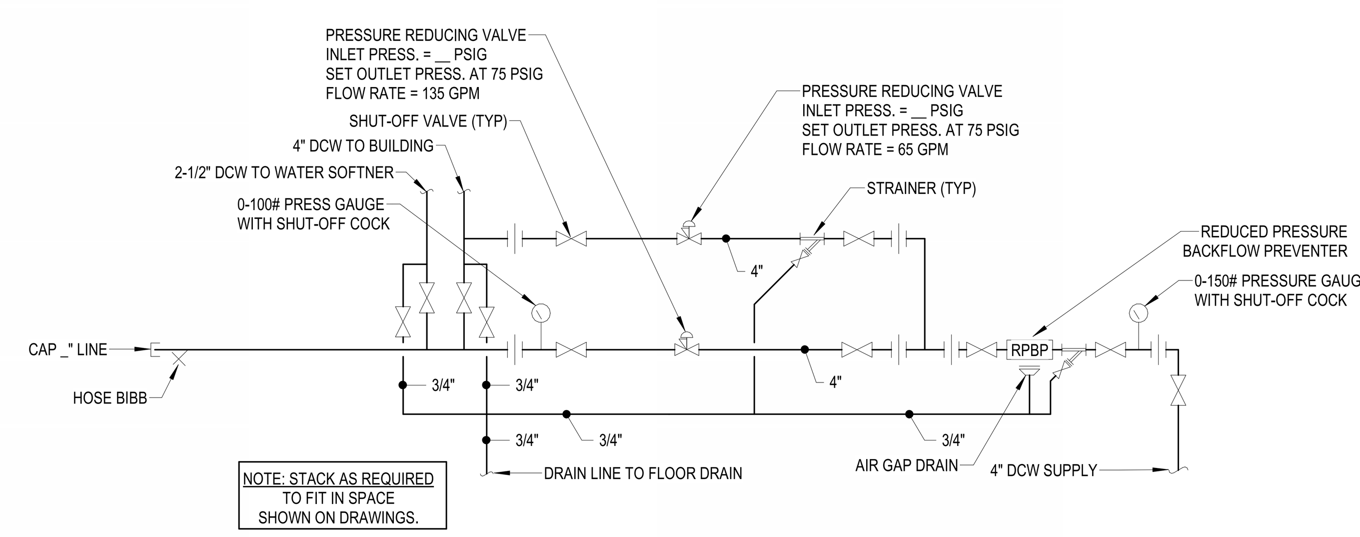
7 P-501 BELOW GRADE EXTERIOR 1000 GALLON GREASE INTERCEPTOR DETAIL
12" = 1'-0"



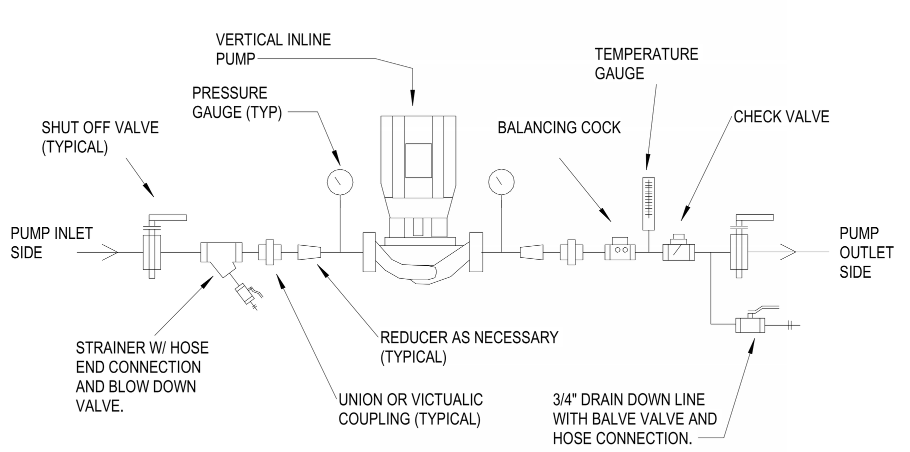
9 P-501 ROOF DRAIN DETAIL
12" = 1'-0"



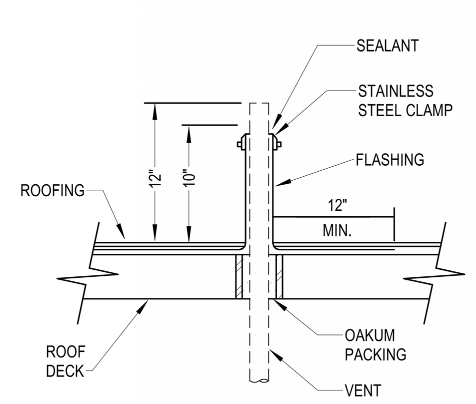
8 P-501 DOWNSPOUT NOZZLE DETAIL
12" = 1'-0"



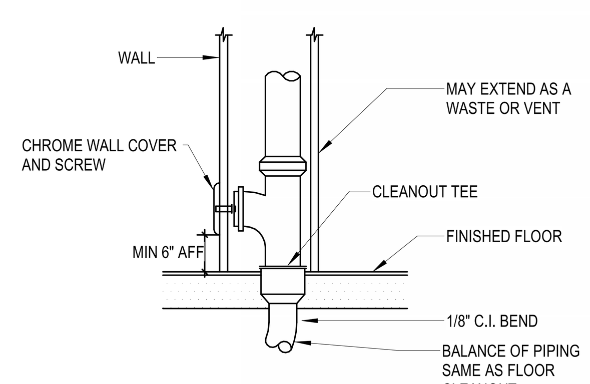
6 P-501 WATER HEADER/PRV DETAIL
NOT TO SCALE



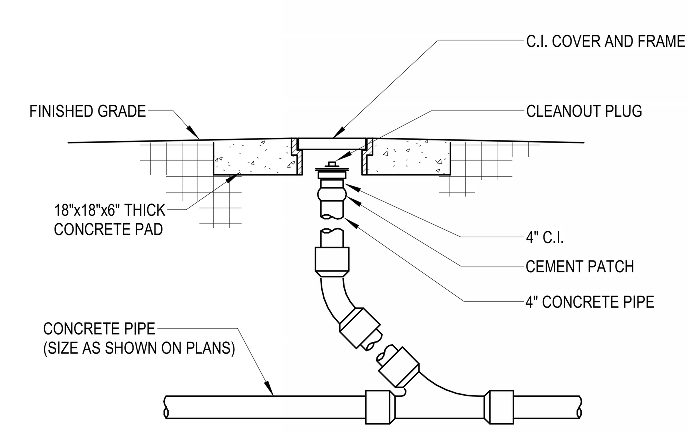
5 P-501 PUMP DETAIL - VERTICAL INLINE DETAIL
NOT TO SCALE



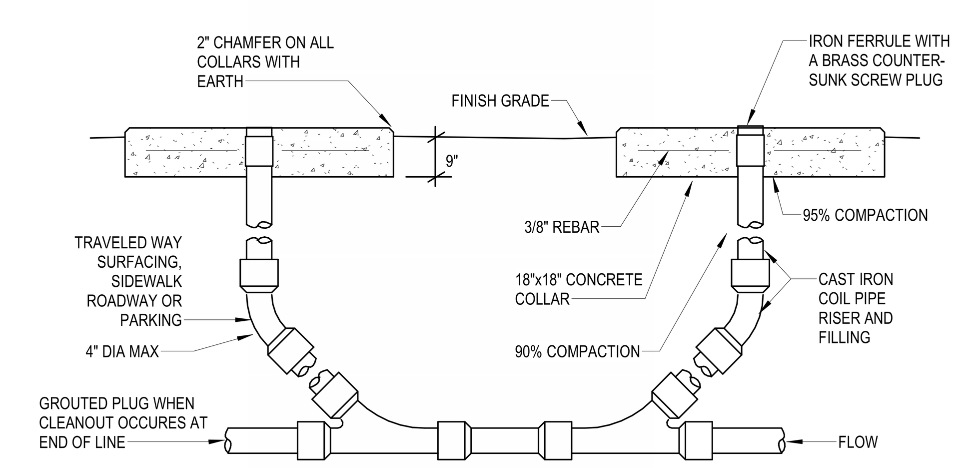
4 P-501 VENT THRU ROOF FLASHING & SLEEVING DETAIL
NOT TO SCALE



3 P-501 WALL CLEANOUT DETAIL
NOT TO SCALE



2 P-501 CLEANOUT TO GRADE (COTG) DETAIL
NOT TO SCALE



1 P-501 CLEANOUT TO GRADE DOUBLE (COTG) DETAIL
NOT TO SCALE

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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VBFA Project #: 23717

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

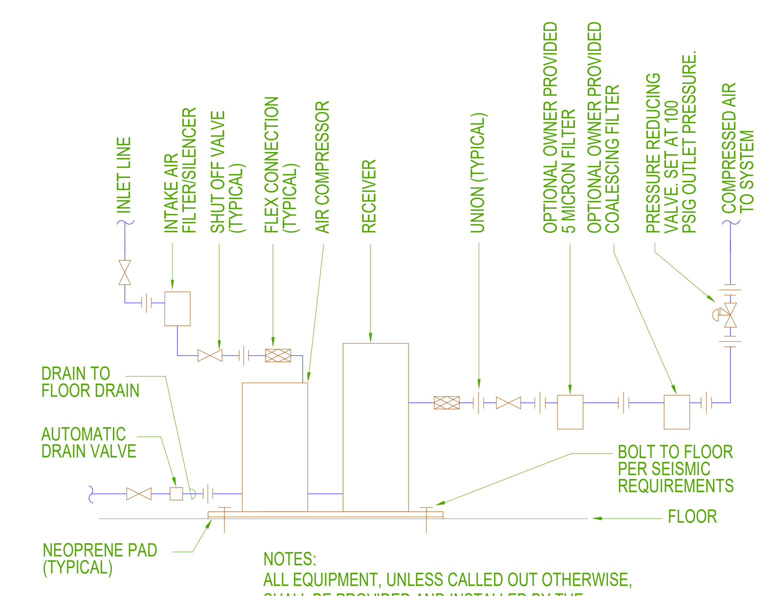
CONSTRUCTION DOCUMENTS

MARK	DATE	DESCRIPTION

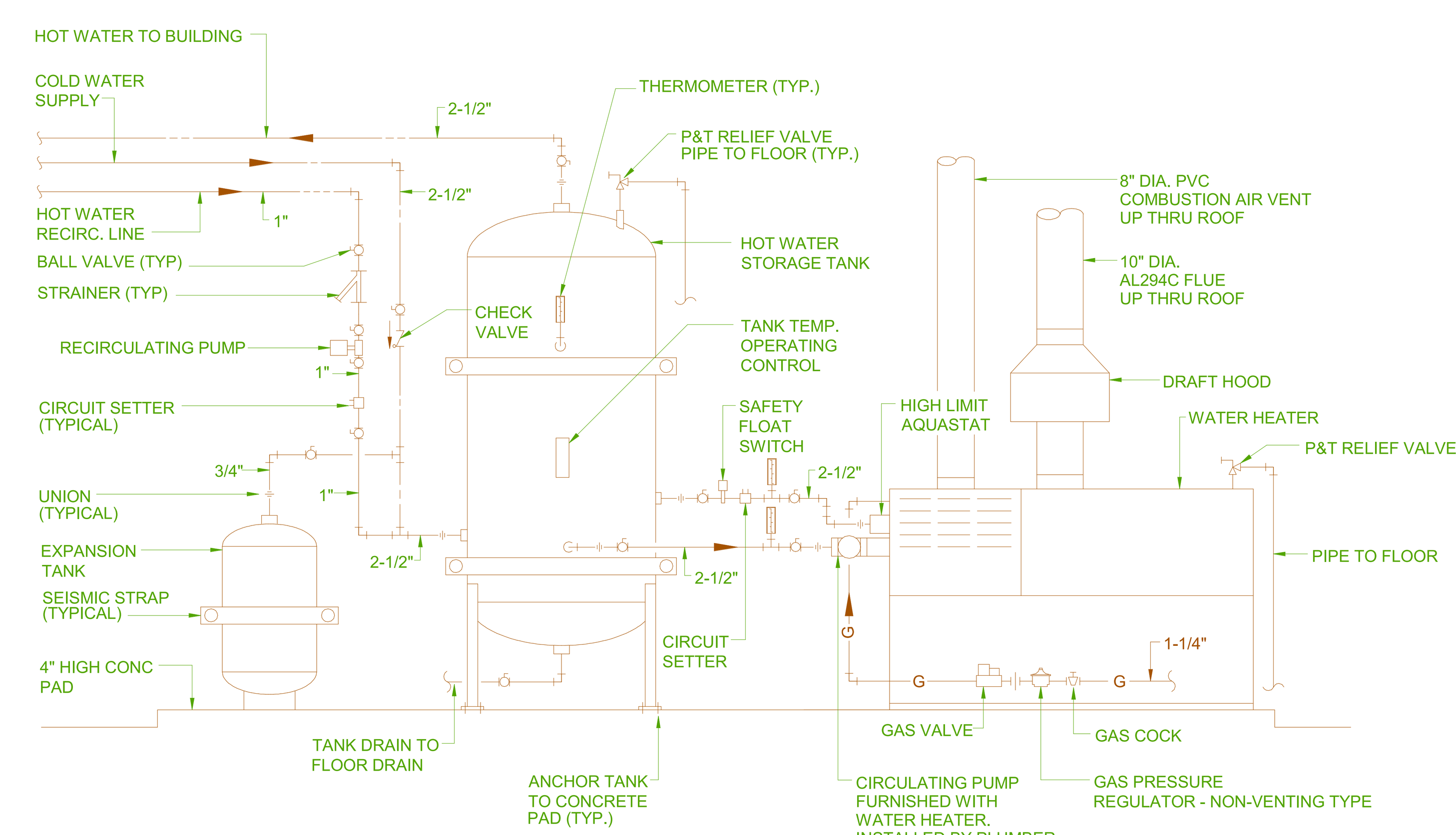
PROJECT #:	23717
DRAWN BY:	DB
CHECKED BY:	LW
ISSUED:	05/02/2024

PLUMBING DETAILS

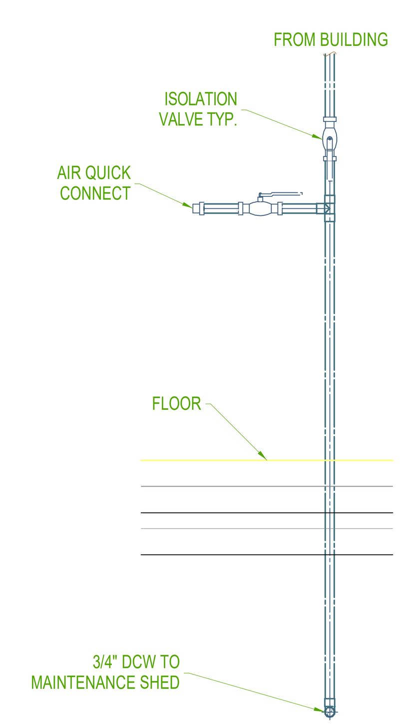
P-501



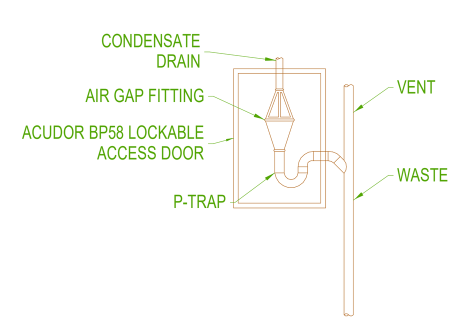
12 / P-502 SIMPLEX AIR COMPRESSOR PIPING SCHEMATIC
NO SCALE



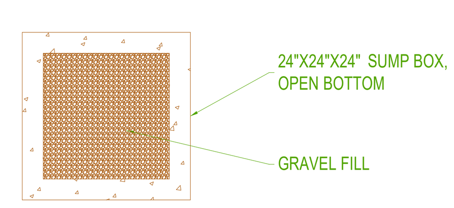
5 / P-502 WATER HEATER PIPING DIAGRAM
NO SCALE



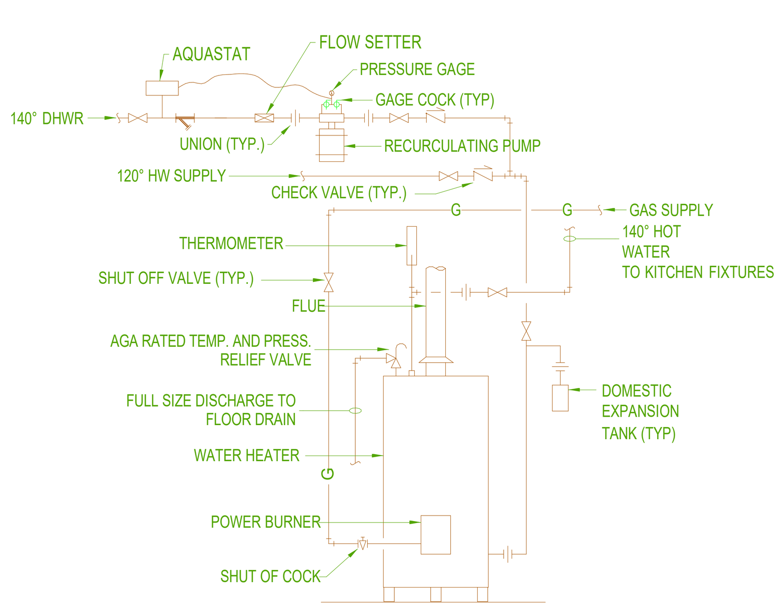
6 / P-502 WATER LINE BLOW OUT DETAIL
NO SCALE



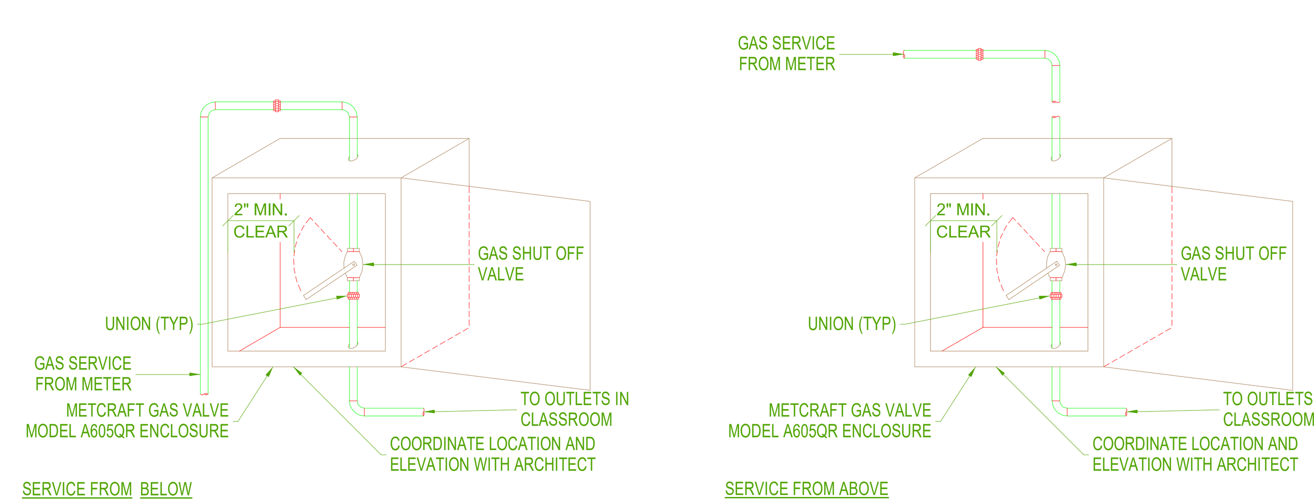
7 / P-502 CONDENSATE DRAIN DETAIL
NO SCALE



8 / P-502 GRAVEL SUMP DETAIL
NO SCALE



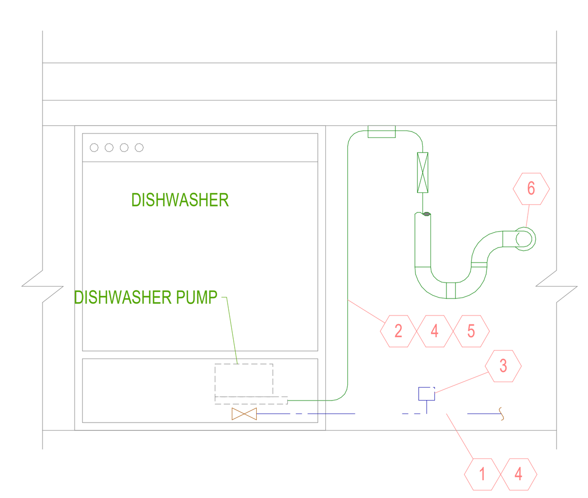
4 / P-502 WATER HEATER PIPING DIAGRAM
NO SCALE



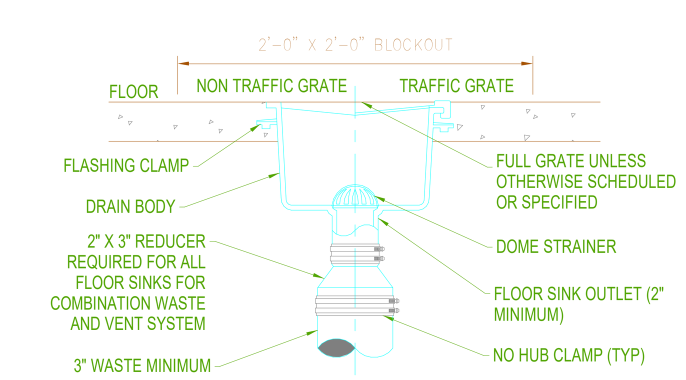
3 / P-502 VALVE ACCESS BOX PIPING DETAIL
NO SCALE

KEYED NOTES

1. INSTALL 3/8" (MINIMUM) ANNEALED COPPER TUBING FROM HOT WATER SUPPLY TO DISHWASHER INLET VALVE.
2. 5/8" WASTE HOSE FROM DISHWASHER PUMP TO AIR GAP FITTING. USE STAINLESS STEEL CLAMPS TO PROVIDE WATERTIGHT CONNECTIONS. USE RUBBER INCREASER AT AIR GAP CONNECTION.
3. WATER HAMMER ARRESTOR IN ACCESSIBLE LOCATION, J.R. SMITH #5005, SIZE 'A'.
4. SIZES OF HOSE AND TUBING SHALL BE INCREASED IF RECOMMENDED BY DISHWASHER MANUFACTURER.
5. RUBBER HOSE SHALL BE RATED FOR 200° F. WATER.
6. PROVIDE ESCUTCHEON AT WALL PENETRATION. DROP 1-1/2" WASTE LINE DOWN WALL. TRANSITION TO TWO INCH WASTE PRIOR TO PENETRATING FLOOR AND EXTEND BELOW SLAB TO MAIN AS SHOWN ON PLANS.



2 / P-502 DISHWASHER CONNECTION DETAIL
NO SCALE



1 / P-502 FLOOR SINK
NO SCALE

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PLUMBING DETAILS
P-502

PLUMBING FIXTURE SCHEDULE

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	NOTES
EWC-1	ELECTRIC WATER COOLER	1/2	-	1 1/2	1 1/2	ELECTRIC WATER COOLER: ELKAY MODEL EZS8WSVRLK WALL MOUNTED SINGLE LEVEL ADA WATER COOLER WITH BOTTLE FILLER. ONE-PIECE STAINLESS STEEL TOP AND RECEPTOR. VANDAL RESISTANT BUBBLER. WELDED STEEL FRAME AND STAINLESS STEEL PANELS WITH BAKED ENAMEL COATING; HERMETICALLY SEALED MOTOR COMPRESSOR WITH OVERLOAD PROTECTION, 1/5 HP 115V/SINGLE PHASE/60 CYCLE; FAN COOLED CONDENSER; PERMANENTLY LUBRICATED FAN MOTOR; COOLER SHALL DELIVER 8 GPH AND BOTTLE FILLER SHALL PROVIDE 1.1 GPM OF 50ºF NON-FILTERED DRINKING WATER WITH 80ºF INLET TEMPERATURE AND 90ºF ROOM TEMPERATURE.
BF-1	BOTTLE FILLER	3/4	-	-	-	OUTDOOR BOTTLE FILLING STATION: ELKAY MODELLK4400BF PEDESTAL NON-FILTERED, NON-REFRIGERATED, VANDAL RESISTANT, ADA, SINGLE STATION, FREESTANDING BOTTLE FILLER FOR OUTDOOR APPLICATIONS. BUSH BUTTON OPERATION. NO ELECTRIC REQUIRED. SEE ARCHITECT FOR PLACEMENT AND FINISH. DRAIN TO SUMP.
FD-1	FLOOR DRAIN	-	-	2	1 1/2	FLOOR DRAIN: JAY R. SMITH 2005Y FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH 6-INCH ROUND NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED GRATE. PROVIDE DEEP SEAL TRAP AND TRAP GUARD TYPE TRAP SEAL DEVICE.
FD-2	FLOOR DRAIN	-	-	3	2	FLOOR DRAIN: JAY R. SMITH 2220Y FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH 8" CAST IRON GRATE AND SEDIMENT BUCKET, NO-HUB CONNECTION, TRAP GUARD TYPE TRAP SEAL DEVICE AND DEEP SEAL P-TRAP.
FS-1	FLOOR SINK	-	-	3	2	FLOOR SINK: JAY R. SMITH 3100Y CAST IRON FLANGED RECEPTOR WITH ACID RESISTANT INTERIOR COATING, NICKEL BRONZE RIM AND SECURED 1/2 GRATE AND ALUMINUM DOME BOTTOM STRAINER.
FS-2	FLOOR SINK	-	-	4	2	FLOOR SINK: JAY R. SMITH 3100Y CAST IRON FLANGED RECEPTOR WITH ACID RESISTANT INTERIOR COATING, NICKEL BRONZE RIM AND SECURED 1/2 GRATE AND ALUMINUM DOME BOTTOM STRAINER.
TD-1	TRENCH DRAIN	-	-	2	1 1/2	TRENCH DRAIN: MIFAB SERIES T5000-300 3" WIDE X 5-7/8" DEEP ALUMIINUM CHANNEL DRAIN WITH ADA, VANDAL RESISTANT GRATE. PROVIDE DEEP SEAL TRAP AND TRAP GUARD TYPE TRAP SEAL DEVICE. VERIFY GRATE WITH ARCHITECTURAL PLANS.
RD-1	ROOF DRAIN	-	-	SEE PLANS	-	ROOF DRAIN: JAY R. SMITH 1010Y-R-C-CID CAST IRON BODY WITH COMBINED FLASHING CLAMP AND CAST IRON GRAVEL STOP, CAST IRON DOME, EXTENSION, SUMP RECEIVER AND UNDERDECK CLAMP.
RD-2	SCUPPER ROOF DRAIN	-	-	SEE PLANS	-	SCUPPER ROOF DRAIN: JAY R. SMITH 1560 CAST BRONZE BODY WITH COMBINED ROUGH BRONZE GRATE AND FLASHING CLAMP AND GASKET. HORIZONTAL OUTLET.
RDO-1	ROOF DRAIN OVERFLOW	-	-	SEE PLANS	-	ROOF DRAIN OVERFLOW: JAY R. SMITH 1080Y-R-C-CID CAST IRON BODY WITH COMBINED FLASHING CLAMP AND CAST IRON GRAVEL STOP, CAST IRON DOME, EXTENSION, SUMP RECEIVER AND UNDERDECK CLAMP, 2" WATER DAM.
DSN-1	DOWNSPOUT NOZZLE	-	-	SEE PLANS	-	DOWNSPOUT NOZZLE: JAY R. SMITH 1770 DOWNSPOUT NOZZLE WITH CAST BRONZE BODY AND FLANGE.
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	LAVATORY (WALL HUNG, ADA): AMERICAN STANDARD LUCERNE, 20-1/2" X 18-1/4", WALL HUNG, VITREOUS CHINA LAVATORY, SINGLE CENTER FAUCET HOLE. OPEN GRID STRAINER. T&S BRASS EC-3132-ST-VF05 CHEKPOINT SINGLE HOLE, BATTERY FAUCET, VANDAL RESISTANT 0.5 GPM MAX FLOW. FAUCET TO BE PROVIDED WITH WATTS LFMMV THERMOSTATIC MIXING VALVE TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. PROVIDE FLEXIBLE STAINLESS STEEL LOOSE KEY ANGLE STOPS AND CHROME PLATED P-TRAP. COVER ALL EXPOSED PIPING WITH WHITE "HANDI-LAV GUARD" PROTECTOR AS NEEDED TO MEET ADA REQUIREMENTS.
S-1	CLASSROOM SINK	1/2	1/2	2	1 1/2	SINK (COUNTER MOUNT, SINGLE COMPARTMENT): ELKAY LRAD2521651 18 GAUGE STAINLESS STEEL SINK 25" X 21-1/4" X 6-1/2" DEEP, REAR CENTER DRAIN OPENING. T&S BRASS B-0301-VR DECK MOUNT, SINGLE HOLE, FAUCET WITH 5-3/4" GOOSENECK, LEVER HANDLES AND VANDAL PROOF 2.2 GPM AERATOR AND WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLY TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. OPEN GRID STRAINER. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG.
S-2	FCS ISLAND SINK	1/2	1/2	2	1 1/2	SINK (COUNTER MOUNT, SINGLE COMPARTMENT): ELKAY LRAD3122651 18 GAUGE STAINLESS STEEL SINK 31" X 22-1/4" X 6-1/2" DEEP, REAR CENTER DRAIN OPENING. T&S BRASS B-0301-VR DECK MOUNT, SINGLE HOLE, FAUCET WITH 5-3/4" GOOSENECK, LEVER HANDLES AND VANDAL PROOF 2.2 GPM AERATOR AND WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLY TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. OPEN GRID STRAINER. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG.
S-3	FCS SINK	1/2	1/2	2	1 1/2	SINK (COUNTER MOUNT, THREE COMPARTMENT): ELKAY LTR46222 18 GAUGE STAINLESS STEEL SINK 46" X 22" X 7-5/8" DEEP WITH 2 HOLE DRILLING FOR QTY. 2 FAUCETS. T&S BRASS B-0314-VR DECK MOUNT, SINGLE HOLE, FAUCETS WITH 9" GOOSENECK, LEVER HANDLES AND VANDAL PROOF 2.2 GPM AERATOR AND WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLIES TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. BASKET STRAINERS. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG.
S-4	CCA SHOP SINK	1/2	1/2	2	1 1/2	SINK (WALL MOUNT, SINGLE COMPARTMENT, ADA): ADVANCE TABCO FS-WM-40-ADA-F 14 GAUGE STAINLESS STEEL SINK 40" X 19-1/2" X 5" DEEP WITH 2 SETS OF 2-HOLE DRILLING ON 8" CENTERS, REAR CENTER DRAIN OPENING. SINK COMPLETE WITH (2) K-161-LU FAUCETS, 6" SWING GOOSENECK, 8" ON CENTER WRIST BLADE HANDLES K-416-LU, 2.2 GPM AERATOR AND WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLY TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. OPEN GRID STRAINER. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG. COVER ALL EXPOSED PIPING WITH WHITE "HANDI-LAV GUARD" PROTECTOR AS NEEDED TO MEET ADA REQUIREMENTS.
S-5	ART SINK, ADA	1/2	1/2	2	1 1/2	SINK (WALL MOUNT, SINGLE COMPARTMENT, ADA): BEST SHEET METAL ADA-220S602066B8OC 14 GAUGE STAINLESS STEEL SINK 60" X 20" X 6" DEEP WITH 2 SETS OF 2-HOLE DRILLING ON 8" CENTERS, DRAIN WITH FIXED SCREEN. QTY. (2) T&S BRASS B-0230-134XA FAUCETS, 8" SWING GOOSENECK, 8" ON CENTER, LEVER HANDLES, 2.2 GPM AERATOR. WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLY TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG. COVER ALL EXPOSED PIPING WITH WHITE "HANDI-LAV GUARD" PROTECTOR AS NEEDED TO MEET ADA REQUIREMENTS.
S-6	ART SINK	1/2	1/2	2	1 1/2	SINK (LEG SINK, SINGLE COMPARTMENT): BEST SHEET METAL 020M60208L 14 GAUGE STAINLESS STEEL SINK 60" X 20" X 8" DEEP WITH 2 SETS OF 2-HOLE DRILLING ON 8" CENTERS, DRAIN WITH FIXED SCREEN. QTY. (2) T&S BRASS B-0230-134XA FAUCETS, 8" SWING GOOSENECK, 8" ON CENTER, LEVER HANDLES, 2.2 GPM AERATOR. WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLY TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG.
S-7	CLASSROOM SINK, BUBBLER	1/2	1/2	2	1 1/2	SINK (COUNTER MOUNT, SINGLE COMPARTMENT, BUBBLER): ELKAY DRKAD252265 18 GAUGE STAINLESS STEEL SINK 25" X 22" X 6-1/2" DEEP, REAR CENTER DRAIN OPENING, SINGLE HOLD FAUCET DRILLING AND SLOTTED HOLE FOR BUBBLER SEE ARCHITECTURAL PLANS FOR BUBBLER SIDE. T&S BRASS B-0301-VR DECK MOUNT, SINGLE HOLE, FAUCET WITH 5-3/4" GOOSENECK, LEVER HANDLES AND VANDAL PROOF 2.2 GPM AERATOR. HAWS 5054LF BUBBLER, SELF CLOSING LEVER, VANDAL RESISTANT HEAD. WATTS LFMMV THERMOSTATIC MIXING VALVE ON THE HOT WATER SUPPLY TO MEET ASSE 1070. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES. OPEN GRID STRAINER. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG.
SS-1	SERVICE SINK	1/2	1/2	3	1 1/2	SERVICE SINK (FLOOR MOUNTED): KOHLER K-6710, WHITBY, 28 X 28-INCH, ENAMELED CAST IRON FLOOR-MOUNTED CORNER MODEL. K-9146 3" DRAIN WITH STRAINER. K-8940 REMOVABLE VINYL-COATED RIM GUARD. T&S BRASS B-0665-BSTP FAUCET WITH VACUUM BREAKER, SCREWDRIVER STOPS IN SHANKS, 5 FOOT RUBBER HOSE AND 853-CP WALL HOOK. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES INSTALLED IN CEILING ABOVE SERVICE SINK WITH ACCESS DOOR IF HARD CEILING.
WB-1	WASHER BOX	3/4	3/4	2	2	WATER OUTLET BOX: WATER-TITE MBS1200HA WASHING MACHINE OUTLET BOX WITH DRAIN, QUARTER-TURN BALL VALVES AND INTEGRAL WATER HAMMER ARRESTERS.
ICE-1	WATER CONNECTION	3/4	-	-	-	WATER OUTLET BOX: WATER-TITE 489200HA WATER OUTLET BOX WITH QUARTER-TURN BALL VALVE AND INTEGRAL WATER HAMMER ARRESTER.
HB-1	HOSE BIBB	1/2	-	-	-	HOSE BIBB: T&S BRASS B-0736 1/2" NPT FEMALE INLET, 3/4" MALE HOSE THREAD OUTLET, CHROME PLATED, LOOSE KEY, VACUUM BREAKER.
HB-2	HOSE BIBB	3/4	3/4	-	-	HOSE BIBB: T&S BRASS B-0665-BSTP FAUCET WITH VACUUM BREAKER, SCREWDRIVER STOPS IN SHANKS. PROVIDE WATTS LF7R DUAL CHECKS IN HOT AND COLD SUPPLIES INSTALLED IN CEILING ABOVE SERVICE SINK WITH ACCESS DOOR IF HARD CEILING.
JHB-1	JANITORIAL HOSE BIBB	1/2	-	-	-	JANITORIAL HOSE BIBB: T&S BRASS B-2301: 1/2" NPT FEMALE INLET, 3/4" MALE HOSE THREAD OUTLET, CHROME PLATED, ESCUTCHEON PLATE, INTEGRAL SELF DRAINING ATMOSPHERIC VACUUM BREAKER AND 4-ARM QUARTER TURN HANDLE. FOR USE WITH ASSE 1055 COMPLIANT CHEMICAL DISPENSER (PROVIDED BY OTHERS). MOUNTING HEIGHT TO BE A MINIMUM OF 12" ABOVE THE CHEMICAL DISPENSER (APPROXIMATELY 72" ABOVE FINISHED FLOOR). COORDINATE EXACT MOUNTING HEIGHT WITH DISPENSER.
HR-1	COMPRESSED AIR HOSE REEL	-	-	-	-	COMPRESSED AIR HOSE REEL: REELCRAFT INDUSTRIAL AIR HOSE REEL MODEL 4435. 1/4" X 35' PVC HOSE. 3/8" NPT INLET. 300 PSI MAX PRESSURE. 20 LBS. SEE ARCHITECTURAL PLANS FOR MOUNTING LOCATION.
NFH-1	NON-FREEZE WALL HYDRANT	3/4	-	-	-	NON-FREEZE HYDRANT: JAY R. SMITH 5609QT NON-FREEZE WALL HYDRANT FOR WALL THICKNESS SHOWN ON PLAN. BRONZE HYDRANT, 3/4-INCH CONNECTION WITH BRASS CASING, INTEGRAL SELF-DRAINING VACUUM BREAKER, AND LOOSE KEY.
RH-1	ROOF HYDRANT	3/4	-	1/8	-	NON-FREEZE ROOF HYDRANT: JAY R. SMITH 5906 NON-FREEZE ROOF HYDRANT. GALVANIZED CASING, ADJUSTABLE FLOW WHEEL LOCK HANDLE, DECK FLANGE, UNDERDECK CLAMP, 3/4-INCH HOSE CONNECTION AND SELF-DRAINING RISER. 1/8" DRAIN HOLE. SLOPE 1% TO DRAIN.
WC-1	WATER CLOSET	1	-	4	2	WATER CLOSET (FLOOR MOUNTED, FLUSH VALVE): AMERICAN STANDARD, MADERA FLOWISE 16-1/2" TOILET, FLOOR MOUNTED, VITREOUS CHINA, 1.28 GALLON FLUSH, ELONGATED BOWL DESIGN, SIPHON JET FLUSHING, 2-1/8" PASSAGEWAY AND 1-1/2" TOP SPUD. SLOAN ROYAL 111 SMO-1.28, 1.28 GPF, 1-1/2" TOP SPUD MOUNT, BATTERY POWER, EXPOSED, SENSOR FLUSHOMETER. BEMIS 3155CT "DURAGUARD" WHITE, SOLID PLASTIC, OPEN-FRONT SEAT, LESS COVER.
WC-2	ADA WATER CLOSET	1	-	4	2	WATER CLOSET (FLOOR MOUNTED, FLUSH VALVE, ADA): AMERICAN STANDARD, MADERA FLOWISE 16-1/2" TOILET, FLOOR MOUNTED, VITREOUS CHINA, 1.28 GALLON FLUSH, ELONGATED BOWL DESIGN, SIPHON JET FLUSHING, 2-1/8" PASSAGEWAY AND 1-1/2" TOP SPUD. SLOAN ROYAL 111 SMO-1.28, 1.28 GPF, 1-1/2" TOP SPUD MOUNT, BATTERY POWER, EXPOSED, SENSOR FLUSHOMETER. BEMIS 3155CT "DURAGUARD" WHITE, SOLID PLASTIC, OPEN-FRONT SEAT, LESS COVER.
SH-1	RECESSED SHOWER	1/2	1/2	-	-	RECESS WALL SHOWER:BRADLEY WS-1F-TMV-S15 18 GA STAINLESS STEEL SHOWER WITH THERMOSTATIC MIXING VALVE AND 1.5 GPM SHOWERHEAD.
SH-2	RECESSED SHOWER	1/2	1/2	-	-	RECESS WALL SHOWER (ADA) BRADLEY HN200-TMV-S15-HS-GB 18 GA STAINLESS STEEL SHOWER WITH THERMOSTATIC MIXING VALVE AND 1.5 GPM SHOWERHEAD. COMPLETE WITH HAND SHOWER WITH 6" FLEXIBLE HOSE, WALL HOOK, VACUUM BREAKER AND QUICK DISCONNECT AND GRAB BAR.
SH-3	WALL SHOWER	1/2	1/2	-	-	WALL SHOWER (ADA) BRADLEY WS-1WCA-ADA-TMV 18 GA STAINLESS STEEL SHOWER WITH THERMOSTATIC MIXING VALVE AND 1.5 GPM HAND SHOWER.
EWS-1	EYEWASH SHOWER	1	1	2	1 1/2	RECESSED EMERGENCY SHOWER & EYE/FACE WASH: ACORN SAFETY MODEL S2260-RA-PAN-ET71-2-BVS-OTG BARRIER FREE COMBINATION STATION, RECESSED EYE/FACE WASH AND EMERGENCY SHOWER WITH STAINLESS STEEL SHOWER HEAD. 1-1/8" SHOWER HEAD 20 GPM. 1" STAY-OPEN SHOWER BALL VALVE. SWING DOWN EYE/FACE WASH WITH DRAIN PAN. THERMOSTATIC MIXING VALVE TO MEET ASSE 1071. MOUNT PER MANUFACTURER'S GUIDELINES. INCLUDE FD-1 FLOOR DRAIN BELOW SHOWER PER ARCHITECTURAL DRAWINGS.
GI-1	GREASE INTERCEPTOR	-	-	4	2	GREASE INTERCEPTOR: 1500 GALLON GREASE INTERCEPTOR. OLDCASTLE PRECAST SGI-STANDARD 4116-GI, OR EQUIVALENT.
INT-1	INTERCEPTOR	-	-	2	-	INTERCEPTOR: ENDURA GI MODEL 3910A02S WITH FLOW CONTROL. 10 GPM GREASE TRAP. INSTALL PER MANUFACTURER'S REQUIREMENTS.
GC-1	GAS COCK	-	-	-	-	GAS COCK: T&S BRASS BL-4203-01 LABORATORY HOSE COCK DECK MOUNTED, VANDAL RESISTANT, SINGLE OUTLET, LEVER HANDLE WITH BALL VAVLE, SERRATED TIP OUTLET, 3/8" NPT MALE INLET.
F-1	WASTE WATER FILTER	-	-	2	-	WASTE WATER FILTER: DRAIN NET, MODEL GDR-A6, ALL STAINLESS STEEL CONSTRUCTION, INDIRECT DRAIN, TRAY TYPE FILTER SYSTEM, REMOVABLE FLAT FILTER TRAY, 2" INLET AND OUTLET. FILTER SYSTEM SHALL BE COMPLETE WITH FILTER, STRAINER AND LEG EXTENSIONS AS REQUIRED FOR INSTALLATION. 10"H x 12"W x 10.5" DEEP.

(1) ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

KITCHEN EQUIPMENT SCHEDULE (2)

ITEM NO	QTY	Category	CW size	HW size	Indirect Drain size	Direct Drain size	Gas size	Gas MBTU	Plumbing Remarks
K-1	1	THREE COMPARTMENT SINK			1-1/2"				Drain to floor sink
K-1.1	2	FAUCET, SPLASH MOUNT	1/2"	1/2"					
K-3	4	HAND SINK	1/2"	1/2"		1-1/2"			
K-9	1	RANGE, 18"					1-1/4"	70	
K-10	2	CONVECTION OVEN, GAS					3/4"	100	See UDS wall details - Gas manifold
K-15	1	KETTLE, GAS, TILTING	1/2"	1/2"			1/2"	100	See UDS wall details - Drain to floor trough
K-16	1	FLOOR TROUGH				4"			
K-18	2	COMBI OVEN, GAS, DOUBLE STACKED	(2) 3/4" Split		2"		1/2"	(2)106.5	See UDS wall details - Filtered and Unfiltered water
K-22	1	TWO COMPARTMENT SINK			1-1/2"				Drain to floor sink
K-22.1	1	PRE-RINSE FAUCET	1/2"	1/2"					
K-23	1	HAND SINK	1/2"	1/2"		1-1/2"			
K-26	1	ICE CUBER	3/8"		1/2"				Run water thru filter - Drain to floor sink
K-26.1	1	ICE BIN			3/4"				Drain to floor sink
K-30	3	HOT FOOD WELL (4), DROP-IN	1/4"		1"				Manifold drain - Drain to floor sink
K-33	1	DISHTABLE WITH 3 COMP SINK			(3)1-1/2"				Drain to floor sink
K-33.1	2	FAUCET, SPLASH MOUNT	1/2"	1/2"					
K-34	1	WAREWASHER, CONVEYOR		1/2"	2"				Drain to floor sink
K-35	1	DISHTABLE WITH PASS THRU WINDOW			1-1/2"				Drain to floor sink
K-36	1	SCRAP COLLECTOR	3/4"	3/4"		2"			
K-37	1	HAND SINK	1/2"	1/2"		1-1/2"			
K-38	1	HOSE REEL, OPEN	1/2"	1/2"					
K-39	1	PRE-RINSE FAUCET	1/2"	1/2"					
K-40.1	1	WALK-IN COOLER EVAPORATER			5/8"				Drain to floor sink
K-41	1	WALK-IN FREEZER			5/8"				Drain to floor sink
K-41.1	1	WALK-IN FREEZER EVAPORATER			5/8"				Drain to floor sink
K-46	1	CAN WASH	1/2"	1/2"	1-1/2"				Drain to floor sink
K-47	1	UTILITY DISTRIBUTION SYSTEM - WALL	1"	3/4"			1-1/2"	1360	

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.
2. FOR INFORMATIONAL PURPOSES ONLY. SEE KITCHEN DRAWINGS.

GAS FIRED WATER HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	SERVICE	INPUT LOAD (BTUH)	EFFICIENCY (%)	RECOVERY RATE @ 100 F DELTA T	TANK SIZE (GAL)	FLUE SIZE (IN)	LENGTH/ WIDTH/ HEIGHT (IN)	ELECTRICAL AMPS	ELECTRICAL V/PH	NOTES
WH-1	BRADFORD WHITE BMT2V0750N	MECH. ROOM	DOMESTIC	500,000	84	510 GPH	NA	8	47/30/44	15	120/1	(1)(2)(4)
WH-2	A.O. SMITH BTH-199	MECH. ROOM	KITCHEN BOOSTER	199,000	97	235 GPH	100	4	28/28/77	15	120/1	(1)(3)

1. ELEVATION 4500 FT.
2. OUTLET TEMPERATURE SHALL BE SET TO 120 DEGREES F.
3. OUTLET TEMPERATURE SHALL BE SET TO 140 DEGREES F.
4. WATER HEATER INCLUDED CIRCULATION PUMP. 1/3 HP, 2.8 AMPS, 120V/1PH/15A.

DOMESTIC EXPANSION TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: WORKING FLUID	FLUID: MIN. TANK/ ACCEPTANCE (GAL)	PHYSICAL: TANK SIZE (GAL)	PHYSICAL: RELIEF VALVE (PSIG)	PHYSICAL: DIA./ HEIGHT (IN)	PHYSICAL: NPT FITTING (IN)	NOTES
DET-1	B&G PTA 60V	MECH. ROOM	DIAPHRAGM	WATER	5.04	26	90	16/34	1	1
DET-2	B&G PTA 20V	MECH. ROOM	DIAPHRAGM	WATER	4.5	8	90	12/21	3/4	1

1. TANK LINER SUITABLE FOR POTABLE WATER

DOMESTIC PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: FLOW RATE (GPM)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PUMP: EFFICIENCY (%)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR BHP (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH/HZ	NOTES
DCP-1	B&G ECOCIRC XL 55-45	MECH ROOM	IN-LINE	5	WATER	30	NA	1/2	NA	3409	208/1/60	
DCP-2	B&G ECOCIRC XL 36-45	MECH ROOM	IN-LINE	1	WATER	15	NA	1/6	NA	3409	115/1/60	

STORAGE TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	OPERATING WEIGHT (LBS)	CAPACITY (GAL)	WORKING PRESS. (PSI)	TANK SIZE D/H (IN)	NOTES
ST-1	BRADFORD WHITE NV940JS25A	MECH ROOM	9739	940	150	52/128	(1)

1. MOUNT ON 4" HIGH HOUSEKEEPING PAD.

NATURAL GAS REQUIREMENTS

EQUIP. NO.	QTY.	LOCATION	EQUIPMENT	EQUIP BTUH INPUT	TOTAL CFH
B-1, 2	2	MECH ROOM	HOT WATER BOILER	5,000,000	11364
WH-1	1	MECH ROOM	DOM. WATER HEATER	500,000	568
WH-2	1	MECH ROOM	BOOSTER HEATER	199,000	226
MAU-1,2	2	KITCHEN	MAKE-UP AIR UNIT	287,700	654
KITCHEN EQUIPMENT	1	KITCHEN	KITCHEN EQUIPMENT	1,360,000	1545
GAS RANGES	1	SEE PLANS	GAS RANGES	540,000	614
GAS COCKS	6	SCIENCE ROOMS	GAS RANGES	30,000	205

TOTAL (BTUH) = 13,354,400
BTU/CUBIC FT. = 880
TOTAL CFH= 15175

2 PSIG GAS METER WITH EARTHQUAKE VALVE ON CONCRETE PAD BY GAS SUPPLIER PAID FOR BY CONTRACTOR.

WATER SOFTENER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	TOTAL (GRAINS)	NORMAL / MAX WATER FLOW/UNIT @ 15/25 PSI LOSS	BACKWASH FLOW RATE (GPM)	RESIN QUANTITY (FT^3)	RESIN TANK HGHT/DIA (IN/IN)	BRINE TANK HGHT/DIA (IN/IN)	ELECTRICAL (VOLT/PH)	NOTES
WS-1	CULLIGAN CTM 210-PF	MECH. ROOM	DUPLEX	60,000	55/85	8	7	62/21	50/24	115	(1) (2)

1. PACKAGED EQUIPMENT
2. DUPLEX OUTLET

AIR COMPRESSOR SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	MAXIMUM FLOW (SCFM)	MAXIMUM PUMP PRESS. (PSIG)	RECEIVER TANK: SIZE (GAL)	RECEIVER TANK: RECEIVER TYPE	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	WEIGHT (LBS)	NOTES
AC-1	QUINCY QR-25 V325-3-80	MECH RM	17.3	175	80	VERTICAL	5	900	480/3/60	36/26/78	675	1,2,3,4,5

1. CAPACITIES SHOWN ARE SEA-LEVEL CAPACITIES.
2. 2-STAGE RECIPROCATING COMPRESSOR SYSTEM, AIR COOLED, PRESSURE LUBRICATED TYPE, SINGLE POINT CONNECTION.
3. V-BELT DRIVE WITH GUARDS.
4. PROVIDE SEPARATE COMPRESSED AIR TANK AS SCHEDULED. 80 GALLON ASME RATED. WITH INLET, OUTLET, AND AUTOMATIC SOLENOID DRAIN FITTING.
5. COMPRESSOR SHALL BE COMPLETE WITH PRESSURE REGULATOR, PRESSURE SWITCH, INTAKE FILTER SILENCER, HIGH PRESSURE SAFETY CONTROLS, AUTOMATIC CONTROLS.

design west | architects
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SALT LAKE CITY UT 84103 — 255 SOUTH 300 WEST

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VBFA Project #: 23717

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK: DATE: DESCRIPTION:

PROJECT #: 23717
DRAWN BY: DB
CHECKED BY: LW
ISSUED: 05/02/2024

PLUMBING SCHEDULES
P-601

LIGHTING SYMBOLS

1. LIGHT FIXTURE SYMBOLS ARE GENERAL IN NATURE AND MAY BE SHOWN ON THE DRAWINGS IN VARIOUS SIZES AND SHAPES. REFER TO THE LIGHT FIXTURE SCHEDULE FOR SPECIFICATION INFORMATION.
2. ARROWS INDICATE AIMING DIRECTION.

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	ARM-MOUNTED SINGLE-HEAD LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	ARM-MOUNTED DOUBLE-HEAD LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	POST-TOP SINGLE-HEAD, LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED FIXTURE	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT
	LIGHT BOLLARD	AS SPECIFIED OR DETAILED	
	FLOOD LIGHT	AS SPECIFIED OR DETAILED	
	RECESSED WALL FIXTURE OR STEP LIGHT	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR MOUNTING HEIGHT
	LIGHT FIXTURES	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED LINEAR LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	LINEAR WALL WASHER	AS SPECIFIED OR DETAILED	
	RECESSED DOWN LIGHT	AS SPECIFIED OR DETAILED	
	RECESSED WALL-WASHER OR DIRECTIONAL DOWNLIGHT	AS SPECIFIED OR DETAILED	
	SURFACE OR PENDANT-MOUNTED LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	TRACK OR MONO-POINT LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	WALL SCONCE	AS SPECIFIED OR DETAILED	
	LINEAR PENDANT LIGHT FIXTURE	CEILING	
	EGRESS LIGHT FIXTURE	AS SPECIFIED OR DETAILED	THIS IS AN EXAMPLE OF AN EGRESS LIGHT FIXTURE. EGRESS LIGHT FIXTURES ARE HALF-SHADED DIAGONALLY
	EMERGENCY (NON-EGRESS) LIGHT FIXTURE	AS SPECIFIED OR DETAILED	THIS IS AN EXAMPLE OF AN EMERGENCY (NON-EGRESS) LIGHT FIXTURE. EMERGENCY FIXTURES ARE FULLY-SHADED.
	CEILING MOUNTED EXIT SIGN	CEILING	DARKENED PORTION OF SIGN INDICATES FACE(S). ARROW(S) INDICATE CHEVRON DIRECTION(S)
	WALL-MOUNTED EXIT SIGN	WALL ABOVE DOOR	
	WALL-MOUNTED EXIT SIGN W/ EMERGENCY LIGHT FIXTURE	WALL ABOVE DOOR	
IN	CEILING MOUNTED IN USE SIGN	CEILING	
IN	WALL-MOUNTED IN USE SIGN	WALL ABOVE DOOR	
TC	TIME CLOCK		
	EMERGENCY LIGHT FIXTURE	AS NOTED	
P	ELECTRIC PHOTOCELL	N/A	MOUNT ON ROOF FACING NORTH SKY
XXXX	LIGHT FIXTURE CALLOUT (LETTER DENOTES FIXTURE TYPE)		

FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
T	BEAM DETECTOR - TRANSMITTER	4" BELOW CEILING TO TOP OF DETECTOR	
R	BEAM DETECTOR - RECEIVER	4" BELOW CEILING TO TOP OF DETECTOR	
EOL	END OF LINE RESISTOR	PER MANUF. REC.	
T	TAMPER SWITCH	AT VALVE	
W	WATER FLOW INDICATOR	ON FIRE RISER	
FSD	FIRE/SMOKE DAMPER		
X	HEAT DETECTOR	CEILING	SUBSCRIPT INDICATES SPECIFIC REQUIREMENTS/OPTIONS:
CO X	CARBON MONOXIDE DETECTOR		
X	SMOKE DETECTOR		'SB' DEVICE WITH SOUNDER BASE
X	HEAT DETECTOR	WALL MOUNTED: MAX 12" FROM BOTTOM OF CEILING	'R' DEVICE WITH ADDRESSABLE RELAY
CO X	CARBON MONOXIDE DETECTOR		'RES' DEVICE HAS 120V. SMOKE ALARM W/BATTERY BACKUP
X	SMOKE DETECTOR		
	DUCT SMOKE DETECTOR	SIDE OF DUCT	
F	FIRE ALARM MANUAL STATION		
Z	CONTROL MODULE	AT DEVICE(S) TO BE CONTROLLED	
	MONITOR MODULE	AT DEVICE(S) TO MONITOR	
R	FAN SHUTDOWN RELAY	AT CONTROL PANEL	
D	MAGNETIC DOOR HOLDER	COORDINATE WITH DOOR INSTALLER	COORDINATE WITH DOOR INSTALLER; SUBSCRIPT 'F' INDICATES TO MOUNT AT FLOOR LEVEL
WF	WATER FLOOD CONTROL	FLOOR	
H	AUDIO HORN	INDOOR - 96" FROM FINISH FLOOR TO TOP OF DEVICE. OUTDOOR - 120" FROM FINISH FLOOR TO TOP OF DEVICE.	SUBSCRIPT "WP" INDICATES THAT A WEATHER PROOF BACK BOX IS REQ. NUMERIC SUBSCRIPT INDICATES CANDELA RATING OF STROBE (I.E. - 15, 75, 110)
	FIRE ALARM VISUAL STROBE		
	CONCEAL FIRE ALARM VISUAL STROBE		
	FIRE ALARM AUDIO/VISUAL HORN/STROBE		
	CONCEAL FIRE ALARM AUDIO/VISUAL HORN/STROBE		
	CEILING MOUNTED FIRE ALARM AUDIO/VISUAL HORN/STROBE		
S	FIRE ALARM AUDIO SPEAKER		
S	CEILING MOUNTED FIRE ALARM AUDIO SPEAKER		
	FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
	CONCEAL FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
	CEILING MOUNTED FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
F	FIRE FIGHTERS TELEPHONE JACK	+48"	
	FIRE PROTECTION SPRINKLER RISER BELL	+90"	FURNISHED BY FIRE PROTECTION CONTRACTOR AND INSTALLED AND CONNECTED BY DIV. 26
FACP	FIRE ALARM CONTROL PANEL		
ASD	FIRE ALARM CONTROL PANEL		

INTRUSION DETECTION SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
MD	MOTION DETECTOR	CEILING	SUBSCRIPT DENOTES DEGREES OF MONITORED AREA
D	DURESS PUSH-BUTTON	BELOW DESK	
OHS	OVERHEAD MAGNETIC CONTACT DOOR SWITCH	DOOR	
D	MAGNETIC CONTACT DOOR SWITCH	DOOR	
G	GLASS BREAK DETECTOR	CEILING	
S	SIREN	+90"	
REX	REQUEST FOR EXIT	DOOR	

WIRING DEVICE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	SPLIT-WIRED DUPLEX RECEPTACLE	+18"	
	SIMPLEX RECEPTACLE	+18"	
	DUPLEX RECEPTACLE	+18"	
	FOURPLEX RECEPTACLE	+18"	
	125/250V RECEPTACLE	+18"	RANGE – NEMA 14-50R DRYER – NEMA 14-30R
	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE	+18"	
	GROUND FAULT CIRCUIT INTERRUPTER FOURPLEX RECEPTACLE	+18"	
	EMERGENCY DUPLEX RECEPTACLE	+18"	
	EMERGENCY FOURPLEX RECEPTACLE	+18"	
	DUPLEX RECEPTACLE W/(2) 3.1A, 5VDC USB PORTS	+18"	
	MULTI-OUTLET ASSEMBLY	4" ABOVE BACKSPLASH	
	POWER / TELEPHONE POLE	FLOOR/CEILING	
(4-PLEX)	CORD DROP	REFER TO FLOOR PLANS	REFER TO DETAIL. REFER TO PLANS.
(4-PLEX)	CORD REEL	REFER TO FLOOR PLANS	REFER TO DETAIL. REFER TO PLANS.
(5-20R)	SPECIAL PURPOSE OUTLET	+18"	SUBSCRIPT IN PARENTHESIS INDICATES NEMA CONFIGURATION IF SHOWN. REFER TO DRAWINGS AND/OR EQUIPMENT SCHEDULES. CONFIRM EXACT CONFIGURATION WITH OWNER PRIOR TO INSTALLATION.

FLOOR BOX DEVICES

SYMBOL	DESCRIPTION	
B#	FLOOR BOX - REFER TO SUBSCRIPT AND FLOOR BOX SCHEDULE FOR MORE INFORMATION	
P	PROVIDE 4" SQUARE DEEP OUTLET BOX AND ELECTRICAL CONNECTIONS TO SYSTEMS FURNITURE. COORDINATE SYSTEM FURNITURE WIRING REQUIREMENTS AND OUTLET BOX LOCATIONS WITH SYSTEM FURNITURE SUPPLIER/INSTALLER PRIOR TO ROUGH-IN. WHIP FROM OUTLET BOX TO SYSTEMS FURNITURE TO BE PROVIDED BY SYSTEM FURNITURE INSTALLER.	
C	PROVIDE BOX WITH GROMMETTED COVER PLATE FOR COMMUNICATION CABLING SIZE BOX PER NEC. COORDINATE PLACEMENT OF OUTLET BOXES IN WALLS AND COLUMNS WITH SYSTEM FURNITURE SUPPLIER/INSTALLER PRIOR TO ROUGH-IN. EXTEND CONDUIT WITH NYLON PULL ROPE TO ACCESSIBLE CEILING SPACE. REFER TO TELECOM RISER DIAGRAM FOR CONDUIT SIZING TERMINATE CONDUIT IN CEILING SPACE WITH A NYLON BUSHING.	
P#	POKE THROUGH - REFER TO SUBSCRIPT AND FLOOR BOX SCHEDULE FOR MORE INFORMATION.	
	MULTI-SERVICE POKE-THRU WITH FURNITURE FEED CONNECTIONS. (POWER, COMMUNICATIONS AND A/V)	MOUNTING: FLOOR
P	"TOMBSTONE" (LEGRANDE 525) OUTLET BOX WITH FURNITURE FEED CONNECTIONS. (POWER ONLY)	FLOOR
C	"TOMBSTONE" (LEGRANDE 525) OUTLET BOX WITH FURNITURE FEED CONNECTIONS. (COMMUNICATIONS ONLY)	FLOOR

LIGHTING CONTROLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
$	SINGLE-POLE TOGGLE SWITCH	+48"	
$a	SINGLE-POLE TOGGLE SWITCH	+48"	SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
$2	DOUBLE-POLE TOGGLE SWITCH	+48"	
$3	THREE-WAY TOGGLE SWITCH	+48"	
$4	FOUR-WAY TOGGLE SWITCH	+48"	
$K	KEY-OPERATED SINGLE-POLE TOGGLE SWITCH	+48"	
$P	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	+48"	
$DIM	DIMMER SWITCH	+48"	RATE DIMMER SWITCH FOR MAXIMUM POSSIBLE WATTAGE
$TIM	TIMER SWITCH	+48"	
$x OS	OCCUPANCY SENSOR	+48"	REFER TO OCCUPANCY SENSOR SCHEDULE FOR MORE INFORMATION "#" SPECIFIES TYPE
$$	(2) SINGLE-POLE TOGGLE SWITCH	+48"	DUAL LEVEL SWITCH OUTBOARD LAMPS SEPARATELY FROM INBOARD LAMPS.
$# LV	LOW VOLTAGE SWITCH	+48"	REFER TO LOW VOLTAGE SWITCH SCHEDULE FOR MORE INFORMATION "#" SPECIFIES TYPE
$3PM	3-POSITION MOMENTARY CONTACT SWITCH	+48"	REFER TO DETAIL UP-ON; CENTER-NEUTRAL; DOWN-OFF
$3PN	3-POSITION MAINTAINED CONTACT SWITCH	+48"	UP-ON; CENTER-OFF; DOWN-ON
a #	OCCUPANCY SENSOR	CEILING	"a" LOWER CASE SPECIFIES ZONE "#" SPECIFIES TYPE
a #	DIGITAL DAYLIGHT SENSOR	CEILING	"a" LOWER CASE LETTER SPECIFIES ZONE "#" SPECIFIES THE FOOTCANDLE SETTING THE SENSOR SHALL BE SET TO
TP	WALL MOUNT GRAPHIC TOUCH PAD CONTROLLER	+48"	
EC	EMERGENCY CONTROLLER	ACCESSIBLE ABOVE CEILING	
LC	LOAD CONTROLLER	ACCESSIBLE ABOVE CEILING	
PP	POWER PACK	ACCESSIBLE ABOVE CEILING	
RC	ROOM CONTROLLER	ACCESSIBLE ABOVE CEILING	

ACCESS CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
REX	REQUEST-TO-EXIT MOTION DETECTOR	CEILING	
ES	ELECTROMAGNETIC DOOR STRIKE	DOOR	
SS	SEISMIC SENSOR	DOOR	
D	MAGNETIC DOOR CONTACT SWITCH	DOOR	
M	MAGNETIC LOCK	DOOR	
OHS	OVERHEAD SECURITY	DOOR	
OHD	OVERHEAD DOOR CONTACT	DOOR	
EH	ELECTRIFIED HINGE	DOOR	
EL	ELECTRIFIED LEVER	DOOR	
EP	ELECTRIFIED PANIC HARDWARE	DOOR	
G	GLASS BREAK HARDWARE	CEILING/WALL	
PS	POWER SUPPLY	CEILING/WALL	
IL	INTEGRATED LOCK	+46"	
PP	PUSH PLATE FOR AUTOMATIC DOOR OPERATOR	+46"	
ADO	AUTOMATIC DOOR OPERATOR	DOOR	
KP	KEYPAD	+48"	
CK	CARD READER / KEYPAD	+48"	
MK	MAGNETIC STRIP CARD READER / KEYPAD	+48"	
CR	CARD READER	+48"	
MR	MAGNETIC STRIP CARD READER	+48"	
AUTO	AUTOMATIC SLIDING DOOR	DOOR	

GENERAL SYMBOLS

SYMBOL	DESCRIPTION	REMARKS
XX	KEYED NOTE	
1 E-1	DETAIL REFERENCE	TOP NUMBER INDICATES DETAIL NUMBER; BOTTOM LETTER-NUMBER INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN; WHERE NOT SPECIFICALLY REFERENCED, DETAIL IS GENERAL IN NATURE AND SHALL APPLY WHERE APPLICABLE.
2 E-2	ELEVATION REFERENCE	TOP NUMBER INDICATES ELEVATION NUMBER; BOTTOM LETTER-NUMBER INDICATES WHERE ELEVATION IS SHOWN.
3 E-2	SECTION REFERENCE	TOP NUMBER INDICATES ELEVATION NUMBER; BOTTOM LETTER-NUMBER INDICATES WHERE ELEVATION IS SHOWN.
100	ARCHITECTURAL ROOM NUMBER	
AHU 1	EQUIPMENT NAME / NUMBER	TOP NUMBER ABBREVIATES EQUIPMENT NAME OR TYPE; BOTTOM NUMBER INDICATES EQUIPMENT NUMBER. REFER TO EQUIPMENT SCHEDULE.
1	REVISION NUMBER	USED TO DENOTE CHANGES EITHER ISSUED BY ADDENDUM OR DURING CONSTRUCTION AND TO DENOTE RECORD DRAWING CHANGES.
	REVISION CLOUD	USED TO DENOTE AREAS, DEVICES, EQUIPMENT DETAILS, ETC. AFFECTED BY THE REVISION.
	BREAKLINE	USED TO BREAK DRAWINGS.
LCD-###	LIGHTING CONTROL WIRING DIAGRAM CALLOUT	

BRANCH CIRCUITING SYMBOLS

SYMBOL	DESCRIPTION	REMARKS
	BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS REQUIRED.
	BRANCH CIRCUITING (U.N.O.) CONTINUATION	
	CONDUIT STUB-IN	CAP AND MARK
	INCOMING SERVICE	
	UNDERGROUND FEEDER	
J	JUNCTION BOX	MOUNT AS NOTED. SUBSCRIPT 'F' INDICATES TO PROVIDE A FLOOR BOX WITH BLANK COVERPLATE.
	BRANCH CIRCUITING (U.N.O.) TURNED UP OR TOWARDS OBSERVER.	
	BRANCH CIRCUITING (U.N.O.) TURNED DOWN OR AWAY FROM OBSERVER.	
	2 CIRCUIT, BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS REQUIRED.
	3 CIRCUIT, 4 WIRE BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS REQUIRED.

ELECTRONIC SYSTEM GENERAL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
PANEL NAME	ELECTRONIC SYSTEM PANELBOARD (SURFACE MOUNT)	TOP AT 72"	ELECTRONIC SYSTEMS MAY INCLUDE BUT ARE NOT SPECIFICALLY LIMITED TO, TELEPHONE, DATA, TELEVISION, LIGHTING CONTROL, CLOCKS, FIRE ALARM, ACCESS CONTROL, SECURITY, CCTV, SOUND SYSTEM, NURSE CALL, OR INTERCOM.
PANEL NAME	ELECTRONIC SYSTEM PANELBOARD (FLUSH MOUNT)	TOP AT 72"	
	ELECTRONIC SYSTEM TERMINAL BOARD	TOP AT 72"	
	TWO POST DATA RACK		
	FOUR POST DATA RACK		
	FLOOR MOUNTED DATA CABINET		
	LARGE DATA CABINET		
	WALL MOUNTED DATA CABINET		

EQUIPMENT AND CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
$T	MANUAL STARTER WITH THERMAL OVERLOAD(S)	AT EQUIPMENT	
	ELECTRIC MOTOR		
	NON-FUSED DISCONNECT SWITCH	+60"	
F	FUSED DISCONNECT SWITCH	+60"	
	MAGNETIC STARTER	+60"	
	COMBINATION MAGNETIC STARTER / FUSED DISCONNECT	+60"	
	COMBINATION MAGNETIC STARTER / NON-FUSED DISCONNECT	+60"	
	COMBINATION MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)	+60"	
VFD	COMBINATION VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)	FLOOR OR WALL AS SPECIFIED	TOP AT +72" IF WALL MOUNTED
	LOAD CENTER (SURFACE-MOUNTED)	TOP AT +72"	14"W X 3"D
	LOAD CENTER (FLUSH-MOUNTED)	TOP AT +72"	14"W X 3"D
	LIGHTING AND APPLIANCE PANELBOARD (SURFACE-MOUNTED)	TOP AT +72"	20"W X 6"D
	LIGHTING AND APPLIANCE PANELBOARD (FLUSH-MOUNTED)	TOP AT +72"	20"W X 6"D
	POWER DISTRIBUTION PANELBOARD	WALL	THESE SYMBOLS ARE GENERAL IN NATURE AND MAY VARY IN SIZE AND SHAPE TO SUIT APPLICATION. CROSS HATCHING INDICATES "MAIN PANELBOARD OR SWITCHBOARD" NAME IS INDICATED IN SEMI-QUOTES (I.E. 'L2A', 'MDP')
	SWITCHBOARD	FLOOR	
T-#	WET TYPE TRANSFORMER	PAD MOUNT	
T-#	DRY TYPE TRANSFORMER	PAD MOUNT	
T-#	DRY TYPE TRANSFORMER	WALL MOUNT	
	METER BASE	TOP AT +72"	
PB	PULL BOX		
	UTILITY POLE		
	OPEN - STOP - CLOSE SWITCH	+60"	FURNISH SWITCH UNLESS FURNISHED BY ANOTHER DIVISION. INSTALL AND CONNECT COMPLETE. REFER TO RELATED SPECIFICATION SECTIONS.
T	HVAC THERMOSTAT	+60"	PROVIDED BY DIVISION 23
GF	GROUND FAULT PROTECTION		
E	ELECTRIC VEHICLE CAR CHARGING STATION	FLOOR	
S	PAD MOUNTED UTILITY SWITCHGEAR		
SE	PAD MOUNTED UTILITY SECTIONALIZER		

ELECTRICAL SYMBOL SCHEDULE GENERAL NOTES

1. MOUNT ALL OUTLETS, DEVICES, AND EQUIPMENT AT HEIGHTS INDICATED BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS. UNLESS NOTED OTHERWISE, HEIGHTS ARE GIVEN FROM FINISHED FLOOR TO CENTER OF OUTLET BOX.
2. WHERE OUTLETS, DEVICES, AND EQUIPMENT ARE NOTED BY SUBSCRIPTS, REFER TO ABBREVIATION SCHEDULE FOR DEFINED REQUIREMENTS.
3. WHERE OUTLETS, DEVICES AND EQUIPMENT ARE NOTED BY THE SUBSCRIPT 'A', MOUNT AT 4" ABOVE COUNTER. IF COUNTER HAS A BACK SPLASH, MOUNT AT 4" ABOVE BACK SPLASH. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS AND COORDINATE WITH CASEWORK SUPPLIER.
4. NOT ALL ELECTRICAL SYMBOLS MAY BE USED.

ABBREVIATION SCHEDULE

NOTE: NOT ALL ABBREVIATIONS MAY BE USED.

A	ABOVE COUNTER	LSI	LONG-TIME, SHORT-TIME INSTANTANEOUS
A	AMP OR AMPS	LSIG	LONG-TIME, SHORT-TIME INSTANTANEOUS GROUND FAULT
ACC	ACCESS CONTROL	LTG	LIGHTING
ADJ	ADJACENT	MBJ	MAIN BONDING JUMPER
AFF	ABOVE FINISHED FLOOR	MCA	MINIMUM CIRCUIT AMPS
AHJ	AUTHORITY HAVING JURISDICTION	MCB	MAIN CIRCUIT BREAKER
AL	ALUMINUM	MLO	MAIN LUGS ONLY
ATS	AUTOMATIC TRANSFER SWITCH	MV	MEDIUM VOLTAGE
AUX	AUXILIARY	MW	MICROWAVE
AWG	AMERICAN WIRE GAUGE	NC	NORMALLY CLOSED
BAS	BUILDING AUTOMATION SYSTEM	NEC	NATIONAL ELECTRIC CODE
BLDG	BUILDING	NIC	NOT IN CONTRACT
C	CONDUIT	NL	NIGHT LIGHT
CB	CIRCUIT BREAKER	NO	NORMALLY OPEN
CKT	CIRCUIT	OC	ON CENTER(S)
CLG	CEILING	OCP	OVER CURRENT PROTECTION
CO	CONVENIENCE OUTLETS	OCPD	OVER CURRENT PROTECTION DEVICE
COMM	COMMUNICATIONS	PA	PUBLIC ADDRESS
CU	COPPER	PH	PHASE
DAS	DISTRIBUTED ANTENNA SYSTEM	PV	PHOTOVOLTAIC
(E)	EXISTING	PWR	POWER
EA	EACH	QTY	QUANTITY
EG	EQUIPMENT GROUND	R	REMOVE
EGC	EQUIPMENT GROUNDING CONDUCTOR	REF	REFRIGERATOR
ELEC	ELECTRICAL	REQ	REQUIREMENTS
EM	EMERGENCY	RGC	RIGID GALVANIZED METALLIC CONDUIT
EMT	ELECTRIC METALLIC TUBING	RMC	RIGID METAL CONDUIT
ENT	ELECTRIC NONMETALLIC TUBING	RMP	ROCKY MOUNTAIN POWER
EQUIP	EQUIPMENT	RNC	RIGID NONMETALLIC CONDUIT
EWC	ELECTRIC WATER COOLER	RR	REMOVE AND RELOCATE
EXP	EXPLOSION PROOF	S	SURFACE MOUNTED
FA	FIRE ALARM	SBJ	SYSTEM BONDING JUMPER
FACP	FIRE ALARM CONTROL PANEL	SCP	SECURITY CONTROL PANEL
FLA	FULL LOAD AMPS	SFL	SUB-FEED LUGS
FMC	FLEXIBLE METAL CONDUIT	SPD	SURGE PROTECTIVE DEVICE
FO	FIBER OPTIC	SS	SURGE SUPPRESSION
FOB	FREIGHT ON BOARD	SSBJ	SUPPLY SIDE BONDING JUMPER
FTL	FEED-THROUGH LUGS	TGB	TELECOMMUNICATION GROUNDING BUS BAR
GEC	GROUNDING ELECTRODE CONDUCTOR	TMGB	TELECOMMUNICATION MAIN GROUNDING BUS BAR
GND	GROUND CONDUCTOR	TR	TAMPER RESISTANT
H	HOSPITAL GRADE	TTB	TELEPHONE TERMINAL BOARD
HOA	HAND-OFF-AUTO	TYP	TYPICAL
HP	HORSE POWER	UF	UNDER FLOOR
HZ	HORIZONTALLY MOUNTED	UG	UNDERGROUND
IBT	INTERSYSTEM BONDING TERMINATION BAR	UNO	UNLESS NOTED OTHERWISE
ID	INTRUSION DETECTION	USB	UNIVERSAL SERIAL BUS
IG	ISOLATED GROUND	VSS	VIDEO SURVEILLANCE SYSTEM
IMC	INTERMEDIATE METAL CONDUIT	W/	WITH
INS	INSULATED	W/O	WITHOUT
ISO	ISOLATED	WP	WEATHER PROOF
KCMIL	KILO CIRCULAR MIL	WR	WEATHER RESISTANT
KVA	KILO VOLT AMPERES	XFMR	TRANSFORMER
KW	KILOWATTS		
LFNC	LIQUID-TIGHT NONMETAL CONDUIT		
LS	LONG-TIME, SHORT-TIME		

SHEET INDEX

SHEET INDEX

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

DESCRIPTION:

MARK: DATE:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

GENERAL NOTES AND SYMBOLS LISTS

E-001

ONE-LINE SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
'A'	LIGHTING AND APPLIANCE PANEL BOARD	'A'	DISTRIBUTION PANEL	'A'	LOAD CENTER
	CIRCUIT BREAKER		CIRCUIT BREAKER ENCLOSED		SPARE
	NORMALLY OPEN CONTACT		NORMALLY CLOSED CONTACT		THERMAL OVERLOAD
	MOTOR	K	KEY INTERLOCK	C	RELAY COIL
	DISCONNECT SWITCH		DISCONNECT SWITCH FUSED	SPD	SURGE SUPPRESSION DEVICE
	FUSED SWITCH		COMBINATION MCP STARTER WITH THERMAL OVERLOAD		COMBINATION FUSIBLE STARTER WITH THERMAL OVERLOAD
	MUSHROOM PUSH BUTTON	PF	PHASE FAILURE RELAY	M	METER
	AUTOMATIC TRANSFER SWITCH		GROUND		CURRENT TRANSFORMER
	TRANSFORMER		GUTTER	G	GENERATOR
GND N	GROUND AND NEUTRAL		STANDARD SWITCHED WAY		GROUND RODS
	POWER FACTOR CORRECTION CAPACITOR & ENCLOSURE		CT CABINET		PULLING SECTION
	CAM LOCK MALE		CAM LOCK FEMALE		LIGHTNING PROTECTION
	COLD WATER PIPE		BUILDING STEEL		CONCRETE ENCASED ELECTRODE
	ISOLATION AUTOMATIC TRANSFER SWITCH		MAIN SWITCHBOARD		
	BUS BAR		GROUND SLEEVE		

TELEPHONE / DATA SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	TELEPHONE OUTLET	+18"	
	DATA OUTLET	+18"	
	COMBINATION TELEPHONE/DATA OUTLET	+18"	
	TELEPHONE TERMINAL BOARD	TOP AT 72"	
	WIRELESS ACCESS POINT	CEILING	
W	WIRELESS ACCESS POINT	SEE PLANS	
	EMERGENCY PHONE	SEE PLANS	

SIGNAL BELL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
B	BELL/CHIME	+90"	
	BUZZER	+90"	
	SIGNAL BELL PUSH BUTTON	+48"	

NURSE CALL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	PATIENT STATION	+48"	
	EMERGENCY PULL STATION	+48"	
C	CODE BLUE STATION	+48"	
2	DOUBLE PATIENT STATION	+48"	
SS	STAFF STATION	+48"	
DS	DUTY STATION	+48"	
	DOME LIGHT	6" ABOVE DOOR	SUBSCRIPT 'C' INDICATES CEILING MOUNTED
MAS	MASTER STATION CONSOLE	DESK	

TELEVISION SYSTEM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	TELEVISION OUTLET	+18"	
	ANTENNA	ROOF	

LIGHTNING PROTECTION SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	UNIVERSAL AIR TERMINAL		
	MECHANICAL TYPE CABLE TO CABLE CONNECTION		
	EXOTHERMIC TYPE CABLE TO CABLE CONNECTION		
	EXOTHERMIC TYPE CABLE TO GROUND ROD CONNECTION		
	BOND TO TYPICAL BODY OF INDUCTANCE		
TR	THRU-ROOF PENETRATION		

TELEVISION DISTRIBUTION SYSTEM EQUIPMENT LIST

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
2P			2-PORT BLONDER TONGUE SXRS-2
4P			4-PORT BLONDER TONGUE SXRS-4
DA	BROADBAND DISTRIBUTION AMPLIFIER		BLONDER TONGUE BIDA 75R-30
	WALL TAP PLATE		BLONDER TONGUE VERSTATAP SERIES MODEL V-1GF-FT W/ COVER PLATE.
DC 4	DIRECTIONAL COUPLER, 4 PORT (W/ DB ATTENUATION VALUE)		BLONDER TONGUE SERIES SDC-4
DC 1	DIRECTIONAL COUPLER, SINGLE PORT (W/ DB ATTENUATION VALUE)		BLONDER TONGUE SERIES SRT
	COAXIAL CABLE, HORIZONTAL DROP		RG-6 (PLENUM-RATED)
	COAXIAL CABLE, TRUNK LINE		RG-11 (MOISTURE-RESISTANT)
	RF TERMINATOR		75 CHM TERMINATOR

DESCRIPTION

1. TERMINATE ALL UNUSED SPLITTER AND DIRECTIONAL COUPLER PORTS WITH 75 OHM TERMINATION CONNECTORS.
2. ALL T.V. OUTLETS SHALL HAVE A VIDEO SIGNAL LEVEL OUTLET OF AT LEAST +5DBMV.
3. AT EACH TELEVISION OUTLET, PROVIDE 4" SQUARE OUTLET BOX WITH 3/4" CONDUIT TO CEILING SPACE ROUTE PLENUM-RATED CABLE THROUGH CONDUIT TO DIRECTIONAL COUPLERS IN DATA ROOMS.

INTERCOM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
IC	INTERCOM MASTER STATION	+60"	SUBSCRIPT 'D' INDICATES DESK MOUNTING
IM	INTERCOM STATION	+60"	
S	SPEAKER - WALL RECESSED MOUNTED	HEIGHT AS NOTED	IF SHOWN, SUBSCRIPT INDICATES TYPE
S	SPEAKER - CLG RECESSED MOUNTED	CEILING	
S WP	RECESSED WEATHERPROOF EXTERIOR WALL-MOUNTED SPEAKER	+90"	
V	VOLUME CONTROL SWITCH	+48"	
#	SCHOOL INTERCOM EQUIPMENT CABINET	+72" TO TOP OF CABINET	NUMBER INDICATES EQUIPMENT CABINET NUMBER
CS	CALL SWITCH	+48"	
PMI	REMOTE PROGRAM & MICROPHONE INTERFACE	MILLWORK	

CLOCK SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
C	CLOCK	CEILING	IF SHOWN, SUBSCRIPT INDICATES TYPE.
C	WALL-MOUNTED CLOCK	+90"	
C	COMBINATION CLOCK/SPEAKER	+90"	
MC	MASTER CLOCK	+60"	

PUBLIC SAFETY RADIO 'DAS' SYSTEM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	INTERIOR ANTENNA	CEILING	
	ANTENNA	WALL	
	SPLITTER	+6'-0" ON WALL	
	ANTENNA ROOF	ROOF	
	DAS BI-DIRECTIONAL AMPLIFIER (BDA)	RACK	
	DAS CABLE	CEILING	

CLOSED CIRCUIT TELEVISION SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	BULLET STYLE CLOSED CIRCUIT TELEVISION CAMERA	SEE PLANS	SUBSCRIPT DENOTES DEGREES OF MONITORED AREA
	BULLET STYLE CLOSED CIRCUIT TELEVISION CAMERA	WALL	
	DOME STYLE CLOSED CIRCUIT TELEVISION CAMERA	SEE PLANS	
	DOME STYLE CLOSED CIRCUIT TELEVISION CAMERA	WALL	

AREA OF REFUGE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
TC	TWO WAY COMMUNICATION CALL STATION		
TM	TWO WAY MASTER		

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

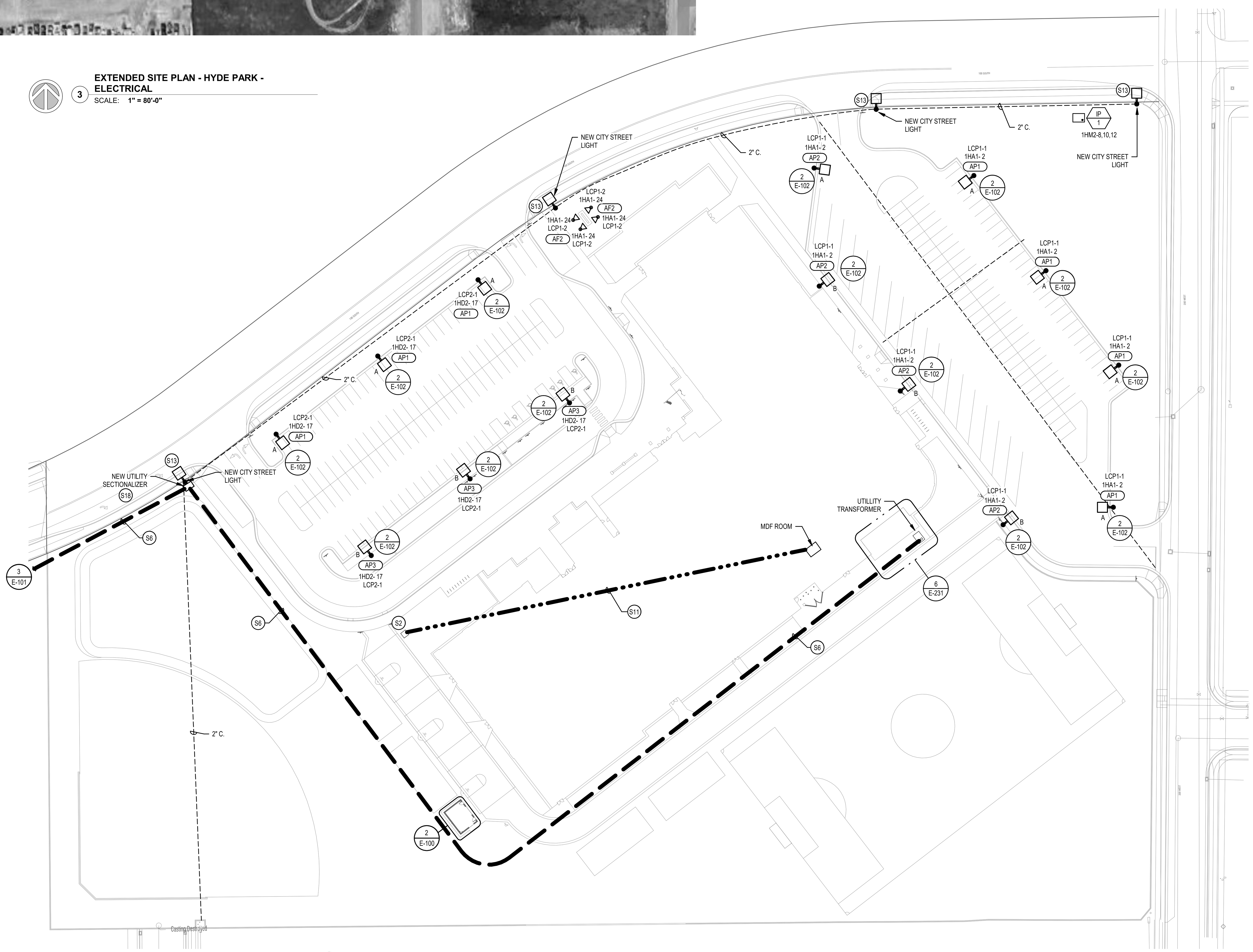
MARK: DATE: DESCRIPTION:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
No. 77411
05-01-2024
STATE OF UTAH

SYMBOL LISTS
E-002

3 EXTENDED SITE PLAN - HYDE PARK - ELECTRICAL
SCALE: 1" = 80'-0"



1 HYDE PARK SITE PLAN - ELECTRICAL
SCALE: 1" = 50'-0"

SITE GENERAL NOTES:

1. PROVIDE ALL REQUIRED BACKFILLING, ETC. FOR ALL CONDUITS, PROVIDE REQUIRED BACKFILL MATERIAL AS DIRECTED BY EACH UTILITY.
2. COORDINATE ALL LOCATIONS AND ROUTING WORK IN THE FIELD.
3. ROUTE CONDUITS A MINIMUM OF 2' BELOW THE BUILDING FLOOR SLAB.
4. MINIMUM CONDUIT FOR SITE WORK SHALL BE 1".
5. CONDUIT ROUTING SHOWN IS SCHEMATIC AND FOR CLARIFICATION COORDINATE LOCATION WITH ALL AFFECTED TRADES.
6. PROVIDE A MINIMUM OF 12" SEPARATION BETWEEN POWER AND COMMUNICATION CONDUITS.
7. ALL CONDUITS THAT EXTEND THROUGH CONCRETE SHALL BE GALVANIZED RIGID CONDUIT AND WRAPPED WITH TWO (2) LAYERS OF PVC TAPE.
8. ALL ELBOWS THAT ARE UNDER THE FINISHED GRADE SHALL BE GALVANIZED RIGID CONDUIT AND WRAPPED WITH TWO (2) LAYERS OF PVC TAPE.

UTILITY COORDINATION REQUIREMENTS:

THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND VERIFY ALL REQUIREMENTS AND LOCATIONS TO EXTEND CONDUITS FOR UTILITY USE WITHIN 2 WEEKS OF THE CONTRACT AWARD. THE CONTRACTOR SHALL NOT ROUGH-IN ANY CONDUITS UNTIL THE UTILITY COORDINATION IS COMPLETE AND ALL LOCATIONS ARE KNOWN. THE CONTRACTOR SHALL PROVIDE THE ARCHITECT AND THE ENGINEER A WRITTEN SIGNED STATEMENT, INCLUDING A SKETCH OF LOCATIONS, FROM THE UTILITY COMPANY NOTIFYING THEM THAT THEY HAVE COORDINATED AND VERIFIED ALL REQUIREMENTS. IF THE CONTRACTOR DOES NOT COORDINATE AND VERIFY THE REQUIREMENTS WITH THE UTILITIES OR PROVIDE A WRITTEN STATEMENT FROM THE UTILITY COMPANY TO THE ARCHITECT AND ENGINEER ALL CHANGES DO TO LACK OF COORDINATION WILL BE DONE AT NO ADDITIONAL EXPENSE TO THE OWNER.

THE ELECTRICAL CONTRACTOR SHALL ORGANIZE A PRE-CONSTRUCTION MEETING INCLUDING THE UTILITY AND GENERAL CONTRACTOR TO COORDINATE AND VERIFY ALL REQUIREMENTS. WITHIN 2 WEEKS OF THE CONTRACT AWARD. COORDINATION ITEMS INCLUDE BUT ARE NOT LIMITED TO:

- GENERAL UTILITY REQUIREMENTS AND DIVISION OF SCOPE OF WORK
- CONDUIT AND TRENCHING REQUIREMENTS
- CONDUIT ROUTING
- UTILITY EQUIPMENT PADS AND SUB-BASE REQUIREMENTS
- UTILITY CLEARANCE REQUIREMENTS
- EQUIPMENT SCREEN WALLS, EQUIPMENT ENCLOSURES, AND EQUIPMENT YARDS
- COORDINATION WITH OTHER UTILITIES OR EXISTING CONDITIONS
- AVAILABLE FAULT CURRENT CALCULATIONS (POWER UTILITY ONLY)
- UTILITY REQUIRED SITE OBSERVATIONS
- SCHEDULING OF UTILITY INSTALLATIONS

THE CONTRACTOR SHALL NOT ROUGH-IN ANY CONDUITS, EQUIPMENT PADS, OR SIMILAR ITEMS UNTIL THE UTILITY COORDINATION IS COMPLETE AND ALL THE LOCATIONS ARE KNOWN. THE CONTRACTOR SHALL PROVIDE THE ARCHITECT AND ENGINEER A WRITTEN, SIGNED STATEMENT, INCLUDING A SKETCH OF EQUIPMENT AND CONDUIT LOCATIONS, FROM THE UTILITY COMPANY NOTIFYING THEM THAT THEY HAVE COORDINATED AND VERIFIED ALL REQUIREMENTS WITH THE UTILITIES AND PROVIDE A WRITTEN STATEMENT FROM THE UTILITY COMPANY TO THE ARCHITECT AND ENGINEER, ALL CHANGES DUE TO LACK OF COORDINATION WILL BE PROVIDED AT NO ADDITIONAL EXPENSE TO THE OWNER.

UTILITY REQUIREMENTS:

1. BURY CONDUITS PER UTILITY REQUIREMENTS. REFER TO SITE DETAIL SHEETS FOR TRENCHING REQUIREMENTS.
2. VERIFY AND COMPLY WITH ALL POWER UTILITY AND TELECOMMUNICATIONS PROVIDER REQUIREMENTS.
3. INCLUDE IN BID ALL LINE EXTENSION FEES, UNDERGROUND FEES, AND ALL MISC. FEES CHARGED BY ROCKY MOUNTAIN POWER, CENTURYLINK, AND GOOGLE FIBER.

KEYED NOTES

S2 PROVIDE HUBBELL QUAZITE 24" X 36" PG STYLE IN-GRADE JUNCTION BOX WITH HEAVY DUTY COVER. CONFIRM PLACEMENT WITH OWNER PRIOR TO ROUGH-IN. REFER TO THE SITE DETAILS FOR MORE INFORMATION.

S3 RUN (2) 3" CONDUITS TO SWITCHBOARD 'DPLD' FOR POWER TO FUTURE PORTABLES. PROVIDE PULL ROPE AND LABEL BOTH ENDS OF CONDUIT.

S4 RUN (3) 2" CONDUITS TO IDF F109 FOR DATA, INTERCOM, AND FIRE ALARM TO FUTURE PORTABLES. PROVIDE PULL ROPE AND LABEL BOTH ENDS OF CONDUIT.

S6 SEE ONE LINE DIAGRAM FOR MORE INFORMATION.

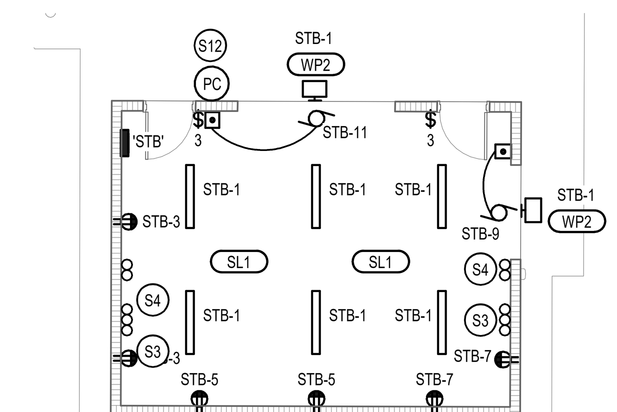
S11 SEE TELECOM RISER DIAGRAM FOR MORE INFORMATION.

S12 LINE VOLTAGE PHOTOCELL TO CONTROL EXTERIOR WP2 LIGHT FIXTURES.

S13 CITY STREET LIGHT WILL BE FURNISHED BY THE CITY AND INSTALLED BY ROCKY MOUNTAIN POWER. ELECTRICAL CONTRACTOR IS TO RUN 2" CONDUIT BETWEEN THE STREET LIGHTS AS SHOWN. INSERT PULL STRING AND LABEL. COORDINATE EXACT LOCATIONS WITH NIBLEY CITY.

S18 FURNISH AND INSTALL A CONCRETE VAULT FOR NEW UTILITY SECTIONALIZER PER ALL ROCKY MOUNTAIN POWER STANDARDS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ROCKY MOUNTAIN POWER.

S19 FURNISH AND INSTALL A CONCRETE VAULT FOR NEW M.V. UTILITY SWITCH PER ALL ROCKY MOUNTAIN POWER STANDARDS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ROCKY MOUNTAIN POWER.



2 ENLARGED STORAGE BUILDING - HYDE PARK
SCALE: 1/8" = 1'-0"

UTILITY PROVIDER:
KREG ROBERTS
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Email: KREG.ROBERTS@PACIFICORP.COM
WO#7194955

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MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER 77411 05-01-2024 STATE OF UTAH

SITE PLAN - HYDE PARK - ELECTRICAL

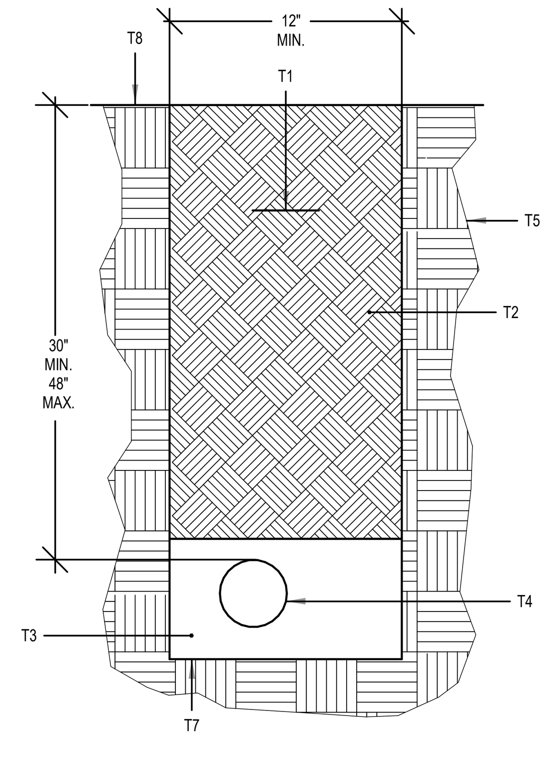
E-100

TRENCHING KEYED NOTES: T#

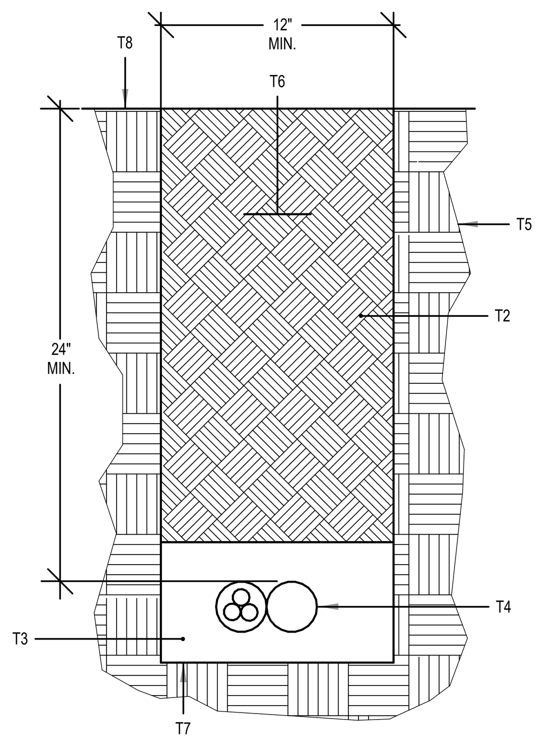
1. MARKER TAPE WITH TRACER WIRE LABELED, "CAUTION BURIED ELECTRIC CONDUITS BELOW" DIRECTLY OVER POWER CONDUITS 6" MINIMUM BELOW GRADE.
2. CLEAN BACKFILL CONTAINING NO ROCKS LARGER THAN 4" DIA.
3. BACKFILL MATERIAL WITHIN 4" TO 6" OF CONDUIT SHALL PASS THROUGH A 3/4" SIEVE FRAME OR SAND WITHOUT ANY SHARP OR FOREIGN OBJECTS.
4. ALL CONDUITS SHOWN SHALL BE SCHEDULE 40 PVC. REFER TO KEYED NOTES ON PLANS AND RISER DIAGRAMS FOR QUANTITIES AND SIZES OF CONDUITS.
5. UNDISTURBED EARTH.
6. MARKER TAPE WITH TRACER WIRE LABELED, "CAUTION BURIED DATA/COMMUNICATION CONDUIT BELOW" DIRECTLY OVER DATA/COMM CONDUITS.
7. TRENCHES SHALL BE A UNIFORM DEPTH FOR ENTIRE LENGTH OF TRENCH SO CONDUITS CAN SIT FLAT (HORIZONTAL) WITH THE GROUND.
8. FINISHED GRADE.

TRENCHING GENERAL NOTES:

1. PROVIDE 1/4" NYLON ROPES IN ALL CONDUITS.
2. HORIZONTAL AND VERTICAL SEPARATION BETWEEN CONDUIT SHALL BE MAINTAINED BY INSTALLING HIGH IMPACT SPACERS WITH HORIZONTAL INTERVALS OF EIGHT FEET.
3. ALL MARKER TAPE SHALL CONTAIN #10 TRACER WIRE.
4. REFER TO THE ROCKY MOUNTAIN POWER SIX STATE ESR FOR ADDITIONAL INFORMATION.
5. VERIFY ALL REQUIREMENTS WITH UTILITIES PRIOR TO TRENCHING.



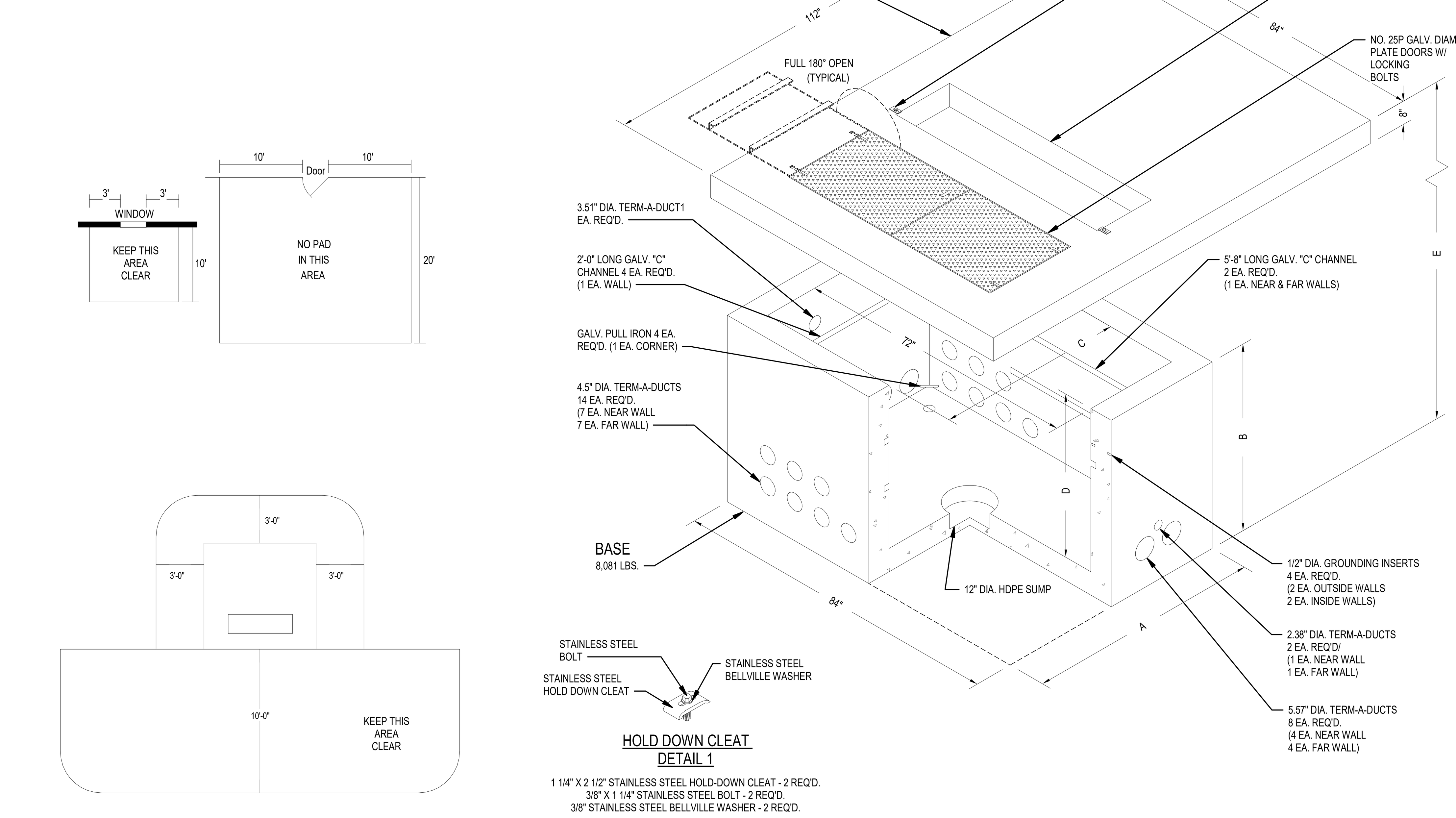
4 TRENCH DETAIL
NONE ROCKY MOUNTAIN POWER (PRIMARY POWER)



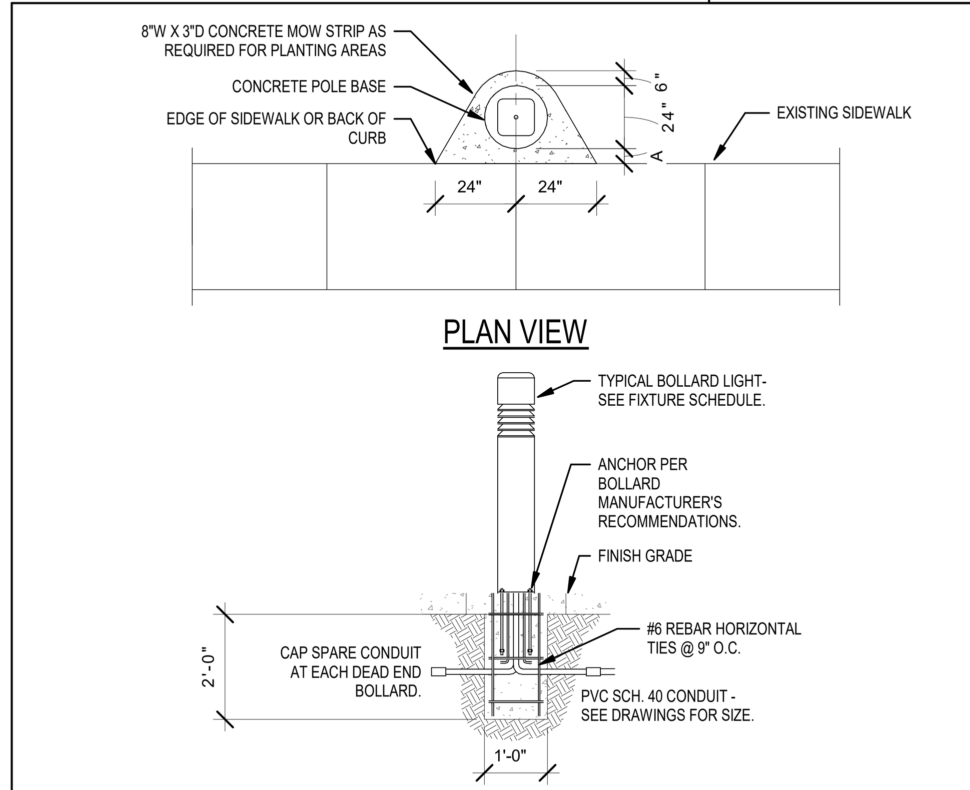
5 TRENCH DETAIL
NONE TELECOM

TRANSFORMER PADVAULT DIMENSION CHART (2.4-25 KV)						
TRANSFORMER	DIMENSIONS					
RATING	A	B	C	D	E	SI #
75-750 KVA	56"	48"	44"	42"	56"	7992600
1000-2500 KVA	84"	54"	72"	48"	62"	7992958

COORDINATE ALL REQUIREMENTS WITH RMP. REFER TO RMP PUBLICATION ZG-521 FOR ADDITIONAL INFORMATION.

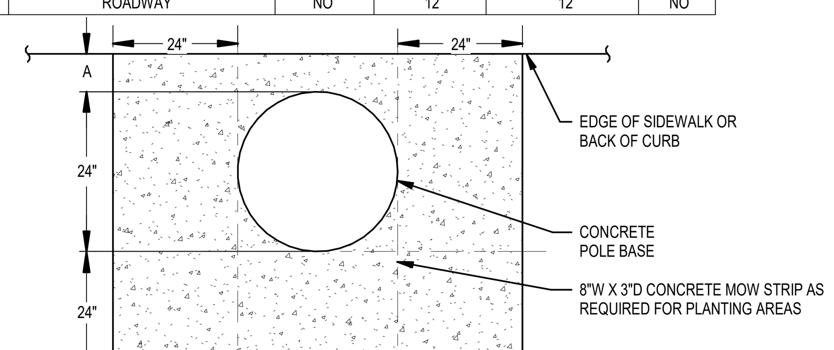


1 ROCKY MOUNTAIN POWER TRANSFORMER PAD VAULT DETAIL
SCALE: NTS

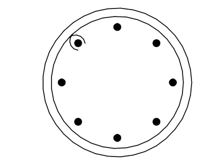


9 LIGHT BOLLARD BASE
SCALE: NTS

LIGHT POLE MOW STRIP AND CONCRETE BASE REQUIREMENTS					
BASE TYPE		MOW STRIP REQUIRED (6"W X3"D)	BASE HEIGHT ABOVE GRADE (INCHES)	DISTANCE FROM SIDEWALK BICYCLE PATH, OR BACK OF CURB "A" (INCHES)	PAINTED YELLOW
A	PLANTING AREA	YES	12	N/A	NO
B	NEAR SIDEWALK (PLANTING AREAS)	YES	12	6	NO
C	NEAR SIDEWALK (HARDSCAPE AREAS)	NO	12	6	NO
D	NEAR BICYCLE PATH (PLANTING AREAS)	NO	12	18	NO
E	NEAR BICYCLE PATH (HARDSCAPE AREAS)	NO	12	18	NO
F	PARKING LOT (INTERIOR TO LOT OR WITHIN 24" OF BACK OF PARKING LOT CURB)	NO	30	24	YES
G	ROADWAY	NO	12	12	NO



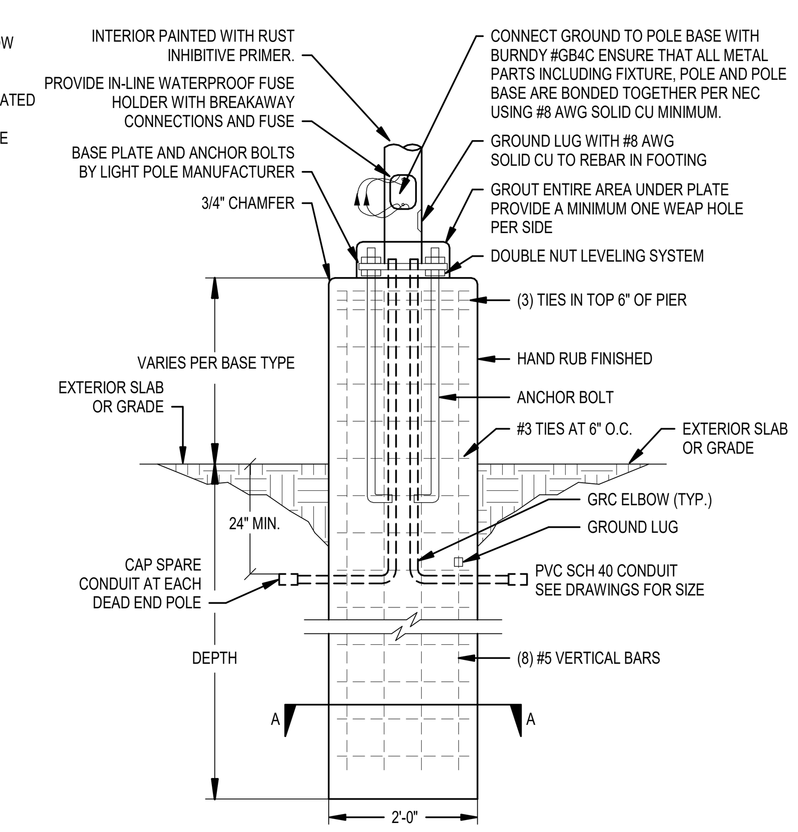
NOTE: DESIGN SHOWN FOR CONCRETE POLE BASE IS SHOW FOR INFORMATIONAL PURPOSES ONLY TO CONVEY THE NECESSARY REQUIREMENTS. CONTRACTOR SHALL BE REQUIRED TO PROVIDE A POLE BASE DESIGN AND ASSOCIATED STRUCTURAL CALCULATIONS AND SUBMIT THEM AS A DEFERRED SUBMITTAL FOR REVIEW. THE DESIGN SHALL BE STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF UTAH, AND SHALL BE BASED UPON THE ACTUAL POLES, FIXTURES, SOIL CONDITIONS, WIND SPEED, ETC.



SECTION A-A

	V ult = 115 MPH	V ult = 150 MPH
POLE HEIGHT	FTG DEPTH	FTG DEPTH
8'-0"	4'-0"	4'-0"
12'-0"	4'-0"	5'-0"
20'-0"	5'-0"	6'-0"
30'-0"	6'-0"	7'-0"
40'-0"	6'-0"	8'-0"
60'-0"	?	?

DESIGN CRITERIA:
2018 IBC
Ss = 2.0, SOIL SITE CLASS D
LATERAL SOIL BRG = 100 PS/FT
ASSUMED 4.0 FT^2 AT TOP POLE



2 POLE BASE DETAIL - WITHOUT GROUND WIRE
SCALE: NTS

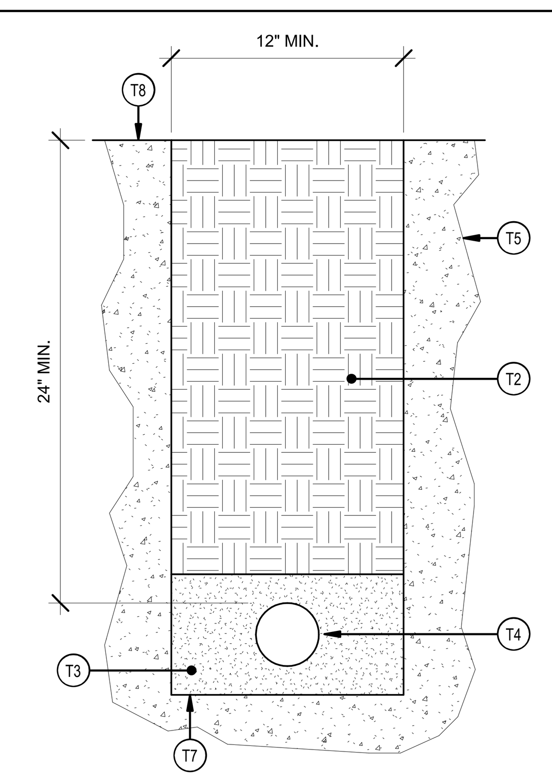
TRENCHING GENERAL NOTES:

1. PROVIDE PULL 1/4" NYLON ROPES IN ALL CONDUITS.
2. IN JOINT USE TRENCHES, HORIZONTAL AND VERTICAL SEPARATION BETWEEN CONDUIT SHALL BE MAINTAINED BY INSTALLING HIGH IMPACT SPACERS WITH HORIZONTAL INTERVALS OF EIGHT FEET.
3. ALL MARKER TAPE SHALL CONTAIN #10 TRACER WIRE.
4. VERIFY ALL REQUIREMENTS WITH NV ENERGY PRIOR TO TRENCHING.

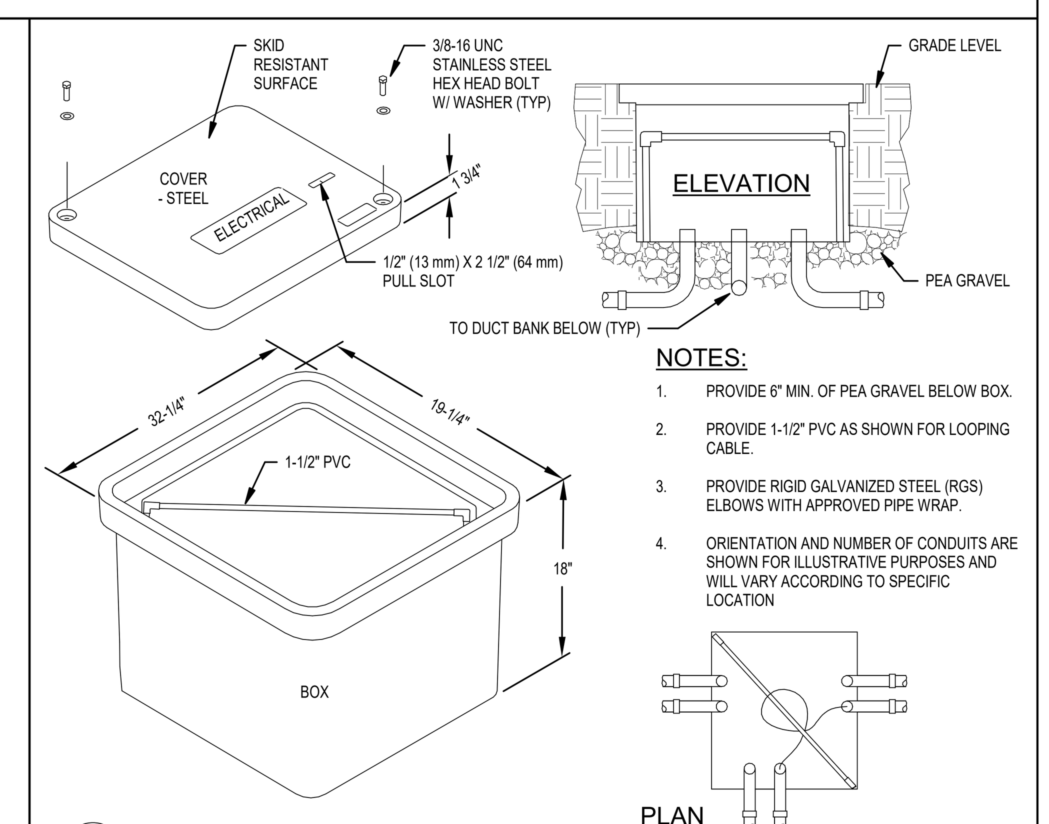
TRENCHING KEYED NOTES:

1. MARKER TAPE WITH TRACER WIRE LABELED, "CAUTION BURIED ELECTRIC CONDUITS BELOW" DIRECTLY OVER POWER CONDUITS 6" MINIMUM BELOW GRADE.
2. CLEAN BACKFILL CONTAINING NO ROCKS LARGER THAN 4" DIA.
3. BACKFILL MATERIAL WITHIN 4" TO 6" OF CONDUIT SHALL PASS THROUGH A 3/4" SLEVE FRAME OR SAND WITHOUT ANY SHARP OR FOREIGN OBJECTS.
4. ALL CONDUITS SHOWN SHALL BE SCHEDULE 40 PVC; SEE ES101 AND ONE-LINE DIAGRAMS FOR SIZES.
5. UNDISTURBED EARTH.
6. MARKER TAPE WITH TRACER WIRE LABELED, "CAUTION BURIED DATA/COMMUNICATION CONDUIT BELOW" DIRECTLY OVER DATA/COMMUNICATION CONDUITS.
7. TRENCHES SHALL BE A UNIFORM DEPTH FOR ENTIRE LENGTH OF TRENCH SO CONDUITS CAN SIT FLAT (HORIZONTAL) WITH THE GROUND.
8. FINISHED GRADE.

7 TRENCHING DETAIL - NOTES
SCALE: NTS



6 TRENCHING DETAIL - SITE LIGHTING AND POWER BRANCH CIRCUITS
SCALE: NTS



NOTES:

1. PROVIDE 6" MIN. OF PEA GRAVEL BELOW BOX.
2. PROVIDE 1-1/2" PVC AS SHOWN FOR LOOPING CABLE.
3. PROVIDE RIGID GALVANIZED STEEL (RGS) ELBOWS WITH APPROVED PIPE WRAP.
4. ORIENTATION AND NUMBER OF CONDUITS ARE SHOWN FOR ILLUSTRATIVE PURPOSES AND WILL VARY ACCORDING TO SPECIFIC LOCATION

3 IN-GRADE FIBERGLASS JUNCTION BOX
SCALE: NTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER 77411 05-01-2024 STATE OF UTAH

CONSTRUCTION DOCUMENTS

SITE DETAILS
E-102

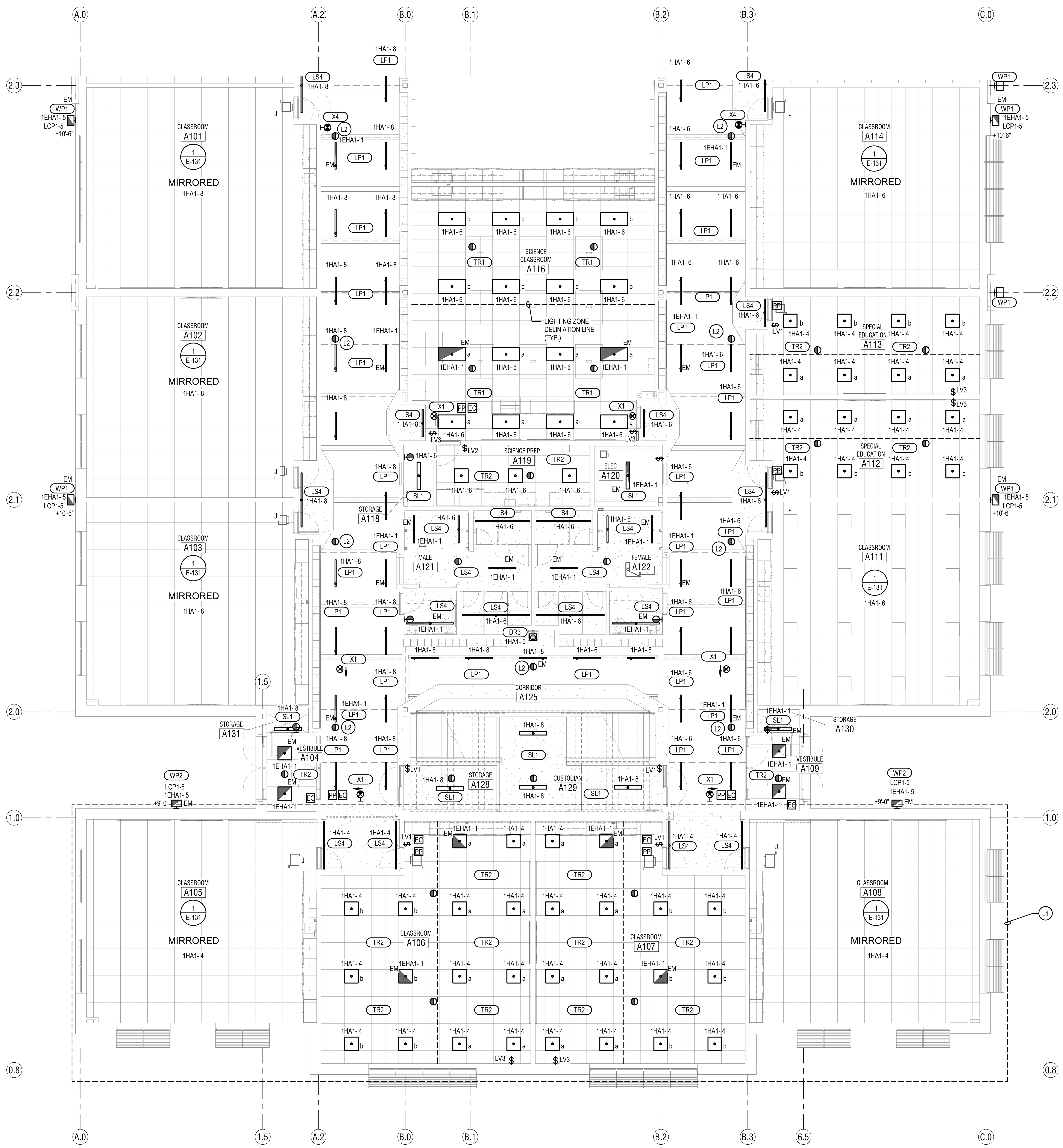
LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
2. LOCATE POWER PACKS AND ROOM CONTROLLERS ABOVE ACCESSIBLE CEILING NEAR ROOM ENTRANCES.
3. CONFIRM ALL LOCATIONS OF LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. PROVIDE UNSWITCHED HOT FOR ALL EMERGENCY LIGHTS AND BATTERY PACKS.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES. PROVIDE AN RFI FOR ANY CONFLICTS BETWEEN LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ORDERING LIGHT FIXTURES.

KEYED NOTES

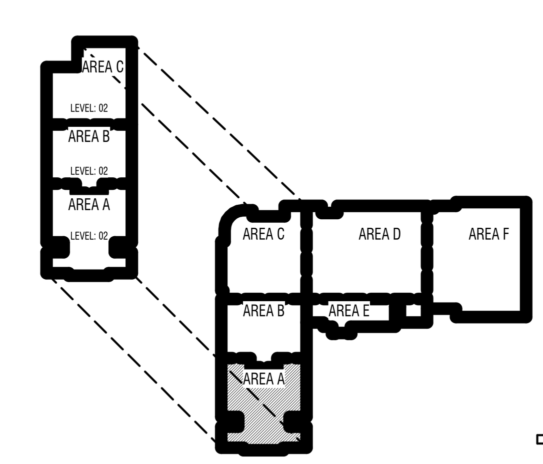
L1 UNDER THE BASE BID, INCLUDE ALL WORK IN THIS AREA AS SHOWN ON THE PLANS. UNDER ALTERNATE #1, THIS AREA WILL BE REMOVED FROM THE PROJECT. PROVIDE A SEPARATE COST TO BE ISSUED AS A CREDIT FOR ALL WORK IN THIS AREA AS SHOWN ON THE PLANS.

L2 PENDANT MOUNT MOTION SENSOR ON THREADED ROD AT THE SAME HEIGHT AS LIGHT FIXTURES.



1 LEVEL 1 FLOOR PLAN - AREA A - LIGHTING
SCALE: 1/8" = 1'-0"

KEY PLAN



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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:
MARK: DATE:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. OWEN No. 177411 STATE OF UTAH 05-01-2024

LEVEL 1 - AREA A - LIGHTING

E-111

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
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KEYED NOTES

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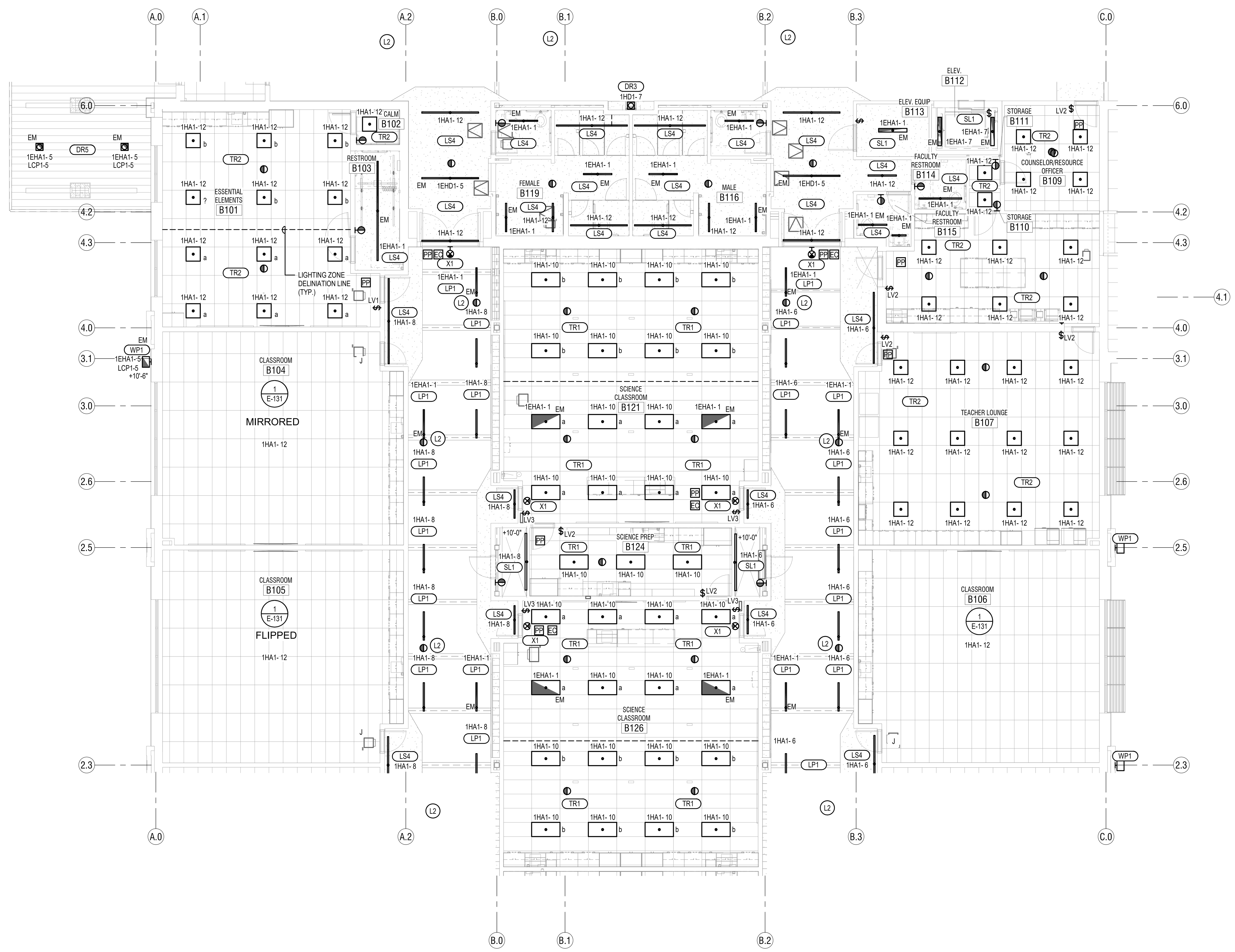
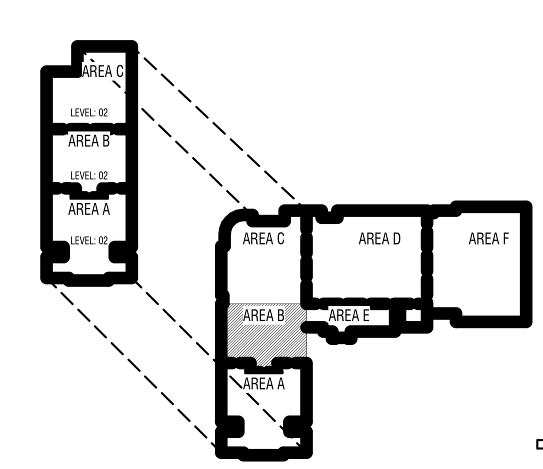


1 LEVEL 1 FLOOR PLAN - AREA B - LIGHTING
SCALE: 1/8" = 1'-0"

KEY PLAN



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ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER No. 77411 05-01-2024 STATE OF UTAH

LEVEL 1 - AREA B - LIGHTING

E-112

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
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KEYED NOTES

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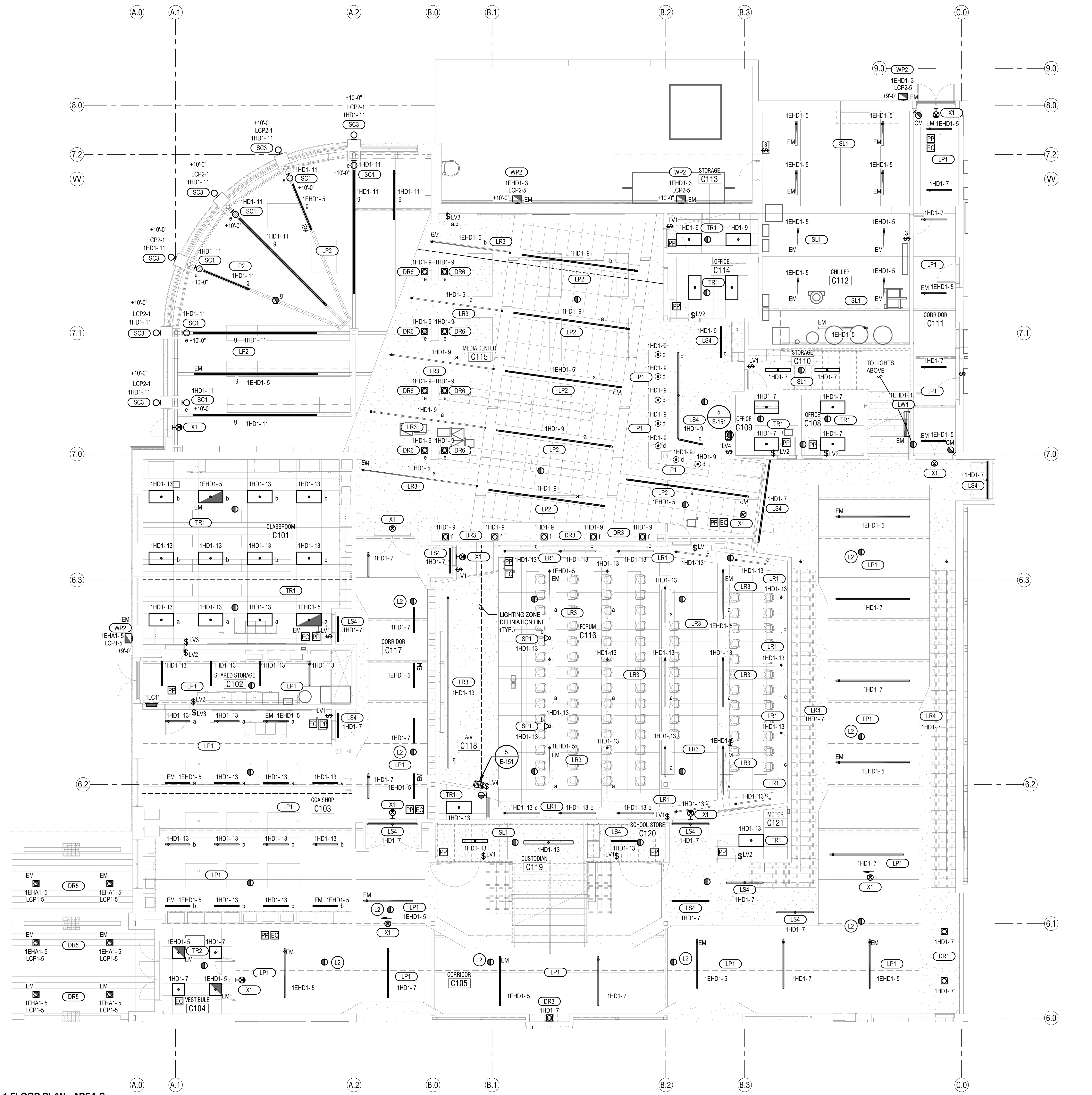
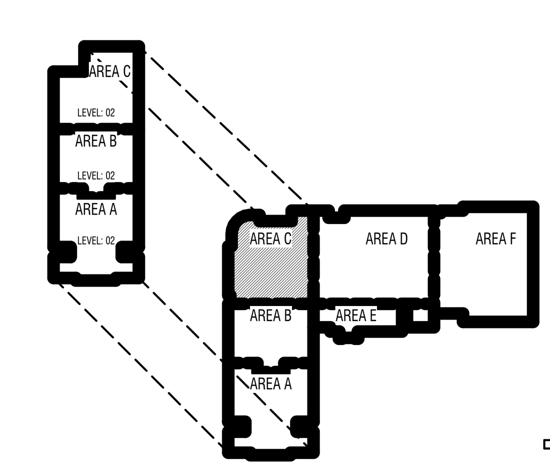


1 LEVEL 1 FLOOR PLAN - AREA C - LIGHTING
SCALE: 1/8" = 1'-0"

KEY PLAN



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CACHE COUNTY SCHOOL DISTRICT

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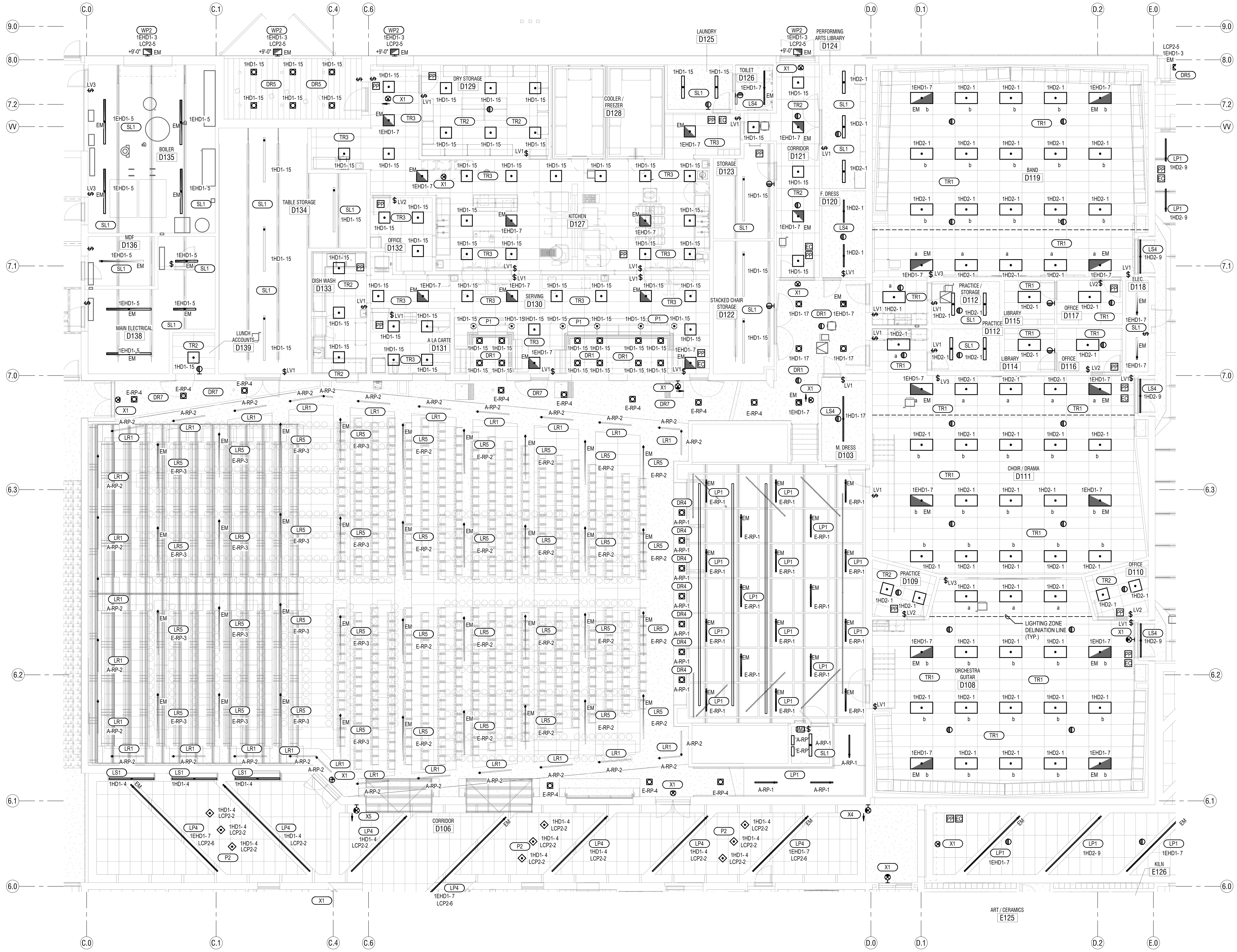
PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA C - LIGHTING

E-113



LEVEL 1 FLOOR PLAN - AREA D - LIGHTING
SCALE: 1/8" = 1'-0"

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
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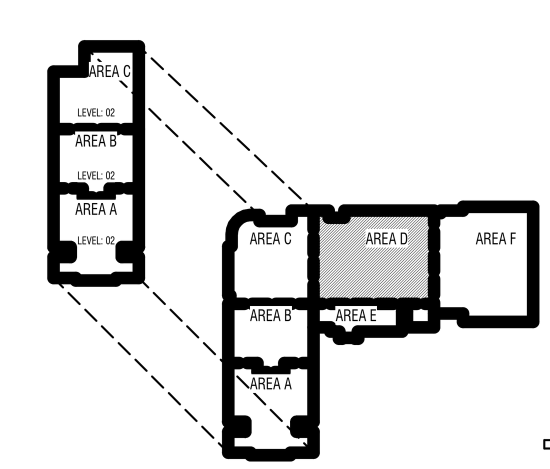
KEYED NOTES

KEY PLAN



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ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH 05-01-2024

LEVEL 1 - AREA D - LIGHTING

E-114

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
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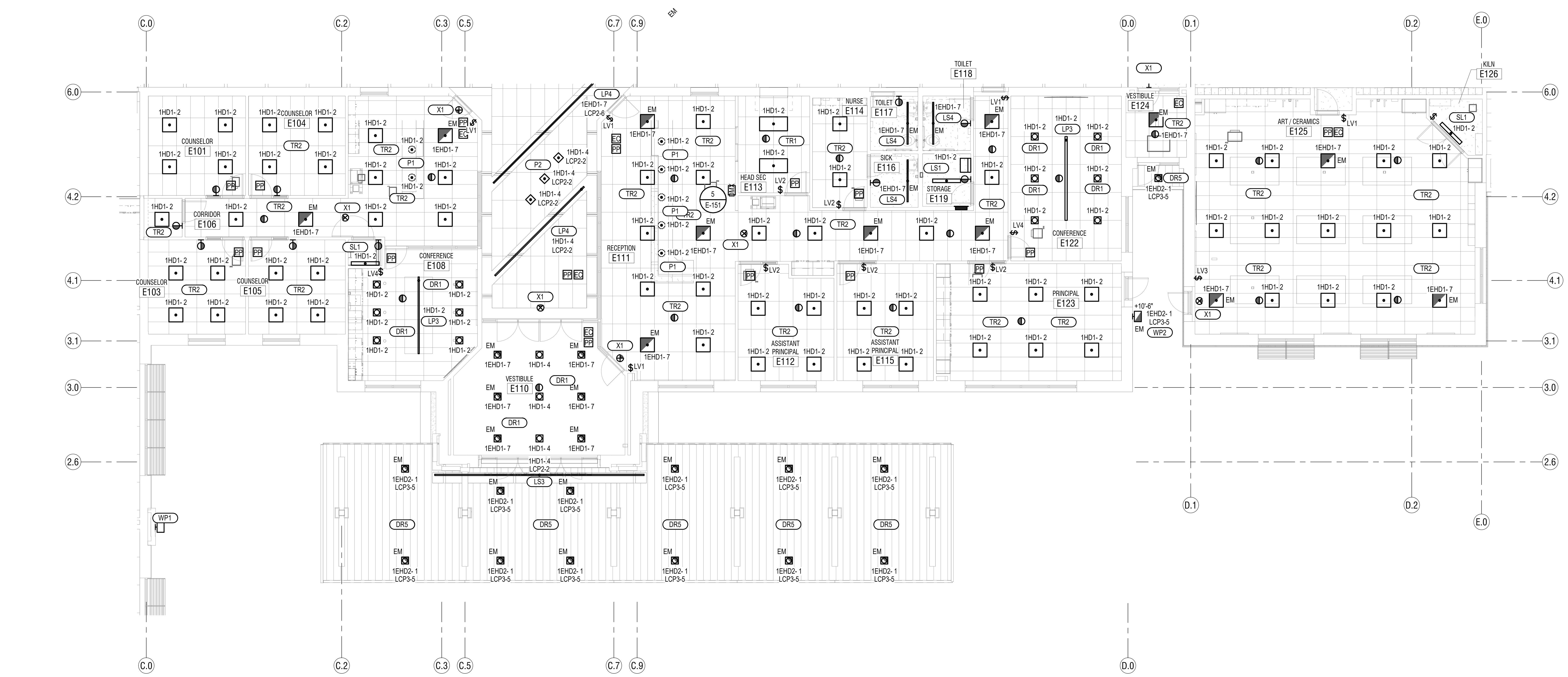
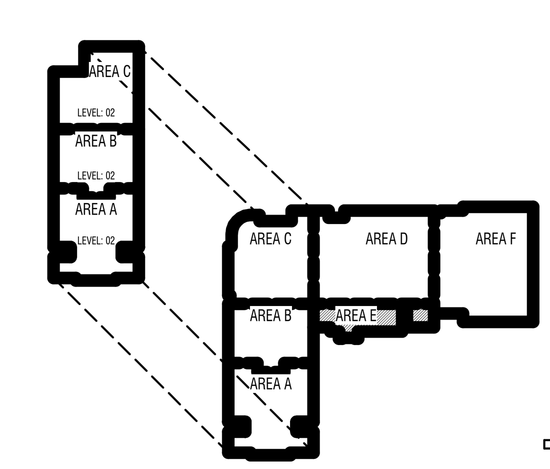
KEYED NOTES #



1 LEVEL 1 FLOOR PLAN - AREA E - LIGHTING
SCALE: 1/8" = 1'-0"

KEY PLAN



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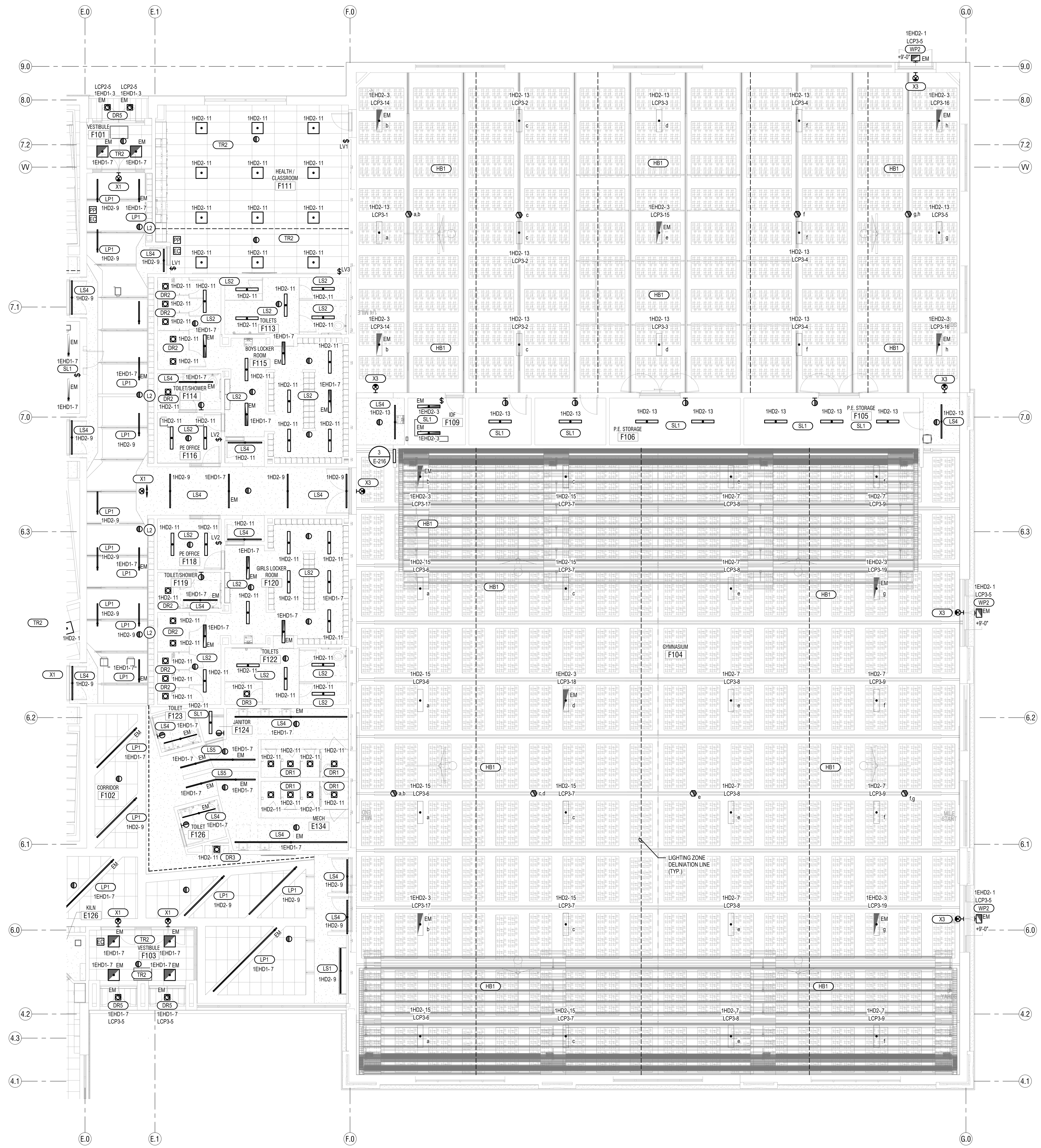
ISSUED:	04.26.2024

LEVEL 1 - AREA E - LIGHTING

E-115



1 LEVEL 1 FLOOR PLAN - AREA F - LIGHTING
SCALE: 1/8" = 1'-0"

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
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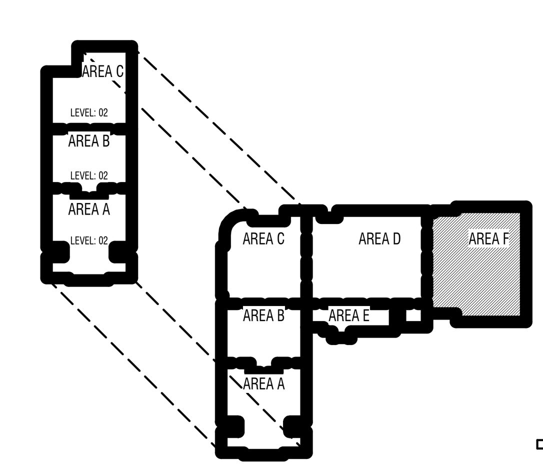
KEYED NOTES

L2 PENDANT MOUNT MOTION SENSOR ON THREADED ROD AT THE SAME HEIGHT AS LIGHT FIXTURES.

KEY PLAN



TO BE DETERMINED

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

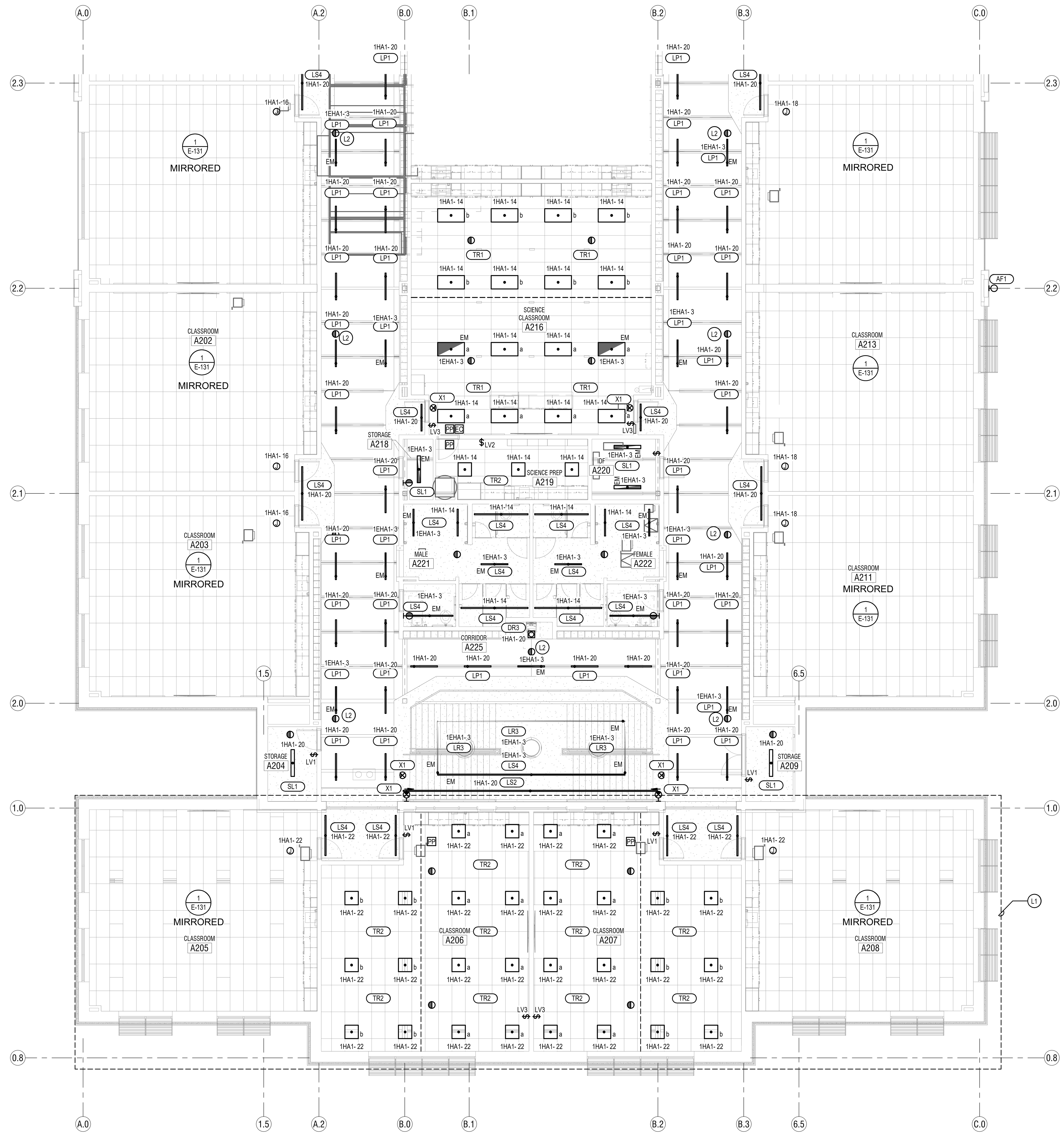
MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. DAVIS
No. 7377411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA F - LIGHTING

E-116



LIGHTING GENERAL NOTES:

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KEYED NOTES #

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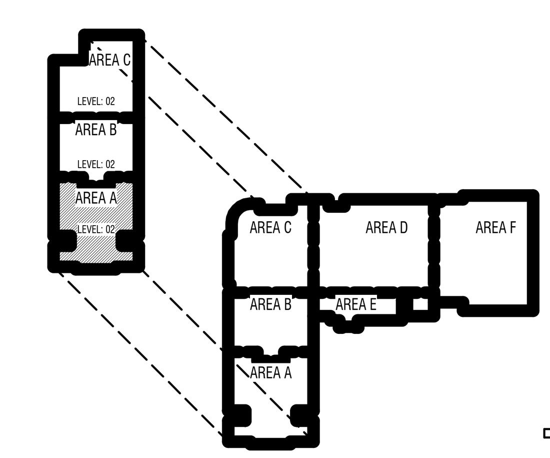
L2 PENDANT MOUNT MOTION SENSOR ON THREADED ROD AT THE SAME HEIGHT AS LIGHT FIXTURES.

1 LEVEL 2 FLOOR PLAN - AREA A - LIGHTING
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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MARK:	DATE:	DESCRIPTION:

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DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 2 - AREA A - LIGHTING

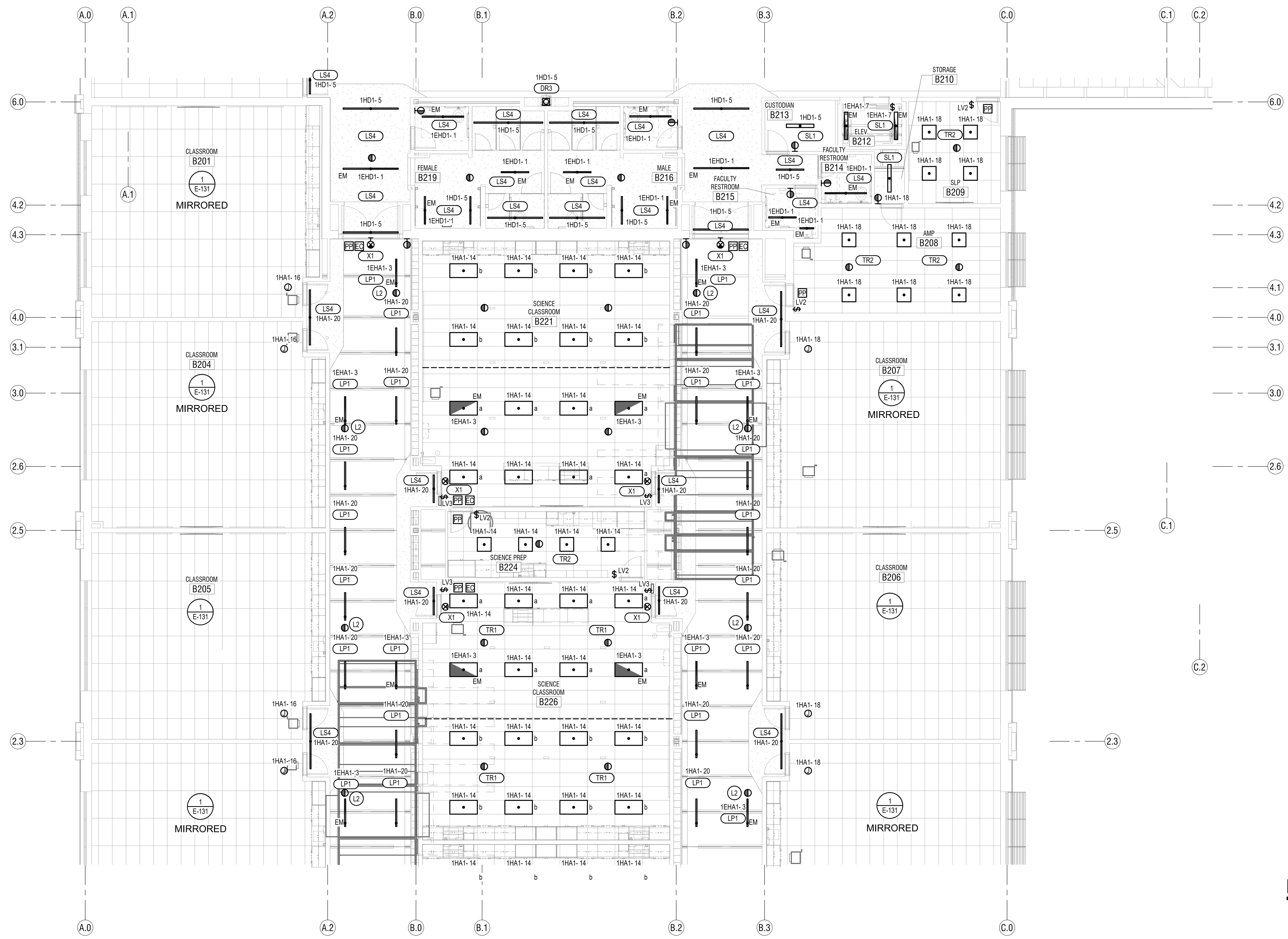
E-121

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
2. LOCATE POWER PACKS AND ROOM CONTROLLERS ABOVE ACCESSIBLE CEILING NEAR ROOM ENTRANCES.
3. CONFIRM ALL LOCATIONS OF LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. PROVIDE UNSWITCHED HOT FOR ALL EMERGENCY LIGHTS AND BATTERY PACKS.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES. PROVIDE AN RFI FOR ANY CONFLICTS BETWEEN LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ORDERING LIGHT FIXTURES.

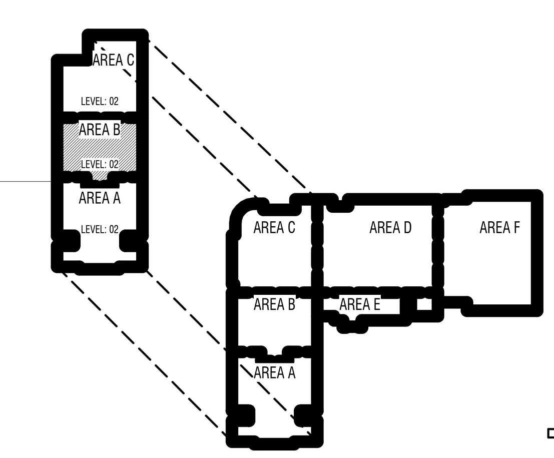
KEYED NOTES

L2 PENDANT MOUNT MOTION SENSOR ON THREADED ROD AT THE SAME HEIGHT AS LIGHT FIXTURES.



1 LEVEL 2 FLOOR PLAN - AREA B - LIGHTING
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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240 E. MORRIS AVE. SUITE 200
SALT LAKE CITY, UT 84115
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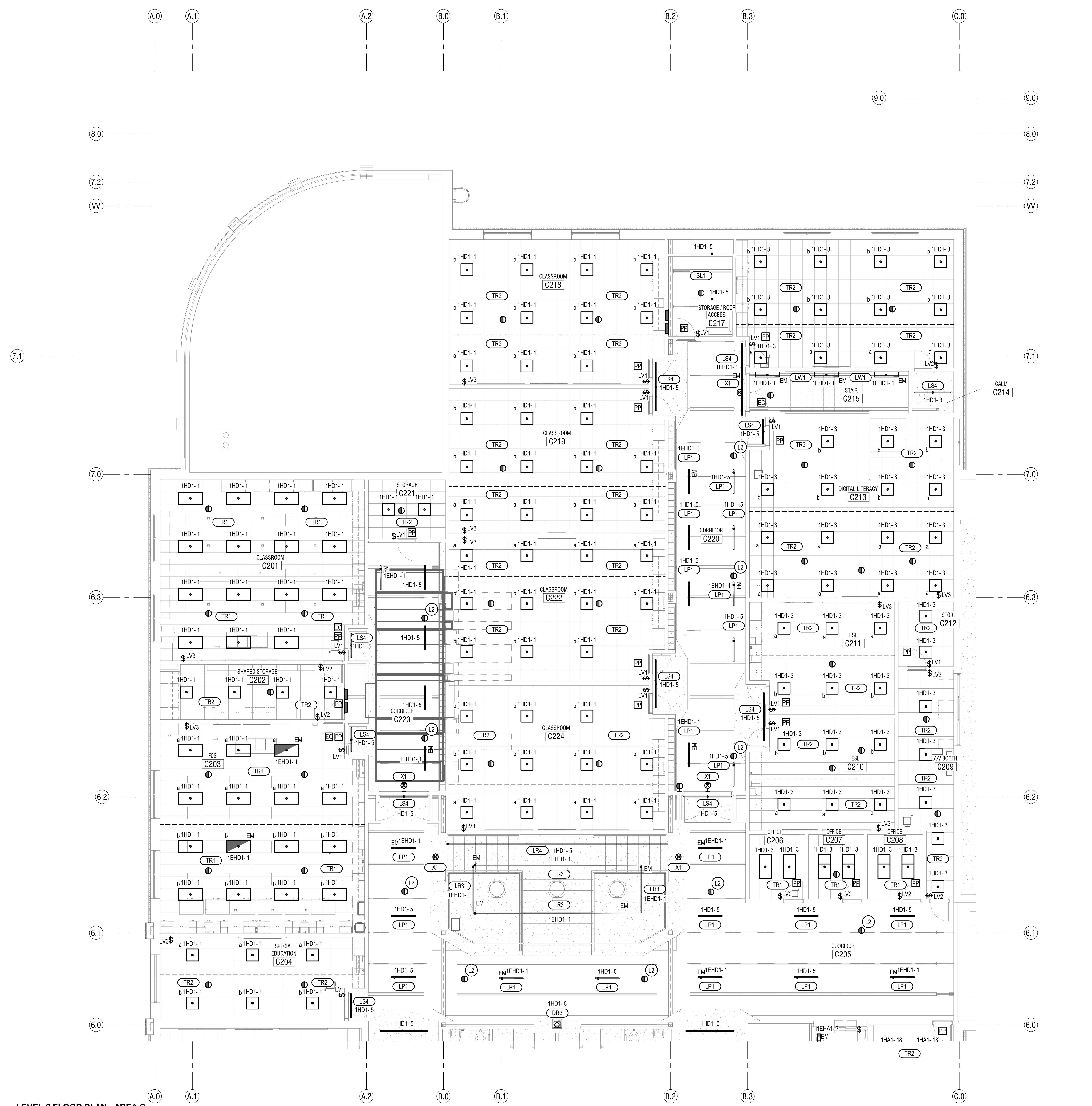
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 2 - AREA B - LIGHTING

E-122



LEVEL 2 FLOOR PLAN - AREA C - LIGHTING
SCALE: 1/8" = 1'-0"

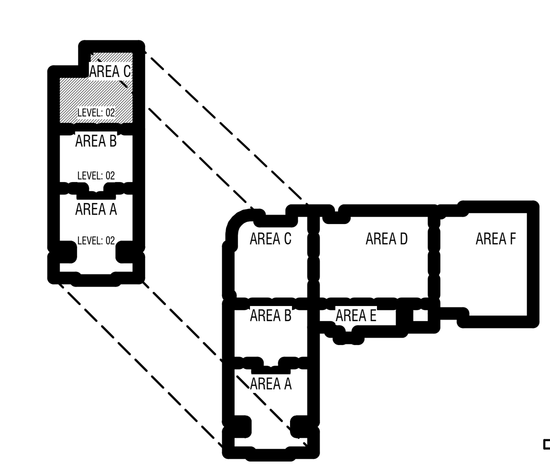
LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
2. LOCATE POWER PACKS AND ROOM CONTROLLERS ABOVE ACCESSIBLE CEILING NEAR ROOM ENTRANCES.
3. CONFIRM ALL LOCATIONS OF LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. PROVIDE UNSWITCHED HOT FOR ALL EMERGENCY LIGHTS AND BATTERY PACKS.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES. PROVIDE AN RFI FOR ANY CONFLICTS BETWEEN LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ORDERING LIGHT FIXTURES.

KEYED NOTES

L2 PENDANT MOUNT MOTION SENSOR ON THREADED ROD AT THE SAME HEIGHT AS LIGHT FIXTURES.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL
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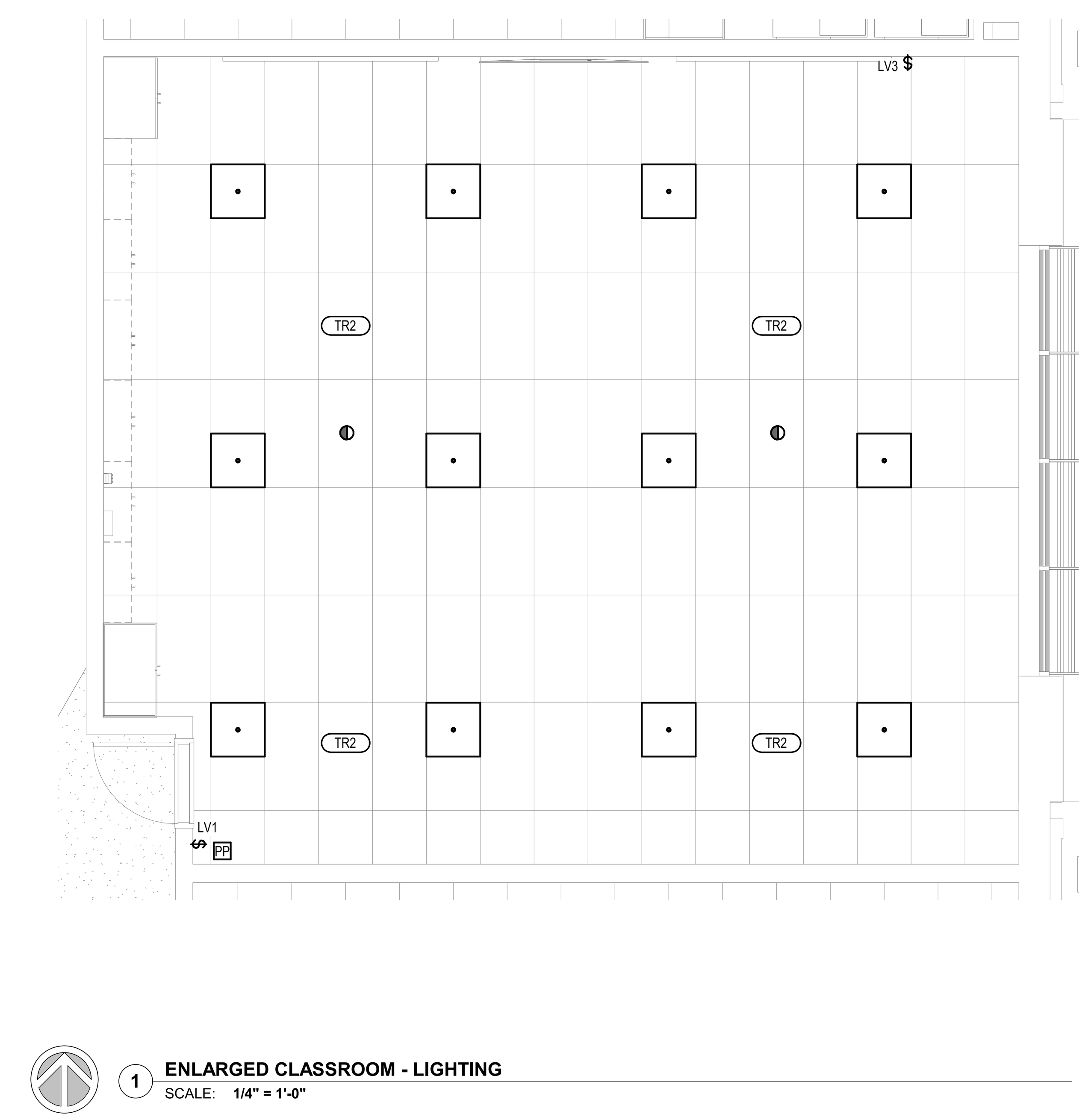
ISSUED:	04.26.2024

LEVEL 2 - AREA C - LIGHTING

E-123

LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
2. LOCATE POWER PACKS AND ROOM CONTROLLERS ABOVE ACCESSIBLE CEILING NEAR ROOM ENTRANCES.
3. CONFIRM ALL LOCATIONS OF LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. PROVIDE UNSWITCHED HOT FOR ALL EMERGENCY LIGHTS AND BATTERY PACKS.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES. PROVIDE AN RFI FOR ANY CONFLICTS BETWEEN LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ORDERING LIGHT FIXTURES.



1 ENLARGED CLASSROOM - LIGHTING
SCALE: 1/4" = 1'-0"

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST
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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
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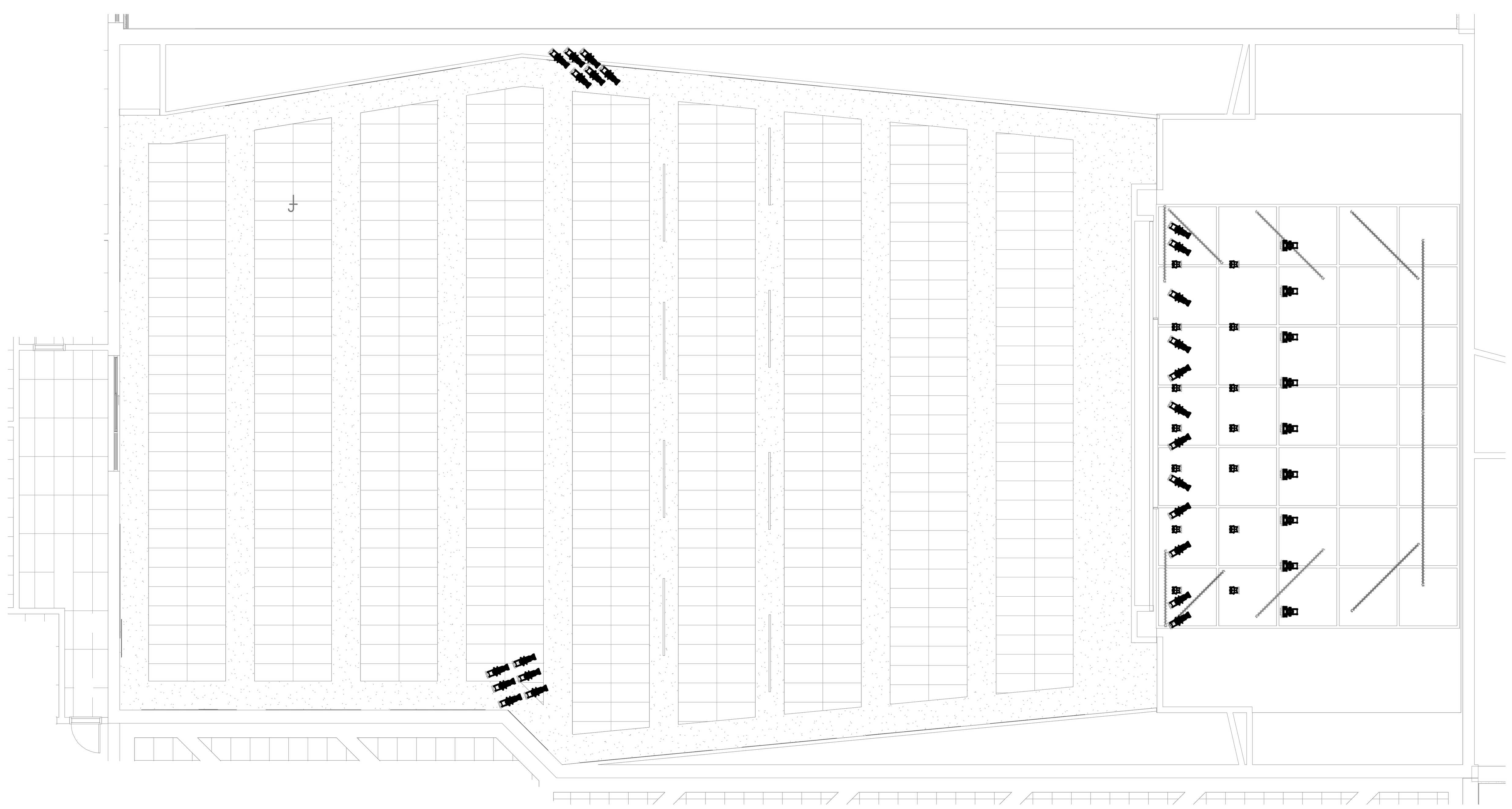
PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - ENLARGED LIGHTING PLANS

E-131



1 CAFETORIUM THEATRICAL LIGHTING PLAN
SCALE: 1/8" = 1'-0"

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

CAFETORIUM THEATRICAL LIGHTING PLAN

E-132

THEATRICAL LIGHT FIXTURE SCHEDULE				
DESCRIPTION	TYPE	MFG	PART NUMBER	NOTES
LED WASH FIXTURE	W	ETC	CSPAR-A,400CC,400SC,SELLXX-7.5	NOTE 1
		OVATION		
LED PROFILE FIXTURE WITH 15-30 DEGREE ZOOM LENS	P1	ETC	CSSPOT, 400CC, 400SC, 400PH-A	NOTE 2
		OVATION		
LED PROFILE FIXTURE WITH 25-50 DEGREE ZOOM LENS	P2	ETC	CSSPOTJR, 400CC, 400SC	NOTE 3
		OVATION		
LED CYC FIXTURE	CYC	ETC	CSCYC, 400CC, 400SC	NOTE 4
		OVATION		
STAGE WORK LIGHT (BAR MOUNTED)	SWL	LITHONIA	DSXF1	NOTE 5
		COOPER		

NOTES:

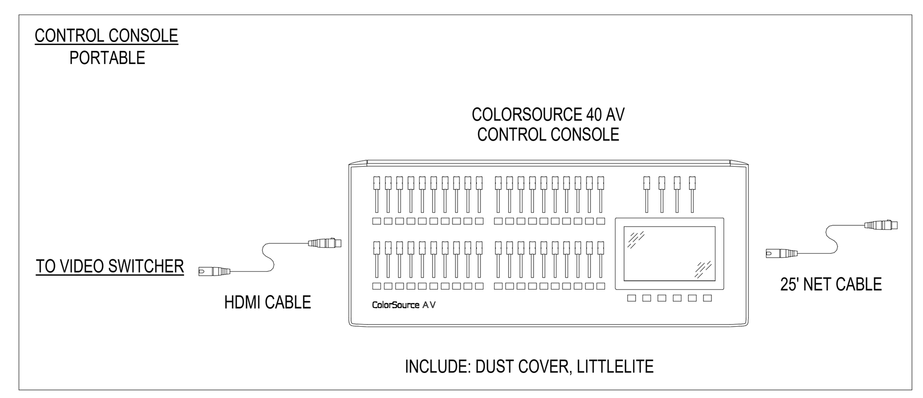
1. LED WASH FIXTURE INCLUDES POWER CABLE, DMX CABLE, PBG CONNECTOR, C-CLAMP, SAFETY CABLE. CONTRACTOR TO VERIFY LENGTH OF POWER CABLE AND DMX CABLE PRIOR TO ORDERING. COORDINATE EXACT FIXTURE LOCATIONS WITH THE SCHOOLS THEATER TEACHER.
2. LED PROFILE FIXTURES INCLUDES POWER CABLE, DMX CABLE, PBG CONNECTOR, C-CLAMP, SAFETY CABLE, SIZE A PATTERN HOLDER, AND 15-30 DEGREE ZOOM LENS. CONTRACTOR TO VERIFY LENGTH OF POWER CABLE AND DMX CABLE PRIOR TO ORDERING. COORDINATE EXACT LOCATIONS WITH THE SCHOOLS THEATER TEACHER.
3. LED PROFILE FIXTURES INCLUDES POWER CABLE, DMX CABLE, PBG CONNECTOR, C-CLAMP, SAFETY CABLE, AND 25-50 DEGREE ZOOM LENS. CONTRACTOR TO VERIFY LENGTH OF POWER CABLE AND DMX CABLE PRIOR TO ORDERING. COORDINATE EXACT LOCATIONS WITH THE SCHOOLS THEATER TEACHER.
4. LED CYC FIXTURE INCLUDES POWER CABLE, DMX CABLE, PBG CONNECTOR, C-CLAMP, SAFETY CABLE. CONTRACTOR TO VERIFY LENGTH OF POWER CABLE AND DMX CABLE PRIOR TO ORDERING. COORDINATE EXACT FIXTURE LOCATIONS WITH THE SCHOOLS THEATER TEACHER.
5. LED FLOOD LIGHT MOUNTED ON THEATRICAL LIGHT BAR WITH ADJUSTABLE YOKE AND WIDE DISTRIBUTION. AIM FIXTURE STRAIGHT DOWN.

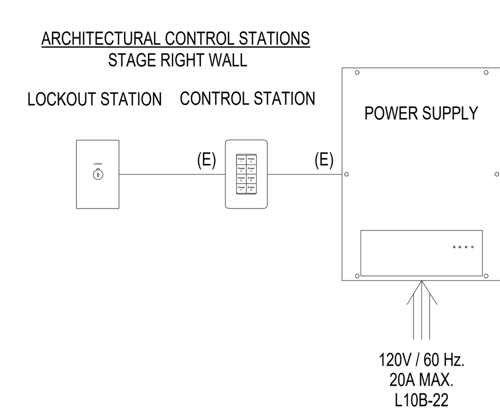
THEATRICAL CONTROLS	
TYPE	DESCRIPTION
C-CS-1, 2, 3	CONNECTOR STRIP: (1) 50' CONNECTOR STRIP, (24) PBG OUTLETS, SURFACE MOUNTED TO STRUCTURE, ETC TYPE 21 HANGING BRACKETS, (4) SWITCHED CIRCUITS, (1) DMX OUTPUT GATEWAY
C-CS-4, 5	CONNECTOR STRIP: (1) 16' CONNECTOR STRIP, (8) PBG OUTLETS, MOUNTED TO ETC MOTORIZED HOIST, ETC TYPE 21 HANGING BRACKETS, (2) SWITCHED CIRCUITS, (1) DMX OUTPUT GATEWAY
C-FP-1, 2	16' ETC FLYPIPE MOTORIZED HOIST. 480 V, 3-PHASE.

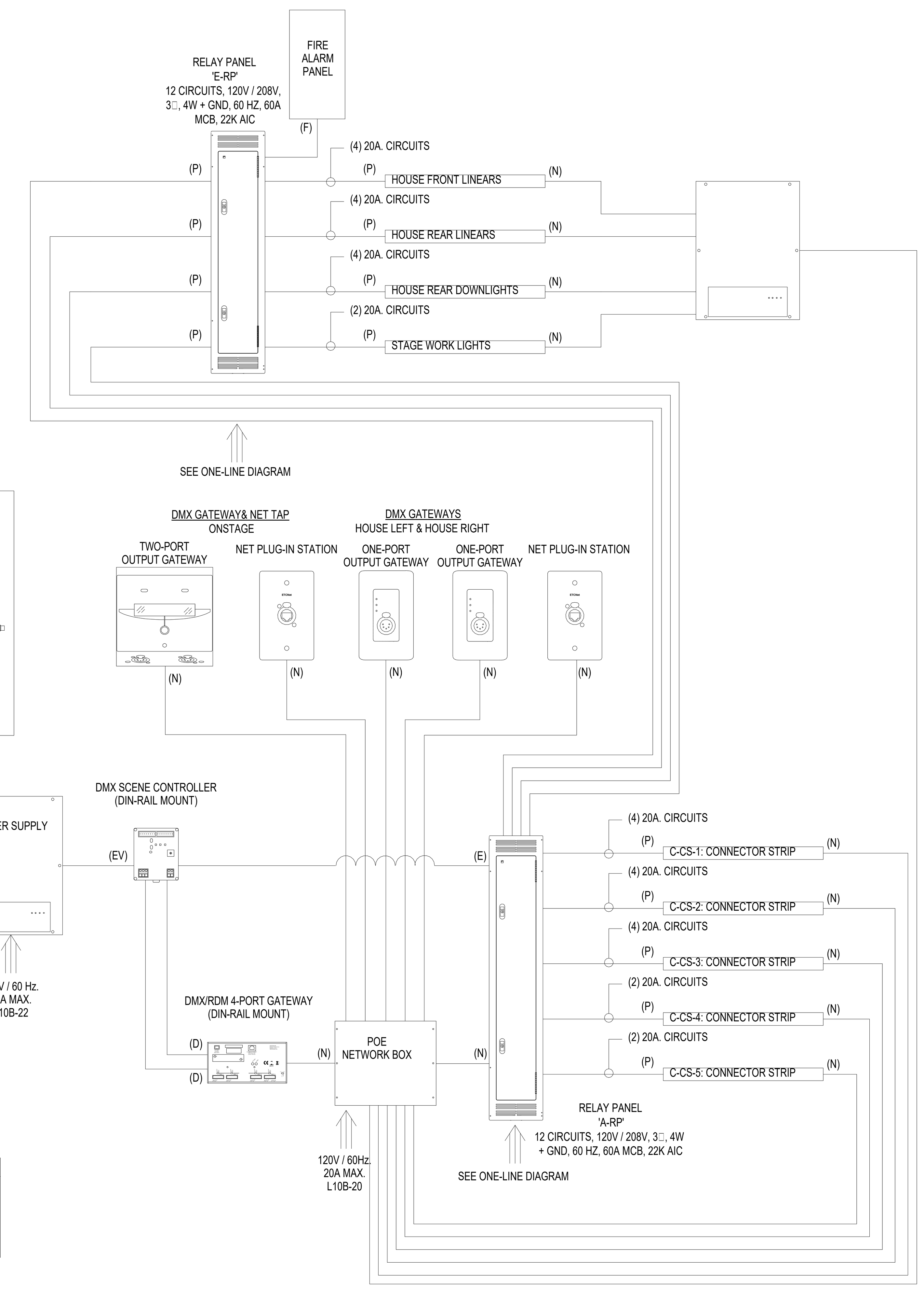
RELAY PANEL: E-RP			
CKT	CONTROL ZONE	LOAD TYPE	CONTROL METHOD
1	C-CS-1	LED	DMX
2	C-CS-1	LED	DMX
3	C-CS-1	LED	DMX
4	C-CS-1	LED	DMX
5	C-CS-2	LED	DMX
6	C-CS-2	LED	DMX
7	C-CS-2	LED	DMX
8	C-CS-2	LED	DMX
9	C-CS-3	LED	DMX
10	C-CS-3	LED	DMX
11	C-CS-3	LED	DMX
12	C-CS-3	LED	DMX
13	C-CS-4	LED	DMX
14	C-CS-4	LED	DMX
15	C-CS-5	LED	DMX
16	C-CS-5	LED	DMX
17	LS2 - SOUTH WALL	LED	DMX
18	LS2 - SOUTH WALL	LED	DMX
19	LR1 - CEILING	LED	DMX
20	LR1 - CEILING	LED	DMX
21	LS2 - PROSCENIUM	LED	DMX
22	STAGE WORK LIGHTS	LED	0-10V
23	SPARE	LED	DMX
24	SPARE	LED	DMX

RELAY PANEL: A-RP			
CKT	CONTROL ZONE	LOAD TYPE	CONTROL METHOD
1	C-CS-1	LED	DMX
2	C-CS-1	LED	DMX
3	C-CS-1	LED	DMX
4	C-CS-1	LED	DMX
5	C-CS-2	LED	DMX
6	C-CS-2	LED	DMX
7	C-CS-2	LED	DMX
8	C-CS-2	LED	DMX
9	C-CS-3	LED	DMX
10	C-CS-3	LED	DMX
11	C-CS-3	LED	DMX
12	C-CS-3	LED	DMX
13	C-CS-4	LED	DMX
14	C-CS-4	LED	DMX
15	C-CS-5	LED	DMX
16	C-CS-5	LED	DMX
17	LS2 - SOUTH WALL	LED	DMX
18	LS2 - SOUTH WALL	LED	DMX
19	LR1 - CEILING	LED	DMX
20	LR1 - CEILING	LED	DMX
21	LS2 - PROSCENIUM	LED	DMX
22	STAGE WORK LIGHTS	LED	0-10V
23	SPARE	LED	DMX
24	SPARE	LED	DMX

WIRING LEGEND		
SYMBOL	WIRE TYPE	SIGNAL
(D)	(1) BELDEN 9729	DMX
(N)	(1) BELDEN 1583A	ETC NET
(E)	(1) BELDEN 8471 (1) #14 AWG. STRANDED	ECHOCONNECT
(P)	2#12 AWG 1#12 AWG GND. (UPSIZE FOR VOLTAGE DROP)	120V POWER
(EV)	(1) BELDEN 8471 (1) #14 AWG STRANDED (2) #16 AWG STRANDED	ECHOCONNECT (WITH +24V POWER)







NOTES:

1. ALL CIRCUITS MUST BE 2-WIRE + GROUND. NO COMMON NEUTRALS ALLOWED.
2. ALL CONTROL WIRING IS PROVIDED BY CONTRACTOR UNLESS OTHERWISE NOTED.
3. TOTAL COMBINED LENGTH OF ECHO WIRING RUNS SHALL NOT EXCEED 1640 FEET (500 METERS).
4. ALL NETWORK WIRING RUNS SHALL BE CONTINUOUS, UNSPLICED AND SHALL NOT EXCEED 300 FEET (90 METERS). ALL NETWORK CONNECTIONS TO BE IEEE T568B.

2 COMMONS THEATRICAL LIGHTING RISER DIAGRAM
SCALE: NTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

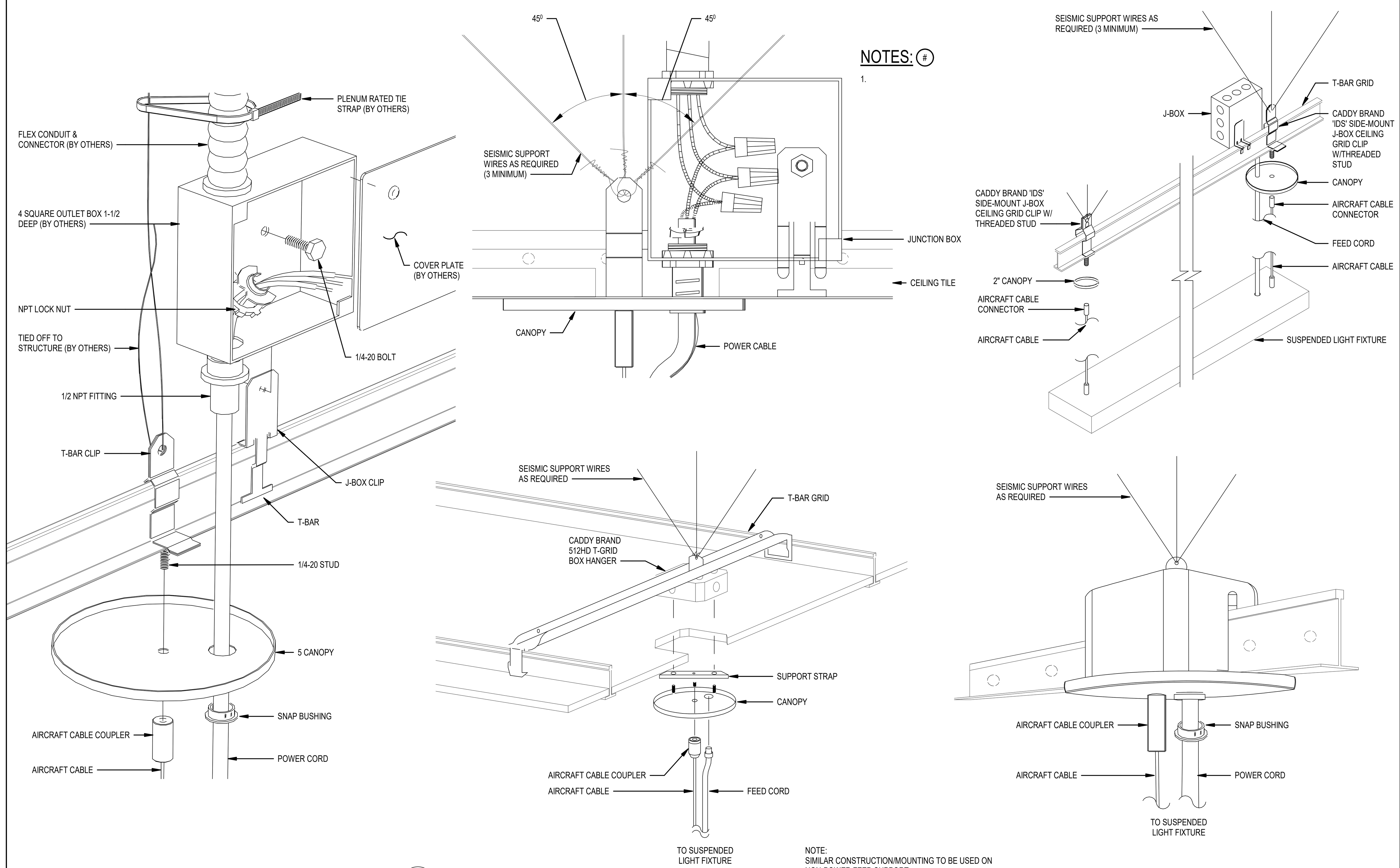
MARK: DATE: DESCRIPTION:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

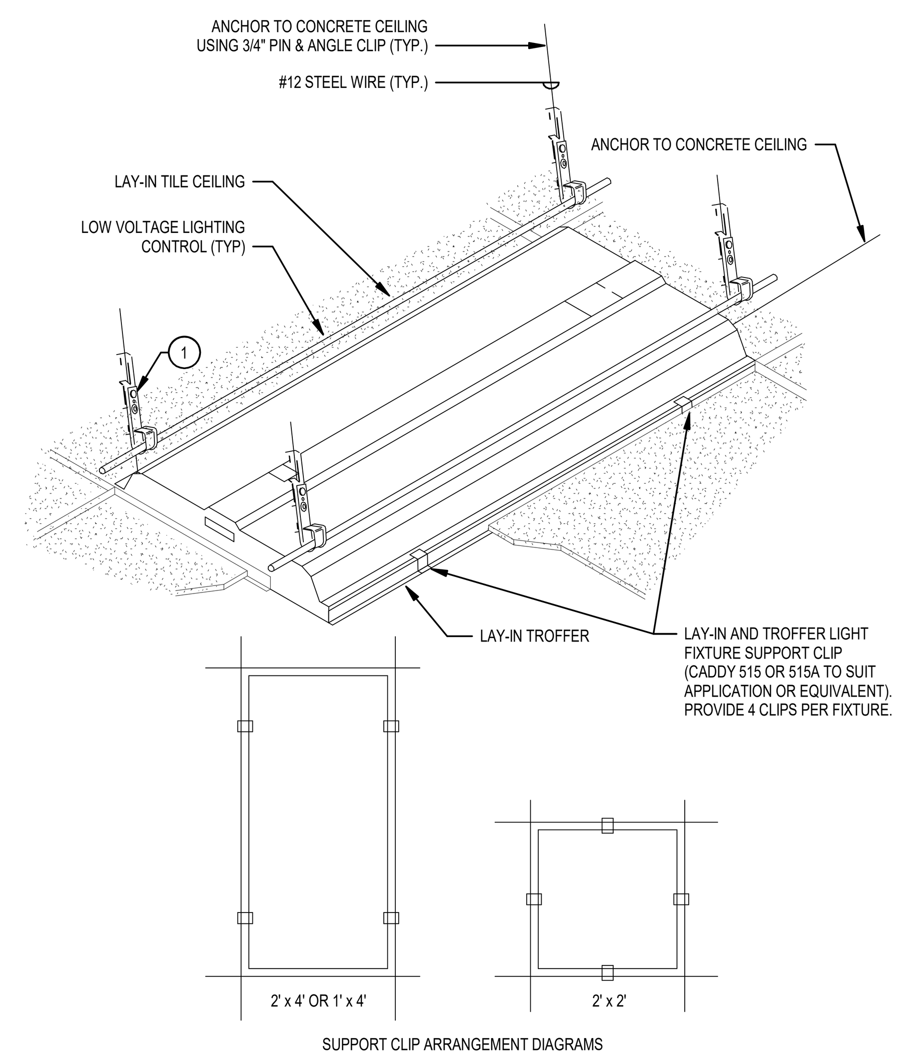
CONSTRUCTION DOCUMENTS

THEATRICAL LIGHTING RISER

E-141

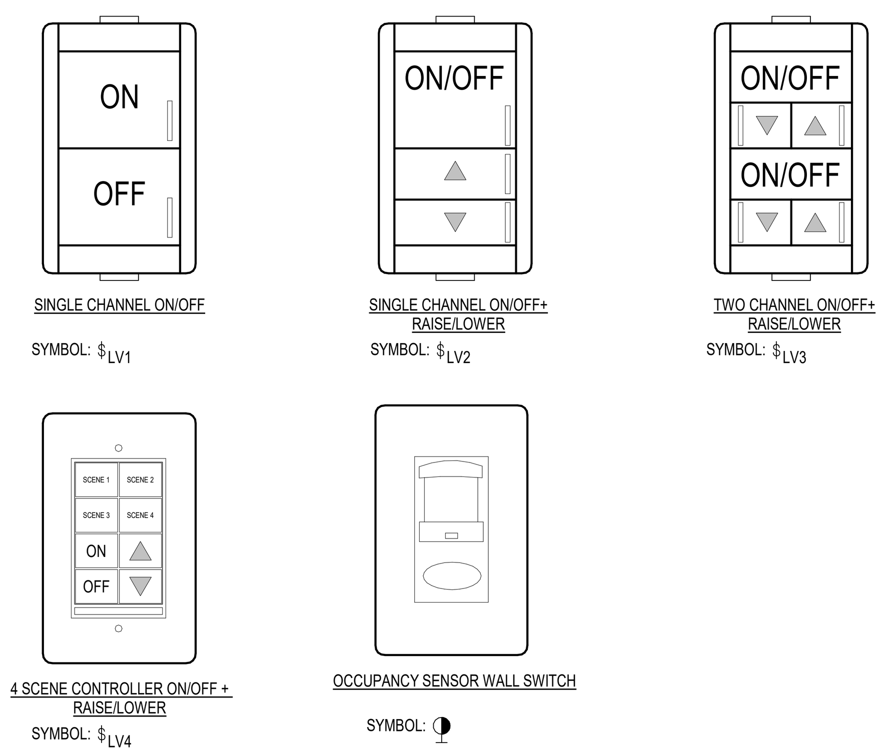


3 **SUSPENDED LIGHT FIXTURE DETAIL**
SCALE: NTS

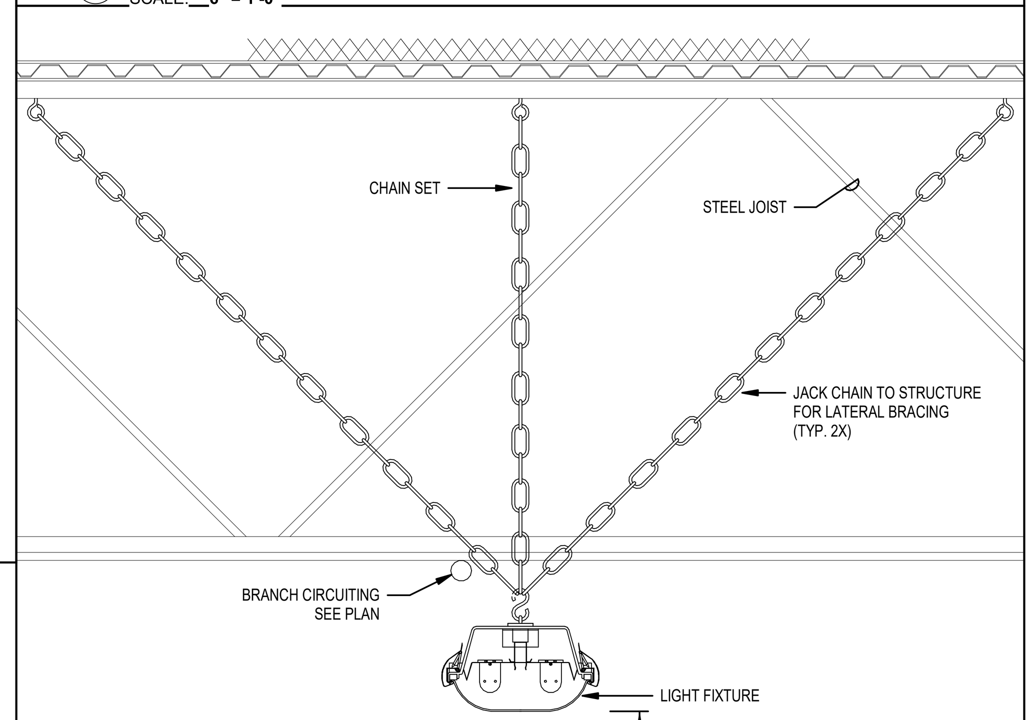


1 PROVIDE J-HOOKS WITH ROD/WIRE CLIP (CADDY 124Z34 OR APPROVED EQUIVALENT) IN QUANTITIES AS MAY BE REQUIRED FOR ROUTING OF LOW VOLTAGE LIGHTING CONTROL CABLES. INSTALL SUPPORTS AND CLIPS 12" ABOVE RECESSED LAY-IN LIGHT FIXTURES. SECURE CABLES AT A SPACING OF NOT MORE THAN 60" ON CENTERS. SUPPLEMENT WITH J-HOOKS SUSPENDED CABLES AT A SPACING OF NOT MORE THAN 60" ON CENTERS. SUPPLEMENT WITH J-HOOKS SUSPENDED BY ALL-THREAD AS MAY BE REQUIRED TO MEET SPACING CRITERIA. INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE NEC 300.11. ALL CABLES SHALL BE ROUTED IN A NEAT WORKMANLIKE MANNER PARALLEL AND PERPENDICULAR TO CEILING GRIDS.

2 **RECESSED GRID LIGHT FIXTURE SUPPORT DETAIL**
SCALE: NTS

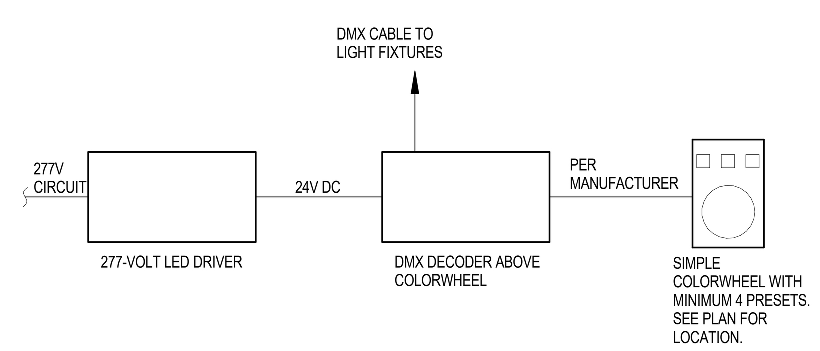


4 **LCP LOW VOLTAGE LIGHTING CONTROL WALL SWITCH DETAILS**
SCALE: 6" = 1'-0"



KEYED NOTES: #
1. MOUNTING HEIGHT. SEE LIGHTING PLANS FOR REQUIREMENTS.

1 **TYPICAL CHAIN HUNG LIGHT FIXTURE DETAIL**
SCALE: NTS



GENERAL NOTES:
1. PROVIDE DMX CONTROL SYSTEM AS SHOWN ABOVE OR APPROVED EQUAL.
2. PROVIDE QUANTITY OF DRIVERS AND DMX DECODERS AS NEEDED.

5 **DMX CONTROL RISER DIAGRAM**
SCALE: NONE

LIGHTING CONTROL PANEL SCHEDULE

MANUF. / CAT. NUMBER:	SEE SPECIFICATIONS
PANEL NAME:	LCP1
LOCATION:	ELEC A102
TRANSFORMER VOLTAGE:	120
MOUNTING:	SURFACE
NEMA TYPE:	NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1HA1-2	EXTERIOR POLES	1	MOTION	G
2	1HA1-2	SITE DECORATIVE POLES	1	SWITCHED	F
3	1LA7-43	FLAGPOLE LIGHT	1	SWITCHED	F
4		SPARE	1		
5	1EHA1-3	EXTERIOR EM BUILDING LTG	1	MOTION	F
6		SPARE	1		
7		SPARE	1		
8		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (12:00 AM)

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

LIGHTING CONTROL PANEL SCHEDULE

MANUF. / CAT. NUMBER:	SEE SPECIFICATIONS
PANEL NAME:	LCP2
LOCATION:	ELEC E112
TRANSFORMER VOLTAGE:	120
MOUNTING:	SURFACE
NEMA TYPE:	NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1HE1-1	EXTERIOR POLES	1	MOTION	G
2	1LE2-22	DISPLAY CASES	1	SWITCHED	B
3	1HE1-13	METAL SHOP LTG	1	DIMMING	D
4	1HE1-7	GYM LTG (a)	1	DIMMING	D
5	1HE1-9	GYM LTG (b)	1	DIMMING	D
6	1HE1-15	MAIN CORRIDOR LTG	1	DIMMING	D
7	1HE1-7	GYM LTG (d)	1	DIMMING	D
8		SPARE	1		
9	1HE1-11	GYM LTG (c)	1	DIMMING	D
10		SPARE	1		
11	1HE1-13	WOOD SHOP LTG (a)	1	DIMMING	D
12	1HE1-13	WOOD SHOP LTG (b)	1	DIMMING	D
13		SPARE	1		
14	1HE1-1	GYM LTG	1		
15	1HE1-21	GYM LTG	1		
16	1HE-23	GTM LTG	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (12:00 AM)

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

LIGHTING CONTROL PANEL SCHEDULE

MANUF. / CAT. NUMBER:	SEE SPECIFICATIONS
PANEL NAME:	LCP3
LOCATION:	ELEC E112
TRANSFORMER VOLTAGE:	120
MOUNTING:	SURFACE
NEMA TYPE:	NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1EHA-3	EXTERIOR EM BUILDING LTG	1	MOTION	F
2	1EHA-1	METAL SHOP EM LTG	1	DIMMED	D
3	1EHA-1	WOOD SHOP EM LTG (b)	1	DIMMED	D
4	1EHA-5	GYM EM LTG (a)	1	DIMMED	D
5	1EHE-5	GYM EM LTG (b)	1	DIMMED	D
6	1EHE-5	GYM EM LTG (d)	1	DIMMED	D
7	1EHE-9	GYM EM WALL WASH LTG	1	DIMMED	D
8	1EHE-1	WOOD SHOP EM LTG (a)	1	DIMMED	D
9	1EHE-3	EXTERIOR EM BUILDING LTG	1	MOTION	F
10		SPARE	1		
11		SPARE	1		
12		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (12:00 AM)

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

LIGHTING CONTROL PANEL SCHEDULE

MANUF. / CAT. NUMBER:	SEE SPECIFICATIONS
PANEL NAME:	LCP4
LOCATION:	MAIN ELECTRICAL ROOM D161
TRANSFORMER VOLTAGE:	120
MOUNTING:	SURFACE
NEMA TYPE:	NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1HC1-13	CAFETORIUM LTG (a)	1	DIMMING	D
2	1HC1-13	CAFETORIUM LTG (b)	1	DIMMING	D
3	1HC1-13	CAFETORIUM LTG (c)	1	DIMMING	D
4	1HC1-13	CAFETORIUM LTG (d)	1	DIMMING	D
5		SPARE	1		
6	2LJ1-43	MAIN CORRIDOR DISPLAY CASES	1	SWITCHED	B
7	1HC1-2	NORTH SITE POLES	1	SWITCHED	F
8		SPARE	1		
9	1EHC-3	CAFETORIUM EM LTG (a)	1	DIMMING	D
10	1EHC-3	CAFETORIUM EM LTG (b)	1	DIMMING	D
11	1EHC-3	CAFETORIUM EM LTG (c)	1	DIMMING	D
12	1EHC-3	CAFETORIUM EM LTG (d)	1	DIMMING	D
13	1EHC-9	EXTERIOR CANOPY EM LTG	1	SWITCHED	F
14	1EHC-7	EXTERIOR WALL EM LTG	1	MOTION	F
15		SPARE	1		
16		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (12:00 AM)

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

CONSTRUCTION DOCUMENTS

LIGHTING DETAILS

E-151

LIGHTING CONTROL SYSTEM REQUIREMENTS:

NETWORKED LOW-VOLTAGE LIGHTING CONTROL SYSTEMS: PROVIDE A DIGITAL, DISTRIBUTED INTELLIGENT, NETWORKED LOW-VOLTAGE LIGHTING CONTROL SYSTEM FOR THE FOLLOWING ROOMS/AREAS:

- CLASSROOMS
- COLLABORATION SPACES
- STAIRS
- COMMONS
- SERVING
- VESTIBULES AND PASSAGE WAYS
- MULTIPURPOSE ROOM
- PLATFORM
- MEDIA CENTER
- BUILDING EXTERIOR

THE SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO CEILING-MOUNTED OCCUPANCY SENSORS, LIGHT LEVEL SENSORS, LOW VOLTAGE CONTROL WALL SWITCHES, POWER PACKS, GATEWAYS, BRIDGES, EQUIPMENT, LOW VOLTAGE CABLES, INTERNET CONNECTION, SOFTWARE, PROGRAMMING, ETC.

PROVIDE NLIGHT SENSORVIEW SOFTWARE OR PRIOR-APPROVED EQUIVALENT FOR THE ABILITY TO REMOTELY CONFIGURE AND MONITOR EVERY NETWORKED NLIGHT SYSTEM DEVICE. PROVIDE BACNET SOFTWARE PLUG-IN TO ENABLE SENSORVIEW TO ACT AS A BACNET IP "GATEWAY" BETWEEN THE NLIGHT NETWORK AND THE OGDEN SCHOOL DISTRICT BUILDING MANAGEMENT SYSTEM. THE SOFTWARE SHALL HAVE A SIMPLE AND QUICK SETUP TOOL FOR CREATING CUSTOM CONFIGURATION PROFILES THAT CAN EITHER BE SCHEDULED OR RUN ON DEMAND. THE SOFTWARE SHALL ALLOW FOR:

- VEIWING DEVICE PROPERTIES
- CUSTOMIZING ALL DEVICE NAMES
- CONFIGURING ALL DEVICE DEFAULT SETTINGS
- EDITING DEVICE CURRENT SETTINGS
- OBSERVING REAL-TIME DEVICE OPERATIONAL STATUSES
- VIEWING ENERGY CONSUMPTION
- UPDATING DEVICE FIRMWARE
- GROUPING NETWORK DEVICES
- CREATING LIGHTING PROFILES THAT OUTLINE DEVICE OPERATION
- SCHEDULING PROFILES TO RUN AT PRESCRIBED TIMES WITH OPTIONAL RECURRENCES
- MANAGING USER ACCESS OF NLIGHT GATEWAYS AND THE SENSORVIEW PROGRAM
- PRINTING REPORTS ON THE NETWORK INVENTORY AND PROFILES
- REMOTE TECHNICAL SUPPORT VIA THE INTERNET

PROVIDE POWER PACKS IN TYPES AND RATINGS AS MAY BE REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM WHETHER SHOWN ON THE DRAWINGS OR NOT. WHERE POWER PACKS ARE SERVING LOADS IN HIGH CEILING AREAS, LOCATE POWER PACKS IN THE ELECTRICAL ROOM WHERE LINE VOLTAGE WIRING IS ORIGINATING FROM.

THE SYSTEM SHALL METER EACH POINT OF CONTROL AND PROVIDE ENERGY USAGE AND POWER DEMAND DATA BACK TO THE OGDEN SCHOOL DISTRICT BUILDING MANAGEMENT SYSTEM.

OCCUPANCY SENSORS SHALL BE SET FOR "MANUAL ON – AUTO OFF" IN THE FOLLOWING SPACES:
- CLASSROOMS
- PLATFORM
- MEDIA CENTER
- SERVING

OCCUPANCY SENSORS SHALL BE SET FOR "AUTO ON – AUTO OFF" IN THE FOLLOWING SPACES:
- COLLABORATION SPACES
- STAIRS
- COMMONS
- VESTIBULES AND PASSAGE WAYS
- MULTIPURPOSE ROOM

ALL CEILING-MOUNTED OCCUPANCY SENSORS SHALL BE PROVIDED WITH AN AUXILIARY CONTACT FOR HVAC CONTROL.

SKYLIGHTS AND BLINDS SHALL BE CONTROLLED VIA THE NETWORKED LOW VOTLAGE LIGHTING CONTROL SYSTEM. REFER TO LOW VOLTAGE LIGHTING SYSTEM CONTROL SCHEDULES.

PROVIDE LIGHTING CONTROL RELAY PANELS AS INDICATED ON THE ELECTRICAL DRAWINGS. RELAY PANELS SHALL BE TIED INTO THE NETWORKED LOW VOLTAGE LIGHTING CONTROL SYSTEM.

REFER TO LOW VOLTAGE LIGHTING CONTROL SCHEDULES FOR A COMPLETE DESCRIPTION ON PROGRAMMING SCENCES, TASK TUNING, ETC. EACH STANDALONE SYSTEM SHALL BE PROGRAMMED TO REVERT BACK TO ITS NORMAL "ON" POSITION ONE HOUR AFTER SELECTING A SCENE OR RAISING OR LOWERING A LIGHTING ZONE.

STANDALONE LOW VOLTAGE LIGHTING CONTROL SYSTEMS:PROVIDE DIGITAL STANDALONE LOW VOLTAGE LIGHTING CONTROL SYSTEMS IN THE FOLLOWING ROOMS/AREAS:
- LARGE BOYS AND GIRLS RESTROOMS
- LARGE STORAGE ROOMS
- TEACHER PREP
- CONFERENCE ROOMS
- TEACHERS LOUNGES
- WORK ROOMS
- RECEPTION
- HEALTH
- OFFICES
- KITCHEN
- RECEIVING

THE SYSTEMS SHALL INCLUDE, BUT IS NOT LIMITED TO CEILING-MOUNTED OCCUPANCY SENSORS, LIGHT LEVELS SENSORS, LOW VOLTAGE CONTROL WALL SWITCHES, POWER PACKS, LOW VOLTAGE CABLES, PROGRAMMING, ETC.

PROVIDE POWER PACKS IN TYPES AND RATINGS AS MAY BE REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM WHETHER SHOWN ON THE DRAWINGS OR NOT. WHERE POWER PACKS ARE SERVING LOADS IN HIGH CEILING AREAS, LOCATE POWER PACKS IN THE ELECTRICAL ROOM WHERE LINE VOLTAGE WIRING IS ORIGINATING FROM.

OCCUPANCY SENSORS SHALL BE SET FOR "MANUAL ON – AUTO OFF" WITH A 10 MINUTE DELAY IN THE FOLLOWING SPACES:
- CONFERENCE ROOMS
- HEALTH
- OFFICES

OCCUPANCY SENSORS SHALL BE SET FOR "AUTO ON – AUTO OFF" WITH A 10 MINUTE DELAY IN THE FOLLOWING SPACES:
- LARGE BOYS AND GIRLS RESTROOMS
- LARGE STORAGE ROOMS
- TEACHER PREP
- TEACHERS LOUNGES
- WORK ROOMS
- RECEPTION
- RECEIVING

ALL CEILING-MOUNTED OCCUPANCY SENSORS SHALL BE PROVIDED WITH AN AUXILIARY CONTACT FOR HVAC CONTROL.

ALL LOW VOLTAGE LIGHTING CONTROL SWITCHES SHALL HAVE EACH SCENCE NAME SILKSCREENED ONTO THE FRONT OF THE SWITCH IN BLACK LETTERS.

REFER TO LOW VOLTAGE LIGHTING CONTROL SCHEDULES FOR A COMPLETE DESCRIPTION ON PROGRAMMING SCENCES, TASK TUNING, ETC. EACH STANDALONE SYSTEM SHALL BE PROGRAMMED TO REVERT BACK TO ITS NORMAL "ON" POSITION ONE HOUR AFTER SELECTING A SCENE OR RAISING OR LOWERING A LIGHTING ZONE.

LINE-VOLTAGE LIGHTING CONTROL SYSTEM:PROVIDE LINE-VOLTAGE LIGHTING CONTROL SYSTEMS IN THE FOLLOWING ROOMS/AREAS:

WALL BOX OCCUPANCY SENSORS:

- CUSTODIANS
- SMALL STORAGE ROOMS
- SMALL TOILET ROOMS
- LAUNDRY

SET OCCUPANCY SENSOR TO HAVE A 10 MINUTE DELAY

SINGLE-POLE SWITCHES:

- MECHANICAL ROOMS
- ELECTRICAL ROOMS
- COMMUNICATIONS ROOMS

TIMER SWITCHES:

- SHOWERS

TIMER SWITCHES SHALL GIVE OCCUPANTS THE ABILITY TO SELECT FROM 2, 5, 10, 15, 30, OR 60 MINUTES.

OCCUPANCY SENSORS: PLEASE NOTE THAT ELECTRICAL DRAWINGS INDICATE LOCATIONS OF OCCUPANCY SENSORS IN APPROXIMATE LOCATIONS AND QUANTITIES. PROVIDE OCCUPANCY SENSORS IN LOCATIONS, QUANTITIES, AND TYPES AS RECOMMENDED BY THE MANUFACTURE. PROVIDE COMPLETE PRODUCT DATA AND SHOP DRAWINGS INDICATING THE PROPOSED TYPES, COVERAGE PATTERNS, LOCATIONS, AND QUANTITIES. COORDINATE THE LOCATION OF ALL DEVICES WITH CEILING GRIDS, LIGHT FIXTURES, CEILING DIFFUSERS, SPRINKLER HEADS, ETC.

LIGHT LEVEL SENSORS: PLEASE NOTE THAT THE ELECTRICAL DRAWINGS INDICATED LOCATIONS OF LIGHT LEVEL SENSOR IN APPROXIMATE LOCATIONS ONLY. PROVIDE LIGHT LEVEL SENSORS IN LOCATIONS AND TYPES AND RECOMMENDED BY THE MANUFACTURER. PROVIDE COMPLETE PRODUCT DATA AND SHOP DRAWINGS INDICATING THE PROPOSED TYPES AND LOCAITONS. COORDINATE THE LOCATION OF ALL DEVICES WITH CEILING GRIDS, LIGHT FIXTURES, CEILING DIFFUSERS, SPRINKLER HEADS, ETC.

TASK TUNING:
SET THE DEFAULT (MAXIMUM) LIGHT LEVELS TO SUIT THE PARTICULAR TASK OR USE OF A WORKSPACE AS FOLLOWS:

FUNCTION / SPACE	IILUMINANCE (AVG. FOOTCANDLES)
CLASSROOMS	35 FC
COLLABORATION SPACES	35 FC
COMMONS	10 FC
STAIRS	10 FC
VESTIBULES	10 FC
RECEPTION	35 FC
OFFICES	35 FC
TEACHER'S LOUNGES	20 FC
CONFERENCE ROOMS	30 FC
TEACHER'S PREP	30 FC
WORK ROOMS	30 FC
LARGE STORAGE ROOMS	10 FC
CORRIDORS	10 FC
MEDIA CENTER	25 FC
LARGE RESTROOMS:	15 FC
SMALL TOILET ROOMS:	15 FC
MULTIPURPOSE:	
ASSEMBLY	7.5 FC
COMPETITIVE SPORTS	25-50 FC
GENERAL	15 FC
PHYSICAL EDUCATION	25 FC
PLATFORM:	
GENERAL	20 FC
PERFORMANCE	50 FC
KITCHEN	50 FC
RECEIVING	30 FC

VALUES INDICATED ABOVE ARE AVERAGE FOOTCANDLE LEVELS ON THE TASK SURFACE.

DIMMING LEADS:
PROVIDE DIMMING LEADS TO ALL FIXTURES THAT HAVE THE FOLLOWING :
1. NETWORK LOW-VOLTAGE LIGHTING CONTROL SYSTEMS.
2. STAND ALONE LOW-VOLTAGE LIGHTING CONTROL SYSTEMS.
3. ALL EXTERIOR BUILDING AND PARKING LOT LIGHTING.
4. ANYWHERE TASK TUNING IS REQUIRED.

EMERGENCY OPERATION: PROVIDE A UL 924 LISTED METHOD FOR OPERATING EGRESS LIGHT FIXTURES. FOR THE NLIGHT SYSTEM, THIS SHALL INCLUDE "FOR USE WITH GENERATOR SUPPLY EM POWER" OPTION FOR EACH EGRESS LIGHT FIXTURE OR A UL 924 LISTED POWER PACKS FOR GROUPS OF LIGHT FIXTURES. FOR OTHER LIGHTING CONTROL SYSTEMS THAT DO NOT HAVE A "FOR USE WITH GENERATOR SUPPLY EM POWER" OPTION FOR DESIGNATED EGRESS LIGHT FIXTURES, PROVIDE A GENERATOR TRANSFER DEVICES EQUIVALENT TO BODINE GTD OR ITOA ETS FOR EACH INDIVIDUAL OR GROUPS OF LIGHT FIXTURES DEPENDING UPON THE APPLICATION. REFER TO DRAWINGS AND LIGHT FIXTURES SCHEDULE. ALL EGRESS LIGHT FIXTURES SHALL BE SWITCHED OFF WITH OTHER NORMAL-POWERED LIGHT FIXTURES DURING NORMAL OPERATION, BUT POWERED "FULL ON" DURING AN EMERGENCY OPERATION.

ELECTRIC WATER COOLERS AND VENDING MACHINES: PROVIDE A POWER PACK FOR EACH WATER COOLER OR VENDING MACHINE BRANCH CIRCUIT. PROGRAM POWER PACKS TO SWITCH OFF ELECTRIC WATER COOLERS AT 11:00 PM AND BE SWITCHED ON AT 6:00 AM, OR AS OTHERWISE REQUESTED BY THE DISTRICT.

LOW VOLTAGE CABLES: PROVIDE CABLES IN TYPES AND SIZES IN ACCORDANCE WITH ALL MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. ALL CABLES SHALL BE PLENUM RATED. PROVIDE J-HOOKS WITH ROD/WIRE CLIPS (CADDY 12AZ34 OR APPROVED EQUIVALENT) ATTACHED TO LIGHT FIXTURE SEISMIC SUPPORT WIRES IN QUANTITIES AS MAY BE REQUIRED FOR ROUTING OF LOW VOLTAGE LIGHTING CONTROL CABLES. REFER TO DETAIL 1/EL111.1. INSTALL SUPPORTS AND CLIPS 12" ABOVE RECESSED LAY-IN LIGHT FIXTURES. SECURE CABLES AT A SPACING OF NOT MORE THAN 60" ON CENTERS. PROVIDE ADDITIONAL DROP WIRES WITH DROP WIRE SUPPORTS OR J-HOOKS AS MAY BE REQUIRED TO MEET SPACING CRITERIA. INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE NEC 300.11. ALL CABLES SHALL BE ROUTED IN A NEAT WORKMANLIKE MANNER PARRALLEL AND/OR PERPENDICULAR TO CEILING GRIDS.

SHOP DRAWINGS AND PRODUCT DATA:

PRODUCT DATA: PROVIDE PRODUCT DATA FOR ALL SYSTEM COMPONENTS CLEARLY DELINEATING THE DEVICES WHICH ARE TO BE PROVIDED.

SHOP DRAWINGS: PROVIDE 1/8" SCALED 30" X 42" REVIT DRAWINGS SHOWING THE LIGHTING CONTROL SYSTEM DEVICES PLACED ON THE CEILING AND FLOOR PLANS. OBTAIN REVIT MODEL FROM THE ARCHITECT. DRAWINGS SHALL INCLUDE COMPLETE LINE AND LOW VOLTAGE INTERCONNECTION REQUIREMENTS. PROVIDE SEPARATE LINE AND LOW VOLTAGE DRAWINGS AS MAY BE REQUIRED FOR CLARITY. LOW VOLTAGE DRAWING SHALL INCLUDE LENGTHS OF ALL CABLES. INCLUDE COMPLETE WIRING DIAGRAMS, ONE-LINE DIAGRAMS, DETAILS, ETC.

PROGRAMMING SCHEDULES: PROVIDE COMPLETE SEQUENCING AND PROGRAMMING SCHEDULES FOR ALL DEVICES, ZONES, AND SCENCES.

RECORD DRAWINGS: AT THE COMPLETION OF THE PROJECT, PROVIDE UPDATED SHOP DRAWINGS INCLUDING ALL CHANGES MADE DURING CONSTRUCTION. INDICATE EXACT LOCATION BY DIMENSION OF ALL POWER PACKS AND OTHER DEVICES MOUNTED ABOVE ACCESSIBLE CEILINGS. PROVIDE A COMPLETE REVIT MODEL IN ELECTRONIC FORMAT.

WARRANTY: WARRANTY ALL WORK INCLUDING PARTS AND LABOR FOR A PERIOD OF ONE YEAR.

COMMISSIONING: COMMISSION EACH PORTION OF THE LIGHTING CONTROL SYSTEMS AT THE COMPLETION OF THE PROJECT TO VERIFY THAT THE SYSTEM PERFORMS AS INTENDED. COORDINATE COMMISSION SERVICES WITH COMMISSIONING AGENT. ASSIST THE OGDEN SCHOOL DISTRICT IN PROGRAMMING AND MAPPING THE SYSTEM FOR INTEGRATION INTO THE BACNET BUILDING MANAGEMENT SYSTEM FOR THEIR SATISFACTION.

RETRO-COMMISSIONING: DURING THE ONE YEAR WARRANTY PERIOD, PROVIDE RETRO-COMMISSIONING SERVICES AT THREE MONTH, SIX MONTH, NINE MONTH, AND ONE YEAR MARKS. PROVIDE AT LEAST 8 HOURS OF COMMISSIONING SERVICE FOR EACH OF THE FOUR RETRO-COMMISSIONING PERIODS. THIS WILL INCLUDE MEETING WITH THE OGDEN SCHOOL DISTRICT TO RECEVIE FEEDBACK ON THE SYSTEM AND MAKING CHANGES TO THE SYSTEM INCLUDING PROGRAMMING, TASK TUNING, ETC.

TRAINING: PROVIDE EIGHT HOURS OF TRAINING FROM A FACTORY TRAINED AND CERTIFIED TECHNICIAN AT THE COMPLETION OF THE PROJECT. SCHEDULE TRAIING WITH THE OGDEN SCHOOL DISTRICT.

BIDDING REQUIREMENTS: BIDDERS SHALL BREAK OUT THE LIGHT FIXTURE PACKAGE SEPARATE FROM THE LIGHTING CONTROL SYSTEM. ALL SPECIAL FEATURES PERTAINING TO LIGHTING CONTROLS ASSOCIATED WITH THE LIGHT FIXTURES SHALL BE CONSIDERED LIGHTING CONTROLS. BIDDERS WHO DO NOT CONFORM TO THIS REQUIREMENT MAY BE DISQUALIFIED.

THE SYSTEM SHALL BE PROGRAMMED TO SWEEP ALL NETWORKED-CONTROLLED LIGHTS OFF AT NIGHT; HOWEVER, OCCUPANCY SENSORS, LOW VOLTAGE SWITCHES, ETC. SHALL BE FULLY OPERATIONAL AFTER THE SWEEP.

THE SYSTEM SHALL VERIFY/CONFIRM THE STATUS (ON/OFF) OF ALL RELAYS AND ZONES.

SYSTEM OVERRIDE AND CONTROL OF NETWORKED-CONTROLLED SPACES SHALL BE MADE AVAILABLE THROUGH INEGRATION WITH AND SCHEDULING OF THE BUILDING AUTOMATION SYSTEM.

THE SYSTEM SHALL VERIFY/CONFIRM THE STATUS (OPEN/CLOSE) OF ALL BLINDS AND SKYLIGHT LOUVERS. EACH WINDOE SHADE SHALL BE PROGRAMMED TO OPEN EVERY MORNING; WACH SKYLIGHT LOUVER SHALL BE PROGRAMMED TO OPEN ONE HOUR AFTER THE SKYLIGHT HAS BEEN CLOSED.

THE SYSTEM WILL ALLOW FOR SEPARATE CONTROL AND SHALL VERIFY/CONFIRM STATUS OF DRINKING FOUNTAINS AND VENDING MACHINES.

ALL SCHEDULING SHALL BE MADE BY STRUCTUREWARE VIA THE BUILDING AUTOMATION SYSTEM, NOT THE LIGHTING CONTROL SOFTWARE.

RESETTING OF THE JBOSS SOFTWARE RUNNING ON THE ENTERPRISE SERVER SHALL BE ACCESSIBLE TO OGDEN SCHOOL DISTRICT PERSONNEL.

TYPICAL INTERIOR SPACE PROGRAMMING:

CLASSROOM LIGHTING PROGRAMMING

SCENE #1 - TURN OFF MAIN TEACHING WALL (OR WALL AS DIRECTED BY THE SCHOOL) LIGHTS AND DIM ALL OTHERS TO 20%.
SCENE #2 - DIM ALL LIGHTS TO 20%.
SCENE #3 - DIM ALL LIGHTS TO 50%.
SCENE #4 - ALL LIGHTS TO 100%.

LIGHTING FOR CLASSROOMS SHALL BE MANUAL ON AUTO OFF.

WHEN LIGHTS ARE MANUALLY TURNED ON THEY SHALL DEFAULT TO 50%

LIBRARY TO FUNCTION THE SAME AS A CLASSROOM.

CONFERENCE ROOM LIGHTING PROGRAMMING
SCENE #1 - TURN OFF CAN LIGHTS AND DIM PENDANT TO 50%
SCENE #2 - TURN OFF PENDANT AND DIM CAN LIGHTS TO 50%.
SCENE #3 - DIM ALL LIGHTS TO 50%.
SCENE #4 - ALL LIGHTS TO 100%.

LIGHTING FOR CONFERENCE ROOMS SHALL BE MANUAL ON AUTO OFF.

WHEN LIGHTS ARE MANUALLY TURNED ON THEY SHALL DEFAULT TO 50%

CORRIDOR, ENTRY AND VESTIBULE LIGHTING PROGRAMMING
ALL NORMAL AND EMERGENCY LIGHTS IN THE CORRIDORS TO TURN ON AND OFF BASED ON TIME AS DIRECTED BY THE SCHOOL. BEFORE AND AFTER THE PROGRAMMED TIME THE EMERGENCY LIGHTS SHALL TURN ON AND OFF WITH THE OCCUPANCY SENSORS IN THE CORRIDORS AND REMAIN ON FOR TIME DURATION AS DIRECTED BY THE SCHOOL, MAXIMUM 20 MINUTES.

LIGHTING SUPPLIER SHALL CONFIRM PROGRAMMING OF EACH SPACE WITH THE SCHOOL ONCE THE SYSTEM IS PROGRAMMED. MAKE ANY AND ALL REQUIRED CHANGES AS DIRECTED BY THE SCHOOL.

SEE LIGHTING RELAY PANEL SCHEDULES FOR EXTERIOR LIGHTING CONTROL REQUIREMENTS.

SEE POWER PLANS FOR ADDITIONAL CONTROL LOCATIONS AND REQUIREMENTS.

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NIBLEY MIDDLE SCHOOL
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CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

CONSTRUCTION DOCUMENTS

LIGHTING NOTES
E-152

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	SOURCE	LOAD	APPROVED MANUFACTURERS	CATALOG NUMBER / SERIES
AB1	42" LED EXTERIOR BOLLARD WITH 180-DEGREE DISTRIBUTION. IK10 RATING.	LED 3000 LM 0-10 V DIMMING 4000 K	277 V 30 W	MCGRAW EDISON	BRT6
				SELUX	IBL 3.5-4QD 40 SCBA UNV DM
				RAGNI LIGHTING	CIK-16-C-42"-35-50-TX-1-S-STANDARD FINISH
AF1	WALL MOUNTED EXTERIOR LED FLOOD LIGHT FIXTURE WITH 15 X 60 BEAM ANGLE AND FULL SNOOT. MOUNTED ON	LED 1200 LM 0-10 V DIMMING 4000 K	277 V 13 W	ECOSENSE	F170-1S-LO-40-8-E1-X-F-C
AF2	EXTERIOR LED FLOOD LIGHT FIXTURE WITH 30 X 60 BEAM ANGLE AND LINEAR SPREAD LENS.	LED 1200 LM 0-10 V DIMMING 4000 K	277 V 13 W	ECOSENSE	F170-1S-LO-40-8-E2-X-C
AP1	LED POLE MOUNTED LIGHT FIXTURE WITH TYPE 4 DISTRIBUTION, HOUSE SIDE SHIELD AND 20', NON-TAPERED STEEL POLE.	LED 20,000 LM 0-10 V DIMMING 4000 K	277 V 185 W	MCGRAW-EDISON	GLAN-SA2C-740-U-T4-SCBA-SPB2-SSP20 (MCGR, KW)-HSS
				GARDCO	OPF-M-A14-740-T4M-AR1-UNV-STANDARD FINISH-HSS
				LITHONIA	RSX2 LED P3 40K R4 MVOLT SPA HS NLTAIR2 PIRHN DDBXD / SSS 20 4C DM19AS DDBXD
				BEACON PRODUCTS, INC.	VP-2-320L-210-4K7-4-UNV-ASQU-SCBA SHD 2-HSS-XXX-SCBA SSSB20-40A-1-B3-SCB
AP2	LED POLE MOUNTED LIGHT FIXTURE WITH TYPE 4 DISTRIBUTION AND 20', NON-TAPERED STEEL POLE.	LED 20,000 LM 0-10 V DIMMING 4000 K	277 V 185 W	MCGRAW-EDISON	GLAN-SA2C-740-U-T4-SCBA-SPB2-SSP20 (MCGR, KW)
				GARDCO	OPF-M-A14-740-T4M-AR1-UNV-STANDARD FINISH
				LITHONIA	RSX2 LED P3 40K R4 MVOLT SPA NLTAIR2 PIRHN DDBXD / SSS 20 4C DM19AS DDBXD
				BEACON PRODUCTS, INC.	VP-2-320L-210-4K7-4-UNV-ASQU-SCBA SSSB20-40A-1-B3-SCB
AP3	LED POLE MOUNTED LIGHT FIXTURE WITH TYPE 5 DISTRIBUTION AND 20', NON-TAPERED STEEL POLE.	LED 20,000 LM 0-10 V DIMMING 4000 K	277 V 185 W	MCGRAW-EDISON	GLAN-SA2C-740-U-T5-SCBA-SPB2-SSP20 (MCGR, KW)-HSS
				GARDCO	OPF-M-A14-740-T5M-AR1-UNV-STANDARD FINISH-HSS
				LITHONIA	RSX2 LED P3 40K R5 MVOLT SPA HS NLTAIR2 PIRHN DDBXD / SSS 20 4C DM19AS DDBXD
				BEACON PRODUCTS, INC.	VP-2-320L-210-4K7-5QW-UNV-ASQU SCBA SSSB20 40A-1-B3-SCBA
AP4	LED POLE MOUNTED LIGHT FIXTURE WITH TYPE 2 DISTRIBUTION, HOUSE SIDE SHIELD AND 20', NON-TAPERED STEEL POLE.	LED 20,000 LM 0-10 V DIMMING 4000 K	277 V 185 W	MCGRAW-EDISON	GLAN-SA2C-740-U-T2-SCBA-SPB2-SSP20 (MCGR, KW)-HSS
				GARDCO	OPF-M-A14-740-T2M-AR1-UNV-STANDARD FINISH-HSS
				LITHONIA	RSX2 LED P3 40K R2 MVOLT SPA HS NLTAIR2 PIRHN DDBXD / SSS 20 4C DM19AS DDBXD
				BEACON PRODUCTS, INC.	VP-2-320L-210-4K7-2-UNV-ASQU-SCBA SHD 2-HSS-XXX-SCBA SSSB20-40A-1-B3-SCB
AP5	LED POLE MOUNTED LIGHT FIXTURE WITH TYPE 2 DISTRIBUTION, HOUSE SIDE SHIELD AND 12', NON-TAPERED STEEL POLE.	LED 10,000 LM 0-10 V DIMMING 4000 K	277 V 80 W	MCGRAW-EDISON	GLAN-SA2C-740-U-T2-SCBA-SPB2-SSP12 (MCGR, KW)-HSS
				GARDCO	OPF-M-A14-740-T2M-AR1-UNV-STANDARD FINISH-HSS
				LITHONIA	RSX2 LED P3 40K R2 MVOLT SPA HS NLTAIR2 PIRHN DDBXD / SSS 12 4C DM19AS DDBXD
				BEACON PRODUCTS, INC.	VP-2-320L-210-4K7-2-UNV-ASQU-SCBA SHD 2-HSS-XXX-SCBA SSSB20-40A-1-B3-SCB
DR1	4" ROUND DOWNLIGHT FIXTURE WITH 60-DEGREE BEAM, WHITE TRIM AND REFLECTOR	LED 1500 LM 0-10 V DIMMING 4000 K	277 V 15 W	HALO COMM	HC4
				GOTHAM	LDN4 40/15 LO4AR LSS MVOLT GZ10 TRW
				LIGHTOLIER	4RN Z4RDL15940WCCDZ10U
				PRESCOLITE	LFR-4RD-M-15L40K8-MD-DM1/LFR-4RD-T-SSWT/LFR-4RD-H
DR2	4" ROUND DOWNLIGHT FIXTURE, WITH WHITE DEADFRONT LENS FOR SHOWER.	LED 1500 LM 0-10V-DIMMING 4000 K	277 V 15 W	HALO COMM	HC4
				GOTHAM	EVO4SH 40/15 DFR SOL MVOLT EZ1
				LIGHTOLIER	4RN P4RSL15940MCDZ10U
				PRESCOLITE	LFR-4RD-M-15L40K8-MD-DM1/LFR-4RD-T-SH-WTACL/LFR-4RD-H
DR3	2" ROUND DOWNLIGHT FIXTURE, WITH 40-DEGREE BEAM, WHITE TRIM AND REFLECTOR.	LED 700 LM 0-10V-DIMMING 4000 K	277 V 8 W	ALPHABET	NU3
				LITHONIA	LDN3 40/10 LO3AR LSS MVOLT UGZ10 TRW
				LIGHTOLIER	3RN P3RDL07940CDZ10U
				CREATIVE SYSTEMS	A3-NC-R-ST-10-S-SHB/A3-40-90-R-ST-WT-ST-SA-NL-80
DR4	4" SQUARE LED WALL WASH DOWNLIGHT FIXTURE, WITH WHITE TRIM AND REFLECTOR.	LED 2000 LM 0-10V-DIMMING 4000 K	277 V 20 W	ALPHABET	
				LITHONIA	
				LIGHTOLIER	
				PRESCOLITE	
DR5	4" ROUND EXTERIOR RATED LED DOWNLIGHT FIXTURE WITH 60-DEGREE BEAM, SEMI-SPECULAR REFLECTOR AND CUSTOM COLOR TRIM TO MATCH EXTERIOR SOFFIT.	LED 1500 LM NON-DIMMING 4000 K	277 V 15 W	ALPHABET	NU4
				GOTHAM	LDN4 40/15 LO4AR LSS MVOLT GZ10 TRW
				LIGHTOLIER	4RN Z4RDL15940WCCDZ10U
				PRESCOLITE	LFR-4RD-M-15L40K8-MD-DM1/LFR-4RD-T-SSWT/LFR-4RD-H
DR6	4" ROUND RGBW LED DOWNLIGHT FIXTURE WITH 20-DEGREE BEAM, WHITE TRIM AND REFLECTOR.	LED 200 LM OF WHITE DMX RGBW	277 V 20 W	ALPHABET	
				GOTHAM	
				LIGHTOLIER	
				PRESCOLITE	
DR7	4" ROUND DOWNLIGHT FIXTURE WITH 60-DEGREE BEAM, WHITE TRIM AND REFLECTOR	LED 1500 LM DMX 4000 K	277 V 15 W	ALPHABET	NU4
				GOTHAM	LDN4 40/15 LO4AR LSS MVOLT GZ10 TRW
				LIGHTOLIER	4RN Z4RDL15940WCCDZ10U
				PRESCOLITE	LFR-4RD-M-15L40K8-MD-DM1/LFR-4RD-T-SSWT/LFR-4RD-H
HB1	1'X4' LED PENDANT HIGH BAY FIXTURE WITH WHITE LENS AND IK10 RATING.	LED 30,000 LM NON-DIMMING 4000 K	277 V 285 W	METALUX	OHB-30SE-MFL-UNV-L840-CD-U
				LITHONIA	CPHB 48000LM SEF GCL WD MVOLT GZ10 40K 80CRI DWH
				HE WILLIAMS	GH-4-L300/840-FA-DIM-UNV
				COLUMBIA	PELA-840-L30-B-ED-U-PM
LP1	PENDANT MOUNTED LED LINEAR LIGHT FIXTURE, WITH 2"X2" PROFILE. LENGTH AS SHOWN ON DRAWINGS.	LED 1000 LM / FT 0-10V DIMMING 4000 K	277 V 10 W / FT	CORELITE	S122DP
				FINELITE	HP X P D "" V 840 F 277 SC FC-1% FA50 "" FE SCBA
				AXIS LIGHTING	TB2DLED-1000-80-40-SO-XX-STANDARD FINISH-UNV-DP-1-CA36
				LUMENWERX	FOR4PD-22-HLO-LED-80-1000-40-UNV-D1-1-SSWAC36-W
LP2	PENDANT MOUNTED LED LINEAR LIGHT FIXTURE WITH 3.5"X3.5" PROFILE AND 2.5" W x 2.5" H REGRESSED NOTCH. LENGTH AS SHOWN ON DRAWINGS.	LED 500 LM / FT 0-10V DIMMING 4000 K	277 V 7 W / FT	FLUXWERX	PF1-B-B-A-40-SCBA-X-S-F2-M-06
				PINNACLE	CDI-N-840-X-AC_ST-2-EL1-1-SCBA-FE
LP3	CONFERENCE ROOM PENDANT MOUNTED LED LINEAR LIGHT FIXTURE WITH 3.5"X3.5" PROFILE AND 2.5" W x 2.5" H REGRESSED NOTCH. LENGTH AS SHOWN ON DRAWINGS.	LED 500 LM / FT 0-10V DIMMING 4000 K	277 V 7 W / FT	ECOSENSE	RP2-4-B-09DN/03UP-L40-UNV-D-2C-FRF-SCAB-XX-48-XX'
LP4	PENDANT MOUNTED LED LINEAR LIGHT FIXTURE, WITH 2"X2" PROFILE. LENGTH AS SHOWN ON DRAWINGS.	LED 1000 LM / FT 0-10V DIMMING 4000 K	277 V 10 W / FT	CORELITE	S122DP
				FINELITE	HP X P ID "" S TL 840 F 277 DC FC-1% FA50 "" FE SCBA
				EXTANT ARCH. LIGHTING	HTG-1P-TD-DT-XX-SLO-1250-840-MEODF-VU-D-STANDARD FINISH-AC-XX
				LUMENWERX	VIA2P-D-HLO-FH-NA-SW-80-1250-NA-40-""-UNV-D1-1C
LR1	1" WIDE LINEAR RECESSED LED RGBW LIGHT FIXTURE WITH WHITE LENS AND MUD-IN TRIM. LENGTH AS SHOWN ON DRAWINGS.	LED 400 LM / FT OF WHITE DMX RGBW	277 V 12 W	QTRAN	
				OMNI LIGHT	
				KELVIX	
				XICO	
LR2	LINEAR RECESSED LED LIGHT FIXTURE WITH 2.5" W x 2.5" H REGRESSED NOTCH. LENGTH AS SHOWN ON DRAWINGS.	LED 500 LM / FT 0-10V DIMMING 4000 K	277 V 5 W / FT	FLUXWERX	NT1-L-02-B-A-40-F2-M-X
				PINNACLE	CRD-840-X-SF-2-EL1-1-SCBA
LR3	2" WIDE MUD-IN RECESSED LED LINEAR LIGHT FIXTURE. LENGTH AS SHOWN ON DRAWINGS. FACTORY MITERED CORNERS.	LED 800 LM / FT 0-10V DIMMING 4000 K	277 V 8 W / FT	NULITE	RM2-06-L35-UNV-D-1C-FRF-WH-XX'
				AXIS LIGHTING INC.	B2SQRLED-750-80-35-SO-X-W-UNV-DP-1-DF
				MARK LIGHTING	SL2L LOP "FT FLP GB 80CRI 35K 800LMF MIN1 277 ZT
				LUMENWERX	VIA2R-D-HLO-FH-SW-80CRI-750LMF 35K-"FT-UNV-D1-1C-DMF-W
LR4	2" WIDE MUD-IN RECESSED RGBW LED LINEAR LIGHT FIXTURE WITH ASYMMETRIC OPTIC. LENGTH AS SHOWN ON DRAWINGS. TIE TO DMX CONTROLLER IN RECEPTION E111.	LED 400 LM / FT OF WHITE DMX RGBW	277 V 12 W / FT	NULITE	
				AXIS LIGHTING INC.	
				MARK LIGHTING	
				LUMENWERX	
LR5	2" WIDE MUD-IN RECESSED LED LINEAR LIGHT FIXTURE. LENGTH AS SHOWN ON DRAWINGS. FACTORY MITERED CORNERS.	LED 800 LM / FT DMX 4000 K	277 V 8 W / FT	NULITE	
				AXIS LIGHTING INC.	
				MARK LIGHTING	
				LUMENWERX	
LS1	1" WIDE SURFACE MOUNTED LED LINEAR LIGHT FIXTURE WITH WHITE LENS AND CORNER MOUNT CHANNEL. LENGTH AS SHOWN ON DRAWINGS.	LED 500 LM / FT 0-10V DIMMING 4000 K	277 V 5 W	QTRAN	ARKA-LL1SW-5.0-35-DRY-STD-DF-1S-BW-CLS-WH-CL2-SST-ST-XX' DRIVER
				OMNI LIGHT	GEN2-35-HO-XX OCH-006-XX-OM-APO-XX-E-24
				KELVIX	006 I "" DK 35K WHR CP SV ULV
				XICO	CHAC2-F-WH/RB-90-SWS220-5.0-35-1-F1-"FT 0-10V DIMMING
LS2	5" W x 4' L SURFACE MOUNTED LED LINEAR LIGHT FIXTURE WITH WRAP AROUND LENS.	LED 4000 LM 0-10V DIMMING 4000 K	277 V 40 W	KENALL	MLHA5
				LUMINAIRE	VPF4L LSL "FT MSL4 MIN10 50W 40K MVOLT OP WHT
				HE WILLIAMS	AVX-4-L62/840-CPC-(LS0)-DIM-UNV
				BEGHELLI	BS100LED-4HT-VLO-WT40-120-277V
LS3	1" WIDE CORNER MOUNTED EXTERIOR LED LINEAR LIGHT FIXTURE WITH WHITE LENS.	LED 400 LM / FT 0-10V DIMMING 4000 K	277 V 4 W	Q-TRAN	SW24/3.0-WET-40-BW-CLS-WH-CL2-XX' ARKA-SCBA-SST-DF-NI-XX'
				OMNILIGHT	GEN2WL-41-SO-? OCH-005-?-FR-AL-APO-?-E-24
				ACOLYTE LED	CHAC2-W-SCBA-RB-0-SWS265-3.0-40 / DRIVER
LS4	1" WIDE LED LINEAR SURFACE MOUNTED LIGHT FIXTURE WITH WHITE LENS. LENGTH AS SHOWN ON THE DRAWINGS.	LED 750 LM / FT 0-10V DIMMING 4000 K	277 V 6 W / FT	QTRAN	SW-HE24/6.0-DRY-40-BW-BW-WH-BL2-XX' WIDE-ST-SST-DF-NI-XX' QZ DRIVER
				OMNI LIGHT	GEN2-35-SHO-XX OCH-SCS-XX-OM-AL-APO-XX-E-24
				SCOUT	SS-SLR SQM M 35 W "" 1 E N 48 " ""
				XICO	NSQ95-S-"FT-MWH-E1-OFL-S80-35-DLAM-75-UNV FD01-NN-RLDB-NN-SC1- FACTORY MITERED CORNER
LS5	2" WIDE SURFACE MOUNTED LED LINEAR LIGHT FIXTURE WITH WHITE LENS. FIELD MITERED.	LED 800 LM / FT 0-10V DIMMING 4000 K	277 V 8 W		
LW1	4' WALL MOUNTED LED GASKETED LINEAR LIGHT FIXTURE WITH 2" x 2" PROFILE & WHITE LENS. DIRECT DISTRIBUTION ONLY	LED 1250 LM / FT NON-DIMMING 4000 K	277 V 13 W / FT	CORELITE	SQW-F-0U-100D-835-1-D-UNV-STD-SCBA-WM-XX
				BARTCO	BSS214 "" 40 D H WD SN SCBA
				AXIS LIGHTING	B2SQWDLED-1000-80-40-SO-4-STANDARD FINISH-UNV-DP-1
				STARTEK	SLIMD-4-1000-SD-40K-80-PW-AWM-U-1C
P1	DECORATIVE LED PENDANT MOUNTED LIGHT FIXTURE. 3" W x 12" H	LED 1500 LM NON-DIMMING 4000 K	277 V 15 W	OXYGEN	3-653-XXX-4000K
				EUREKA	4233-XB LED 40 277V DV C 36 RC SCBA SCBA WH
				LINDSLEY	LRD.PN.06.40.10.XX.H12.XX.XX.0-10V
				CONTECH	OFG101
P2	VERTICALLY MOUNTED 4' LONG PENDANT MOUNTED LIGHT FIXTURE WITH 3 LIGHT BARS AND WHITE LENSES.	LED 400 LM / FT 0-10V DIMMING 4000 K	277 V 8 W / FT	ECOSENSE	Y3-CVS-4'-35K-VLO-UNV-10D-SCBA-MF-44-PSS-8
SC1	LED RGBW WALL MOUNTED CYLINDER WITH 20-DEGREE BEAM. DIRECT DISTRIBUTION ONLY.	LED 200 LM OF WHITE DMX RGBW	277 V 20 W		
SC3	4' HIGH BY 4" WIDE BACKLIT LED EXTERIOR WALL SCONCE.	LED 1000 LM NON-DIMMING 4000 K	277 V 8 W		
SL1	LED STRIP LIGHT FIXTURE WITH WHITE LENS. LENGTH AS SHOWN ON THE DRAWINGS.	LED 1250 LM / FT NON-DIMMING 4000 K	277 V 12 W / FT	METALUX	4SNX-48SL-LW-UNV-L840-CD1-U AYC-CHAIN/SET-U
				LITHONIA	CLX L48 4000LM SEF RDL MVOLT GZ10 40K 80CRI WH
				HE WILLIAMS	6CR-TL-L40/840-STANDARD FINISH-DIM-UNV-OW-CS-CM24-S2458/W
				COLUMBIA	CSL4-LSCS
TR1	2'X4' DECORATIVE LED TROFFER. 1" WIDE LENS AROUND THE PERIMETER OF THE GRID TILE.	LED 4800 LM 0-10V DIMMING 4000 K	277V 48 W	LUXRITE	LR24187-3500K
				LOUVERS LED	LI-GRD-24-CCT
				LITHONIA	LFRM 2X4 AL08 SWW7 MVOLT M6
				GREEN IMAGE	GN-SFL-24-45-A-35
TR2	2'X2' DECORATIVE LED TROFFER. 1" WIDE LENS AROUND THE PERIMETER OF THE GRID TILE.	LED 3300 LM 0-10V DIMMING 3500 K	277V 33 W	LUXRITE	LR22187-3500K
				LOUVERS LED	LI-GRD-22-CCT
				LITHONIA	LFRM 2X2 AL08 SWW7 MVOLT M6
				GREEN IMAGE	GN-SFL-22-45-A-35
TR3	2'X2' LED FLAT PANEL WITH SMOOTH WHITE LENS.	LED 3300 LM 0-10V DIMMING 3500 K	277V 33 W	METALUX	22CGTX-33-L835
				DAYBRITE	2FPZ33L835-4-DS-UNV-DIM
				LITHONIA	CPX 2X2 3300LM 80CRI 35K SWL MIN1 ZT MVOLT
				COLUMBIA	CBT22-A-LSCS-EDD-2PK
WP1	EXTERIOR WALL MOUNTED LED CYLINDER. 13-DEGREE BEAM UP, 60-DEGREE BEAM DOWN.	LED 1000 LM UP 4000 LM ON 0-10V DIMMING 5000 K	277 V 50 W		
WP2	18"W x 18"H x 4"D EXTERIOR LED WALL PACK WITH TYPE 4 DISTRIBUTION. CUSTOM COLOR TO MATCH BUILDING FINISHES.	LED 9,000 LM 0-10V DIMMING 4000 K	277V 56 W	PERFORMANCE IN LTG	M50-M-53-T3-CCBA-40K-UNV-0-10V
				GARDCO	GBM-A12-840-T4M-UNV-CC
				LITHONIA	WDGE3 LED P3 40K 70CRI R4 MVOLT SRM CCBA
				SOLERA	ACER-C-18-57W-LED-UNV-4000K-DM-D-WM-TYPE IV-COLOR MINITEX BLK
X1	SINGLE SIDED LED DIE-CAST EXIT SIGN WITH GREEN LETTERS. AC ONLY.	LED	277 V 5W	ABB INSTALLATION PRODUCTS	PAG6
				ISOLITE	EDC AC G U SCBA SCBA MTEBP
				MULE	MD-A-1-G-BA
				COMPASS	CCESG
X2	LED DIE CAST DOUBLE SIDED EXIT SIGN. WHITE WITH GREEN LETTERS. AC ONLY.	LED	277 V 5W	EVENLITE	CCDS-AC-G-2-SCBA-XX
				LITHONIA	LQCW2G
X3	LED DIE CAST EXIT SIGN WITH WIRE GUARD. WHITE WITH GREEN LETTERS. AC ONLY.	LED	277 V 5W	EVENLITE	CCDS-AC-G-1-SCBA-XX-M990010
				LITHONIA	LQC W 1 G / ELAWG1
X4	LED DIE CAST DOUBLE SIDED EXIT SIGN WITH GREEN LETTERS. END MOUNTED. AC ONLY.	LED	277 V 5W	EVENLITE	SOV-AC-G-2M-SCBA-UC
				LITHONIA	EDG 2 GMR

LIGHT FIXTURE GENERAL NOTES

1. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPANCIES OF LOCATIONS AND QUANTITIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
2. CONFIRM MOUNTING HEIGHTS AND LOCATIONS OF ALL LIGHT FIXTURES WITH ARCHITECTURAL ELEVATIONS AND / OR ARCHITECT.
3. REFER TO THE SPECIFICATIONS FOR OTHER LIGHT FIXTURE REQUIREMENTS.
4. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL LIGHT FIXTURES AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO RELEASE.
5. ALL INTERIOR LIGHT FIXTURES ARE TO BE 3500 K AND ALL EXTERIOR LIGHT FIXTURES ARE TO BE 4000 K, UNLESS OTHERWISE NOTED IN THE FIXTURE DESCRIPTION.
6. ALL LIGHT FIXTURES ARE TO BE A MINIMUM OF 80 CRI UNLESS OTHERWISE NOTED IN THE FIXTURE DESCRIPTION.
7. ALL LED SOURCES MUST MEET L80 AT 50,000 HRS MINIMUM UNLESS OTHERWISE NOTED.
8. CONFIRM ALL MOUNTING REQUIREMENTS WITH ARCHITECT PRIOR TO RELEASE.
9. ALL LIGHT FIXTURES ARE TO HAVE AN EFFICACY OF 80 LUMENS PER WATT MINIMUM.

BIDDING REQUIREMENTS

1. BID ONLY PRODUCTS THAT ARE SPECIFIED OR APPROVED BY ADDENDUM.
2. PACKAGING OF LIGHT FIXTURES WITH OTHER SYSTEMS IS NOT ALLOWED AND MUST BE BID SEPARATELY. I.E. LIGHT FIXTURES, THEATRICAL LIGHTING, SPORTS LIGHTING AND ALL LIGHTING CONTROLS.
3. WHEN ONLY ONE PRODUCT IS APPROVED FOR BIDDING, THE PRICE FOR THAT ITEM SHALL BE BROKEN OUT SEPARATELY WHEN SUBMITTING PRICING TO VARIOUS DISTRIBUTORS AND / OR CONTRACTOR.
4. WHEN A CONTRADICTION EXISTS BETWEEN A SPECIFIC MODEL NUMBER AND THE DESCRIPTION, THE DESCRIPTION SHALL GOVERN.

LIGHT FIXTURE PRIOR APPROVAL REQUIREMENTS

1. PRIOR APPROVAL IS REQUIRED BEFORE BIDDING THIS PROJECT.
2. PRIOR APPROVALS SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER'S OFFICE AT LEAST (8) WORKING DAYS BEFORE BID TIME. PRIOR APPROVALS RECEIVED AFTER THIS TIME PERIOD SHALL BE REJECTED.
3. ITEMS THAT ARE SUBMITTED AND HAVE BEEN APPROVED WILL BE LISTED IN THE ADDENDUM(S). VERBAL APPROVALS WILL NOT BE GIVEN ON ANY ITEM.
4. IT IS NOT THE RESPONSIBILITY OF THE ELECTRICAL ENGINEER TO NOTIFY THE SUBMITTING PARTY OF ERRORS IN THE SUBMITTAL. NOTIFICATION OF ERRORS BY THE ELECTRICAL ENGINEER PRIOR TO ISSUANCE OF THE ADDENDUM(S) MAY NOT BE GIVEN.
5. PRIOR APPROVALS SHALL CONSIST OF CUT SHEETS DESCRIBING THE PRODUCTS BEING SUBMITTED AS EQUIVALENTS. ALL SPECIFICATION INFORMATION SHALL BE CLEARLY MARKED. PRODUCTS WITHOUT PHOTOMETRIC DATA WILL NOT BE APPROVED.
6. LIGHTING PACKAGES WILL BE REVIEWED FOR GENERAL PROJECT COMPLIANCE ONLY. AN IN-DEPTH REVIEW OF ANY ALTERNATE FIXTURES WILL BE DONE DURING THE SUBMITTAL REVIEW PROCESS. ANY FIXTURES THAT ARE NOT TRULY EQUAL, AND / OR DO NOT COMPLY WITH ALL OF THE REQUIREMENTS CONTAINED IN THE CONTRACT DOCUMENTS, WILL NOT BE APPROVED.

LIGHTING CONTROL PANEL SCHEDULE

PANEL NAME: LCP1
LOCATION: ELEC A120
TRANSFORMER VOLTAGE: 277
MOUNTING: SURFACE
NEMA TYPE: NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1HA1-2	SITE POLE LIGHTING	1	SWITCHED	
2	1HA1-24	MONUMENT SIGN LTG	1	SWITCHED	
3		SPARE	1	SWITCHED	
4		SPARE	1	SWITCHED	
5	1EHA1-2	EM LTG BUILDING EXTERIOR	1	SWITCHED	
6		SPARE	1	SWITCHED	
7		SPARE	1	SWITCHED	
8		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (9:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

LIGHTING CONTROL PANEL SCHEDULE

PANEL NAME: LCP2
LOCATION: MAIN ELECTRICAL D138
TRANSFORMER VOLTAGE: 277
MOUNTING: SURFACE
NEMA TYPE: NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1HD1-11	BUILDING EXTERIOR LIGHTING	1	SWITCHED	
2	1HD1-4	MAIN ENTRY SIGNAGE LIGHTING	1	SWITCHED	
3		SPARE	1	SWITCHED	
4		SPARE	1	SWITCHED	
5	1EHD1-3	EM LTG BUILDING EXTERIOR	1	SWITCHED	
6	1EHD1-7	EM LTG CORRIDOR D106	1	SWITCHED	
7		SPARE	1	SWITCHED	
8		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (9:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

LIGHTING CONTROL PANEL SCHEDULE

PANEL NAME: LCP3
LOCATION: ELEC D118
TRANSFORMER VOLTAGE: 277
MOUNTING: SURFACE
NEMA TYPE: NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1	1HD2-13	AUXILLARY GYM LTG ZONE 'a'	1	SWITCHED	
2	1HD2-13	AUXILLARY GYM LTG ZONE 'c'	1	SWITCHED	
3	1HD2-13	AUXILLARY GYM LTG ZONE 'd'	1	SWITCHED	
4	1HD2-13	AUXILLARY GYM LTG ZONE 'f'	1	SWITCHED	
5	1HD2-13	AUXILLARY GYM LTG ZONE 'g'	1	SWITCHED	
6	1HD2-15	GYM LTG ZONE 'a'	1	SWITCHED	
7	1HD2-15	GYM LTG ZONE 'c'	1	SWITCHED	
8	1HD2-7	GYM LTG ZONE 'e'	1	SWITCHED	
9	1HD2-7	GYM LTG ZONE 'f'	1	SWITCHED	
10	1HD2-17	SITE POLE LIGHTS	1	SWITCHED	
11	1HD2-19	BOLLARD LIGHTS (NIBLEY ONLY)	1	SWITCHED	
12		SPARE	1		
13	1EHD2-1	EM LTG BUILDING EXTERIOR	1	SWITCHED	
14	1EHD2-3	EM LTG AUX. GYM ZONE 'b'	1	SWITCHED	
15	1EHD2-3	EM LTG AUX. GYM ZONE 'e'	1	SWITCHED	
16	1EHD2-3	EM LTG AUX. GYM ZONE 'h'	1	SWITCHED	
17	1EHD2-3	EM LTG GYM ZONE 'b'	1	SWITCHED	
18	1EHD2-3	EM LTG GYM ZONE 'd'	1	SWITCHED	
19	1EHD2-3	EM LTG GYM ZONE 'g'	1	SWITCHED	
20		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (9:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

LIGHTING CONTROL PANEL SCHEDULE

PANEL NAME: LCP4
LOCATION: ELEC D118
TRANSFORMER VOLTAGE: 277
MOUNTING: SURFACE
NEMA TYPE: NEMA 1

RELAY NO.	CIRCUIT BREAKER	LOAD CONTROLLED	POLES	METHOD OF CONTROL	PROGRAMMING REQUIREMENTS
1		SPARE	1	SWITCHED	
2		SPARE	1	SWITCHED	
3		SPARE	1	SWITCHED	
4		SPARE	1	SWITCHED	
5		SPARE	1	SWITCHED	
6		SPARE	1	SWITCHED	
7		SPARE	1	SWITCHED	
8		SPARE	1		
9		SPARE	1	SWITCHED	
10		SPARE	1	SWITCHED	
11		SPARE	1	SWITCHED	
12		SPARE	1		
13		SPARE	1	SWITCHED	
14		SPARE	1	SWITCHED	
15		SPARE	1		

PROGRAMMING REQUIREMENTS

A	TIME ON (6:00 AM) - TIME OFF (7:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH
B	TIME ON (5:00 AM) - TIME OFF (10:00 PM)
C	MANUAL ON - TIME OFF (5:30 PM)
D	MANUAL ON - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
E	TIME ON (7:30 AM) - MANUAL OFF - SWEEP OFF AT END OF DAY (5:30 PM)
F	PHOTO CELL ON - PHOTO CELL OFF
G	PHOTO CELL ON - TIMED OFF (9:00 PM), 2 HOUR OVERRIDE AT LOW VOLTAGE SWITCH

NOTES: COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT START AND END TIMES PRIOR TO THE FINAL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM.

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3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

LIGHT FIXTURE SCHEDULE

E-161

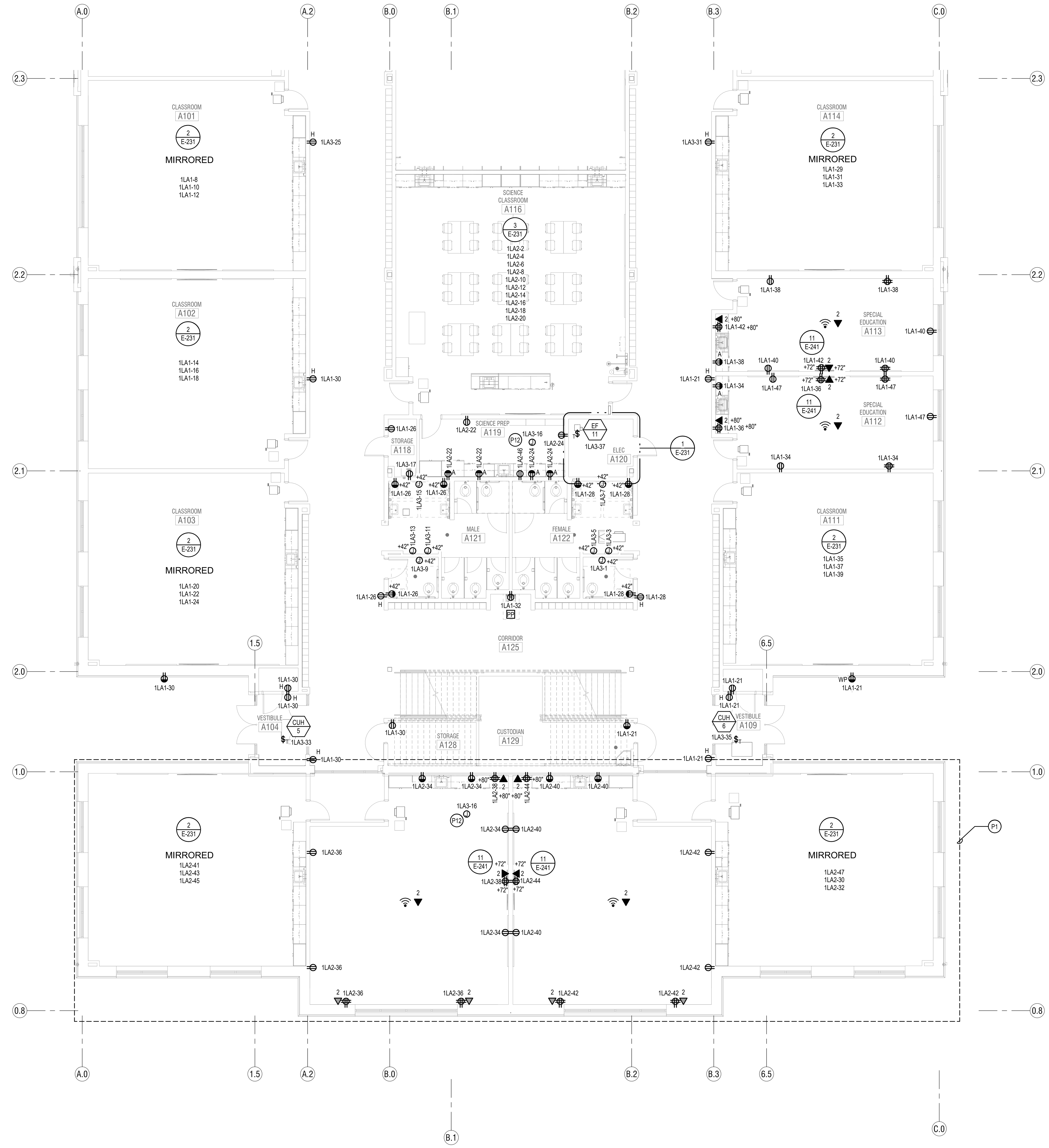
POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

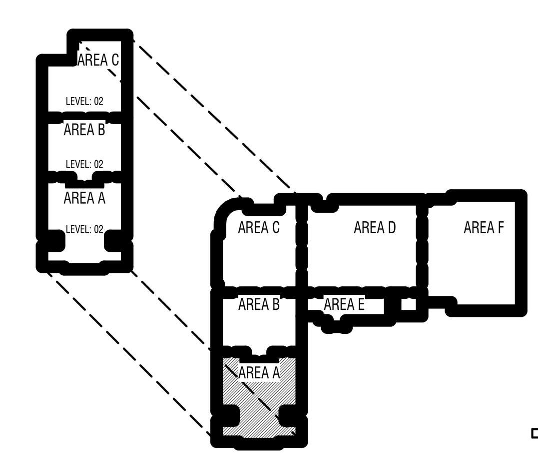
P1 UNDER THE BASE BID, INCLUDE ALL WORK IN THIS AREA AS SHOWN ON THE PLANS. UNDER ALTERNATE #1, THIS AREA WILL BE REMOVED FROM THE PROJECT. PROVIDE A SEPARATE COST TO BE ISSUED AS A CREDIT FOR ALL WORK IN THIS AREA AS SHOWN ON THE PLANS.

P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.



1 LEVEL 1 FLOOR PLAN - AREA A - POWER
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DESCRIPTION:	DATE:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. OWEN No. 177411 05-01-2024 STATE OF UTAH

LEVEL 1 - AREA A - POWER

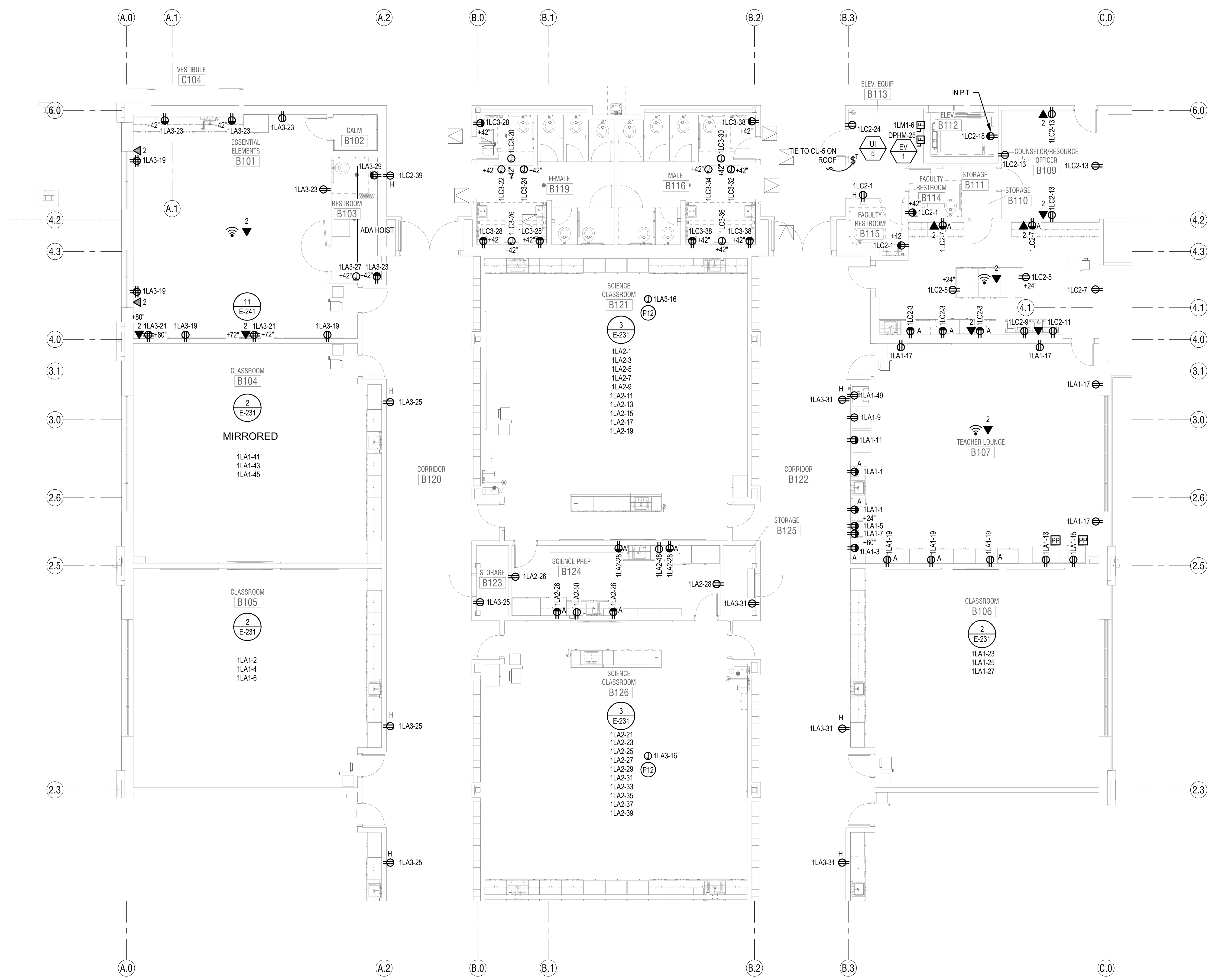
E-211

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

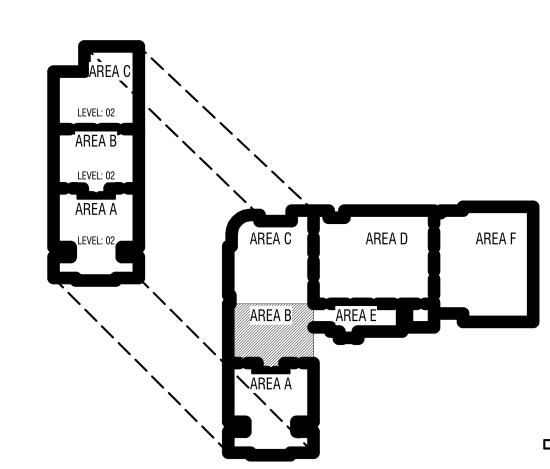
KEYED NOTES

P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.



1 LEVEL 1 FLOOR PLAN - AREA B - POWER
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

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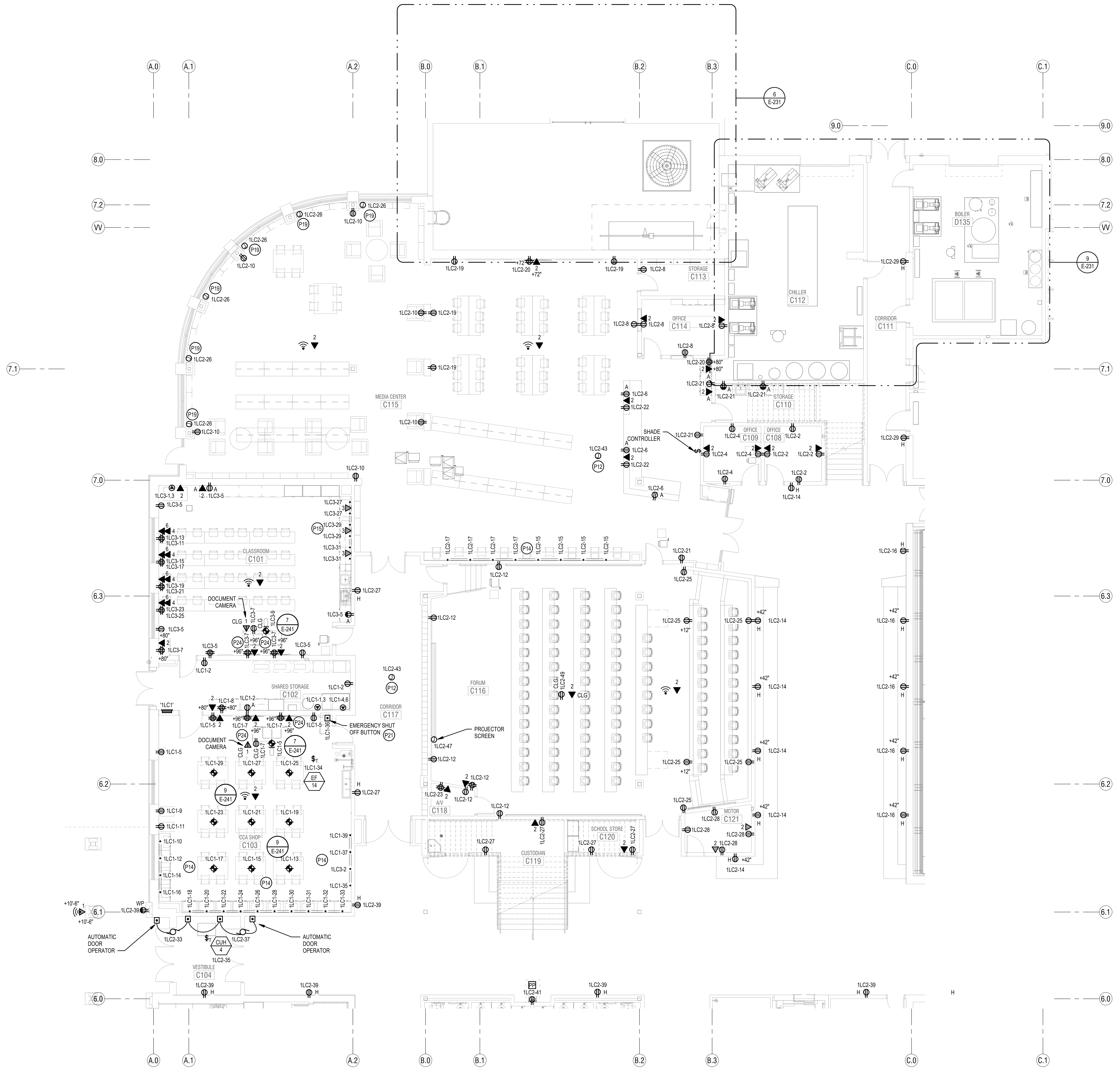
REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA B - POWER

E-212



1 LEVEL 1 FLOOR PLAN - AREA C - POWER
SCALE: 1/8" = 1'-0"

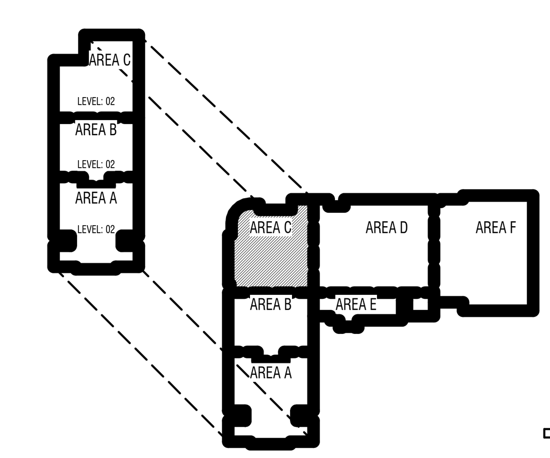
POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

P12	POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
P14	WIREMOLD.
P15	2-CHANNEL WIREMOLD WITH DATA.
P19	TIE THE SHADE MOTOR TO THE CIRCUIT INDICATED THROUGH THE SHADE MOTOR SWITCH IN THE MAIN OFFICE AREA. REFER TO THE MANUFACTURER'S WIRING DIAGRAMS FOR ADDITIONAL INFORMATION. VERIFY THE LOCATION AND NUMBER OF CONTROLLERS AND SHADE MOTORS WITH THE SUPPLIER.
P21	MUSHROOM TYPE EMERGENCY SHUT OFF BUTTON WITH CLEAR PROTECTIVE COVER AND NORMALLY OPEN CONTACT. TIE TO SHUNT TRIP MAIN BREAKER IN PANEL 1LC1.
P24	ROVIDE A 25 KW INVERTER WITH 480V, 3Ø INPUT AND 480V, 3Ø OUTPUT TO POWER EMERGENCY LIGHTING PANELS.

KEY PLAN



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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

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CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA C - POWER

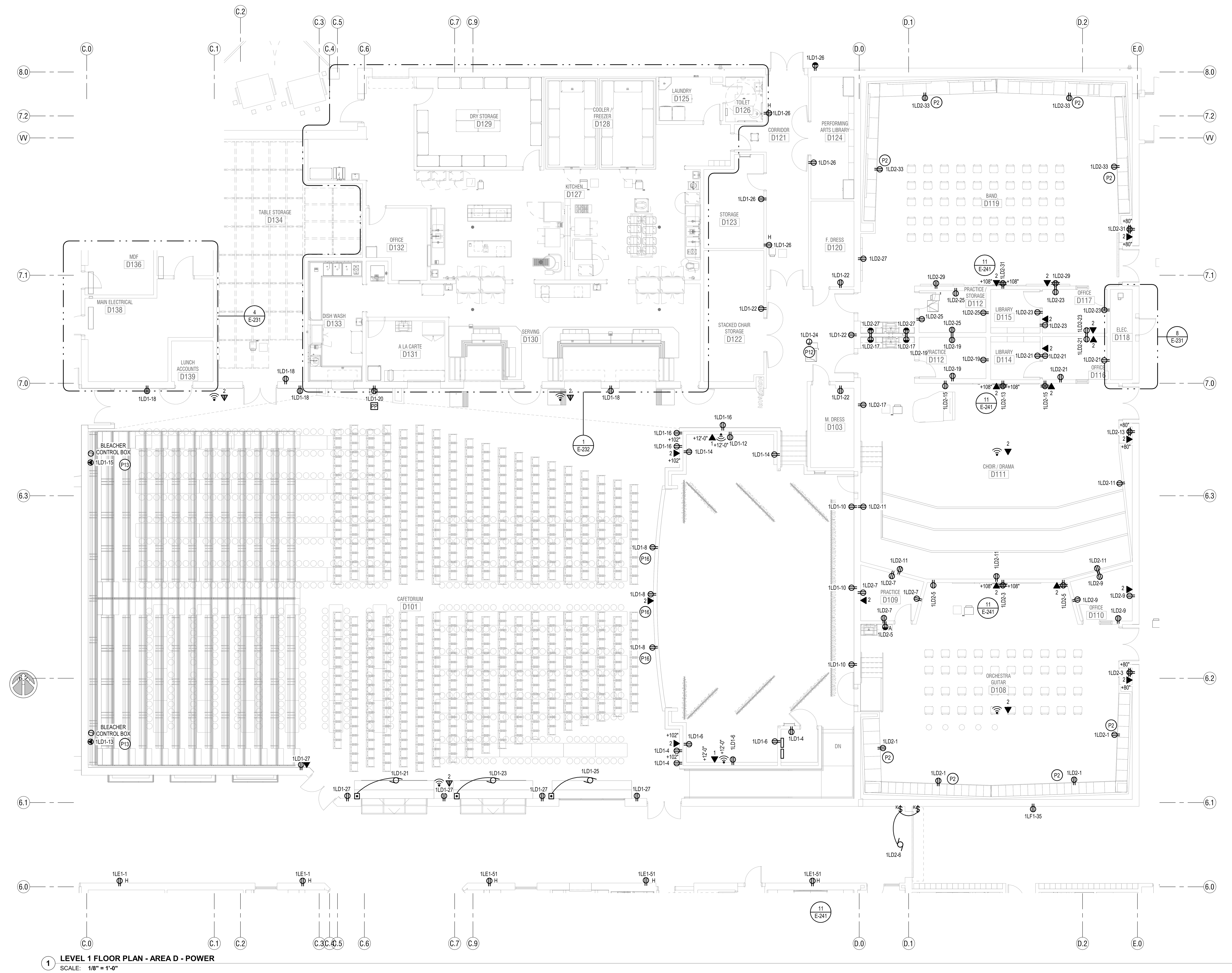
E-213

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

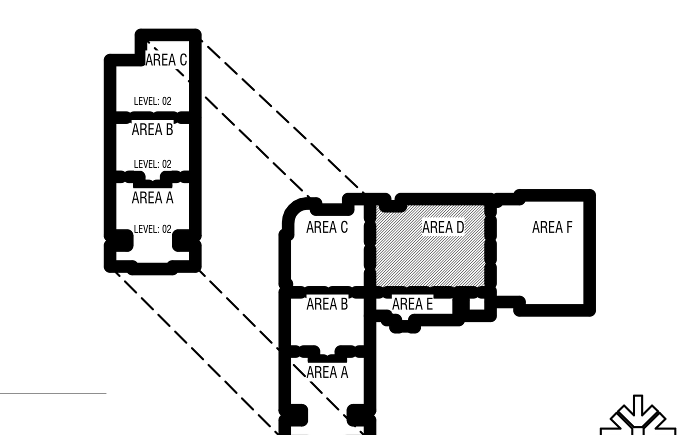
KEYED NOTES

P2	RECEPTACLE TO BE MOUNTED HORIZONTALLY IN KICK PLATE UNDER MILLWORK.
P12	POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
P13	BLEACHER CONROL BOX.
P16	MOUNT DEVICE IN FACE OF STEP.



1 LEVEL 1 FLOOR PLAN - AREA D - POWER
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
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MARK:	DATE:	DESCRIPTION:

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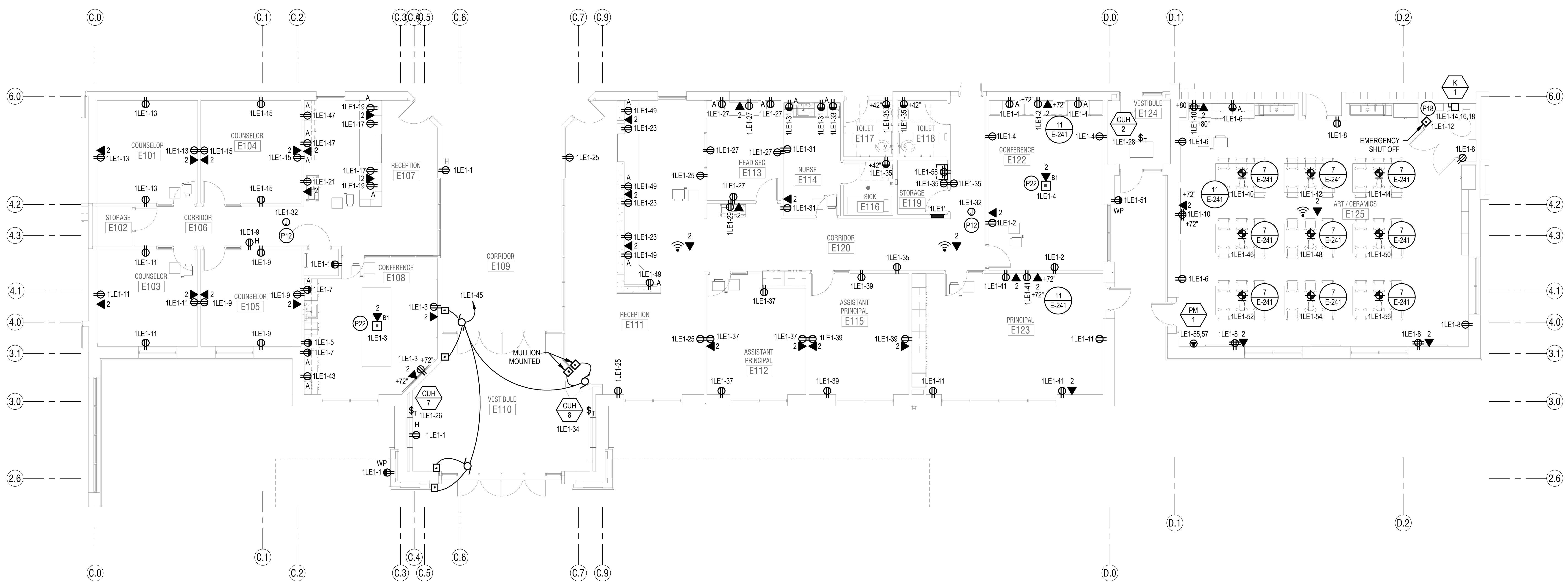
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA D - POWER

E-214



1 LEVEL 1 FLOOR PLAN - AREA E - POWER
SCALE: 1/8" = 1'-0"

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

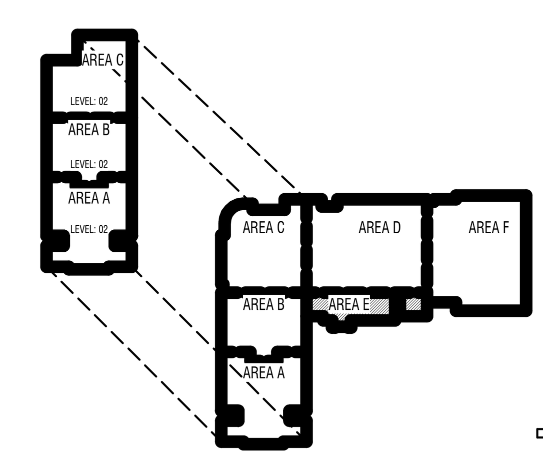
KEYED NOTES

P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.

P18 MUSHROOM TYPE EMERGENCY SHUT OFF BUTTON WITH CLEAR PROTECTIVE COVER AND NORMALLY OPEN CONTACT. TIE TO KILN SHUNT TRIP BREAKER.

P22 4 GANG CONCRETE FLOOR BOX. PROVIDE WITH A 4-PLEX OUTLET, 2 DATA PORTS AND A BLANK SPACE FOR A/V. HUBBELL CAT. #24GTCVR***/ CFB4G25*** OR APPROVED EQUAL. RUN 1-1/2" CONDUIT FROM BLANK SPACE UP NEAREST WALL AND INTO ACCESSIBLE CEILING SPACE.

KEY PLAN



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CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

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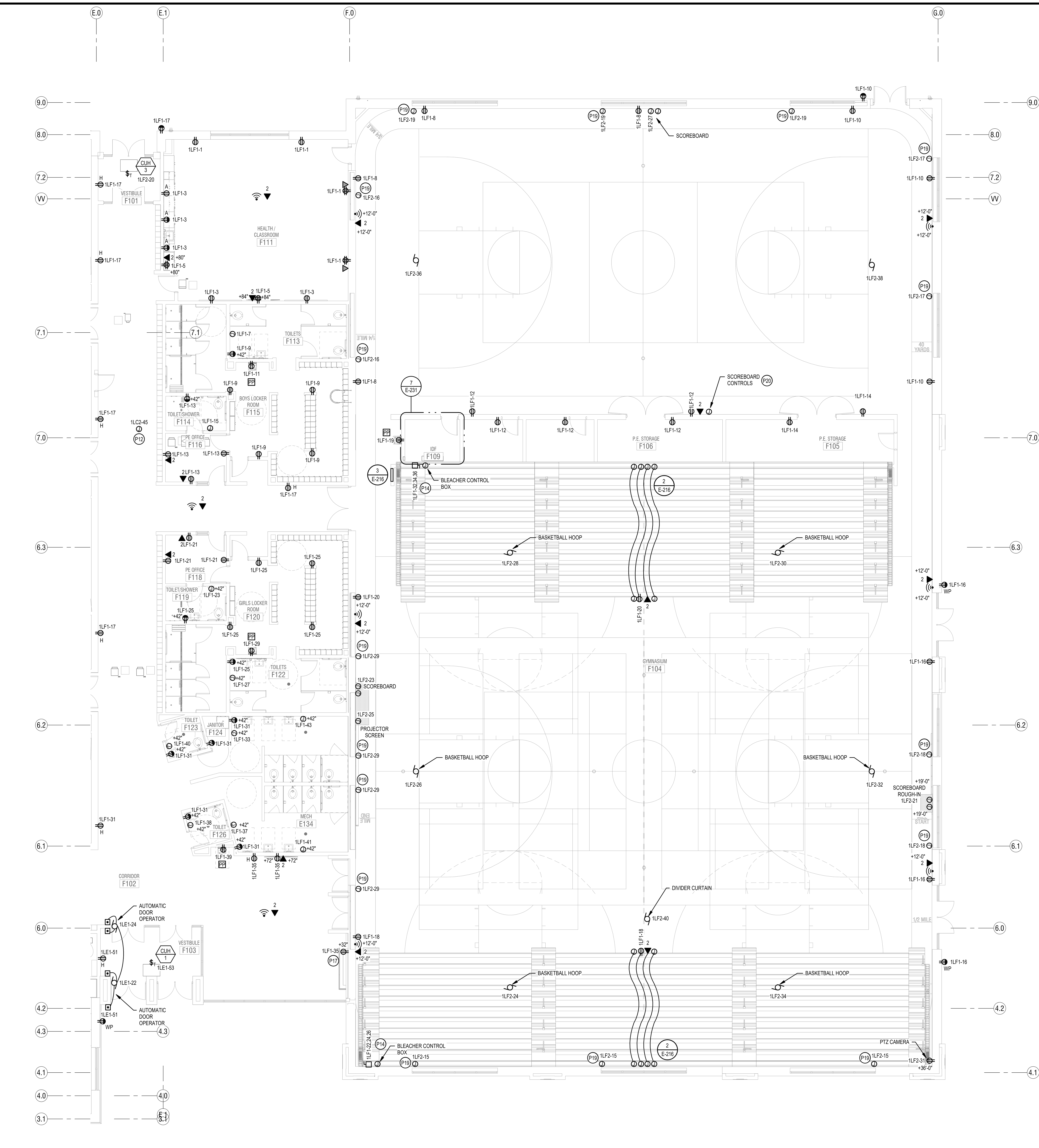
ISSUED:	04.26.2024

LEVEL 1 - AREA E - POWER

E-215



1 LEVEL 1 FLOOR PLAN - AREA F - POWER
SCALE: 1/8" = 1'-0"

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

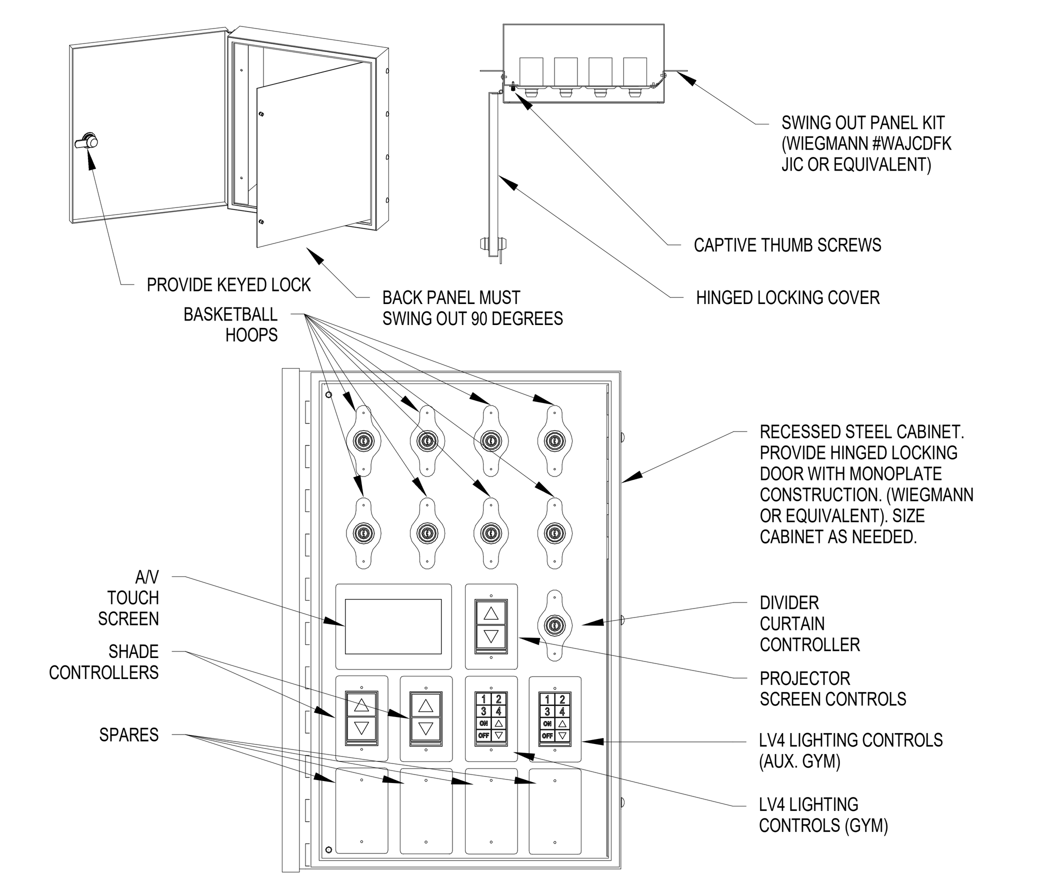
P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.

P14 WIREMOLD.

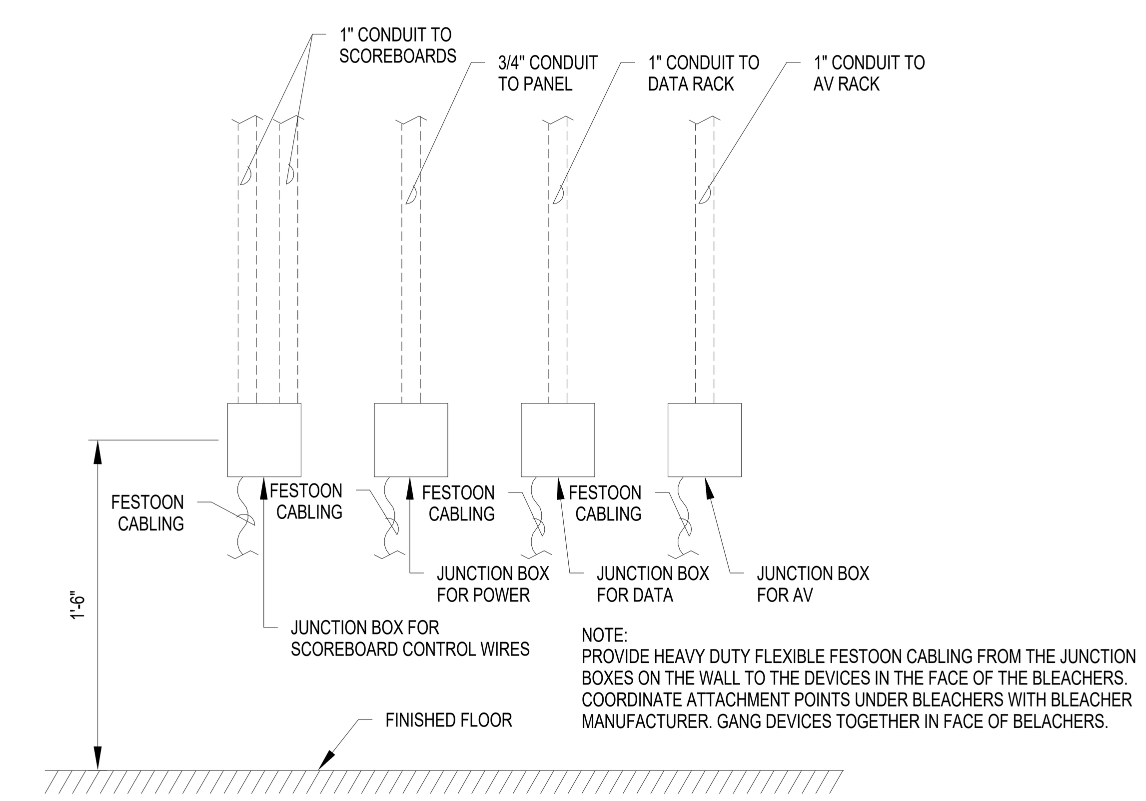
P17 MOUNT OUTLET HORIZONTALLY.

P19 TIE THE SHADE MOTOR TO THE CIRCUIT INDICATED THROUGH THE SHADE MOTOR SWITCH IN THE MAIN OFFICE AREA. REFER TO THE MANUFACTURER'S WIRING DIAGRAMS FOR ADDITIONAL INFORMATION. VERIFY THE LOCATION AND NUMBER OF CONTROLLERS AND SHADE MOTORS WITH THE SUPPLIER.

P20 RUN 1" CONDUIT FROM THE SCOREBOARD TO THE SCORE KEEPER LOCATION FOR HARDWIRED SCOREBOARDS CONTROLS.

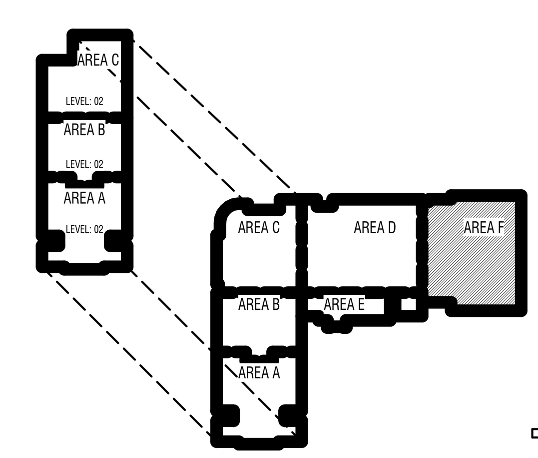


3 GYM CONTROL CABINET DETAIL
SCALE: NONE



2 BLEACHER WALL CONNECTION DETAIL
SCALE: NONE

KEY PLAN



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CONSTRUCTION DOCUMENTS

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255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:
MARK: DATE:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA F - POWER

E-216

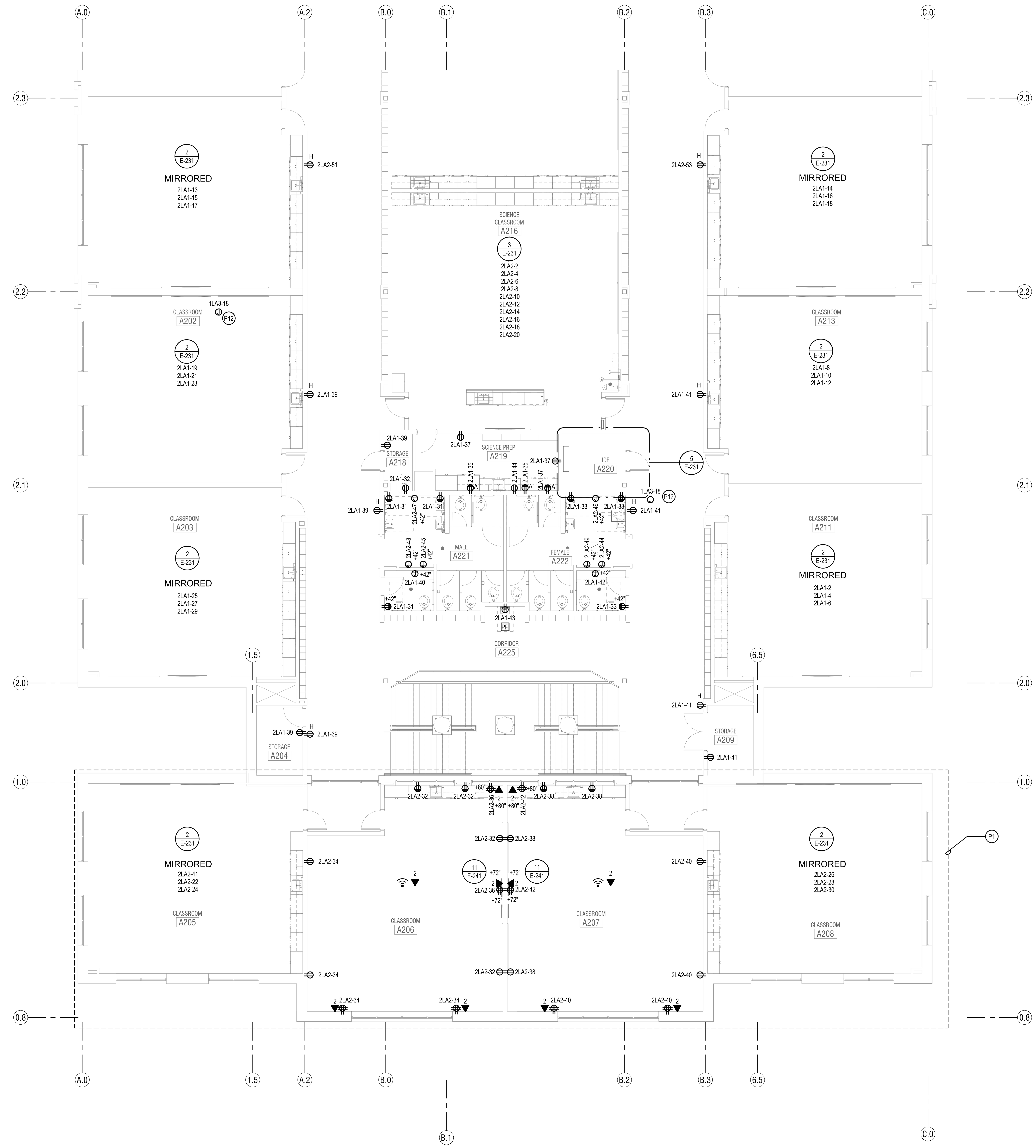
POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

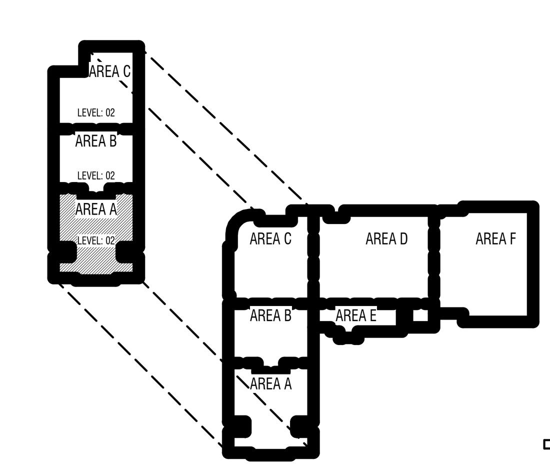
P1 UNDER THE BASE BID, INCLUDE ALL WORK IN THIS AREA AS SHOWN ON THE PLANS. UNDER ALTERNATE #1, THIS AREA WILL BE REMOVED FROM THE PROJECT. PROVIDE A SEPARATE COST TO BE ISSUED AS A CREDIT FOR ALL WORK IN THIS AREA AS SHOWN ON THE PLANS.

P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.



1 LEVEL 2 FLOOR PLAN - AREA A - POWER
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 2 - AREA A - POWER

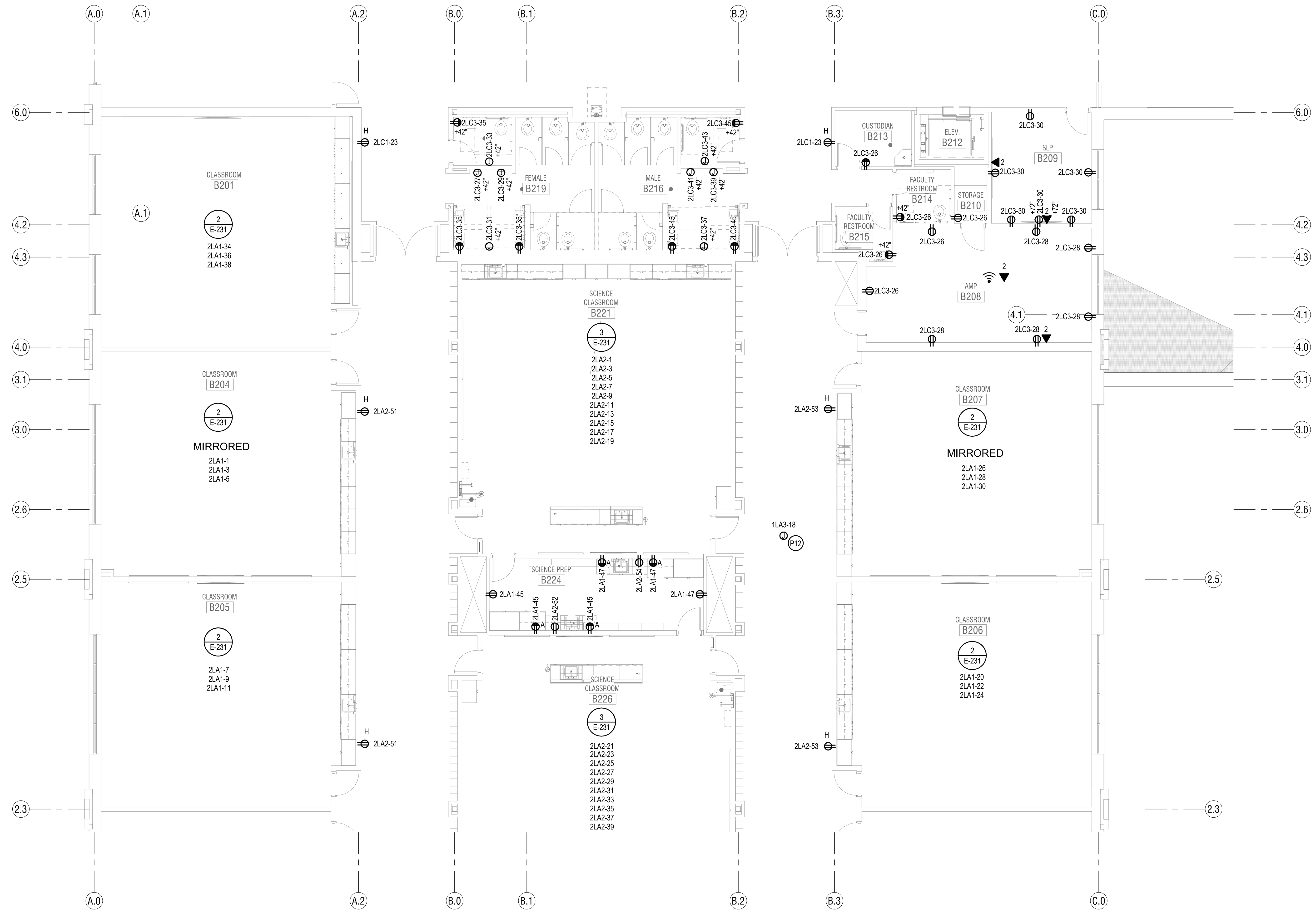
E-221

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

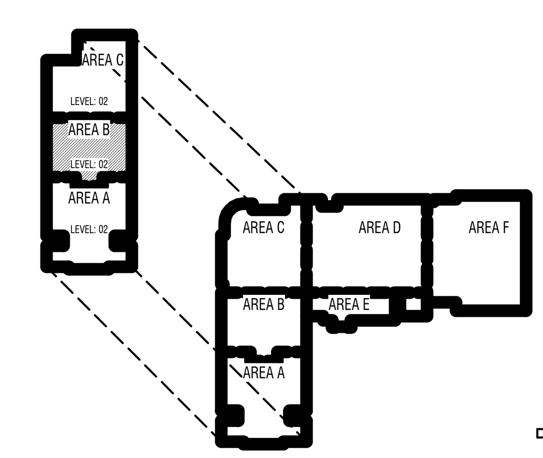
KEYED NOTES

P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.



1 LEVEL 2 FLOOR PLAN - AREA B - POWER
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST
795 NORTH 400 WEST
LOGAN UT 84321
SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

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PROJECT #:	123006
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ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. OWEN No. 177411 05-01-2024 STATE OF UTAH

LEVEL 2 - AREA B - POWER

E-222

POWER GENERAL NOTES:

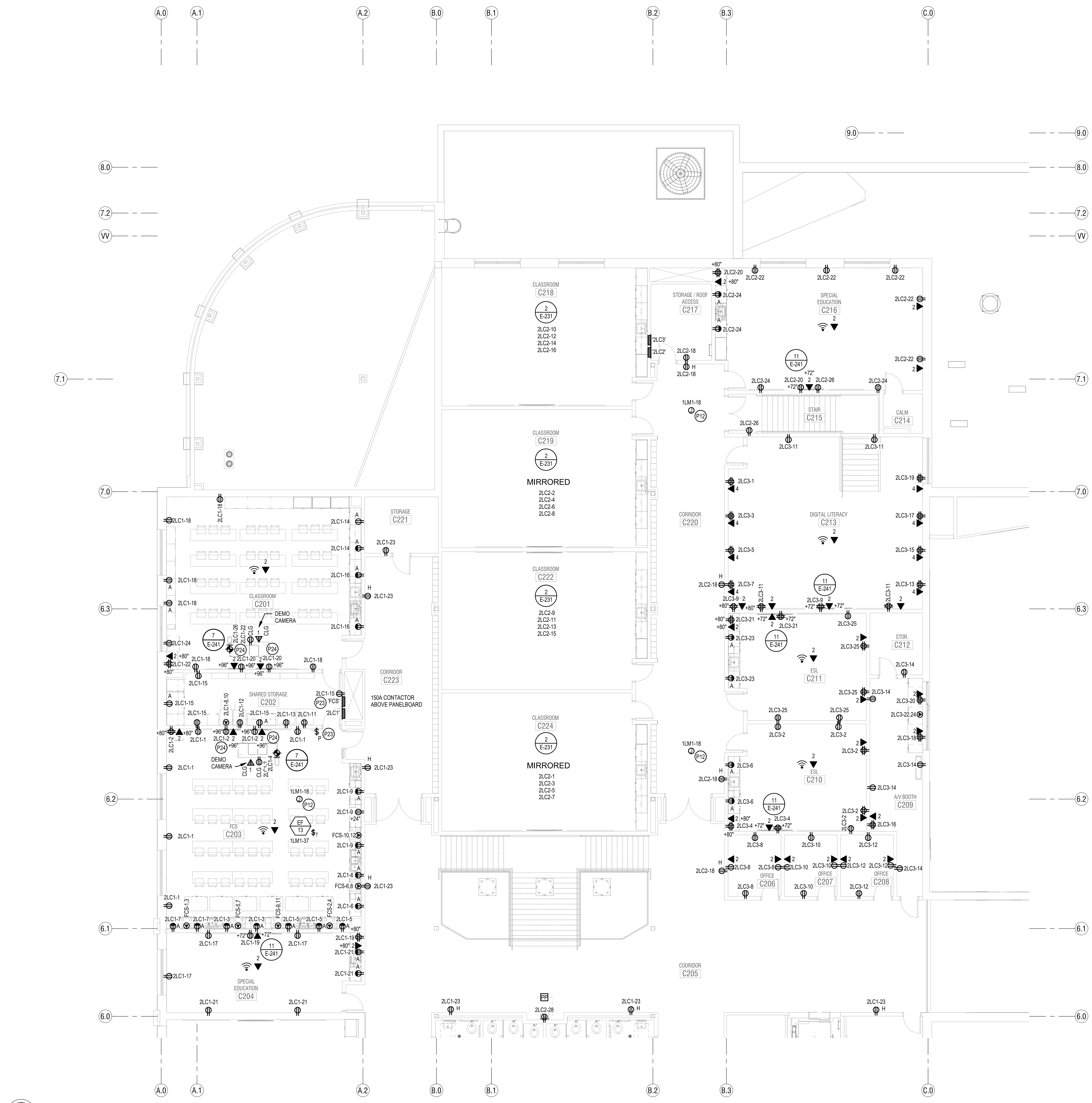
1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

P12 POWER FOR VAV BOX TRANSFORMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.

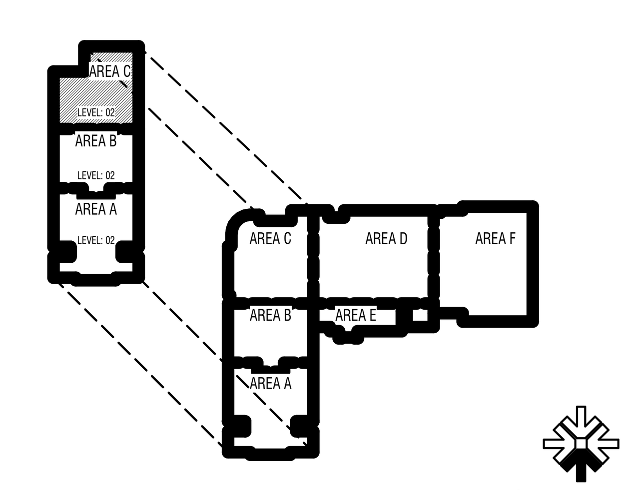
P23 RUN A 2" RGS CONDUIT THROUGH THE ROOF TO THE IDF/MDF BELOW IN THE APPROXIMATE LOCATION SHOWN FOR FUTURE WIRELESS ANTENNA LOCATION. CONDUIT IS TO EXTEND 5' ABOVE THE ROOF. PROVIDE A WEATHERHEAD ON THE END OF THE CONDUIT.

P24 ROVIDE A 25 KW INVERTER WITH 480V, 3Ø INPUT AND 480V, 3Ø OUTPUT TO POWER EMERGENCY LIGHTING PANELS.



1 LEVEL 2 FLOOR PLAN - AREA C - POWER
SCALE: 1/8" = 1'-0"

KEY PLAN



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CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

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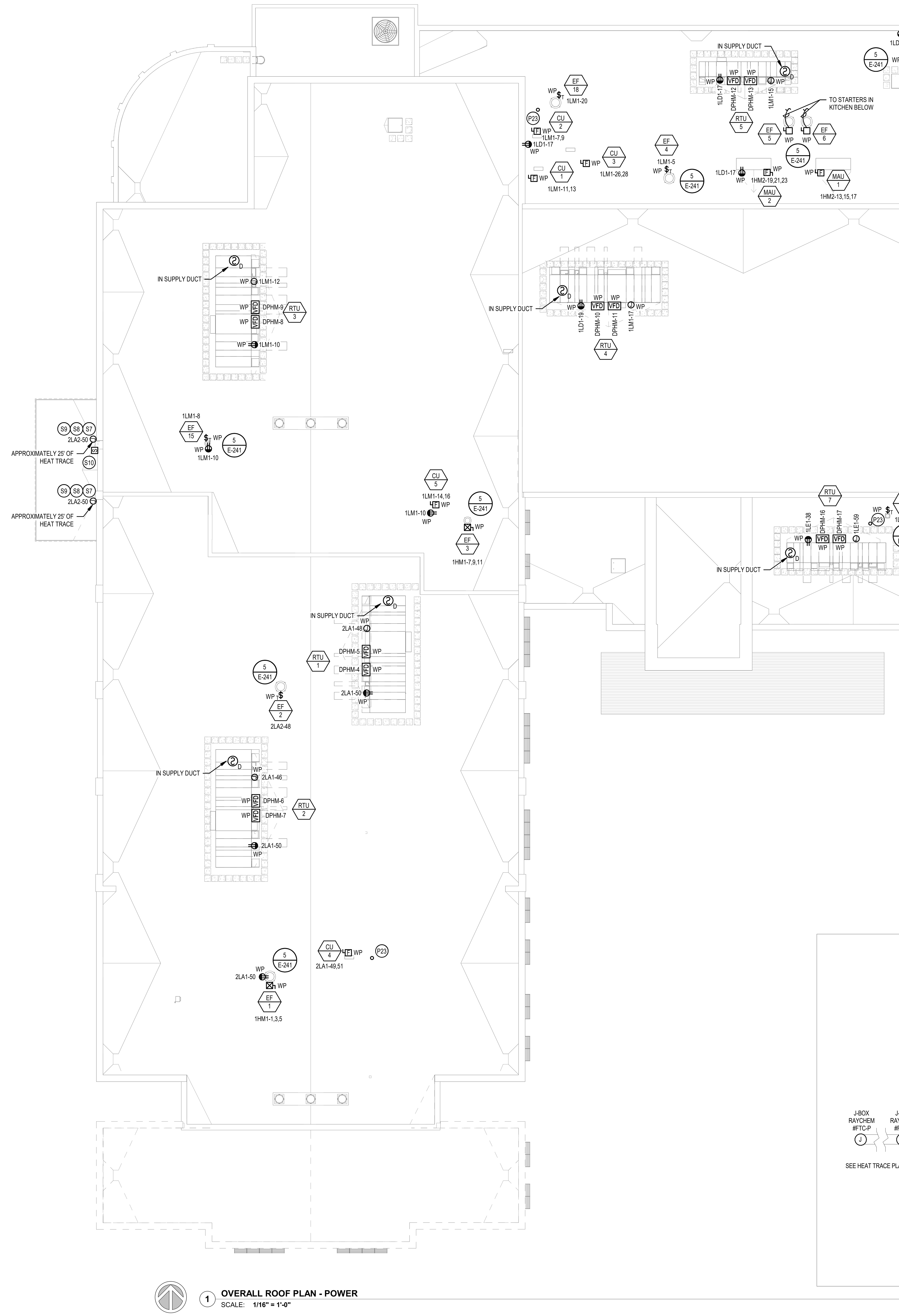
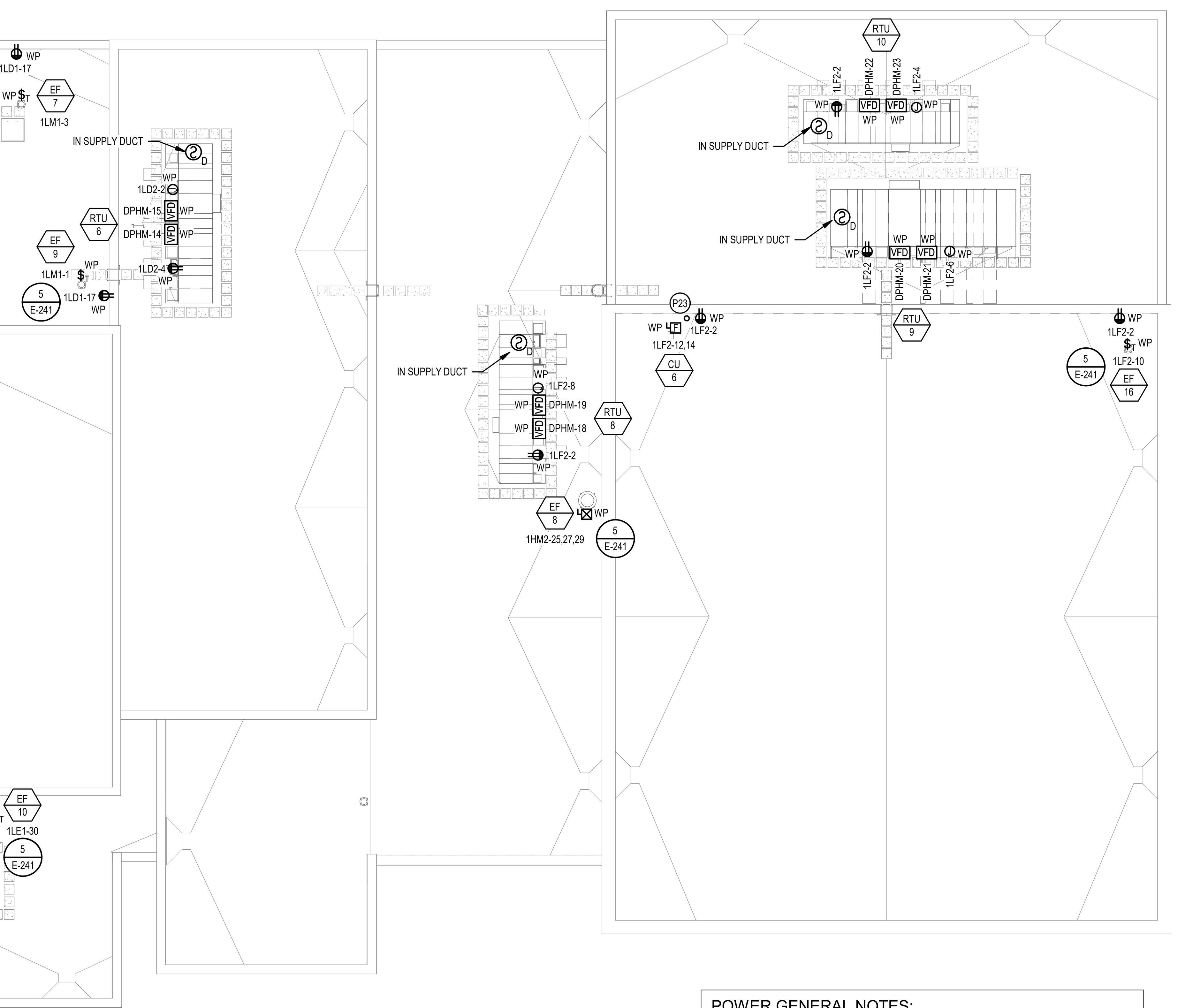
REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH 05-01-2024

LEVEL 2 - AREA C - POWER

E-223

1 **OVERALL ROOF PLAN - POWER**
SCALE: 1/16" = 1'-0"

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

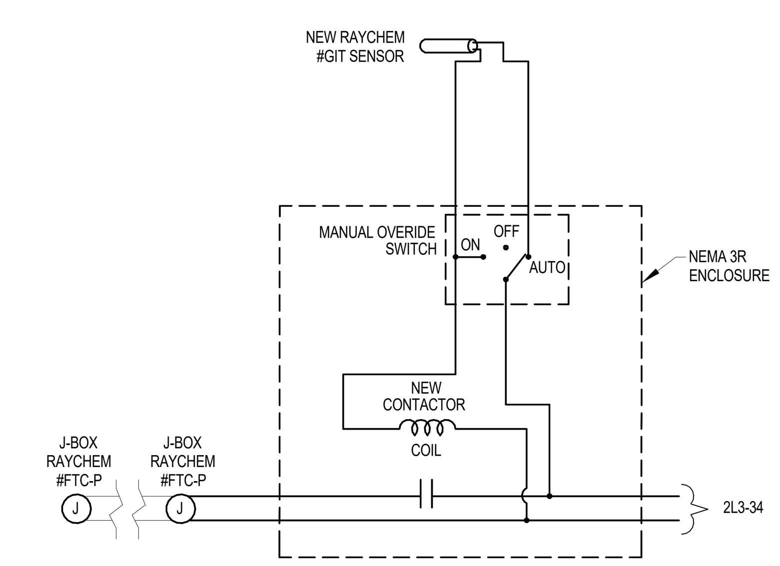
P23 RUN A 2" RGS CONDUIT THROUGH THE ROOF TO THE IDF/MDF BELOW IN THE APPROXIMATE LOCATION SHOWN FOR FUTURE WIRELESS ANTENNA LOCATION. CONDUIT IS TO EXTEND 5' ABOVE THE ROOF. PROVIDE A WEATHERHEAD ON THE END OF THE CONDUIT.

S7 INSTALL HEATING CABLE BOXES IN THE APPROXIMATE LOCATION SHOWN CONCEALED UNDER THE ROOF. COORDINATE WITH ARCHITECT FOR EXACT LOCATIONS.

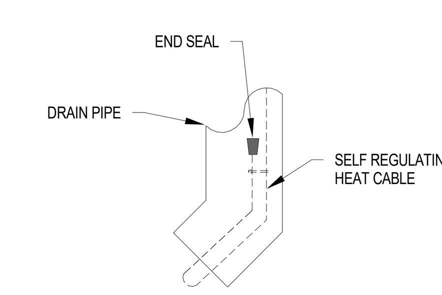
S8 TERMINATE THE HEATING CABLE IN AN FTC-P BOX WITH END SEAL. INSTALL THE BOX CONCEALED UNDER THE ROOF AND RUN THE HEATING CABLE TO THE ROOF. SEAL ALL CONDUIT PENETRATIONS. COORDINATE WITH ROOFING CONTRACTOR AND HEATING CABLE MANUFACTURER REPRESENTATIVE. UTILIZE (2)#10 THHN, (1) #10 THHN GROUND IN 3/4" CONDUIT. LOCATE AS SHOWN ON THE DRAWINGS.

S9 PROVIDE 120 VOLT RAYCHEM GM-1X 12W/FT (OR APPROVED EQUAL) SELF-REGULATING HEAT CABLE AS SHOWN WITH APPROPRIATE CLIPS END SEALS, POWER CONNECTION END SEALS, TEE KIT, ETC. FOR A COMPLETE INSTALLATION. ATTACH THE CABLE PER HEATING CABLE ELEVATIONS FOR PIPE LOCATIONS AND HEIGHTS. SEE DETAILS ON E-224 FOR MORE INFORMATION.

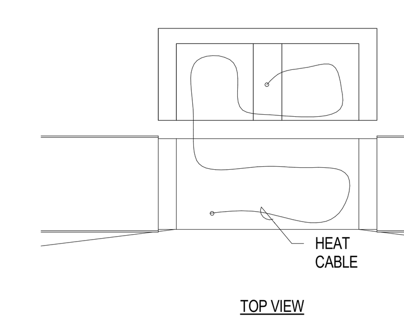
S10 PROVIDE A "LOW VOLTAGE" TEMPERATURE SENSOR AND SNOW SENSOR RAYCHEM #GIT-1 ON THE ROOF IN THE APPROXIMATE LOCATION SHOWN. PROVIDE CONDUIT AND CONDUCTORS FOR A COMPLETE INSTALLATION. COORDINATE WITH MANUFACTURER REPRESENTATIVE FOR TERMINATION POINTS. COORDINATE EXACT LOCATION WITH ARCHITECT AND MANUFACTURERS REPRESENTATIVE.



HEAT TRACE WIRING DIAGRAM



HEAT TRACE TERMINATION AT DOWNSPOUTS



HEAT TRACE AT ROOF DRAIN

9 **HEAT TRACE DETAIL**
SCALE: NONE

CONSTRUCTION DOCUMENTS

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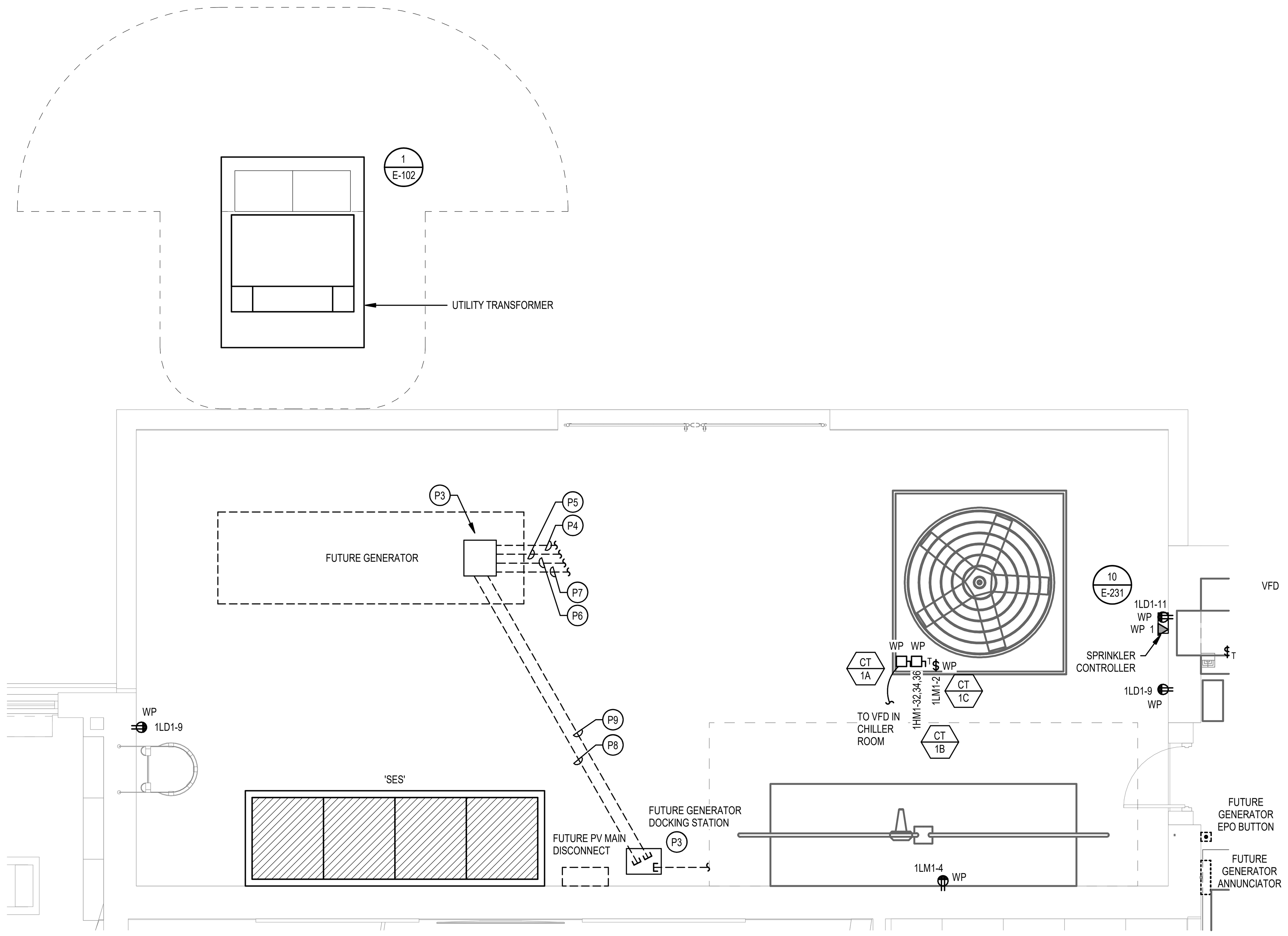
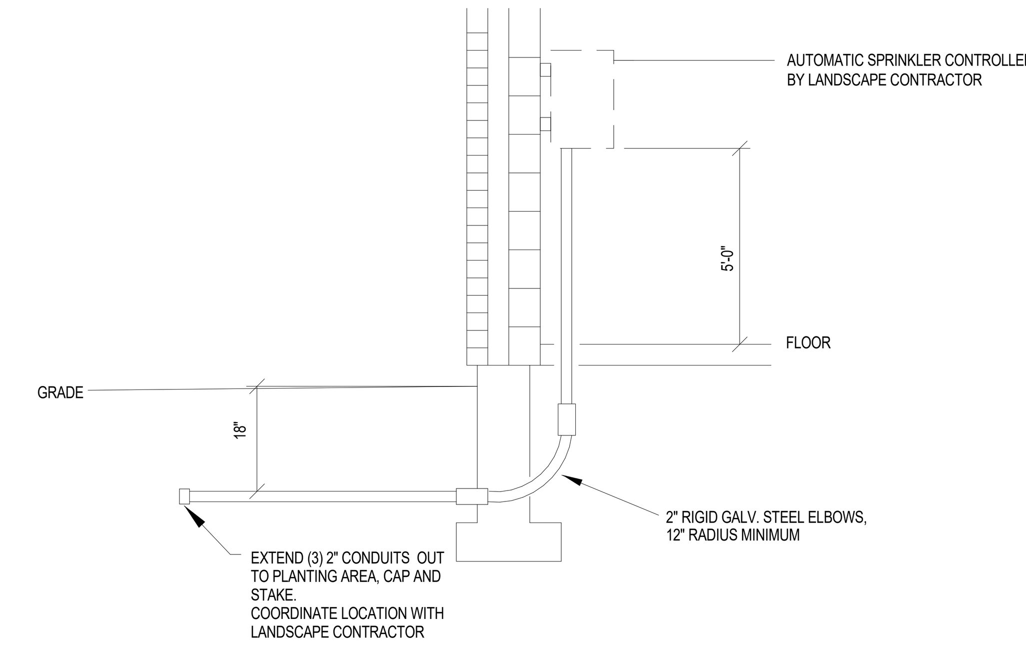
LEVEL 2 - ROOF PLAN - OVERALL - POWER

E-224



6 ENLARGED MECHANICAL YARD
SCALE: 1/4" = 1'-0"



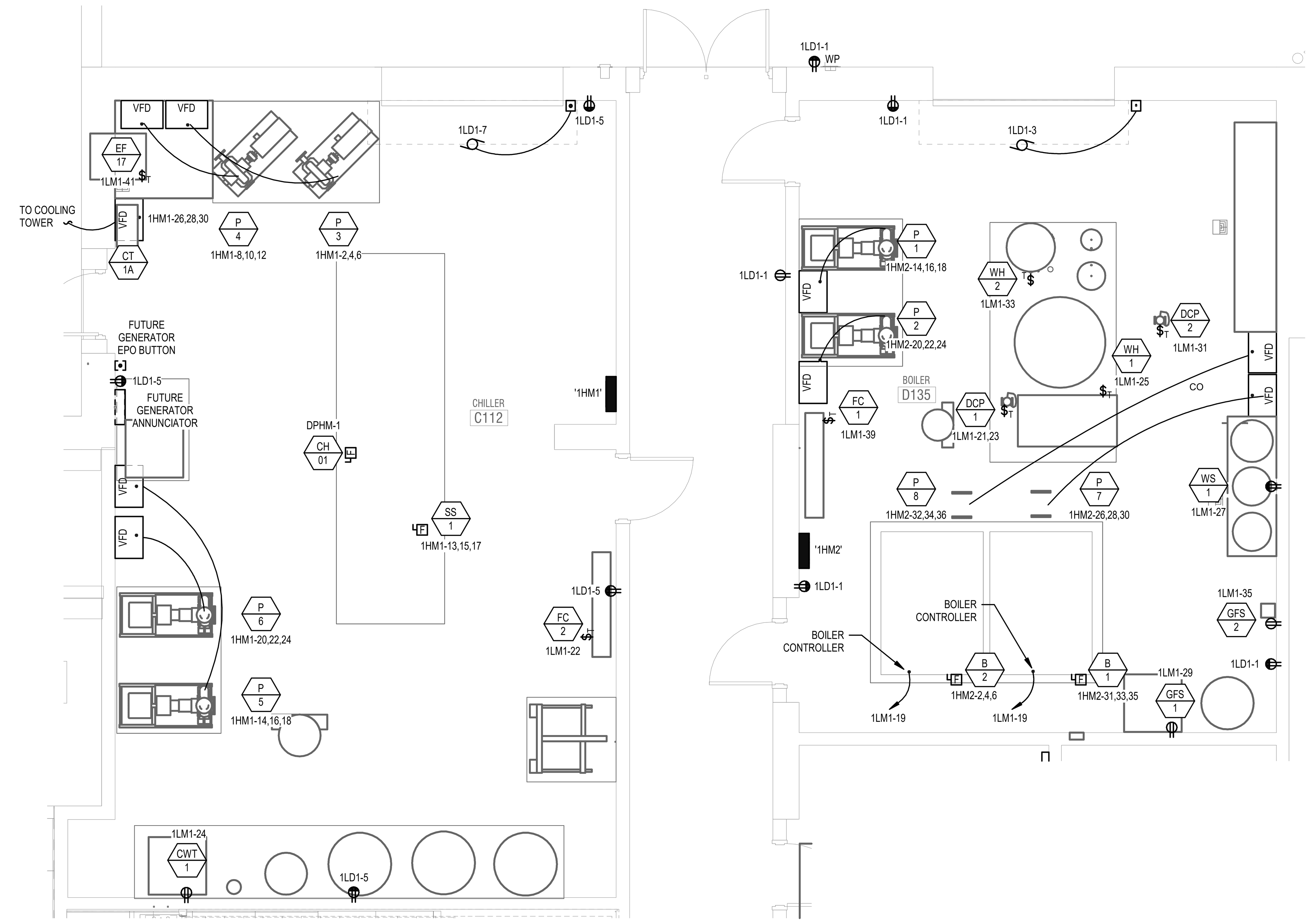
10 AUTOMATIC SPRINKLER CONTROLLER
SCALE: NONE

POWER GENERAL NOTES:

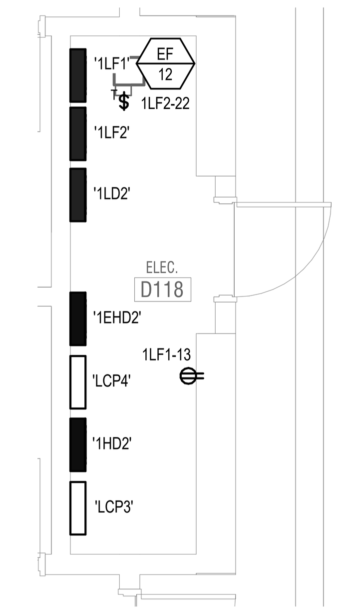
1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

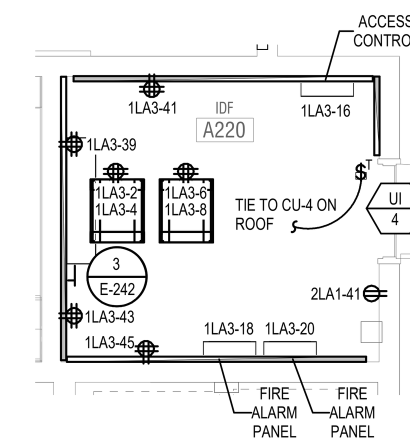
- P3 PROVIDE HUBBELL QUAZITE 24" X 36" PG STYLE IN-GRADE JUNCTION BOX WITH HEAVY DUTY COVER. CONFIRM PLACEMENT WITH OWNER PRIOR TO ROUGH-IN. REFER TOT HE SITE DETAILS FOR MORE INFORMATION.
- P4 1" CONDUIT TO MDF FOR DATA TO FUTURE GENERATOR. INSERT PULL STRING & LABEL.
- P5 3/4" CONDUIT TO CHILLER ROOM FOR FUTURE GENERATOR ANNUNCIATOR & EPO BUTTON. INSERT PULL STRING & LABEL.
- P6 3/4" CONDUIT TO BUILDING AUTOMATION SYSTEM. INSERT PULL STRING & LABEL.
- P7 3/4" CONDUIT TO FUTURE TRANSFER SWITCH LOCATION IN EMERGENCY ELECTRICAL ROOM D137.
- P8 2" CONDUIT FOR POWER TO FUTURE GENERATOR DOCKING STATION LOCATION.
- P9 1" CONDUIT FOR FUTURE GENERATOR CONTROLS TO FUTURE GENERATOR DOCKING STATION LOCATION.
- P24 ROVIDE A 25 KW INVERTER WITH 480V, 3Ø INPUT AND 480V, 3Ø OUTPUT TO POWER EMERGENCY LIGHTING PANELS.



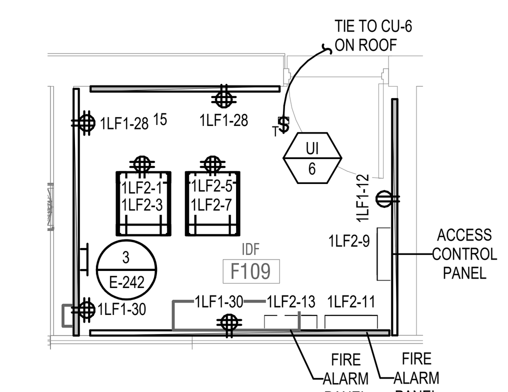
9 ENLARGED CHILLER AND BOILER ROOMS
SCALE: 1/4" = 1'-0"



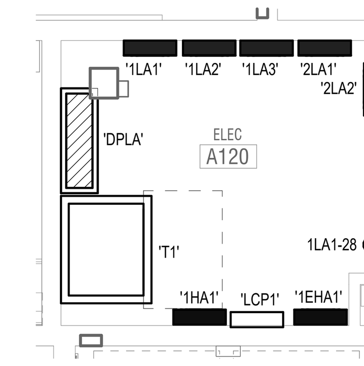
8 ENLARGED ELEC. D118
SCALE: 1/4" = 1'-0"



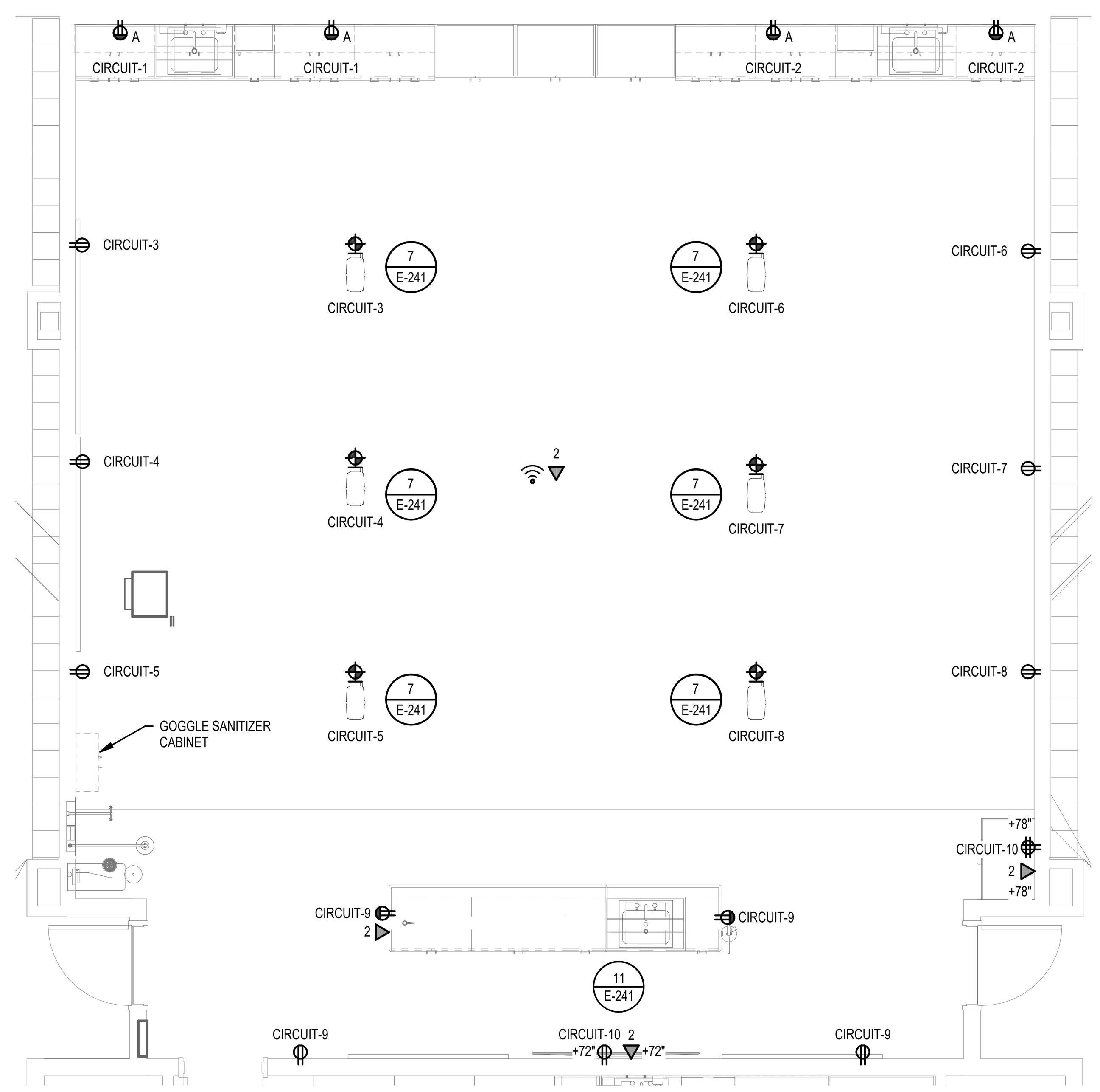
5 ENLARGED IDF A220
SCALE: 1/4" = 1'-0"



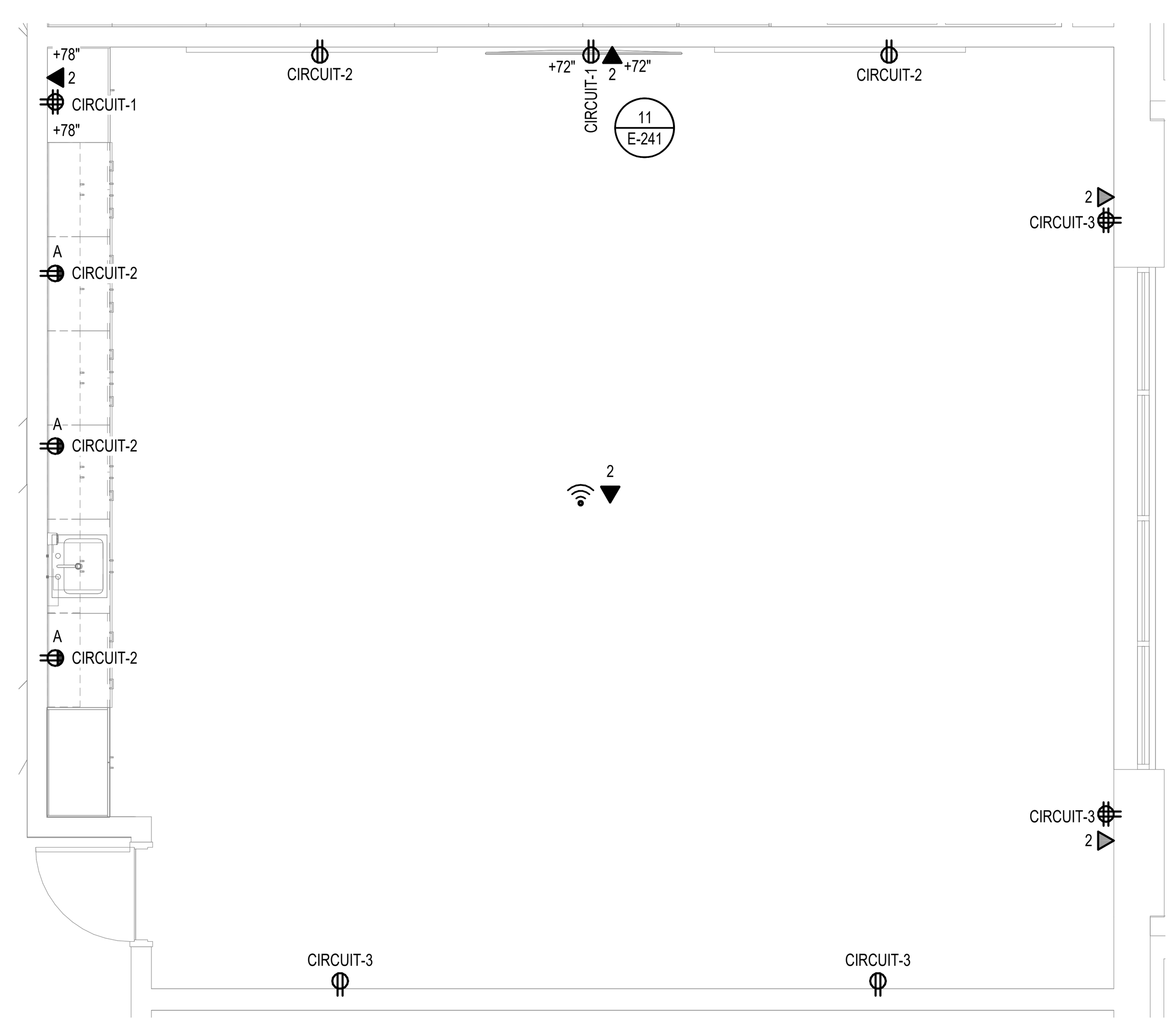
7 ENLARGED IDF F109
SCALE: 1/4" = 1'-0"



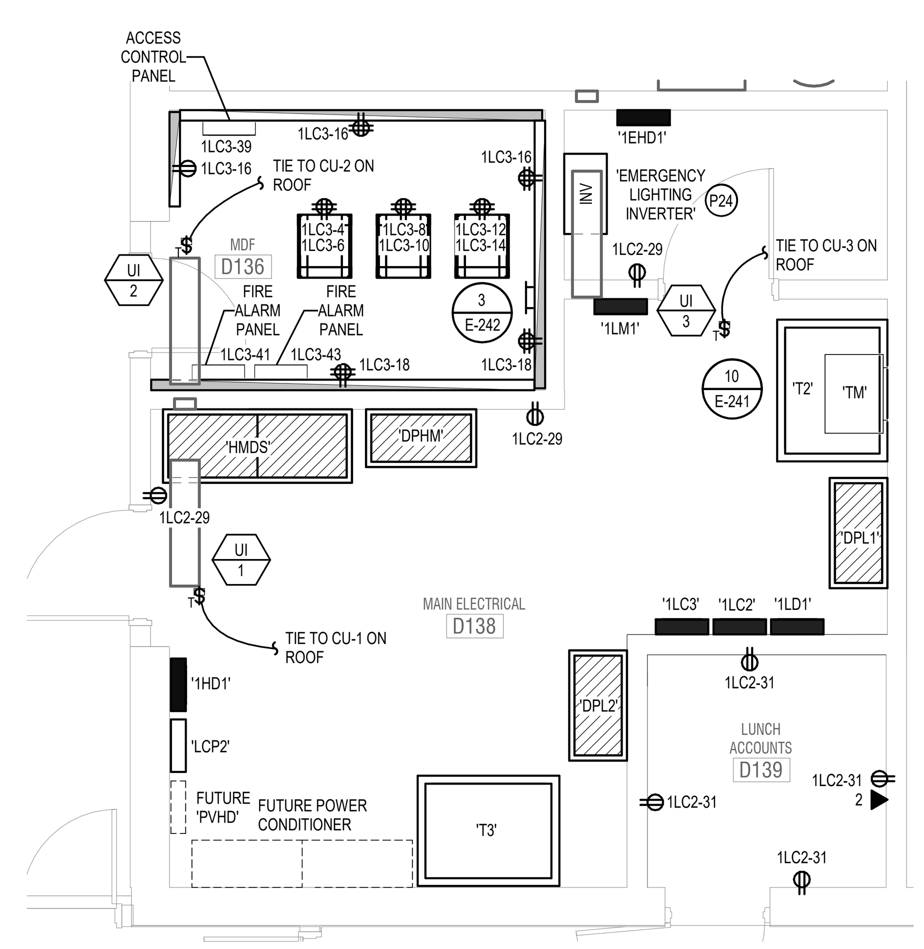
1 ENLARGED ELEC A120
SCALE: 1/4" = 1'-0"



3 TYPICAL SCIENCE CLASSROOM
SCALE: 1/4" = 1'-0"



2 TYPICAL CLASSROOM
SCALE: 1/4" = 1'-0"



4 ENLARGED MAIN/EMERGENCY ELECTRICAL ROOMS
SCALE: 1/4" = 1'-0"

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - ENLARGED POWER PLANS

E-231

KITCHEN EQUIPMENT SCHEDULE

UNIT NAME			ELECTRICAL INPUT					FEEDER						DISCONNECT / CONNECTION AT UNIT			
										WIRE					MOUNTING		
TYPE	No.	DESCRIPTION	LOAD	TYPE	VOLTS	PHASE	AMPS	QTY	CONDUIT SIZE	QTY	SIZE	EQPT GND	NOTE	CONNECTION TYPE	HEIGHT		REMARKS
K	5	PROOFER CABINET	16.7	FLA	120 V	1	17 A	1	3/4"	2	10	10	14A	NEMA 5-30R			IN UTILITY DISTRIBUTION SYSTEM
K	7	20 QT MIXER	8	FLA	120 V	1	8 A	1	3/4"	2	12	12	18A	NEMA 5-20R	CORD DROP		CORD DROP WITH GFCI RECEPTACLE
K	10	CONVECTION OVEN	15.4	FLA	120 V	1	15 A	1	3/4"	2	12	12	13A	NEMA 5-20R			IN UTILITY DISTRIBUTION SYSTEM
K	14	CAN OPENER	10	FLA	120 V	1	10 A	1	3/4"	2	12	12	18A	NEMA 5-20R	CORD DROP		CORD DROP WITH GFCI RECEPTACLE. SHARES CORD DROP WITH EQUIPMENT K-17
K	15	KETTLE	5	FLA	120 V	1	5 A	1	3/4"	2	12	12	13A	NEMA 5-20R			IN UTILITY DISTRIBUTION SYSTEM
K	17	FOOD PROCESSOR	3.5	FLA	120 V	1	4 A	1	3/4"	2	12	12	18A	NEMA 5-20R	CORD DROP		CORD DROP WITH GFCI RECEPTACLE. SHARES CORD DROP WITH EQUIPMENT K-14
K	18	COMBINATION OVEN	4.3	FLA	208 V	1	4 A	1	3/4"	2	12	12	14A	NEMA 6-20R			IN UTILITY DISTRIBUTION SYSTEM
K	21	PLANETARY MIXER	9.5	FLA	120 V	1	10 A	1	3/4"	2	12	12	13A	NEMA 5-20R	+18"		
K	24	PASS-THRU REFRIGERATOR	5.9	FLA	120 V	1	6 A	1	3/4"	2	12	12	13A	NEMA 5-20R	+86"		
K	25	PASS-THRU HEATED CABINET	3	KVA	208 V	1	14 A	1	3/4"	2	12	12	14A	NEMA 6-20R	+86"		
K	26	ICE CUBER	11.9	FLA	120 V	1	12 A	1	3/4"	2	12	12	13A	NEMA 5-20R	+48"		
K	30	HOT FOOD WELL	15.8	FLA	208 V	3	16 A	1	3/4"	3	10	10	12A	DIRECT	STUB UP		PROVIDE HANDLE CLAMP ON CIRCUIT BREAKER
K	32	MILK COOLER	2.7	FLA	120 V	1	3 A	1	3/4"	2	12	12	13A	NEMA 5-20R	STUB UP		
K	34	WAREWASHER	138.9	FLA	208 V	3	139 A	1	2"	3	2/0	6	9A	DISCONNECT			200A NEMA 4X NON-FUSED DISCONNECT, INTERCONNECT TABLE LIMIT SWITCH TO DISHWASHER
K	36	SCRAP COLLECTOR	5.5	FLA	208 V	1	6 A	1	3/4"	2	12	12	9A	DISCONNECT			30A NEMA 4X NON-FUSED DISCONNECT
K	40	WALK-IN COOLER LIGHTS AND HEAT TAPE	0.35	KVA	120 V	1	3 A	1	3/4"	2	12	12	12A	DIRECT	DROP FROM ABOVE		
K	40.1	WALK-IN COOLER EVAPORATOR	1.1	FLA	120 V	1	1 A	1	3/4"	2	12	12	1A	THERM. SW.	DROP FROM ABOVE		
K	40.2	WALK-IN COOLER CONDENSOR	5	FLA	208 V	3	5 A	1	3/4"	3	12	12	10A	DISCONNECT	ROOF		30A NEMA 3R FUSED DISCONNECT WITH 10A FUSES
K	41	WALK-IN FREEZER LIGHTS AND HEAT TAPE	0.35	KVA	120 V	1	3 A	1	3/4"	2	12	12	12A	DIRECT	DROP FROM ABOVE		
K	41.1	WALK-IN FREEZER EVAPORATOR	9.8	FLA	208 V	1	10 A	1	3/4"	2	12	12	10A	DISCONNECT	DROP FROM ABOVE		30A NEMA 3R FUSED DISCONNECT WITH 15A FUSES
K	41.2	WALK-IN FREEZER CONDENSOR	16.4	FLA	208 V	3	16 A	1	3/4"	2	10	10	10A	DISCONNECT	ROOF		30A NEMA 3R FUSED DISCONNECT WITH 20A FUSES
K	42	FRENCH FRY WARMER	4.2	FLA	120 V	1	4 A	1	3/4"	2	12	12	13A	NEMA 5-20R	+42"		
K	44	CASHIER COUNTER	10	FLA	120 V	1	10 A	1	3/4"	2	12	12	13A	NEMA 5-20R	STUB UP		
K	47	UTILITY DISTRIBUTION SYSTEM	40	FLA	208 V	3	40 A	1	1 1/2"	4	2	8	12A	DIRECT	DROP FROM ABOVE		100A LOAD CENTER. PROVIDE SHUNT TRIP BREAKER. INTERLOCK WITH HOODS.
K	48	MICROWAVE	14.4	FLA	208 V	1	14 A	1	3/4"	2	12	12	14A	NEMA 6-20R	+60"		
K	52	WARMING CABINET	12	FLA	120 V	1	12 A	1	3/4"	2	12	12	13A	NEMA 5-20R	+24"		
K	53	DISPLAY CASE REFRIGERATED	4.2	FLA	120 V	1	4 A	1	3/4"	2	12	12	13A	NEMA 5-20R	+48"		

STARTER/DISCONNECT/CONNECTION AT UNIT NOTES:

1. MANUAL STARTER WITH THERMAL OVERLOAD.
2. MANUAL STARTER WITH THERMAL OVERLOAD PROTECTION & LOW VOLTAGE RELAY / CONTACTOR FOR ATC CONTROL.
3. COMBINATION MAGNETIC STARTER / FUSED DISCONNECT.
4. COMBINATION MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)
5. COMBINATION VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)
6. REDUCED VOLTAGE STARTER
7. COMBINATION TWO-SPEED STARTED / FUSED DISCONNECT
8. COMBINATION TWO-SPEED STARTER / MOTOR CIRCUIT PROTECTOR (MCP)
9. NON-FUSED DISCONNECT SWITCH
10. FUSED DISCONNECT SWITCH
11. BREAKER AND ENCLOSURE
12. DIRECT CONNECTION
13. DUPLEX RECEPTACLE OUTLET
14. SPECIAL PURPOSE OUTLET
15. SHUNT-TRIP DISCONNECT
16. TOGGLE SWITCH
17. MAGNETIC STARTER
18. DROP CORD OUTLET

A. FURNISHED, INSTALLED & CONNECTED UNDER DIVISION 26.
B. FURNISHED & INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTIONS UNDER DIVISION 26
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26
D. FURNISHED, INSTALLED & CONNECTED UNDER ANOTHER DIVISION.
E. FURNISHED BY OWNER, INSTALLED & CONNECTED BY DIVISION 26

GENERAL NOTES:

1. VERIFY THE REQUIREMENTS OF THE POS SYSTEM WITH THE SUPPLIER INCLUDING ELECTRICAL REQUIREMENTS AND THE INTERCONNECTION REQUIREMENTS.
2. PROVIDE DATA CONDUIT AS REQUIRED BY POS SUPPLIER. VERIFY INTERCONNECTION REQUIREMENTS BETWEEN COMPONENTS.
3. CONNECT FLEX TO JUNCTION BOX MOUNTED IN BASE OF COUNTER. INTERCONNECT CONTROLS.
4. CONNECT FLEX TO JUNCTION BOX MOUNTED IN BASE OF COUNTER. INTERCONNECT SWITCH. RUN POWER TO LIGHTS AT SNEEZE GUARD, THROUGH SNEEZE GUARD SUPPORT LEGS.
5. CONNECT FLEX TO OUTLET MOUNTED IN BASE OF COUNTER. INTERCONNECT WITCH WITH OUTLET.
6. SIZE ALL FUSES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

KEYED NOTES (X)

K1 INTERCONNECT TO EXHAUST SYSTEM. COORDINATE ALL WORK WITH THE KITCHEN EQUIPMENT INSTALLER AND MECHANICAL CONTRACTOR PRIOR TO ANY ROUGH-IN.

K2 PROVIDE ALL REQUIRED CONNECTIONS TO HOOD LIGHTS. COORDINATE ALL WORK WITH THE KITCHEN EQUIPMENT INSTALLER AND HOOD INSTALLER PRIOR TO ANY ROUGH-IN.

K3 UTILITY DISTRIBUTION SYSTEM IS PROVIDED BY THE KITCHEN EQUIPMENT SUPPLIER/INSTALLER. ELECTRICAL CONTRACTOR TO PROVIDE FEEDER AND FEEDER CONNECTIONS. ALL ASSOCIATED OUTLETS ARE PROVIDED AND INSTALLED BY THE KITCHEN EQUIPMENT SUPPLIER/INSTALLER. COORDINATE ALL WORK PRIOR TO ANY ROUGH-IN.

K4 TO LIGHTS BY KITCHEN EQUIPMENT SUPPLIER. COORDINATE ALL WORK AND CONNECTIONS WITH THE KITCHEN EQUIPMENT INSTALLER.

K5 TO HEATER BY KITCHEN EQUIPMENT SUPPLIER. COORDINATE ALL WORK AND CONNECTIONS WITH THE KITCHEN EQUIPMENT INSTALLER.

KITCHEN ELECTRICAL NOTES:

1. COORDINATE EXACT LOCATION, TERMINATIONS, AND MOUNTING HEIGHTS WITH EQUIPMENT MANUFACTURER DRAWINGS AND OWNER IN FIELD PRIOR TO ANY INSTALLATION. REFER TO THE EQUIPMENT INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION.
2. VERIFY ALL MOUNTING HEIGHTS PRIOR TO INSTALLATION WITH THE EQUIPMENT INSTALLER/SUPPLIER.
3. CONTRACTOR SHALL COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER FOR EACH SPECIFIC MODEL AND PIECE OF EQUIPMENT. PROVIDE ELECTRICAL SERVICE AS REQUIRED.
4. ALL COVER PLATES IN THE KITCHEN SHALL BE STAINLESS STEEL.
5. THE CONTRACTOR SHALL PROVIDE ALL DISCONNECT SWITCHES, STARTERS, ETC. AS REQUIRED BY NEC. VERIFY ALL ELECTRICAL REQUIREMENTS WITH THE EQUIPMENT INSTALLER/SUPPLIER PRIOR TO ROUGH-IN.
6. THE ELECTRICAL CONTRACTOR TO PROVIDE ALL HARDWIRED CONNECTIONS TO EQUIPMENT.
7. PROVIDE WATERTIGHT FITTINGS, BOXES, COUPLINGS, ETC. IN ALL PREP AREAS THAT ARE EXPOSED TO SPRAY DOWN.
8. ANY CONNECTION TO EQUIPMENT SHALL BE MADE USING SEALTIGHT CONDUIT AND WATERTIGHT FITTINGS.
9. ALL DISCONNECT SWITCHES LOCATED IN THE KITCHEN AREAS SHALL BE RATED FOR SPRAY DOWN, NEMA 4X STAINLESS STEEL.
10. ALL EQUIPMENT ROUGH-IN REQUIREMENTS SHALL BE COORDINATED WITH THE EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH-IN. CONTRACTOR TO OBTAIN CUT SHEETS FOR EACH PIECE OF EQUIPMENT FROM THE EQUIPMENT SUPPLIER AND VERIFY EXACT ROUGH-IN LOCATIONS. IF THE CONTRACTGOR DAILS TO COORDINATE THE LOCATIONS WITH THE SUPPLIER, THE CONTRACTOR FIX THE ROUGH-IN AT NO ADDITIONAL COST TO THE OWNER.

ELECTRICAL NOTES

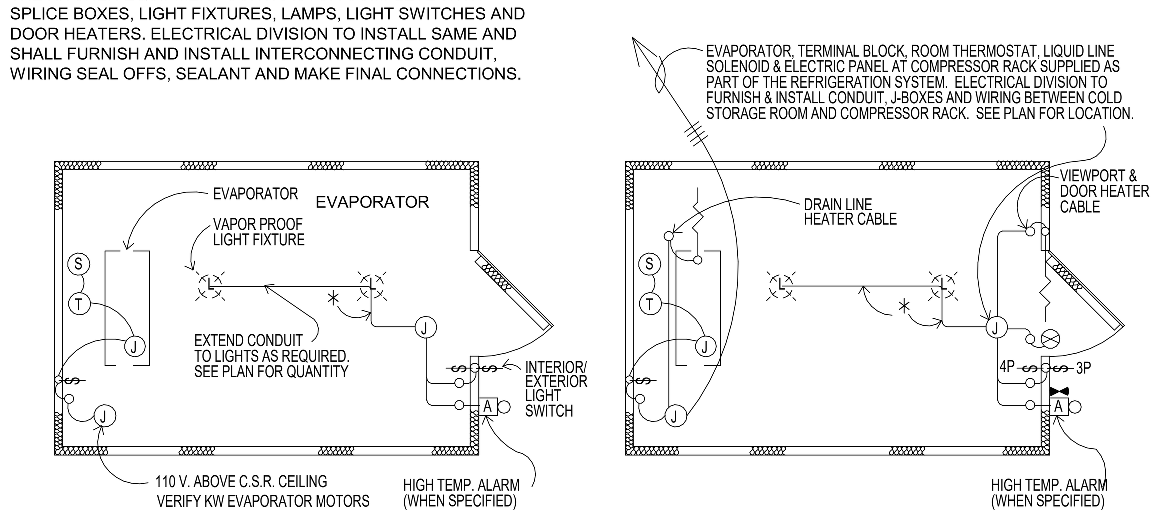
1. ELECTRICAL PLAN SHOWS ROUGH-IN POINTS AND SCHEDULED CONNECTIONS. KITCHEN EQUIPMENT CONTRACTOR WILL PROVIDE DIMENSIONED ROUGH-IN DRAWINGS FOR CONSTRUCTION.
2. ELECTRICAL SYSTEM IS DESIGNED FOR 120/208 VOLTS, 3 PHASE, 60 HERTZ, 4 WIRE SYSTEM.
3. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL ALL JUNCTION BOXES, RECEPTACLES, COVER PLATES, PULL BOXES, CONDUIT AND WIRING EXCEPT WHERE NOTED. RECEPTACLES AND COVER PLATES SHALL BE BRUSHED STAINLESS STEEL FURNISHED BY ELECTRICAL DIVISION.
4. ALL CONDUIT RUNS INDICATED FOR REFRIGERATION LINES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL DIVISION. CONDUIT SHALL HAVE 12" (600MM) MINIMUM RADIUS BENDS.
5. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH AND INSTALL VAPOR PROOF VENTILATOR LIGHTS COMPLETE WITH LAMPS. INTERCONNECTING CONDUIT, WIRING WITH WALL SWITCH FURNISHED AND INSTALLED BY THE ELECTRICAL DIVISION.
6. ADDITIONAL CONVENIENCE RECEPTACLES, TELEPHONE AND INTERCOM JACKS AND TEMPERATURE MONITORING SYSTEM ETC. SHALL BE LOCATED BY THE ELECTRICAL ENGINEER/ ARCHITECT AND AS REQUIRED BY CODE.
7. PRE-FABRICATED COLD STORAGE ROOMS ARE FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR COMPLETE WITH SPLICE BOXES, LIGHT FIXTURES, LAMPS, LIGHT SWITCHES AND DOOR HEATERS, ELECTRICAL DIVISION TO INSTALL SAME AND SHALL FURNISH AND INSTALL INTERCONNECTING CONDUIT, WIRING SEAL OFFS, SEALANT AND MAKE FINAL CONNECTIONS.
10. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING BETWEEN KITCHEN FURNISHED LOW TEMP COLD STORAGE ROOM EVAPORATOR TERMINAL EQUIPMENT CONTRACTOR BLOCK, SWITCH, FAN DOOR SWITCH AND COMPRESSOR CONTROL PANEL.

NOTE: ELECTRICAL MOUNTING

ALL WALL MOUNT ELECTRICAL RECEPTACLE AND J-BOXES ARE TO BE FLUSH MOUNTED IN WALLS WITH NO EXPOSED CONDUIT SHOWING ON SURFACE OF WALLS. ARCHITECT TO PROVIDE MINIMUM WALL FURRING IF REQUIRED.

NOTE: WALK-IN ELECTRICAL

ALL CONDUIT SHALL BE RUN ON THE EXTERIOR CEILING OF ALL COLD STORAGE ROOMS AND SHALL PENETRATE THE CEILING AT A POINT WHERE THE CONDUIT CAN DROP DIRECTLY TO THE POINT OF CONNECTION. UNDER NO CIRCUMSTANCES, WILL ELECTRICAL CONDUIT BE PERMITTED ON THE INTERIOR.



REFRIGERATOR

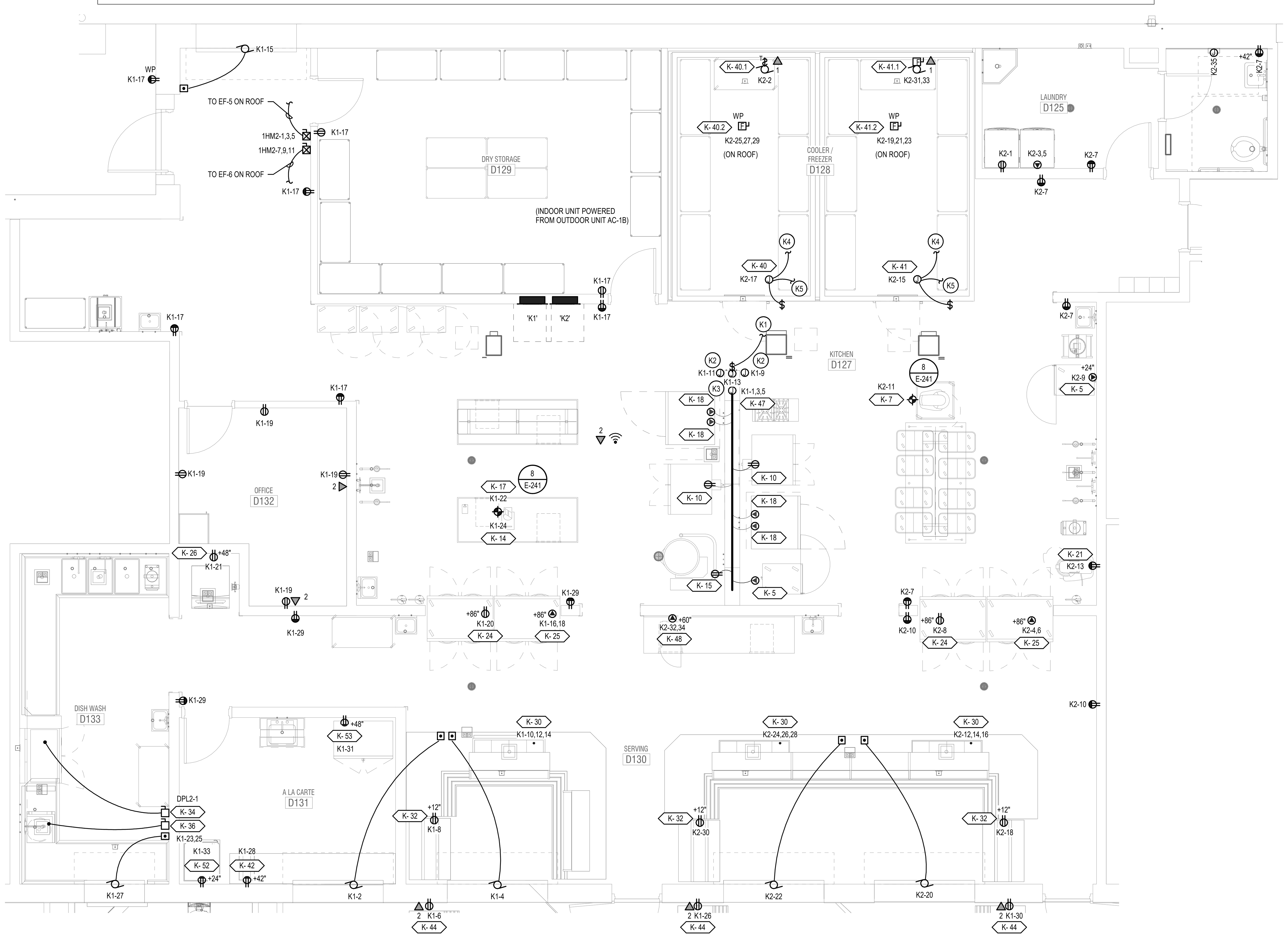
FREEZER

- JUNCTION BOX
- THERMOSTAT
- LIQUID LINE SOLENOID
- EYS & NIPPLE FOR CEILING PENETRATION TO SPLICE BOX
- HEATED VACUUM VENT
- C.S.R. - COLD STORAGE ROOM
- * EMT RIGID CONDUIT RUN ABOVE C.S.R. CEILING BY ELEC. DIVISION (TYP)
- 110 V. ABOVE COLD STORAGE ROOM CEILING
- 2 KW LIGHTS (EACH)
- 4 KW VIEWPORT & DOOR HEATER (FREEZER)
- 2 KW HIGH TEMP. ALARM (WHEN SPECIFIED)

NOTES:

1. LIGHT FIXTURES, SWITCH BOXES, SWITCHES, & SPLICE BOXES ARE FURNISHED LOOSE WITH COLD STORAGE ROOMS. ELECTRICAL DIVISION TO INSTALL ALL ITEMS FURNISHED LOOSE INCLUDING ALL INTERCONNECTING CONDUIT & WIRING.
2. EVAPORATORS FOR COLD STORAGE ROOM ARE FURNISHED & INSTALLED COMPLETE WITH ROOM THERMOSTAT, LIQUID LINE SOLENOID & DISCONNECT SWITCH. ELECTRICAL DIVISION TO PROVIDE INTERCONNECTING CONDUIT & WIRING FORM BUILDING SERVICE TO ALL COMPONENTS.
3. ELECTRICAL DIVISION TO PROVIDE ALL BUILDING SERVICES INCLUDING J-BOXES, INTERCONNECTING CONDUIT & WIRING FROM BUILDING SERVICE TO COMPONENTS.
4. EYS FITTING FURNISHED WITH COLD STORAGE ROOMS. ELECTRICAL DIVISION TO INSTALL, WIRE & SEAL BY ACCEPTED INDUSTRY PRACTICE.
5. STAINLESS STEEL ESCUTCHEON PLATES & HOLES THROUGH INSULATED PANELS ARE FURNISHED WITH COLD STORAGE ROOM. ELECTRICAL DIVISION TO SEAL ALL PENE-TRATIONS WITH CAULKING ON THE C.S.R. INTERIOR & EXTERIOR AND INSTALL INTERIOR & EXTERIOR ESCUTCHEON PLATES.
6. EVAPORATOR FAN MOTORS FOR REFRIGERATORS RUN CONTINUOUSLY. DO NOT WIRE INTERNALLY WITH THERMOSTAT. EVAPORATOR FAN MOTORS FOR FREEZERS CYCLE WITH FREEZER DEFROST.

TYPICAL COOLER/FREEZER ELECTRICAL DIAGRAM



1 ENLARGED KITCHEN PLAN
SCALE: 1/4" = 1'-0"

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CONSTRUCTION DOCUMENTS

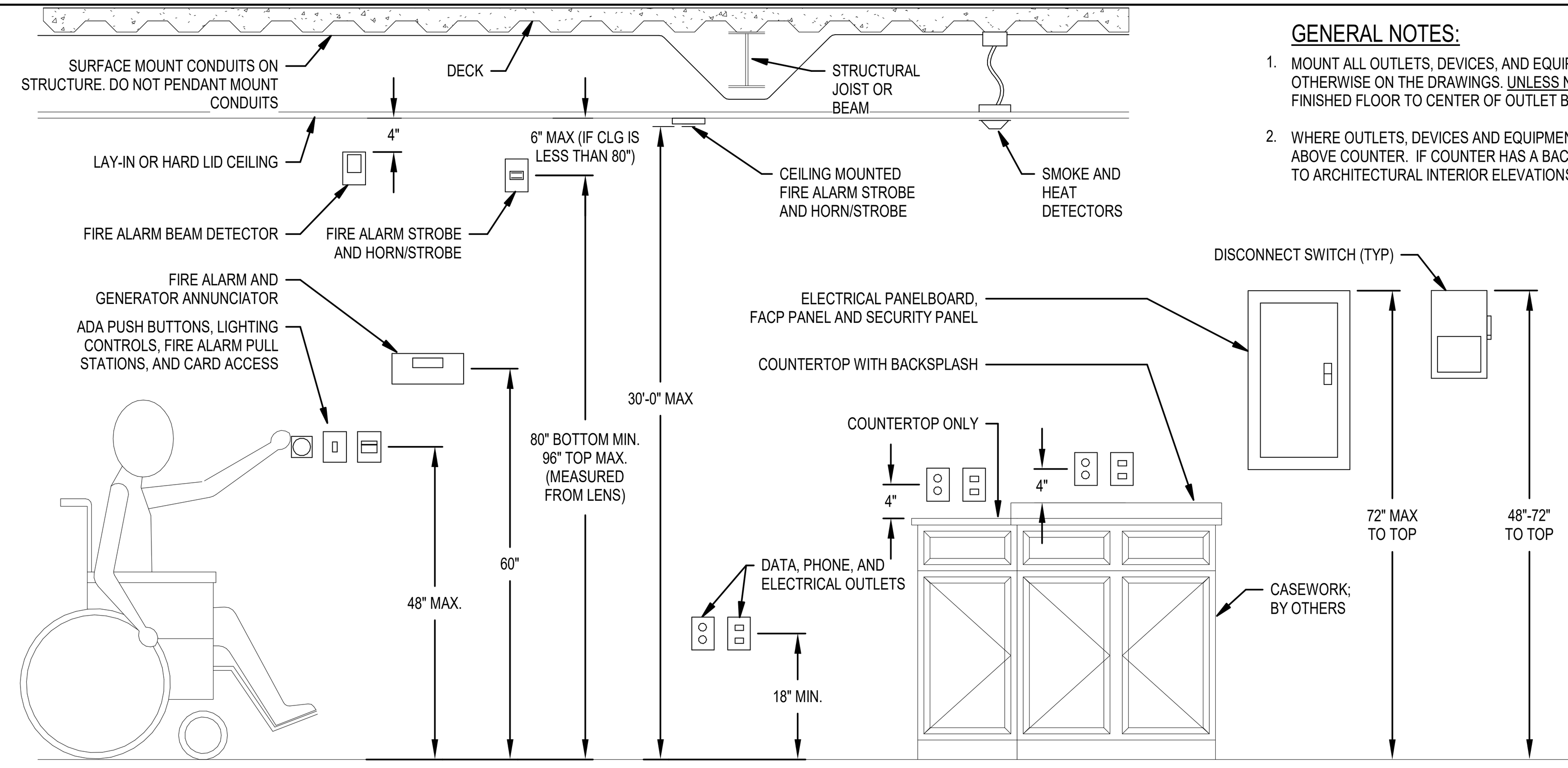
PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

ENLARGED KITCHEN PLAN

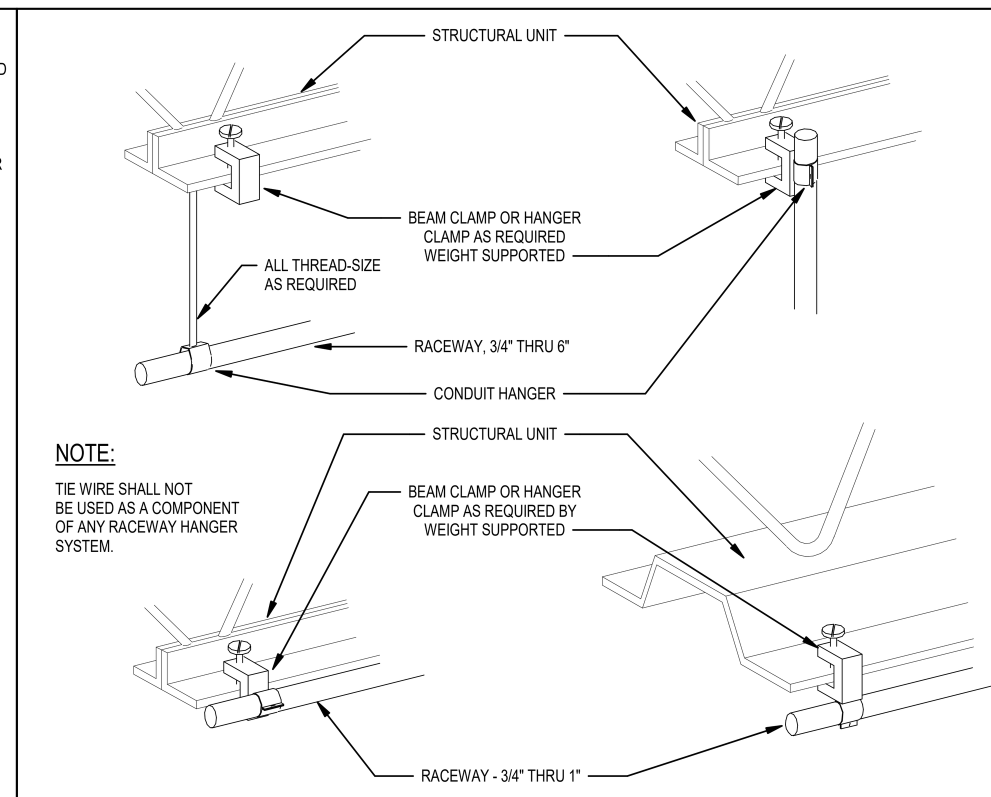
E-232

GENERAL NOTES:

1. MOUNT ALL OUTLETS, DEVICES, AND EQUIPMENT AT HEIGHTS INDICATED BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS. UNLESS NOTED OTHERWISE , HEIGHTS ARE GIVEN FROM FINISHED FLOOR TO CENTER OF OUTLET BOX.
2. WHERE OUTLETS, DEVICES AND EQUIPMENT ARE NOTED BY THE SUBSCRIPT 'A', MOUNT AT 4" ABOVE COUNTER. IF COUNTER HAS A BACK SPLASH, MOUNT AT 4" ABOVE BACK SPLASH. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS AND COORDINATE WITH CASEWORK SUPPLIER.

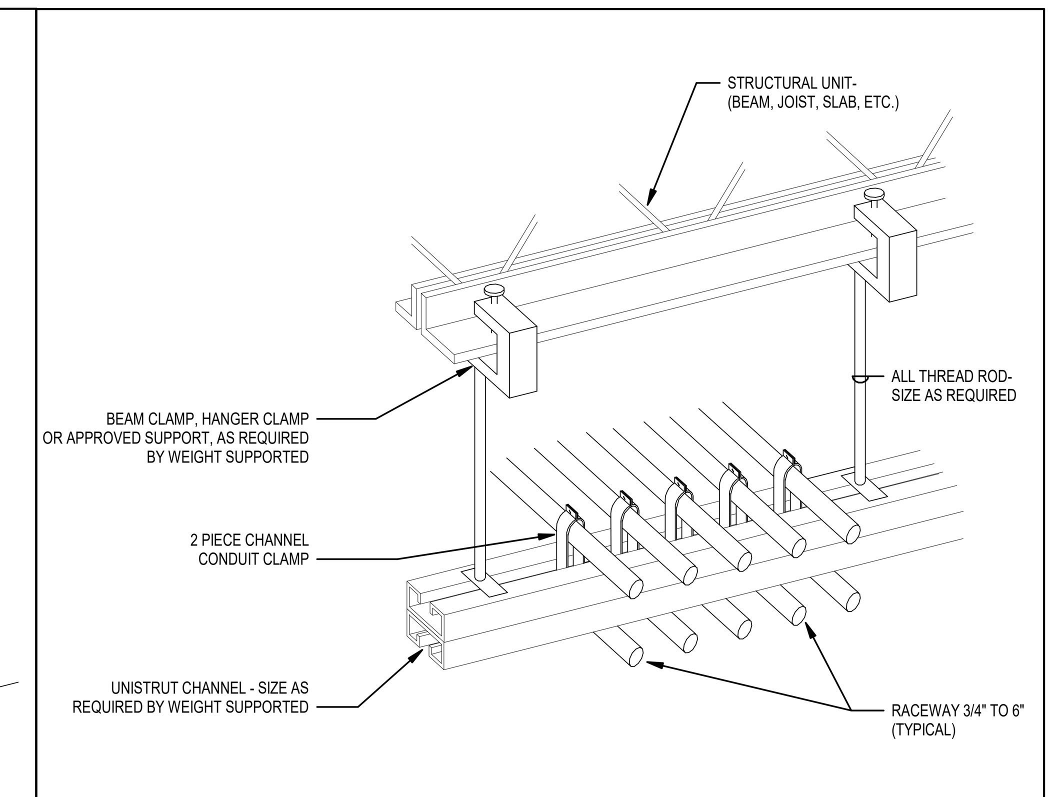


1 **TYPICAL DEVICE ELEVATION DETAIL**
SCALE: NTS

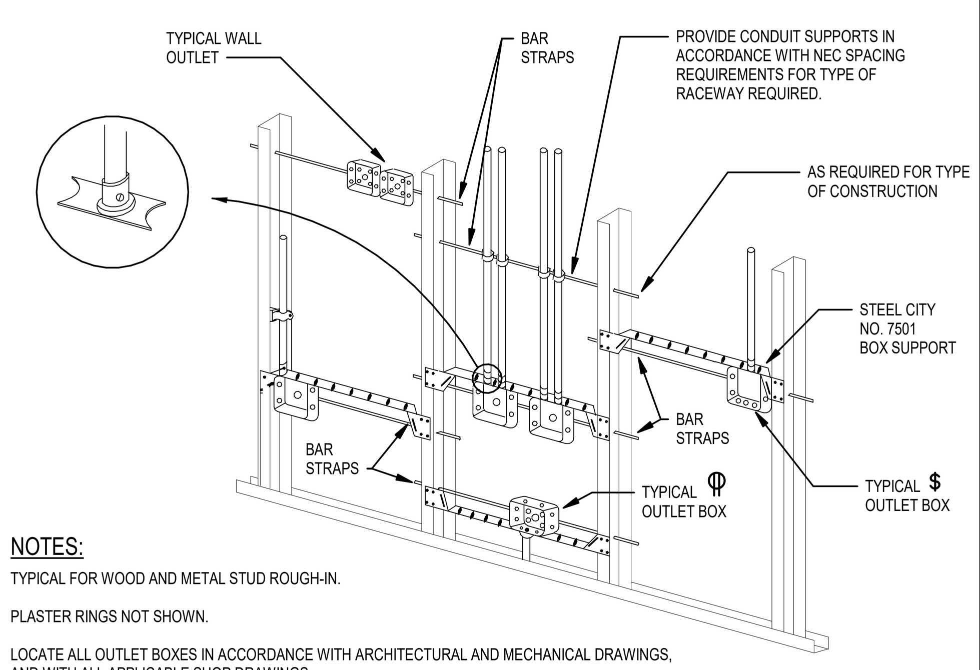


NOTE:
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.

2 **TYPICAL RACEWAY DETAIL**
SCALE: NTS



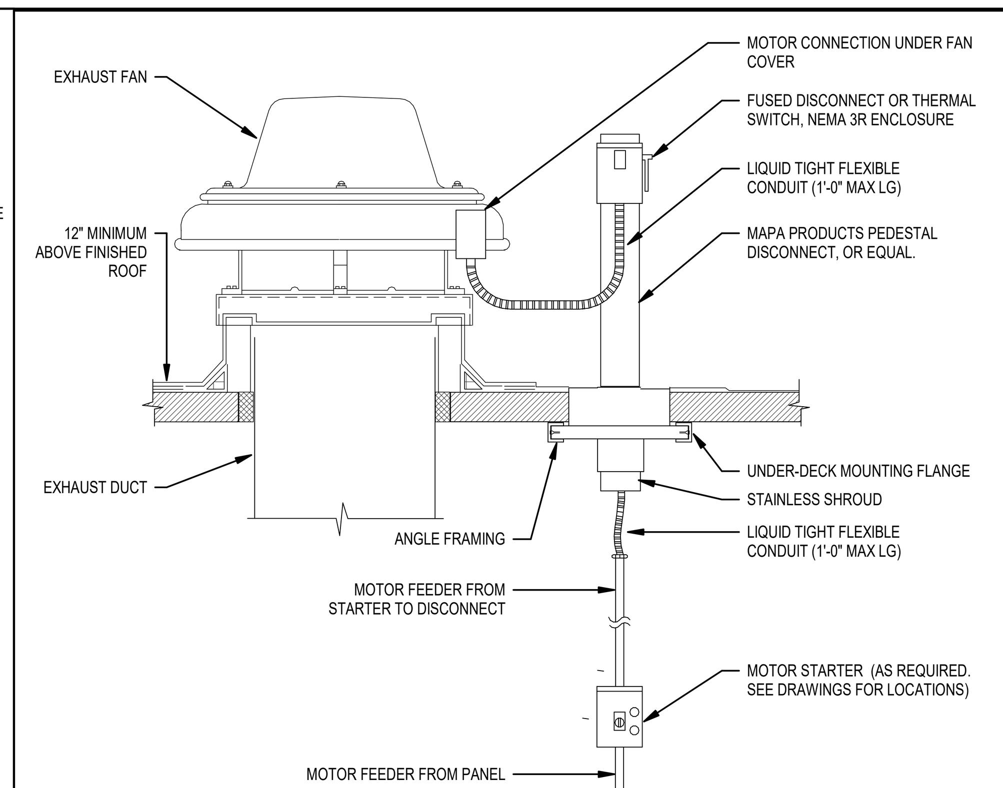
3 **MULTIPLE RACEWAY SUPPORT DETAIL**
SCALE: NTS



NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH UBC 4303 OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.

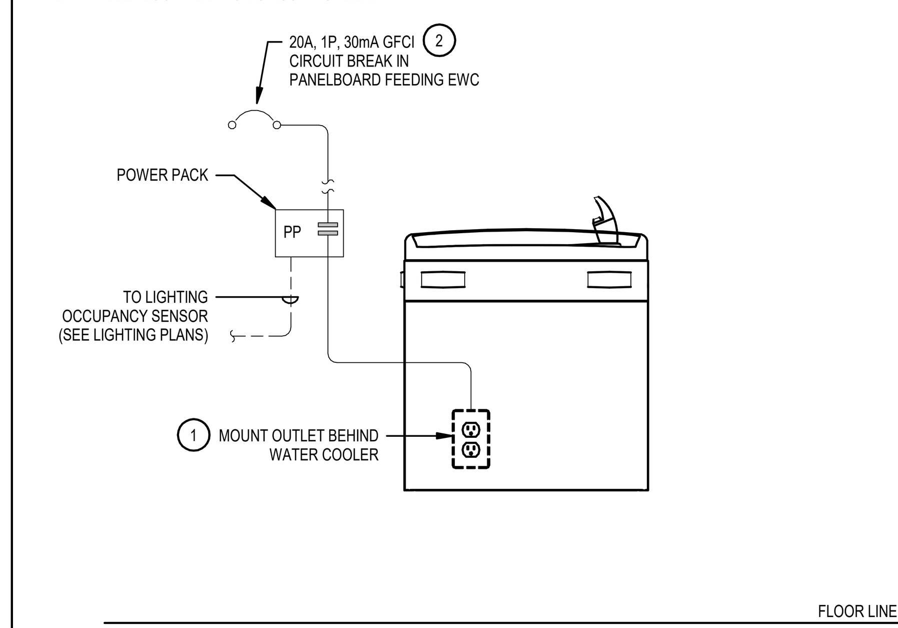
4 **TYPICAL ROUGH-IN REQUIREMENTS**
SCALE: NTS



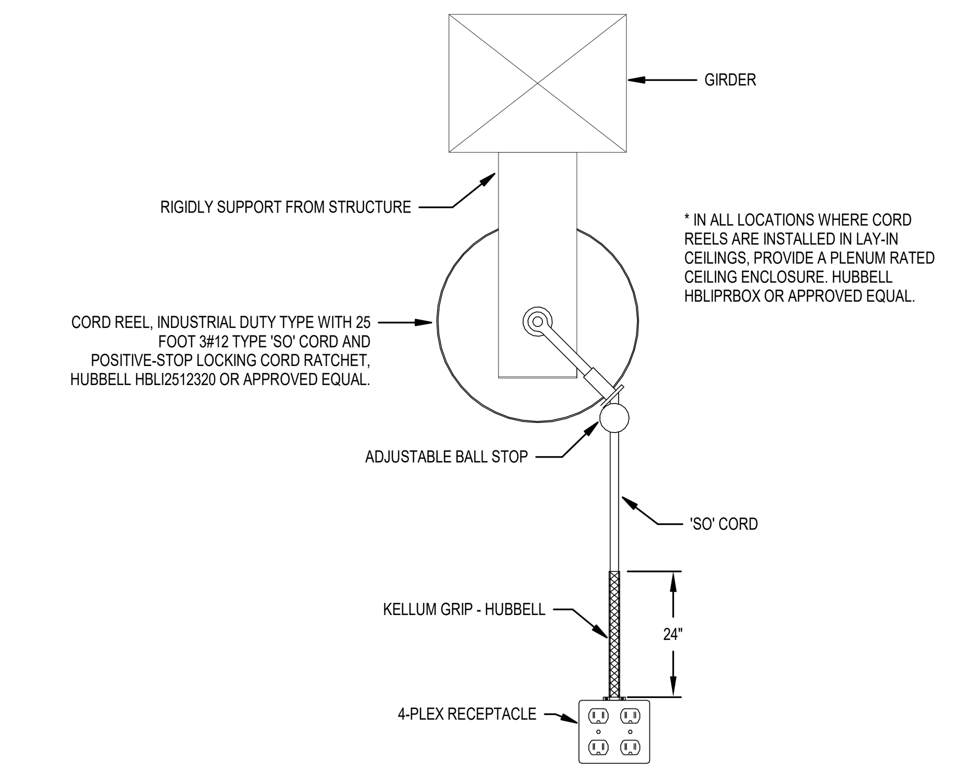
5 **ROOF MOUNTED EXHAUST FAN W/REMOTE STARTER**
SCALE: NTS

KEYED NOTES: #

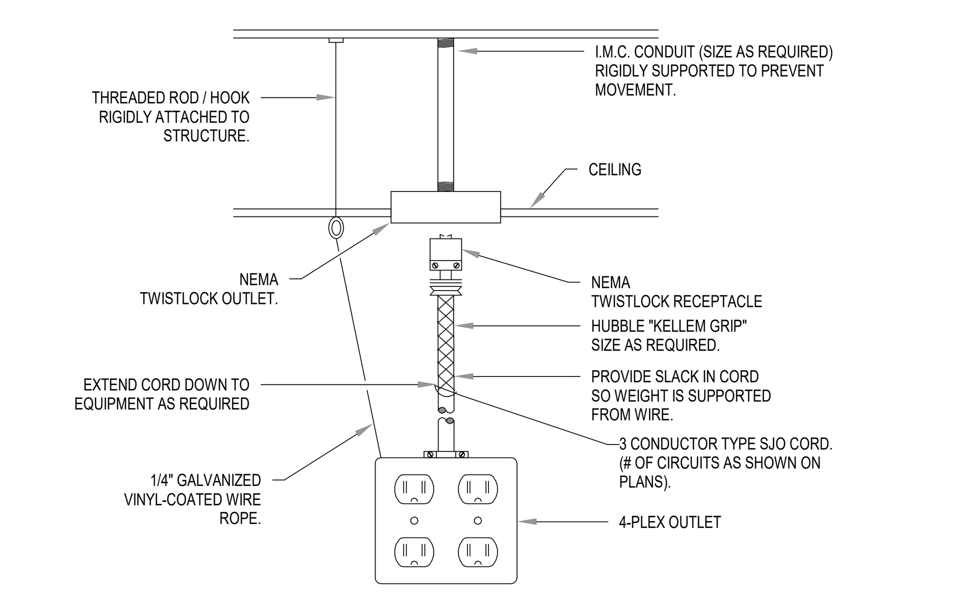
1. COORDINATE LOCATION OF JUNCTION BOX WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
2. SEE FLOOR PLAN FOR CIRCUIT NUMBERS.



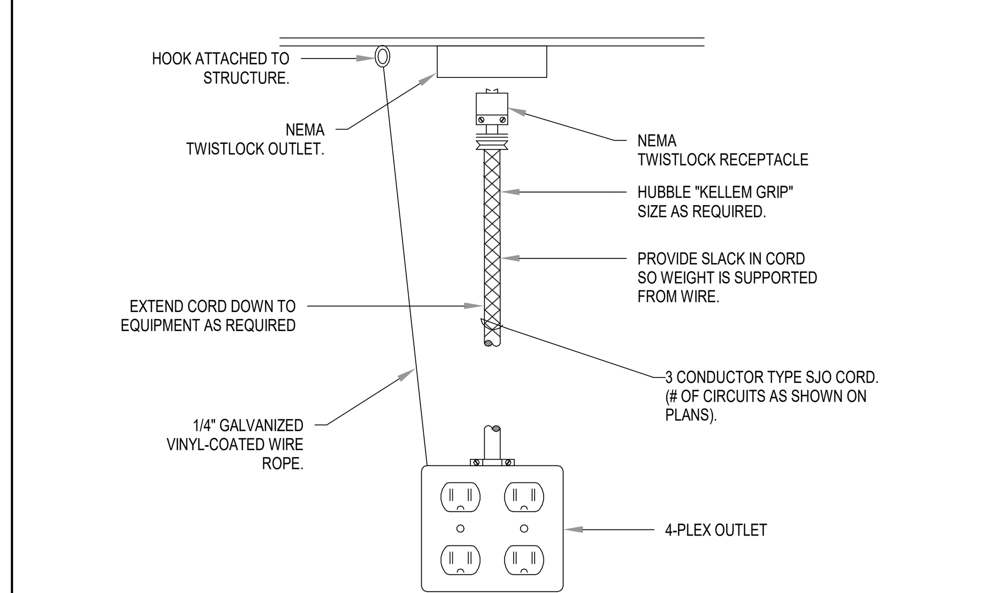
6 **ELECTRIC WATER COOLER (EWC) DETAIL**
SCALE: NTS



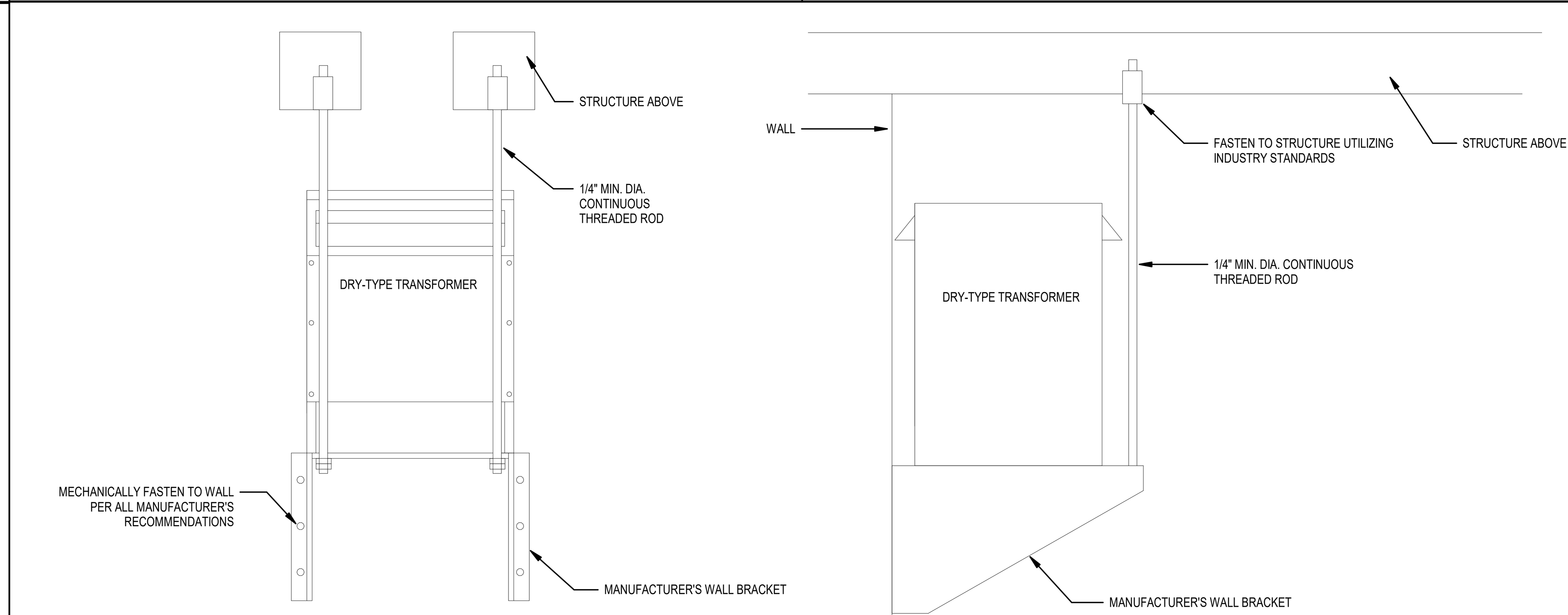
7 **CORD REEL DETAIL**
SCALE: NTS



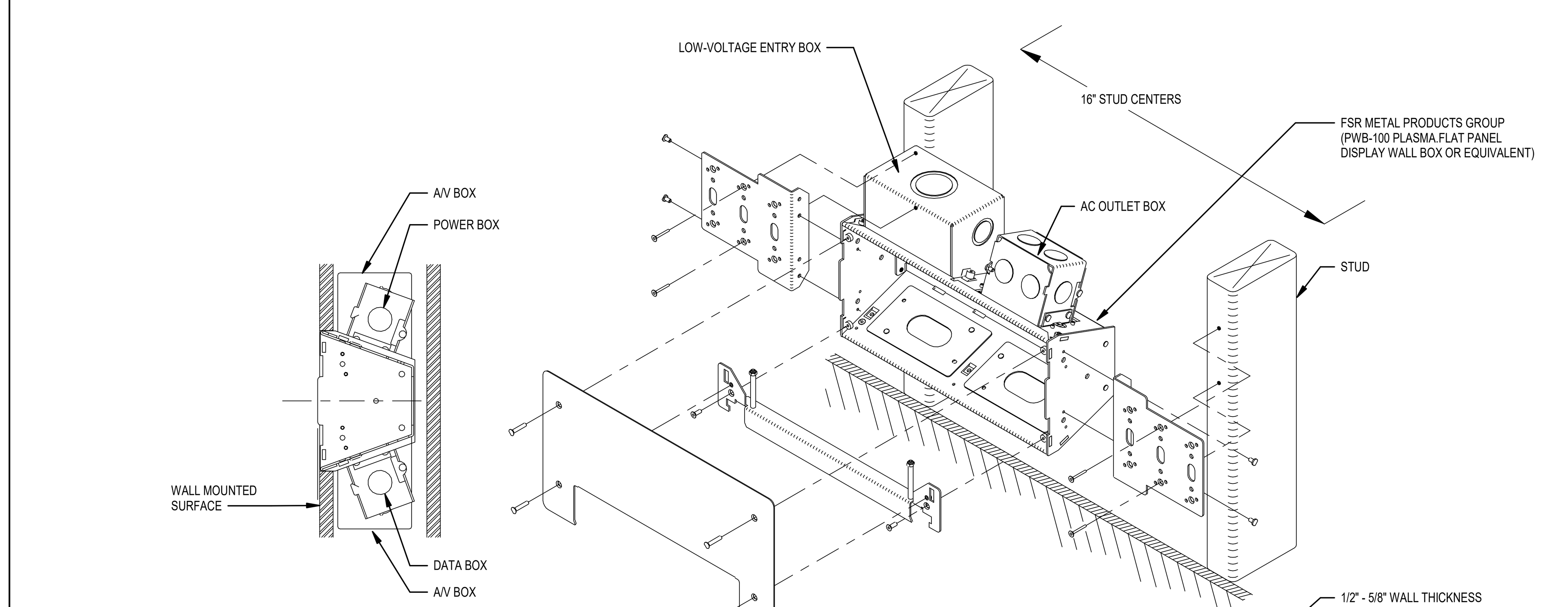
8 **CORD DROP DETAIL - LAY-IN CEILING**
SCALE: NTS



9 **CORD DROP DETAIL - OPEN CEILING**
SCALE: NTS



10 **WALL MOUNT TRANSFORMER DETAIL**
SCALE: NTS



11 **RECESSED TV WALL BOX**
SCALE: NTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE. SUITE 200
SALT LAKE CITY, UT 84115
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NIBLEY MIDDLE SCHOOL

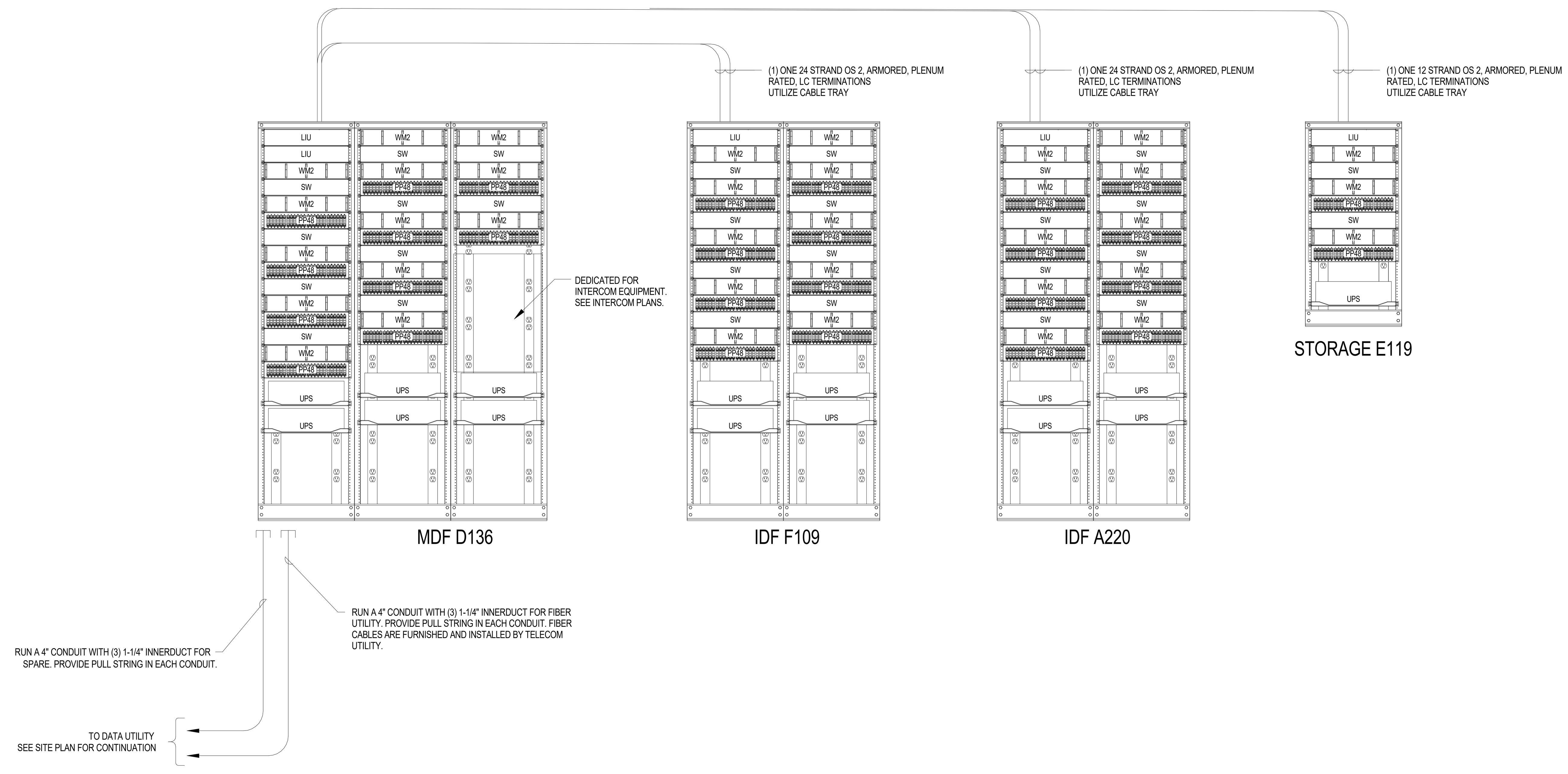
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

POWER DETAILS
E-241

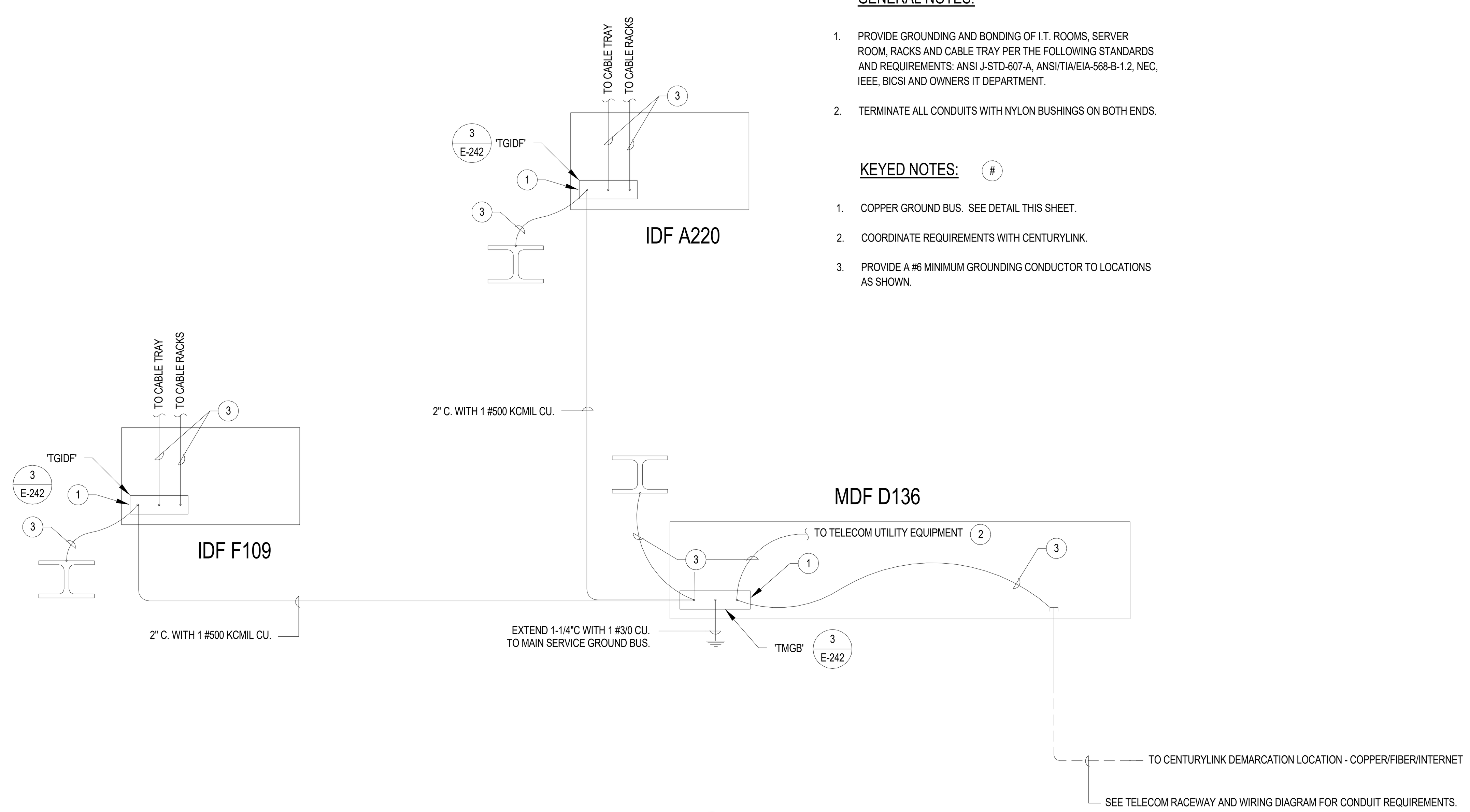


1 TELECOM RACEWAY AND WIRING DIAGRAM
SCALE: NONE

LIU — LIGHT GUIDE INTERFACE UNIT
WM2 — WM2 - WIRE MANAGEMENT DOUBLE SPACE
WM1 — WM1 - WIRE MANAGEMENT SINGLE SPACE
PP48 — PP48 - 48 PORT PATCH PANEL
PP12 — PP12 - 12 PORT PATCH PANEL FOR ANALOG TEMINATIONS
SW — SWITCH (BY OWNER)
DVR — DVR - DIGITAL VIDEO RECORDER
UPS — UPS (BY OWNER)

GENERAL NOTES:

1. SIZE PATCH PANELS AND EQUIPMENT TO ACCOMMODATE ALL FUTURE CABLES.
2. PROVIDE A 6' SERVICE LOOP AT DEVICE ENDS.
3. PROVIDE A 10' SERVICE LOOP AT ALL EQUIPMENT ENDS.
4. PROVIDE 48 PORT PATCH PANEL AND ASSOCIATED WIRE MANAGEMENT IN QUANTITIES AND LOCATIONS AS MAY BE REQUIRED TO ACCOMMODATE JACKS/CABLES AS SHOWN ON THE ELECTRICAL DRAWINGS PLUS 10% SPARE.
5. PROVIDE ONE CAT 6A CABLE FOR EACH WAP OUTLET. SHIELDED CABLES SHALL BE ROUTED BACK TO DEDICATED PATCH PANELS (SHIELDED AND NON-SHIELDED CABLES SHALL NOT BE MIXED AT PATCH PANELS).
6. TERMINATE ALL FIBERS USING LC TYPE CONNECTORS (UNLESS OTHERWISE DIRECTED BY THE OWNER) IN FIBER BREAKOUT BOX. SEE SHEET E-611.4 FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL TEST ALL FIBERS TO INSURE OWNER REQUIREMENTS ARE MET. IF A SINGLE FIBER FAILS THE TESTING THE ENTIRE CABLE SHALL BE REPLACED WITH NEW.
7. TERMINATE ALL CONDUITS WITH NYLON BUSHINGS ON BOTH ENDS.



GENERAL NOTES:

1. PROVIDE GROUNDING AND BONDING OF I.T. ROOMS, SERVER ROOM, RACKS AND CABLE TRAY PER THE FOLLOWING STANDARDS AND REQUIREMENTS: ANSI J-STD-607-A, ANSI/TIA/EIA-568-B-1.2, NEC, IEEE, BICSI AND OWNERS IT DEPARTMENT.
2. TERMINATE ALL CONDUITS WITH NYLON BUSHINGS ON BOTH ENDS.

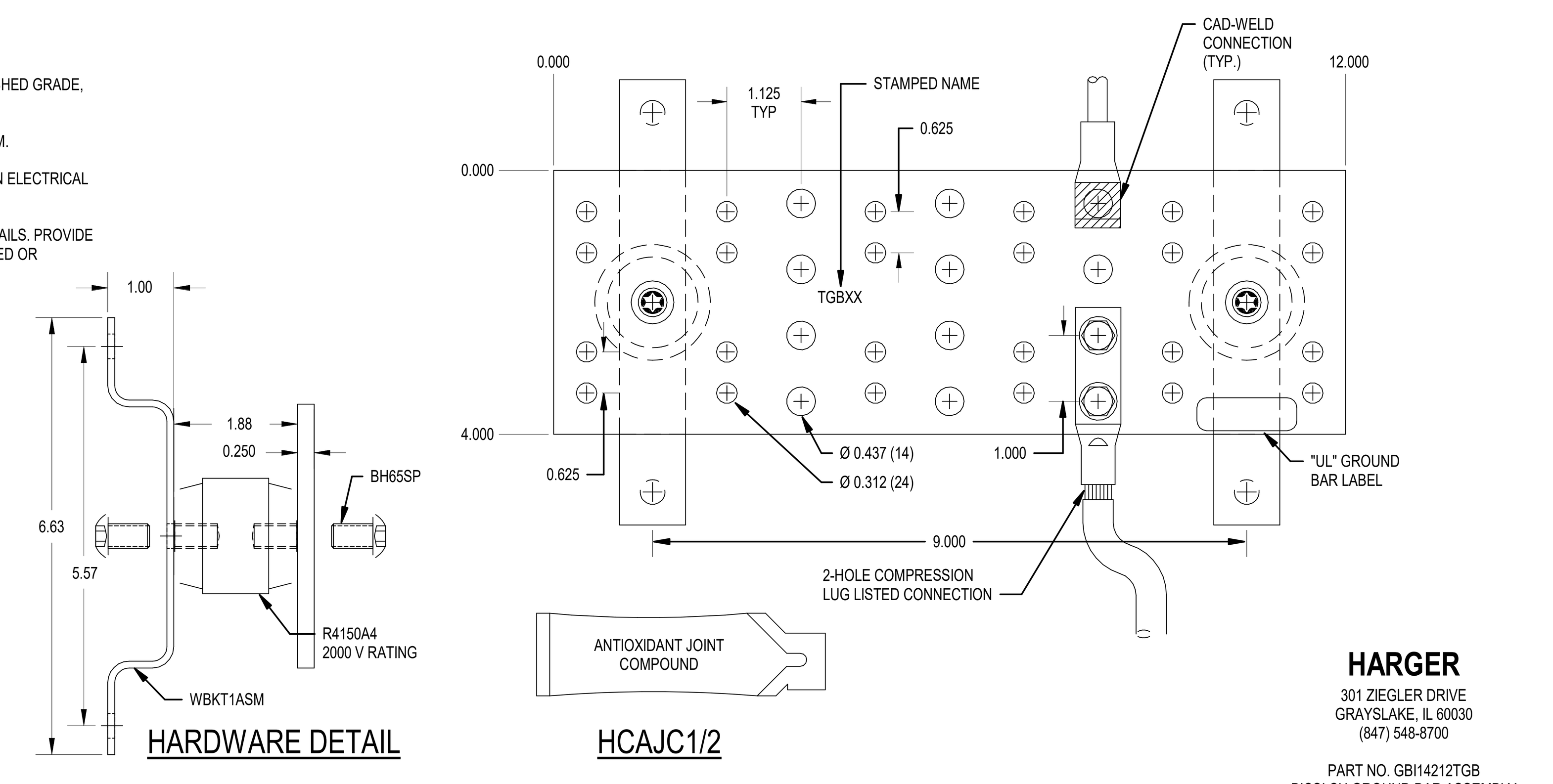
KEYED NOTES:

1. COPPER GROUND BUS. SEE DETAIL THIS SHEET.
2. COORDINATE REQUIREMENTS WITH CENTURYLINK.
3. PROVIDE A #6 MINIMUM GROUNDING CONDUCTOR TO LOCATIONS AS SHOWN.

2 GROUNDING RISER DIAGRAM
SCALE: NONE

NOTES:

1. SUPPORT FROM WALL 12 INCHES ABOVE FINISHED GRADE, UNLESS NOTED OTHERWISE.
2. PROVIDE IN MAIN TELECOMMUNICATION ROOM.
3. EXTEND BONDING CONDUCTOR BACK TO MAIN ELECTRICAL SERVICE SERVICE BONDING BAR.
4. SEE SPECIFICATION SECTION 260452 FOR DETAILS. PROVIDE MANUFACTURER AND PART NUMBER INDICATED OR APPROVED EQUIVALENT.



3 TELECOMMUNICATIONS GROUNDING BUS BAR - TMGB
SCALE: NTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

CONSTRUCTION DOCUMENTS

DATA RISERS
E-242

MECHANICAL EQUIPMENT SCHEDULE

UNIT NAME			ELECTRICAL INPUT					FEEDER					STARTER / DISCONNECT / CONNECTION AT UNIT							
									CONDUIT	WIRE (CU)				STARTER	OCP		DISCONNECT			
TYPE	No.	DESCRIPTION	LOAD	TYPE	VOLTS	PHASE	AMPS	QTY	SIZE	QTY	SIZE	EQPT GND	NOTE	SIZE	SIZE	POLES	SIZE	POLES	ENCLOSURE	REMARKS
B	1	BOILER	12.7	FLA	480 V	3	12.7 A	1	3/4"	3	12	12	9A	-	-	-	30	3	NEMA 1	
B	2	BOILER	12.7	FLA	480 V	3	12.7 A	1	3/4"	3	12	12	9A	-	-	-	30	3	NEMA 1	
CH	01	CHILLER	252	MCA	480 V	3	252 A	2	2"	3	3/0	3	10A		350	3	400	3	NEMA 1	
CT	1A	COOLING TOWER	15	HP	480 V	3	21 A	1	1"	3	8	10	5A, 9A, 19A	VFD	30	3	30	3	NEMA 1 / NEMA 3R	
CT	1B	COOLING TOWER BASIN HEATER	10	KVA	480 V	3	12 A	1	3/4"	3	12	12	9A	-	-	-	30	3	NEMA 3R	WITH 30A, 3P CONTACTOR RATED FOR RESISTIVE ELECTRIC HEAT
CT	1C	COOLING TOWER FILTER	2	FLA	120 V	1	2 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
CU	1	OUTDOOR UNIT	16.6	MCA	208 V	1	16.6 A	1	3/4"	2	10	10	10A	-	20	2	30	2	NEMA 3R	
CU	2	OUTDOOR UNIT	16.6	MCA	208 V	1	16.6 A	1	3/4"	2	10	10	10A	-	20	2	30	2	NEMA 3R	
CU	3	OUTDOOR UNIT	16.6	MCA	208 V	1	16.6 A	1	3/4"	2	10	10	10A	-	20	2	30	2	NEMA 3R	
CU	4	OUTDOOR UNIT	16.6	MCA	208 V	1	16.6 A	1	3/4"	2	10	10	10A	-	20	2	30	2	NEMA 3R	
CU	5	OUTDOOR UNIT	16.6	MCA	208 V	1	16.6 A	1	3/4"	2	10	10	10A	-	20	2	30	2	NEMA 3R	
CU	6	OUTDOOR UNIT	16.6	MCA	208 V	1	16.6 A	1	3/4"	2	10	10	10A	-	20	2	30	2	NEMA 3R	
CUH	1	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	2	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	3	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	4	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	5	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	6	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	7	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CUH	8	HYDRONIC UNIT HEATER	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
CWT	1	CHEMICAL FEED	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	13A	-	-	-	-	-	NEMA 1	
DCP	1	DOMESTIC PUMP	0.5	HP	208 V	1	5.4 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
DCP	2	DOMESTIC PUMP	0.1667	HP	120 V	1	4.4 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
EF	1	EXHAUST FAN	1	HP	480 V	3	2.1 A	1	3/4"	3	12	12	4A	00	10	3	30	3	NEMA 3R	
EF	2	EXHAUST FAN	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	3	EXHAUST FAN	0.75	HP	480 V	3	1.6 A	1	3/4"	3	12	12	4A	00	10	3	30	3	NEMA 3R	
EF	4	EXHAUST FAN	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	5	EXHAUST FAN	1.5	HP	480 V	3	3 A	1	3/4"	3	12	12	4A, 9A	00	10	3	30	3	NEMA 3R	
EF	6	EXHAUST FAN	1.5	HP	480 V	3	3 A	1	3/4"	3	12	12	4A, 9A	00	10	3	30	3	NEMA 3R	
EF	7	EXHAUST FAN	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	8	EXHAUST FAN	1	HP	480 V	3	2.1 A	1	3/4"	3	12	12	4A	00	5	3	30	3	NEMA 3R	
EF	9	EXHAUST FAN	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	10	EXHAUST FAN	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	11	EXHAUST FAN	0.1	HP	120 V	1	3.3 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
EF	12	EXHAUST FAN	0.1	HP	120 V	1	3.3 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
EF	13	EXHAUST FAN	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
EF	14	EXHAUST FAN	0.75	HP	120 V	1	13.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
EF	15	EXHAUST FAN	0.75	HP	120 V	1	13.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	16	EXHAUST FAN	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EF	17	EXHAUST FAN	0.5	HP	120 V	1	9.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
EF	18	EXHAUST FAN	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 3R	
EV	1	ELEVATOR	25	HP	480 V	3	34 A	1	1-1/4"	3	4	8	18A	-	70	3	100	3	NEMA 1	
FC	1	FAN COIL UNIT	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
FC	2	FAN COIL UNIT	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
GFS	1	GLYCOL FEED SYSTEM	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
GFS	2	GLYCOL FEED SYSTEM	0.25	HP	120 V	1	5.8 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	1	NEMA 1	
IP	1	IRRIGATION PUMP	50	FLA	480 V	3	50 A	1	1-1/4"	3	2	8	5B	VFD	70	3	100	3	NEMA 3R	
K	1	ELECTRIC KILN	47	FLA	208 V	3	47 A	1	1-1/4"	3	4	10	9A	-	60	3	60	3	NEMA 1	INTERLOCK WITH EXHAUST FAN IN THE ROOM. COORDINATE WITH MECHANICAL CONTRACTOR.
MAU	1	MAKE UP AIR UNIT	2	HP	480 V	3	3.4 A	1	3/4"	3	12	12	4B	-	-	-	-	-	NEMA 3R	
MAU	2	MAKE UP AIR UNIT	2	HP	480 V	3	3.4 A	1	3/4"	3	12	12	4B	-	-	-	-	-	NEMA 3R	
P	1	PUMP	25	HP	480 V	3	34 A	1	1-1/4"	3	4	8	5A	VFD	50	3	60	3	NEMA 1	
P	2	PUMP	25	HP	480 V	3	34 A	1	1-1/4"	3	4	8	5A	VFD	50	3	60	3	NEMA 1	
P	3	PUMP	15	HP	480 V	3	21 A	1	1"	3	8	10	5A	VFD	30	3	30	3	NEMA 1	
P	4	PUMP	15	HP	480 V	3	21 A	1	1"	3	8	10	5A	VFD	30	3	30	3	NEMA 1	
P	5	PUMP	30	HP	480 V	3	40 A	1	1-1/4"	3	3	8	5A	VFD	60	3	60	3	NEMA 1	
P	6	PUMP	30	HP	480 V	3	40 A	1	1-1/4"	3	3	8	5A	VFD	60	3	60	3	NEMA 1	
P	7	PUMP	3	HP	480 V	3	4.8 A	1	3/4"	3	12	12	5A	VFD	10	3	30	3	NEMA 1	
P	8	PUMP	3	HP	480 V	3	4.8 A	1	3/4"	3	12	12	5A	VFD	10	3	30	3	NEMA 1	
PM	1	PUG MILL	16	FLA	208 V	1	16 A	1	3/4"	2	12	12	14A	-	-	-	-	-	NEMA 6-20R	
RTU	1R	ROOF TOP UNIT RETURN	25.6	MCA	480 V	3	25.6 A	1	1"	3	8	10	5A	VFD	30	3	30	3	NEMA 3R	
RTU	1S	ROOF TOP UNIT SUPPLY	43.8	MCA	480 V	3	43.8 A	1	1-1/4"	3	4	8	5A	VFD	50	3	60	3	NEMA 3R	
RTU	2R	ROOF TOP UNIT RETURN	29.4	MCA	480 V	3	29.4 A	1	1"	3	8	10	5A	VFD	35	3	60	3	NEMA 3R	
RTU	2S	ROOF TOP UNIT SUPPLY	71.9	MCA	480 V	3	71.9 A	1	1-1/2"	3	1	8	5A	VFD	80	3	100	3	NEMA 3R	
RTU	3R	ROOF TOP UNIT RETURN	29.4	MCA	480 V	3	29.4 A	1	1"	3	8	10	5A	VFD	35	3	60	3	NEMA 3R	
RTU	3S	ROOF TOP UNIT SUPPLY	71.9	MCA	480 V	3	71.9 A	1	1-1/2"	3	1	8	5A	VFD	80	3	100	3	NEMA 3R	
RTU	4R	ROOF TOP UNIT RETURN	21.5	MCA	480 V	3	21.5 A	1	3/4"	3	10	10	5A	VFD	25	3	30	3	NEMA 3R	
RTU	4S	ROOF TOP UNIT SUPPLY	36.8	MCA	480 V	3	36.8 A	1	1"	3	6	10	5A	VFD	40	3	60	3	NEMA 3R	
RTU	5R	ROOF TOP UNIT RETURN	3.3	MCA	480 V	3	3.3 A	1	3/4"	3	12	12	5A	VFD	15	3	30	3	NEMA 3R	
RTU	5S	ROOF TOP UNIT SUPPLY	8.8	MCA	480 V	3	8.8 A	1	3/4"	3	12	12	5A	VFD	15	3	30	3	NEMA 3R	
RTU	6R	ROOF TOP UNIT RETURN	15.8	MCA	480 V	3	15.8 A	1	3/4"	3	10	10	5A	VFD	20	3	30	3	NEMA 3R	
RTU	6S	ROOF TOP UNIT SUPPLY	15.8	MCA	480 V	3	15.8 A	1	3/4"	3	10	10	5A	VFD	20	3	30	3	NEMA 3R	
RTU	7R	ROOF TOP UNIT RETURN	9.2	MCA	480 V	3	9.2 A	1	3/4"	3	12	12	5A	VFD	15	3	30	3	NEMA 3R	
RTU	7S	ROOF TOP UNIT SUPPLY	15.8	MCA	480 V	3	15.8 A	1	3/4"	3	10	10	5A	VFD	20	3	30	3	NEMA 3R	
RTU	8R	ROOF TOP UNIT RETURN	9.2	MCA	480 V	3	9.2 A	1	3/4"	3	12	12	5A	VFD	15	3	30	3	NEMA 3R	
RTU	8S	ROOF TOP UNIT SUPPLY	15.8	MCA	480 V	3	15.8 A	1	3/4"	3	10	10	5A	VFD	20	3	30	3	NEMA 3R	
RTU	9R	ROOF TOP UNIT RETURN	29.4	MCA	480 V	3	29.4 A	1	1"	3	8	10	5A	VFD	35	3	60	3	NEMA 3R	
RTU	9S	ROOF TOP UNIT SUPPLY	29.4	MCA	480 V	3	29.4 A	1	1"	3	8	10	5A	VFD	35	3	60	3	NEMA 3R	
RTU	10R	ROOF TOP UNIT RETURN	15.8	MCA	480 V	3	15.8 A	1	3/4"	3	10	10	5A	VFD	20	3	30	3	NEMA 3R	
RTU	10S	ROOF TOP UNIT SUPPLY	15.8	MCA	480 V	3	15.8 A	1	3/4"	3	10	10	5A	VFD	20	3	30	3	NEMA 3R	
SS	1	FLUID FILTER	8	FLA	480 V	3	8 A	1	3/4"	3	12	12	9A	-	-	-	30	3	NEMA 1	
UI	1	SPLIT SYSTEM INDOOR UNIT	1	MCA	208 V	1	1 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	2	NEMA 1	TIE TO OUTDOOR UNIT ON ROOF
UI	2	SPLIT SYSTEM INDOOR UNIT	1	MCA	208 V	1	1 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	2	NEMA 1	TIE TO OUTDOOR UNIT ON ROOF
UI	3	SPLIT SYSTEM INDOOR UNIT	1	MCA	208 V	1	1 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	2	NEMA 1	TIE TO OUTDOOR UNIT ON ROOF
UI	4	SPLIT SYSTEM INDOOR UNIT	1	MCA	208 V	1	1 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	2	NEMA 1	TIE TO OUTDOOR UNIT ON ROOF
UI	5	SPLIT SYSTEM INDOOR UNIT	1	MCA	208 V	1	1 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	2	NEMA 1	TIE TO OUTDOOR UNIT ON ROOF
UI	6	SPLIT SYSTEM INDOOR UNIT	1	MCA	208 V	1	1 A	1	3/4"	2	12	12	1A	-	-	-	1 HP	2	NEMA 1	TIE TO OUTDOOR UNIT ON ROOF
WH	1	WATER HEATER	15	FLA	120 V	1	15 A	1	3/4"	2	12	12	16A	-	-	-	-	-	NEMA 1	
WH	2	WATER HEATER	15	FLA	120 V	1	15 A	1	3/4"	2	12	12	16A	-	-	-	-	-	NEMA 1	
WS	1	WATER SOFTENER	0.5	KVA	120 V	1	4.2 A	1	3/4"	2	12	12	13A	-	-	-	-	-	NEMA 1	

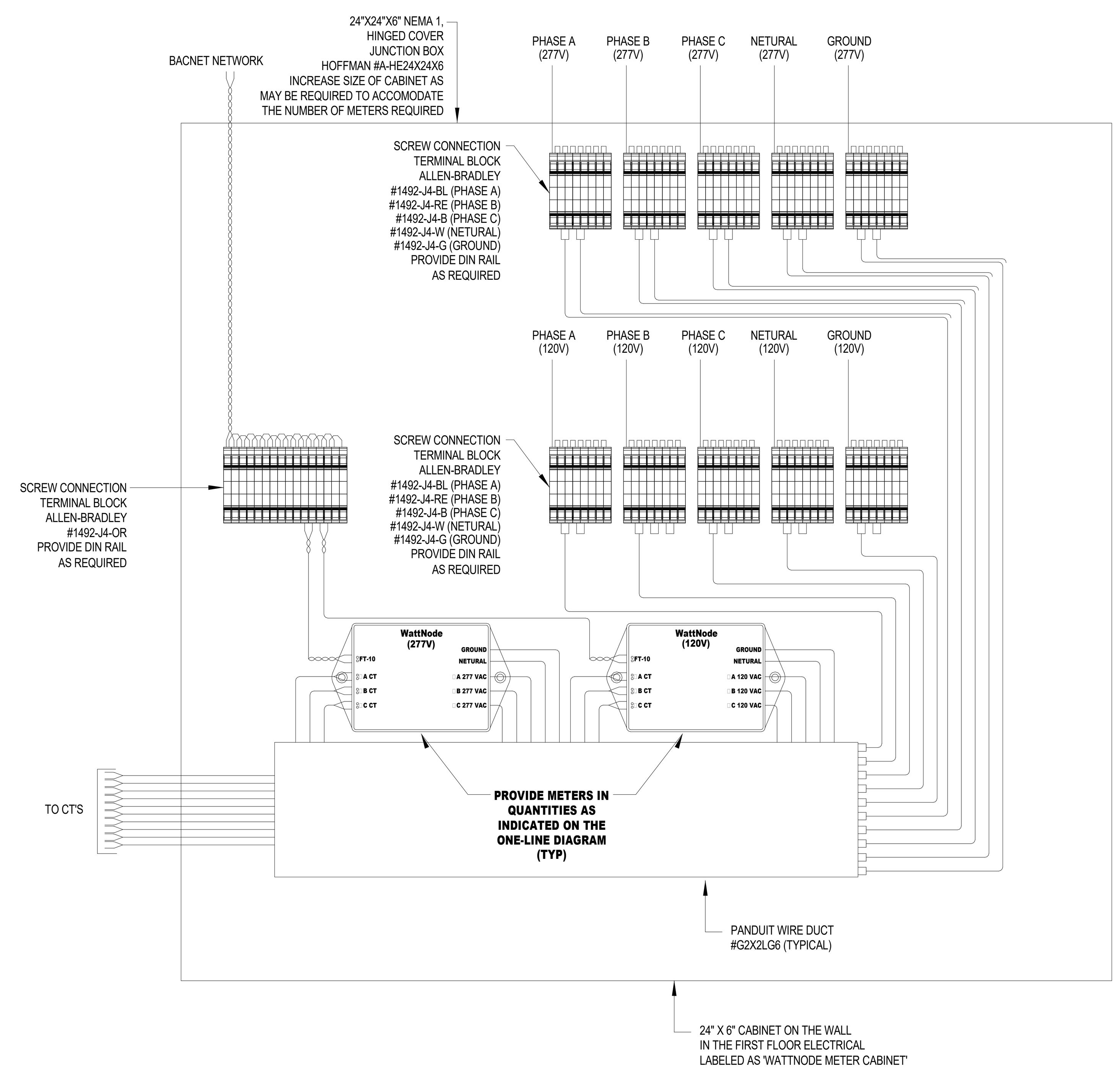
STARTER/DISCONNECT/CONNECTION AT UNIT NOTES:

1. MANUAL STARTER WITH THERMAL OVERLOAD
2. MANUAL STARTER WITH THERMAL OVERLOAD PROTECTION & LOW VOLTAGE RELAY / CONTACTOR FOR ATC CONTROL.
3. COMBINATION MAGNETIC STARTER / FUSED DISCONNECT
4. COMBINATION MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)
5. COMBINATION VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)
6. REDUCED VOLTAGE STARTER
7. COMBINATION TWO-SPEED STARTER / FUSED DISCONNECT
8. COMBINATION TWO-SPEED STARTER / MOTOR CIRCUIT PROTECTOR (MCP)
9. NON-FUSED DISCONNECT SWITCH
10. FUSED DISCONNECT SWITCH
11. BREAKER AND ENCLOSURE
12. DIRECT CONNECTION (JUNCTION BOX)
13. DUPLEX RECEPTACLE OUTLET
14. SPECIAL PURPOSE OUTLET
15. SHUNT-TRIP DISCONNECT
16. TOGGLE SWITCH
17. MAGNETIC STARTER
18. FUSED ELEVATOR SWITCH
19. PROVIDE LATE MAKE, EARLY BREAK RELAY WITH CONTROL WIRING BETWEEN VFD AND RELAY.

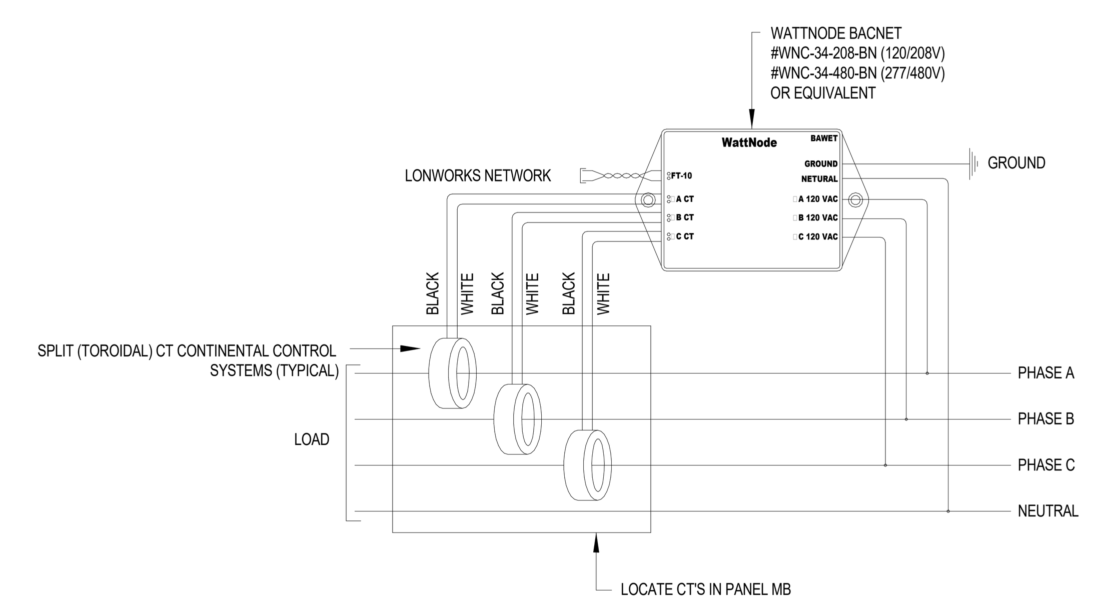
A. FURNISHED, INSTALLED & CONNECTED UNDER DIVISION 26.
B. FURNISHED & INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTIONS UNDER DIVISION 26
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26
D. FURNISHED, INSTALLED & CONNECTED UNDER ANOTHER DIVISION
E. FURNISHED BY OWNER, INSTALLED & CONNECTED BY DIVISION 26

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND SIZE FEEDER, STARTER, DISCONNECT AND OVERCURRENT PROTECTION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OF ACTUAL EQUIPMENT SUPPLIED.
2. ALL CONDUCTORS USED SHALL BE COPPER.
3. ELECTRICAL CONTRACTOR SHALL REVIEW MECHANICAL DRAWINGS FOR ANY ADDITIONAL REQUIREMENTS PRIOR TO BID.
4. ELECTRICAL CONTRACTOR SHALL REVIEW OTHER TRADE SUBMITTALS FOR ANY EQUIPMENT REQUIRING CONNECTION BY ELECTRICAL CONTRACTOR AND COORDINATE ALL REQUIREMENTS PRIOR TO ROUGH-IN.
5. SIZE ALL FUSES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



1 METER CABINET DETAIL
SCALE: NONE



2 METER WIRING DETAIL
SCALE: NONE

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK	DATE	DESCRIPTION

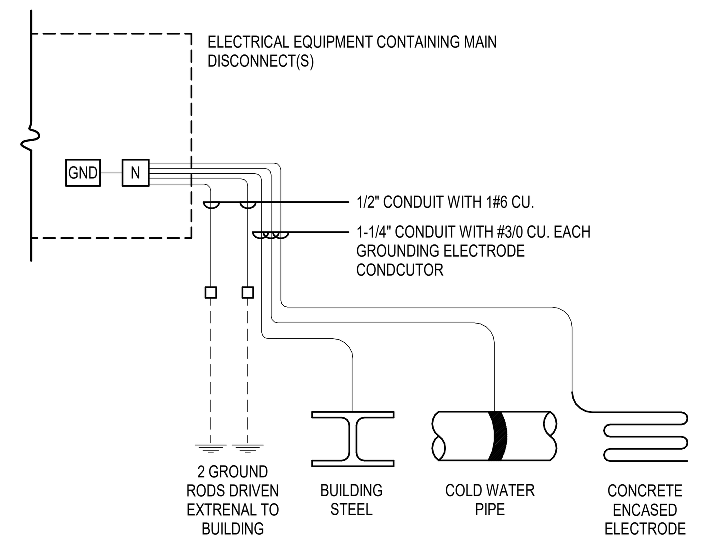
PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

EQUIPMENT SCHEDULES

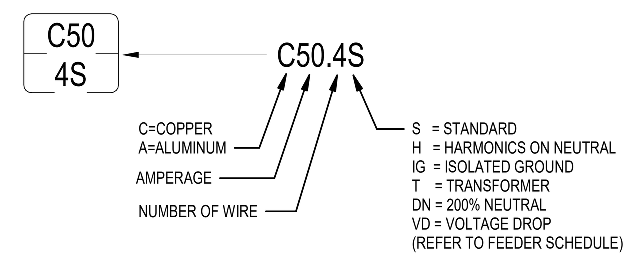
E-243

TRANSFORMER SCHEDULE												
			PRIMARY		SECONDARY		GROUNDING ELECTRODE CONDUCTOR			ELECTRO-STATIC		
NAME	TYPE	KVA	VOLTAGE	CONNECTION	VOLTAGE	CONNECTION	SIZE	TYPE	K FACTOR	SHIELD	MOUNTING	REMARKS
'T1'	HIGH-EFFICIENCY, US DEPARTMENT OF ENERGY CSL-3	150	480	DELTA	120/208	WYE	#2/0, 3/4" C.	THHN, CU. / EMT	4	YES	FLOOR	POWERSMITHS E-SAVER C3L OR PRIOR-APPROVED EQUIVALENT
'T2'	HIGH-EFFICIENCY, US DEPARTMENT OF ENERGY CSL-3	300	480	DELTA	120/208	WYE	#3/0, 3/4" C.	THHN, CU. / EMT	4	YES	FLOOR	POWERSMITHS E-SAVER C3L OR PRIOR-APPROVED EQUIVALENT
'T3'	HIGH-EFFICIENCY, US DEPARTMENT OF ENERGY CSL-3	300	480	DELTA	120/208	WYE	#3/0, 3/4" C.	THHN, CU. / EMT	4	YES	FLOOR	POWERSMITHS E-SAVER C3L OR PRIOR-APPROVED EQUIVALENT
'TM'	HIGH-EFFICIENCY, US DEPARTMENT OF ENERGY CSL-3	45	480	DELTA	120/208	WYE	#4, 3/4" C.	THHN, CU. / EMT	4	YES	WALL	POWERSMITHS E-SAVER C3L OR PRIOR-APPROVED EQUIVALENT

FEEDER SCHEDULE							
	# OF SETS	CONDUIT DIAMETER	CONDUCTOR		EQ GND COND (CU)	ISOLATED GROUND	SYSTEM BONDING JUMPER
FEEDER			#	SIZE			
C50.4S	1	1	4	6	10	-	-
C60.4S	1	1-1/4	4	4	10	-	-
C70.3S	1	1-1/4	3	4	8	-	-
C100.4S	1	1-1/2	4	2	8	-	-
A150.4H	1	2-1/2	5	4/0	6	-	-
A175.4S	1	2-1/2	4	4/0	6	-	-
A225.3S	1	3-1/2	3	300	4	-	-
A225.4S	1	3-1/2	4	300	4	-	-
A225.4H	1	3-1/2	5	300	4	-	-
A400.4S	2	3	4	250	3	-	-
A400.4H	2	3	5	250	3	-	-
A500.3S	2	3	3	350	2	-	-
A500.4HT	2	3	5	350	-	-	1/0
A1000.4HT	4	3-1/2	5	350	-	-	3/0
A1600.4S	6	3-1/2	4	500	3/0	-	-



2 **GROUNDING DETAIL**
SCALE: NTS



FEEDER CALLOUT DETAIL

GENERAL ONE-LINE NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE OWNER PRIOR TO BIDDING AND PROVIDE EQUIPMENT RATED ACCORDINGLY. SUBMIT FAULT CURRENT CALCULATIONS WITH SHOP DRAWINGS SUBMITTAL.
2. PROVIDE FULL LENGTH VERTICAL BUSSING ALL IN ALL SWITCHBOARDS, DISTRIBUTION PANELBOARDS, AND PANELBOARDS.
3. COORDINATE SPACE WITH ALL OTHER TRADES TO MAINTAIN ALL CODE-REQUITED CLEARANCES.

SELECTIVE COORDINATION REQUIREMENTS:

A. CONTRACTOR SHALL PROVIDE ALL OF THE FOLLOWING FOR THE ENTIRE SYSTEM:
   a. FAULT CURRENT ANALYSIS.
   b. ARC-FLASH STUDY.
   c. SELECTIVE COORDINATION STUDY AND SETTINGS OF ALL ADJUSTABLE TRIP OVERCURRENT PROTECTION DEVICES.

B. THE SELECTIVE COORDINATION OF THE SYSTEM (DOWN TO THE SMALLEST OVERCURRENT PROTECTIVE DEVICE) SHALL BE COORDINATED TO A LEVEL OF 0.1 SECONDS.

C. CONTRACTOR SHALL PROVIDE BUSSMAN QUIK-SPEC FUSIBLE PANELBOARD (OR APPROVED EQUIVALENT), ELECTRONIC SOLID STATE ADJUSTABLE TRIP (LSI) CIRCUIT BREAKERS, AND/OR CIRCUIT BREAKERS WITH LARGER FRAME SIZES AS NECESSARY TO ENSURE PROPER SELECTIVE COORDINATION. REFER TO SPECIFICATIONS FOR ADDITIONAL SELECTIVE COORDINATION REQUIREMENTS ON EMERGENCY, LEGALLY REQUIRED STANDBY, AND OPTIONAL STANDBY POWER SYSTEMS.

D. A PRELIMINARY SELECTIVE COORDINATION STUDY AND DEVICE SETTINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. NO ELECTRICAL EQUIPMENT SUBMITTAL SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SUBMITTING THE PRELIMINARY SELECTIVE COORDINATION STUDY AND DEVICE SETTINGS OF THE PROPOSED ELECTRICAL DISTRIBUTION EQUIPMENT AND ASSOCIATED OVERCURRENT DEVICES. THE STUDY SHALL BE SUBMITTED FOR REVIEW BY THE ELECTRICAL ENGINEER AND OWNER TO ENSURE CONFORMANCE TO THE CONSTRUCTION DOCUMENTS. NO ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE ELEASED UNTIL THE SELECTIVE COORDINATION STUDY SHOWS PROPER COORDINATION OF ALL SYSTEM ELEMENTS.

E. AT THE END OF THE PROJECT A COMPLETE FAULT CURRENT, ARC-FLASH, AND SELECTIVE COORDINATION STUDY SHALL BE SUBMITTED FOR REVIEW.

F. ONCE PRELIMINARY SELECTIVE COORDINATION STUDY IS COMPLETED, THE WITHSTAND RATING FOR THE AUTOMATIC TRANSFER SWITCHES (ATS) SHALL BE COORDINATED WITH THE SPECIFIC BREAKERS FEEDING ATS THAT ARE PROVIDED.

FEEDER GENERAL NOTES:

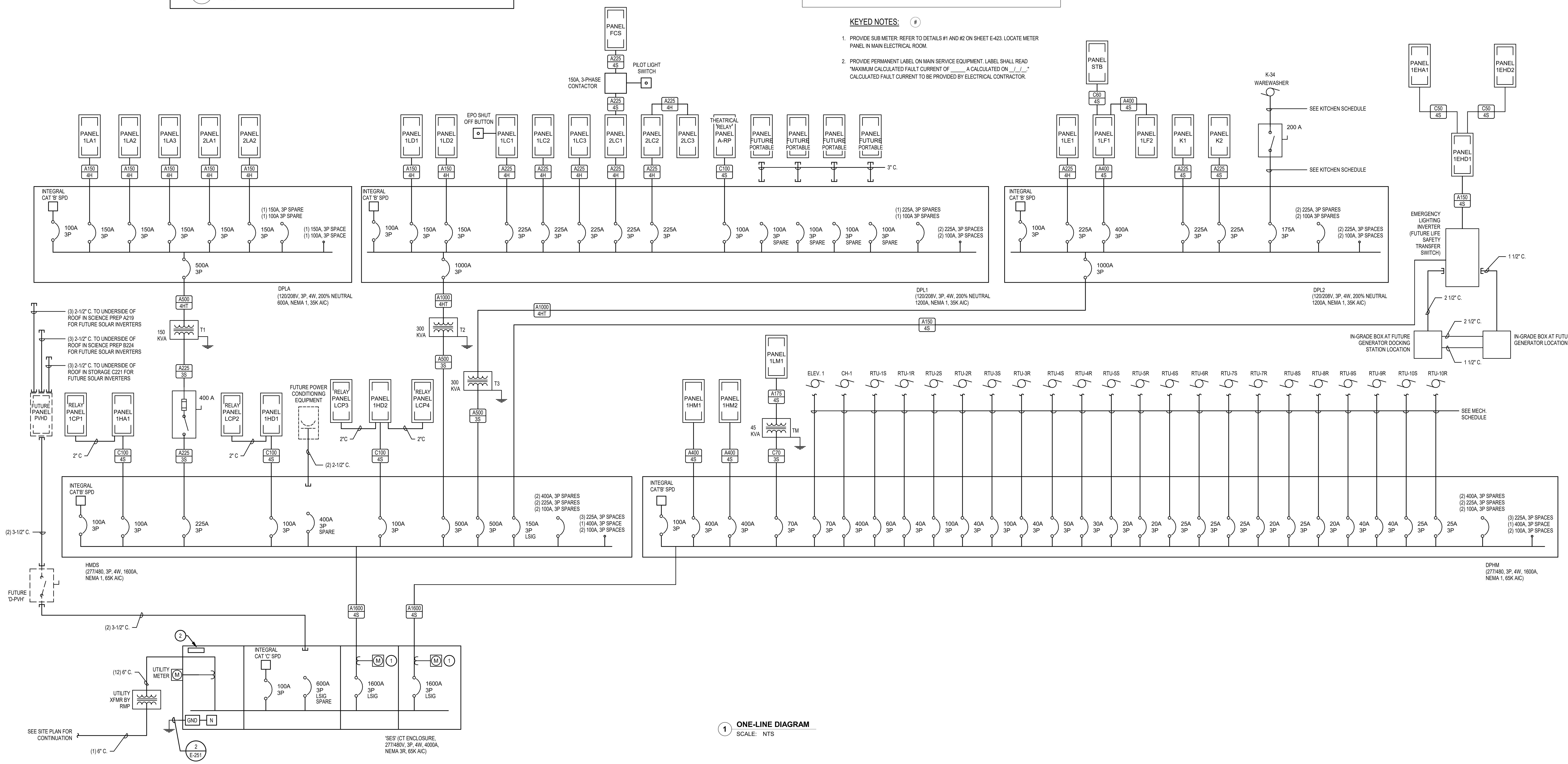
1. CONTRACTOR SHALL REVIEW ONE-LINE DIAGRAM AND CONFIRM FEEDER WIRE SIZES. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO BID. IF DISCREPANCIES EXIST, CONTRACTOR SHALL PROVIDE CORRECT WIRE SIZE BASED ON ACTUAL BREAKER SIZE AND ANY VOLTAGE DROP ADJUSTMENTS. SEE NEC 210.19, 215.2, 250.112, AND 310,15.
2. ALL GROUNDING WIRES SHOWN IN FEEDER SCHEDULE ARE COPPER WIRES.
3. ALL SYSTEM BONDING JUMPER CONDUCTORS SHOWN ARE TO BE RUN IN EACH PARALLEL FEEDER SET.

ONE-LINE SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
PANEL 'A'	LIGHTING AND APPLIANCE PANEL BOARD		POWER FACTOR CORRECTION CAPACITOR & ENCLOSURE
PANEL 'A'	LOAD CENTER		TRANSFORMER
	CIRCUIT BREAKER		AUTOMATIC TRANSFER SWITCH
	CIRCUIT BREAKER & ENCLOSURE		GROUNDING ELECTRODE & CONDUCTOR
			CURRENT TRANSFORMER
	GENERATOR	M	METER
	MOTOR		FUSED DISCONNECT SWITCH
SPD	SURGE SUPPRESSION DEVICE		
	DISCONNECT SWITCH		
			ISOLATION BYPASS AUTOMATIC TRANSFER SWITCH

KEYED NOTES:

1. PROVIDE SUB METER: REFER TO DETAILS #1 AND #2 ON SHEET E-423. LOCATE METER PANEL IN MAIN ELECTRICAL ROOM.
2. PROVIDE PERMANENT LABEL ON MAIN SERVICE EQUIPMENT. LABEL SHALL READ "MAXIMUM CALCULATED FAULT CURRENT OF ______ A CALCULATED ON __/__/__" CALCULATED FAULT CURRENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR.



1 **ONE-LINE DIAGRAM**
SCALE: NTS

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255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

DESCRIPTION:
MARK:
DATE:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

ONE-LINE DIAGRAM
E-251

PANELBOARD SCHEDULE

PANEL NAME: 1EHA1

MOUNTING: SURFACE	VOLTAGE: 480/277 Wye	LOCATION: ELEC A120	FEED FROM: 1EHD1
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: CAT 'A'
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 100 A	NEUTRAL RATING: 100 %
	Min. A.I.C. RATING: 35K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	EM LTG - LEVEL 1 AREAS A,B	20 A	1	L	1	1846 VA	--					2	--	1	--	-SPACE ONLY-	
	EM LTG - LEVEL 2 AREAS A,B	20 A	1	L	3			1674 VA	--			4	--	1	--	-SPACE ONLY-	
	EM LTG - BUILDING EXTERIOR	20 A	1	L	5					656 VA	--	6	--	1	--	-SPACE ONLY-	
	EM LTG - ELEVATOR B112	20 A	1	L	7	160 VA	--					8	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	9			0 VA				10	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	11					0 VA	--	12	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	13	0 VA	--					14	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	15			0 VA				16	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	17					0 VA	--	18	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	19	0 VA	--					20	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	21			0 VA				22	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	23					0 VA	--	24	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					2006 VA		1674 VA		656 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					8 A		7 A		2 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	4336 VA
L	Lighting	4336 VA	125.00%	5420 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	5420 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	5 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	7 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1EHD1

MOUNTING: SURFACE	VOLTAGE: 480/277 Wye	LOCATION: EMERGENCY ELECTRICAL D137	FEED FROM: HMDS
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: CAT A
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 225 A	NEUTRAL RATING: 100%
	Min. A.I.C. RATING: 35 K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	EM. LTG - LEVEL 2 AREA C	20 A	1	L	1	1522 VA	2006 VA					2	P	3	50 A	1EHA1	
	EM. LTG - BUILDING EXTERIOR	20 A	1	L	3			414 VA	1674 VA			4	--	--	--	--	--
	EM. LTG - LEVEL 1 AREA C	20 A	1	L	5					3216 VA	656 VA	6	--	--	--	--	--
	EM. LTG - AREA D	20 A	1	L	7	4552 VA	616 VA					8	P	3	50 A	1EHD2	
	-SPARE-	20 A	1	--	9			0 VA	2930 VA			10	--	--	--	--	--
	-SPARE-	20 A	1	--	11					0 VA	0 VA	12	--	--	--	--	--
	-SPARE-	20 A	1	--	13	0 VA	--					14	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	15			0 VA	--			16	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	17					0 VA	--	18	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	19	0 VA	--					20	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	21			0 VA	--			22	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	23					0 VA	--	24	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					8696 VA		5018 VA		3872 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					32 A		19 A		14 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	17586 VA
L	Lighting	17586 VA	125.00%	21983 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	21983 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	21 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	26 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1EHD2

MOUNTING: SURFACE	VOLTAGE: 480/277 Wye	LOCATION: ELEC. D118	FEED FROM: 1EHD1
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: CAT 'A'
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 100 A	NEUTRAL RATING: 100%
	Min. A.I.C. RATING: 35K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	EM. LTG - BUILDING EXTERIOR	20 A	1	L	1	616 VA	--					2	--	1	--	-SPACE ONLY-	
	EM. LTG - GYMNASIUMS	20 A	1	L	3			2930 VA	--			4	--	1	--	-SPACE ONLY-	
					5						--	6	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	7	0 VA	--					8	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	9			0 VA	--			10	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	11					0 VA	--	12	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	13	0 VA	--					14	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	15			0 VA	--			16	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	17					0 VA	--	18	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	19	0 VA	--					20	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	21			0 VA	--			22	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	23					0 VA	--	24	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					616 VA		2930 VA		0 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					3 A		11 A		0 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	3546 VA
L	Lighting	3546 VA	125.00%	4433 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	4433 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	4 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	5 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1HA1

MOUNTING: SURFACE	VOLTAGE: 480/277 Wye	LOCATION: ELEC A120	FEED FROM: HMDS
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: NONE
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 100 A	NEUTRAL RATING: 100%
	Min. A.I.C. RATING: 35K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	-SPARE-	20 A	1	--	1	0 VA	3145 VA					2	L	1	20 A	LTG - SITE POLES - NIBLEY	
	-SPARE-	20 A	1	--	3			0 VA	2528 VA			4	L	1	20 A	LTG - LEVEL 1 AREA A	
	-SPARE-	20 A	1	--	5					0 VA	3470 VA	6	L	1	20 A	LTG - LEVEL 1 AREA A	
	-SPARE-	20 A	1	--	7	0 VA	3136 VA					8	L	1	20 A	LTG - LEVEL 1 AREA A	
	-SPARE-	20 A	1	--	9			0 VA	1395 VA			10	L	1	20 A	LTG - LEVEL 1 AREA B	
	-SPARE-	20 A	1	--	11					0 VA	3360 VA	12	L	1	20 A	LTG - LEVEL 1 AREA B	
	-SPARE-	20 A	1	--	13	0 VA	2466 VA					14	L	1	20 A	LTG - LEVEL 2 AREA B	
	-SPARE-	20 A	1	--	15			0 VA	3072 VA			16	L	1	20 A	LTG - LEVEL 2 AREA B	
	-SPARE-	20 A	1	--	17					0 VA	2920 VA	18	L	1	20 A	LTG - LEVEL 2 AREA A	
	-SPARE-	20 A	1	--	19	0 VA	2908 VA					20	L	1	20 A	LTG - LEVEL 2 CORRIDORS	
	-SPARE-	20 A	1	--	21			0 VA	2112 VA			22	L	1	20 A	LTG - LEVEL 2 ALT. BID...	
	-SPARE-	20 A	1	--	23					0 VA	128 VA	24	L	1	20 A	LTG - MONUMENT SIGN	
	TOTAL CONNECTED LOAD PER PHASE (VA)					11655 VA		9107 VA		9878 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					43 A		33 A		36 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	30640 VA
L	Lighting	30640 VA	125.00%	38300 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	38300 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	37 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	46 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1HD1

MOUNTING: SURFACE	VOLTAGE: 480/277 Wye	LOCATION: MAIN ELECTRICAL D138	FEED FROM: HMDS
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: NONE
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 100 A	NEUTRAL RATING: 100%
	Min. A.I.C. RATING: 35K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	LTG - LEVEL 2 AREA C	20 A	1	L	1	3052 VA	2913 VA					2	L	1	20 A	LTG - LEVEL 1 AREA E CORR.	
	LTG - LEVEL 2 AREA C	20 A	1	L	3			1790 VA	1840 VA			4	L	1	20 A	LTG - LEVEL 1 AREA D CORR.	
	LTG - LEVEL 2 AREA C CORR.	20 A	1	L	5					2049 VA	0 VA	6	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA C CORR.	20 A	1	L	7	2298 VA	0 VA					8	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 MEDIA CENTER	20 A	1	L	9			1900 VA	0 VA			10	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 MEDIA CENTER	20 A	1	L	11					1344 VA	0 VA	12	--	1	20 A	-SPARE-	
	LTG - LEVEL1 AREA C CLASS	20 A	1	L	13	2181 VA	0 VA					14	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA D	20 A	1	L	15			2602 VA	0 VA			16	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 CAFETORIUM	20 A	1	L	17					200 VA	0 VA	18	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	19	0 VA	0 VA					20	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					10444 VA		8132 VA		3593 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					40 A		32 A		13 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	22169 VA
L	Lighting	22169 VA	125.00%	27711 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	27711 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	27 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	33 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1HD2

MOUNTING: SURFACE	VOLTAGE: 480/277 Wye	LOCATION: ELEC. D118	FEED FROM: HMDS
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: NONE
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 100 A	NEUTRAL RATING: 100%
	Min. A.I.C. RATING: 35K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	LTG - LEVEL 1 AREA D CLASS	20 A	1	L	1	2812 VA	0 VA					2	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	3			0 VA	0 VA			4	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	5					0 VA	0 VA	6	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA F GYM	20 A	1	L	7	2850 VA	0 VA					8	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA F CORR.	20 A	1	L	9			1276 VA	0 VA			10	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA F	20 A	1	L	11					2224 VA	0 VA	12	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA F GYM	20 A	1	L	13	3226 VA	0 VA					14	--	1	20 A	-SPARE-	
	LTG - LEVEL 1 AREA F GYM	20 A	1	L	15			2565 VA	0 VA			16	--	1	20 A	-SPARE-	
	LTG - SITE POLES	20 A	1	L	17					3828 VA	0 VA	18	--	1	20 A	-SPARE-	
	LTG - SITE BOLLARDS	20 A	1	L	19	1124 VA	0 VA					20	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					10012 VA		3841 VA		6052 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					37 A		14 A		23 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	19905 VA
L	Lighting	19905 VA	125.00%	24881 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	24881 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	24 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	30 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LA1

MOUNTING: SURFACE	VOLTAGE: 120/208 Wye	LOCATION: ELEC A120	FEED FROM: DPLA
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: CAT 'A'
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 225 A	NEUTRAL RATING: 200%
	Min. A.I.C. RATING: 22K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT TEACHER LOUNGE 636	20 A	1	R	1	360 VA	360 VA					2	R	1	20 A	RCPT SPECIAL ED. 687	
	RCPT TEACHER LOUNGE 636	20 A	1	R	3			180 VA	360 VA			4	R	1	20 A	RCPT SPECIAL ED. 687	
	RCPT TEACHER LOUNGE 636	20 A	1	R	5					1500 VA	360 VA	6	R	1	20 A	RCPT SPECIAL ED. 687	
	RCPT TEACHER LOUNGE 636	20 A	1	R	7	1500 VA	360 VA					8	R	1	20 A	RCPT CLASSROOM 688	
	REFRIGERATOR LOUNGE B107	20 A	1	E	9			1200 VA	360 VA			10	R	1	20 A	RCPT CLASSROOM 688	
	REFRIGERATOR LOUNGE B107	20 A	1	E	11					1200 VA	360 VA	12	R	1	20 A	RCPT CLASSROOM 688	
	VENDING LOUNGE B107	20 A	1	E	13	1200 VA	360 VA					14	R	1	20 A	RCPT CLASSROOM 690	
	VENDING LOUNGE B107	20 A	1	E	15			1200 VA	360 VA			16	R	1	20 A	RCPT CLASSROOM 690	
	RCPT TEACHER LOUNGE B107	20 A	1	R	17					720 VA	360 VA	18	R	1	20 A	RCPT CLASSROOM 690	
	RCPT TEACHER LOUNGE B107	20 A	1	R	19	540 VA	360 VA					20	R	1	20 A	RCPT CLASSROOM 691	
	RCPT CORRIDOR 109, 645	20 A	1	R	21			1080 VA	360 VA			22	R	1	20 A	RCPT CLASSROOM 691	
	RCPT CLASSROOM 637	20 A	1	R	23					360 VA	360 VA	24	R	1	20 A	RCPT CLASSROOM 691	
	RCPT CLASSROOM 637	20 A	1	R	25	360 VA	900 VA					26	R	1	20 A	RCPT RESTROOM 736	
	RCPT CLASSROOM 637	20 A	1	R	27			360 VA	900 VA			28	R	1	20 A	RCPT RESTROOM 737	
	RCPT CLASSROOM 638	20 A	1	R	29					360 VA	1080 VA	30	R	1	20 A	RCPT CORRIDOR 108, 645	
	RCPT CLASSROOM 638	20 A	1	R	31	360 VA	600 VA					32	R	1	20 A	DRINKING FOUNTAIN CORR. 645	1
	RCPT CLASSROOM 638	20 A	1	R	33			360 VA	720 VA			34	R	1	20 A	RCPTS - SPECIAL ED. A111	
	RCPT CLASSROOM 639	20 A	1	R	35					360 VA	1080 VA	36	E	1	20 A	A/V CAB. -SPECIAL ED. A111	
	RCPT CLASSROOM 639	20 A	1	R	37	360 VA	720 VA					38	R	1	20 A	RCPTS - SPECIAL ED. A112	
	RCPT CLASSROOM 639	20 A	1	R	39			360 VA	720 VA			40	R	1	20 A	RCPTS - SPECIAL ED. A112	
	RCPT SPECIAL ED. 689	20 A	1	R	41					360 VA	1080 VA	42	E	1	20 A	A/V CAB. -SPECIAL ED. A112	
	RCPT SPECIAL ED. 689	20 A	1	R	43	360 VA	0 VA					44	--	1	20 A	-SPARE-	
	RCPT SPECIAL ED. 689	20 A	1	R	45			360 VA	0 VA			46	--	1	20 A	-SPARE-	
	RCPTS - SPECIAL ED. A111	20 A	1	R	47					720 VA	0 VA	48	--	1	20 A	-SPARE-	
	ICE MAKER TEACHER LNGE...	20 A	1	E	49	750 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	55	0 VA	0 VA					56	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	57			0 VA	0 VA			58	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	59					0 VA	0 VA	60	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					9450 VA		8880 VA		10260 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					79 A		74 A		86 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	10800 VA	96.30%	10400 VA	Total Conn. Load:	28590 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	26345 VA
E	Equipment	11640 VA	100.00%	11640 VA	Total Conn. Current:	79 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	73 A
K	Kitchen	6150 VA	70.00%	4305 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LA2

MOUNTING: SURFACE	VOLTAGE: 120/208 Wye	LOCATION: ELEC A120	FEED FROM: DPLA
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: CAT 'A'
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 225 A	NEUTRAL RATING: 200%
	Min. A.I.C. RATING: 22K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT SCIENCE CLASSROOM...	20 A	1	R	1	360 VA	360 VA					2	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	3			360 VA	360 VA			4	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	5					360 VA	360 VA	6	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	7	360 VA	360 VA					8	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	9			360 VA	360 VA			10	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	11					360 VA	360 VA	12	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	13	360 VA	360 VA					14	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	15			360 VA	360 VA			16	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	17					360 VA	360 VA	18	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	19	360 VA	360 VA					20	R	1	20 A	RCPT SCIENCE CLASSROOM...	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	21			360 VA	540 VA			22	R	1	20 A	RCPT SCIENCE PREP 722	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	23					360 VA	540 VA	24	R	1	20 A	RCPT SCIENCE PREP 722	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	25	360 VA	540 VA					26	R	1	20 A	RCPT SCIENCE PREP 682	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	27			360 VA	540 VA			28	R	1	20 A	RCPT SCIENCE PREP 682	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	29					360 VA	360 VA	30	R	1	20 A	RCPT CLASSROOM A108	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	31	360 VA	360 VA					32	R	1	20 A	RCPT CLASSROOM A108	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	33			360 VA	720 VA			34	R	1	20 A	RCPT CLASSROOM A106	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	35					360 VA	1080 VA	36	R	1	20 A	RCPT CLASSROOM A106	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	37	360 VA	720 VA					38	R	1	20 A	A/V CABINET CLASSROOM A106	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	39			360 VA	720 VA			40	R	1	20 A	RCPT CLASSROOM A107	
	RCPT CLASSROOM A105	20 A	1	R	41					360 VA	1080 VA	42	R	1	20 A	RCPT CLASSROOM A107	
	RCPT CLASSROOM A105	20 A	1	R	43	360 VA	720 VA					44	R	1	20 A	A/V CABINET CLASSROOM A107	
	RCPT CLASSROOM A105	20 A	1	R	45			360 VA	1200 VA			46	R	1	20 A	DISHWASHER SCIENCE A119	
	RCPT CLASSROOM A108	20 A	1	R	47					360 VA	1200 VA	48	R	1	20 A	DISHWASHER SCIENCE B124	
	-SPARE-	20 A	1	--	49	0 VA	1200 VA					50	R	1	20 A	DISHWASHER SCIENCE B124	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	55	0 VA	0 VA					56	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	57			0 VA	0 VA			58	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	59					0 VA	0 VA	60	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					7860 VA		7680 VA		8220 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					66 A		64 A		69 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	7200 VA	100.00%	7200 VA	Total Conn. Load:	23760 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	23400 VA
E	Equipment	12960 VA	100.00%	12960 VA	Total Conn. Current:	66 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	65 A
K	Kitchen	3600 VA	90.00%	3240 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LA3

MOUNTING: SURFACE	VOLTAGE: 120/208 Wye	LOCATION: ELEC A120	FEED FROM: DPLA
ENCLOSURE: NEMA 1	PHASE: 3	MAIN TYPE: MLO	SPD: CAT 'A'
DOOR TYPE: DOOR-IN-DOOR	WIRES: 4	BUS RATING: 225 A	NEUTRAL RATING: 200%
	Min. A.I.C. RATING: 22K AIC	MCB RATING: N/A	ISOLATED GROUND: NONE
		BUS MATERIAL: ALUMINUM	

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	HAND DRYER - TOILET A124	20 A	1	E	1	1500 VA	1680 VA					2	E	1	20 A	RACK OUTLET - IDF A220	
	HAND DRYER - FEMALE A122	20 A	1	E	3			1500 VA	1680 VA			4	E	1	20 A	RACK OUTLET - IDF A220	
	HAND DRYER - FEMALE A122	20 A	1	E	5					1500 VA	1680 VA	6	E	1	20 A	RACK OUTLET - IDF A220	
	HAND DRYER - FEMALE A122	20 A	1	E	7	1500 VA	1680 VA					8	E	1	20 A	RACK OUTLET - IDF A220	
	HAND DRYER - TOILET A123	20 A	1	E	9			1500 VA	500 VA			10	P	1	20 A	ACCESS CONTROL PANEL	
	HAND DRYER - MALE A121	20 A	1	E	11					1500 VA	500 VA	12	P	1	20 A	FIRE ALARM PANEL	
	HAND DRYER - MALE A121	20 A	1	E	13	1500 VA	500 VA					14	P	1	20 A	FIRE ALARM PANEL	
	HAND DRYER - MALE A121	20 A	1	E	15			1500 VA	800 VA			16	O	1	20 A	VAV BOXES	
	ICE MAKER - STORAGE A118	20 A	1	E	17					750 VA	800 VA	18	O	1	20 A	VAV BOXES	
	RCPTS - ESSENT. ELEMNTS...	20 A	1	R	19	1080 VA	0 VA					20	--	1	20 A	-SPARE-	
	A/V CAB. ESSENT. ELEMNTS...	20 A	1	E	21			720 VA	0 VA			22	--	1	20 A	-SPARE-	
	RCPTS - ESSENT. ELEMNTS...	20 A	1	R	23					900 VA	0 VA	24	--	1	20 A	-SPARE-	
	RCPT CORRIDOR B120	20 A	1		25	720 VA	0 VA					26	--	1	20 A	-SPARE-	
	HAND DRYER - RESTROOM B103	20 A	1	E	27			1500 VA	0 VA			28	--	1	20 A	-SPARE-	
	ADA HOIST -RESTROOM B103	20 A	1	E	29					1000 VA	0 VA	30	--	1	20 A	-SPARE-	
	RECEPTACLE	20 A	1		31	720 VA	0 VA					32	--	1	20 A	-SPARE-	
	(CUH-5)	20 A	1	M	33			1176 VA	0 VA			34	--	1	20 A	-SPARE-	
	(CUH-6)	20 A	1	M	35					1176 VA	0 VA	36	--	1	20 A	-SPARE-	
	(EF-11)	20 A	1	M	37	396 VA	0 VA					38	--	1	20 A	-SPARE-	
	RCPT IDF A220	20 A	1	R	39			360 VA	0 VA			40	--	1	20 A	-SPARE-	
	RCPT IDF A220	20 A	1	R	41					360 VA	0 VA	42	--	1	20 A	-SPARE-	
	RCPT IDF A220	20 A	1	R	43	360 VA	0 VA					44	--	1	20 A	-SPARE-	
	RCPT IDF A220	20 A	1	R	45			360 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	55	0 VA	0 VA					56	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	57			0 VA	0 VA			58	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	59					0 VA	0 VA	60	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					11636 VA		11596 VA		10166 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					99 A		98 A		85 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	13300 VA	87.59%	11650 VA	Total Conn. Load:	33398 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	32141 VA
E	Equipment	15100 VA	100.00%	15100 VA	Total Conn. Current:	93 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	89 A
K	Kitchen	750 VA	100.00%	750 VA		
O	Other	1500 VA	100.00%	1500 VA		

PANELBOARD SCHEDULE KEYED NOTE:

1. PROVIDE CLASS A GROUND FAULT INTERRUPTER TYPE CIRCUIT BREAKER.
2. PROVIDE ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER.
3. PROVIDE 30 MILLIAMPERE EQUIPMENT GROUND FAULT PROTECTOR TYPE CIRCUIT BREAKER.
4. PROVIDE SHUNT TRIP CIRCUIT BREAKER WITH 120 V COIL.
5. PROVIDE HACR RATED CIRCUIT BREAKER.
6. PROVIDE HANDLE CLAMP FOR HOLDING CIRCUIT BREAKER IN THE "ON" OR "OFF" POSITION.
7. PROVIDE SWITCHING RATED CIRCUIT BREAKER.
8. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD (WHERE PANEL IS LABELED AS EXISTING) OF SAME MANUFACTURER AND A.I.C. RATING AS EXISTING.
9. EXISTING LOAD.

PANEL LEGEND

1EHA1	1EHD1	1EHD2
1HA1	1HD1	1HD2
1LA1	1LA2	1LA3

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3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

DESCRIPTION:
DATE:
MARK:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

PANEL SCHEDULES

E-261

PANELBOARD SCHEDULE

PANEL NAME: 1LC1

MOUNTING: RECESSED | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 35K AIC
LOCATION: SHARED STORAGE C102 | MAIN TYPE: MCB/SHUNT TR. | BUS RATING: 225 A | MCB RATING: 225 A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	DUST COLLECTOR - CCA SHOP	20 A	2	E	1	1248 VA	540 VA					2	R	1	20 A	RCPT SHARED STORAGE C102	
--	--	--	--	--	3			1248 VA	250 VA			4	E	2	20 A	AIR COMP. STORAGE C102	
	RCPTS - CCA SHOP 103	20 A	1	R	5					1920 VA	250 VA	6	--	--	--	--	--
	TV'S - CCA SHOP C103	20 A	1	E	7	900 VA	360 VA					8	R	1	20 A	RCPT SHARED STORAGE C102	
	DRILL PRESS - CCA SHOP C103	20 A	1	E	9			1500 VA	1656 VA			10	E	1	20 A	BELT SANDER CCA SHOP C103	
	DRILL PRESS - CCA SHOP C103	20 A	1	E	11					1500 VA	1176 VA	12	E	1	20 A	OSC. SANDER CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	13	1200 VA	0 VA					14	E	1	20 A	DOWNDRAFT CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	15			1200 VA	0 VA			16	E	1	20 A	DOWNDRAFT CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	17					1200 VA	1176 VA	18	E	1	20 A	LATHE CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	19	1200 VA	1176 VA					20	E	1	20 A	LATHE CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	21			1200 VA	1176 VA			22	E	1	20 A	LATHE CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	23					1200 VA	1176 VA	24	E	1	20 A	LATHE CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	25	1200 VA	1800 VA					26	E	1	20 A	SCROLL SAW CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	27			1200 VA	1800 VA			28	E	1	20 A	SCROLL SAW CCA SHOP C103	
	CORD DROP - CCA SHOP C103	20 A	1	E	29					1200 VA	1800 VA	30	E	1	20 A	SCROLL SAW CCA SHOP C103	
	SCROLL SAW CCA SHOP C103	20 A	1	E	31	1800 VA	1000 VA					32	E	1	20 A	SCROLL SAW CCA SHOP C103	
	SCROLL SAW CCA SHOP C103	20 A	1	E	33			1000 VA	1656 VA			34	M	1	20 A	(EF-14) EXHAUST FAN	
	TABLE SAW STORAGE C102	20 A	1	E	35					2880 VA	0 VA	36	O	1	20 A	EM. SHUT OFF - CCA SHOP C103	
	BAND SAW STORAGE C102	20 A	1	E	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	BAND SAW STORAGE C102	20 A	1	E	39			2400 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	43	0 VA	0 VA					44	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	45			0 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					12424 VA		16286 VA		15478 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					104 A		140 A		133 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	5520 VA	100.00%	5520 VA	Total Conn. Load:	44188 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	44602 VA
E	Equipment	34016 VA	100.00%	34016 VA	Total Conn. Current:	123 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	124 A
K	Kitchen	2996 VA	100.00%	2996 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LC2

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: MAIN ELECTRICAL D138 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT RESTROOM 181, 699	20 A	1	R	1	540 VA	720 VA					2	R	1	20 A	RCPT OFFICE C108	
	RCPT FACULTY WORKROOM...	20 A	1	R	3			540 VA	720 VA			4	R	1	20 A	RCPT OFFICE C109	
	RCPT FACULTY WORKROOM...	20 A	1	R	5					360 VA	540 VA	6	R	1	20 A	RCPT MEDIA CNTR DESK C115	
	RCPT FACULTY WORKROOM...	20 A	1	R	7	540 VA	900 VA					8	R	1	20 A	RCPT ROOM C114, C113, C115	
	RCPT FACULTY WORKROOM...	20 A	1	R	9			1500 VA	1080 VA			10	R	1	20 A	RCPT MEDIA CENTER C115	
	RCPT FACULTY WORKROOM...	20 A	1	R	11					1500 VA	1260 VA	12	R	1	20 A	RCPT FORUM C116	
	RCPT CNSLR RSRCE OFF 634	20 A	1	R	13	720 VA	1080 VA					14	R	1	20 A	RCPTS - CORRIDOR C105	
	PLUGSTRIP MEDIA CENTER...	20 A	1	R	15			720 VA	900 VA			16	R	1	20 A	RECEPTACLES	
	PLUGSTRIP MEDIA CENTER...	20 A	1	R	17					720 VA	180 VA	18	R	1	20 A	RCPT ELEV. B112	
	RCPTS - MEDIA CENTER C115	20 A	1	R	19	720 VA	720 VA					20	R	1	20 A	RCPT A/V CABINET C115	
	RCPTS - MEDIA CENTER C115	20 A	1	R	21			900 VA	360 VA			22	R	1	20 A	RCPT MEDIA CENTER C115	
	A/V CAB. - STORAGE C118	20 A	1	E	23					1000 VA	180 VA	24	R	1	20 A	RCPT ELEV. EQUIP B113	
	RCPTS - FORUM C116	20 A	1	R	25	1080 VA	1200 VA					26	M	1	20 A	MOTORIZED SHADES - C115	
	RCPTS - SCHOOL STORE C120	20 A	1	R	27			1080 VA	720 VA			28	R	1	20 A	RCPT MOTOR C121	
	RCPTS - CORRIDOR C111	20 A	1	R	29					900 VA	0 VA	30	--	1	20 A	-SPARE-	
	RCPTS - LUNCH ACCOUNTS...	20 A	1	R	31	720 VA	0 VA					32	--	1	20 A	-SPARE-	
	ADA DOOR MOTOR - VEST. C104	20 A	1	M	33			100 VA	0 VA			34	--	1	20 A	-SPARE-	
	(CUH-4)	20 A	1	M	35					1176 VA	0 VA	36	--	1	20 A	-SPARE-	
	ADA DOOR MOTOR - VEST. C104	20 A	1	M	37	100 VA	0 VA					38	--	1	20 A	-SPARE-	
	RCPTS - CORRIDOR C105	20 A	1	R	39			1260 VA	0 VA			40	--	1	20 A	-SPARE-	
	WATER FOUNTAIN OFFICE 221	20 A	1	R	41					600 VA	0 VA	42	--	1	20 A	-SPARE-	
	VAV BOXES	20 A	1	E	43	400 VA	0 VA					44	--	1	20 A	-SPARE-	
	VAV BOXES	20 A	1	E	45			200 VA	0 VA			46	--	1	20 A	-SPARE-	
	PROJ. SCREEN FORUM C116	20 A	1	E	47					1000 VA	0 VA	48	--	1	20 A	-SPARE-	
	PROJECTOR FORUM C116	20 A	1	E	49	1200 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					10640 VA		10080 VA		9416 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					90 A		85 A		78 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	20920 VA	73.90%	15460 VA	Total Conn. Load:	30136 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	24970 VA
E	Equipment	5040 VA	100.00%	5040 VA	Total Conn. Current:	84 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	69 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LC3

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: MAIN ELECTRICAL D138 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	LAZER ENGRAVER	20 A	2	E	1	250 VA	525 VA					2	E	1	20 A	MITER SAW	
--	--	--	--	--	3			250 VA	1680 VA			4	E	1	20 A	RACK OUTLET - MDF D136	
	RCPT CLASSROOM C101	20 A	1	R	5					1260 VA	1680 VA	6	E	1	20 A	RACK OUTLET - MDF D136	
	RCPT CLASSROOM C101	20 A	1	E	7	1260 VA	1680 VA					8	E	1	20 A	RACK OUTLET - MDF D136	
	RCPTS - CLASSROOM C101	20 A	1	R	9			1200 VA	1680 VA			10	E	1	20 A	RACK OUTLET - MDF D136	
	RCPT CLASSROOM C101	20 A	1	R	11					180 VA	1680 VA	12	E	1	20 A	RACK OUTLET - MDF D136	
	RCPT CLASSROOM C101	20 A	1	R	13	180 VA	1680 VA					14	E	1	20 A	RACK OUTLET - MDF D136	
	RCPT CLASSROOM C101	20 A	1	R	15			180 VA	900 VA			16	R	1	20 A	RCPTS - MDF D136	
	RCPT CLASSROOM C101	20 A	1	R	17					180 VA	720 VA	18	R	1	20 A	RCPTS - MDF D136	
	RCPT CLASSROOM C101	20 A	1	R	19	180 VA	1500 VA					20	E	1	20 A	HAND DRYER - TOILET B118	
	RCPT CLASSROOM C101	20 A	1	R	21			180 VA	1500 VA			22	E	1	20 A	HAND DRYER - FEMALE B119	
	RCPT CLASSROOM C101	20 A	1	R	23					180 VA	1500 VA	24	E	1	20 A	HAND DRYER - FEMALE B119	
	RCPT CLASSROOM C101	20 A	1	R	25	180 VA	1500 VA					26	E	1	20 A	HAND DRYER - FEMALE B119	
	3D PRINTER CLASSROOM C101	20 A	1	E	27			1500 VA	540 VA			28	R	1	20 A	RCPT - FEMALE B119	
	3D PRINTER CLASSROOM C101	20 A	1	E	29					1500 VA	1500 VA	30	E	1	20 A	HAND DRYER - TOILET B117	
1	3D PRINTER CLASSROOM C101	20 A	1	E	31	1500 VA	1500 VA					32	E	1	20 A	HAND DRYER - MALE B116	
	ACCESS CONTROL PANEL	20 A	1	E	33			0 VA	1500 VA			34	E	1	20 A	HAND DRYER - MALE B116	
	FIRE ALARM PANEL	20 A	1	E	35					0 VA	1500 VA	36	E	1	20 A	HAND DRYER - MALE B116	
	FIRE ALARM PANEL	20 A	1	E	37	0 VA	540 VA					38	R	1	20 A	RCPT - MALE B116	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	43	0 VA	0 VA					44	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	45			0 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					12475 VA		11110 VA		11880 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					105 A		93 A		100 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	16740 VA	79.87%	13370 VA	Total Conn. Load:	35465 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	32095 VA
E	Equipment	18225 VA	100.00%	18225 VA	Total Conn. Current:	98 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	89 A
K	Kitchen	500 VA	100.00%	500 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LD1

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: MAIN ELECTRICAL D138 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPTS - BOILER D135	20 A	1	R	1	900 VA						2					
	O.H. DOOR - BOILER D135	20 A	1	M	3			1000 VA	540 VA			4	R	1	20 A	RECEPTACLE CAFETORIUM...	
	RCPTS - CHILLER C112	20 A	1	R	5					720 VA	540 VA	6	R	1	20 A	RECEPTACLE PLATFORM D102	
	O.H. DOOR - CHILLER C112	20 A	1	M	7	1000 VA	540 VA					8	R	1	20 A	RECEPTACLE CAFETORIUM...	
	RCPTS - COURTYARD	20 A	1	R	9			360 VA	540 VA			10	R	1	20 A	RECEPTACLE PLATFORM D102	
	SPRINKLER CONTROLLER	20 A	1	E	11					180 VA	180 VA	12	R	1	20 A	RECEPTACLE	
	CAFETERIUM BLEACHERS	30 A	1	E	13	2500 VA	360 VA					14	R	1	20 A	RECEPTACLE	
	CAFETERIUM BLEACHERS	30 A	1	E	15			2500 VA	540 VA			16	R	1	20 A	RECEPTACLE CAFETORIUM...	
	ROOF OUTLETS	20 A	1	R	17					900 VA	720 VA	18	R	1	20 A	RECEPTACLE CAFETORIUM...	
	ROOF OUTLETS	20 A	1	R	19	180 VA	180 VA					20	R	1	20 A	RECEPTACLE CAFETORIUM...	
	O.H. DOOR - CAFETORIUM D101	20 A	1	M	21			1000 VA	720 VA			22	R	1	20 A	RECEPTACLE M. DRESS D103	
	O.H. DOOR - CAFETORIUM D101	20 A	1	M	23					1000 VA	200 VA	24	E	1	20 A	EQUIPMENT	
	O.H. DOOR - CAFETORIUM D101	20 A	1	M	25	1000 VA	900 VA					26	R	1	20 A	RECEPTACLE CORRIDOR D121	
	RCPTS - CAFETORIUM D101	20 A	1	R	27			900 VA	0 VA			28	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	31	0 VA	0 VA					32	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	33			0 VA	0 VA			34	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	35					0 VA	0 VA	36	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					7560 VA		8100 VA		4440 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					67 A		72 A		37 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	9900 VA	100.00%	9900 VA	Total Conn. Load:	20100 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	20100 VA
E	Equipment	5200 VA	100.00%	5200 VA	Total Conn. Current:	56 A
M	Motor	5000 VA	100.00%	5000 VA	Total Est. Demand Current:	56 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LD2

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: ELEC. D118 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT ORCHESTRA GUITAR...	20 A	1	R	1	720 VA	600 VA					2	R	1	20 A	RTU-6 LTG/RCPT	
	RCPT ORCHESTRA GUITAR...	20 A	1	R	3			720 VA	180 VA			4	R	1	20 A	ROOF OUTLET	
	RECEPTACLE ORCHESTRA...	20 A	1	R	5					720 VA	1000 VA	6	E	1	20 A	FIRE DOOR CORR. D106	
	RCPT PRACTICE D109	20 A	1	R	7	720 VA	0 VA					8	--	1	20 A	-SPARE-	
	RCPT OFFICE D110	20 A	1	R	9			720 VA	0 VA			10	--	1	20 A	-SPARE-	
	RCPT CHOIR / DRAMA D111	20 A	1	R	11					900 VA	0 VA	12	--	1	20 A	-SPARE-	
	RCPT CHOIR / DRAMA D111	20 A	1	R	13	720 VA	0 VA					14	--	1	20 A	-SPARE-	
	RCPT CHOIR / DRAMA D111	20 A	1	R	15			540 VA	0 VA			16	--	1	20 A	-SPARE-	
	RCPT CHOIR / DRAMA D111	20 A	1	R	17					540 VA	0 VA	18	--	1	20 A	-SPARE-	
	RCPT PRACTICE D112	20 A	1	R	19	720 VA	0 VA					20	--	1	20 A	-SPARE-	
	RCPT LIBRARY D114	20 A	1	R	21			900 VA	0 VA			22	--	1	20 A	-SPARE-	
	RCPT OFFICE D117	20 A	1	R	23					900 VA	0 VA	24	--	1	20 A	-SPARE-	
	RCPT PRACTICE / STORAGE...	20 A	1	R	25	720 VA	0 VA					26	--	1	20 A	-SPARE-	
	RCPT BAND D119	20 A	1	R	27			540 VA	0 VA			28	--	1	20 A	-SPARE-	
	RCPT BAND D119	20 A	1	R	29					540 VA	0 VA	30	--	1	20 A	-SPARE-	
	RCPT A / V RACK BAND D119	20 A	1	R	31	720 VA	0 VA					32	--	1	20 A	-SPARE-	
	RCPT BAND D119	20 A	1	R	33			720 VA	0 VA			34	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	35					0 VA	0 VA	36	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					4920 VA		4320 VA		4600 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					41 A		36 A		39 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	12240 VA	90.85%	11120 VA	Total Conn. Load:	13840 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	12720 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	38 A
M	Motor	1000 VA	100.00%	1000 VA	Total Est. Demand Current:	35 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LE1

MOUNTING: RECESSED | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: STORAGE E119 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT VESTIBULE E110	20 A	1	R	1	1080 VA	860 VA					2	R	1	20 A	RCPT CONFERENCE E122	
	RCPT CONFERENCE 648	20 A	1	R	3			860 VA	900 VA			4	R	1	20 A	RCPT CONFERENCE E122	
	REFRIGERATOR CONF 108	20 A	1	R	5					600 VA	540 VA	6	R	1	20 A	RCPT ART / CERAMICS E125	
	RCPTS - CONFERENCE E108	20 A	1	R	7	360 VA	1260 VA					8	R	1	20 A	RCPT ROOM F103, E125	
	RCPT COUNSELOR E105	20 A	1	R	9			900 VA	720 VA			10	R	1	20 A	RCPT A/V ART / CERAMICS E125	
	RCPT COUNSELOR E103	20 A	1	R	11					720 VA	100 VA	12	O	1	20 A	EM. SHUT OFF - KILN E126	
	RCPT COUNSELOR E101	20 A	1	R	13	720 VA	5644 VA					14	E	3	60 A	(K-1) ELECTRIC KILN	
	RCPT COUNSELOR E104	20 A	1	R	15			720 VA	5644 VA			16	--	--	--	--	--
	RCPT RECEPTION E107	20 A	1	R	17					360 VA	5644 VA	18	--	--	--	--	--
	RCPT RECEPTION E107	20 A	1	R	19	360 VA	--					20	--	1	--	-SHUNT TRIP-	
	COPIER RECEPTION E107	20 A	1	R	21			1500 VA	0 VA			22	M	1	20 A	ADA MOTOR - VESTIBULE F103	
	RCPT RECEPTION E111	20 A	1	R	23					540 VA	0 VA	24	M	1	20 A	ADA MOTOR - VESTIBULE F103	
	RCPT RECEPTION E111	20 A	1	R	25	720 VA	1176 VA					26	M	1	20 A	(CUH-7) CABINET UNIT HEATER	
	RCPT HEAD SEC E113	20 A	1	R	27			1080 VA	1176 VA			28	M	1	20 A	(CUH-2) CABINET UNIT HEATER	
	EQUIPMENT RECEPTION E111	20 A	1	E	29					1500 VA	696 VA	30	M	1	20 A	EXHAUST FAN (EF-10)	
	RCPT NURSE E114	20 A	1	R	31	720 VA	400 VA					32	O	1	20 A	VAV BOXES	
	REFRIGERATOR NURSE E114	20 A	1	R	33			600 VA	1176 VA			34	M	1	20 A	(CUH-8) CABINET UNIT HEATER	
	RCPT E116, E117, E118, E119	20 A	1	R	35					1080 VA	200 VA	36	O	1	20 A	FIRE DOOR - CORRIDOR D106	
	RCPT ASST. PRINCIPAL E112	20 A	1	R...	37	720 VA	180 VA					38	R	1	20 A	ROOF OUTLET	
	RCPT ASST. PRINCIPAL E115	20 A	1	R	39			720 VA	1200 VA			40	R	1	20 A	CORD REEL ART / CERAMICS	
	RCPT PRINCIPAL E123	20 A	1	R	41					1220 VA	1200 VA	42	R	1	20 A	CORD REEL ART / CERAMICS	
	RCPT - CONFERENCE E108	20 A	1	R	43	180 VA	1200 VA					44	R	1	20 A	CORD REEL ART / CERAMICS	
	ADA MOTOR -CORRIDOR E109	20 A	1	M	45			0 VA	1200 VA			46	R	1	20 A	CORD REEL ART / CERAMICS	
	RCPTS - RECEPTION E107	20 A	1	R	47					360 VA	1200 VA	48	R	1	20 A	CORD REEL ART / CERAMICS	
	RCPTS - RECEPTION E111	20 A	1	R	49	720 VA	1200 VA					50	R	1	20 A	CORD REEL ART / CERAMICS	
	RCPT	20 A	1	R	51			1080 VA	1200 VA			52	R	1	20 A	CORD REEL ART / CERAMICS	
	(CUH-1)	20 A	1	M	53					1176 VA	1200 VA	54	R	1	20 A	CORD REEL ART / CERAMICS	
	(PM-1) PUG MILL	20 A	2	M	55	1664 VA	1200 VA					56	R	1	20 A	CORD REEL ART / CERAMICS	
--	--	--	--	--	57			1664 VA	360 VA			58	R	1	20 A	RCPT DATA RACK ADMIN 119	
	RTU-7 LTG/RCPT	20 A	1	R	59					600 VA	0 VA	60	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					20364 VA		22700 VA		18936 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					172 A		191 A		158 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	18540 VA	76.97%	14270 VA	Total Conn. Load:	62001 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	58199 VA
E	Equipment	33061 VA	100.00%	33061 VA	Total Conn. Current:	172 A
M	Motor	200 VA	100.00%	200 VA	Total Est. Demand Current:	162 A
K	Kitchen	1200 VA	100.00%	1200 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LF1

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: ELEC. D118 | MAIN TYPE: MLO / FTL | BUS RATING: 400 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: CAT 'A' | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT HEALTH F111	20 A	1	R	1	1080 VA	708 VA					2	P	3	60 A	PANEL 'STB'	
	RECEPTACLE HEALTH F111	20 A	1	R	3			900 VA	360 VA			4	--	--	--	--	--
	HEALTH / CLASSROOM F111	20 A	1	R	5					720 VA	360 VA	6	--	--	--	--	--
	HAND DRYER TOILETS F113	30 A	1	E	7	1500 VA	720 VA					8	R	1	20 A	RCPT GYMNASIUM	
	RCPT ROOM F113, F115	20 A	1	R	9			900 VA	720 VA			10	R	1	20 A	RCPT GYMNASIUM	
1	WATER FOUNTAIN LOCKER...	20 A	1	R	11					600 VA	1080 VA	12	R	1	20 A	RCPT PE STORAGE F106	
	RCPT ROOM F116, F114	20 A	1	R	13	900 VA	360 VA					14	R	1	20 A	RCPT P.E. STORAGE F105	
	HAND DRYER TOILET F114	30 A	1	E	15			1500 VA	720 VA			16	R	1	20 A	RCPT GYMNASIUM F104	
	RCPT ROOM F115	20 A	1	R	17					1080 VA	360 VA	18	R	1	20 A	RCPT GYMNASIUM F104	
1	WATER FOUNTAIN GYM F104	20 A	1	R	19	600 VA	360 VA					20	R	1	20 A	RCPT GYMNASIUM F104	
	RECEPTACLE ROOM F119, F118	20 A	1	R	21			540 VA	2402 VA			22	E	3	30 A	GYM BLEACHERS	
	HAND DRYER TOILET F119	30 A	1	R	23					1500 VA	2402 VA	24	--	--	--	--	--
	RCPT GIRLS LOCKER F120	20 A	1	R	25	1080 VA	2402 VA					26	--	--	--	--	--
	HAND DRYER TOILETS F122	30 A	1	E	27			1500 VA	720 VA			28	R	1	20 A	RCPTS - IDF F109	
1	WATER FOUNTAIN GIRLS F120	20 A	1	R	29					600 VA	720 VA	30	R	1	20 A	RECEPTACLE IDF F109	
	RCPT ROOM F123, F122, F124	20 A	1	R	31	1080 VA	2402 VA					32	E	3	30 A	GYM BLEACHERS	
	HAND DRYER RESTROOM F125	20 A	1	E	33			1500 VA	2402 VA			34	--	--	--	--	--
	RCPT ROOM F126, E134, F102	20 A	1	R	35					720 VA	2402 VA	36	--	--	--	--	--
	HAND DRYER RESTROOM 126	30 A	1	E	37	1500 VA	1500 VA					38	E	1	20 A	HAND DRYER TOILET F126	
1	WATER FOUNTAIN CORR. F102	20 A	1	R	39			600 VA	1500 VA			40	E	1	20 A	HAND DRYER TOILET F126	
	HAND DRYER RESTROOM 126	20 A	1	E	41					1500 VA	0 VA	42	--	1	20 A	-SPARE-	
	HAND DRYER RESTROOM F125	20 A	1	E	43	1500 VA	0 VA					44	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	45			0 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					32162 VA		29444 VA		25578 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					273 A		250 A		213 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	23640 VA	71.15%	16820 VA	Total Conn. Load:	87183 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	80951 VA
E	Equipment	55195 VA	100.00%	55195 VA	Total Conn. Current:	242 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	225 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LF2

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: ELEC. D118 | MAIN TYPE: MLO | BUS RATING: 400 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: 1LF1 | SPD: NONE | NEUTRAL RATING: 200% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	IDF F109 DATA RACK	20 A	1	R	1	1680 VA	900 VA					2	R	1	20 A	ROOF OUTLETS	
	IDF F109 DATA RACK	20 A	1	R	3			1680 VA	600 VA			4	R	1	20 A	RTU-10 LTG/RCPT	
	IDF F109 DATA RACK	20 A	1	R	5					1680 VA	600 VA	6	R	1	20 A	RTU-9 LTG/RCPT	
	IDF F109 DATA RACK	20 A	1	R	7	1680 VA	600 VA					8	R	1	20 A	RTU-8 LTG/RCPT	
	ACCESS CONTROL PANEL	20 A	1	E	9			0 VA	1176 VA			10	M	1	20 A	(EF-16)	
	FIRE ALARM PANEL	20 A	1	E	11					0 VA	1726 VA	12	M	2	25 A	(CU-F.1.1)	
	FIRE ALARM PANEL	20 A	1	E	13	0 VA	1726 VA					14	--	--	--	--	--
	MOTORIZED SHADES- GYM	20 A	1	M	15			600 VA	400 VA			16	M	1	20 A	MOTORIZED SHADES - GYM	
	MOTORIZED SHADES - GYM	20 A	1	M	17					400 VA	400 VA	18	M	1	20 A	MOTORIZED SHADES - GYM	
	MOTORIZED SHADES - GYM	20 A	1	M	19	600 VA	1176 VA					20	M	1	20 A	(CUH-3)	
	SCOREBOARD ROUGH-IN GYM	20 A	1	E	21			2400 VA	396 VA			22	M	1	20 A	EXHAUST FANS ELEC. D118	
	SCOREBOARD GYM	20 A	1	E	23					2400 VA	1176 VA	24	E	1	20 A	BASKETBALL HOOP GYM F104	
	PROJECTOR SCREEN GYM	20 A	1	E	25	2400 VA	1176 VA					26	E	1	20 A	BASKETBALL HOOP GYM F104	
	SCOREBOARD AUX GYM	20 A	1	E	27			2400 VA	1176 VA			28	E	1	20 A	BASKETBALL HOOP GYM F104	
	MOTORIZED SHADES - GYM	20 A	1	M	29					800 VA	1176 VA	30	E	1	20 A	BASKETBALL HOOP GYM F104	
	RCPT PTZ CAMERA - GYM	20 A	1	R	31	180 VA	1176 VA					32	E	1	20 A	BASKETBALL HOOP GYM F104	
	-SPARE-	20 A	1	--	33			0 VA	1176 VA			34	E	1	20 A	BASKETBALL HOOP GYM F104	
	-SPARE-	20 A	1	--	35					0 VA	1176 VA	36	E	1	20 A	BASKETBALL HOOP GYM F110	
	-SPARE-	20 A	1	--	37	0 VA	1176 VA					38	E	1	20 A	BASKETBALL HOOP GYM F110	
	-SPARE-	20 A	1	--	39			0 VA	1176 VA			40	E	1	20 A	DIVIDER CURTAIN GYM F104	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	43	0 VA	0 VA					44	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	45			0 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					14470 VA		13180 VA		11534 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					123 A		112 A		96 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	7800 VA	100.00%	7800 VA	Total Conn. Load:	39185 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	39773 VA
E	Equipment	23384 VA	100.00%	23384 VA	Total Conn. Current:	109 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	110 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE KEYED NOTE:

1. PROVIDE CLASS A GROUND FAULT INTERRUPTER TYPE CIRCUIT BREAKER.
2. PROVIDE ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER.
3. PROVIDE 30 MILLIAMPERE EQUIPMENT GROUND FAULT PROTECTOR TYPE CIRCUIT BREAKER.
4. PROVIDE SHUNT TRIP CIRCUIT BREAKER WITH 120 V COIL.
5. PROVIDE HACR RATED CIRCUIT BREAKER.
6. PROVIDE HANDLE CLAMP FOR HOLDING CIRCUIT BREAKER IN THE "ON" OR "OFF" POSITION.
7. PROVIDE SWITCHING RATED CIRCUIT BREAKER.
8. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD (WHERE PANEL IS LABELED AS EXISTING) OF SAME MANUFACTURER AND A.I.C. RATING AS EXISTING.
9. EXISTING LOAD.

PANEL LEGEND

1LC1	1LC2	1LC3
1LD1	1LD2	1LE1
1LF1	1LF2	

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: | DATE: | DESCRIPTION:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

PANEL SCHEDULES

E-262

PANELBOARD SCHEDULE

PANEL NAME: 2LA1

MOUNTING: SURFACE **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: ELEC A120 **MAIN TYPE:** MLO **BUS RATING:** 225 A **MCB RATING:** N/A **BUS MATERIAL:** ALUMINUM
FEED FROM: DPLA **SPD:** CAT 'A' **NEUTRAL RATING:** 200% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT CLASSROOM B204	20 A	1	R	1	360 VA	360 VA					2	R	1	20 A	RCPT CLASSROOM A211	
	RCPT CLASSROOM B204	20 A	1	R	3			360 VA	360 VA			4	R	1	20 A	RCPT CLASSROOM A211	
	RCPT CLASSROOM B204	20 A	1	R	5					360 VA	360 VA	6	R	1	20 A	RCPT CLASSROOM A211	
	RCPT CLASSROOM B205	20 A	1	R	7	360 VA	360 VA					8	R	1	20 A	RCPT CLASSROOM A212	
	RCPT CLASSROOM B205	20 A	1	R	9			360 VA	360 VA			10	R	1	20 A	RCPT CLASSROOM A212	
	RCPT CLASSROOM B205	20 A	1	R	11					360 VA	360 VA	12	R	1	20 A	RCPT CLASSROOM A212	
	RCPT CLASSROOM A201	20 A	1	R	13	360 VA	360 VA					14	R	1	20 A	RCPT CLASSROOM A213	
	RCPT CLASSROOM A201	20 A	1	R	15			360 VA	360 VA			16	R	1	20 A	RCPT CLASSROOM A213	
	RCPT CLASSROOM A201	20 A	1	R	17					360 VA	360 VA	18	R	1	20 A	RCPT CLASSROOM A213	
	RCPT CLASSROOM A202	20 A	1	R	19	360 VA	360 VA					20	R	1	20 A	RCPT CLASSROOM B206	
	RCPT CLASSROOM A202	20 A	1	R	21			360 VA	360 VA			22	R	1	20 A	RCPT CLASSROOM B206	
	RCPT CLASSROOM A202	20 A	1	R	23					360 VA	360 VA	24	R	1	20 A	RCPT CLASSROOM B206	
	RCPT CLASSROOM A203	20 A	1	R	25	360 VA	360 VA					26	R	1	20 A	RCPT CLASSROOM B207	
	RCPT CLASSROOM A203	20 A	1	R	27			360 VA	360 VA			28	R	1	20 A	RCPT CLASSROOM B207	
	RCPT CLASSROOM A203	20 A	1	R	29					360 VA	360 VA	30	R	1	20 A	RCPT CLASSROOM B207	
	RCPT RESTROOM A220	20 A	1	R	31	540 VA	750 VA					32	E	1	20 A	ICE MAKER - STORAGE A218	
	RCPT RESTROOM A225	20 A	1	R	33			540 VA	360 VA			34	R	1	20 A	RCPT CLASSROOM B201	
	RCPT SCIENCE PREP A217	20 A	1	R	35					360 VA	360 VA	36	R	1	20 A	RCPT CLASSROOM B201	
	RCPT SCIENCE PREP A217	20 A	1	R	37	540 VA	360 VA					38	R	1	20 A	RCPT CLASSROOM B201	
	RCPT ROOM 611, 433	20 A	1	R	39			900 VA	1500 VA			40	E	1	20 A	HAND DRYER	
	RCPT SPACE 611	20 A	1	R	41					900 VA	1500 VA	42	E	1	20 A	HAND DRYER	
	WATER FOUNTAIN SPACE 611	20 A	1	R	43	600 VA	1200 VA					44	R	1	20 A	DISHWASHER SCIENCE A219	
	RCPT SCIENCE PREP B233	20 A	1	R	45			540 VA	600 VA			46	R	1	20 A	RTU-2 LTG/RCPT	
	RCPT SCIENCE PREP B233	20 A	1	R	47					540 VA	600 VA	48	R	1	20 A	RTU-1 LTG/RCPT	
	(CU-B.1.1)	25 A	2	M	49	1726 VA	540 VA					50	R	1	20 A	ROOF OUTLETS	
--	--	--	--	--	51			1726 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	55	0 VA	0 VA					56	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	57			0 VA	0 VA			58	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	59					0 VA	0 VA	60	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	9856 VA	9766 VA	7860 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	85 A	84 A	66 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	5400 VA	100.00%	5400 VA	Total Conn. Load:	27483 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	27483 VA
E	Equipment	15480 VA	100.00%	15480 VA	Total Conn. Current:	76 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	76 A
K	Kitchen	1950 VA	100.00%	1950 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LA2

MOUNTING: SURFACE **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: ELEC A120 **MAIN TYPE:** MLO **BUS RATING:** 225 A **MCB RATING:** N/A **BUS MATERIAL:** ALUMINUM
FEED FROM: DPLA **SPD:** CAT. 'A' **NEUTRAL RATING:** 200% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT SCIENCE CLASSROOM...	20 A	1	R	1	360 VA	360 VA					2	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	3			360 VA	360 VA			4	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	5					360 VA	360 VA	6	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	7	360 VA	360 VA					8	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	9			360 VA	360 VA			10	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	11					360 VA	360 VA	12	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	13	360 VA	360 VA					14	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	15			360 VA	360 VA			16	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	17					360 VA	360 VA	18	R	1	20 A	RCPT SPACE 626	
	RCPT SCIENCE CLASSROOM...	20 A	1	R	19	360 VA	360 VA					20	R	1	20 A	RCPT SPACE 626	
	RCPT SPACE 625	20 A	1	R	21			360 VA	360 VA			22	R	1	20 A	RCPT CLASSROOM A205	
	RCPT SPACE 625	20 A	1	R	23					360 VA	360 VA	24	R	1	20 A	RCPT CLASSROOM A205	
	RCPT SPACE 625	20 A	1	R	25	360 VA	360 VA					26	R	1	20 A	RCPT CLASSROOM A208	
	RCPT SPACE 625	20 A	1	R	27			360 VA	360 VA			28	R	1	20 A	RCPT CLASSROOM A208	
	RCPT SPACE 625	20 A	1	R	29					360 VA	360 VA	30	R	1	20 A	RCPT CLASSROOM A208	
	RCPT SPACE 625	20 A	1	R	31	360 VA	720 VA					32	R	1	20 A	RCPT CLASSROOM A206	
	RCPT SPACE 625	20 A	1	R	33			360 VA	1080 VA			34	R	1	20 A	RCPT CLASSROOM A206	
	RCPT SPACE 625	20 A	1	R	35					360 VA	720 VA	36	R	1	20 A	RCPT CLASSROOM A206	
	RCPT SPACE 625	20 A	1	R	37	360 VA	720 VA					38	R	1	20 A	RCPT CLASSROOM A207	
	RCPT SPACE 625	20 A	1	R	39			360 VA	1080 VA			40	R	1	20 A	RCPT CLASSROOM A207	
	RCPT CLASSROOM A205	20 A	1	R	41					360 VA	720 VA	42	R	1	20 A	RCPT CLASSROOM A207	
	HAND DRYER	20 A	1	E	43	1500 VA	1500 VA					44	E	1	20 A	HAND DRYER	
	HAND DRYER	20 A	1	E	45			1500 VA	1500 VA			46	E	1	20 A	HAND DRYER	
	HAND DRYER	20 A	1	E	47					1500 VA	1176 VA	48	M	1	20 A	EXHAUST FANS (EF-2)	
	HAND DRYER	20 A	1	E	49	1500 VA	1000 VA					50	E	1	20 A	HEAT TRACE WEST ENTRANCE	3
	RCPT CORR. LEVEL 2 AREA B	20 A	1	R	51			540 VA	1200 VA			52	R	1	20 A	DISHWASHER SCIENCE B224	
	RCPT CORR. LEVEL 2 AREA B	20 A	1	R	53					540 VA	1200 VA	54	R	1	20 A	DISHWASHER SCIENCE B224	
	-SPARE-	20 A	1	--	55	0 VA	0 VA					56	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	57			0 VA	0 VA			58	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	59					0 VA	0 VA	60	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	11260 VA	11220 VA	10176 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	95 A	95 A	85 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	6120 VA	100.00%	6120 VA	Total Conn. Load:	32656 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	32950 VA
E	Equipment	22960 VA	100.00%	22960 VA	Total Conn. Current:	91 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	91 A
K	Kitchen	2400 VA	100.00%	2400 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LC1

MOUNTING: RECESSED **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: SHARED STORAGE C202 **MAIN TYPE:** MLO / FTL **BUS RATING:** 225 A **MCB RATING:** N/A **BUS MATERIAL:** ALUMINUM
FEED FROM: DPL2 **SPD:** CAT 'A' **NEUTRAL RATING:** 200% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RECEPTACLE FCS C203	20 A	1	R	1	900 VA	1540 VA					2	E	1	20 A	TV's FCS C203	
	RECEPTACLE FCS C203	20 A	1	R	3			360 VA	1200 VA			4	E	1	20 A	CORD DROP C203	
	RECEPTACLE FCS C203	20 A	1	R	5					540 VA	360 VA	6	R	1	20 A	RECEPTACLE FCS C203	
	RECEPTACLE FCS C203	20 A	1	R	7	360 VA	2500 VA					8	E	2	30 A	DRYER SHARED STORAGE C202	
	RECEPTACLE FCS C203	20 A	1	R	9			540 VA	2500 VA			10	--	--	--	--	--
	FRIDGE - SHARED STORAGE	20 A	1	K	11					1500 VA	1500 VA	12	E	1	20 A	WASHER SHARED STORAGE...	
	FRIDGE - SHARED STORAGE	20 A	1	K	13	1500 VA	360 VA					14	R	1	20 A	RCPTS - CLASSROOM C201	
	RCPTS - SHARED STORAGE...	20 A	1	R	15			900 VA	360 VA			16	R	1	20 A	RCPTS - CLASSROOM C201	
	SPECIAL EDUCATION C204	20 A	1	R	17					540 VA	1080 VA	18	R	1	20 A	RCPTS - CLASSROOM C201	
	RCPT SPECIAL EDUCATION...	20 A	1	R	19	860 VA	1000 VA					20	E	1	20 A	TV'S CLASSROOM C201	
	A/V SPECIAL EDUCATION C204	20 A	1	R	21			720 VA	540 VA			22	E	1	20 A	A/V CAB. - CLASSROOM C201	
	RCPT CORRIDOR 493	20 A	1	R	23					1620 VA	180 VA	24	E	1	20 A	RCPTS - CLASSROOM C201	
	-SPARE-	20 A	1	--	25	0 VA	1200 VA					26	E	1	20 A	CORD DROP CLASS. C201	
	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	31	0 VA	0 VA					32	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	33			0 VA	0 VA			34	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	35					0 VA	0 VA	36	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	26220 VA	23120 VA	23320 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	219 A	193 A	195 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	13260 VA	87.71%	11630 VA	Total Conn. Load:	72660 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	52480 VA
E	Equipment	4900 VA	100.00%	4900 VA	Total Conn. Current:	202 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	146 A
K	Kitchen	53000 VA	65.00%	34450 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: FCS

MOUNTING: RECESSED **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: SHARED STORAGE C202 **MAIN TYPE:** MLO **BUS RATING:** 225 A **MCB RATING:** N/A **BUS MATERIAL:** ALUMINUM
FEED FROM: 2LC1 **SPD:** NONE **NEUTRAL RATING:** 100% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RANGE FCS C203	50 A	2	K	1	4000 VA	4000 VA					2	K	2	50 A	RANGE FCS C203	
--	--	--	--	--	3			4000 VA	4000 VA			4	--	--	--	--	--
	RANGE FCS C203	50 A	2	K	5					4000 VA	4000 VA	6	K	2	50 A	RANGE FCS C203	
--	--	--	--	--	7	4000 VA	4000 VA					8	--	--	--	--	--
	RANGE FCS C203	50 A	2	K	9			4000 VA	4000 VA			10	K	2	50 A	RANGE FCS C203	
--	--	--	--	--	11					4000 VA	4000 VA	12	--	--	--	--	--
	-SPACE ONLY-	--	1	--	13	--	--					14	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	15			--	--			16	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	17					--	--	18	--	1	--	-SPACE ONLY-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	16000 VA	16000 VA	16000 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	133 A	133 A	133 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	48000 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	31200 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	133 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	87 A
K	Kitchen	48000 VA	65.00%	31200 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LC2

MOUNTING: RECESSED **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: STORAGE / ROOF ACCESS C217 **MAIN TYPE:** MLO / FTL **BUS RATING:** 225 A **MCB RATING:** N/A **BUS MATERIAL:** ALUMINUM
FEED FROM: DPL2 **SPD:** CAT 'A' **NEUTRAL RATING:** 200% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPTS - CLASSROOM C224	20 A	1	R	1	360 VA	360 VA					2	R	1	20 A	RCPTS - CLASSROOM C219	
	RCPTS - CLASSROOM C224	20 A	1	R	3			360 VA	360 VA			4	R	1	20 A	RCPTS - CLASSROOM C219	
	RCPTS - CLASSROOM C224	20 A	1	R	5					360 VA	360 VA	6	R	1	20 A	RCPTS - CLASSROOM C219	
	RCPTS - CLASSROOM C224	20 A	1	R	7	360 VA	360 VA					8	R	1	20 A	RCPTS - CLASSROOM C219	
	RCPTS - CLASSROOM C222	20 A	1	R	9			360 VA	360 VA			10	R	1	20 A	RCPTS - CLASSROOM C218	
	RCPTS - CLASSROOM C222	20 A	1	R	11					360 VA	360 VA	12	R	1	20 A	RCPTS - CLASSROOM C218	
	RCPTS - CLASSROOM C222	20 A	1	R	13	360 VA	360 VA					14	R	1	20 A	RCPTS - CLASSROOM C218	
	RCPTS - CLASSROOM C222	20 A	1	R	15			360 VA	360 VA			16	R	1	20 A	RCPTS - CLASSROOM C218	
	-SPARE-	20 A	1	--	17					0 VA	900 VA	18	R	1	20 A	RCPT CORRIDOR 496	
	-SPARE-	20 A	1	--	19	0 VA	860 VA					20	E	1	20 A	A/V CAB. - SPECIAL ED. C216	
	-SPARE-	20 A	1	--	21			0 VA	900 VA			22	R	1	20 A	RCPTS -SPECIAL ED. C216	
	-SPARE-	20 A	1	--	23					0 VA	720 VA	24	R	1	20 A	RCPTS - SPECIAL ED. C216	
	-SPARE-	20 A	1	--	25	0 VA	360 VA					26	E	1	20 A	TV'S - SPECIAL EDUCATION...	
	-SPARE-	20 A	1	--	27			0 VA	600 VA			28	R	1	20 A	RCPT DRINKING FOUNTAIN...	
	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	31	0 VA	0 VA					32	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	33			0 VA	0 VA			34	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	35					0 VA	0 VA	36	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	14900 VA	13810 VA	11530 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	127 A	118 A	96 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	20880 VA	73.95%	15440 VA	Total Conn. Load:	40240 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	34800 VA
E	Equipment	18860 VA	100.00%	18860 VA	Total Conn. Current:	112 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	97 A
K	Kitchen	500 VA	100.00%	500 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LC3

MOUNTING: RECESSED **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: STORAGE / ROOF ACCESS C217 **MAIN TYPE:** MLO **BUS RATING:** 225 A **MCB RATING:** N/A **BUS MATERIAL:** ALUMINUM
FEED FROM: 2LC2 **SPD:** NONE **NEUTRAL RATING:** 200% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	RCPT -DIGITAL LITERACY C213	20 A	1	E	1	360 VA	1260 VA					2	R	1	20 A	RCPTS - ESL C210	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	3			360 VA	720 VA			4	E	1	20 A	A/V CAB. - ESL C210	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	5					360 VA	360 VA	6	R	1	20 A	RCPTS - ESL C210	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	7	360 VA	720 VA					8	R	1	20 A	RCPT ROOM 470, 433	
	A/V CAB. - DIGITAL LITERACY...	20 A	1	E	9			720 VA	720 VA			10	R	1	20 A	RCPT OFFICE 517	
	RCPTS -DIGITAL LITERACY C213	20 A	1	R	11					1080 VA	720 VA	12	R	1	20 A	RCPT CUST OFFICE 390	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	13	360 VA	900 VA					14	R	1	20 A	RCPTS - A/V BOOTH C209	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	15			360 VA	360 VA			16	E	1	20 A	RECEPTACLE - A/V BOOTH C209	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	17					360 VA	360 VA	18	E	1	20 A	RECEPTACLE A/V BOOTH C209	
	RCPT -DIGITAL LITERACY C213	20 A	1	E	19	360 VA	360 VA					20	E	1	20 A	RECEPTACLE A/V BOOTH C209	
	A/V CAB. - ESL C211	20 A	1	E	21			720 VA	250 VA			22	E	2	20 A	PROJECTOR A/V BOOTH C209	
	RCPTS - ESL C211	20 A	1	R	23					360 VA	250 VA	24	--	--	--	--	--
	RCPTS - ESL C211	20 A	1	R	25	1260 VA	1080 VA					26	R	1	20 A	RCPT RESTROOM B214, B215	
	HAND DRYER B219	20 A	1	E	27			1500 VA	900 VA			28	R	1	20 A	RCPT AMP B208	
	HAND DRYER B219	20 A	1	E	29					1500 VA	1080 VA	30	R	1	20 A	RCPT SLP B209	
	HAND DRYER B219	20 A	1	E	31	1500 VA	0 VA					32	--	1	20 A	-SPARE-	
	HAND DRYER B217	20 A	1	E	33			1500 VA	0 VA			34	--	1	20 A	-SPARE-	
	RCPT FEMALE B224	20 A	1	R	35					540 VA	0 VA	36	--	1	20 A	-SPARE-	
	HAND DRYER B216	20 A	1	E	37	1500 VA	0 VA					38	--	1	20 A	-SPARE-	
	HAND DRYER B216	20 A	1	E	39			1500 VA	0 VA			40	--	1	20 A	-SPARE-	
	HAND DRYER B216	20 A	1	E	41					1500 VA	0 VA	42	--	1	20 A	-SPARE-	
	HAND DRYER B218	20 A	1	E	43	1500 VA	0 VA					44	--	1	20 A	-SPARE-	
	RCPT MALE B235	20 A	1	R	45			540 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	11520 VA	10150 VA	8470 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	98 A	87 A	71 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	17640 VA	78.34%	13820 VA	Total Conn. Load:	30140 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	26320 VA
E	Equipment	12000 VA	100.00%	12000 VA	Total Conn. Current:	84 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	73 A
K	Kitchen	500 VA	100.00%	500 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: STB

MOUNTING: SURFACE **ENCLOSURE:** NEMA 1 **DOOR TYPE:** DOOR-IN-DOOR
VOLTAGE: 120/208 Wye **PHASE:** 3 **WIRES:** 4 **Min. A.I.C. RATING:** 22K AIC
LOCATION: OUTDOOR STORAGE **MAIN TYPE:** MLO **BUS RATING:** 100 A **MCB RATING:** NONE **BUS MATERIAL:** ALUMINUM
FEED FROM: 1LF1 **SPD:** NONE **NEUTRAL RATING:** 100% **ISOLATED GROUND:** NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	LTG - STORAGE BUILDING	20 A	1	--	1	348 VA	--					2	--	1	--	-SPACE ONLY-	
	RCPTS - STORAGE BUILDING	20 A	1	R	3			360 VA	--			4	--	1	--	-SPACE ONLY-	
	RCPTS - STORAGE BUILDING	20 A	1	R	5					360 VA	--	6	--	1	--	-SPACE ONLY-	
	RCPTS - STORAGE BUILDING	20 A	1	R	7	360 VA	--					8	--	1	--	-SPACE ONLY-	
	O.H. DOOR - STORAGE...	20 A	1	M	9			0 VA	--			10	--	1	--	-SPACE ONLY-	
	O.H. DOOR - STORAGE...	20 A	1	M	11					0 VA	--	12	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	13	0 VA	--					14	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	15			0 VA	--			16	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	17					0 VA	--	18	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	19	0 VA	--					20	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	21			0 VA	--			22	--	1	--	-SPACE ONLY-	
	-SPARE-	20 A	1	--	23					0 VA	--	24	--	1	--	-SPACE ONLY-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	708 VA	360 VA	360 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	6 A	3 A	3 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	1080 VA	100.00%	1080 VA	Total Conn. Load:	1428 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	1428 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	4 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	4 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE KEYED NOTE:

1. PROVIDE CLASS A GROUND FAULT INTERRUPTER TYPE CIRCUIT BREAKER.
2. PROVIDE ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER
3. PROVIDE 30 MILLIAMPERE EQUIPMENT GROUND FAULT PROTECTOR TYE CIRCUIT BREAKER.
4. PROVIDE SHUNT TRIP CIRCUIT BREAKER WITH 120 V COIL.
5. PROVIDE HACR RATED CIRCUIT BREAKER.
6. PROVIDE HANDLE CLAMP FOR HOLDING CIRCUIT BREAKER IN THE "ON" OR "OFF" POSITION.
7. PROVIDE SWITCHING RATED CIRCUIT BREAKER.
8. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD (WHERE PANEL IS LOCATED AS EXISTING) OF SAME MANUFACTURER AND A.I.C. RATING AS EXISTING.
9. EXISTING LOAD

PANEL LEGEND

2LA1	2LA2	2LC1
2LC2	2LC3	FCS
		STB

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK: DATE: DESCRIPTION:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER 77411 05-01-2024 STATE OF UTAH

PANEL SCHEDULES
E-263

PANELBOARD SCHEDULE

PANEL NAME: K1

MOUNTING: RECESSED | ENCLOSURE: NEMA 4X | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: KITCHEN D127 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: NONE | NEUTRAL RATING: 100% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	UTILITY DISTRIBUTION SYSTEM	100 A	3	P	1	4804 VA	1200 VA					2	M	1	20 A	OVERHEAD DOOR	
--	--	--	--	--	3			4804 VA	1200 VA			4	M	1	20 A	OVERHEAD DOOR	
--	--	--	--	--	5					4804 VA	1200 VA	6	K	1	20 A	(K-44) CASHIER COUNTER	
	SHUNT TRIP	--	1	--	7	--	324 VA					8	K	1	20 A	(K-32) MILK COOLER	1
	HOOD	20 A	1	K	9			1200 VA	1897 VA			10	K	3	25 A	(K-30) HOT FOOD WELL	
	HOOD	20 A	1	K	11					1200 VA	1897 VA	12	--	--	--	--	--
	GAS SHUT OFF	20 A	1	K	13	100 VA	1897 VA					14	--	--	--	--	--
	O.H. DOOR - KITCHEN D127	20 A	1	M	15			100 VA	1500 VA			16	K	2	20 A	(K-25) PASS THRU HEATED CAB.	
	RCPTS - KITCHEN D127	20 A	1	R	17					1260 VA	1500 VA	18	--	--	--	--	--
	RCPTS - OFFICE D132	20 A	1	R	19	720 VA	708 VA					20	K	1	20 A	(K-24) PASS THRU FRIDGE	1
	(K-26) ICE CUBER	20 A	1	K	21			1428 VA	420 VA			22	K	1	20 A	(K-17) FOOD PROCESSOR	
	(K-36) WASTE COLLECTOR	20 A	2	K	23					572 VA	1200 VA	24	K	1	20 A	(K-14) CAN OPENER	1
--	--	--	--	--	25	572 VA	1200 VA					26	K	1	20 A	(K-44) CASHIER COUNTER	
	OVERHEAD DOOR	20 A	1	M	27			1200 VA	504 VA			28	K	1	20 A	(K-42) FRENCH FRY WARMER	
	RCPTS - SERVING D130	20 A	1	R	29					540 VA	1200 VA	30	K	1	20 A	(K-44) CASHIER COUNTER	
	(K-31) COLD WELL	20 A	1	K	31	504 VA	0 VA					32	--	1	20 A	-SPARE-	
	(K-52) WARMING CABINET	20 A	1	K	33			1440 VA	0 VA			34	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	35					0 VA	0 VA	36	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	12029 VA	15693 VA	15373 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	100 A	135 A	132 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	2520 VA	100.00%	2520 VA	Total Conn. Load:	43095 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	30189 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	120 A
M	Motor	3700 VA	100.00%	3700 VA	Total Est. Demand Current:	84 A
K	Kitchen	36875 VA	65.00%	23969 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: K2

MOUNTING: RECESSED | ENCLOSURE: NEMA 4X | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: KITCHEN D127 | MAIN TYPE: MLO | BUS RATING: 225 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPL2 | SPD: NONE | NEUTRAL RATING: 100% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	WASHER/DRYER LAUNDRY D125	20 A	1	E	1	1500 VA	132 VA					2	K	1	20 A	COOLER EVAPORATOR	
	DRYER - LAUNDRY D125	30 A	2	E	3			2500 VA	1500 VA			4	K	2	20 A	(K-25) PASS THRU HEAT...	
--	--	--	--	--	5					2500 VA	1500 VA	6	--	--	--	--	--
	RCPTS - LAUNDRY D125	20 A	1	R	7	900 VA	708 VA					8	K	1	20 A	(K-24) PASS THRU FRIDGE	1
	(K-5) PROOFER CABINET	30 A	1	K	9			2004 VA	360 VA			10	R	1	20 A	RCPTS - SERVING D130	
	(K-7) 20 QT MIXER	25 A	1	K	11					960 VA	1897 VA	12	K	3	25 A	(K-30) HOT FOOD WELL	
	(K-21) 30 QT MIXER	20 A	1	K	13	1140 VA	1897 VA					14	--	--	--	--	--
	(K-41) FREEZER	20 A	1	K	15			350 VA	1897 VA			16	--	--	--	--	--
	(K-40) COOLER	20 A	1	K	17					350 VA	324 VA	18	K	1	20 A	(K-32) MILK COOLER	1
	FREEZER CONDENSER	25 A	3	K	19	1969 VA	1200 VA					20	M	1	20 A	OVERHEAD DOOR	
--	--	--	--	--	21			1969 VA	1200 VA			22	M	1	20 A	OVERHEAD DOOR	
--	--	--	--	--	23					1969 VA	1897 VA	24	K	3	25 A	(K-30) HOT FOOD WELL	
	COOLER CONDENSER	20 A	3	K	25	600 VA	1897 VA					26	--	--	--	--	--
--	--	--	--	--	27			600 VA	1897 VA			28	--	--	--	--	--
--	--	--	--	--	29					600 VA	324 VA	30	K	1	20 A	(K-32) MILK COOLER	1
	FREEZER EVAPORATOR	20 A	2	K	31	1019 VA	1498 VA					32	K	2	20 A	(K-48) MICROWAVE	
--	--	--	--	--	33			1019 VA	1498 VA			34	--	--	--	--	--
	HAND DRYER TOILET D126	20 A	1	R	35					1500 VA	0 VA	36	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	43	0 VA	0 VA					44	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	45			0 VA	0 VA			46	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	47					0 VA	0 VA	48	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	49	0 VA	0 VA					50	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	51			0 VA	0 VA			52	--	1	20 A	-SPARE-	
	-SPARE-	20 A	1	--	53					0 VA	0 VA	54	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	14462 VA	16796 VA	13823 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	121 A	141 A	115 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	1260 VA	100.00%	1260 VA	Total Conn. Load:	45080 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	33383 VA
E	Equipment	6500 VA	100.00%	6500 VA	Total Conn. Current:	125 A
M	Motor	2400 VA	100.00%	2400 VA	Total Est. Demand Current:	93 A
K	Kitchen	33420 VA	65.00%	21723 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1HM1

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 480/277 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 35K AIC
LOCATION: CHILLER C112 | MAIN TYPE: MLO | BUS RATING: 400 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPHM | SPD: NONE | NEUTRAL RATING: 100% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	EXHAUST FAN (EF-1)	20 A	3	M	1	582 VA	5820 VA					2	M	3	40 A	PUMP (P-3)	
--	--	--	--	--	3			582 VA	5820 VA			4	--	--	--	--	--
--	--	--	--	--	5					582 VA	5820 VA	6	--	--	--	--	--
	EXHAUST FAN (EF-3)	20 A	3	M	7	443 VA	5820 VA					8	M	3	40 A	PUMP (P-4)	
--	--	--	--	--	9			443 VA	5820 VA			10	--	--	--	--	--
--	--	--	--	--	11					443 VA	5820 VA	12	--	--	--	--	--
	FLUID FILTER (SS-1)	20 A	3	M	13	2217 VA	11085...					14	M	3	80 A	PUMP (P-5)	
--	--	--	--	--	15			2217 VA	11085...			16	--	--	--	--	--
--	--	--	--	--	17					2217 VA	11085...	18	--	--	--	--	--
	-SPARE-	20 A	3	--	19	0 VA	11085...					20	M	3	80 A	PUMP (P-6)	
--	--	--	--	--	21			0 VA	11085...			22	--	--	--	--	--
--	--	--	--	--	23					0 VA	11085...	24	--	--	--	--	--
	-SPARE-	40 A	3	--	25	0 VA	5820 VA					26	M	3	40 A	(CT-1A) COOLING TOWER	
--	--	--	--	--	27			0 VA	5820 VA			28	--	--	--	--	--
--	--	--	--	--	29					0 VA	5820 VA	30	--	--	--	--	--
	-SPARE-	40 A	3	--	31	0 VA	3333 VA					32	M	3	20 A	(CT-1B) COOL. TWR BASIN...	
--	--	--	--	--	33			0 VA	3333 VA			34	--	--	--	--	--
--	--	--	--	--	35					0 VA	3333 VA	36	--	--	--	--	--
	-SPARE-	70 A	3	--	37	0 VA	0 VA					38	--	3	20 A	-SPARE-	
--	--	--	--	--	39			0 VA	0 VA			40	--	--	--	--	--
--	--	--	--	--	41					0 VA	0 VA	42	--	--	--	--	--

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	46205 VA	46205 VA	46205 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	167 A	167 A	167 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	138615 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	147365 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	167 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	177 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1HM2

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 480/277 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 35K AIC
LOCATION: BOILER D135 | MAIN TYPE: MLO | BUS RATING: 400 A | MCB RATING: N/A | BUS MATERIAL: ALUMINUM
FEED FROM: DPHM | SPD: NONE | NEUTRAL RATING: 100% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	EXHAUST FAN (EF-5)	20 A	3	M	1	831 VA	3520 VA					2	M	3	20 A	BOILER (B-2)	
--	--	--	--	--	3			831 VA	3520 VA			4	--	--	--	--	--
--	--	--	--	--	5					831 VA	3520 VA	6	--	--	--	--	--
	EXHAUST FAN (EF-6)	20 A	3	M	7	831 VA	13856...					8	M	3	80 A	IRRIGATION PUMP (IP-1)	
--	--	--	--	--	9			831 VA	13856...			10	--	--	--	--	--
--	--	--	--	--	11					831 VA	13856...	12	--	--	--	--	--
	MAKE UP AIR UNIT (MAU-1)	20 A	3	M	13	942 VA	9422 VA					14	M	3	70 A	PUMP (P-1)	
--	--	--	--	--	15			942 VA	9422 VA			16	--	--	--	--	--
--	--	--	--	--	17					942 VA	9422 VA	18	--	--	--	--	--
	MAKE UP AIR UNIT (MAU-2)	20 A	3	M	19	942 VA	9422 VA					20	M	3	70 A	PUMP (P-2)	
--	--	--	--	--	21			942 VA	9422 VA			22	--	--	--	--	--
--	--	--	--	--	23					942 VA	9422 VA	24	--	--	--	--	--
	EXHAUST FAN (EF-8)	20 A	3	M	25	582 VA	1330 VA					26	M	3	20 A	(P-7) PUMP	
--	--	--	--	--	27			582 VA	1330 VA			28	--	--	--	--	--
--	--	--	--	--	29					582 VA	1330 VA	30	--	--	--	--	--
	BOILER (B-1)	20 A	3	M	31	3520 VA	1330 VA					32	M	3	20 A	(P-8) PUMP	
--	--	--	--	--	33			3520 VA	1330 VA			34	--	--	--	--	--
--	--	--	--	--	35					3520 VA	1330 VA	36	--	--	--	--	--
	-SPARE-	20 A	3	--	37	0 VA	0 VA					38	--	3	70 A	-SPARE-	
--	--	--	--	--	39			0 VA	0 VA			40	--	--	--	--	--
--	--	--	--	--	41					0 VA	0 VA	42	--	--	--	--	--

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	46530 VA	46530 VA	46530 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	168 A	168 A	168 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	139589 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	147280 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	168 A
M	Motor	41569 VA	100.00%	41569 VA	Total Est. Demand Current:	177 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 1LM1

MOUNTING: SURFACE | ENCLOSURE: NEMA 1 | DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye | PHASE: 3 | WIRES: 4 | Min. A.I.C. RATING: 22K AIC
LOCATION: MAIN ELECTRICAL D138 | MAIN TYPE: MCB | BUS RATING: 200 A | MCB RATING: 175 A | BUS MATERIAL: ALUMINUM
FEED FROM: TM | SPD: CAT 'A' | NEUTRAL RATING: 100% | ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A	A	B	B	C	C	CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
	(EF-9) EXHAUST FAN	20 A	1	M	1	696 VA	240 VA					2	M	1	20 A	(CT-1C) C. TOWER FILTER	
	(EF-7) EXHAUST FAN	20 A	1	M	3			696 VA	180 VA			4	E	1	20 A	GAS METER	
	(EF-4) EXHAUST FAN	20 A	1	M	5					696 VA	500 VA	6	L	1	20 A	ELEV. CAB LIGHTS	
	(CU-2) SPLIT SYSTEM	25 A	2	M	7	1726 VA	1656 VA					8	M	1	20 A	(EF-15) EXHAUST FAN	
--	--	--	--	--	9			1726 VA	540 VA			10	R	1	20 A	ROOF OUTLETS	
	(CU-1) SPLIT SYSTEM	25 A	2	M	11					1726 VA	600 VA	12	R	1	20 A	RTU-3 LTG/RCPT	
--	--	--	--	--	13	1726 VA	1726 VA					14	M	2	25 A	(CU-5) SPLIT SYSTEM	
	RTU-5 LTG/RCPT	20 A	1	R	15			600 VA	1726 VA			16	--	--	--	--	--
	RTU-4 LTG/RCPT	20 A	1	R	17					600 VA	600 VA	18	O	1	20 A	VAV BOXES	
	BOILER CONTROL CIRCUITS	20 A	1	O	19	480 VA	696 VA					20	M	1	20 A	(EF-18) EXHAUST FAN	
	(DCP-1) RECIRC. PUMP	20 A	2	M	21			562 VA	696 VA			22	M	1	20 A	(FC-2) FAN COIL UNIT	
--	--	--	--	--	23					562 VA	696 VA	24	M	1	20 A	(CWT-1) CHEMICAL FEED	
	WATER HEATER (WH-1)	20 A	1	M	25	1800 VA	1726 VA					26	M	2	25 A	(CU-3) SPLIT SYSTEM	
	(WS-1) WATER SOFTENER	20 A	1	M	27			500 VA	1726 VA			28	--	--	--	--	--
	(GFS-1) GLYCOL FEED SYSTEM	20 A	1	M	29					696 VA	0 VA	30	--	1	20 A	-SPARE-	
	(DCP-2) RECIRC. PUMP	20 A	1	M	31	528 VA	0 VA					32	--	1	20 A	-SPARE-	
	WATER HEATER (WH-2)	20 A	1	M	33			1800 VA	0 VA			34	--	1	20 A	-SPARE-	
	(GFS-2) GLYCOL FEED SYSTEM	20 A	1	M	35					696 VA	0 VA	36	--	1	20 A	-SPARE-	
	(EF-13) EXHAUST FAN	20 A	1	M	37	696 VA	0 VA					38	--	1	20 A	-SPARE-	
	(FC-1) FAN COIL UNIT	20 A	1	M	39			696 VA	0 VA			40	--	1	20 A	-SPARE-	
	(EF-17) EXHAUST FAN	20 A	1	M	41					1176 VA	0 VA	42	--	1	20 A	-SPARE-	

	A	B	C
TOTAL CONNECTED LOAD PER PHASE (VA)	13698 VA	11449 VA	8548 VA
TOTAL CONNECTED CURRENT PER PHASE (AMPS)	118 A	99 A	71 A

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	720 VA	100.00%	720 VA	Total Conn. Load:	33694 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	34389 VA
E	Equipment	1296 VA	100.00%	1296 VA	Total Conn. Current:	94 A
M	Motor	980 VA	100.00%	980 VA	Total Est. Demand Current:	95 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	1392 VA	100.00%	1392 VA		

PANEL LEGEND

K1	K2	1HM1
1HM2	1LM1	

PANELBOARD SCHEDULE KEYED NOTE:

1. PROVIDE CLASS A GROUND FAULT INTERRUPTER TYPE CIRCUIT BREAKER.
2. PROVIDE ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER
3. PROVIDE 30 MILLIAMPERE EQUIPMENT GROUND FAULT PROTECTOR TYE CIRCUIT BREAKER.
4. PROVIDE SHUNT TRIP CIRCUIT BREAKER WITH 120 V COIL.
5. PROVIDE HACR RATED CIRCUIT BREAKER.
6. PROVIDE HANDLE CLAMP FOR HOLDING CIRCUIT BREAKER IN THE "ON" OR "OFF" POSITION.
7. PROVIDE SWITCHING RATED CIRCUIT BREAKER.
8. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD (WHERE PANEL IS LOCATED AS EXISTING) OF SAME MANUFACTURER AND A.I.C. RATING AS EXISTING.
9. EXISTING LOAD

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: | DATE: | DESCRIPTION:

CONSTRUCTION DOCUMENTS

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY B. ... No. 177411
05-01-2024
STATE OF UTAH

PANEL SCHEDULES

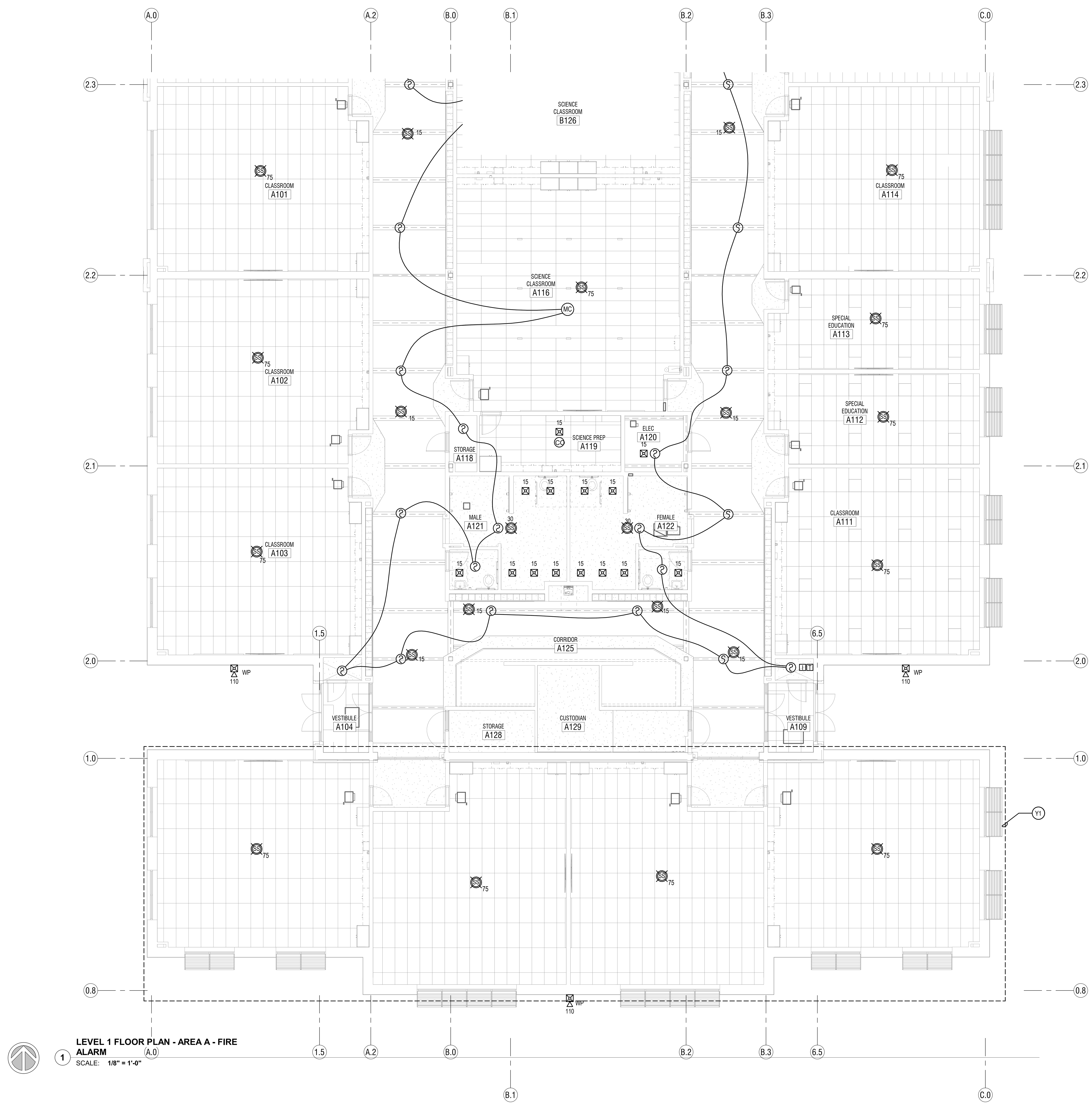
E-264

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

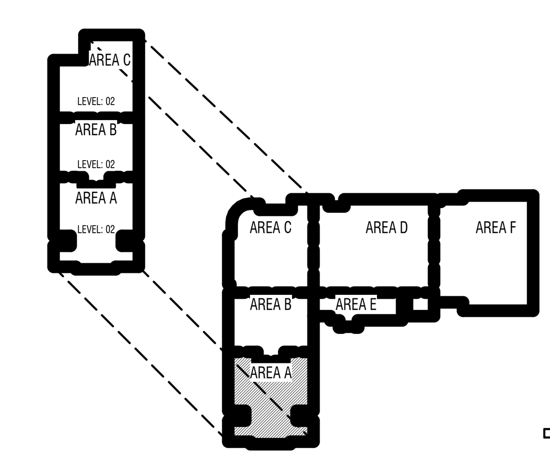
KEYED NOTES

Y1 UNDER THE BASE BID, INCLUDE ALL WORK IN THIS AREA AS SHOWN ON THE PLANS. UNDER ALTERNATE #1, THIS AREA WILL BE REMOVED FROM THE PROJECT. PROVIDE A SEPARATE COST TO BE ISSUED AS A CREDIT FOR ALL WORK IN THIS AREA AS SHOWN ON THE PLANS.



1 LEVEL 1 FLOOR PLAN - AREA A - FIRE ALARM
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE. SUITE 200
SALT LAKE CITY, UT 84115
P (801) 534-1130
F (801) 534-1080
www.envisioneng.com

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER 77411 05-01-2024 STATE OF UTAH

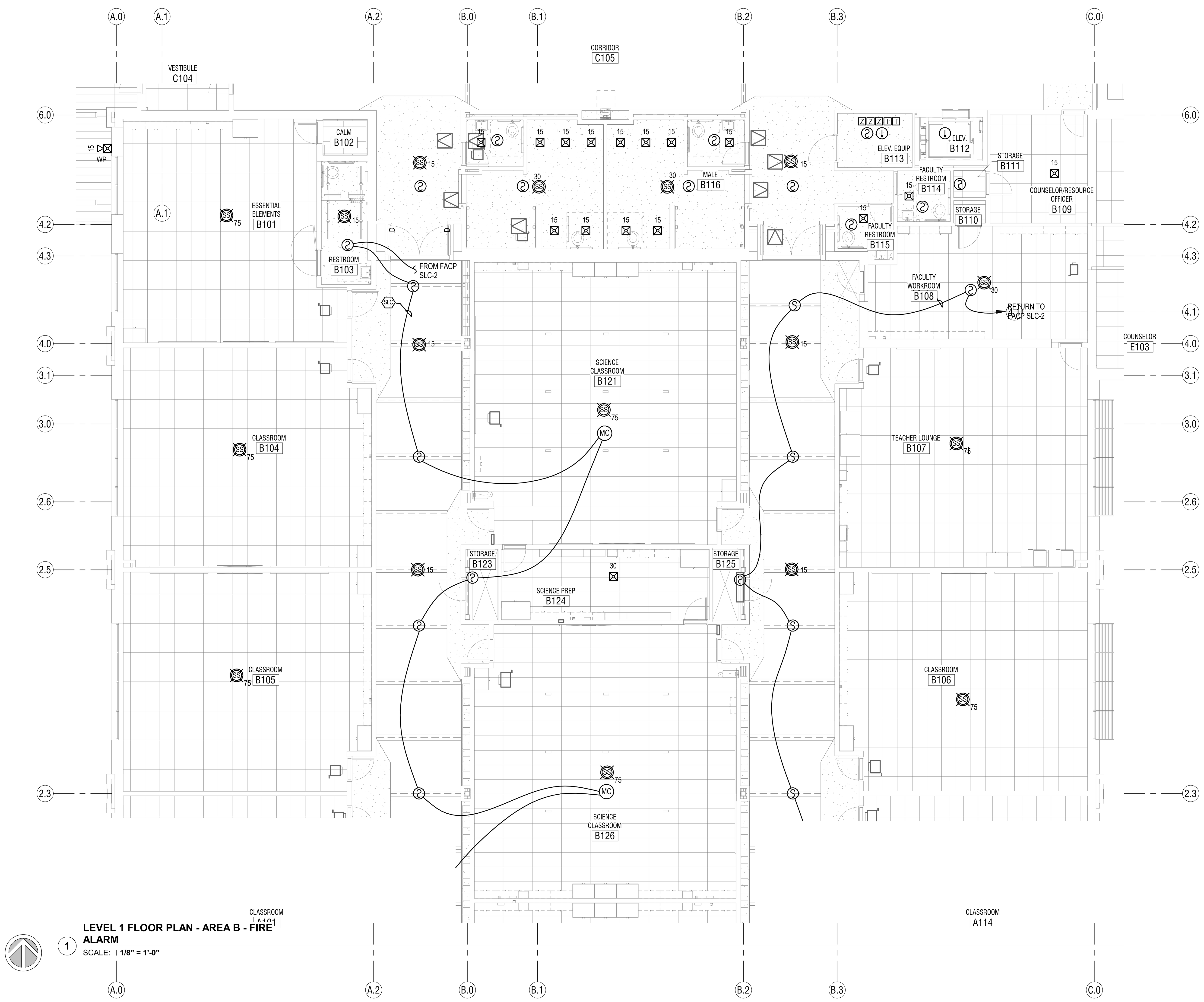
LEVEL 1 - AREA A - FIRE ALARM

E-311

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

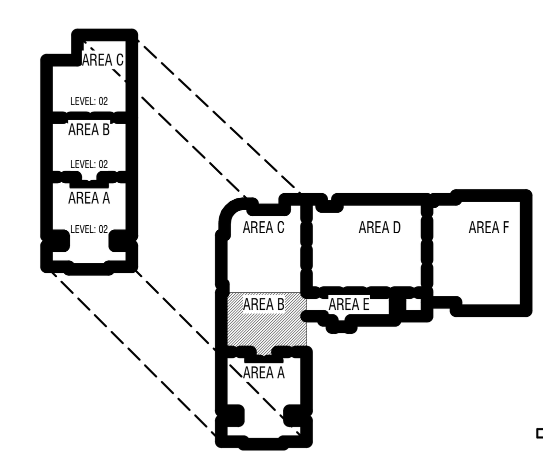
KEYED NOTES



LEVEL 1 FLOOR PLAN - AREA B - FIRE ALARM

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

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST
795 NORTH 400 WEST
LOGAN UT 84321
SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE. SUITE 200
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P (801) 534-1130
F (801) 534-1080
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA B - FIRE ALARM

E-312

LEVEL 1 FLOOR PLAN - AREA C - FIRE ALARM

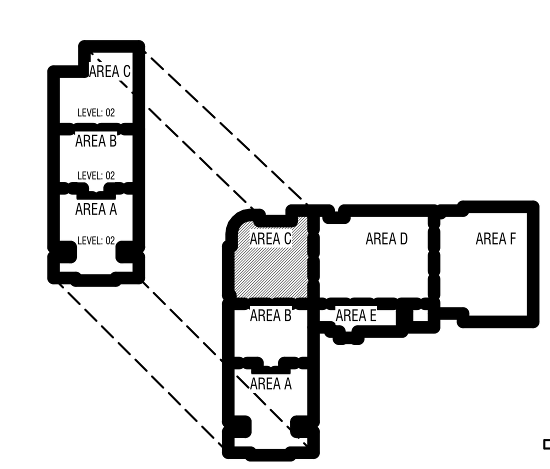
SCALE: 1/8" = 1'-0"

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

KEYED NOTES #

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE. SUITE 200
SALT LAKE CITY, UT 84115
www.envisioneng.com

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. OWEN No. 177411 05-01-2024 STATE OF UTAH

LEVEL 1 - AREA C - FIRE ALARM

E-313

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
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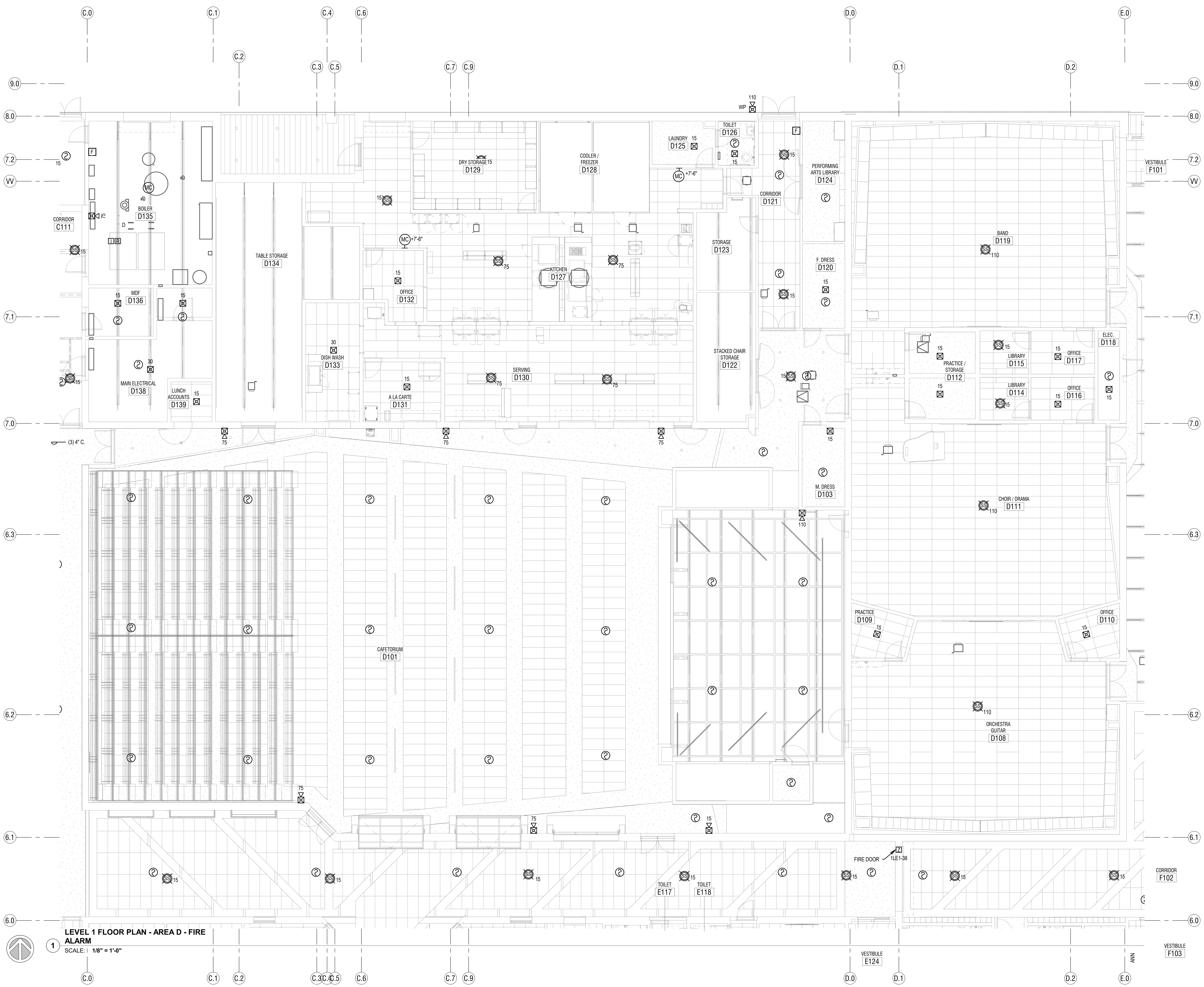
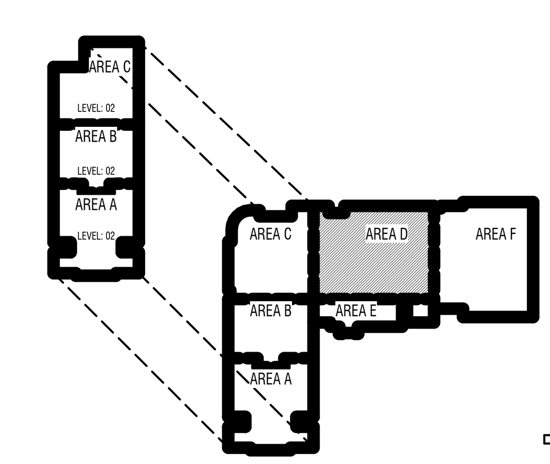
KEYED NOTES



LEVEL 1 FLOOR PLAN - AREA D - FIRE ALARM

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

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects

255 SOUTH 300 WEST SALT LAKE CITY UT 84101

795 NORTH 400 WEST SALT LAKE CITY UT 84103

LOGAN UT 84321

ENVISION ENGINEERING

240 E. MORRIS AVE., SUITE 200 SALT LAKE CITY, UT 84115

P (801) 534-1130

F (801) 534-1080

www.envisioneng.com

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK	DATE	DESCRIPTION

PROJECT #: 123006

DRAWN BY: Author

CHECKED BY: Checker

ISSUED: 04.26.2024

LEVEL 1 - AREA D - FIRE ALARM

E-314

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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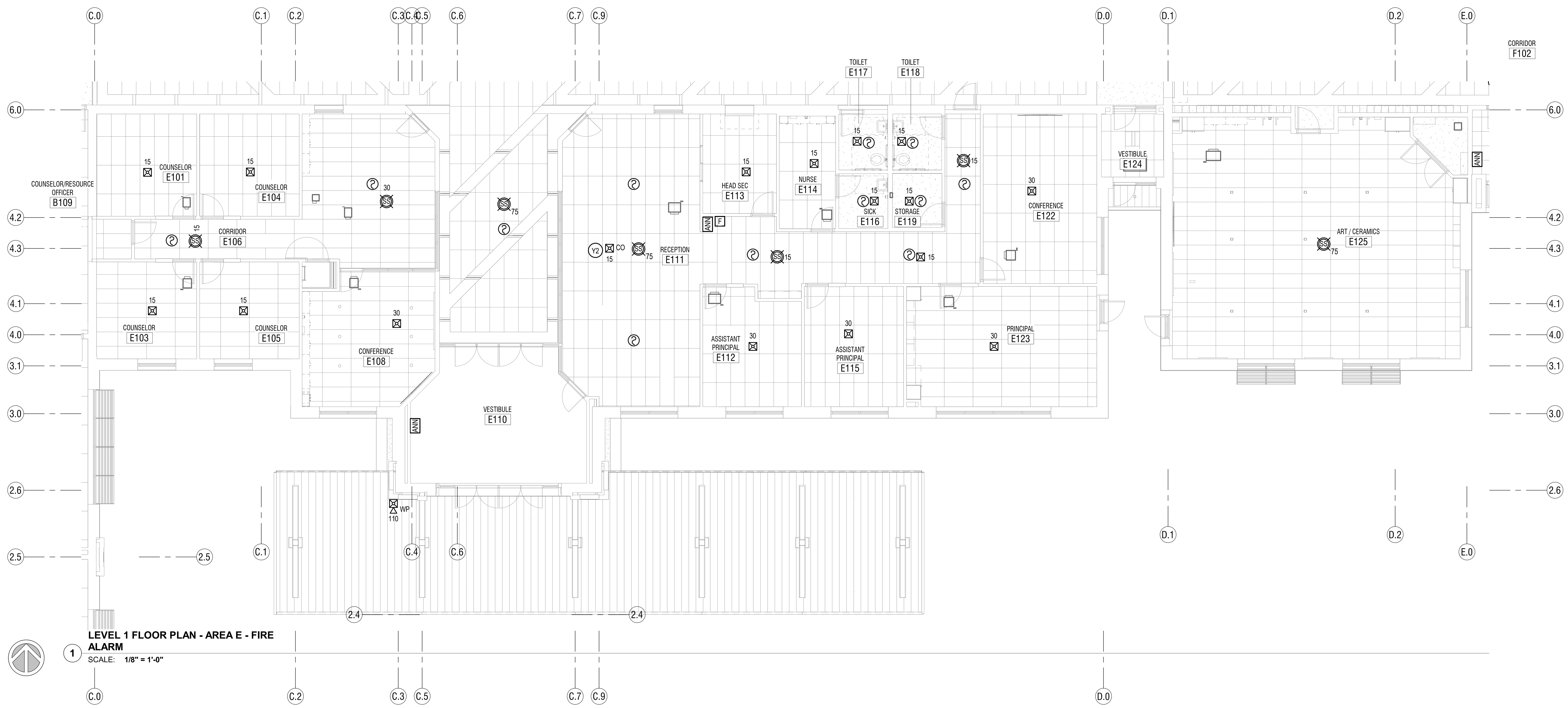
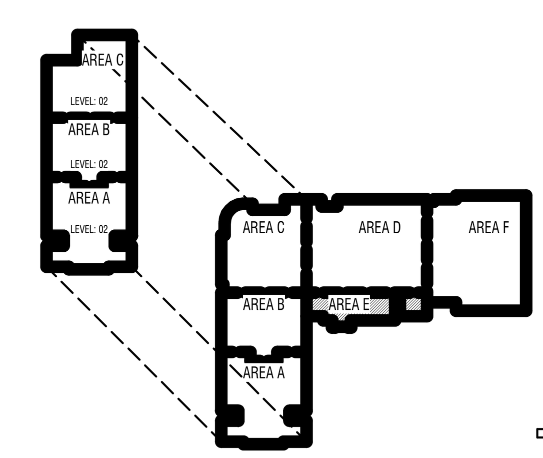
KEYED NOTES



1 LEVEL 1 FLOOR PLAN - AREA E - FIRE ALARM
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. OWEN No. 177411 05-01-2024 STATE OF UTAH

LEVEL 1 - AREA E - FIRE ALARM

E-315

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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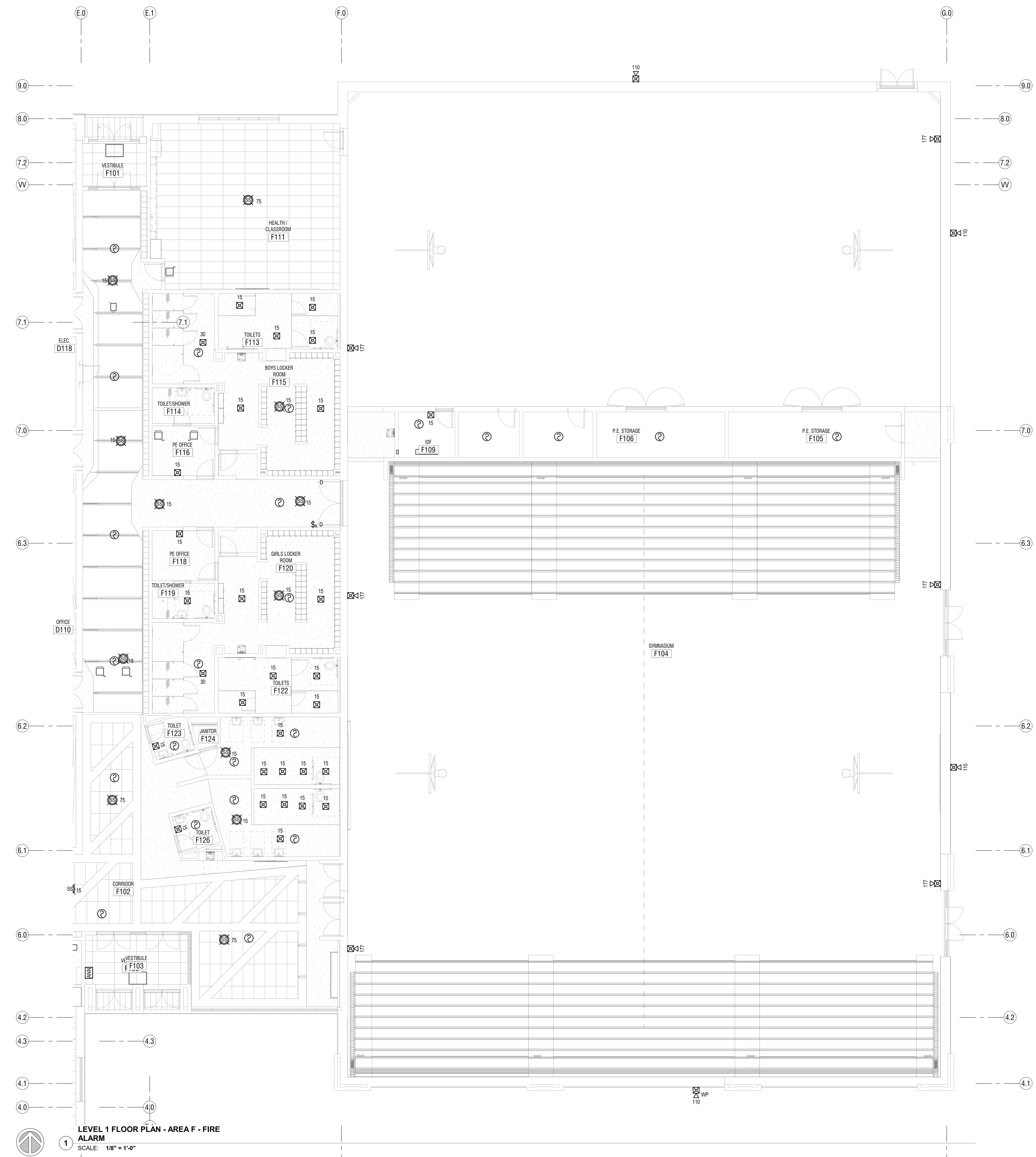
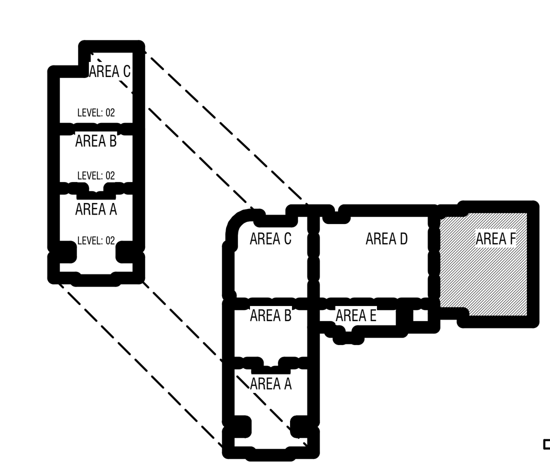


1 LEVEL 1 FLOOR PLAN - AREA F - FIRE ALARM

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

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects

255 SOUTH 300 WEST LOGAN UT 84321

795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA F - FIRE ALARM

E-316

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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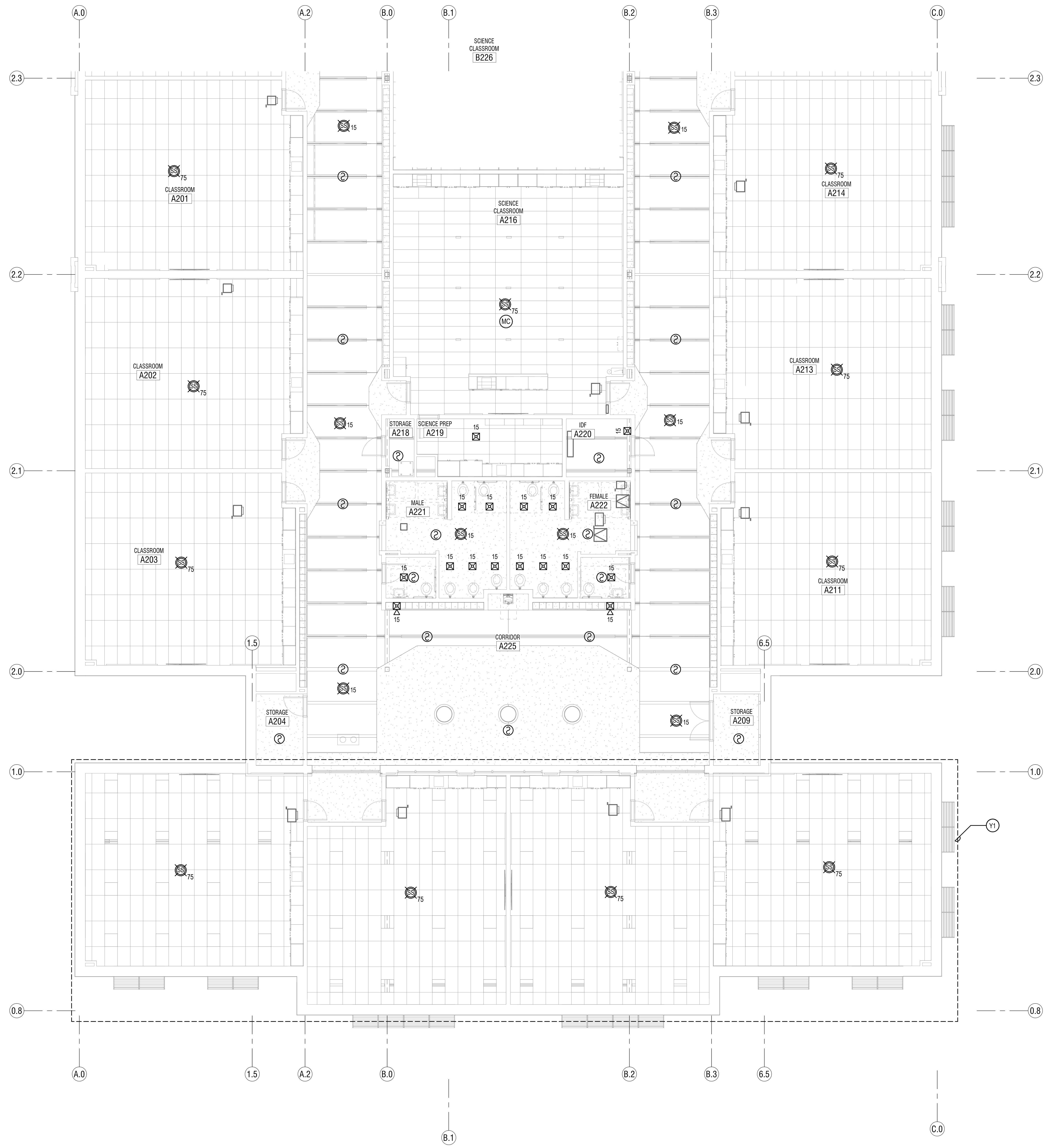
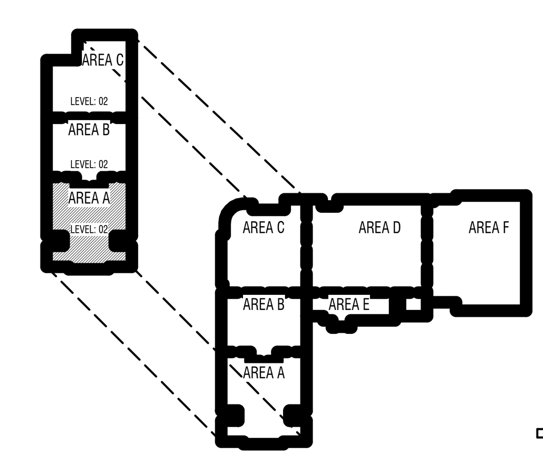


1 LEVEL 2 FLOOR PLAN - AREA A - FIRE ALARM
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE., SUITE 200
SALT LAKE CITY, UT 84115
P (801) 534-1130
F (801) 534-1080
www.envisioneng.com

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 2 - AREA A - FIRE ALARM

E-321

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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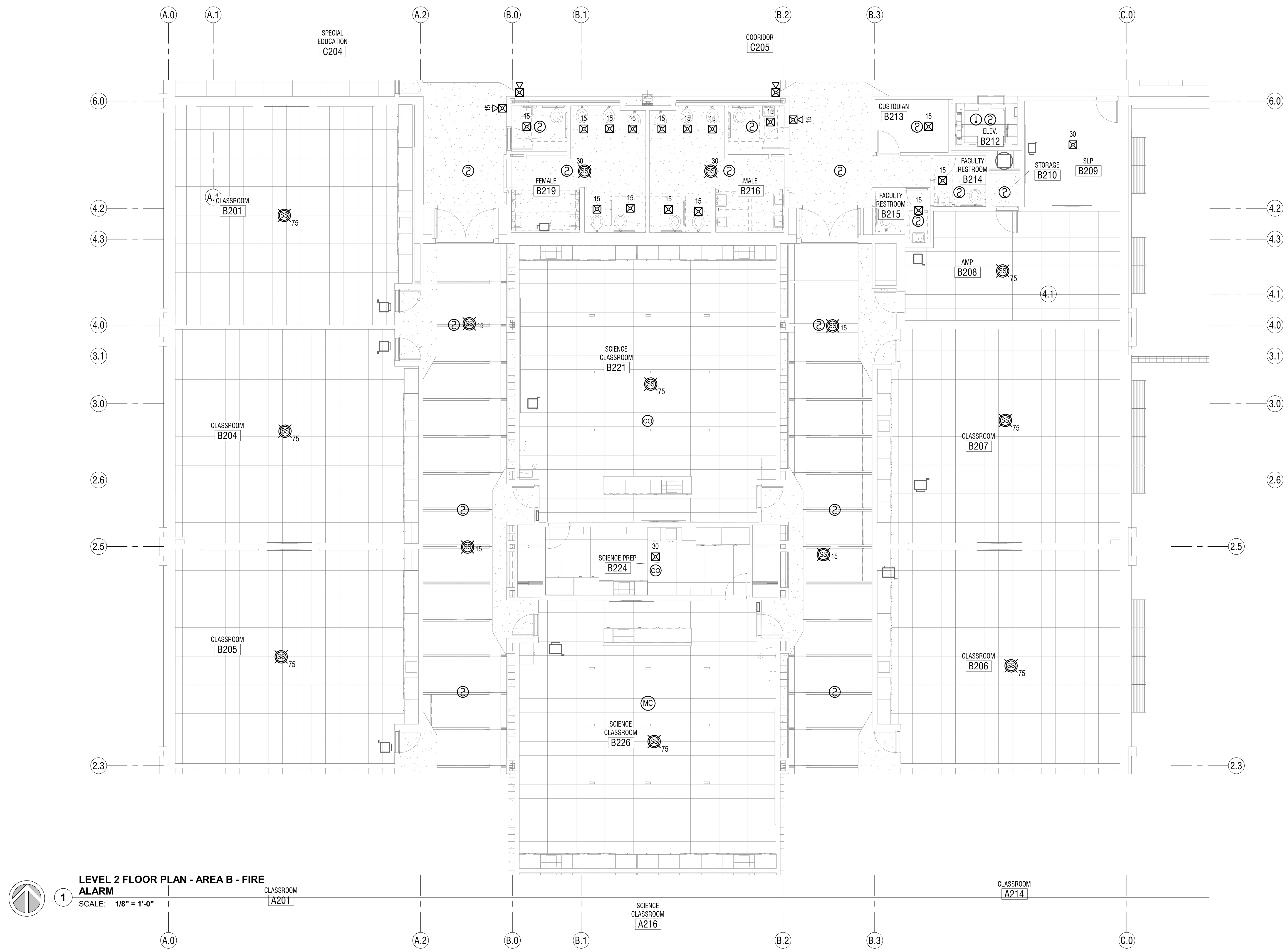
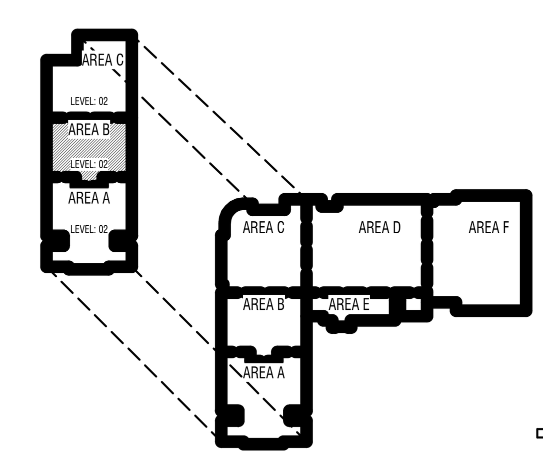


1 **LEVEL 2 FLOOR PLAN - AREA B - FIRE ALARM**
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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240 E. MORRIS AVE. SUITE 200
SALT LAKE CITY, UT 84115
P (801) 534-1130
F (801) 534-1080
www.envisioneng.com

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK	DATE	DESCRIPTION

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 2 - AREA B - FIRE ALARM

E-322

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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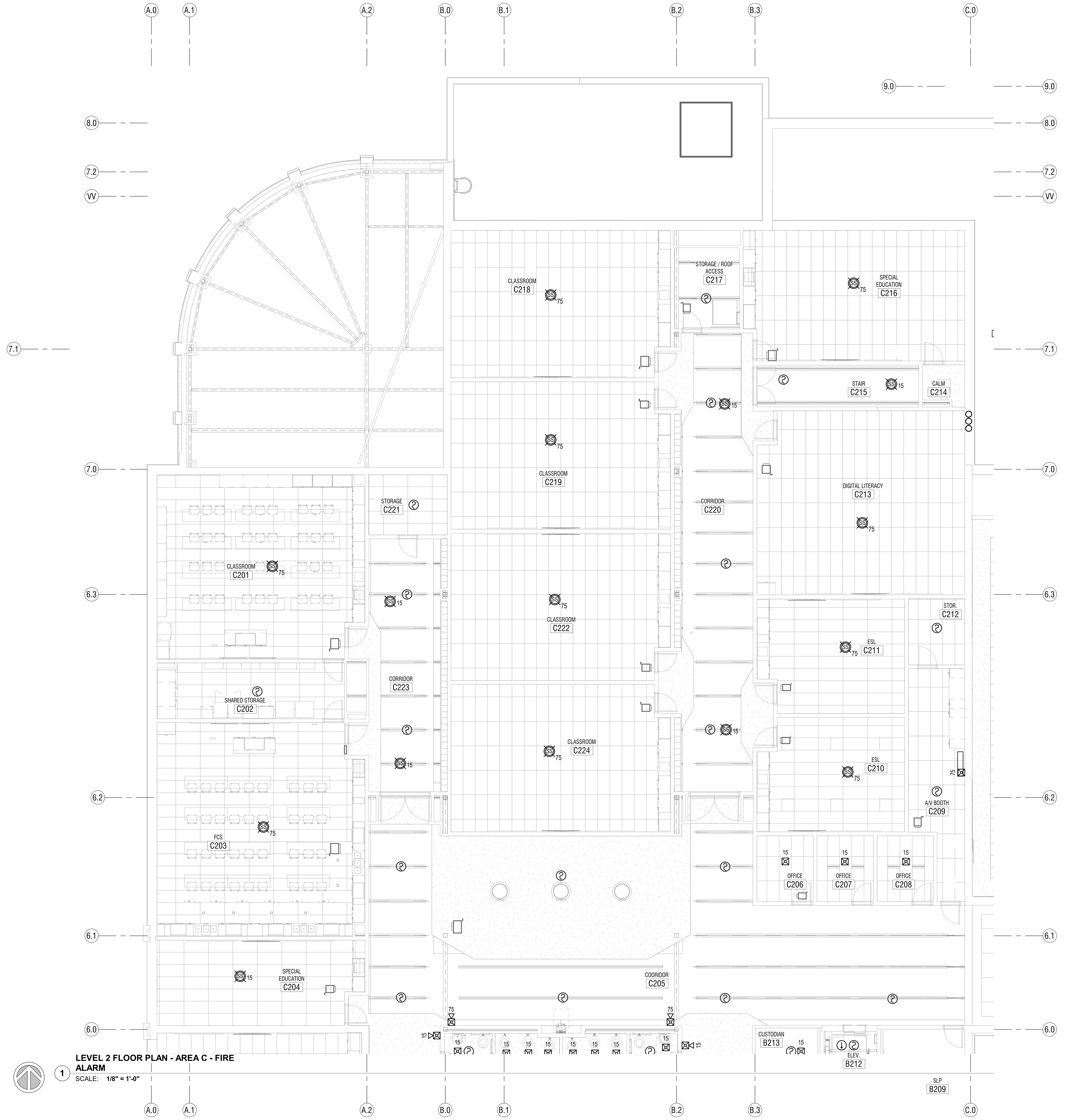
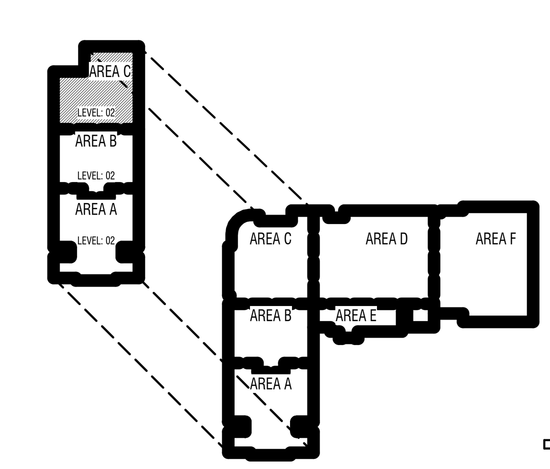


1 LEVEL 2 FLOOR PLAN - AREA C - FIRE ALARM
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE, SUITE 200
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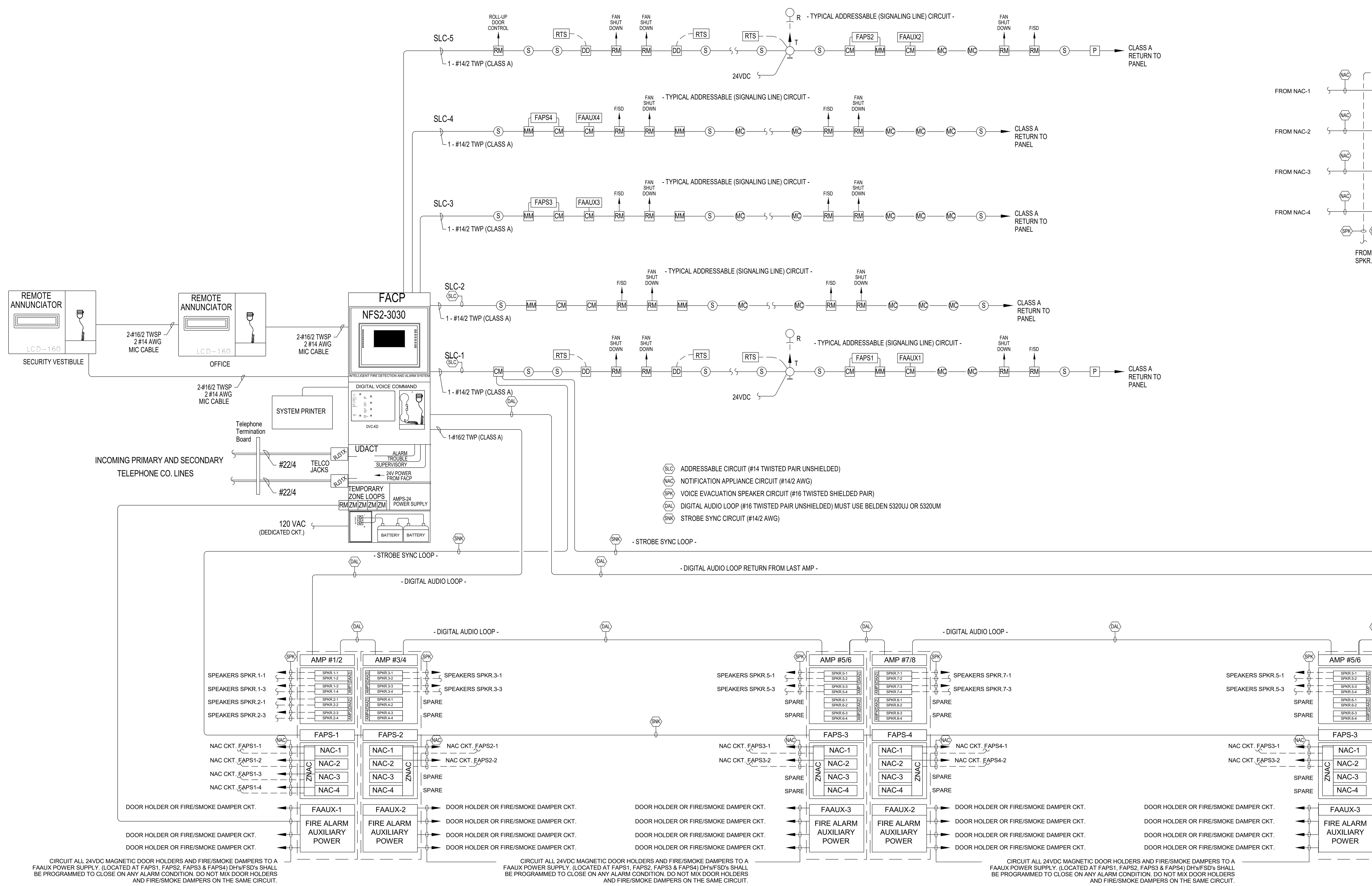
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

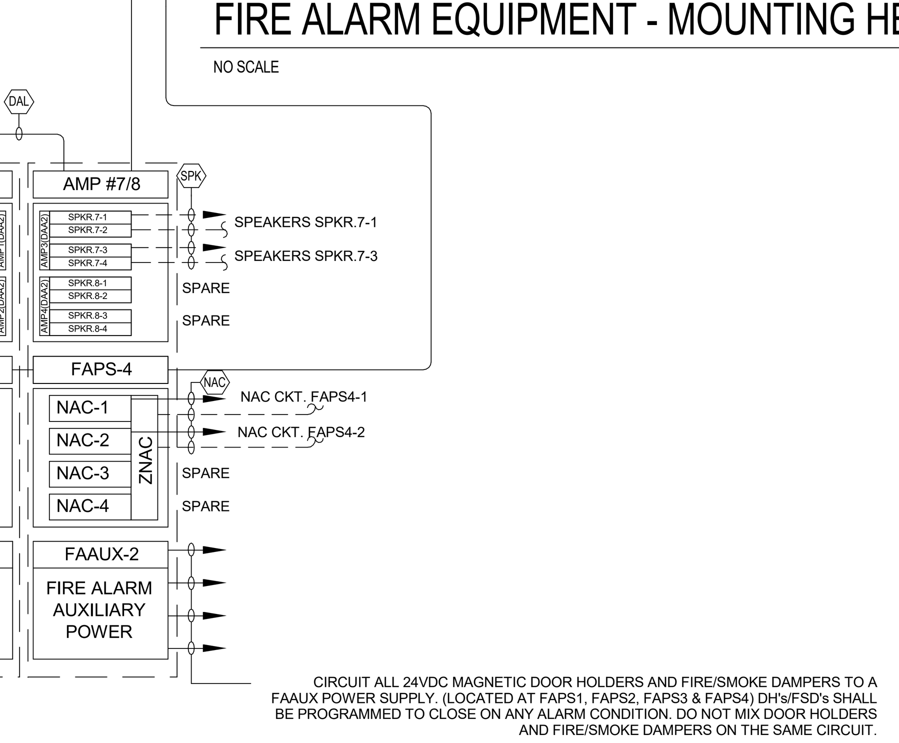
LEVEL 2 - AREA C - FIRE ALARM

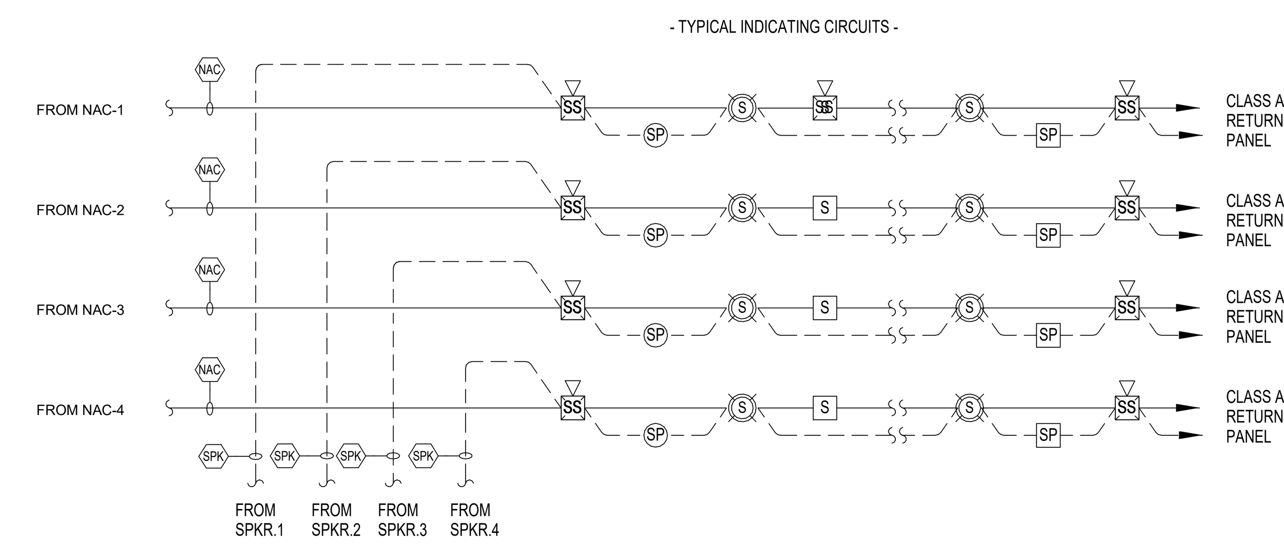
E-323

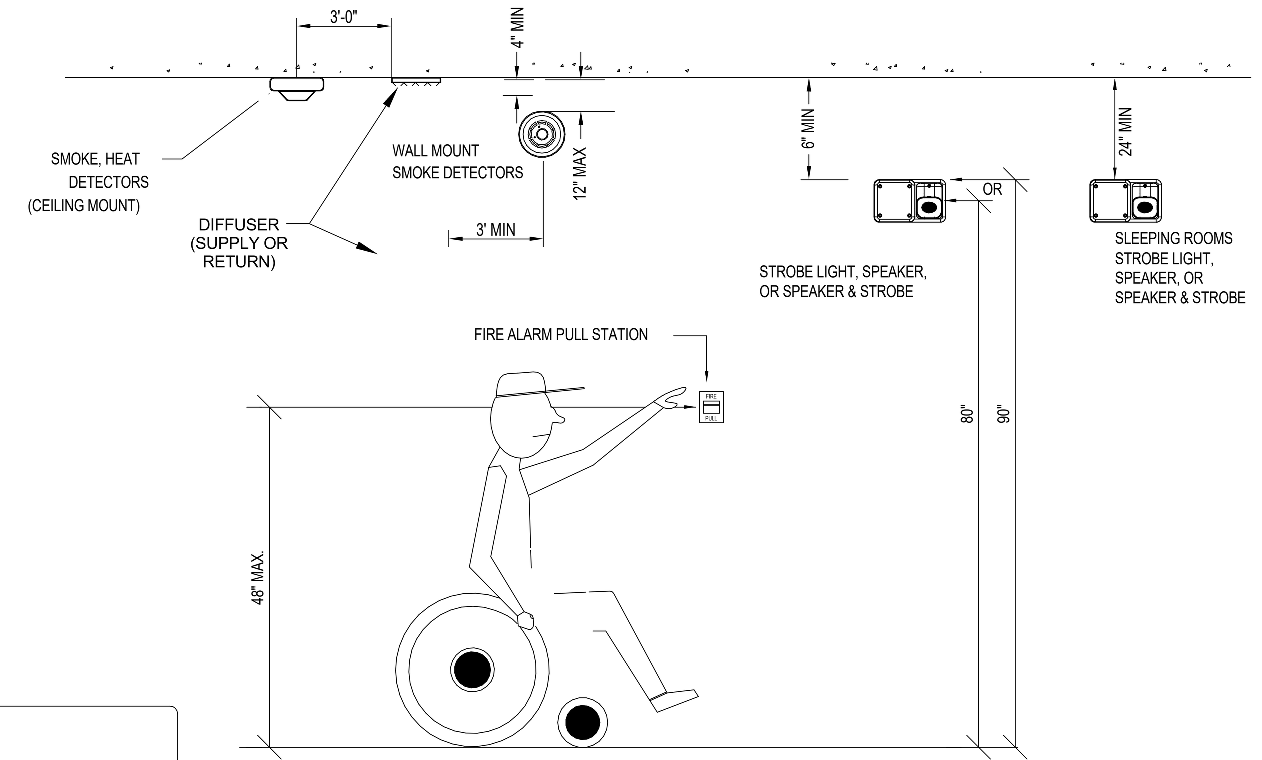


(SLC) ADDRESSABLE CIRCUIT (#14 TWISTED PAIR UNSHIELDED)
(NAC) NOTIFICATION APPLIANCE CIRCUIT (#14/2 AWG)
(SPK) VOICE EVACUATION SPEAKER CIRCUIT (#16 TWISTED SHIELDED PAIR)
(DAL) DIGITAL AUDIO LOOP (#16 TWISTED PAIR UNSHIELDED) MUST USE BELDEN 5320UJ OR 5320UM
(SNK) STROBE SYNC CIRCUIT (#14/2 AWG)

CIRCUIT ALL 24VDC MAGNETIC DOOR HOLDERS AND FIRE/SMOKE DAMPERS TO A FAAUX POWER SUPPLY. (LOCATED AT FAPS1, FAPS2, FAPS3 & FAPS4) DH's/FSD's SHALL BE PROGRAMMED TO CLOSE ON ANY ALARM CONDITION. DO NOT MIX DOOR HOLDERS AND FIRE/SMOKE DAMPERS ON THE SAME CIRCUIT.







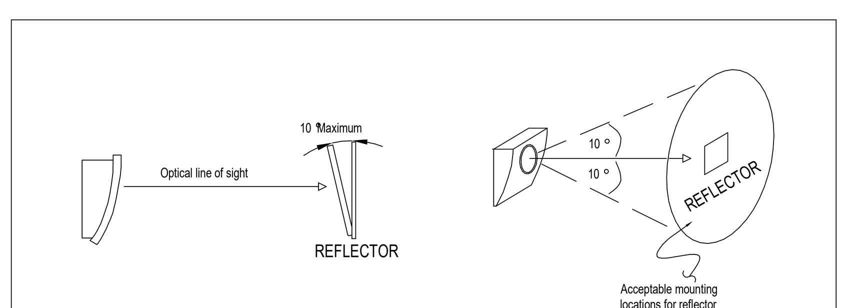
FIRE ALARM EQUIPMENT - MOUNTING HEIGHTS

NO SCALE

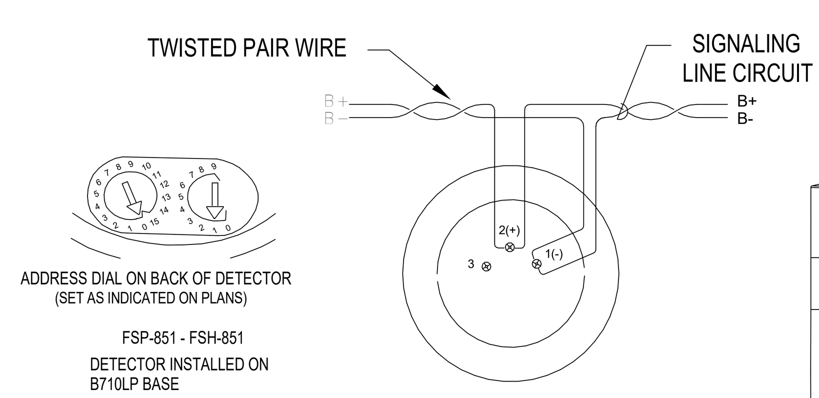
THIS IS AN ADDRESSABLE FIRE ALARM SYSTEM. COORDINATE DEVICE ADDRESSES AND MAPPING WITH DAVE FULLMER - CCSD (435) 994-0350.

FIRE ALARM RISER DIAGRAM

SCHEMATIC: NO SCALE

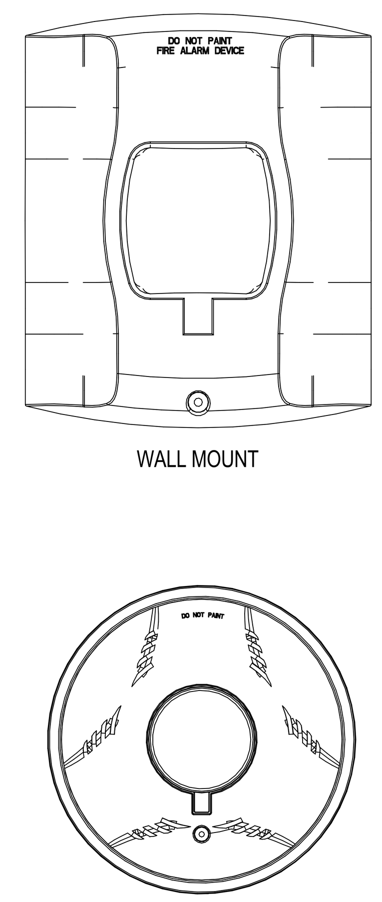


REFLECTOR MOUNTING GUIDLINES
PROJECTED BEAM SMOKE DETECTOR



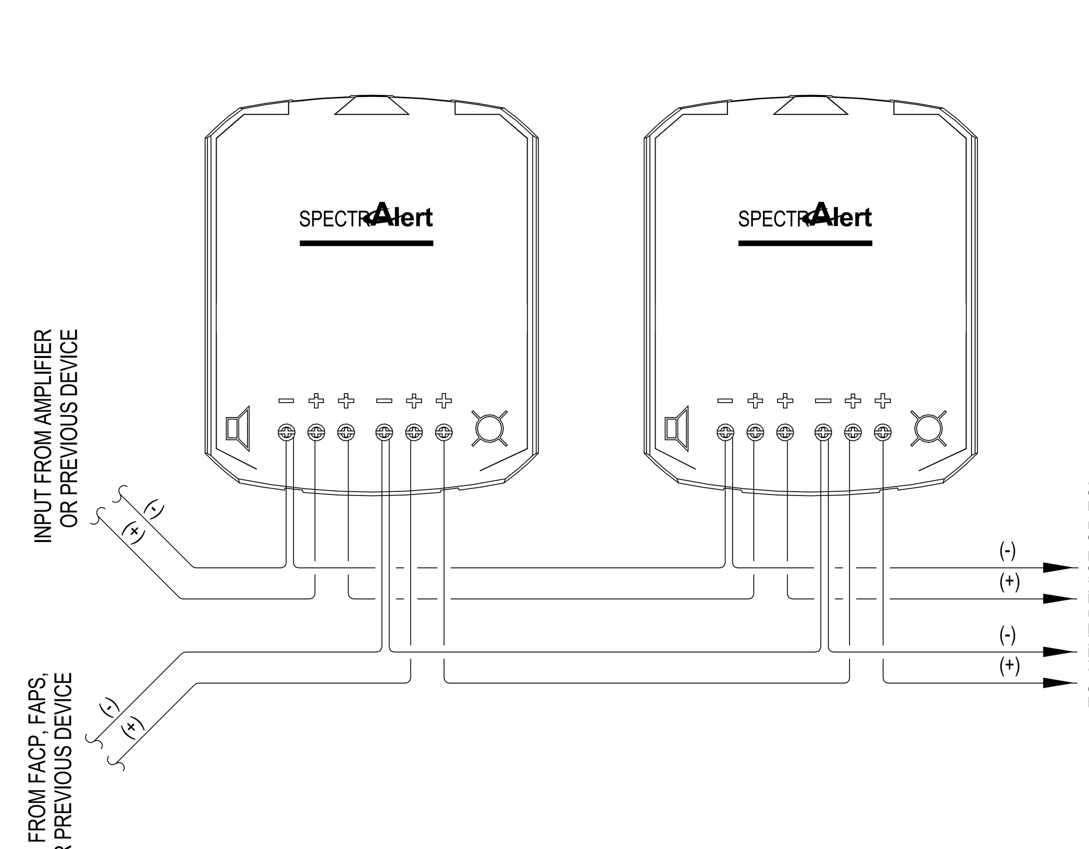
ADDRESSABLE DETECTOR WIRING DETAIL

SCHEMATIC: NO SCALE



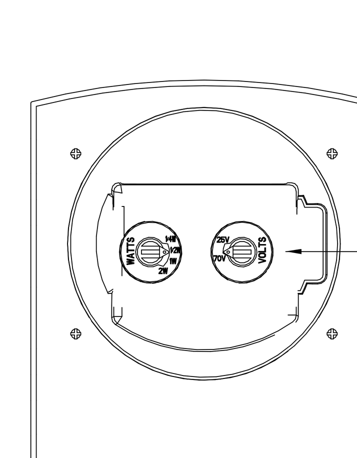
WALL MOUNT

CEILING MOUNT



TYPICAL SPEAKER/STROBE WIRING DETAIL

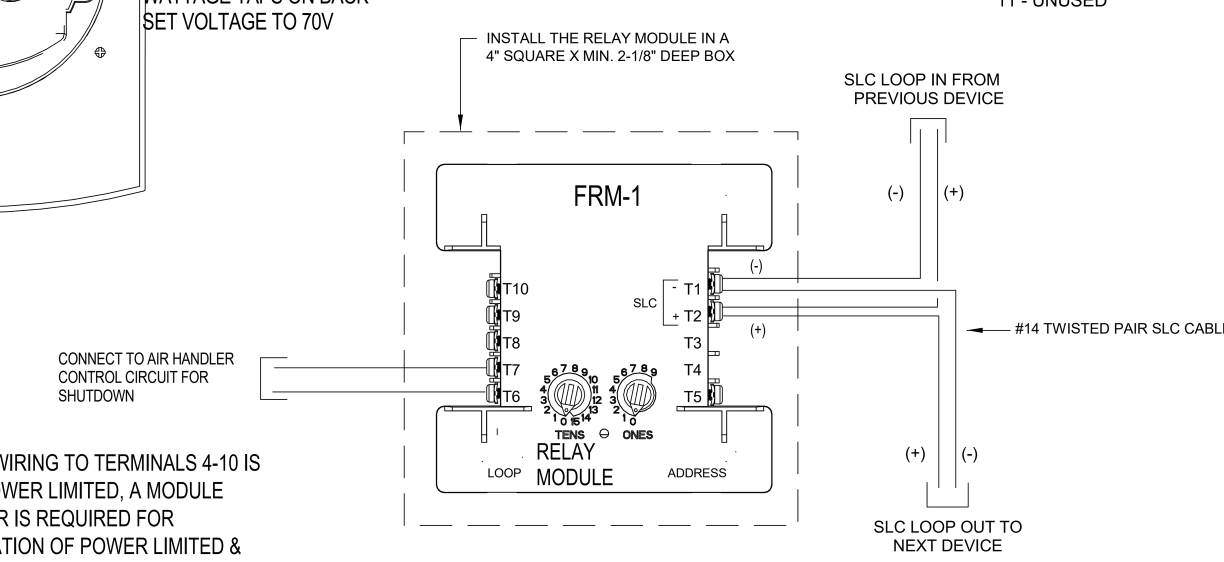
SCHEMATIC: NO SCALE



FIELD SELECTABLE WATTAGE TAPS ON BACK SET VOLTAGE TO 70V

TERMINAL ID

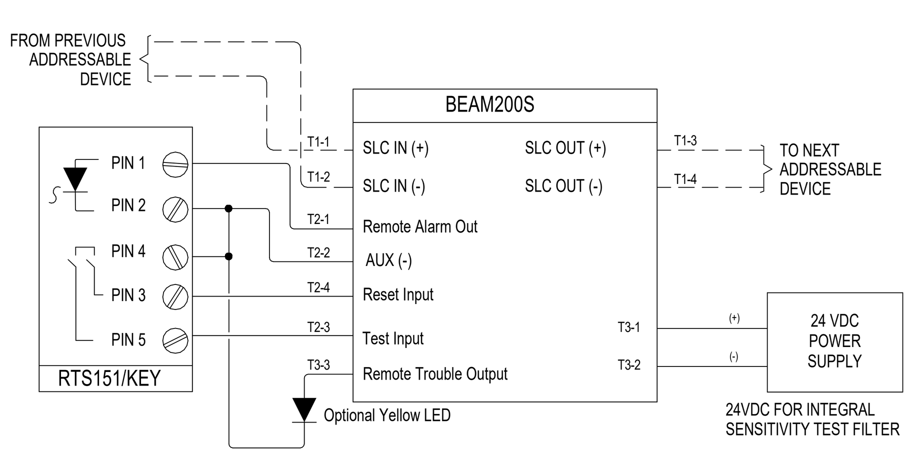
0 - NOT USED
1 - SLC LOOP (-)
2 - SLC LOOP (+)
3 - UNUSED
4 - UNUSED
5 - NORMALLY OPEN 1
6 - NORMALLY CLOSED 1
7 - RELAY COMMON 1
8 - NORMALLY OPEN 2
9 - NORMALLY CLOSED 2
10 - RELAY COMMON 2
11 - UNUSED



NOTE:
IF ANY WIRING TO TERMINALS 4-10 IS NON-POWER LIMITED, A MODULE BARRIER IS REQUIRED FOR SEPARATION OF POWER LIMITED & NON-POWER LIMITED WIRING.

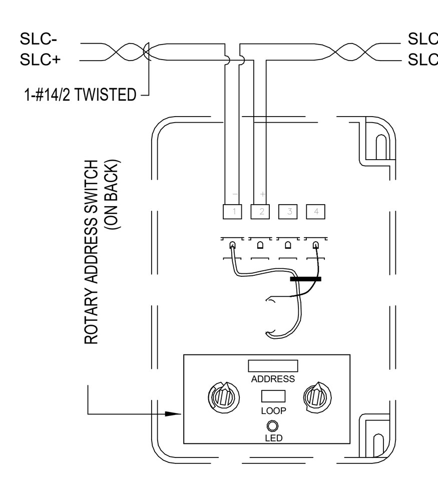
FRM-1 RELAY MODULE/AIR HANDLER SHUT-DOWN DETAIL

SCHEMATIC: NO SCALE



ADDRESSABLE BEAM SMOKE DETECTOR W/RTS WIRING DETAIL

SCHEMATIC: NO SCALE



MANUAL PULL STATION WIRING DETAIL

SCHEMATIC: NO SCALE

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255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

CONSTRUCTION DOCUMENTS

FIRE ALARM RISER

E-331

OPERATIONS MATRIX

FIRE ALARM INPUT / FIRE ALARM OUTPUT	ACTIVATE ALARM INDICATOR	ACTIVATE AUDIBLE ALARM	ACTIVATE SUPERVISORY INDICATOR	ACTIVATE AUDIBLE SUPERVISORY SIGNAL	ACTIVATE TROUBLE INDICATOR	ACTIVATE AUDIBLE TROUBLE INDICATOR	TRANSMIT ALARM SIGNAL	TRANSMIT SUPERVISORY SIGNAL	TRANSMIT TROUBLE SIGNAL	RELEASE EGRESS MAGLOCKS/UNLOCK EXITS	RELEASE MAGNETICALLY HELD SMOKE DOORS	SHUT DOWN KITCHEN HOOD MAKE UP AIR	SHUT DOWN AIR HANDLER UNITS
SMOKE DETECTORS													
HEAT DETECTORS													
DUCT DETECTORS													
PULL STATIONS													
WATERFLOW SWITCHES												●	●
VALVE TAMPER SWITCHES													
KITCHEN HOOD												●	●
FIRE ALARM AC POWER FAIL													
FIRE ALARM LOW BATTERY													
OPEN CIRCUIT													
GROUND FAULT													
NAC SHORT CIRCUIT													
LOSS OF AC TO BUILDING													

FIRE ALARM SYMBOL LEGEND

NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT

SYMBOL	DESCRIPTION	MANUF. & PART #	MOUNTING	MOUNT IN
FACP	FIRE ALARM CONTROL PANEL	NOTIFIER - ONYX SERIES NFS2-3030	CABINET TOP @ 6'-2"	NOTIFIER - CAB D-4
DVC	DIGITAL VOICE CONTROL PANEL	NOTIFIER - DVC	IN FACP CABINET	IN FACP CABINET
FAPS	FIRE ALARM POWER SUPPLY CABINET	NOTIFIER - FCPS-24S8 & DAA2-5070	CABINET TOP @ 6'-2"	NOTIFIER - CAB EQ D-4 (NAC POWER SUPPLY & AMPLIFIER)
FAAUX	FIRE ALARM DOOR HOLDER POWER	NOTIFIER - FCPS-24S8	IN FAPS CABINET	IN FAPS CABINET WHERE REQUIRED
ANN	FIRE ALARM REMOTE ANNUNCIATOR	NOTIFIER - FDU-80	FIELD VERIFY	3 GANG DEEP - MOUNTED FLUSH, 48" TO TOP
MIC	REMOTE MICROPHONE	NOTIFIER - RM-1	FIELD VERIFY	IN REMOTE ANNUNCIATOR CABINET
S	SMOKE DETECTOR	NOTIFIER - FSP-851	CEILING	4 SQ. DEEP W/ MUD RING - MOUNTED FLUSH
DD	DUCT SMOKE DETECTOR	NOTIFIER - FSP-851R / DNR	INDICATED DUCT	DNR HOUSING
P	PULL STATION	NOTIFIER - NBG-12LX	WALL @ 48" TO CENTER OF BOX	4 SQ. DEEP W/ SINGLE GANG MUD RING - MOUNTED FLUSH
	HEAT DETECTOR	NOTIFIER - FSH-851	CEILING	4 SQ. DEEP W/ MUD RING - MOUNTED FLUSH
TX/RX	BEAM SMOKE DETECTOR-TX/RX	NOTIFIER - BEAM200S	FIELD VERIFY	VERIFY
R	BEAM SMOKE DETECTOR-REFLECTOR	NOTIFIER - BEAM200S	FIELD VERIFY	VERIFY
RTS	REMOTE TEST SWITCH	NOTIFIER - RTS-151KEY	CEILING MOUNTED NEAR UNIT	SINGLE GANG 2-1/2" DEEP OR MOUNT DIRECTLY TO CEILING
MC	*MULTI CRITERIA DETECTOR W/CO DET.	NOTIFIER - FCO-851	CEILING	4 SQ. DEEP W/ MUD RING - MOUNTED FLUSH
MM	MONITOR MODULE	NOTIFIER - FMM-1		4 SQ. DEEP - MOUNTED FLUSH
CM	CONTROL MODULE	NOTIFIER - FCM-1		4 SQ. DEEP - MOUNTED FLUSH
RM	RELAY MODULE	NOTIFIER - FRM-1		4 SQ. DEEP - MOUNTED FLUSH
S	**SPEAKER / STROBE - CEILING	NOTIFIER - SPSCRV	CEILING	4 SQ. DEEP W/ DOUBLE GANG MUD RING - MOUNTED FLUSH
SS	**SPEAKER / STROBE	NOTIFIER - SPSRV	WALL @ 84" TO CENTER OF BOX	4 SQ. DEEP W/ DOUBLE GANG MUD RING - MOUNTED FLUSH
WP SS	**SPEAKER / STROBE (WEATHERPROOF)	NOTIFIER - SPSRK	WALL @ 10' TO CENTER OF BOX	4 SQ. DEEP W/ DOUBLE GANG MUD RING - MOUNTED FLUSH
	**STROBE - CEILING MOUNT	NOTIFIER - SCR	CEILING	4 SQ. DEEP W/ SINGLE GANG MUD RING - MOUNTED FLUSH
	**STROBE	NOTIFIER - SR	WALL @ 84" TO CENTER OF BOX	4 SQ. DEEP W/ SINGLE GANG MUD RING - MOUNTED FLUSH
SP	**SPEAKER	NOTIFIER - SPRV		4 SQ. DEEP W/ DOUBLE GANG MUD RING - MOUNTED FLUSH
DH	24VDC MAGNETIC DOOR HOLDERS	ABH - 2500	FIELD VERIFY	WALL MOUNT - DOUBLE GANG/NEW=FLUSH - EXIST.=SURFACE
F/SD	FIRE/SMOKE DAMPER	BY OTHERS	BY OTHERS	BY OTHERS
ANSUL	KITCHEN HOOD SYSTEM	BY OTHERS	VERIFY	VERIFY
ZM	RELAY MODULE	NOTIFIER - FZM-1	IN FACP CABINET	4 SQ. DEEP - MOUNTED FLUSH

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
E	EXISTING	AWG	AMERICAN WIRE GAUGE
G	WITH GUARD / PROTECTIVE COVER	TWP	TWISTED PAIR
P	PENDENT MOUNT	TWSP	TWISTED SHIELDED PAIR
R	RESIDENTIAL (110V)	FPLP	FIRE POWER LIMITED PLENUM
S	SOUNDER BASE	FPLR	FIRE POWER LIMITED RISER
WP	WEATHERPROOF		
EOL	END OF LINE RESISTOR		
EOLR	END OF LINE RELAY		

S DEVICE ADDRESS P
L1D100 OR L1M100
(L - DENOTES LOOP #)
(D or M - DENOTES DETECTOR OR MODULE #)

SP 2W SPEAKER WATTAGE TAP SETTING ½W S 75 STROBE CANDELA SETTING 30

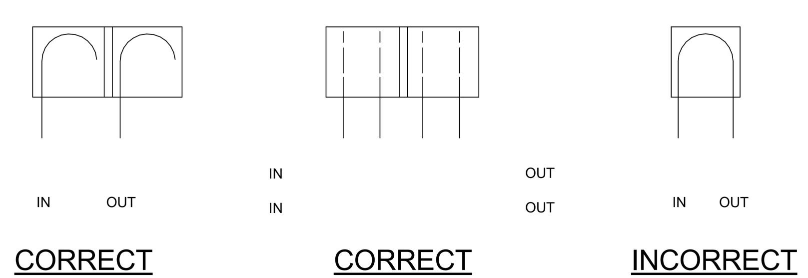
1-#14/2 TWP
WIRE TYPE ABBREVIATED
CONDUCTOR COUNT
WIRE SIZE
OF CABLES (IF OMITTED ONLY 1 CABLE NEEDED)

* FCO-851 INTELLIQUAD DETECTOR-FOUR SENSING ELEMENTS:
CARBON MONOXIDE DETECTOR - FLAME DETECTOR
SMOKE DETECTOR - THERMAL DETECTOR

** NEW FIRE ALARM SYSTEM INSTALLATION IN EXISTING AREAS OF THE BUILDING:
ALL SURFACE MOUNT CABLE RUNS SHALL BE IN LEGRAND-WIREMOLD PN05 OR PN10 LOW-VOLTAGE LATCHING RACEWAY. SURFACE MOUNTED DEVICES, SPEAKERS, AND SPEAKER-STROBES SHALL BE IN MATCHING WIREMOLD 2300 SERIES TWO-GANG EXTRA DEEP DEVICE BOXES. INSTALLING CONTRACTOR SHALL COORDINATE WITH THE SCHOOL DISTRICT THE RACEWAY FINISHES AND ROUTING PRIOR TO INSTALLATION.

CIRCUIT/CONDUCTOR LEGEND

- L1 SLC-1 (1-#14/2 TWISTED PAIR) 1SLC (CLASS A)
- L2 SLC-2 (1-#14/2 TWISTED PAIR) 1SLC (CLASS A)
- L3 SLC-3 (1-#14/2 TWISTED PAIR) 1SLC (CLASS A)
- L4 SLC-4 (1-#14/2 TWISTED PAIR) 1SLC (CLASS A)
- L5 SLC-5 (1-#14/2 TWISTED PAIR) 1SLC (CLASS A)
- N1 NAC-1 (2-#14 THHN) FAPS1-1 (CLASS A) ORANGE/BLUE
- N3 NAC-2 (2-#14 THHN) FAPS1-2 (CLASS A) ORANGE/BLUE
- N4 NAC-3 (2-#14 THHN) FAPS1-3 (CLASS A) ORANGE/BLUE
- N5 NAC-4 (2-#14 THHN) FAPS2-1 (CLASS A) ORANGE/BLUE
- N6 NAC-5 (2-#14 THHN) FAPS2-2 (CLASS A) ORANGE/BLUE
- N7 NAC-6 (2-#14 THHN) FAPS3-1 (CLASS A) ORANGE/BLUE
- N8 NAC-7 (2-#14 THHN) FAPS3-2 (CLASS A) ORANGE/BLUE
- N9 NAC-8 (2-#14 THHN) FAPS4-1 (CLASS A) ORANGE/BLUE
- N10 NAC-9 (2-#14 THHN) FAPS4-2 (CLASS A) ORANGE/BLUE
- S1 SPKR CKT. #1 (#16/2 TWISTED SHIELDED) AMP1-1/2 (CLASS A)
- S3 SPKR CKT. #2 (#16/2 TWISTED SHIELDED) AMP1-3/4 (CLASS A)
- S4 SPKR CKT. #3 (#16/2 TWISTED SHIELDED) AMP2-1/2 (CLASS A)
- S5 SPKR CKT. #4 (#16/2 TWISTED SHIELDED) AMP3-1/2 (CLASS A)
- S6 SPKR CKT. #5 (#16/2 TWISTED SHIELDED) AMP3-3/4 (CLASS A)
- S7 SPKR CKT. #6 (#16/2 TWISTED SHIELDED) AMP5-1/2 (CLASS A)
- S8 SPKR CKT. #7 (#16/2 TWISTED SHIELDED) AMP5-3/4 (CLASS A)
- S9 SPKR CKT. #8 (#16/2 TWISTED SHIELDED) AMP7-1/2 (CLASS A)
- S10 SPKR CKT. #9 (#16/2 TWISTED SHIELDED) AMP7-3/4 (CLASS A)
- V1 LOC HARNESS WIRING ; REMOTE MICROPHONE WIRING; AUDIO CKT. WIRING; REMOTE ANNUNCIATOR WIRING. (2-#16/2 TWISTED SHIELDED, 1-#14/2 AWG)
- X1 DIGITAL AUDIO LOOP (DAL) WIRING (CLASS A) (1-#16/2 TWP UNSHIELDED BELDEN 5320UJ, BELDEN 5320UM, OR BETTER)
- X2 SYNC CIRCUIT WIRING (CLASS A) (2-#14 THHN STRANDED) PINK/PURPLE
- RX REMOTE TEST SWITCH WIRING (#14/4 AWG)
- A1 AUX-1 (2-#14 SOLID) FAAUX1-1 (AUXILIARY DOOR) RED/BLACK
- A2 AUX-2 (2-#14 SOLID) FAAUX2-1 (AUXILIARY DOOR) RED/BLACK
- A3 AUX-3 (2-#14 SOLID) FAAUX2-2 (AUXILIARY DOOR) RED/BLACK
- A4 AUX-4 (2-#14 SOLID) FAAUX2-3 (BEAM DETECTOR POWER) RED/BLACK
- A5 AUX-5 (2-#14 SOLID) FACP-AUX1 (BEAM DETECTOR POWER) RED/BLACK
- A6 AUX-6 (2-#14 SOLID) FACP-AUX2 (BLUE STROBE POWER) RED/BLACK



WHEN INSTALLING DEVICES, CONDUCTORS SHALL NOT BE SPLICED. SPLICES OR CONNECTIONS SHALL OCCUR ONLY AT DEVICES OR APPLIANCES.

WIRING METHODS
SCHEMATIC: NO SCALE

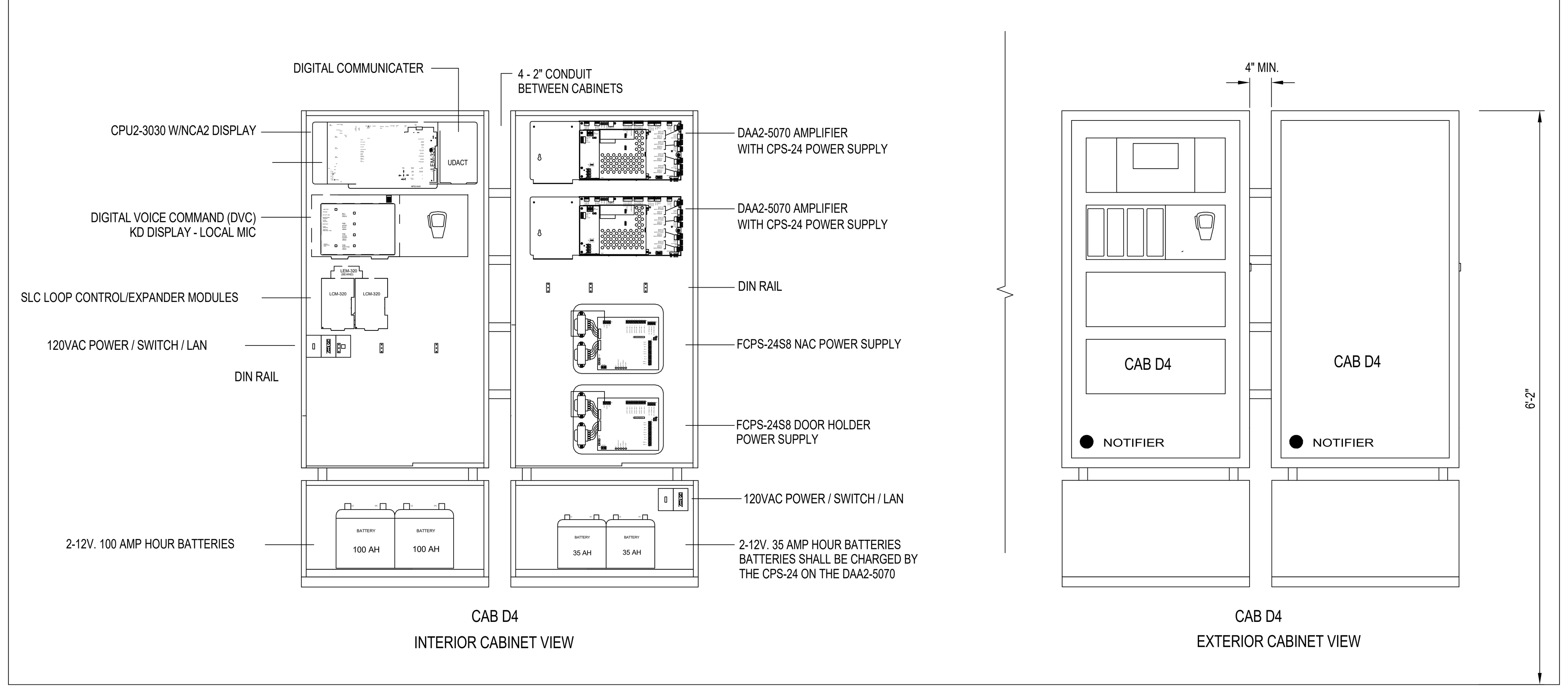
ADDITIONAL FIRE ALARM SYSTEM INSTALLATION NOTES:
- ALL SPEAKER WIRE SHALL BE #16/2 TWISTED AND SHIELDED.
- ALL FIELD SELECTABLE WATTAGE TAPS ON SPEAKERS SHALL BE SET TO 1/2 WATT UNLESS OTHERWISE NOTED ON PLANS.
- ALL SPEAKER/STROBES SHALL BE RED IN COLOR.
- IN SLC-1 AREA - REMOVE ALL EXISTING SLC CABLE AND INSTALL #14/2 TWISTED CABLE. REUSE EXISTING CONDUIT AND RACEWAY WHERE POSSIBLE. INSTALL BLANK COVERS ON ALL EXISTING BOXES NOT BEING REUSED. FIELD VERIFY EXISTING FIRE/SMOKE DAMPER LOCATIONS AND TIE TO NEW FACP.
- IN SLC-2 AREA - DO NOT USE EXISTING CABLE TRAY UNLESS ABSOLUTELY NECESSARY.
- THE DIGITAL AUDIO LOOP THAT CONNECTS ALL AMPLIFIERS WITH THE DVC SHALL BE CLASS "A". CONDUCTORS FOR THE DIGITAL AUDIO LOOP SHALL BE BELDEN 5320UJ, BELDEN 5320UM, OR BETTER AS APPROVED BY THE CACHE COUNTY SCHOOL DISTRICT. DAVE FULLMER (435) 994-0350.
- ALL CABLE RAN TO MAGNETIC DOOR HOLDERS SHALL BE 2-#14 SOLID IN RED AND BLACK.
- PHASE 1 TO BE COMPLETED BY AUGUST 10 2016.
- PHASE 2 TO BE COMPLETED WITH FINAL CONSTRUCTION.
- REMOVE ALL EXISTING DEVICES AND INSTALL BLANK COVERS.
- SET ALL SPEAKER TAP SWITCHES TO 70 VOLTS

THIS IS AN ADDRESSABLE FIRE ALARM SYSTEM. COORDINATE DEVICE ADDRESSES AND MAPPING WITH DAVE FULLMER - CCSD (435) 994-0350.

GENERAL NOTES:

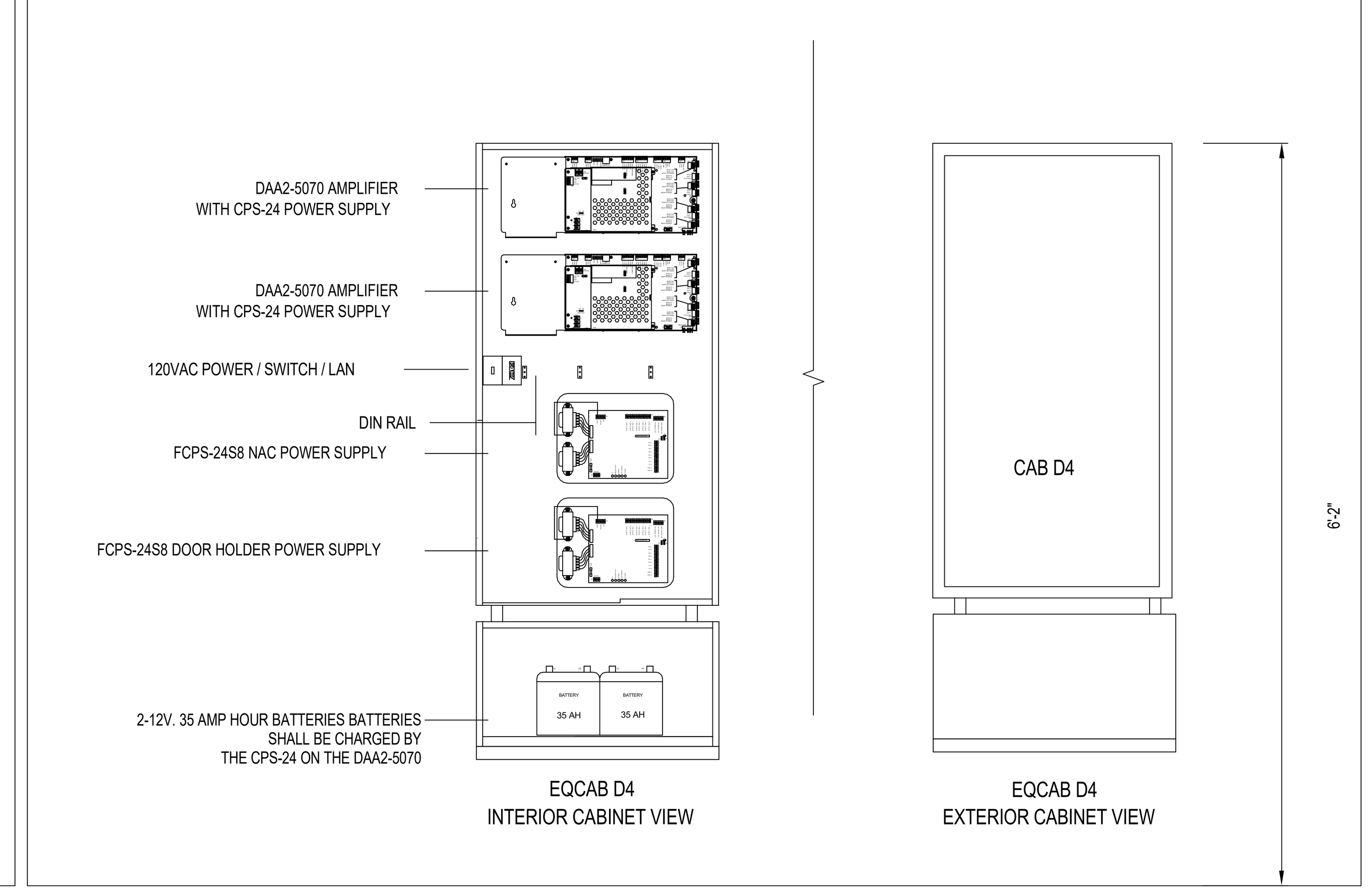
1. POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LEAST 0.25" AWAY FROM ANY NONPOWER-LIMITED CIRCUIT WIRING. FURTHERMORE, ALL POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST ENTER AND EXIT THE CABINET THROUGH DIFFERENT KNOCKOUTS AND/OR CONDUITS.
2. T-TAPPING SHALL NOT BE PERMITTED.
3. POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED CIRCUIT.
4. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETE AND FINAL.
5. INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
6. DO NOT INSTALL ANY SMOKE OR HEAT DETECTOR WITHIN 3 FEET OF ANY AIR DIFFUSER.
7. CONDUCTORS SHALL NOT BE SPLICED. SPLICES OR CONNECTIONS SHALL OCCUR ONLY AT DEVICES OR APPLIANCES.
8. APPROVED STAMPED DRAWINGS SHALL BE PROVIDED BY THE SCHOOL DISTRICT. HOWEVER, UPON COMPLETION, THE INSTALLING CONTRACTOR SHALL PROVIDE AS BUILT DRAWINGS TO CCSD - DAVE FULLMER (435) 994-0350 IN ELECTRONIC FORM AND HARD COPIES PRINTED TO SCALE ON MYLAR.
9. THE SIGNALING LINE CIRCUITS (SLC) AND NOTIFICATION APPLIANCE CIRCUITS (NAC'S) SHALL BE WIRED AS SHOWN ON THE DRAWINGS IN SEPARATE CONDUITS UNLESS OTHERWISE APPROVED BY THE SCHOOL DISTRICT AND THE LOCAL AUTHORITY HAVING JURISDICTION. (NO CHANGES WITHOUT WRITTEN APPROVAL FROM DAVE FULLMER (435) 994-0350).
10. WIRE (THHN) COLOR SHALL BE ORANGE/BLUE FOR SIGNALING CIRCUITS, PINK/PURPLE FOR FAPS (SYNC & TROUBLE), YELLOW JACKET FOR PHONE CONNECTIONS.
11. THE MAIN FIRE ALARM CABINET SHALL BE "D" SIZE WITH A GLASS DOOR.
12. UPON COMPLETION, THE INSTALLING CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM, AND SHALL COORDINATE AND PERFORM A FINAL FIRE ALARM SYSTEM INSPECTION WITH THE LAHJ.
13. ALL RACEWAY SHALL BE 3/4" EMT UNLESS NOTED OTHERWISE.
14. ALL WIRE CONNECTIONS IN MAIN FACP SHALL BE ON DIN RAIL FIRST THEN TO MAIN BOARD WITH SAME COLOR OF WIRE. PROVIDE LABEL FOR EACH.
15. FIELD SELECTABLE AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES SHALL BE SET TO: WATTAGE TAP SETTINGS ON ALL VOICE EVACUATION SPEAKERS SHALL BE SET TO 1/2 WATT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
16. ALL FIRE ALARM SYSTEM 'J' BOX COVERS AND CONDUIT MUST BE Red
17. DUCT SMOKE DETECTOR LOCATIONS MUST BE APPROVED BY CCSD DAVE FULLMER (435) 994-0350 PRIOR TO INSTALLATION.
18. ALL SPEAKERS, STROBES AND SPEAKER STROBES SHALL BE Red IN COLOR.

FACP ROOM



FACP ROOM CABINET DETAIL
SCALE: NTS

FAPS-1, FAPS-2, FAPS-3 & FAPS-4 LOCATIONS



FIRE ALARM POWER SUPPLY CABINET DETAIL
SCALE: NTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER 77411 05-01-2024 STATE OF UTAH

CONSTRUCTION DOCUMENTS

FIRE ALARM SYMBOLS AND NOTES

E-332

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS1-1			
Nac Number	N1			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	116	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	1.149	amps		
End of Line Voltage	18.53	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	116	19.58	0.818	4.01%
Device 2	0.094	37	19.34	1.064	5.22%
Device 3	0.158	27	19.17	1.228	6.02%
Device 4	0.202	47	18.93	1.468	7.20%
Device 5	0.158	26	18.83	1.569	7.69%
Device 6	0.158	42	18.71	1.690	8.28%
Device 7	0.181	53	18.61	1.792	8.78%
Device 8	0.066	62	18.56	1.842	9.03%
Device 9	0.066	64	18.53	1.868	9.16%
Totals	1.149	474			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS1-2			
Nac Number	N2			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	129	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	0.667	amps		
End of Line Voltage	19.45	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	129	19.87	0.528	2.59%
Device 2	0.066	20	19.80	0.602	2.95%
Device 3	0.094	22	19.73	0.674	3.31%
Device 4	0.066	22	19.67	0.734	3.60%
Device 5	0.055	25	19.61	0.792	3.88%
Device 6	0.094	29	19.55	0.848	4.16%
Device 7	0.066	31	19.51	0.892	4.37%
Device 8	0.094	47	19.46	0.938	4.60%
Device 9	0.066	40	19.45	0.954	4.68%
Totals	0.667	365			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS1-3			
Nac Number	N3			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	169	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	0.952	amps		
End of Line Voltage	18.70	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.158	169	19.41	0.988	4.84%
Device 2	0.158	46	19.19	1.212	5.94%
Device 3	0.066	30	19.07	1.329	6.52%
Device 4	0.094	29	18.97	1.431	7.01%
Device 5	0.066	26	18.89	1.507	7.39%
Device 6	0.094	36	18.80	1.597	7.83%
Device 7	0.158	28	18.75	1.652	8.10%
Device 8	0.158	46	18.70	1.696	8.32%
Totals	0.952	410			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS1-4			
Nac Number	N4			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	158	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	0.896	amps		
End of Line Voltage	18.44	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	158	19.53	0.869	4.26%
Device 2	0.066	75	19.15	1.251	6.13%
Device 3	0.066	45	18.94	1.463	7.17%
Device 4	0.158	45	18.74	1.655	8.11%
Device 5	0.158	45	18.60	1.805	8.85%
Device 6	0.158	45	18.49	1.910	9.36%
Device 7	0.158	28	18.45	1.949	9.55%
Device 8	0.066	28	18.44	1.960	9.61%
Totals	0.896	469			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS2-1			
Nac Number	N5			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	50	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	1.466	amps		
End of Line Voltage	18.02	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.094	50	19.95	0.450	2.21%
Device 2	0.066	14	19.83	0.568	2.78%
Device 3	0.094	19	19.68	0.720	3.53%
Device 4	0.066	27	19.48	0.921	4.52%
Device 5	0.158	30	19.27	1.132	5.55%
Device 6	0.158	55	18.93	1.466	7.19%
Device 7	0.158	54	18.66	1.741	8.54%
Device 8	0.066	18	18.58	1.815	8.90%
Device 9	0.066	58	18.37	2.031	9.96%
Device 10	0.158	45	18.22	2.180	10.69%
Device 11	0.066	27	18.16	2.244	11.00%
Device 12	0.158	50	18.06	2.341	11.47%
Device 13	0.158	36	18.02	2.376	11.65%
Totals	1.466	483			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS2-2			
Nac Number	N6			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	85	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	0.872	amps		
End of Line Voltage	18.98	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.158	85	19.94	0.455	2.23%
Device 2	0.066	35	19.79	0.609	2.98%
Device 3	0.066	59	19.56	0.843	4.13%
Device 4	0.066	29	19.45	0.947	4.64%
Device 5	0.066	35	19.34	1.058	5.19%
Device 6	0.066	83	19.11	1.287	6.31%
Device 7	0.066	24	19.06	1.344	6.59%
Device 8	0.066	18	19.02	1.379	6.76%
Device 9	0.158	18	18.99	1.407	6.90%
Device 10	0.094	22	18.98	1.419	6.96%
Totals	0.872	408			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS3-1			
Nac Number	N7			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	63	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	1.312	amps		
End of Line Voltage	17.92	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	63	19.89	0.508	2.49%
Device 2	0.094	33	19.64	0.760	3.73%
Device 3	0.066	24	19.47	0.930	4.56%
Device 4	0.066	17	19.36	1.043	5.11%
Device 5	0.066	25	19.20	1.200	5.88%
Device 6	0.066	69	18.80	1.604	7.86%
Device 7	0.094	32	18.62	1.778	8.72%
Device 8	0.094	25	18.50	1.900	9.31%
Device 9	0.094	28	18.38	2.021	9.90%
Device 10	0.158	39	18.23	2.166	10.62%
Device 11	0.066	62	18.06	2.336	11.45%
Device 12	0.158	38	17.97	2.425	11.89%
Device 13	0.158	31	17.93	2.468	12.10%
Device 14	0.066	38	17.92	2.483	12.17%
Totals	1.312	524			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/19/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS3-2			
Nac Number	N8			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	70	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	1.216	amps		
End of Line Voltage	18.32	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	70	19.88	0.523	2.56%
Device 2	0.094	37	19.62	0.784	3.84%
Device 3	0.094	42	19.34	1.056	5.18%
Device 4	0.158	21	19.22	1.180	5.79%
Device 5	0.158	44	19.00	1.397	6.85%
Device 6	0.066	50	18.80	1.596	7.82%
Device 7	0.066	35	18.68	1.720	8.43%
Device 8	0.066	12	18.64	1.758	8.62%
Device 9	0.158	86	18.41	1.995	9.78%
Device 10	0.158	25	18.36	2.039	10.00%
Device 11	0.066	29	18.34	2.063	10.11%
Device 12	0.066	40	18.32	2.079	10.19%
Totals	1.216	491			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS4-1			
Nac Number	N9			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	176	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	1.716	amps		
End of Line Voltage	16.52	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	176	18.55	1.854	9.09%
Device 2	0.158	28	18.26	2.138	10.48%
Device 3	0.158	33	17.96	2.440	11.96%
Device 4	0.158	33	17.69	2.711	13.29%
Device 5	0.158	33	17.45	2.949	14.46%
Device 6	0.094	25	17.29	3.105	15.22%
Device 7	0.066	28	17.14	3.264	16.00%
Device 8	0.094	32	16.97	3.433	16.83%
Device 9	0.158	25	16.85	3.550	17.40%
Device 10	0.158	33	16.73	3.673	18.00%
Device 11	0.158	33	16.64	3.763	18.45%
Device 12	0.158	33	16.58	3.822	18.74%
Device 13	0.066	25	16.56	3.842	18.84%
Device 14	0.066	83	16.52	3.876	19.00%
Totals	1.716	620			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

Point to Point NAC Voltage Drop Calculation — 1/8/2016

Project Name	CCSD MIDDLE SCHOOL			
Circuit Number	FAPS4-1			
Nac Number	N9			
Nominal System Voltage	20.4	volts	Wire	Resistance
Minimum Device Voltage	16.0	volts	Gauge	Per 1000
Distance from source to 1st device	176	feet	14	3.07
Wire Gauge for balance of circuit			14	3.07
Max Output Current	3.00	amps		
Total Circuit Current	1.716	amps		
End of Line Voltage	16.52	volts		

Circuit is within limits	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.066	176	18.55	1.854	9.09%
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Device 4	0.158	33	17.69	2.711	13.29%
Device 5	0.158	33	17.45	2.949	14.46%
Device 6	0.094	25	17.29	3.105	15.22%
Device 7	0.066	28	17.14	3.264	16.00%
Device 8	0.094	32	16.97	3.433	16.83%
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Totals	1.716	620			

Notes:
Wire resistance is doubled in the calculations for two wires (Positive and Negative).
The voltage calculated to the last device must not be lower than the manufactures listed minimum operating voltage (IE: rated operating voltage 16-33 VDC (24 VDC nominal)).

FAPS1, AMP1, AMP2 Battery Calculation — 1/8/2016

PROJECT NAME: CCSD MIDDLE SCHOOL
Required Standby Time: 24 Hours
Required Alarm Time: 15 Minutes

AC Branch Current
AC Branch Current: 15 Amps @ 120V

Regulated Load in Standby

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.40000	=	0.80000
FCPS24S8 POWER SUPPLY	1	X	0.06500	=	0.06500
TOTAL STANDBY LOAD					0.86500

Regulated Load in ALARM

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.55000	=	1.10000
FCPS24S8 POWER SUPPLY	1	X	0.14500	=	0.14500
SPEAKERS AT 1/4W TAP	2	X	0.01600	=	0.03200
SPEAKERS AT 1/2W TAP	15	X	0.03200	=	0.48000
SPEAKERS AT 1W TAP	17	X	0.06400	=	1.08800
SPEAKERS AT 2W TAP	0	X	0.13200	=	0.00000
FAPS1-1 (N1) (See Voltage Drop Calculations)	1	X	1.14900	=	1.46500
FAPS1-2 (N2) (See Voltage Drop Calculations)	1	X	0.66700	=	0.66700
FAPS1-3 (N3) (See Voltage Drop Calculations)	1	X	0.95200	=	0.95200
FAPS1-4 (N4) (See Voltage Drop Calculations)	1	X	0.89600	=	0.89600
TOTAL ALARM LOAD					6.82500

Battery Requirements

Standby Load Current (Amps)	0.86500	X	Required Standby Time in Hours 24.00000	=	20.76000
Alarm Load Current (Amps)	6.82500	X	Required Alarm Time in Hours 0.25000	=	1.70625
Total Ampere Hours (before derating factor)					22.46625
Derating Factor				X	1.2
TOTAL AMPERE HOURS REQUIRED				=	26.95950
BATTERIES TO BE PROVIDED (2 - 12v)					35AH

FAPS4, AMP7, AMP8 Battery Calculation — 1/8/2016

PROJECT NAME: CCSD MIDDLE SCHOOL
Required Standby Time: 24 Hours
Required Alarm Time: 15 Minutes

AC Branch Current
AC Branch Current: Amps @ 120V

Regulated Load in Standby

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.40000	=	0.80000
FCPS24S8 POWER SUPPLY	1	X	0.06500	=	0.06500
TOTAL STANDBY LOAD					0.86500

Regulated Load in ALARM

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.55000	=	1.10000
FCPS24S8 POWE4R SUPPLY	1	X	0.14500	=	0.14500
SPEAKERS AT 1/4W TAP	0	X	0.0160	=	0.0000
SPEAKERS AT 1/2W TAP	6	X	0.0320	=	0.1920
SPEAKERS AT 1W TAP	24	X	0.0640	=	1.5360
SPEAKERS AT 2W TAP	0	X	0.1320	=	0.0000
FAPS4-1 (NAC-9) (See Voltage Drop Calculations)	1	X	1.71600	=	1.71600
FAPS4-2 (NAC-10) (See Voltage Drop Calculations)	1	X	1.75200	=	1.75200
TOTAL ALARM LOAD					6.44100

Battery Requirements

Standby Load Current (Amps)	0.86500	X	Required Standby Time in Hours 24.00000	=	20.76000
Alarm Load Current (Amps)	6.44100	X	Required Alarm Time in Hours 0.25000	=	1.61025
Total Ampere Hours (before derating factor)					22.37025
Derating Factor				X	1.2
TOTAL AMPERE HOURS REQUIRED				=	26.84430
BATTERIES TO BE PROVIDED (2 - 12v)					35AH

FAPS3, AMP5 AMP6 Battery Calculation — 1/19/2016

PROJECT NAME: CCSD MIDDLE SCHOOL
Required Standby Time: 24 Hours
Required Alarm Time: 15 Minutes

AC Branch Current
AC Branch Current: Amps @ 120V

Regulated Load in Standby

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.40000	=	0.80000
FCPS24S8 POWER SUPPLY	1	X	0.06500	=	0.06500
TOTAL STANDBY LOAD					0.86500

Regulated Load in ALARM

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.55000	=	1.10000
FCPS24S8 POWE4R SUPPLY	1	X	0.14500	=	0.14500
SPEAKERS AT 1/4W TAP	0	X	0.0160	=	0.0000
SPEAKERS AT 1/2W TAP	18	X	0.0320	=	0.5760
SPEAKERS AT 1W TAP	6	X	0.0640	=	0.3840
SPEAKERS AT 2W TAP	0	X	0.1320	=	0.0000
FAPS3-1 (N7) (See Voltage Drop Calculations)	1	X	1.31200	=	1.31200
FAPS3-2 (N8) (See Voltage Drop Calculations)	0	X	1.21600	=	0.00000
TOTAL ALARM LOAD					3.51700

Battery Requirements

Standby Load Current (Amps)	0.86500	X	Required Standby Time in Hours 24.00000	=	20.76000
Alarm Load Current (Amps)	3.51700	X	Required Alarm Time in Hours 0.25000	=	0.87925
Total Ampere Hours (before derating factor)					21.63925
Derating Factor				X	1.2
TOTAL AMPERE HOURS REQUIRED				=	25.96710
BATTERIES TO BE PROVIDED (2 - 12v)					35AH

FAPS2, AMP3, AMP4 Battery Calculation — 1/8/2016

PROJECT NAME: CCSD MIDDLE SCHOOL
Required Standby Time: 24 Hours
Required Alarm Time: 15 Minutes

AC Branch Current
AC Branch Current: Amps @ 120V

Regulated Load in Standby

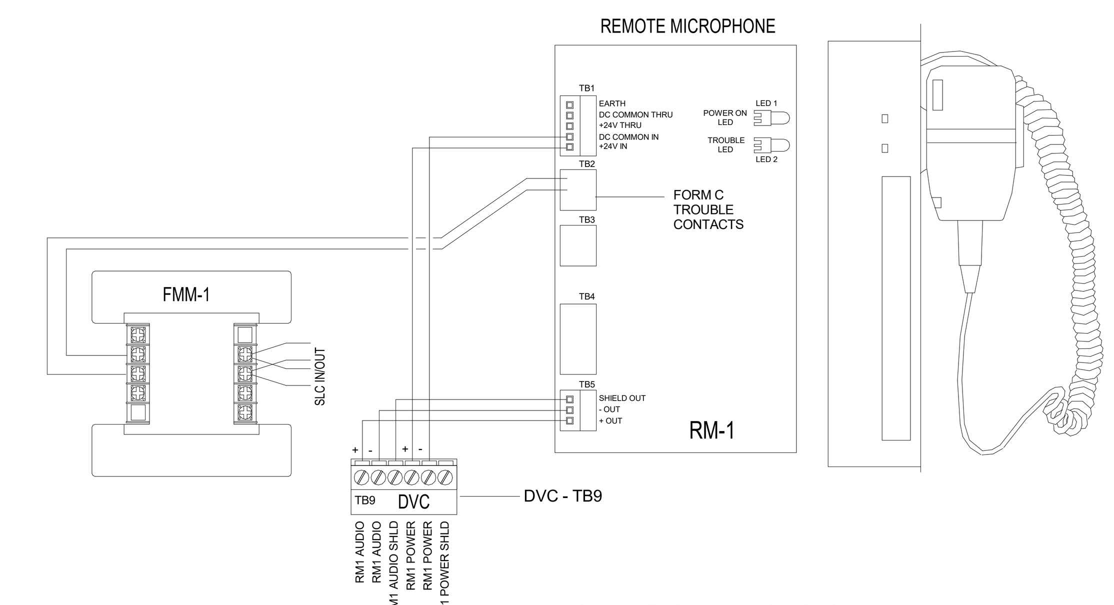
Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.40000	=	0.80000
FCPS24S8 POWER SUPPLY	1	X	0.06500	=	0.06500
TOTAL STANDBY LOAD					0.86500

Regulated Load in ALARM

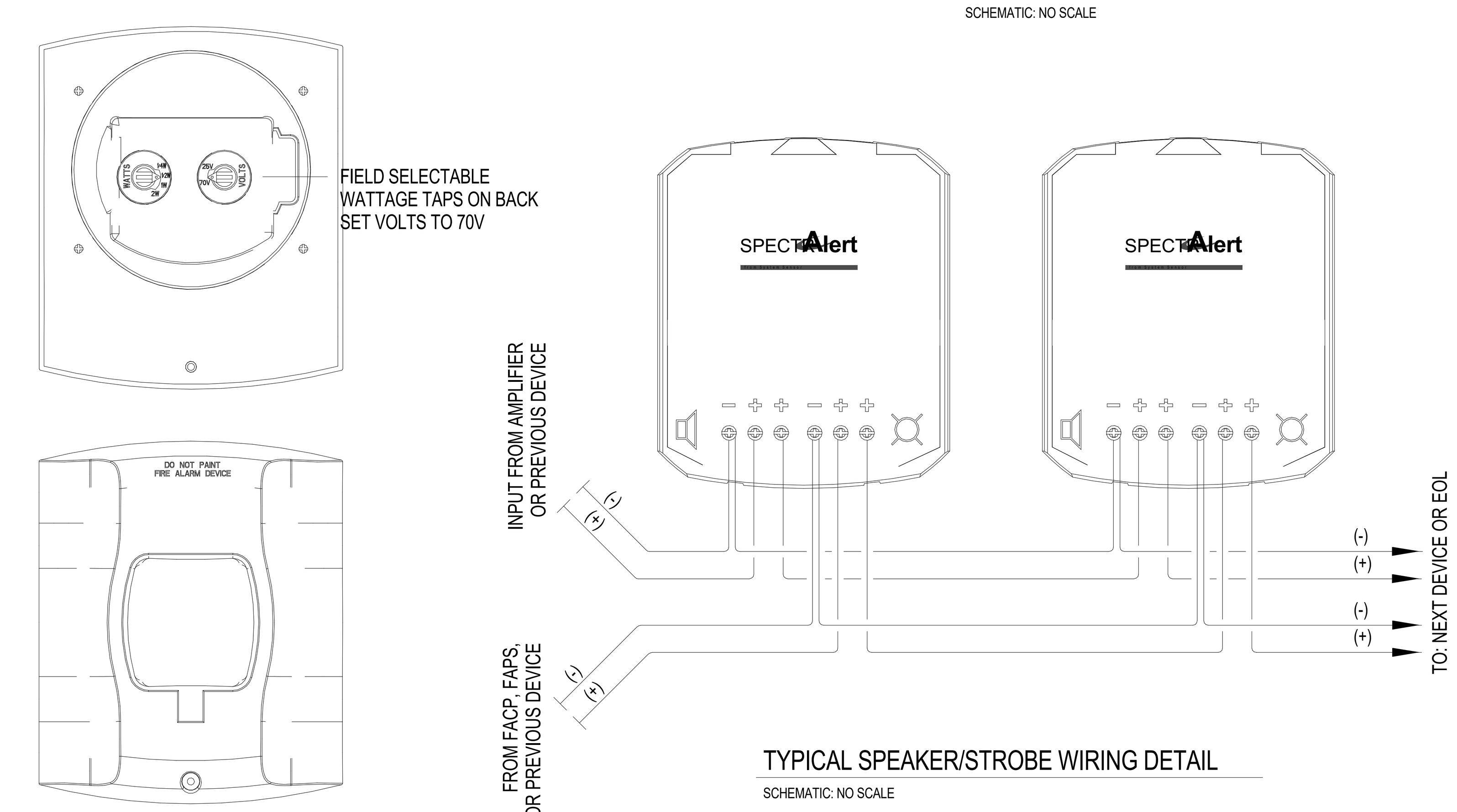
Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
DAA2-5070 AMPLIFIER	2	X	0.55000	=	1.10000
FCPS24S8 POWER SUPPLY	1	X	0.14500	=	0.14500
SPEAKERS AT 1/4W TAP	2	X	0.01600	=	0.03200
SPEAKERS AT 1/2W TAP	9	X	0.03200	=	0.28800
SPEAKERS AT 1W TAP	11	X	0.06400	=	0.70400
SPEAKERS AT 2W TAP	0	X	0.13200	=	0.00000
FAPS2-1 (N5) (See Voltage Drop Calculations)	1	X	1.46600	=	1.46600
FAPS2-2 (N6) (See Voltage Drop Calculations)	1	X	0.87200	=	0.87200
TOTAL ALARM LOAD					4.60700

Battery Requirements

Standby Load Current (Amps)	0.86500	X	Required Standby Time in Hours 24.00000	=	20.76000
Alarm Load Current (Amps)	4.60700	X	Required Alarm Time in Hours 0.25000	=	1.15175
Total Ampere Hours (before derating factor)					21.91175
Derating Factor				X	1.2
TOTAL AMPERE HOURS REQUIRED				=	26.29410
BATTERIES TO BE PROVIDED (2 - 12v)					35AH



DVC TO RM-1 WIRING DETAIL
SCHEMATIC: NO SCALE



TYPICAL SPEAKER/STROBE WIRING DETAIL
SCHEMATIC: NO SCALE

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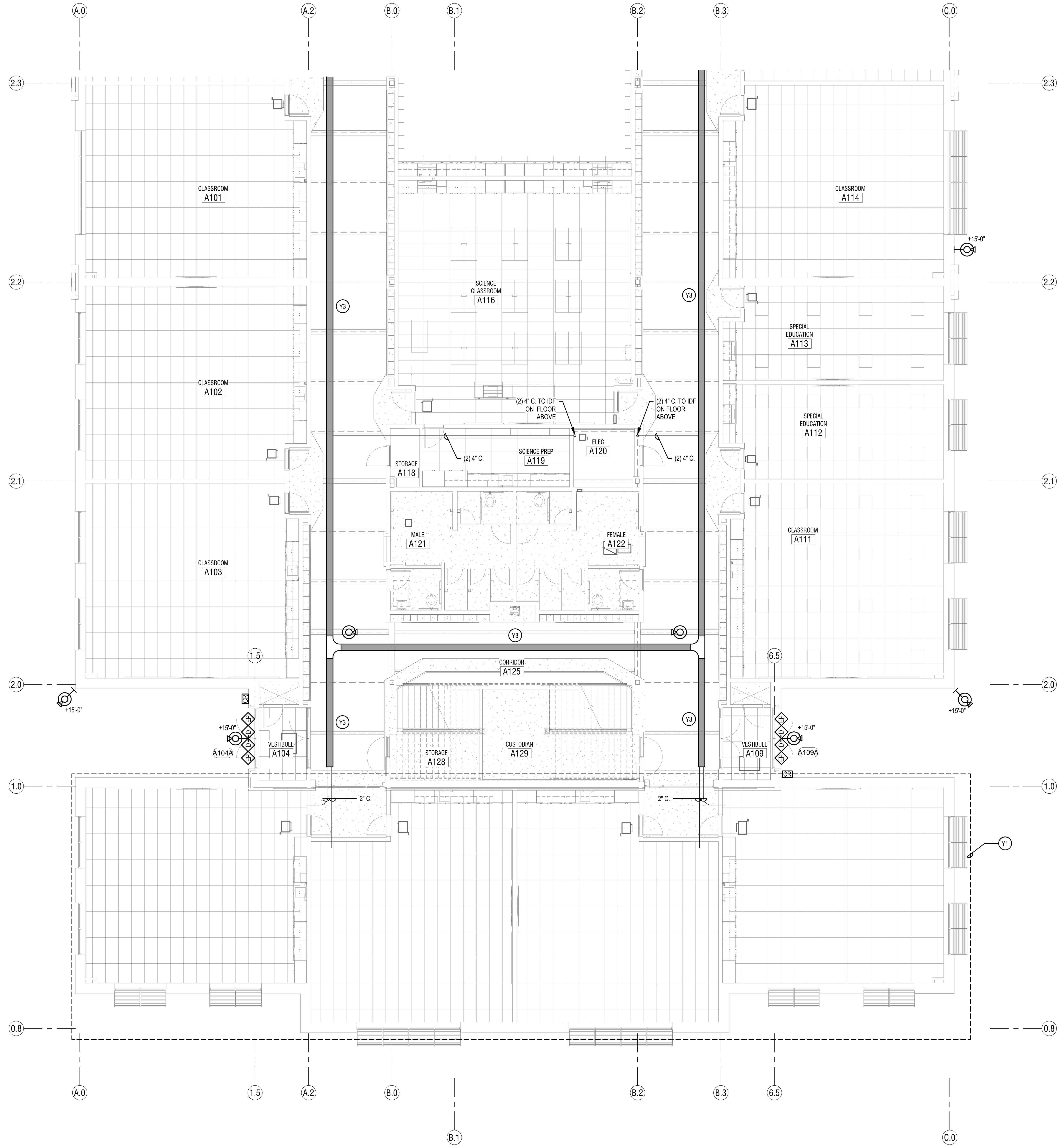
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

FIRE ALARM BATTERY CALCULATIONS

E-333



1 LEVEL 1 FLOOR PLAN - AREA A - SYSTEMS
SCALE: 1/8" = 1'-0"

SYSTEMS GENERAL NOTES:

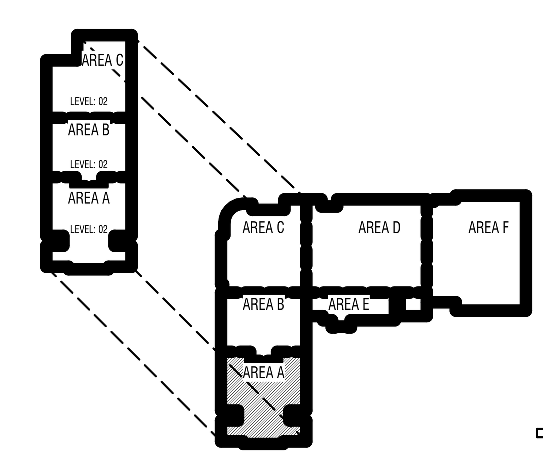
1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

KEYED NOTES

Y1 UNDER THE BASE BID, INCLUDE ALL WORK IN THIS AREA AS SHOWN ON THE PLANS. UNDER ALTERNATE #1, THIS AREA WILL BE REMOVED FROM THE PROJECT. PROVIDE A SEPARATE COST TO BE ISSUED AS A CREDIT FOR ALL WORK IN THIS AREA AS SHOWN ON THE PLANS.

Y3 PROVIDE 12" WIDE BY 4" HIGH BASKET TYPE CABLE TRAY AS SHOWN. PROVIDE SOLID BOTTOM AND SOLID TOP COVER IN CABLE TRAYS IN ALL AREAS THAT ARE OPEN TO STRUCTURE. SEE DETAILS AND SPECIFICATIONS FOR MORE INFORMATION. MOUNT CABLE TRAY 4" ABOVE ACCESSIBLE CEILINGS. IN OPEN CEILINGS, MOUNT CABLE TRAY AT 10'-0" TO BOTTOM OF TRAY. IN LOCATIONS WHERE DUCTWORK IS IN THE WAY, LOWER CABLE TRAY SO THERE IS 4" OF CLEAR SPACE BETWEEN THE TOP OF THE CABLE TRAY AND THE DUCTWORK.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA A - SYSTEMS

E-411

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
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3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
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KEYED NOTES

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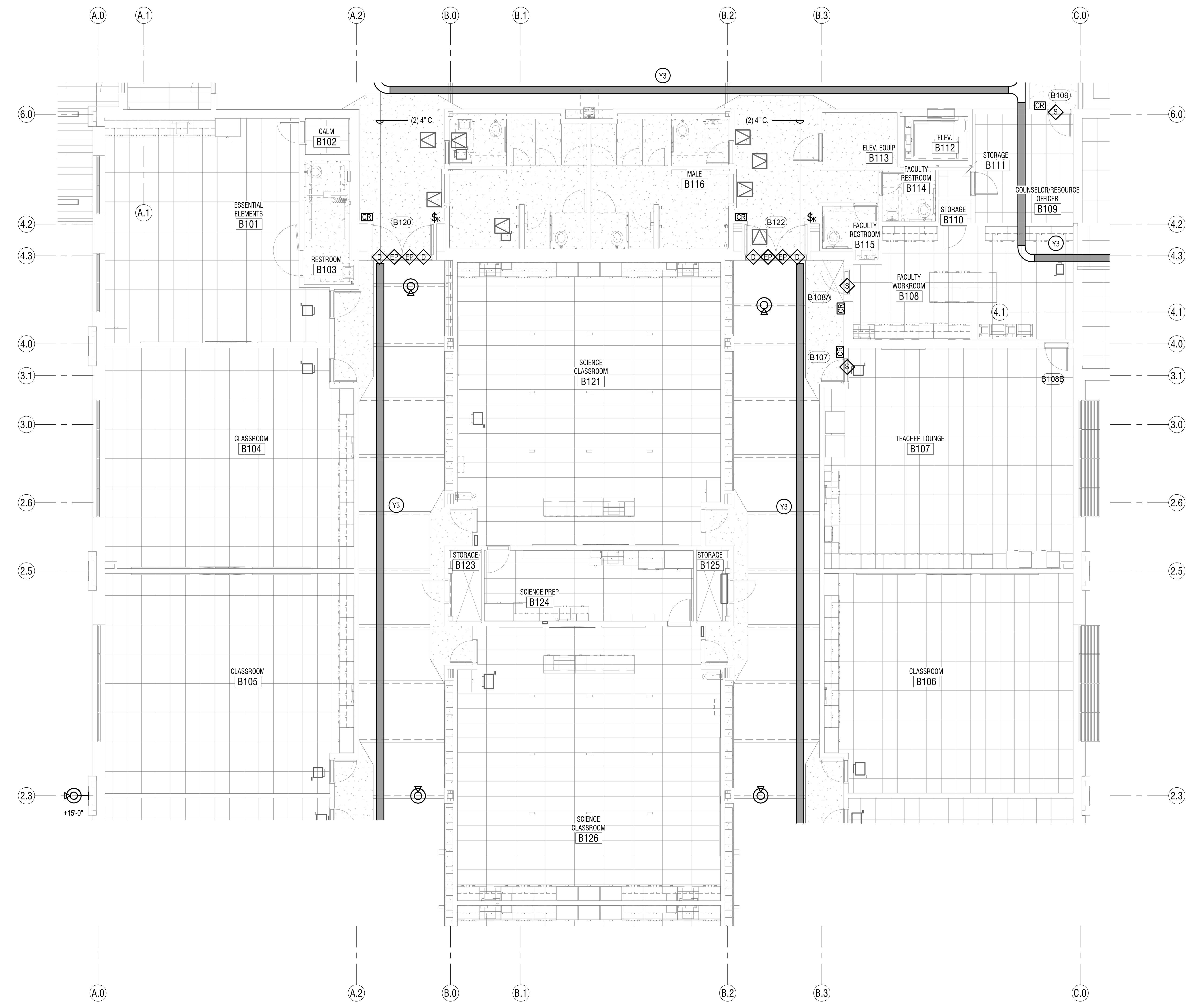
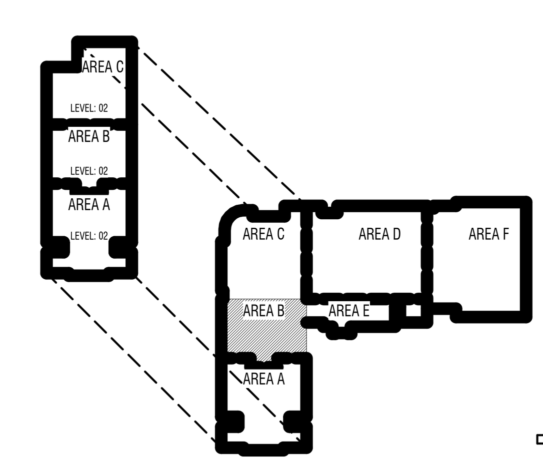


1 LEVEL 1 FLOOR PLAN - AREA B - SYSTEMS
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

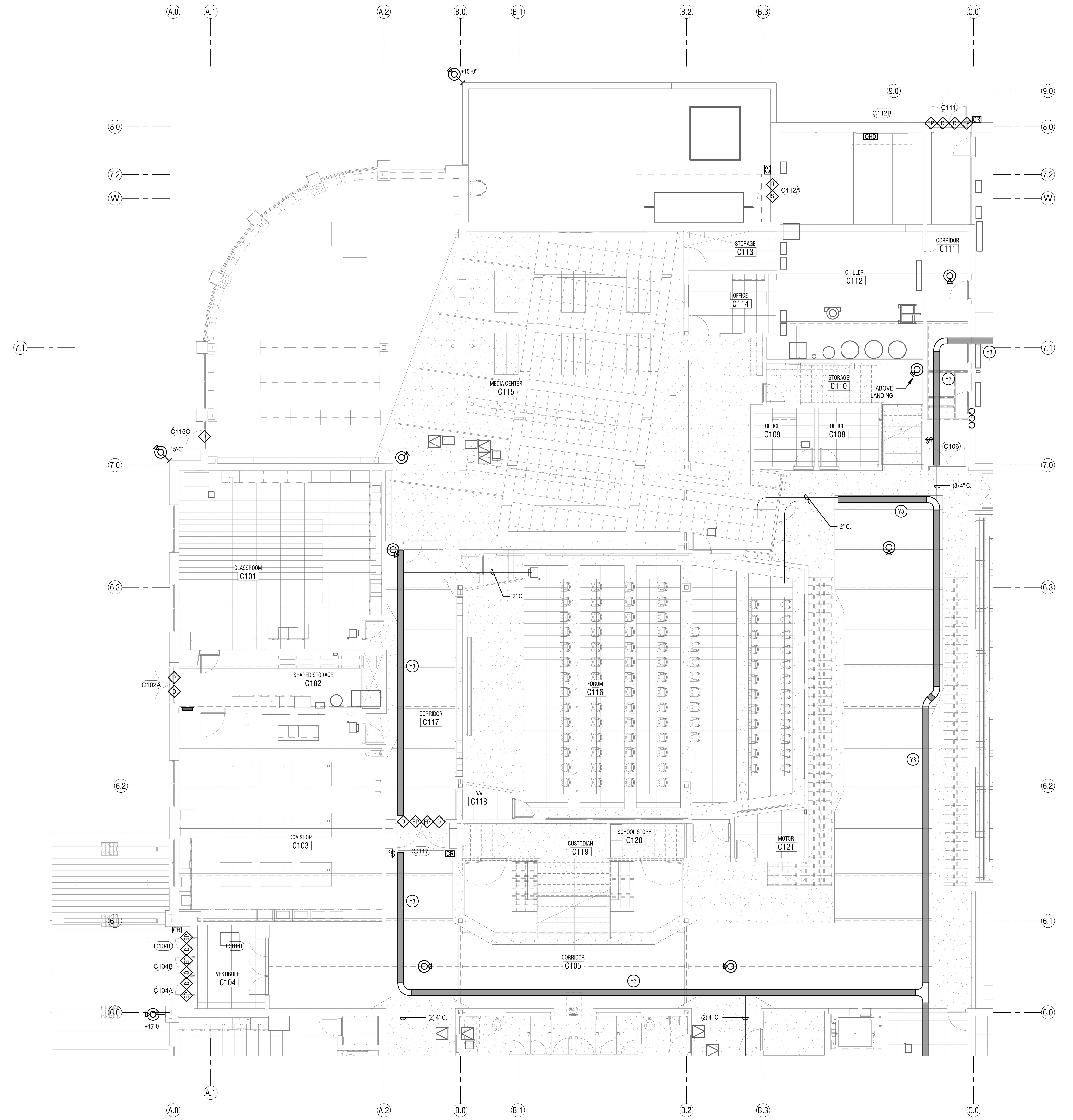
MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER 77411 05-01-2024 STATE OF UTAH

LEVEL 1 - AREA B - SYSTEMS

E-412



1 LEVEL 1 FLOOR PLAN - AREA C - SYSTEMS
SCALE: 1/8" = 1'-0"

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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KEYED NOTES

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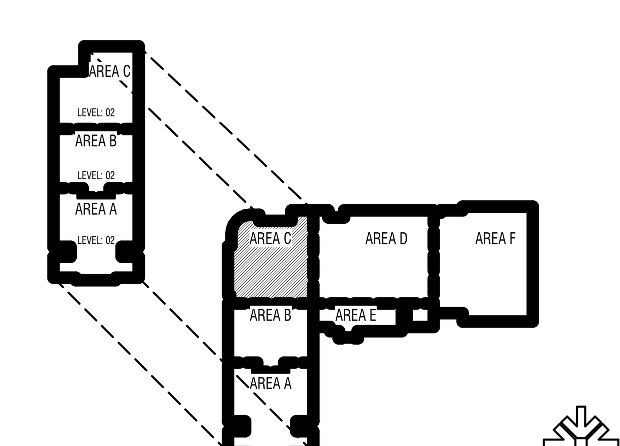
KEY PLAN



TO BE DETERMINED

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:

MARK: DATE:

CONSTRUCTION DOCUMENTS

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA C - SYSTEMS

E-413

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

KEYED NOTES

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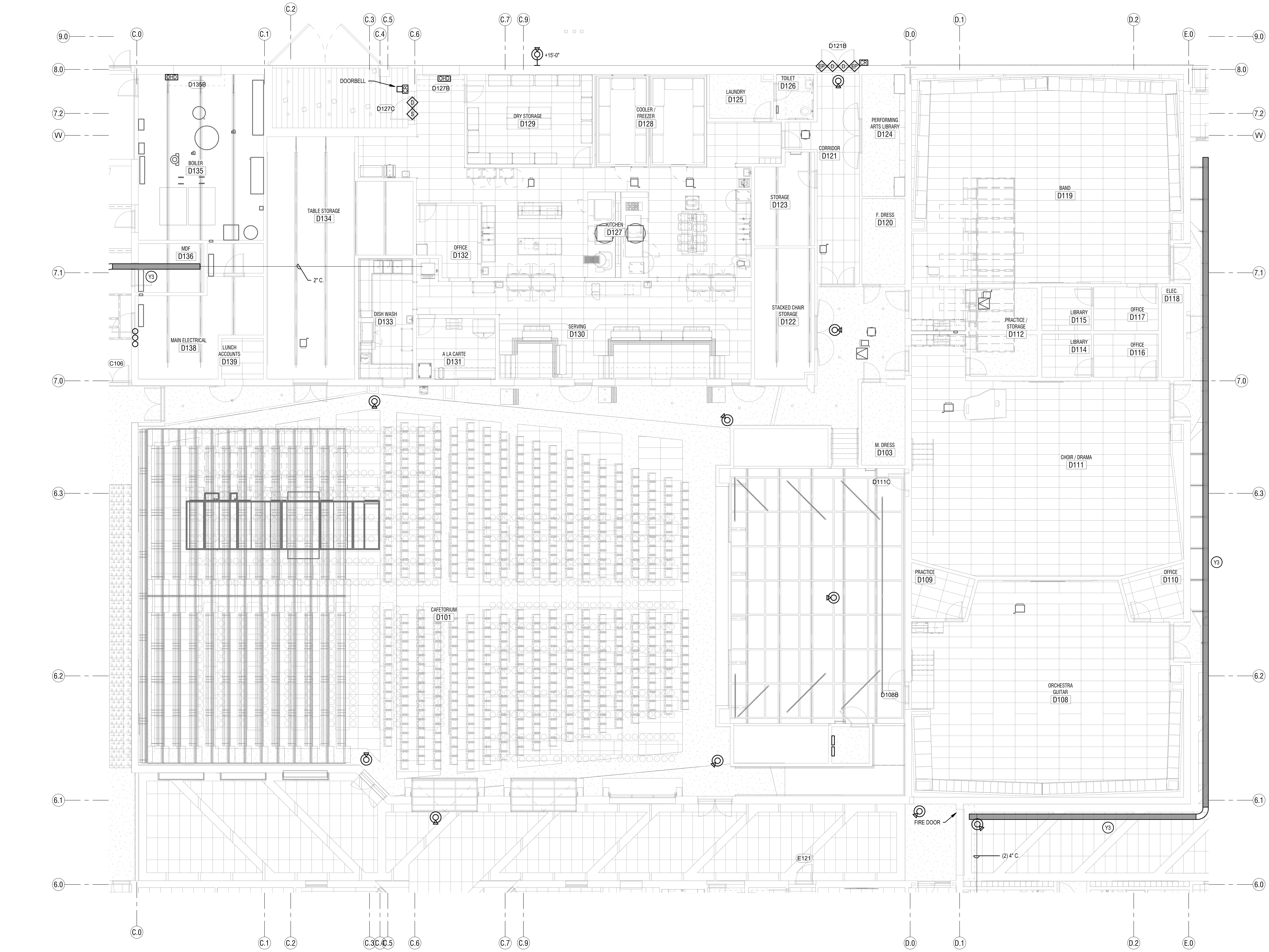
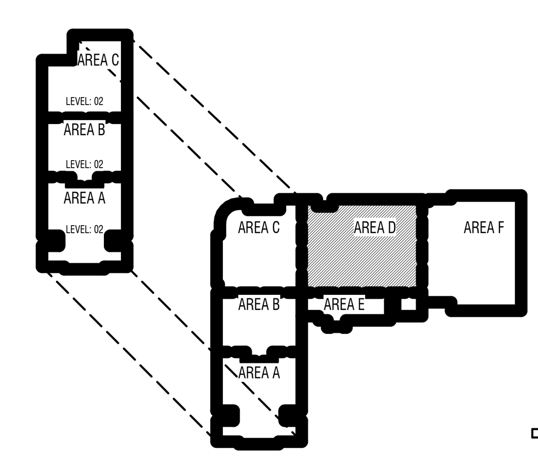


LEVEL 1 FLOOR PLAN - AREA D - SYSTEMS
SCALE: 1/8" = 1'-0"

KEY PLAN



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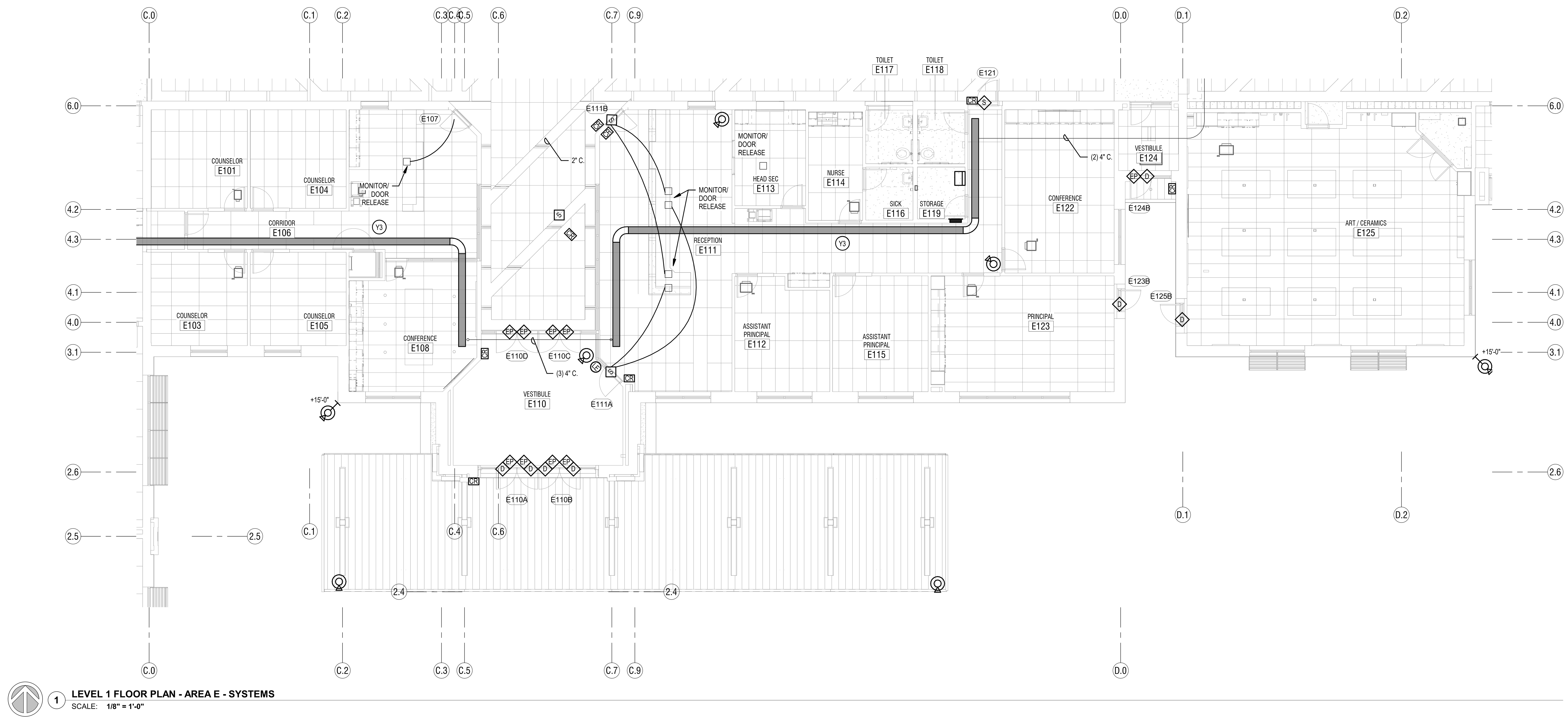
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

LEVEL 1 - AREA D - SYSTEMS

E-414



1 LEVEL 1 FLOOR PLAN - AREA E - SYSTEMS
SCALE: 1/8" = 1'-0"

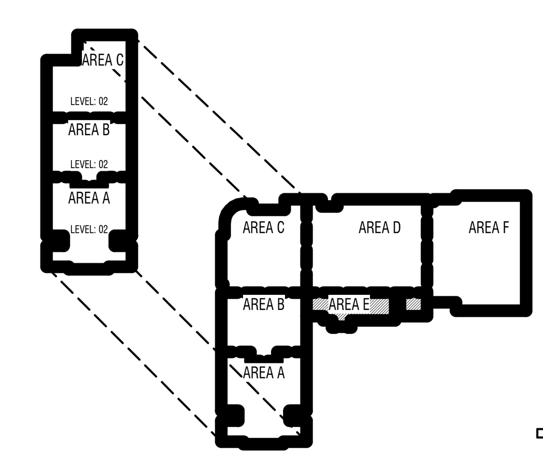
SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

KEYED NOTES

Y3 PROVIDE 12" WIDE BY 4" HIGH BASKET TYPE CABLE TRAY AS SHOWN. PROVIDE SOLID BOTTOM AND SOLID TOP COVER IN CABLE TRAYS IN ALL AREAS THAT ARE OPEN TO STRUCTURE. SEE DETAILS AND SPECIFICATIONS FOR MORE INFORMATION. MOUNT CABLE TRAY 4" ABOVE ACCESSIBLE CEILINGS. IN OPEN CEILINGS, MOUNT CABLE TRAY AT 10'-0" TO BOTTOM OF TRAY. IN LOCATIONS WHERE DUCTWORK IS IN THE WAY, LOWER CABLE TRAY SO THERE IS 4" OF CLEAR SPACE BETWEEN THE TOP OF THE CABLE TRAY AND THE DUCTWORK.

KEY PLAN



TO BE DETERMINED

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

DESCRIPTION:

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PROJECT #:	123006
DRAWN BY:	Author
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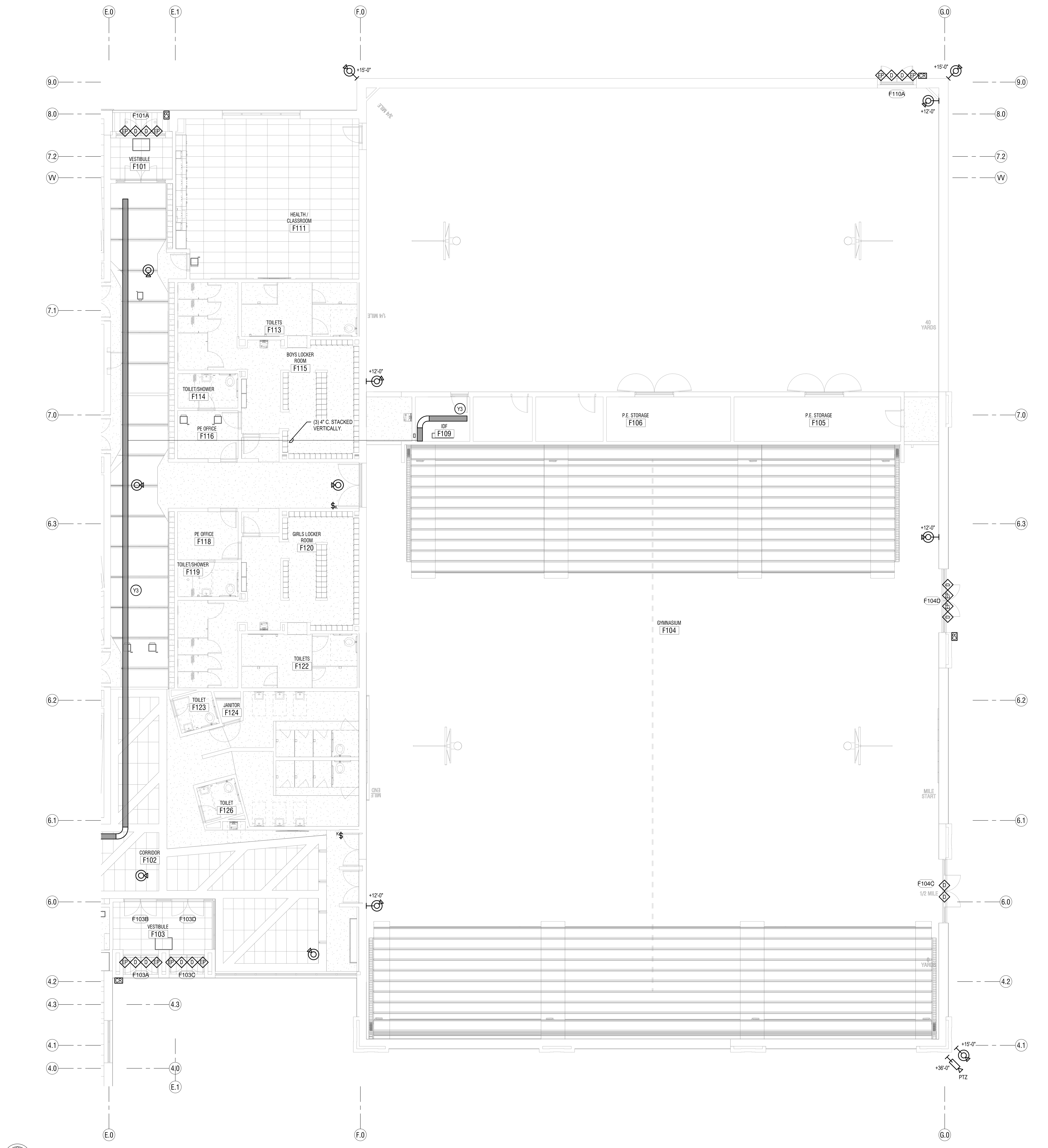
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA E - SYSTEMS

E-415



1 LEVEL 1 FLOOR PLAN - AREA F - SYSTEMS
SCALE: 1/8" = 1'-0"

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

KEYED NOTES

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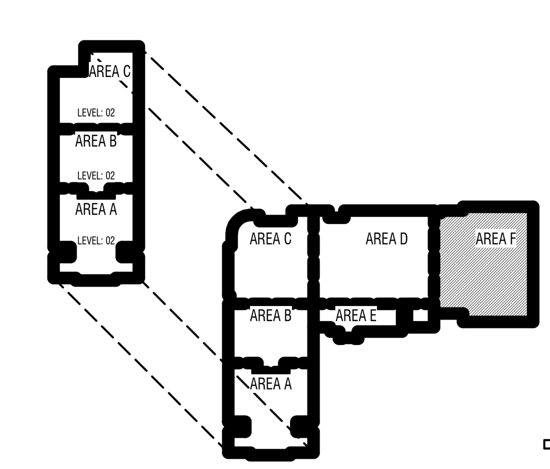
KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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MARK:	DATE:	DESCRIPTION:

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CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA F - SYSTEMS

E-416

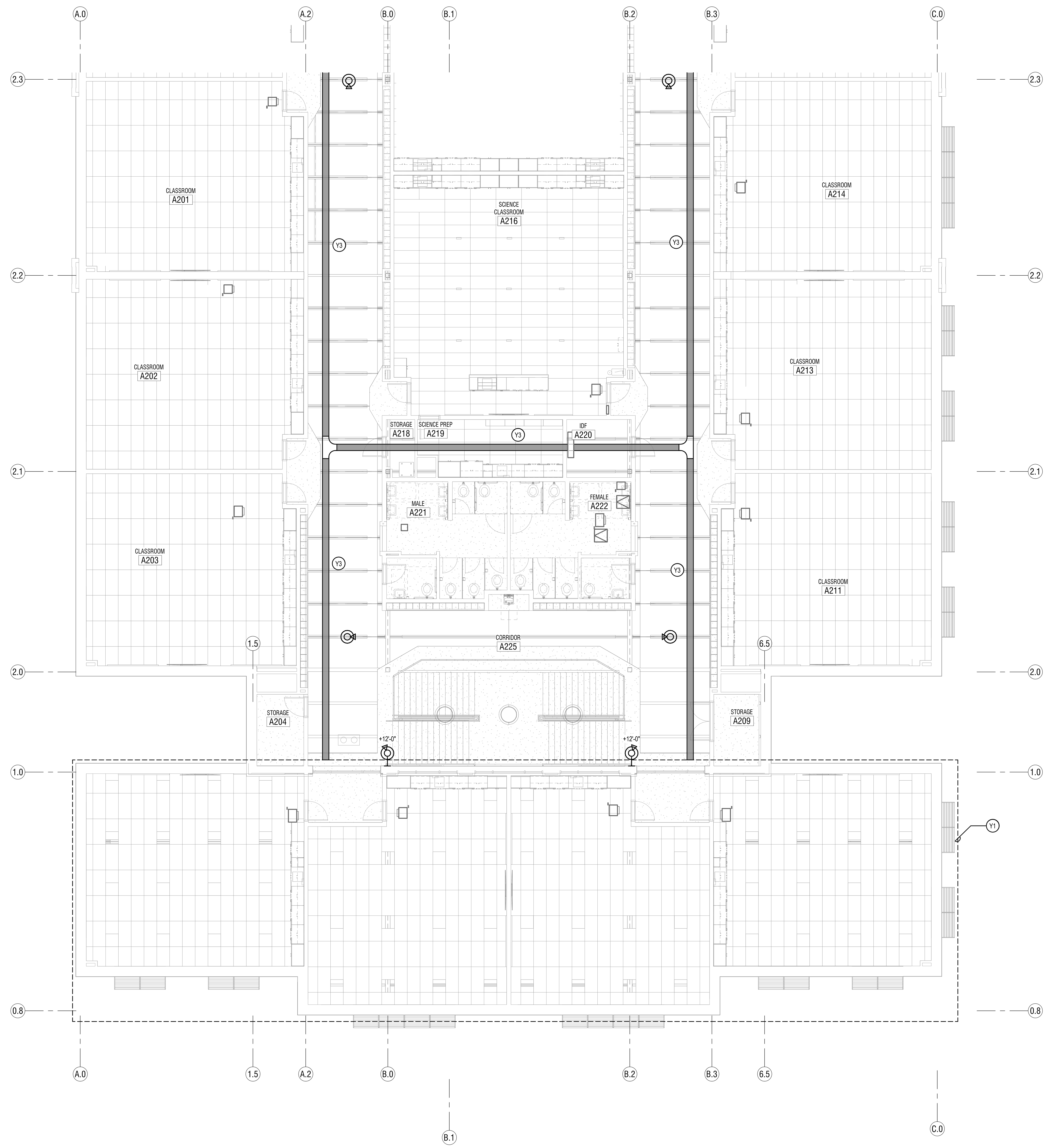
SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

KEYED NOTES

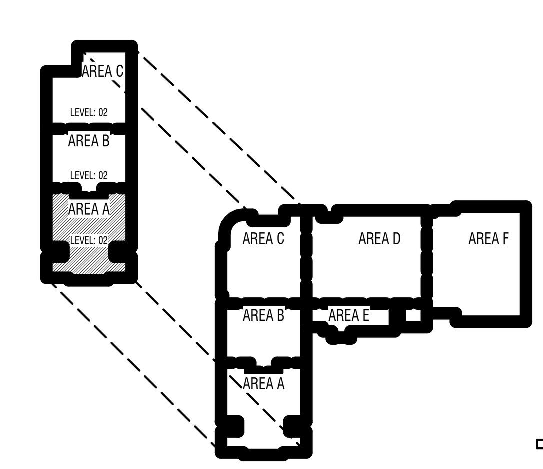
Y1 UNDER THE BASE BID, INCLUDE ALL WORK IN THIS AREA AS SHOWN ON THE PLANS. UNDER ALTERNATE #1, THIS AREA WILL BE REMOVED FROM THE PROJECT. PROVIDE A SEPARATE COST TO BE ISSUED AS A CREDIT FOR ALL WORK IN THIS AREA AS SHOWN ON THE PLANS.

Y3 PROVIDE 12" WIDE BY 4" HIGH BASKET TYPE CABLE TRAY AS SHOWN. PROVIDE SOLID BOTTOM AND SOLID TOP COVER IN CABLE TRAYS IN ALL AREAS THAT ARE OPEN TO STRUCTURE. SEE DETAILS AND SPECIFICATIONS FOR MORE INFORMATION. MOUNT CABLE TRAY 4" ABOVE ACCESSIBLE CEILINGS. IN OPEN CEILINGS, MOUNT CABLE TRAY AT 10'-0" TO BOTTOM OF TRAY. IN LOCATIONS WHERE DUCTWORK IS IN THE WAY, LOWER CABLE TRAY SO THERE IS 4" OF CLEAR SPACE BETWEEN THE TOP OF THE CABLE TRAY AND THE DUCTWORK.



1 LEVEL 2 FLOOR PLAN - AREA A - SYSTEMS
SCALE: 1/8" = 1'-0"

KEY PLAN



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CONSTRUCTION DOCUMENTS

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ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 2 - AREA A - SYSTEMS

E-421

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
3. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
4. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.

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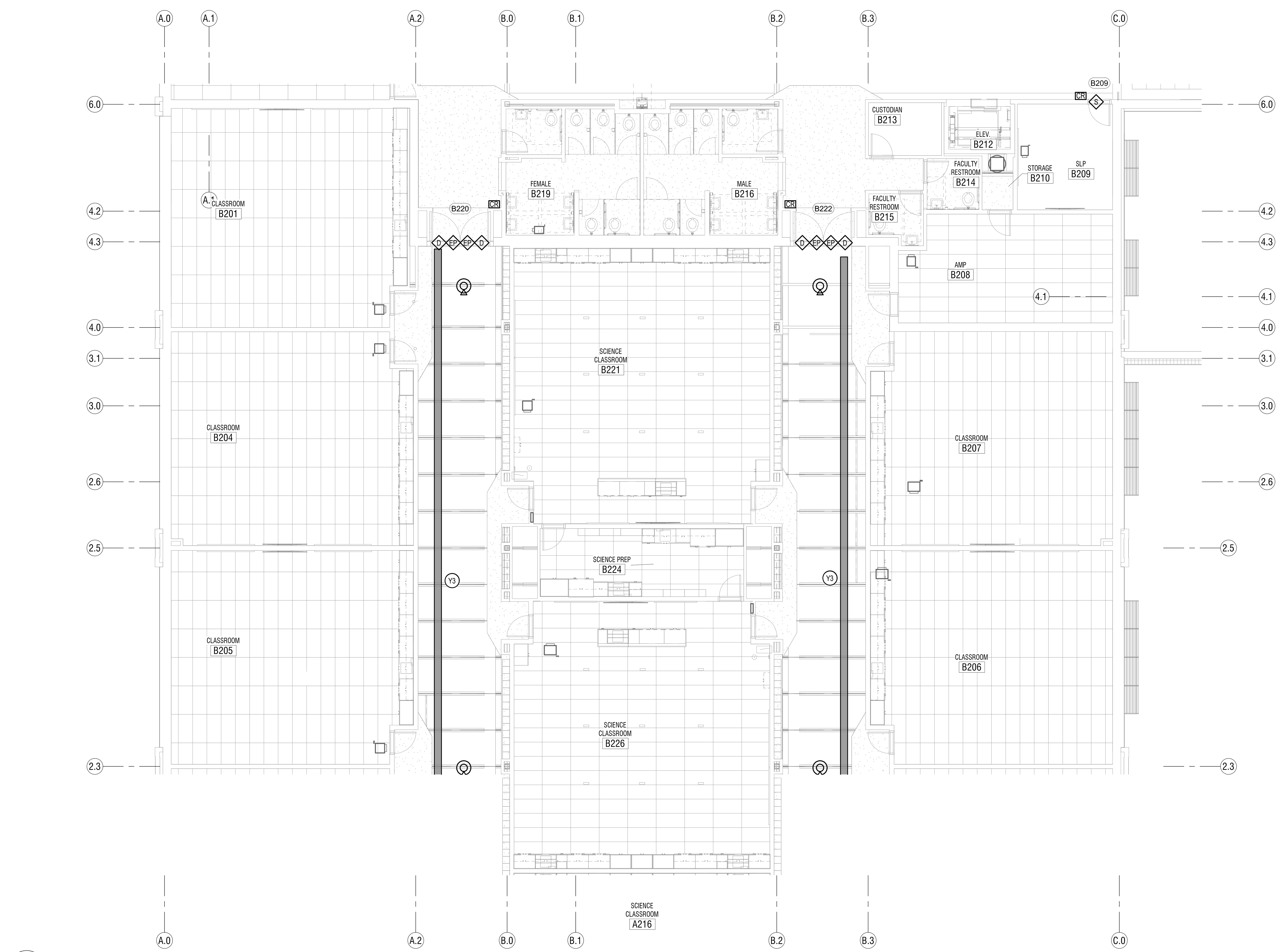
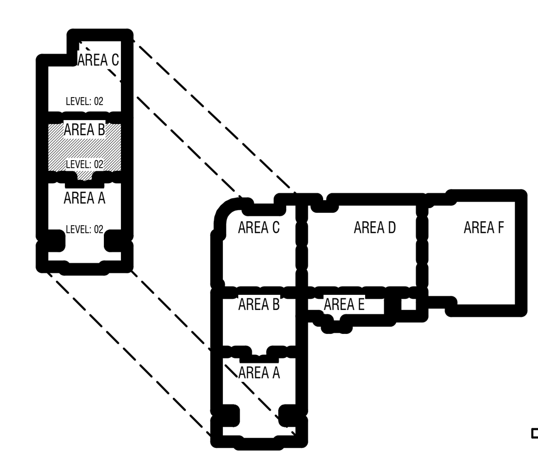


1 LEVEL 2 FLOOR PLAN - AREA B - SYSTEMS
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 2 - AREA B - SYSTEMS

E-422

SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
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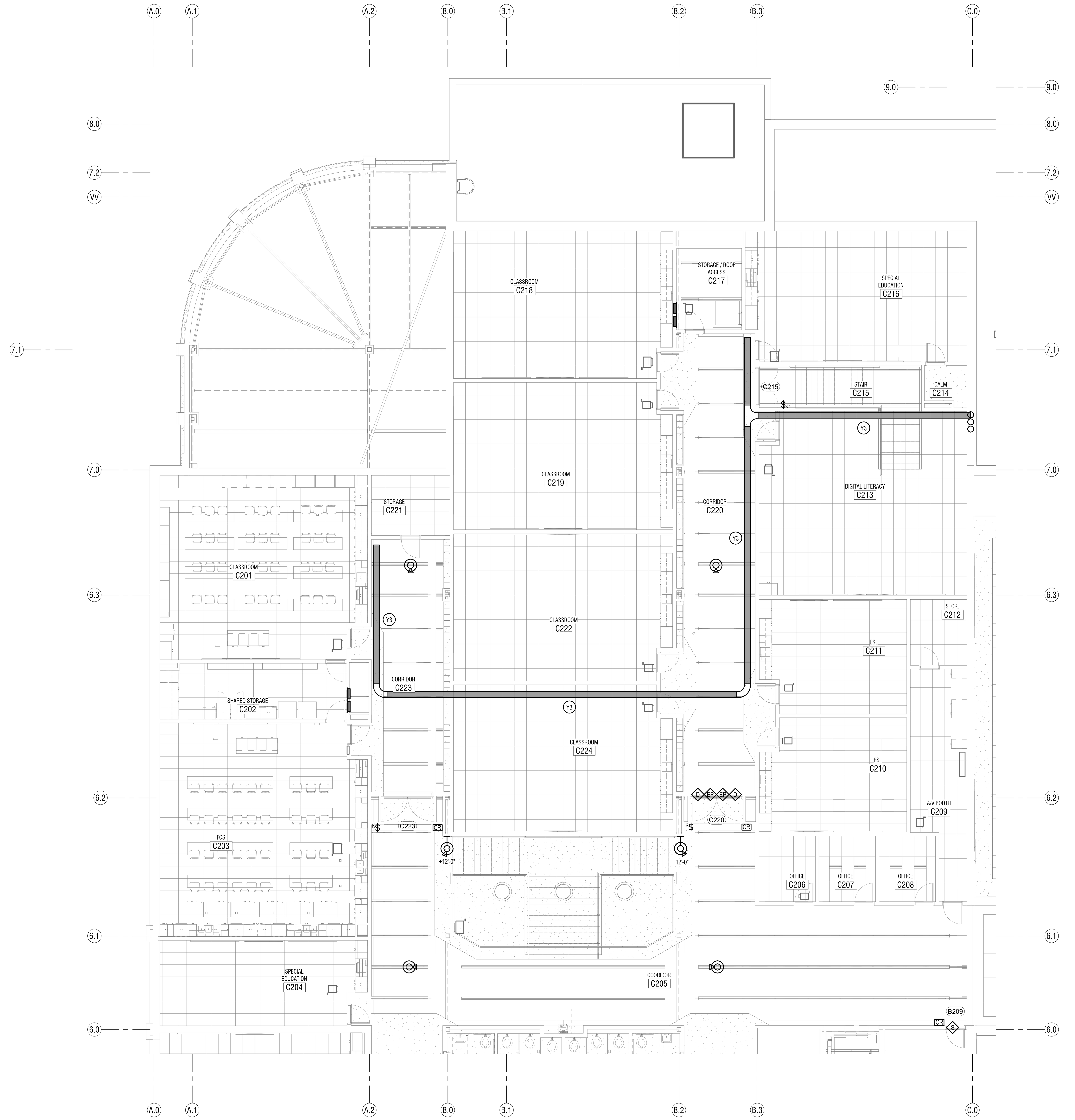
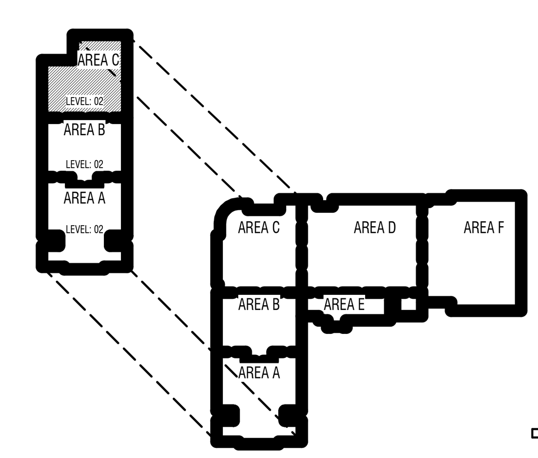


1 LEVEL 2 FLOOR PLAN - AREA C - SYSTEMS
SCALE: 1/8" = 1'-0"

KEY PLAN



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CONSTRUCTION DOCUMENTS

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DRAWN BY: Author
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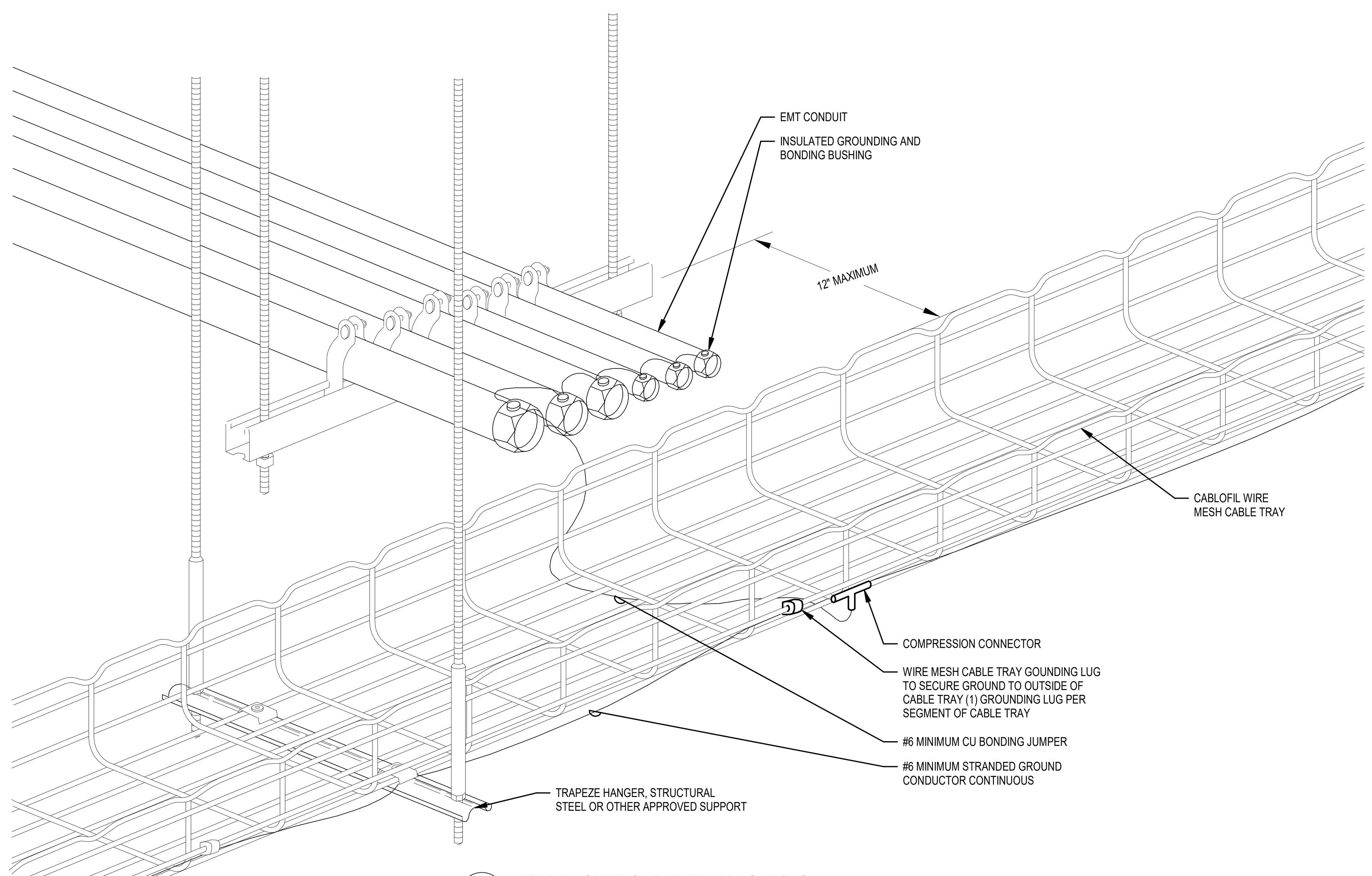
ISSUED: 04.26.2024

LEVEL 2 - AREA C - SYSTEMS

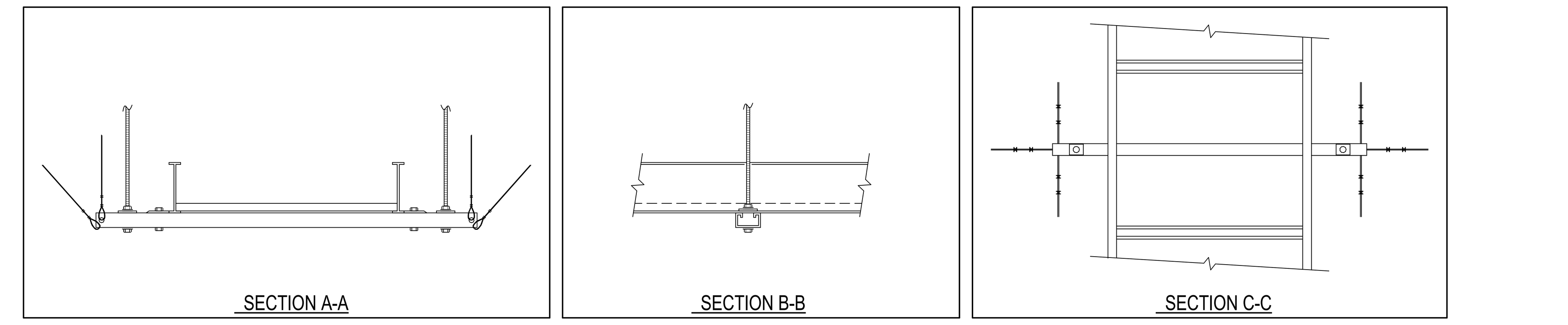
E-423

NOTES:

1. ALL CABLE TRAY SHALL BE INSTALLED WITH A CONTINUOUS COPPER GROUND SIZED AND SECURED TO THE OUTSIDE OF THE CABLE TRAY IN ACCORDANCE WITH THE DETAIL SHOWN BELOW.
2. EXTEND BONDING CONDUCTOR BACK TO NEAREST 'TMGB' AND/OR 'TGB' INSIDE TELECOM ROOMS.
3. SEE SPECIFICATION SECTION 260536 AND 270526.



1 WIRE BASKET CABLE TRAY BONDING
SCALE: NTS



NOTES:

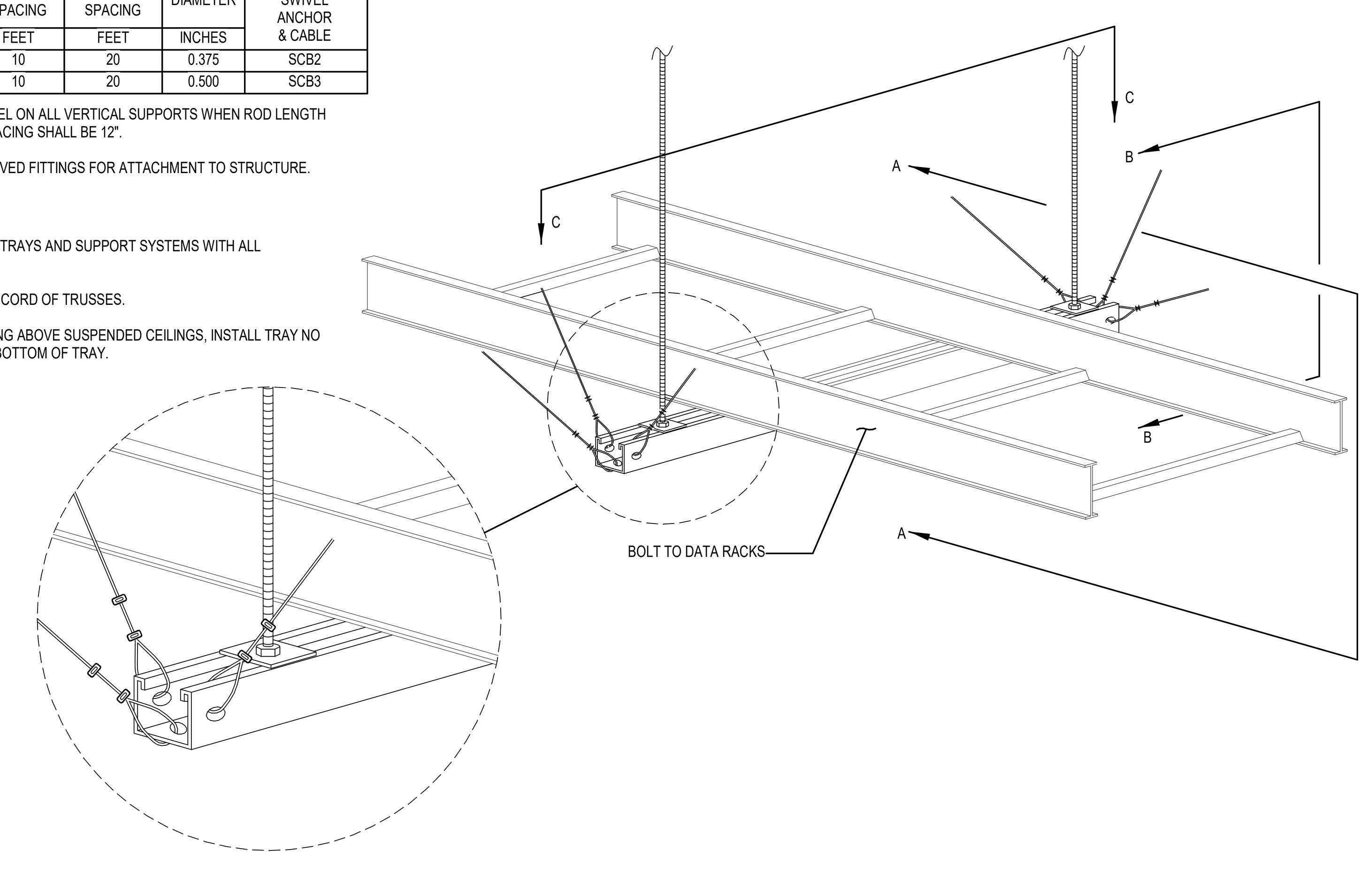
1. PROVIDE LONGITUDINAL AND LATERAL SUPPORT SPACING IN ACCORDANCE WITH THE FOLLOWING:

MAXIMUM CABLE TRAY PLUS CABLE WT.	VERTICAL SUPPORT SPACING	LATERAL SUPPORT SPACING	LONGITUDINAL SUPPORT SPACING	ROD DIAMETER	CABLE BRACE SWIVEL ANCHOR & CABLE
POUNDS/FOOT	FEET	FEET	FEET	INCHES	
25	10	10	20	0.375	SCB2
50	10	10	20	0.500	SCB3

2. PROVIDE METAL FRAMING CHANNEL ON ALL VERTICAL SUPPORTS WHEN ROD LENGTH EXCEEDS 14". STIFFENER CLIP SPACING SHALL BE 12".
3. SEE SPECIFICATIONS FOR APPROVED FITTINGS FOR ATTACHMENT TO STRUCTURE.

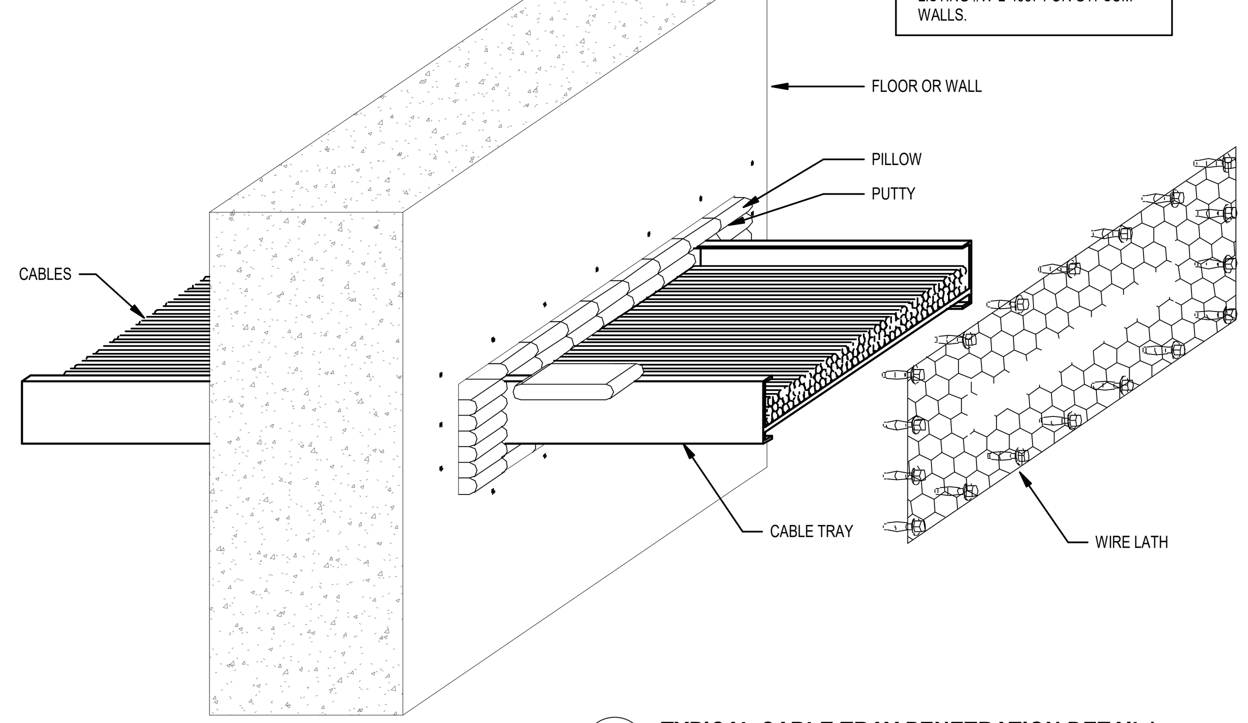
GENERAL NOTES:

1. COORDINATE ROUTING OF CABLE TRAYS AND SUPPORT SYSTEMS WITH ALL DIVISIONS.
2. DO NOT SUPPORT FROM BOTTOM CORD OF TRUSSES.
3. WHERE CABLE TRAYS ARE ROUTING ABOVE SUSPENDED CEILINGS, INSTALL TRAY NO MORE THAN 6" FROM CEILING TO BOTTOM OF TRAY.

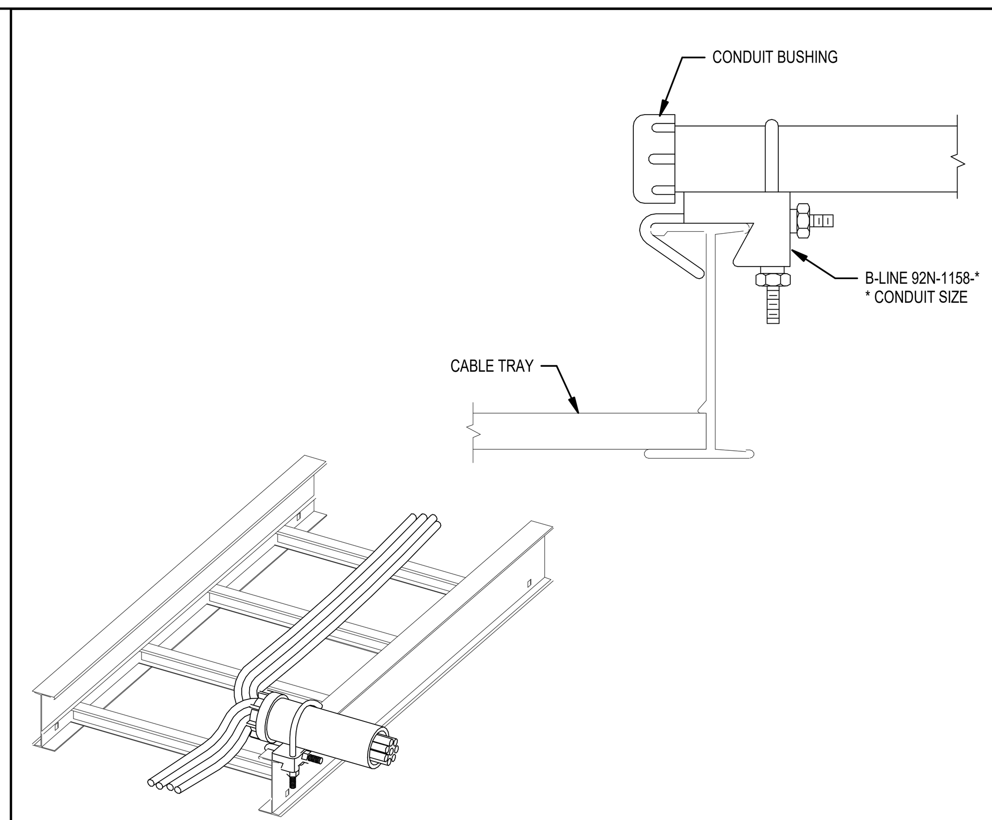


2 SEISMIC BRACING FOR CABLE TRAY/CABLES1
SCALE: NTS

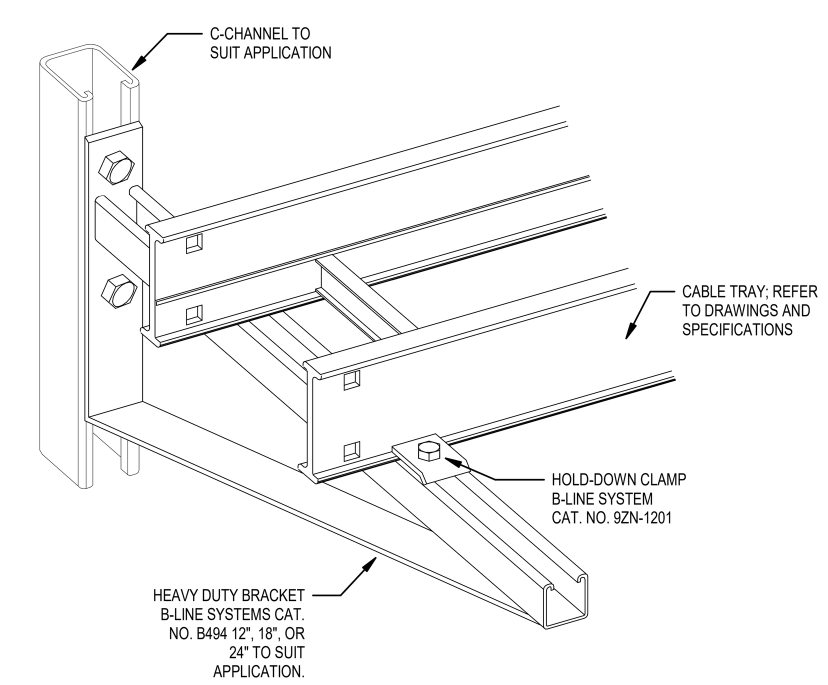
FIRESTOP BARRIER SHALL EQUAL "3M" FSP-SLP LOCKING PILLOWS; UL LISTING #W-L-4037 FOR GYPSUM WALLS.



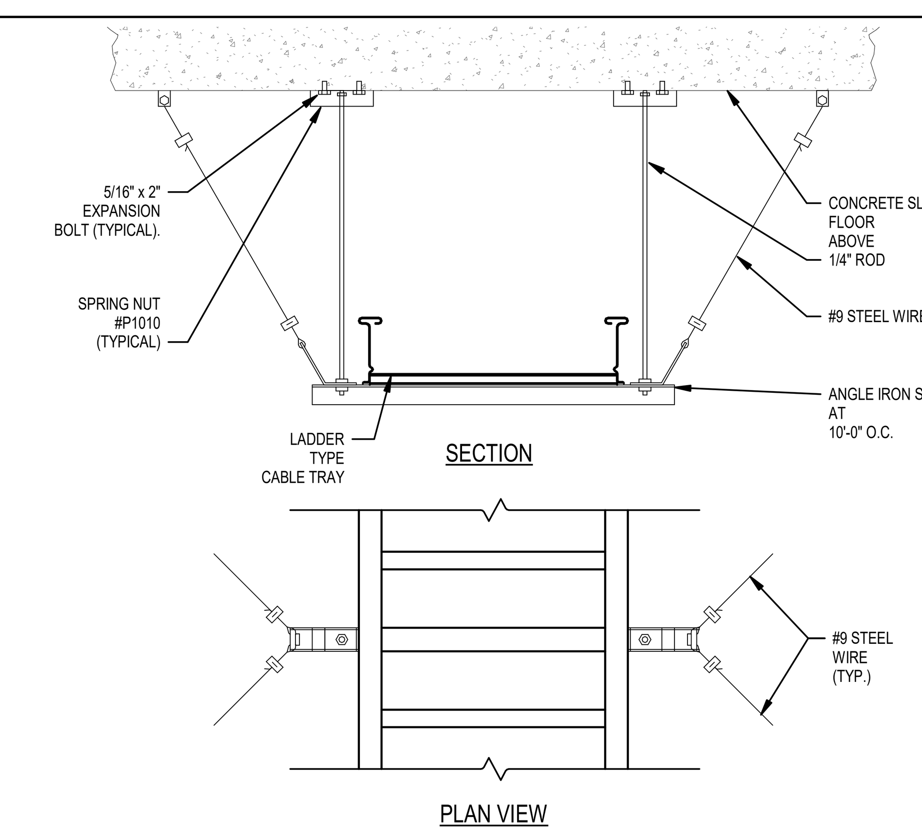
3 TYPICAL CABLE TRAY PENETRATION DETAIL1
SCALE: NTS



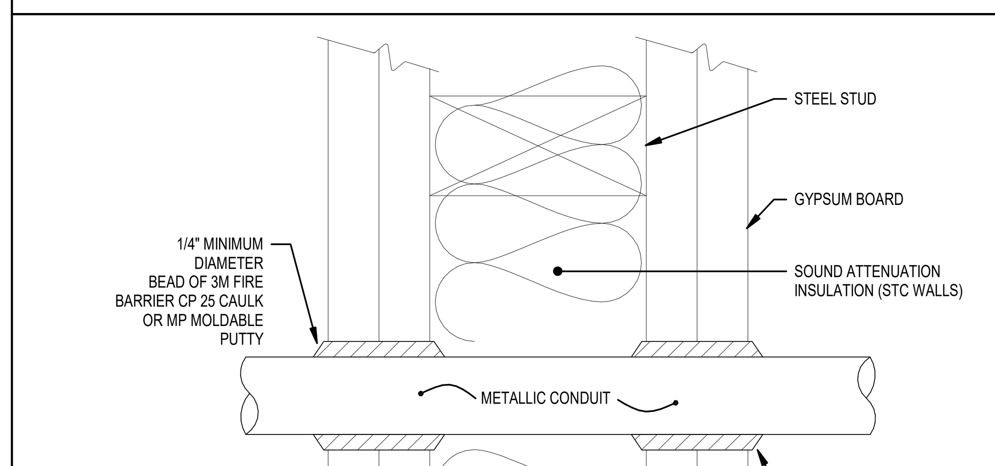
4 CONDUIT TO CABLE TRAY ADAPTER
SCALE: NTS



5 WALL SUPPORTED CABLE TRAY DETAIL
SCALE: NTS

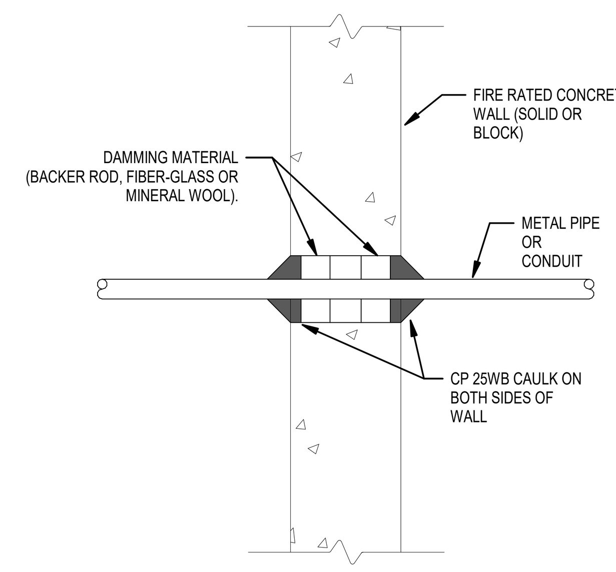


6 TYPICAL CABLE TRAY SUSPENSION DETAIL1
SCALE: NTS



NOTE:
1. TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.
2. FIRESTOP TESTED UP TO 4 HOURS IN ACCORDANCE WITH ASTM E 814 (UL 1479) & CAN/ULC S115.

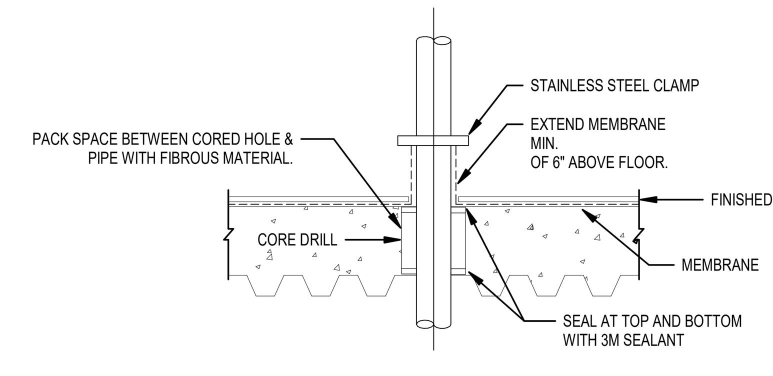
7 TYPICAL GYPBOARD WALL PENETRATION DETAIL
SCALE: NTS



8 TYPICAL CONCRETE WALL PENETRATION DETAIL
SCALE: NTS

GENERAL NOTES:

1. SEE NON-MEMBRANE FLOOR PENETRATION DETAIL FOR SUPPORT DETAIL.



9 TYPICAL UPPER LEVEL PIPE/CONDUIT FLOOR PENETRATION
SCALE: NTS

CONSTRUCTION DOCUMENTS

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MARK	DATE	DESCRIPTION

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

SYSTEMS DETAILS

E-441

FIRE ALARM SCOPE COORDINATION TABLE

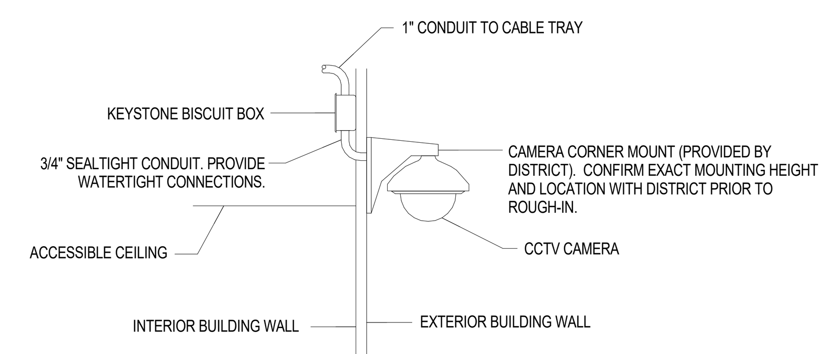
ITEM	FURNISHED AND TESTED BY		INSTALLED BY	
	CCSD	CONTRACTOR	CCSD	CONTRACTOR
FACP, FATP AND NAC PANELS		X		X
DEVICES (SMOKE DETECTORS, HORN/STROBES, CARBON MONOXIDE DETECTORS, MONITOR MODULES, CONTROL MODULES BASE CONNECTIONS , ETC.)		X		X
FIRE ALARM TWISTED PAIR CABLING		X		X
RACEWAY - CONDUIT, BACKBOXES, ETC.		X		X
PRINTED LABELING OF ALL PATCH PANELS, DEVICE FACEPLATES, WRAPS, ETC.		X		X
ALL CONSUMABLES (TAPE, STRING, TIE-WRAPS, VELCRO, ANCHORS, BOLTS, NUTS, SCREWS, WRAP LABELS, PRINTED LABELS, ETC.)		X		X

ACCESS CONTROLS SCOPE COORDINATION TABLE

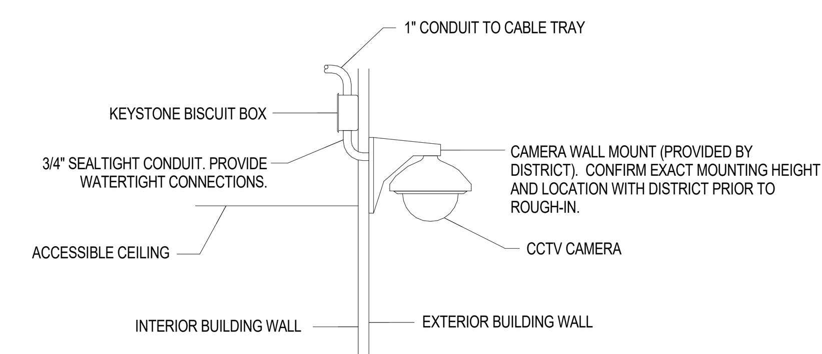
ITEM	FURNISHED BY		INSTALLED AND TESTED BY	
	CCSD	CONTRACTOR	CCSD	CONTRACTOR
SWITCHES	X		X	
PANELS		X		X
CARD READER AND HARDWARE CABLING (4 ELEMENT ACCESS CONTROL CABLE, YELLOW JACKET)		X		X
RACEWAY - CONDUIT, CABLE TRAY, BACKBOXES, ETC.		X		X
PRINTED LABELING OF ALL PATCH PANELS, DEVICE FACEPLATES, WRAPS, ETC.		X		X
ALL CONSUMABLES (TAPE, STRING, TIE-WRAPS, VELCRO, ANCHORS, BOLTS, NUTS, SCREWS, WRAP LABELS, PRINTED LABELS, ETC.)		X		X

VIDEO SURVEILLANCE SCOPE COORDINATION TABLE

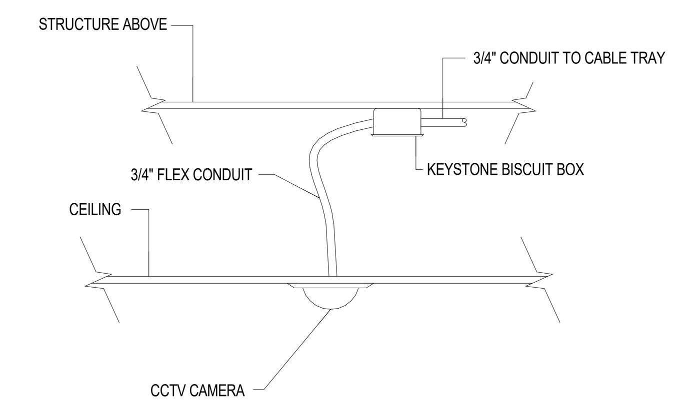
ITEM	FURNISHED BY		INSTALLED AND TESTED BY	
	CCSD	CONTRACTOR	CCSD	CONTRACTOR
SWITCHES	X		X	
NVR (NETWORK VIDEO RECORDER) SERVER, MONITORS, ETC.	X		X	
SECURITY CAMERAS		X		X
SECURITY CAMERA LICENSING	X		X	
ALL 4-PAIR HORIZONTAL CABLING ORANGE (CAT 6A CABLES)		X		X
RACEWAY - CONDUIT, CABLE TRAY, BACKBOXES, ETC.		X		X
PRINTED LABELING OF ALL PATCH PANELS, DEVICE FACEPLATES, WRAPS, ETC.		X		X
ALL CONSUMABLES (TAPE, STRING, TIE-WRAPS, VELCRO, ANCHORS, BOLTS, NUTS, SCREWS, WRAP LABELS, PRINTED LABELS, ETC.)		X		X



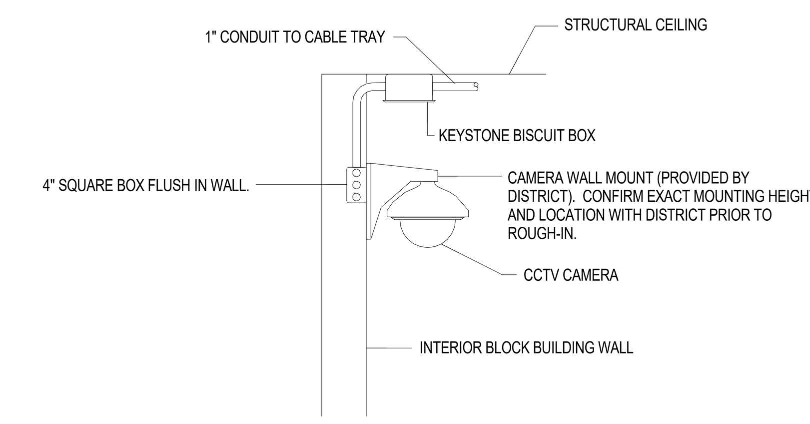
2 EXTERIOR CORNER MOUNTED CAMERA DETAIL
SCALE: NONE



1 EXTERIOR WALL MOUNTED CAMERA DETAIL
SCALE: NONE



4 INTERIOR CEILING MOUNTED CAMERA DETAIL
SCALE: NONE



3 INTERIOR WALL MOUNTED CAMERA DETAIL
SCALE: NONE

CCTV GENERAL NOTES:

1. COORDINATE ALL CAMERA LOCATIONS, WIRING AND ROUGH-IN REQUIREMENTS WITH OWNER AND SUPPLIER PRIOR TO ROUGH-IN.
2. INSTALL CABLES IN RACEWAYS AND CABLE TRAYS EXCEPT ABOVE LAY-IN TILE ACCESSIBLE CEILINGS. INSTALL CABLES IN RACEWAY WHERE ROUTED IN CONSOLES, CABINETS, DESKS, AND COUNTERS. INSTALL CABLING WITH HORIZONTAL AND VERTICAL CABLE GUIDES IN TELECOMMUNICATIONS SPACES WITH TERMINATING HARDWARE AND INTERCONNECTION EQUIPMENT. WHERE CABLES ARE ROUTED ABOVE ACCESSIBLE LAY-IN TILE SUSPENDED CEILINGS, SECURE AND SUPPORT CABLES WITH J-HOOKS A MINIMUM OF 8 INCHES (200 MM) ABOVE CEILINGS AND NOT MORE THAN 60 INCHES (1524 MM) APART; CABLE SHALL NOT BE RUN THROUGH STRUCTURAL MEMBERS OR IN CONTACT WITH PIPES, DUCTS, OR OTHER POTENTIALLY DAMAGING ITEMS. INSTALL CABLES IN OPEN CEILINGS (FINISHED AND UNFINISHED) IN RACEWAYS. WHERE RACEWAYS ARE INSTALLED IN FINISHED CEILINGS, PAINT RACEWAYS TO MATCH THE COLOR OF THE SURROUNDING SURFACE.
3. ALL CABLING NOT SPECIFICALLY IDENTIFIED IN THE RISER DIAGRAM SHALL BE MANUFACTURER RECOMMENDED CABLING.
4. FOR WALL MOUNT CAMERAS, PROVIDE JUNCTION BOX AT 12' UNLESS NOTED OTHERWISE. COORDINATE EXACT MOUNTING HEIGHT WITH DISTRICT PRIOR TO ROUGH-IN.
5. EACH CAMERA TO HAVE A DEDICATED CABLE DROP BACK TO DATA ROOM.
6. ALL CABLING SHALL BE PLENUM RATED.
7. CONTRACTOR TO TERMINATE AND TEST ALL CABLING (INCLUDING ALL CAMERA CABLING AND ANY FIBER OPTIC CABLES) AT CAMERA AND DATA RACK AS DIRECTED BY THE OWNER. CONFIRM ALL TERMINATION TYPES WITH THE OWNER PRIOR TO ANY TERMINATIONS AND TESTING. CONFIRM ALL TERMINATION LOCATIONS WITH THE OWNER PRIOR TO TERMINATING ANY CABLING.

CCTV EQUIPMENT GENERAL NOTES:

1. CONFIRM ALL MOUNTING LOCATIONS AND HEIGHTS WITH THE OWNER AND ARCHITECT PRIOR TO ANY ROUGH-IN.
2. CONTRACTOR TO INSTALL ALL CABLING AS CALLED OUT.
3. ALL CABLING SHALL BE CAT 6A, PLENUM, ORANGE JACKET UNLESS NOTED OTHERWISE.
4. CONTRACTOR TO INSTALL OWNER FURNISHED EQUIPMENT.
5. SEE POWER AND SYSTEMS PLANS FOR ADDITIONAL REQUIREMENTS.

CCTV MOUNTING DIAGRAMS AS SHOWN ARE FOR BASIC CONCEPT AND LAYOUT. CONTRACTOR SHALL COORDINATE ALL ROUGH-IN REQUIREMENTS WITH THE OWNER PRIOR TO ANY ROUGH-IN.

NOTE:
CONTRACTOR SHALL SCHEDULE A PRE-INSTALL MEETING WITH THE SCHOOL DISTRICT AND ENGINEER FOR REVIEW OF THE INSTALLATION OF THE SYSTEM PRIOR TO ANY ROUGH-IN AND PRIOR TO SUBMITTAL SUBMISSION. IF THE CONTRACTOR DOES NOT SCHEDULE A PRE-INSTALL MEETING, THE CONTRACTOR SHALL MAKE ANY AND ALL CHANGES TO THE SYSTEM AS DIRECTED BY THE SCHOOL DISTRICT AT NO ADDITIONAL COST TO THE DISTRICT.

DOORS HELD OPEN BY ELECTRONIC DOOR HOLDERS:

DOORS THAT ARE HELD OPEN BY ELECTRONIC DOOR HOLDER SHALL FUNCTION AS FOLLOWS:

FIRE ALARM
UPON ACTIVATION OF THE FIRE ALARM SYSTEM THE DOORS BEING HELD OPEN WITH ELECTRONIC DOOR HOLDERS SHALL RELEASE AND CLOSE.

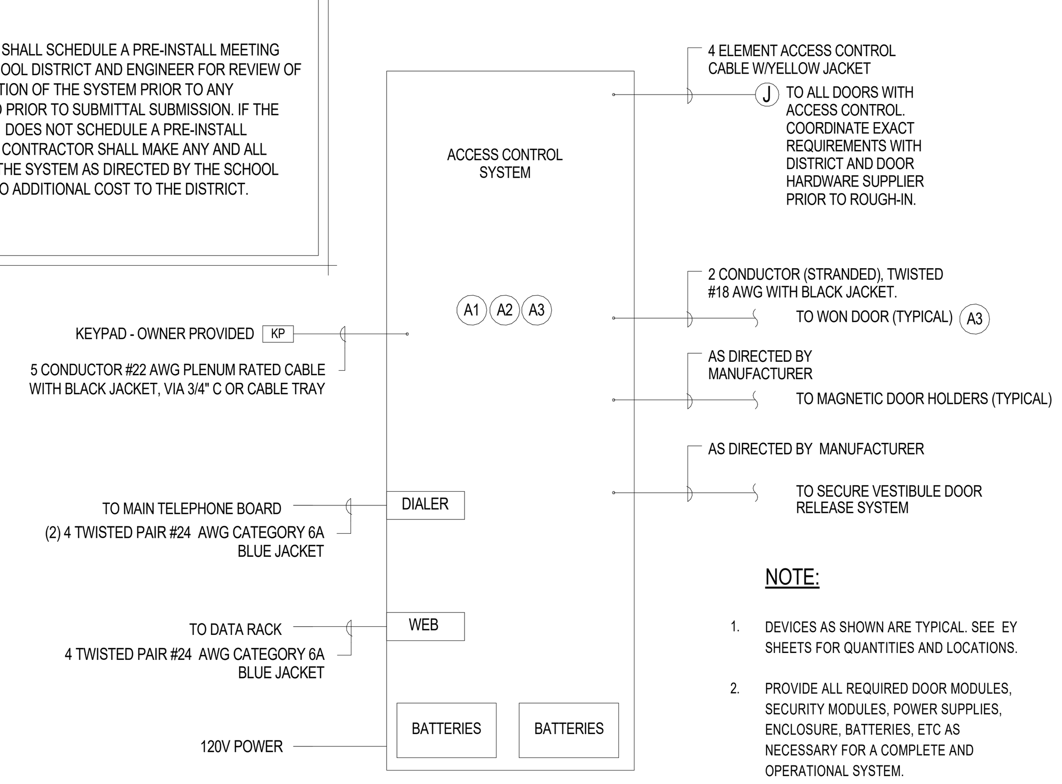
THE FIRE ALARM SYSTEM SHALL NOTIFY THE ACCESS CONTROL SYSTEM THAT THE FIRE ALARM HAS ACTIVATED AND UNLOCK ALL DOORS THAT ARE CONTROLLED THROUGH THE ACCESS CONTROL SYSTEM.

LOCK DOWN
UPON ACTIVATION OF A LOCK DOWN THE ACCESS CONTROL PANEL SHALL LOCK ALL DOORS CONTROLLED BY THE ACCESS CONTROL SYSTEM.

THE ACCESS CONTROL SYSTEM SHALL NOTIFY THE FIRE ALARM SYSTEM THAT A LOCK DOWN HAS BEEN INITIATED AND RELEASE ALL DOOR HELD OPEN WITH ELECTRONIC DOOR HOLDERS.

THE FIRE ALARM SYSTEM AND ACCESS CONTROL SYSTEM INTEGRATORS SHALL WORK CLOSELY TOGETHER AND WITH THE DISTRICT TO PROVIDE THE REQUIRED PROGRAMMING AND INPUTS SO DOORS FUNCTION AS STATED ABOVE.

NOTE:
CONTRACTOR SHALL SCHEDULE A PRE-INSTALL MEETING WITH THE SCHOOL DISTRICT AND ENGINEER FOR REVIEW OF THE INSTALLATION OF THE SYSTEM PRIOR TO ANY ROUGH-IN AND PRIOR TO SUBMITTAL SUBMISSION. IF THE CONTRACTOR DOES NOT SCHEDULE A PRE-INSTALL MEETING, THE CONTRACTOR SHALL MAKE ANY AND ALL CHANGES TO THE SYSTEM AS DIRECTED BY THE SCHOOL DISTRICT AT NO ADDITIONAL COST TO THE DISTRICT.



NOTE:

1. DEVICES AS SHOWN ARE TYPICAL. SEE EY SHEETS FOR QUANTITIES AND LOCATIONS.
2. PROVIDE ALL REQUIRED DOOR MODULES, SECURITY MODULES, POWER SUPPLIES, ENCLOSURE, BATTERIES, ETC AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.

ACCESS CONTROL DOOR SEQUENCE OF OPERATIONS

EXTERIOR ACCESS CONTROLLED DOORS SHALL FUNCTION AS FOLLOWS:

1. THE EXTERIOR ACCESS CONTROLLED DOORS SHALL FUNCTION AS DIRECTED BY THE OWNER FOR LOCKING AND UNLOCKING DURING NORMAL HOURS OF OPERATIONS.
2. THE EXTERIOR ACCESS CONTROLLED DOORS SHALL GO INTO LOCK DOWN MODE AND LOCK ALL EXTERIOR DOORS ONCE THE LOCK DOWN / DURESS BUTTON IS PUSHED. PUSHING THE LOCK DOWN BUTTON AGAIN WILL RETURN ALL THE EXTERIOR DOORS THE STATE OF FUNCTION PRIOR TO THE LOCK DOWN BUTTON BEING PUSHED.
3. ONCE THE LOCK DOWN / DURESS BUTTON IS PUSHED AND THE ACCESS CONTROLLED DOORS ARE IN LOCK DOWN MODE, THE SYSTEM SHALL CALL THE MONITORING COMPANY AND NOTIFY THE MONITORING COMPANY THAT THE SCHOOL IS IN LOCK DOWN AND DISPATCH AS PREDETERMINED BY THE OWNER.

DOOR ROUGH-IN GENERAL NOTES:

1. CONTRACTOR SHALL WORK CLOSELY WITH THE DOOR HARDWARE SUPPLIER AND ACCESS CONTROL SYSTEM SUPPLIER FOR DOOR REQUIREMENTS, ROUGH-IN AND WIRING.
2. CONTRACTOR SHALL COORDINATE ALL JUNCTION BOX ROUGH-IN LOCATIONS WITH THE OWNER AND ACCESS SYSTEM CONTROL SYSTEM SUPPLIER PRIOR TO ANY ROUGH-IN.
3. ALL CABLING TO DEVICES THAT ARE INSTALLED WITHIN DOOR OR ON MULLIONS SHALL BE ROUTED THROUGH THE MULLIONS. COORDINATE INSTALLATION WITH THE WINDOW SYSTEM INSTALLER PRIOR TO ANY ROUGH-IN.

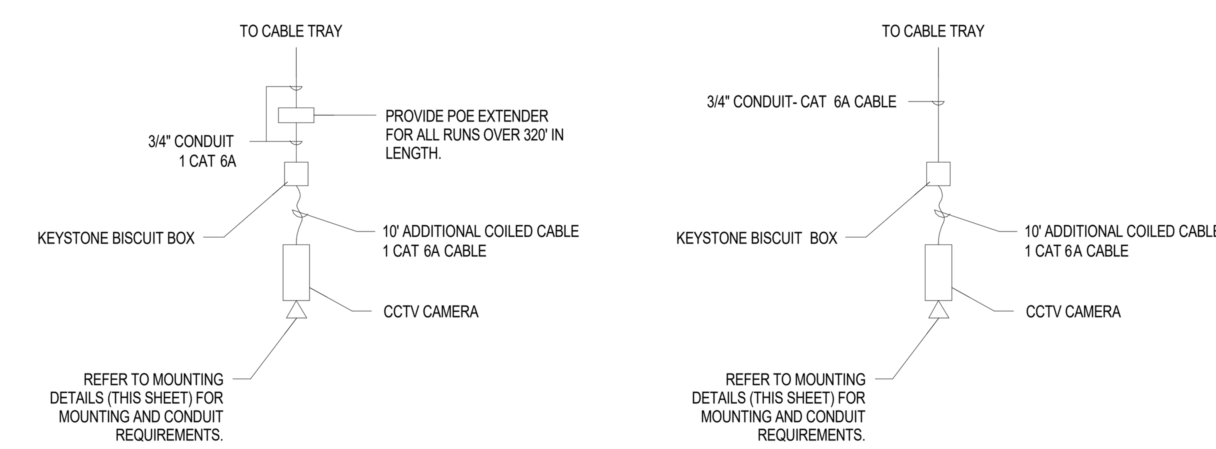
SECURITY / ACCESS CONTROL SYSTEM GENERAL NOTES:

1. ALLOW SUFFICIENT LENGTH OF CABLE FOR TERMINATION AT EACH END.
2. PLENUM RATED CABLE.
3. LABEL ALL CABLES AT BOTH ENDS WITH ROOM NUMBER.
4. COORDINATE ALL REQUIREMENTS WITH WEBER SCHOOL DISTRICT PRIOR TO ROUGH-IN.

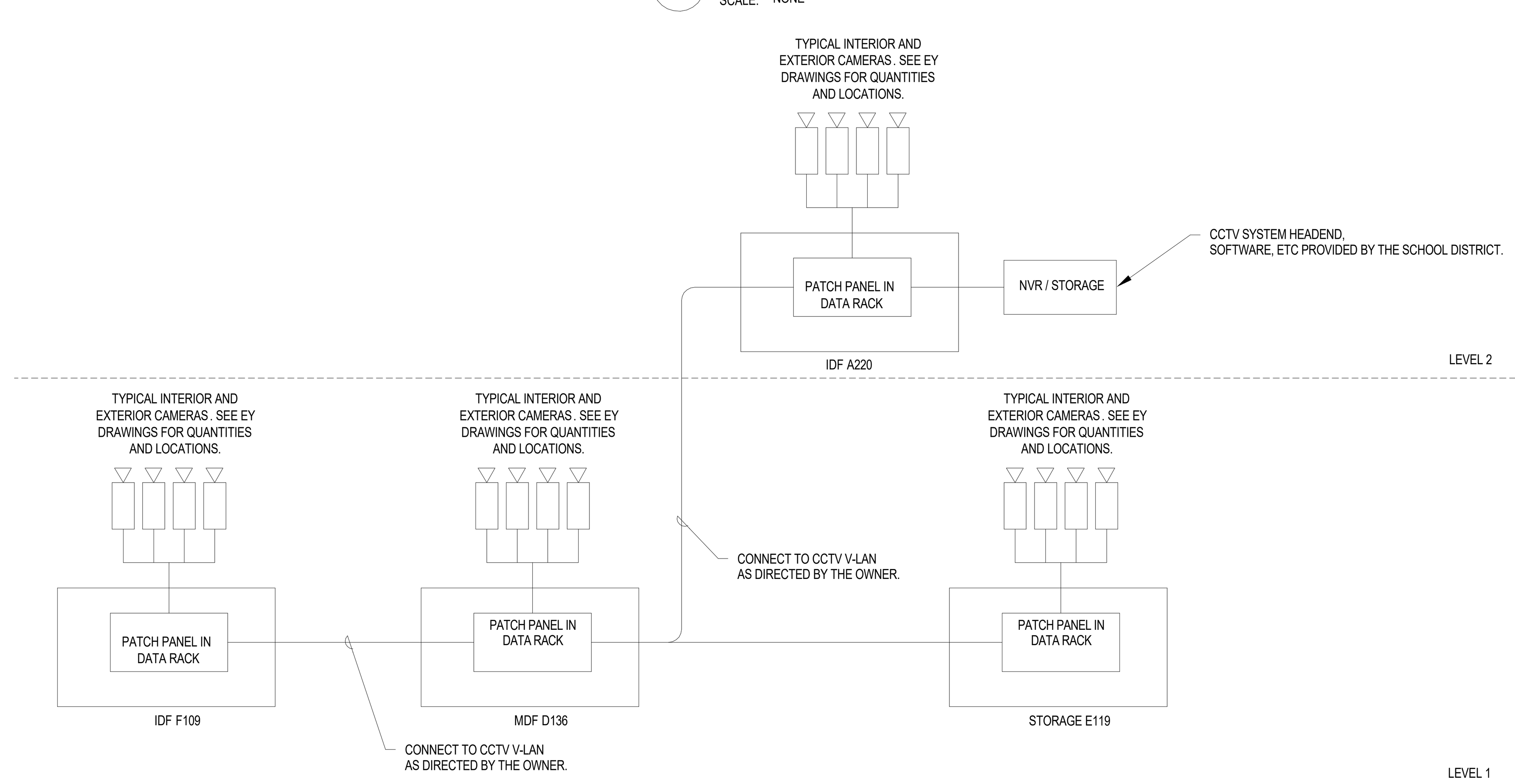
ACCESS CONTROL KEYED NOTES: A#

1. ACCESS CONTROL SYSTEM TO POWER ALL ELECTRIFIED DOOR HARDWARE THROUGH THE ACCESS CONTROL SYSTEM. CONFIRM ALL REQUIREMENTS WITH THE DOOR HARDWARE SUPPLIER. PROVIDE ALL REQUIRED POWER SUPPLIES AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
2. FIRE ALARM SYSTEM TO POWER ALL MAGNETIC DOOR HOLDERS, WHERE CALLED OUT THROUGHFIRE ALARM SYSTEM. CONFIRM ALL REQUIREMENTS WITH THE DOOR HARDWARE SUPPLIER. PROVIDE ALL REQUIRED POWER SUPPLIES AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
3. ACCESS CONTROL SYSTEM TO CONTROL ALL WON DOORS AS CALLED OUT. CONFIRM ALL REQUIREMENTS WITH THE DOOR SUPPLIER. PROVIDE ALL REQUIRED DOOR CONTROLLERS AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
4. REMOTE LINE INTERFACE (RLI): THE MODULE SHALL BE CAPABLE OF HAVING REMOTE INPUTS FOR LOCK/UNLOCK, PATRON DEVICES (PAT) AND RESET AND SHALL BE WITHIN 5,000 FEET OF THE LOK THE LINES BETWEEN THE LOK MODULE AND THE RLI SHALL BE FULLY SUPERVISED FOR LINE SHORTS, OPEN LINES, AND LINES SHORTED TO GROUND. THE LOCK/UNLOCK AND PAT INPUTS SHALL BEHAVE THE SAME AS THE LOCAL INPUTS OF THE SAME NAME WITH THE EXCEPTION THAT THE RLI PAT INPUT IS NOT IGNORED WHEN THE PANIC INPUT HAS BEEN ASSERTED. THE RESET INPUT SHALL BE CAPABLE OF RESTORING THE DOOR TO NORMAL OPERATION FROM THE PANIC AND FIRE MODES PROVIDED THE CAUSE FOR THE PANIC AND/OR FIRE CONDITION HAS BEEN RESTORED TO THE RLI INPUTS CAN ACTIVATE WITH DRY CONTACTS OR THEY CAN BE DRIVEN BY VOLTAGES BETWEEN 12-24 DC VOLTS. EACH CIRCUIT HAS A SEPARATE SELECTOR SWITCH FOR THE DRY CONTACT VS VOLTAGE STYLE INPUTS. LOK MODULE IS FURNISHED WITH THE WON DOOR. REFER TO SPECIFICATION 083513 FOR ADDITIONAL INFORMATION.

7 SECURITY SYSTEM / ACCESS CONTROLSYSTEM RISER DIAGRAM
SCALE: NONE



5 CCTV CAMERA WIRING DETAIL
SCALE: NONE



6 CCTV SYSTEM RISER DIAGRAM
SCALE: NONE

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CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

SECURITY DETAIL & RISERS

E-442

ABBREVIATIONS:

ADO - AUTOMATIC DOOR OPERATOR
AFF - ABOVE FINISHED FLOOR
AP - ACCESS CONTROL PANEL
CR - CARD READER
DHS - DOOR HARDWARE SUPPLIER
DPS - DOOR POSITION SWITCH
EPT - ELECTRIC POWER TRANSFER
ES - ELECTRIC STRIKE
MAG LOCK - MAGNETIC LOCK
RX - EXIT DEVICE
PB - DOOR RELEASE PUSH BUTTON (MANUAL REX)
REX - REQUEST TO EXIT
RFI - REQUEST FOR INFORMATION

ACCESS CONTROL COORDINATION REQUIREMENTS:

CODE REFERENCES AND REQUIREMENTS:
2016 NFPA 101 - LIFE SAFETY CODE
- 7.2.1.5.6(5) REQUIRES THAT LOSS OF POWER WILL UNLOCK THE ELECTRICALLY CONTROLLED DOOR HARDWARE.

7.2.1.6.2.(4) REQUIRES THAT ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM UNLOCK ALL DOORS LOCATED IN THE PATH OF EGRESS. 2016 NFPA 80 - FIRE DOORS AND OTHER OPENING PROTECTIVES

2016 NFPA 60 - FIRE DOORS AND OTHER OPENING PROTECTIVES
- 6.1.3.4 REQUIRES THAT POWER OPERATED FIRE DOORS HAVE A RELEASING DEVICE TO AUTOMATICALLY RELEASE POWER UPON FIRE ALARM.
- 6.4.4.3.3 REQUIRES THAT FIRE RATED DOORS BE POSITIVELY LATCHED TO MAINTAIN THE FIRE RATING, ALL ELECTRIC STRIKES USED IN FIRE RATED DOORS MUST BE FAIL SECURE.

2012 IBC - INTERNATIONAL BUILDING CODE
- 1010.1.9.8 REQUIRES ELECTROMAGNETICALLY LOCKED DOORS HAVE A SENSOR RELEASE SWITCH EITHER AUTOMATIC OR BY A READILY ACCESSIBLE WALL MOUNTED PUSHBUTTON TO RELEASE THE LOCK WITHIN 5' OF THE DOOR.

<u>INTEGRATION WITH FIRE ALARM</u>
ALL MAGNETIC LOCKS SHALL BE UNLOCKED DURING A GENERAL FIRE ALARM. THIS ACTION IS NOT REQUIRED IF SYSTEM IS IN ALARM BY MEANS OF A MANUAL PULL STATION. AUTOMATIC DETECTION DEVICES SUCH AS SMOKE DETECTORS OR SPRINKLER FLOW REQUIRE UNLOCKING AND THE DOOR MUST REMAIN UNLOCKED UNTIL FIRE ALARM SYSTEM RESET. CONTRACTOR SHALL INCLUDE ALL FIRE ALARM INTERFACE EQUIPMENT SUCH AS ADDRESSABLE CONTROL MODULES OR BY CONTACT CLOSURE SIGNALING TO THE ACCESS CONTROL PANELS AS NECESSARY TO MEET THE CODE REQUIREMENTS. ALL DOORS IN STAIRWELLS MUST ALLOW FOR RE-ENTRY.

TO ENSURE A COMPLETE AND OPERATING ACCESS CONTROL SYSTEM AND TO ELIMINATE DELAYS, INSUFFICIENT OR UNNECESSARY WORK BY ALL OF THE ENTITIES INVOLVED, THE FOLLOWING STEPS SHALL BE COMPLETED. THE FAILURE TO DO SO RESULTING IN ADDED COSTS AND LOST TIME WILL BE BORN SOLELY BY THE CONTRACTOR. NO ADDITIONAL PAYMENTS WILL BE MADE BY THE OWNER TO COVER WORK DESCRIBED BELOW.

<u>DURING THE BIDDING PROCESS:</u>
1. THE ELECTRICAL CONTRACTOR SHALL REVIEW THE FLOORPLAN DRAWINGS AND DETAILS ON THIS SHEET. THE FLOORPLANS WILL INDICATE WHICH DOORS HAVE ACCESS CONTROL EQUIPMENT REQUIRING ROUGH-IN. DEVICE LOCATIONS REQUIRING JUNCTION BOXES WILL BE SHOWN ON THE FLOORPLANS, BUT ALL CONDUIT AND HARDWARE REQUIREMENTS CAN ONLY BE DETERMINED BY REFERRING TO THE SPECIFIC DOOR ROUGH-IN DETAILS AND THE ARCHITECTURAL DOOR HARDWARE SPECIFICATION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

2. THE ELECTRICAL CONTRACTOR SHALL REVIEW THE ARCHITECTURAL DOOR HARDWARE SCHEDULE, DOOR HARDWARE SPECIFICATIONS, AND DEFINED EGRESS PATHS. IDENTIFY ACCESS CONTROLLED DOORS LOCATED IN FIRE RATED WALLS AND IN PATHS OF EGRESS REQUIRING ADDITIONAL CONTROL DEVICES.

3. THE ELECTRICAL CONTRACTOR SHALL VERIFY WHICH DOORS USING AN ELECTRIFIED EXIT DEVICE WILL REQUIRE 120V AT THE DOOR. THIS IS MANUFACTURER SPECIFIC AND MUST BE CONFIRMED WITH THE GENERAL CONTRACTOR ACCORDING TO WHICH HARDWARE SUPPLIER BEING USED.

<u>POST-BID, DURING THE SUBMITTAL PROCESS:</u>

4. DURING THE SUBMITTAL PROCESS, THE ELECTRICAL CONTRACTOR SHALL REVIEW THE APPROVED DOOR HARDWARE SUBMITTAL TO CONFIRM THE FINAL HARDWARE SETS PRIOR TO ANY ROUGH-IN. ANY QUESTIONS SHALL BE ISSUED BY FORMAL RFI.

5. MEET WITH THE ACCESS CONTROL VENDOR TO REVIEW ALL FINAL INTEGRATION AND ROUGH-IN REQUIREMENTS. ONLY AFTER CONFIRMING THE FINAL DOOR HARDWARE AND ACCESS CONTROL SYSTEM REQUIREMENTS SHALL ANY ROUGH-IN WORK BEGIN.

GENERAL NOTES:

1. THE DOOR DETAILS SHOWN BELOW ARE GENERAL ROUGH-IN DETAILS AND NOT ALL DEVICES SHOWN MAY BE PRESENT FOR EACH DOOR. CONTRACTOR SHALL REFER TO THE DOOR HARDWARE SCHEDULE IN THE ARCHITECTS DRAWINGS AND SPECS TO DETERMINE WHAT DEVICES ARE PRESENT FOR EACH DOOR REQUIRING CARD ACCESS DOOR EQUIPMENT.

2. NOT ALL DOOR STYLE DETAILS SHOWN BELOW MAY BE INCLUDED IN THE PROJECT.

3. ALL CONDUIT SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

4. THE DOOR ROUGH-IN INFORMATION SHOWN ON THESE DRAWINGS ARE SCHEMATIC IN NATURE AND CANNOT ACCOUNT FOR ALL SPECIFIC VENDOR REQUIREMENTS, OR ACTUAL DOOR HARDWARE PROVIDED. COORDINATE SPECIFIC LOCATIONS WITH SECURITY CONTRACTOR AND APPROVED DOOR HARDWARE SCHEDULES PRIOR TO ROUGH-IN. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE CONDUIT RACEWAY SYSTEM AT THE DOOR AND BACK TO LOCAL ELECTRICAL ROOM.

5. IF REX IS NOT INCLUDED IN DOOR HANDLE OR EXIT DEVICE, PROVIDE BOX FOR WALL MOUNTED REX DEVICE. VERIFY WITH DOOR HARDWARE PRIOR TO ROUGH-IN.

6. PROVIDE CONDUIT AND DEVICE BACK BOX ROUGH-IN AT ALL CARD READER DOOR LOCATIONS. CONDUIT SHALL BE 3/4" UNLESS OTHERWISE NOTED AND ALL BOXES SHALL BE 4 SQUARE WITH A SINGLE GANG MUD RING FOR DEVICES OR JUST A SINGLE GANG BOX IF INSTALLED AT THE DOOR FRAME.

7. A SINGLE FIRE ALARM CONTROL MODULE MAY BE USED TO CONTROL THE POWER TO MULTIPLE DOORS IF COORDINATED WITH THE ACCESS CONTROL SYSTEM VENDOR TO WIRE DOORS SEPARATE FROM OTHER DOORS TOGETHER ON THE SAME POWER SUPPLY LOOP.

8. IF NO ACCESSIBLE CEILING SPACE IS NEAR THE CONTROLLED DOOR, ALL CONDUITS ARE TO BE RUN CONTINUOUS TO THE DOOR ACCESS CONTROL PANEL UNLESS A LOCATION IS DETERMINED TO BE ACCEPTABLE TO THE ENGINEER PRIOR TO INSTALLATION.

GENERAL NOTES:

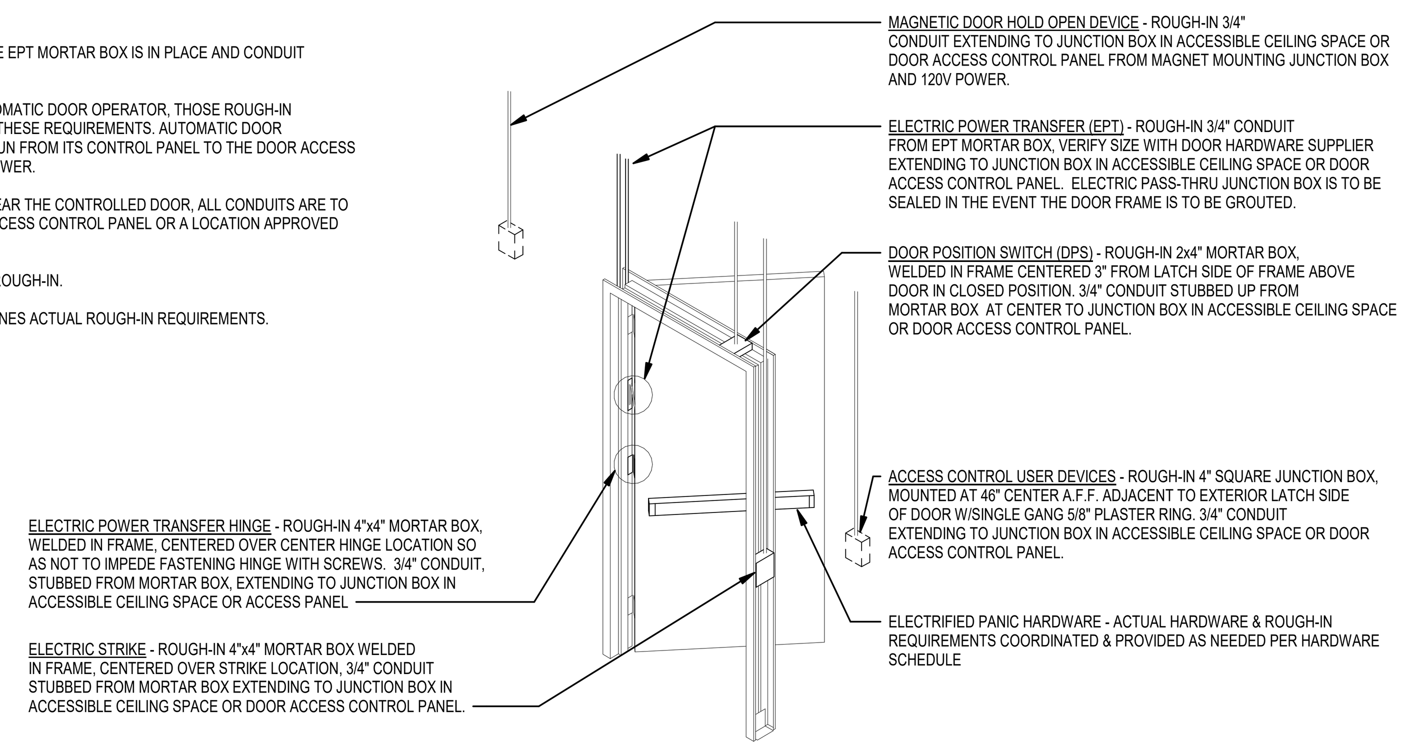
1. IF DOOR IS TO BE GROUTED MAKE SURE EPT MORTAR BOX IS IN PLACE AND CONDUIT CONNECTED AND SEALED.

2. IF DOOR IS TO BE EQUIPPED WITH AUTOMATIC DOOR OPERATOR, THOSE ROUGH-IN PROVISIONS SHALL BE IN ADDITION TO THESE REQUIREMENTS. AUTOMATIC DOOR OPERATORS SHALL HAVE COMPLETE RUN FROM ITS CONTROL PANEL TO THE DOOR ACCESS CONTROL PANEL AND INCLUDE 120V POWER.

3. IF NO ACCESSIBLE CEILING SPACE IS NEAR THE CONTROLLED DOOR, ALL CONDUITS ARE TO BE RUN CONTINUOUS TO THE DOOR ACCESS CONTROL PANEL OR A LOCATION APPROVED BY THE OWNER.

4. FOR DOUBLE DOORS, DUPLICATE THE ROUGH-IN.

5. DOOR HARDWARE SCHEDULE DETERMINES ACTUAL ROUGH-IN REQUIREMENTS.



4 **TYPICAL BOX AND CONDUIT REQUIREMENTS ROUGH-IN DETAIL1**
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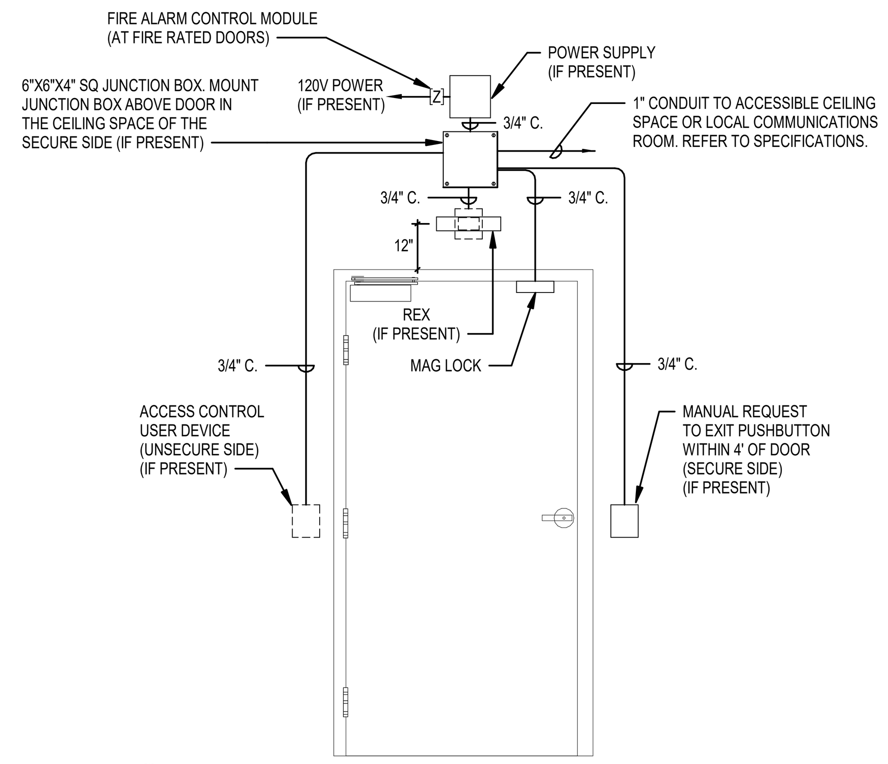
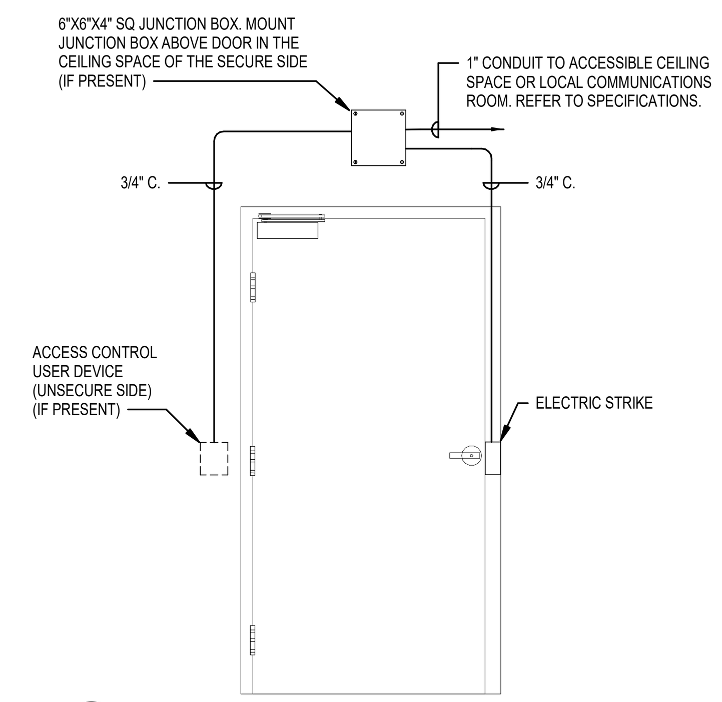


5 **TYPICAL ELECTRO-MAGNETIC LOCK ROUGH-IN DETAIL1**
SCALE: NTS
(SYMBOL)



6 **TYPICAL ELECTRIC STRIKE ROUGH-IN DETAIL1**
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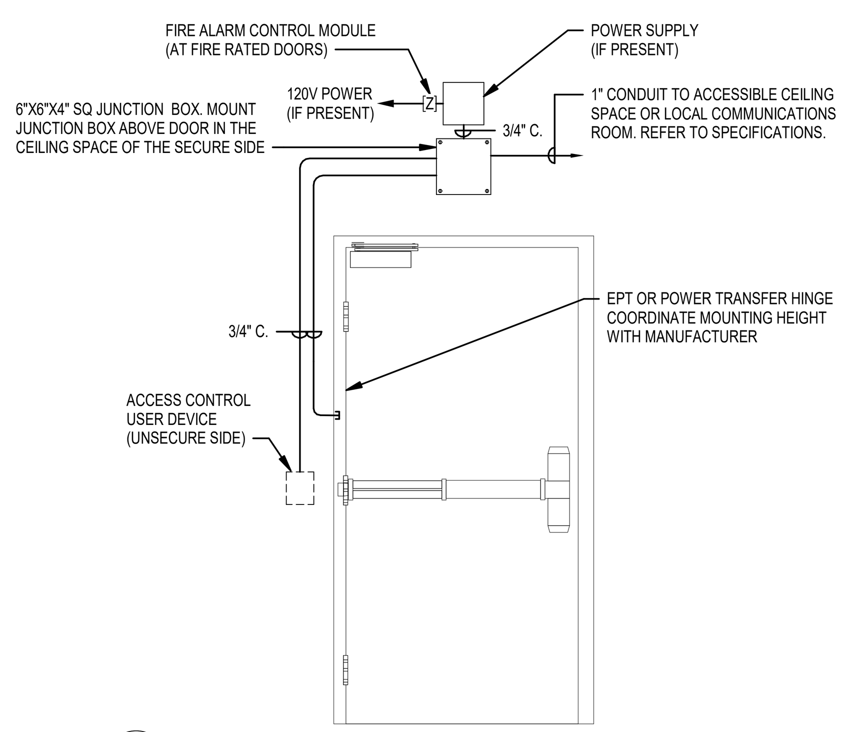
(SYMBOL)



7 **TYPICAL ELECTRIFIED PANIC HARDWARE ROUGH-IN DETAIL1**
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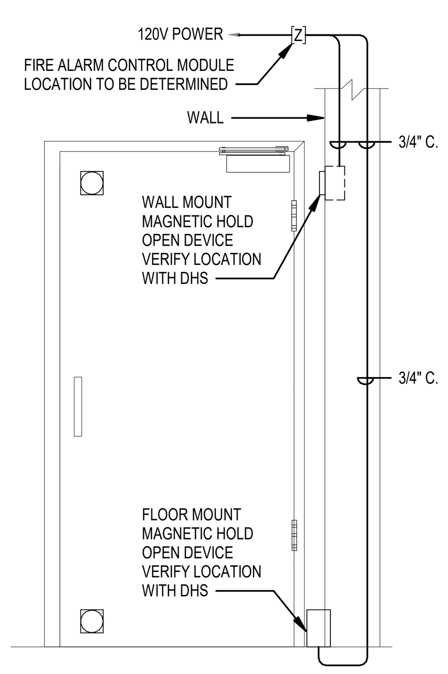
(SYMBOL)



8 **TYPICAL MAGNETIC DOOR HOLD OPEN DEVICE ROUGH-IN DETAIL1**
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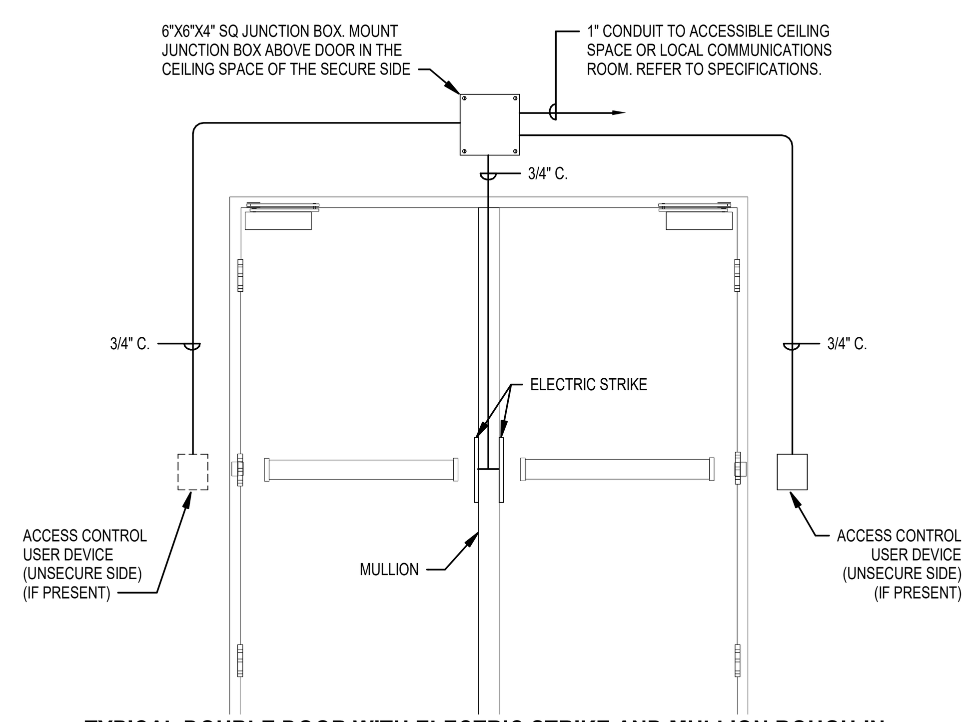
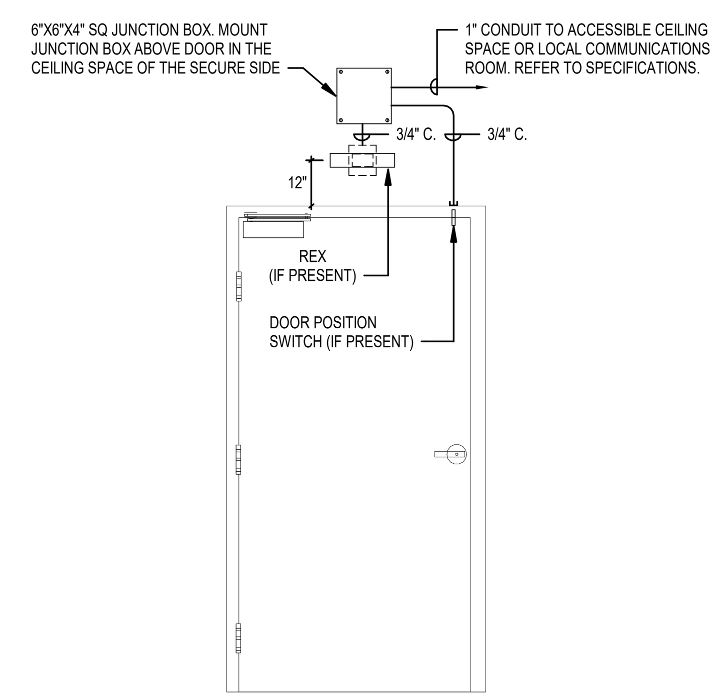
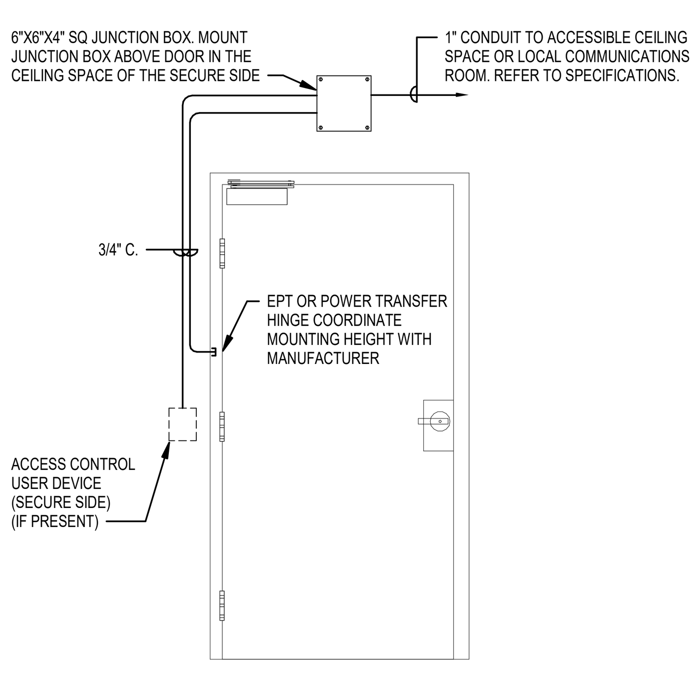
(SYMBOL)



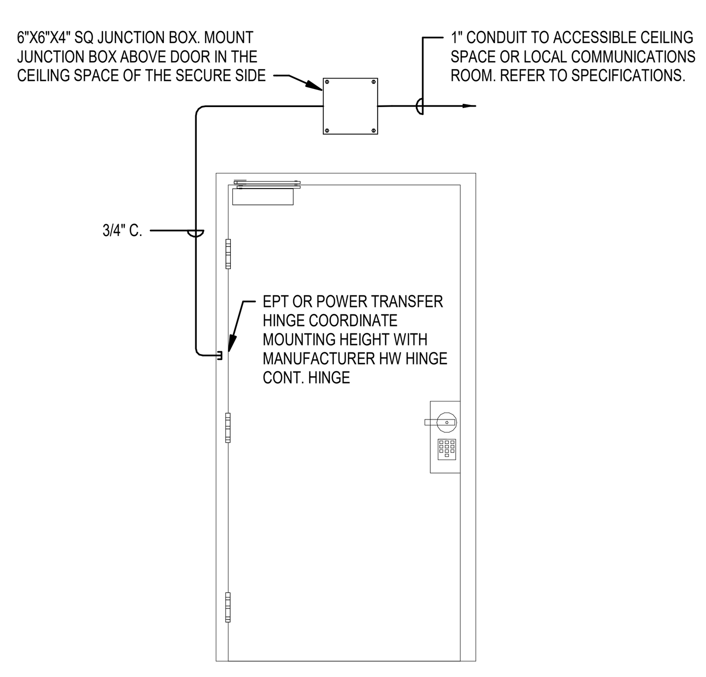
9 **TYPICAL DOUBLE DOOR WITH ELECTRIC STRIKE AND MULLION ROUGH-IN DETAIL1**
SCALE: NTS
(SYMBOL)



10 **TYPICAL DOOR POSITION SWITCH ROUGH-IN DETAIL1**
SCALE: NTS
(SYMBOL)



11 **TYPICAL ELECTRIFIED LEVEL ROUGH-IN DETAIL1**
SCALE: NTS
(SYMBOL)



12 **TYPICAL INTEGRATED LOCKSET DOOR ROUGH-IN DETAIL1**
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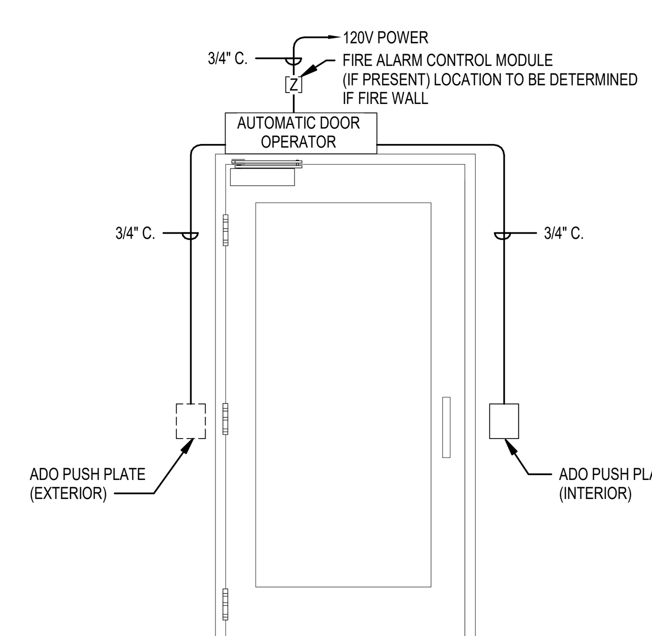
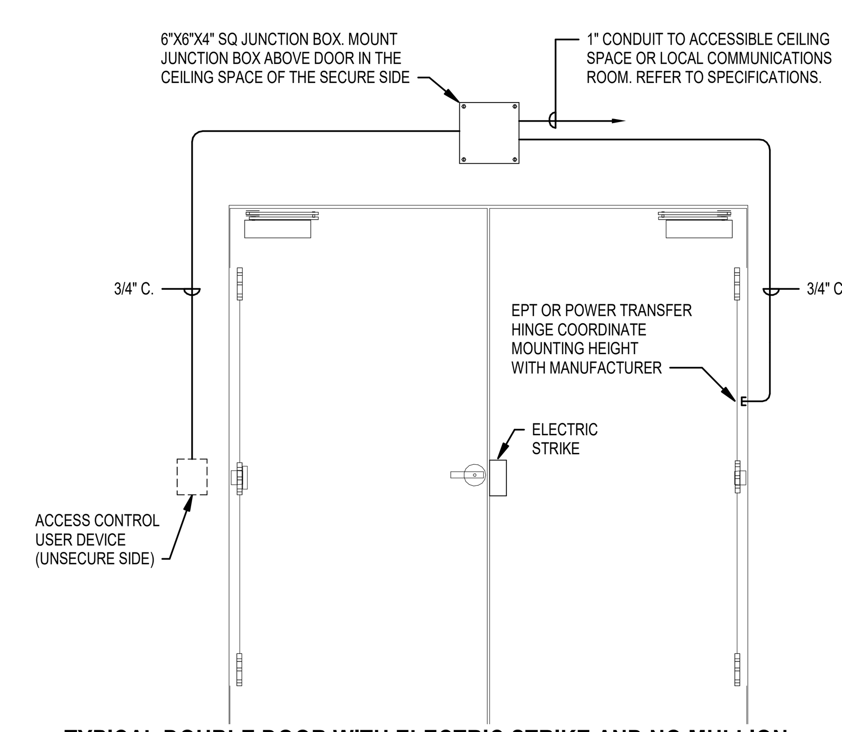
(SYMBOL)



13 **TYPICAL AUTOMATIC DOOR OPERATOR ROUGH-IN DETAIL1**
SCALE: NTS
ADO
(SYMBOL)



14 **TYPICAL DOUBLE DOOR WITH ELECTRIC STRIKE AND NO MULLION ROUGH-IN DETAIL1**
SCALE: NTS
(SYMBOL)

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

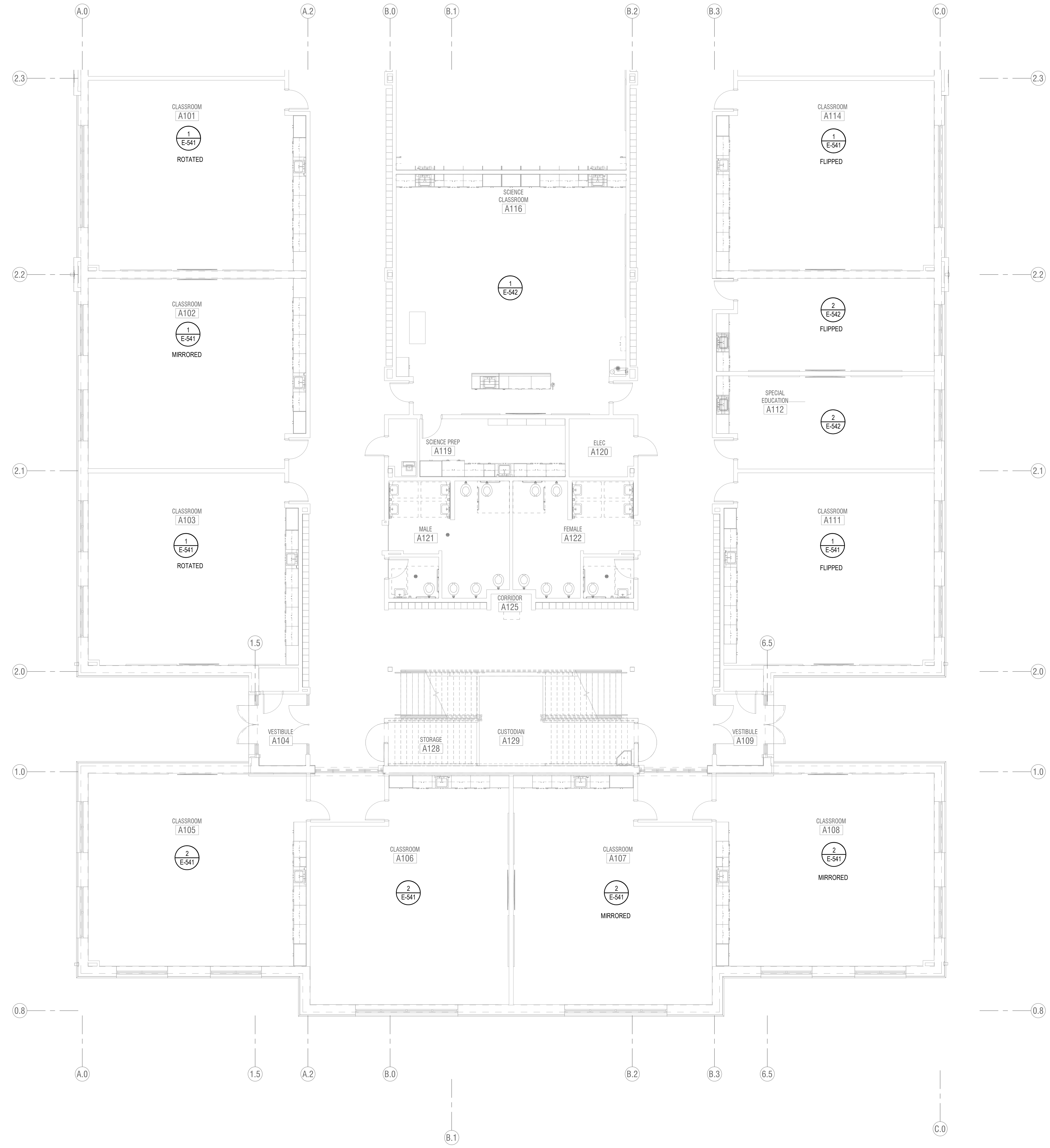
MARK: DATE: DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

CONSTRUCTION DOCUMENTS

ACCESS CONTROL DOOR ROUGH-IN DETAILS

E-443



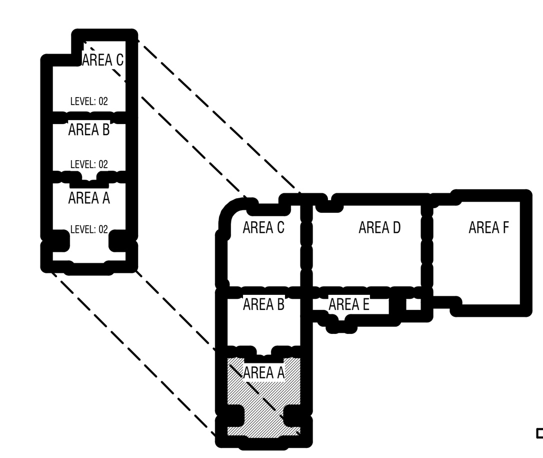
1 LEVEL 1 FLOOR PLAN - AREA A - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.
2. TO MINIMIZE SIGNAL CROSS TALK, GROUP CABLES ACCORDING TO SIGNALS BEING CARRIED. MAINTAIN SEPARATION BETWEEN POWER AND ALL OTHER CABLE GROUPS OF AT LEAST 24", AND 6" BETWEEN ALL OTHER CABLE GROUPS WHEN RUN IN PARALLEL. GROUPS SHALL BE:
   A. POWER.
   B. CONTROL.
   C. VIDEO.
   D. MIC LEVEL AUDIO CABLES (LESS THAN -20dBM).
   E. LINE LEVEL AUDIO CABLES (-20dBM TO +20dBM).
   F. SPEAKER LEVEL CABLES (+20dBM OR GREATER).
   G. DATA CABLES.
3. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
4. COLORS OF ALL SOUND DEVICES THAT ARE EXPOSED, INCLUDING INPUT AND OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, SPEAKER ENCLOSURES, SPEAKER MOUNTING HARDWARE, ETC. SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO ORDERING.
5. CABLE ROUTES SHOWN ON DRAWINGS DO NOT ACTUALLY REFLECT THE RACEWAYS. THE RACEWAYS SHALL BE DETERMINED IN THE FIELD.
6. LABEL ALL THE WIRELESS HANDHELD MICROPHONES AND BELT PACKS WITH NAMES OR NUMBERS FOR EASY IDENTIFICATION.
7. REFER TO RISER DIAGRAMS AND EQUIPMENT LISTS FOR THE TYPES AND NUMBERS OF WIRES REQUIRED FOR EACH AV DEVICE.
8. SETUP COMPRESSORS AND LIMITERS IN ALL OF THE DSPS TO PROTECT THE AMPLIFIERS AND SPEAKERS. ALSO, SETUP A PASSWORD ON THE DSPS, TO CONTROL THE ACCESS TO THEM. COORDINATE W. OWNER TO DETERMINE APPROPRIATE PASSWORDS.
9. MOCKUP A TYPICAL CLASSROOM AV SYSTEM FIRST, TEST AND TRY OUT ALL THE FUNCTIONS OF THE SYSTEM AND PERFORMANCE OF EACH AV COMPONENT BEFORE PURCHASING EVERYTHING FOR ALL THE CLASSROOMS.
10. EQUALIZE ALL AUDIO SYSTEMS WITH DSP PRIOR TO SYSTEM COMMISSIONING.
11. AUDIO INPUT AND OUTPUT LEVELS SHALL BE BALANCED. EQUALIZERS SHALL BE SET TO THE FOLLOWING PARAMETERS AS MEASURED IN 1/3 OCTAVE BANDS FROM 10HZ TO 2 KHZ,
    A. FLAT WITHIN PLUS OR MINUS 2 DBA, FROM 71HZ TO 17KHZ.
    B. SLOPE DOWN ALONG AN APPROXIMATED 3 DBA PER OCTAVE SLOPE FROM 0 TO 71HZ AND 17KHZ AND UP.
12. USE SEPARATE CHANNEL FOR EACH ASSISTIVE LISTENING SYSTEM ‘ALS’ IN THE FACILITY. PROGRAM ALL RECEIVERS, REGARDLESS OF WHICH ‘ALS’ THEY ARE ASSOCIATED WITH SO THAT USERS’ MAY SELECT ANY OF THE AVAILABLE CHANNELS.
13. ALL CABLES IN PLENUM SPACES SHALL BE PLENUM RATED. WHEN NON-PLENUM CABLE IS SPECIFIED, IN PLENUM SPACES, INTEGRATOR SHALL SUBSTITUTE PLENUM CABLE.

KEYED NOTES

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

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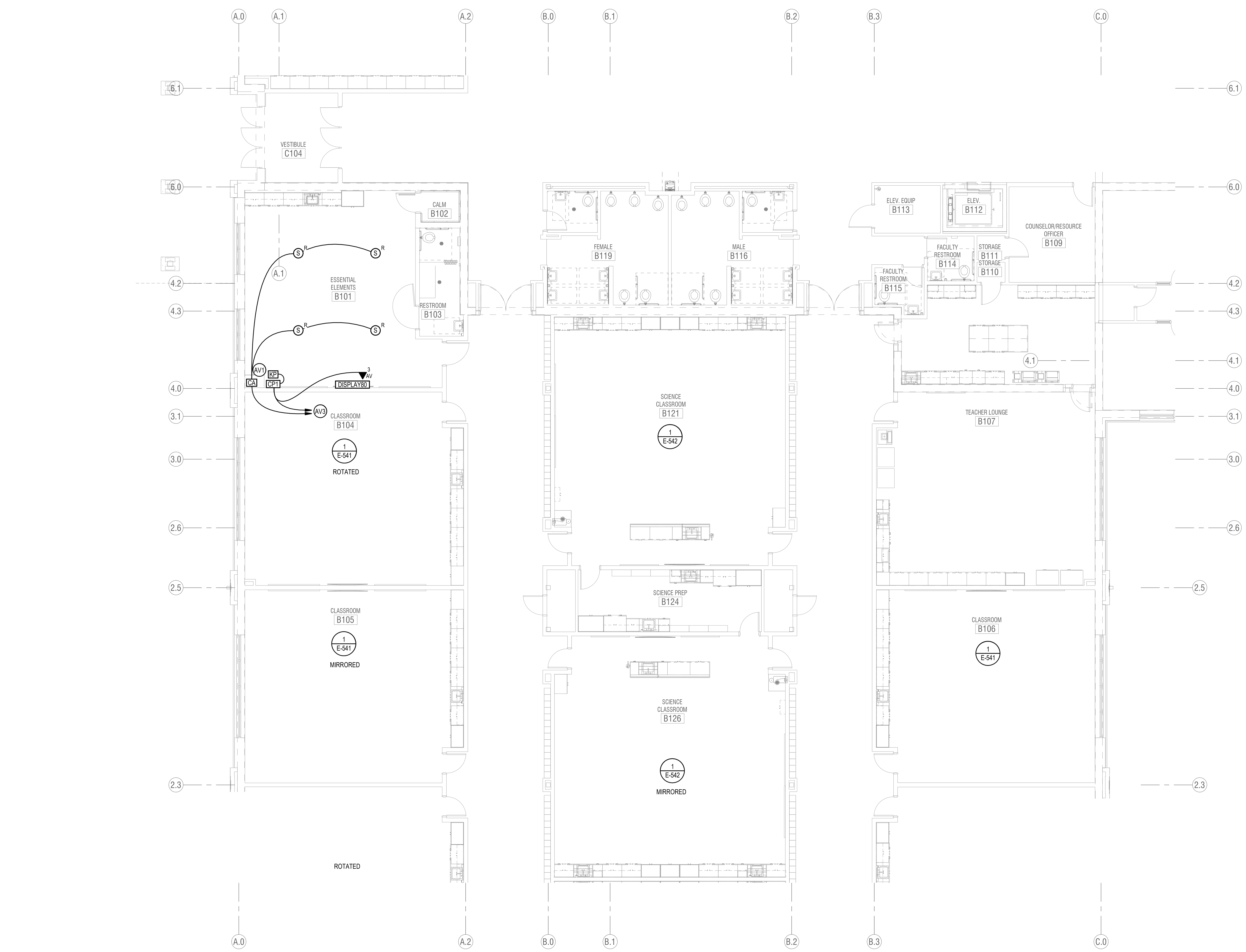
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA A - AUDIO VISUAL

E-511



1 LEVEL 1 FLOOR PLAN - AREA B - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.
2. TO MINIMIZE SIGNAL CROSS TALK, GROUP CABLES ACCORDING TO SIGNALS BEING CARRIED. MAINTAIN SEPARATION BETWEEN POWER AND ALL OTHER CABLE GROUPS OF AT LEAST 24", AND 6" BETWEEN ALL OTHER CABLE GROUPS WHEN RUN IN PARALLEL. GROUPS SHALL BE:
   - A. POWER.
   - B. CONTROL.
   - C. VIDEO.
   - D. MIC LEVEL AUDIO CABLES (LESS THAN -20dBM).
   - E. LINE LEVEL AUDIO CABLES (-20dBM TO +20dBM).
   - F. SPEAKER LEVEL CABLES (+20dBM OR GREATER).
   - G. DATA CABLES.
3. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
4. COLORS OF ALL SOUND DEVICES THAT ARE EXPOSED, INCLUDING INPUT AND OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, SPEAKER ENCLOSURES, SPEAKER MOUNTING HARDWARE, ETC. SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO ORDERING.
5. CABLE ROUTES SHOWN ON DRAWINGS DO NOT ACTUALLY REFLECT THE RACEWAYS. THE RACEWAYS SHALL BE DETERMINED IN THE FIELD.
6. LABEL ALL THE WIRELESS HANDHELD MICROPHONES AND BELT PACKS WITH NAMES OR NUMBERS FOR EASY IDENTIFICATION.
7. REFER TO RISER DIAGRAMS AND EQUIPMENT LISTS FOR THE TYPES AND NUMBERS OF WIRES REQUIRED FOR EACH AV DEVICE.
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11. AUDIO INPUT AND OUTPUT LEVELS SHALL BE BALANCED. EQUALIZERS SHALL BE SET TO THE FOLLOWING PARAMETERS AS MEASURED IN 1/3 OCTAVE BANDS FROM 10HZ TO 2 KHZ,
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   - B. SLOPE DOWN ALONG AN APPROXIMATED 3 DBA PER OCTAVE SLOPE FROM 0 TO 71HZ AND 17KHZ AND UP.
12. USE SEPARATE CHANNEL FOR EACH ASSISTIVE LISTENING SYSTEM 'ALS' IN THE FACILITY. PROGRAM ALL RECEIVERS, REGARDLESS OF WHICH 'ALS' THEY ARE ASSOCIATED WITH SO THAT USERS' MAY SELECT ANY OF THE AVAILABLE CHANNELS.
13. ALL CABLES IN PLENUM SPACES SHALL BE PLENUM RATED. WHEN NON-PLENUM CABLE IS SPECIFIED, IN PLENUM SPACES, INTEGRATOR SHALL SUBSTITUTE PLENUM CABLE.

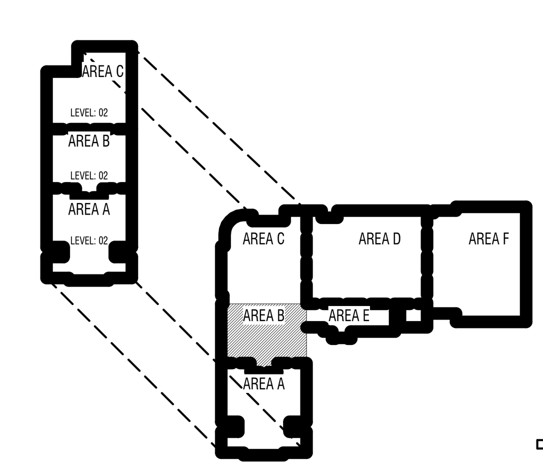
KEYED NOTES

AV1 INSTALL JUNCTION BOX, 10" X 10" IN WALL BEHIND CABINET, AT 18" AFF. UNLESS OTHERWISE NOTED, PROVIDE QTY. (3) 1" C. TO ACC. CEILING.

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV8 TO SOUND MASKING AMPLIFIER IN RACK #D.

KEY PLAN



TO BE DETERMINED

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
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P (801) 534-1130
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www.envisioneng.com

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

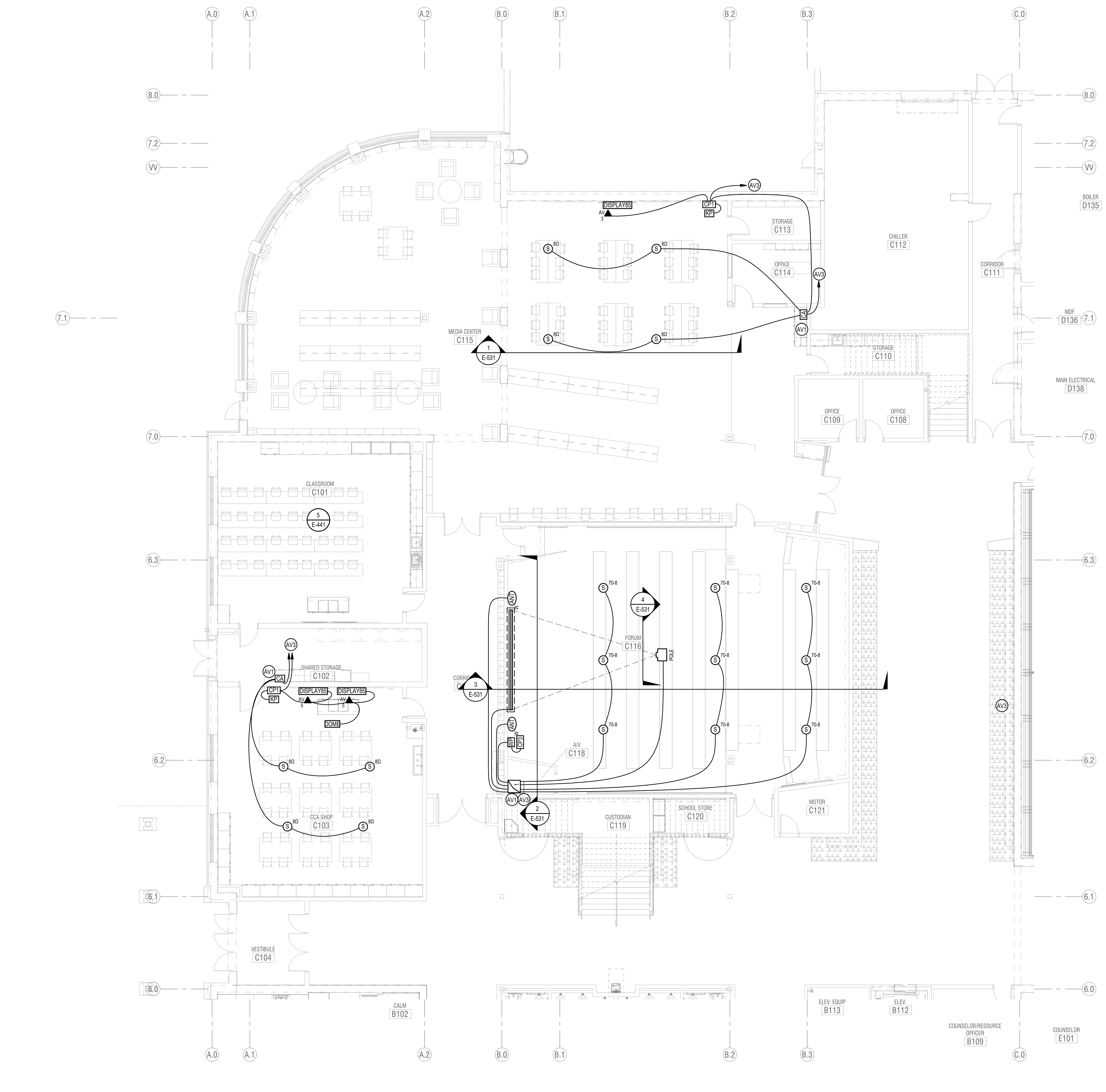
CONSTRUCTION DOCUMENTS

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA B - AUDIO VISUAL

E-512



1 LEVEL 1 FLOOR PLAN - AREA C - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.
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   E. LINE LEVEL AUDIO CABLES (-20dBM TO +20dBM).
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   G. DATA CABLES.
3. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
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5. CABLE ROUTES SHOWN ON DRAWINGS DO NOT ACTUALLY REFLECT THE RACEWAYS. THE RACEWAYS SHALL BE DETERMINED IN THE FIELD.
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KEYED NOTES

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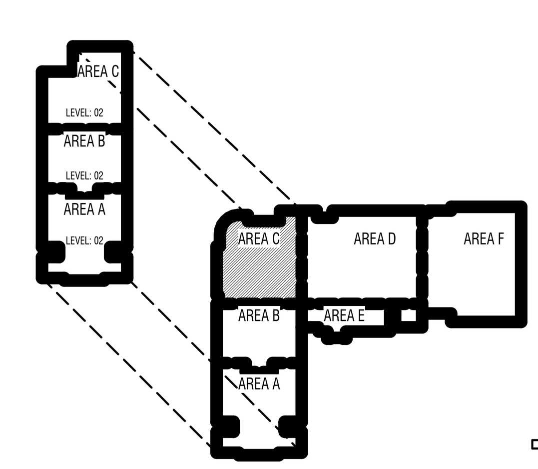
AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

KEY PLAN



TO BE DETERMINED

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA C - AUDIO VISUAL

E-513

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.
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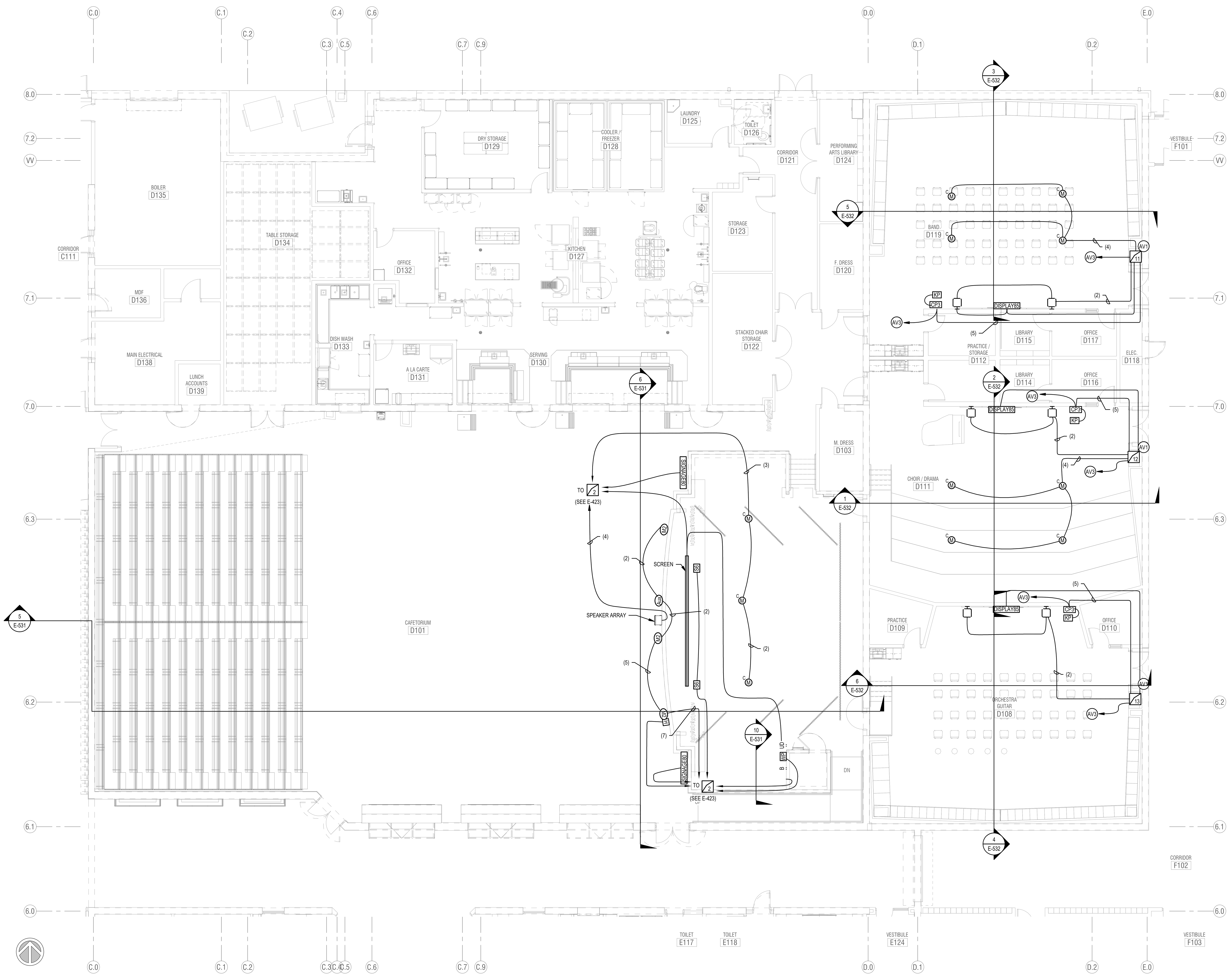
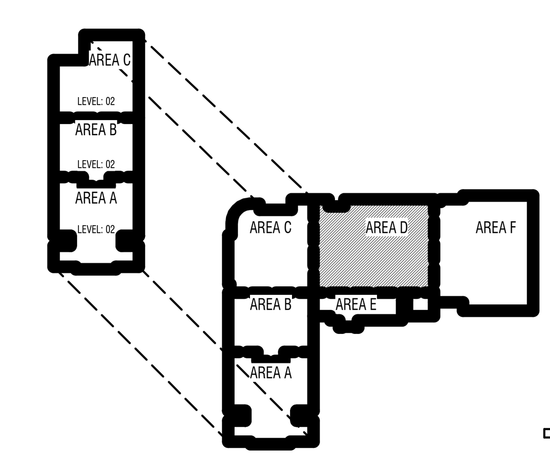
AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV9 INSTALL 'UD' IN RACK



1 LEVEL 1 FLOOR PLAN - AREA D - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST, LOGAN UT 84321
795 NORTH 400 WEST, SALT LAKE CITY UT 84103

ENVISION ENGINEERING
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:
MARK: DATE:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA D - AUDIO VISUAL

E-514

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING

AUDIO VISUAL GENERAL NOTES:

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KEYED NOTES

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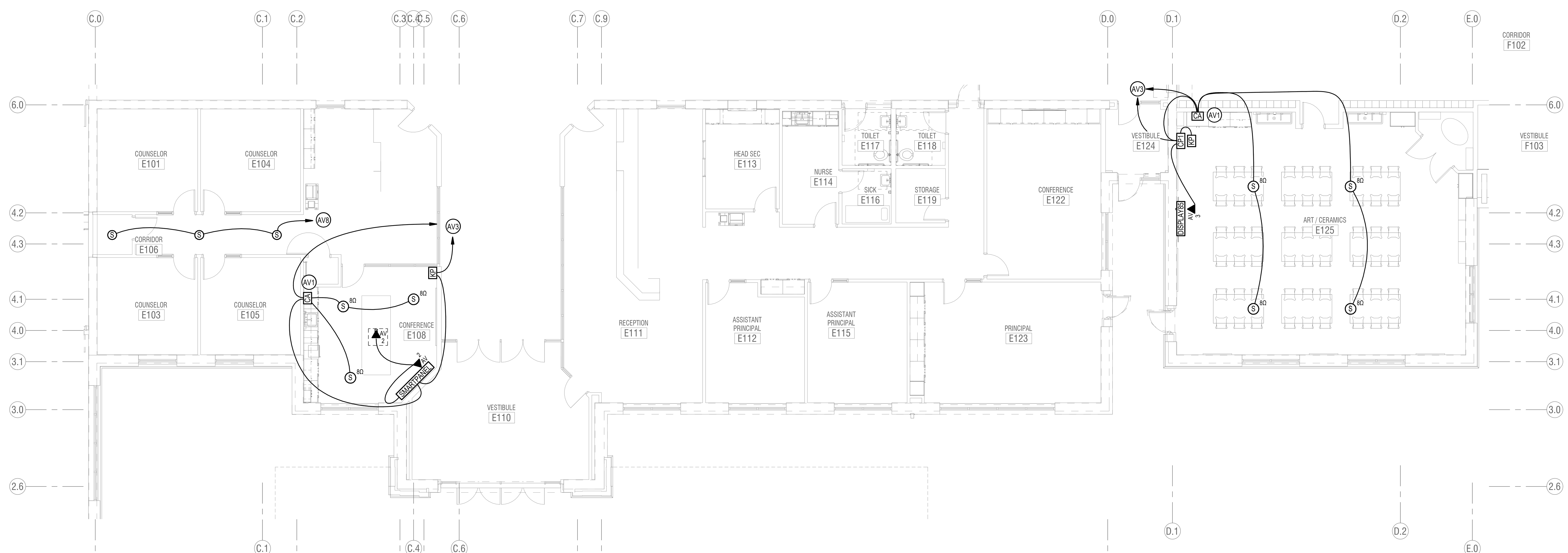
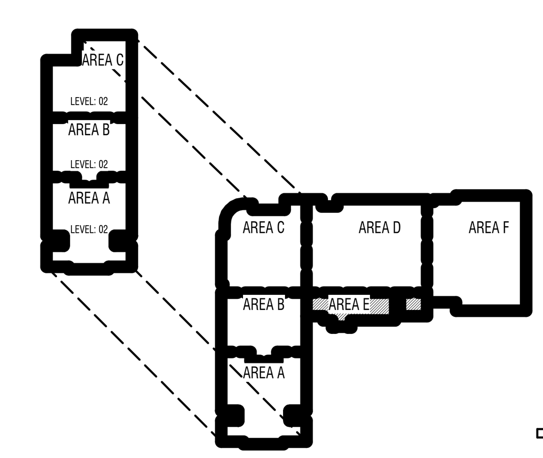
AV3	TO DATA RACK IN NEAREST MDF/IDF CLOSET.
AV8	TO SOUND MASKING AMPLIFIER IN RACK #D.



1 LEVEL 1 FLOOR PLAN - AREA E - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

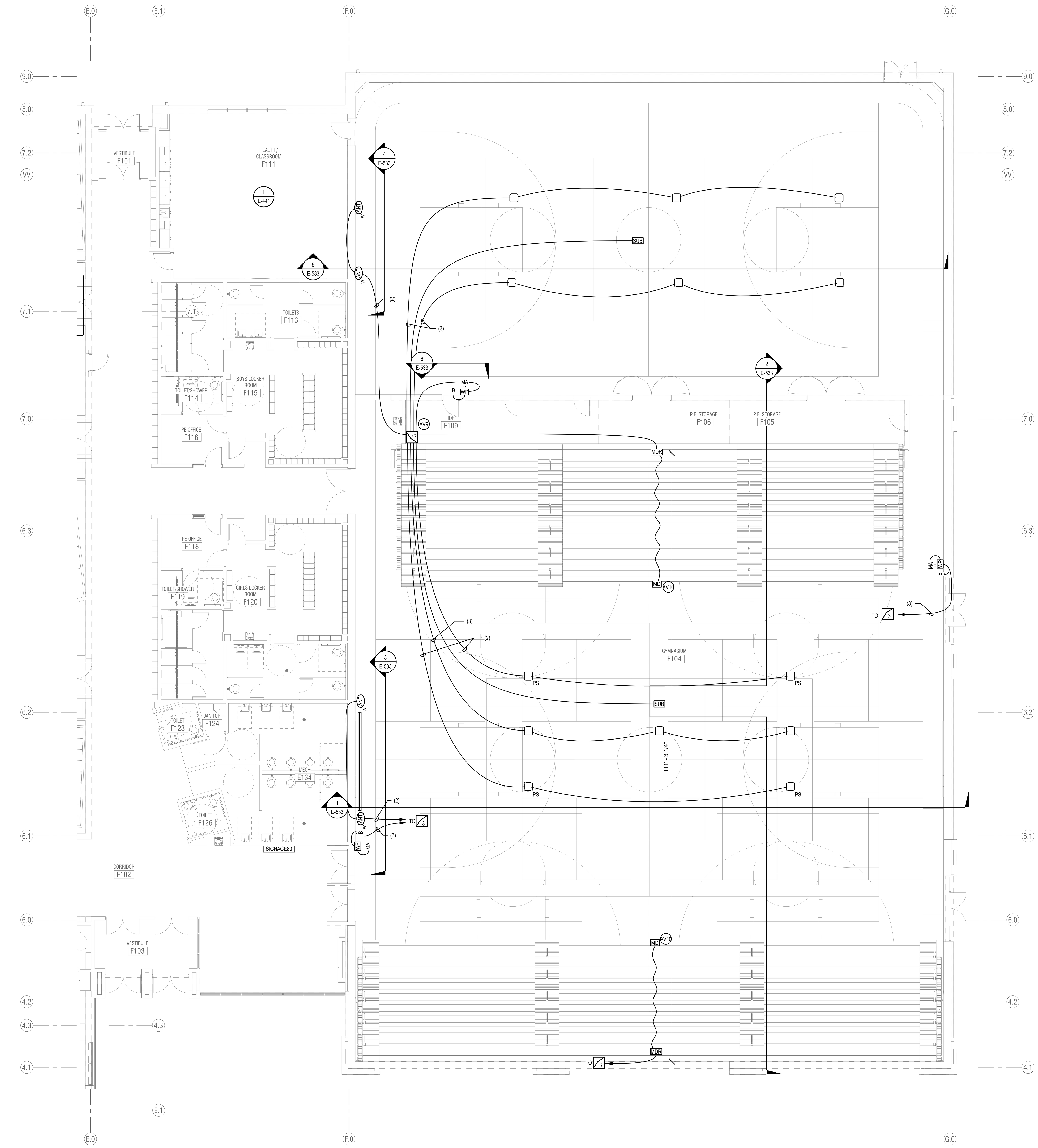
CONSTRUCTION DOCUMENTS

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA E - AUDIO VISUAL

E-515



1 LEVEL 1 FLOOR PLAN - AREA F - AUDIO VISUAL
SCALE: NTS

AUDIO VISUAL GENERAL NOTES:

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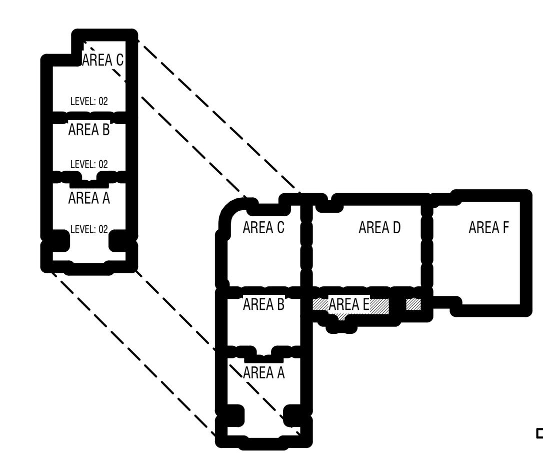
KEYED NOTES

AV9 INSTALL 'UD' IN RACK

AV10 INSTALL DEVICE ON BLEACHER FRONT. TRAIN MICROPHONE AND DANTE CABLE THROUGH BLEACHERS, SUCH BLEACHERS MAY OPERATE W/O PINCHING OR OTHERWISE DAMAGING CABLES.

KEY PLAN



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3050 S 920 W NIBLEY, UTAH
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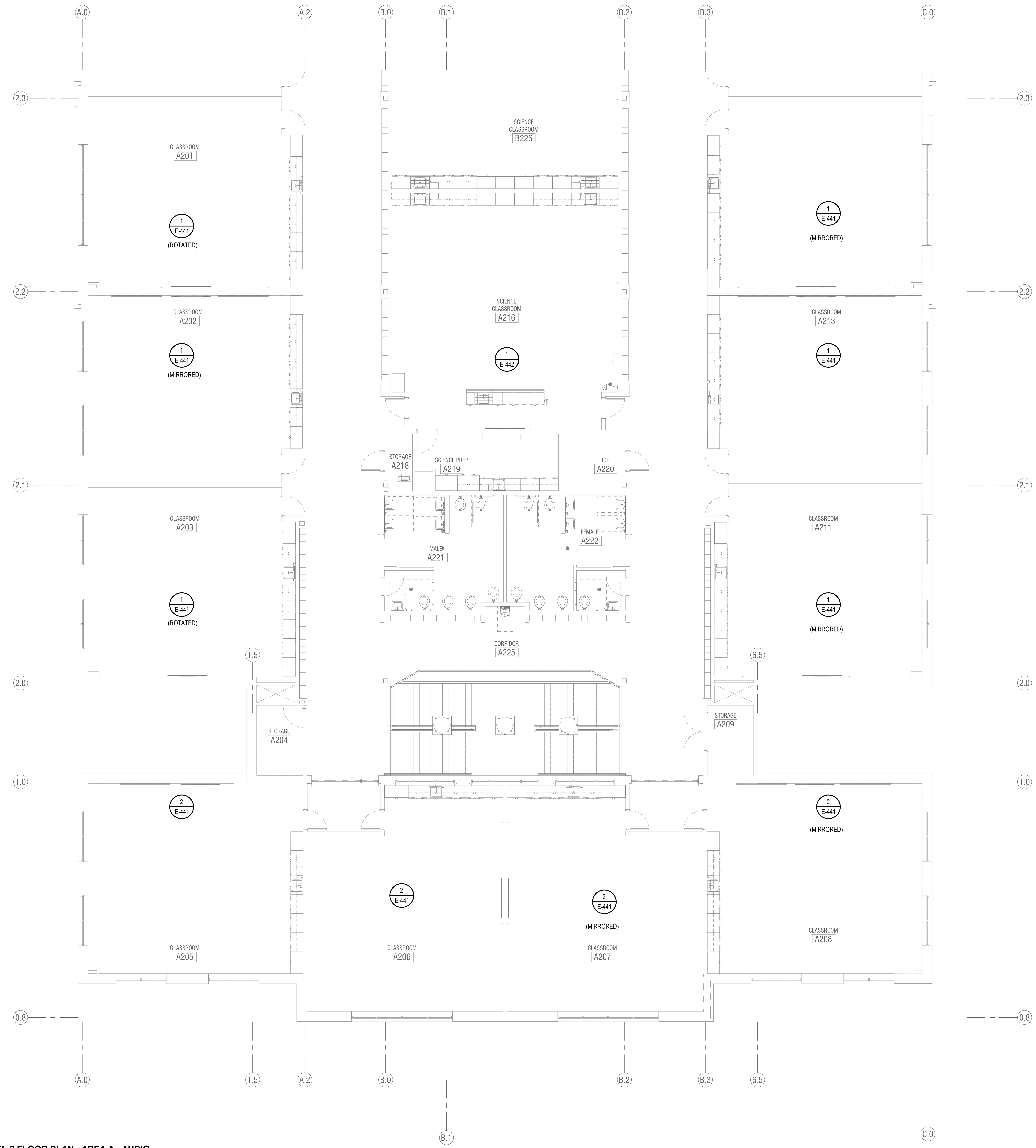
MARK: DATE: DESCRIPTION:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

LEVEL 1 - AREA F - AUDIO VISUAL

E-516



LEVEL 2 FLOOR PLAN - AREA A - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

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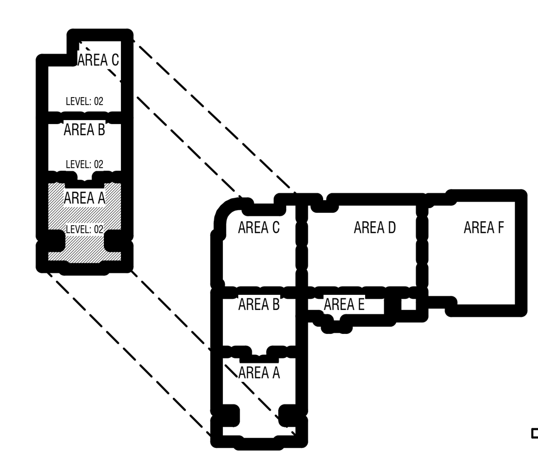
10. EQUALIZE ALL AUDIO SYSTEMS WITH DSP PRIOR TO SYSTEM COMMISSIONING.
11. AUDIO INPUT AND OUTPUT LEVELS SHALL BE BALANCED. EQUALIZERS SHALL BE SET TO THE FOLLOWING PARAMETERS AS MEASURED IN 1/3 OCTAVE BANDS FROM 10HZ TO 2 KHZ,
   - A. FLAT WITHIN PLUS OR MINUS 2 DBA, FROM 71HZ TO 17KHZ.
   - B. SLOPE DOWN ALONG AN APPROXIMATED 3 DBA PER OCTAVE SLOPE FROM 0 TO 71HZ AND 17KHZ AND UP.
12. USE SEPARATE CHANNEL FOR EACH ASSISTIVE LISTENING SYSTEM ‘ALS’ IN THE FACILITY. PROGRAM ALL RECEIVERS, REGARDLESS OF WHICH ‘ALS’ THEY ARE ASSOCIATED WITH SO THAT USERS’ MAY SELECT ANY OF THE AVAILABLE CHANNELS.
13. ALL CABLES IN PLENUM SPACES SHALL BE PLENUM RATED. WHEN NON-PLENUM CABLE IS SPECIFIED, IN PLENUM SPACES, INTEGRATOR SHALL SUBSTITUTE PLENUM CABLE.

KEYED NOTES

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

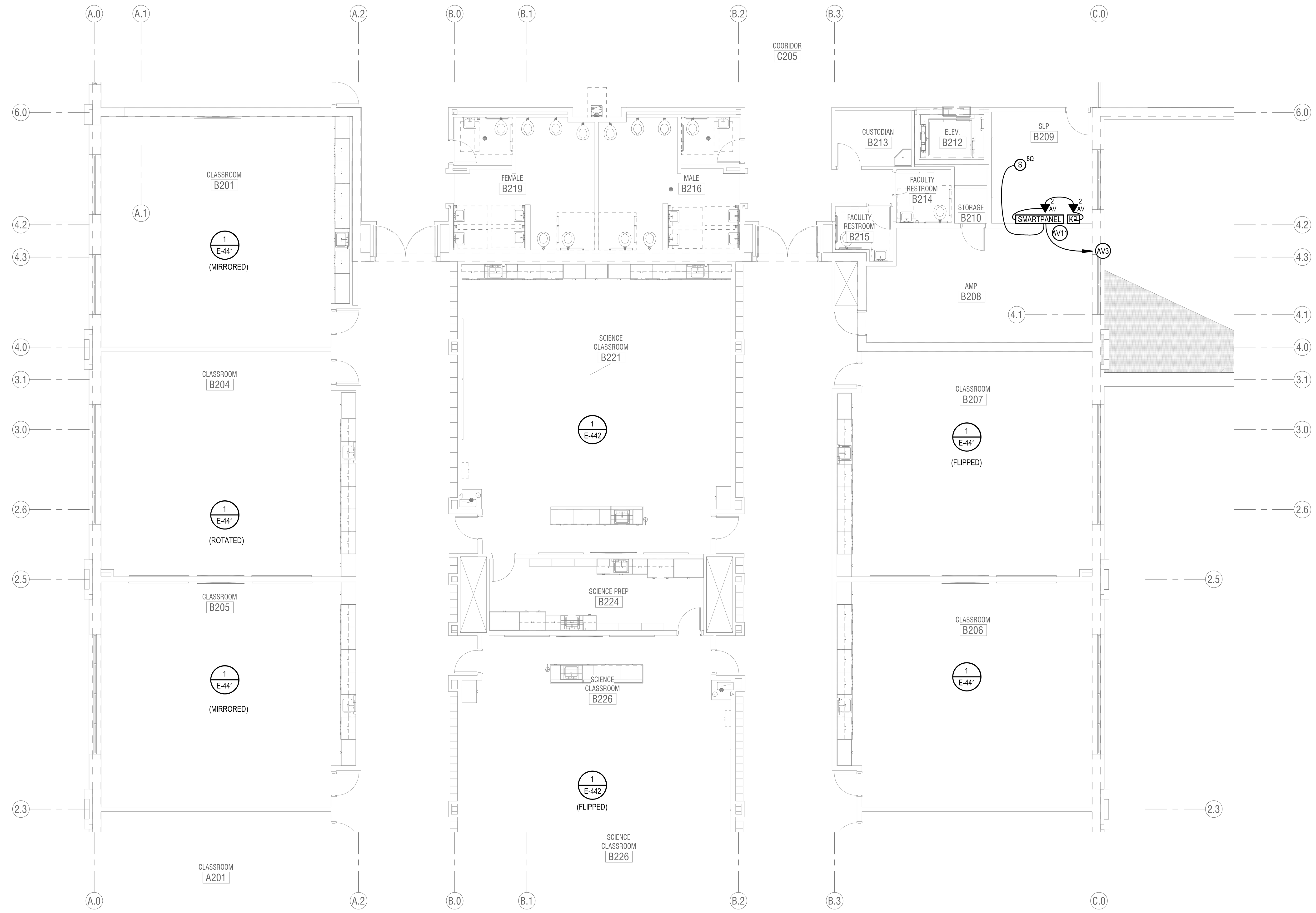
MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. OWEN No. 177411 05-01-2024 STATE OF UTAH

LEVEL 2 - AREA A - AUDIO VISUAL

E-521



1 LEVEL 2 FLOOR PLAN - AREA B - AUDIO VISUAL
SCALE: 1/8" = 1'-0"

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.
2. TO MINIMIZE SIGNAL CROSS TALK, GROUP CABLES ACCORDING TO SIGNALS BEING CARRIED. MAINTAIN SEPARATION BETWEEN POWER AND ALL OTHER CABLE GROUPS OF AT LEAST 24", AND 6" BETWEEN ALL OTHER CABLE GROUPS WHEN RUN IN PARALLEL. GROUPS SHALL BE:
   - A. POWER.
   - B. CONTROL.
   - C. VIDEO.
   - D. MIC LEVEL AUDIO CABLES (LESS THAN -20dBM).
   - E. LINE LEVEL AUDIO CABLES (-20dBM TO +20dBM).
   - F. SPEAKER LEVEL CABLES (+20dBM OR GREATER).
   - G. DATA CABLES.
3. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
4. COLORS OF ALL SOUND DEVICES THAT ARE EXPOSED, INCLUDING INPUT AND OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, SPEAKER ENCLOSURES, SPEAKER MOUNTING HARDWARE, ETC. SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO ORDERING.
5. CABLE ROUTES SHOWN ON DRAWINGS DO NOT ACTUALLY REFLECT THE RACEWAYS. THE RACEWAYS SHALL BE DETERMINED IN THE FIELD.
6. LABEL ALL THE WIRELESS HANDHELD MICROPHONES AND BELT PACKS WITH NAMES OR NUMBERS FOR EASY IDENTIFICATION.
7. REFER TO RISER DIAGRAMS AND EQUIPMENT LISTS FOR THE TYPES AND NUMBERS OF WIRES REQUIRED FOR EACH AV DEVICE.
8. SETUP COMPRESSORS AND LIMITERS IN ALL OF THE DSPS TO PROTECT THE AMPLIFIERS AND SPEAKERS. ALSO, SETUP A PASSWORD ON THE DSPS, TO CONTROL THE ACCESS TO THEM. COORDINATE W. OWNER TO DETERMINE APPROPRIATE PASSWORDS.
9. MOCKUP A TYPICAL CLASSROOM AV SYSTEM FIRST, TEST AND TRY OUT ALL THE FUNCTIONS OF THE SYSTEM AND PERFORMANCE OF EACH AV COMPONENT BEFORE PURCHASING EVERYTHING FOR ALL THE CLASSROOMS.
10. EQUALIZE ALL AUDIO SYSTEMS WITH DSP PRIOR TO SYSTEM COMMISSIONING.
11. AUDIO INPUT AND OUTPUT LEVELS SHALL BE BALANCED. EQUALIZERS SHALL BE SET TO THE FOLLOWING PARAMETERS AS MEASURED IN 1/3 OCTAVE BANDS FROM 10HZ TO 2 KHZ,
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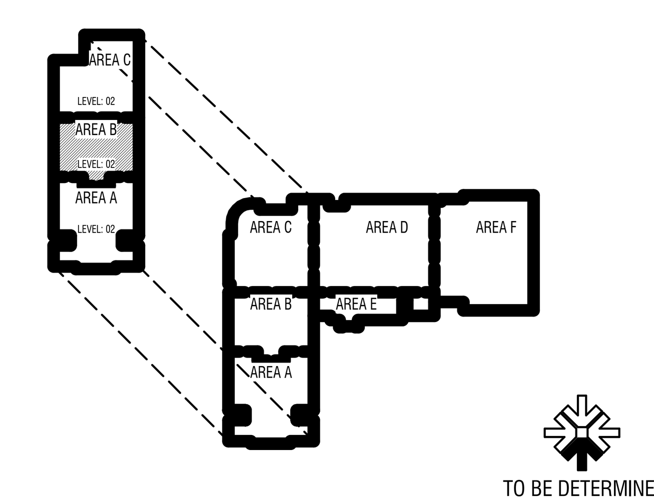
13. ALL CABLES IN PLENUM SPACES SHALL BE PLENUM RATED. WHEN NON-PLENUM CABLE IS SPECIFIED, IN PLENUM SPACES, INTEGRATOR SHALL SUBSTITUTE PLENUM CABLE.

KEYED NOTES

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV11 INSTALL CLASSROOM AMPLIFIER BEHIND DISPLAY.

KEY PLAN



TO BE DETERMINED

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255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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240 E. MORRIS AVE. SUITE 200
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P (801) 534-1130
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:

MARK: DATE:

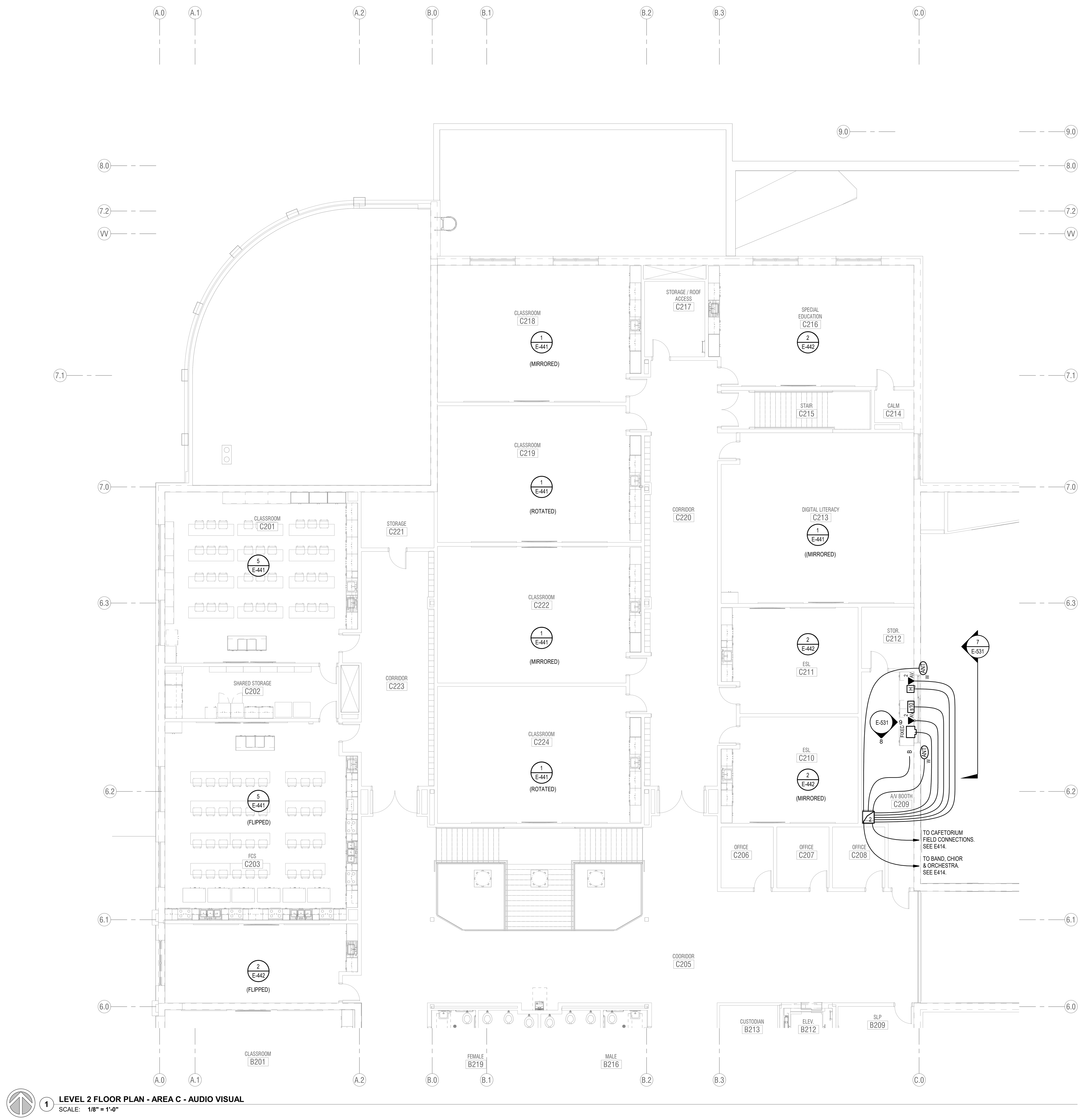
CONSTRUCTION DOCUMENTS

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 2 - AREA B - AUDIO VISUAL

E-522



1 LEVEL 2 FLOOR PLAN - AREA C - AUDIO VISUAL

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

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.

2. TO MINIMIZE SIGNAL CROSS TALK, GROUP CABLES ACCORDING TO SIGNALS BEING CARRIED. MAINTAIN SEPARATION BETWEEN POWER AND ALL OTHER CABLE GROUPS OF AT LEAST 24", AND 6" BETWEEN ALL OTHER CABLE GROUPS WHEN RUN IN PARALLEL. GROUPS SHALL BE:
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   - E. LINE LEVEL AUDIO CABLES (-20dBM TO +20dBM).
   - F. SPEAKER LEVEL CABLES (+20dBM OR GREATER).
   - G. DATA CABLES.

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4. COLORS OF ALL SOUND DEVICES THAT ARE EXPOSED, INCLUDING INPUT AND OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, SPEAKER ENCLOSURES, SPEAKER MOUNTING HARDWARE, ETC. SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO ORDERING.

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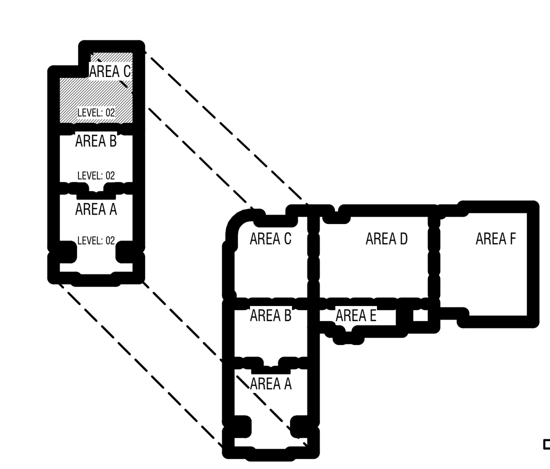
KEYED NOTES #

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

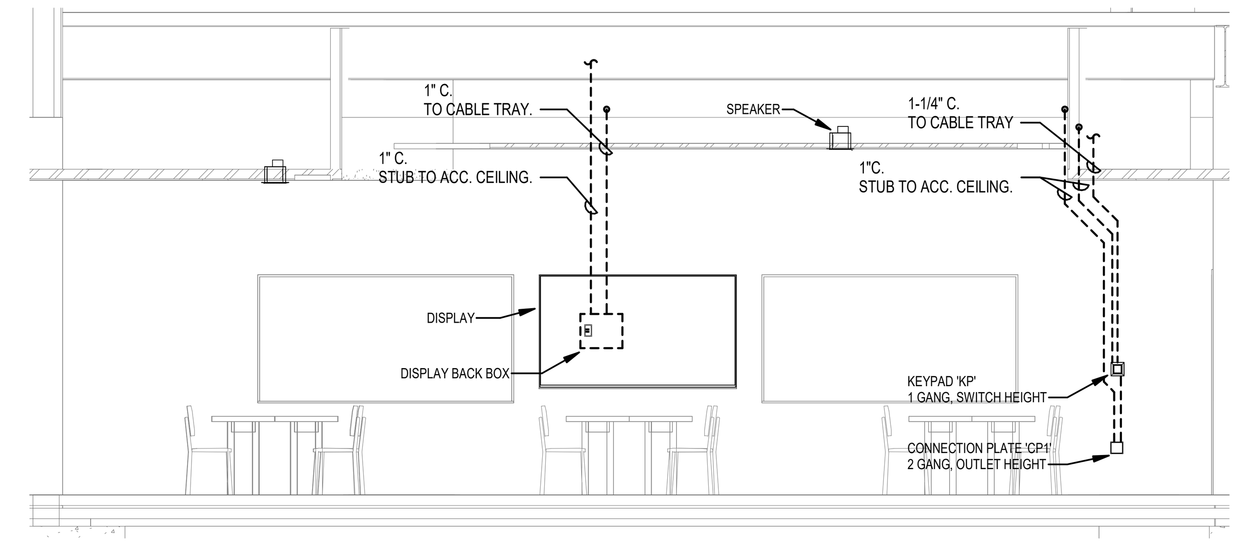
CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

MARK: DATE: DESCRIPTION:

LEVEL 2 - AREA C - AUDIO VISUAL

E-523



1 ENLARGED MEDIA CENTER 178 SECTION 1
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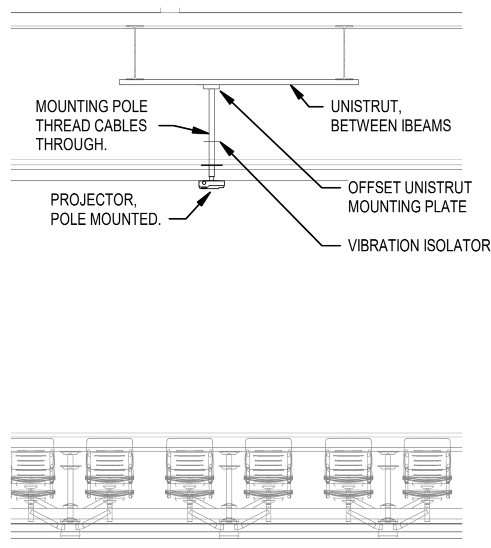
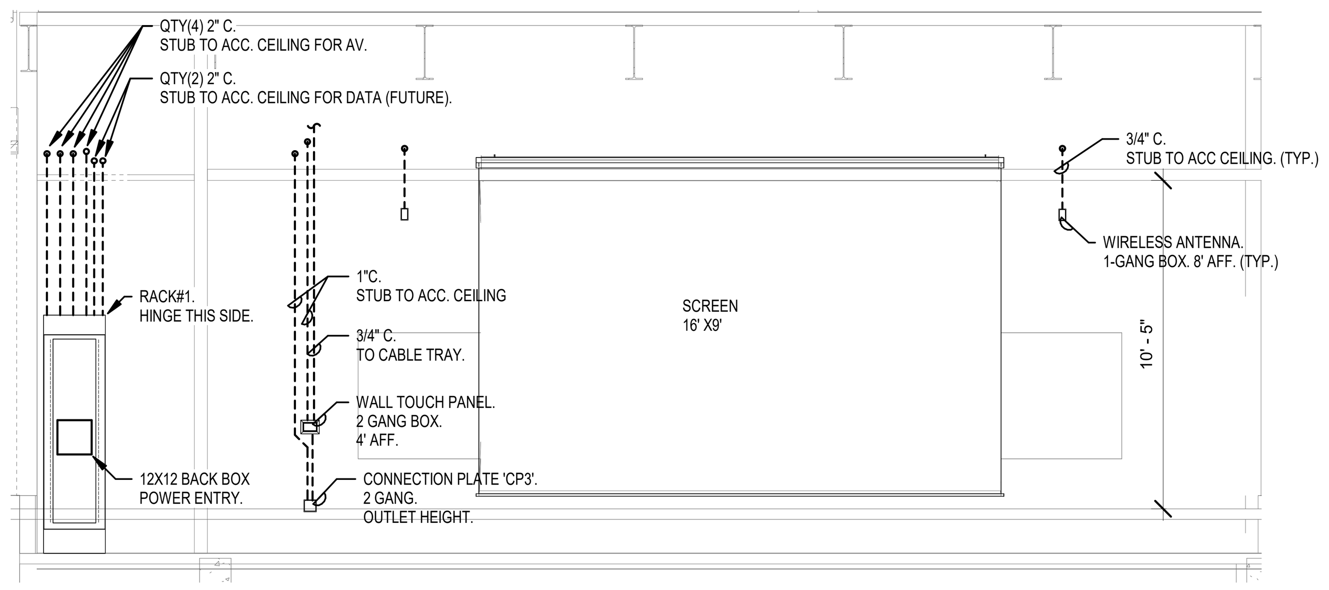


4 FORUM PROJECTOR MOUNTING ELEVATION
SCALE: 1/4" = 1'-0"



2 FORUM AV ELEVATION FRONT
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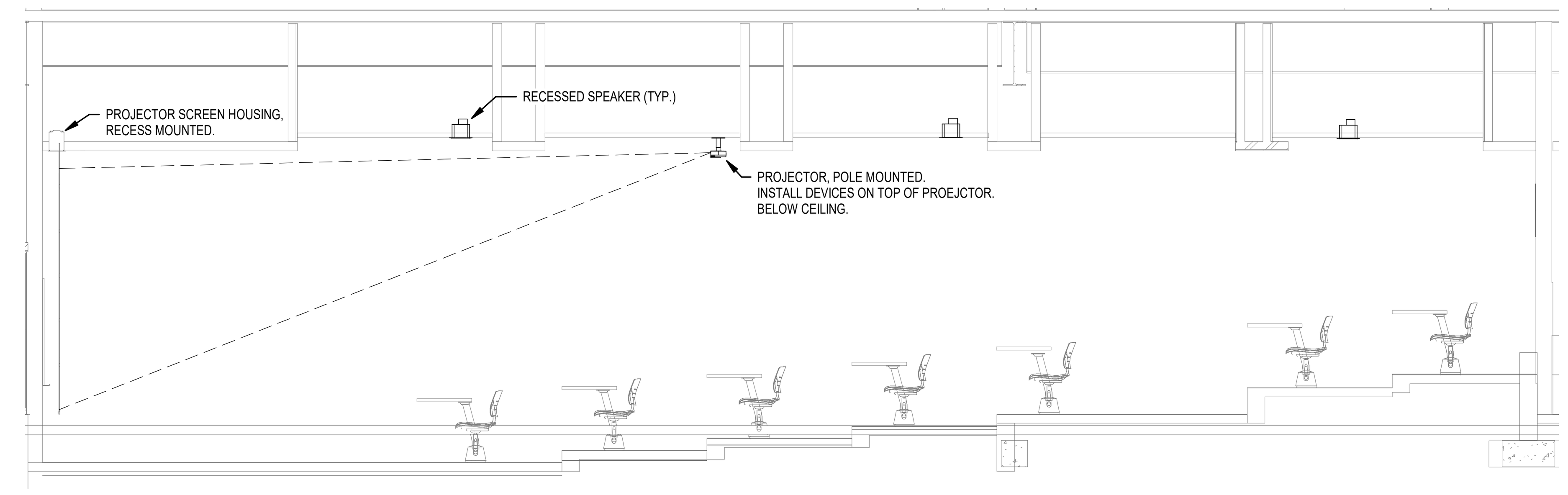

3 ENLARGED FORUM 701 SECTION 1
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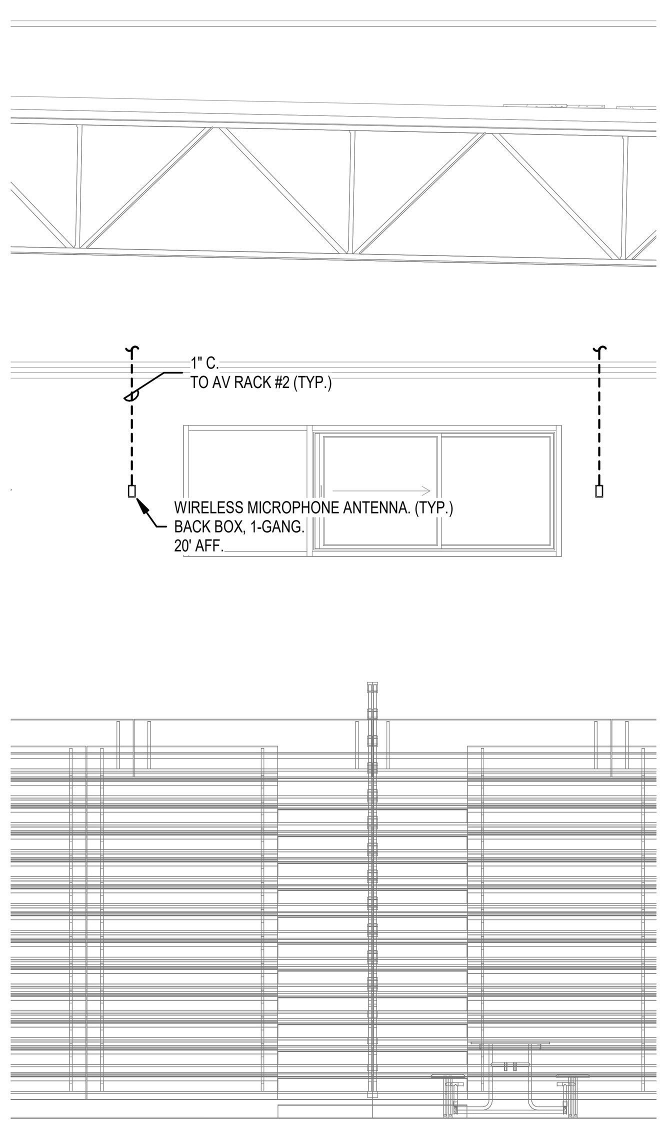
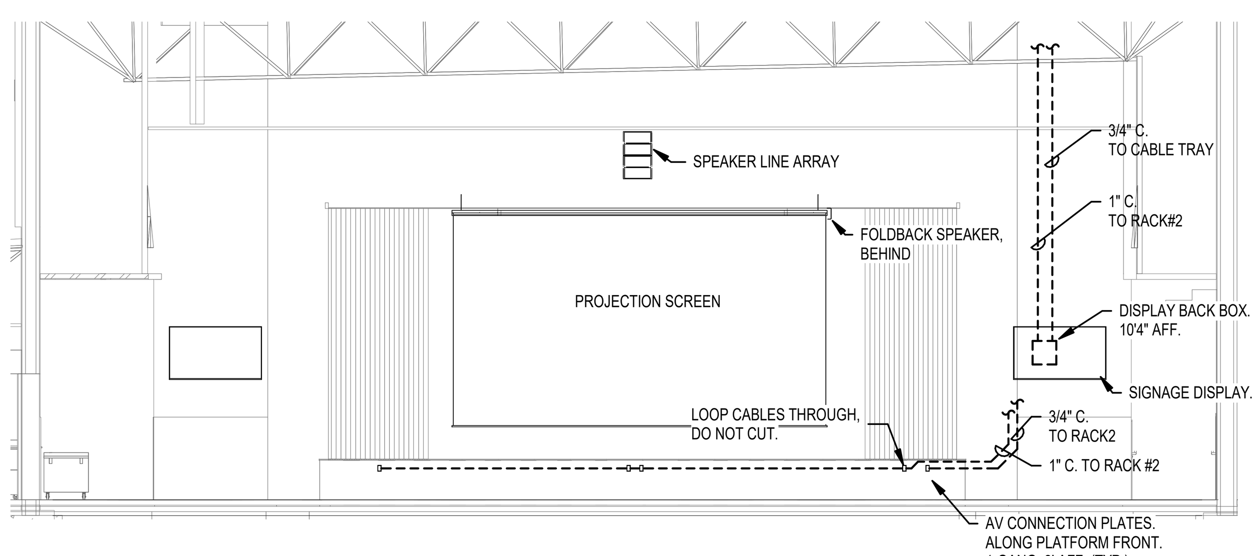
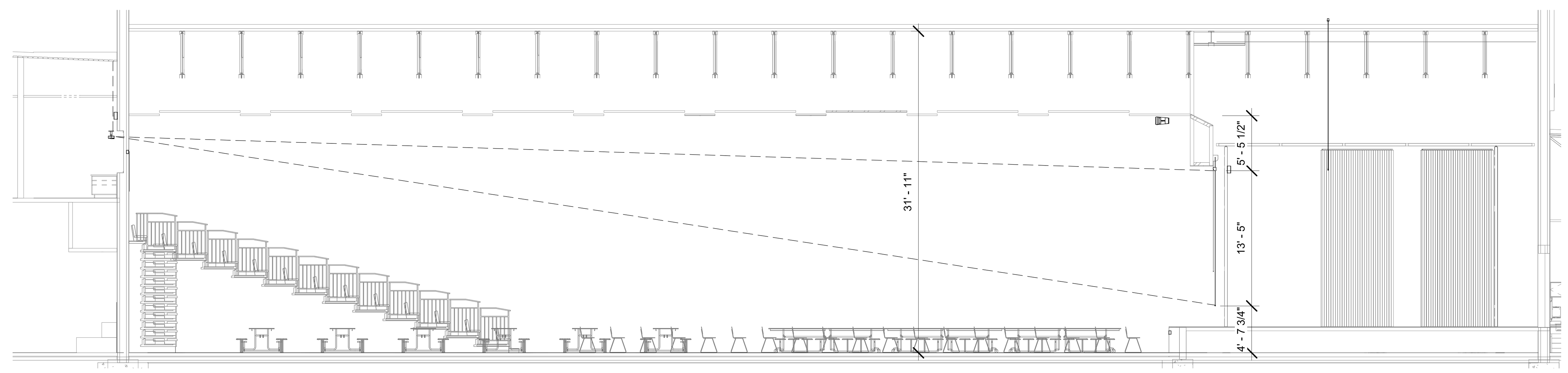


7 CAFETORIUM AV WIRELESS MIC ANTENNA ELEVATION
SCALE: 1/4" = 1'-0"



6 ENLARGED CAFETORIUM 348 SECTION 2
SCALE: 1/8" = 1'-0"



5 ENLARGED CAFETORIUM 348 SECTION 1
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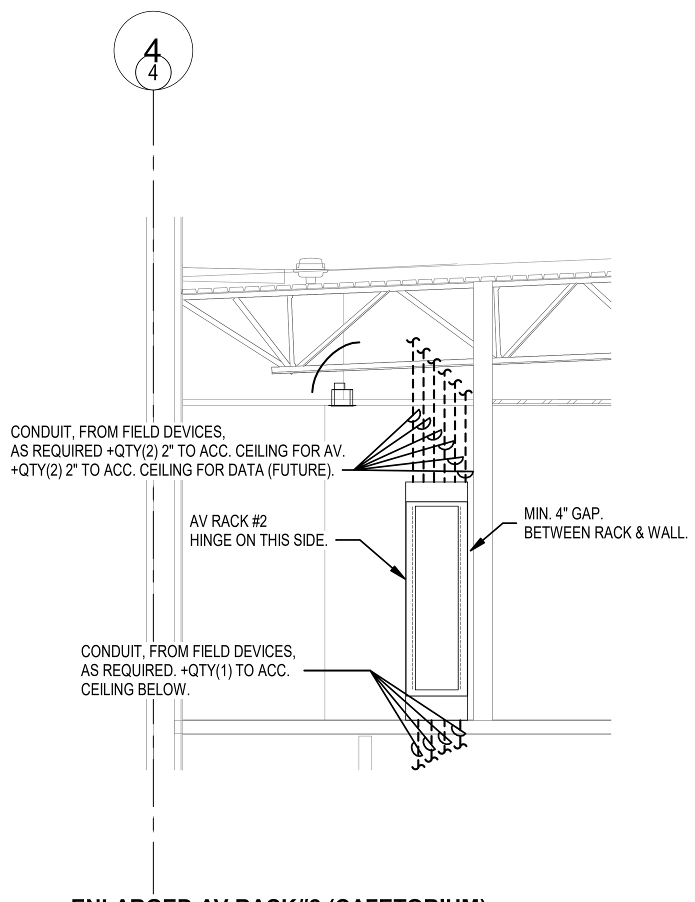
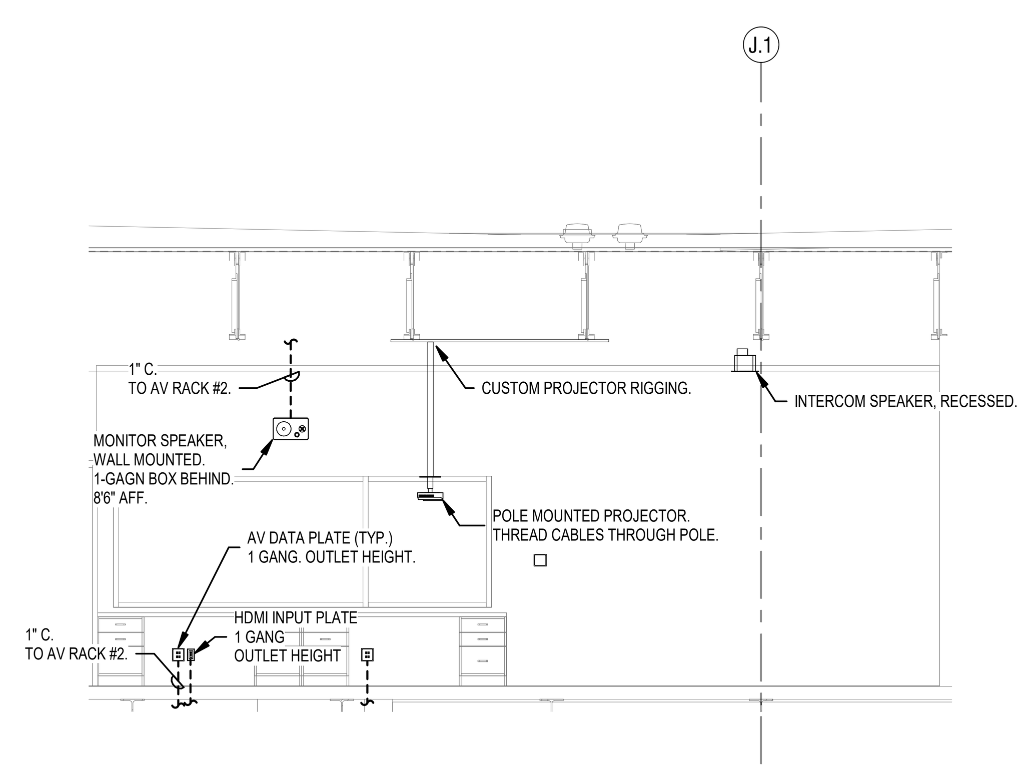


8 ENLARGED AV RACK#2 (CAFETORIUM) ELEVATION
SCALE: 1/4" = 1'-0"



9 ENLARGED AV ROOM DESK ELEVATION
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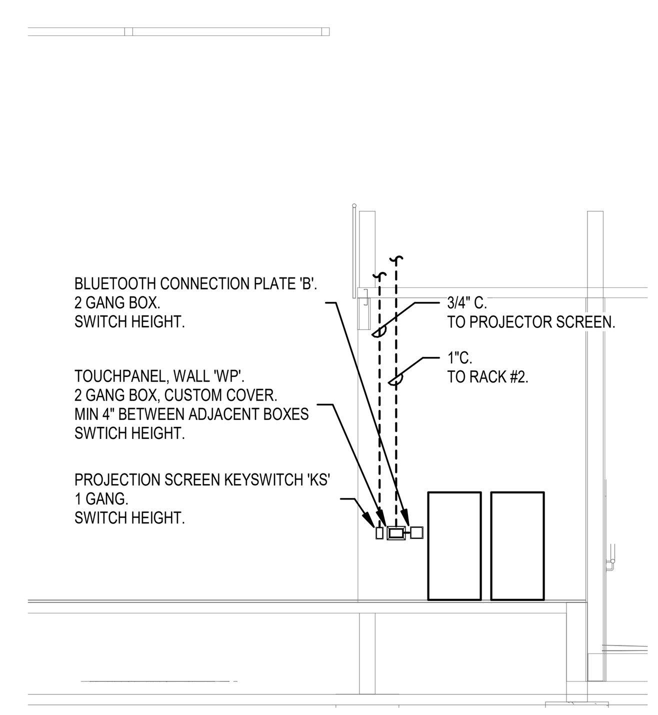

10 CAFETORIUM AV CONTROLS ELEVATION
SCALE: 1/4" = 1'-0"

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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F (801) 534-1080
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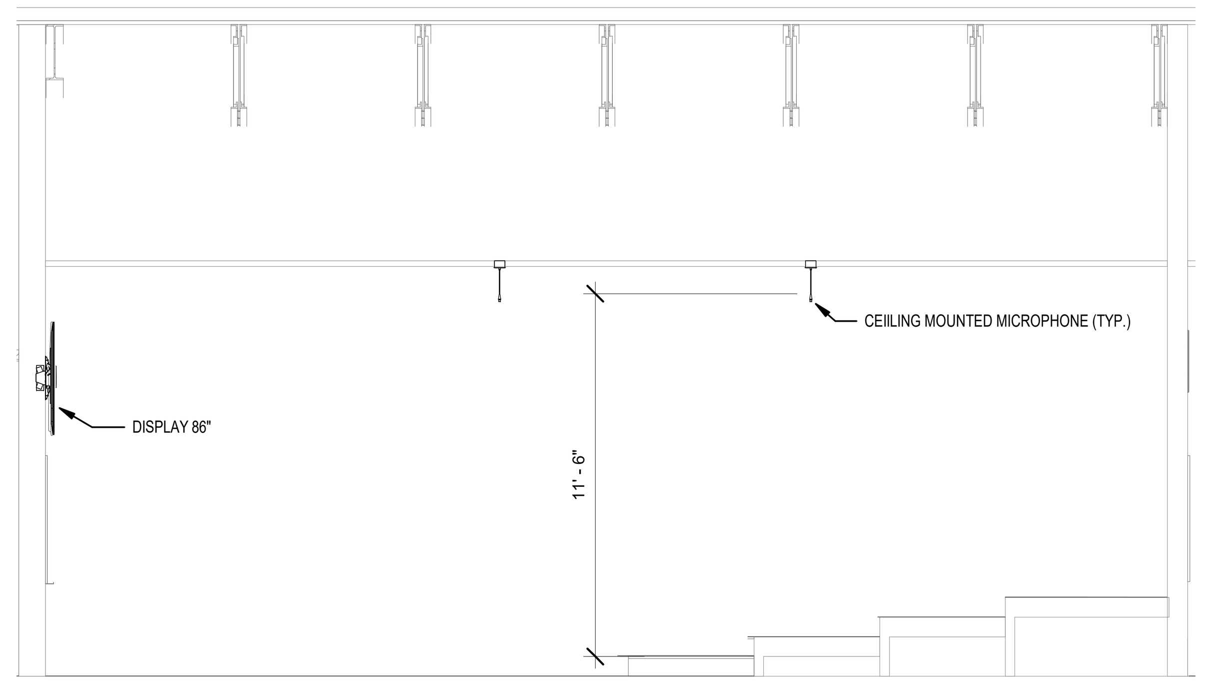
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

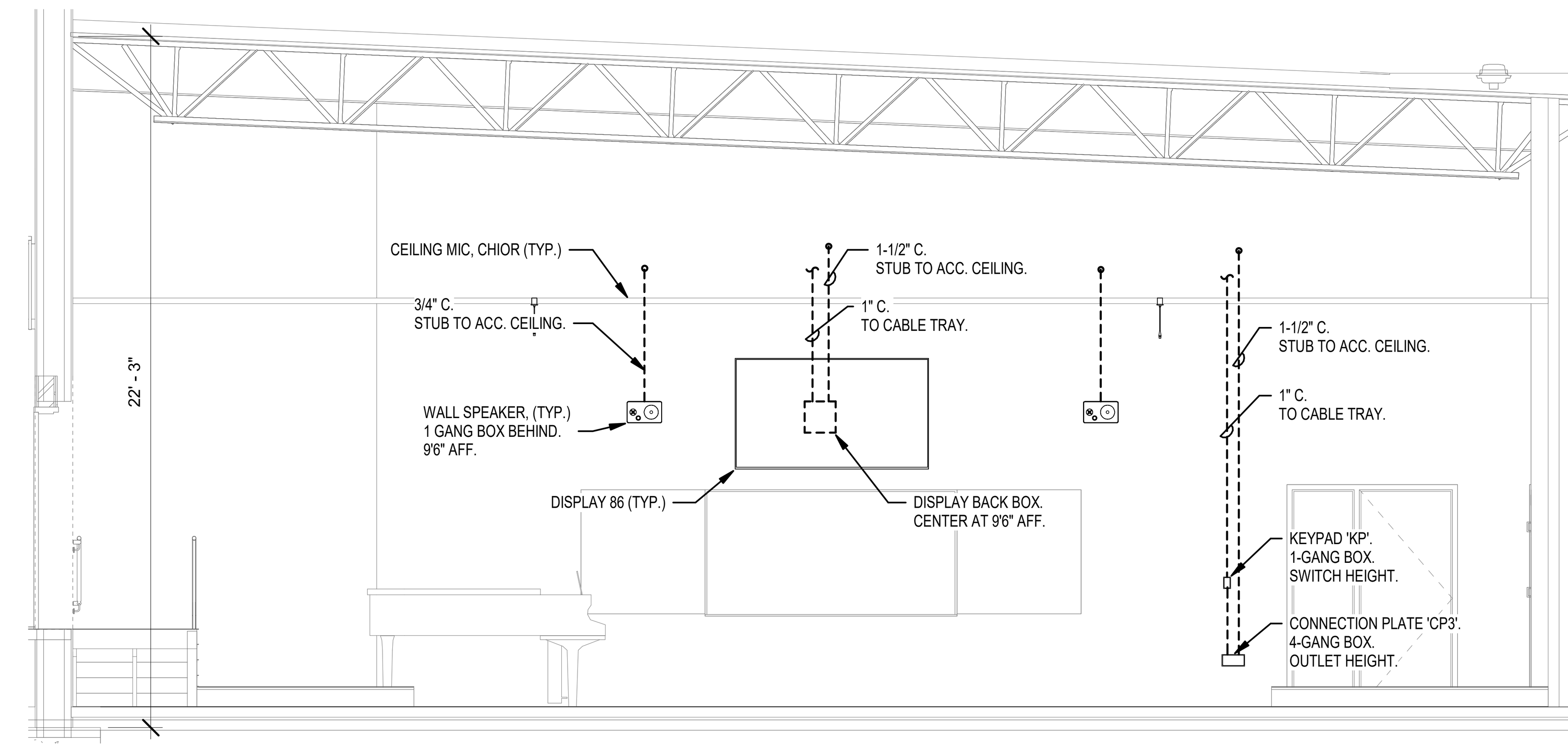
PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

AUDIO VISUAL SECTIONS AND ELEVATIONS

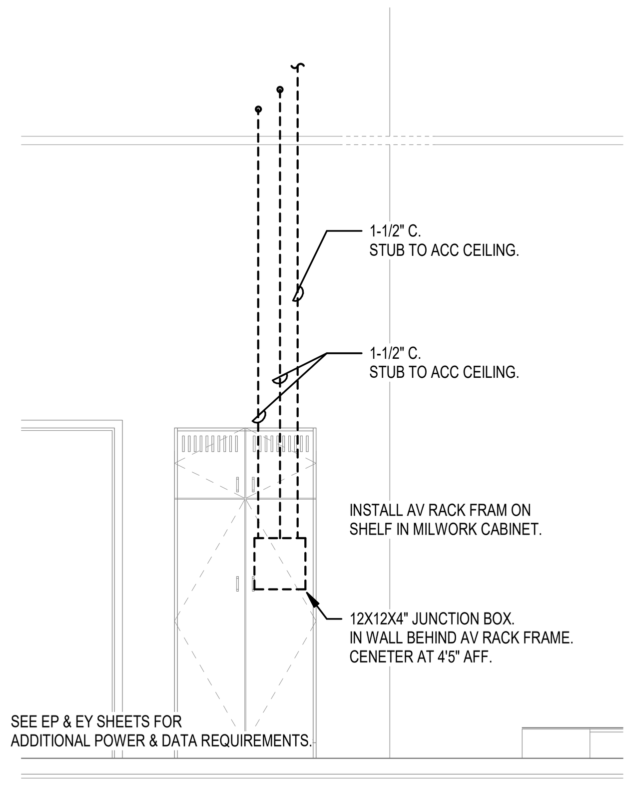
E-531



2 **ENLARGED CHOIR/DRAMA SECTION 2**
SCALE: **1/4" = 1'-0"**



1 **ENLARGED CHOIR/DRAMA SECTION 1**
SCALE: **1/4" = 1'-0"**



7 **ENLARGED BAND, CHOIR & ORCHESTRA MILLWORK AV RACK ELEVATION (TYP.)**
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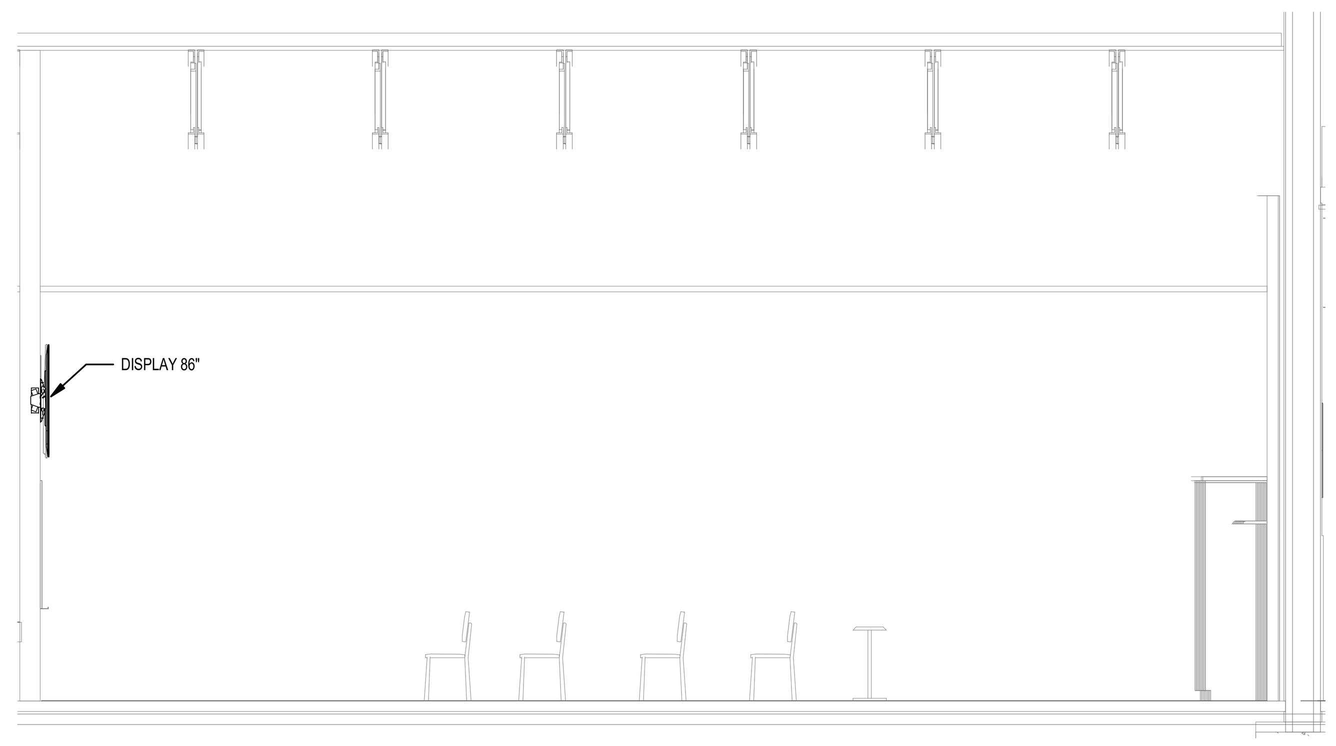

4 **ENLARGED ORCHESTRA SECTION 2**
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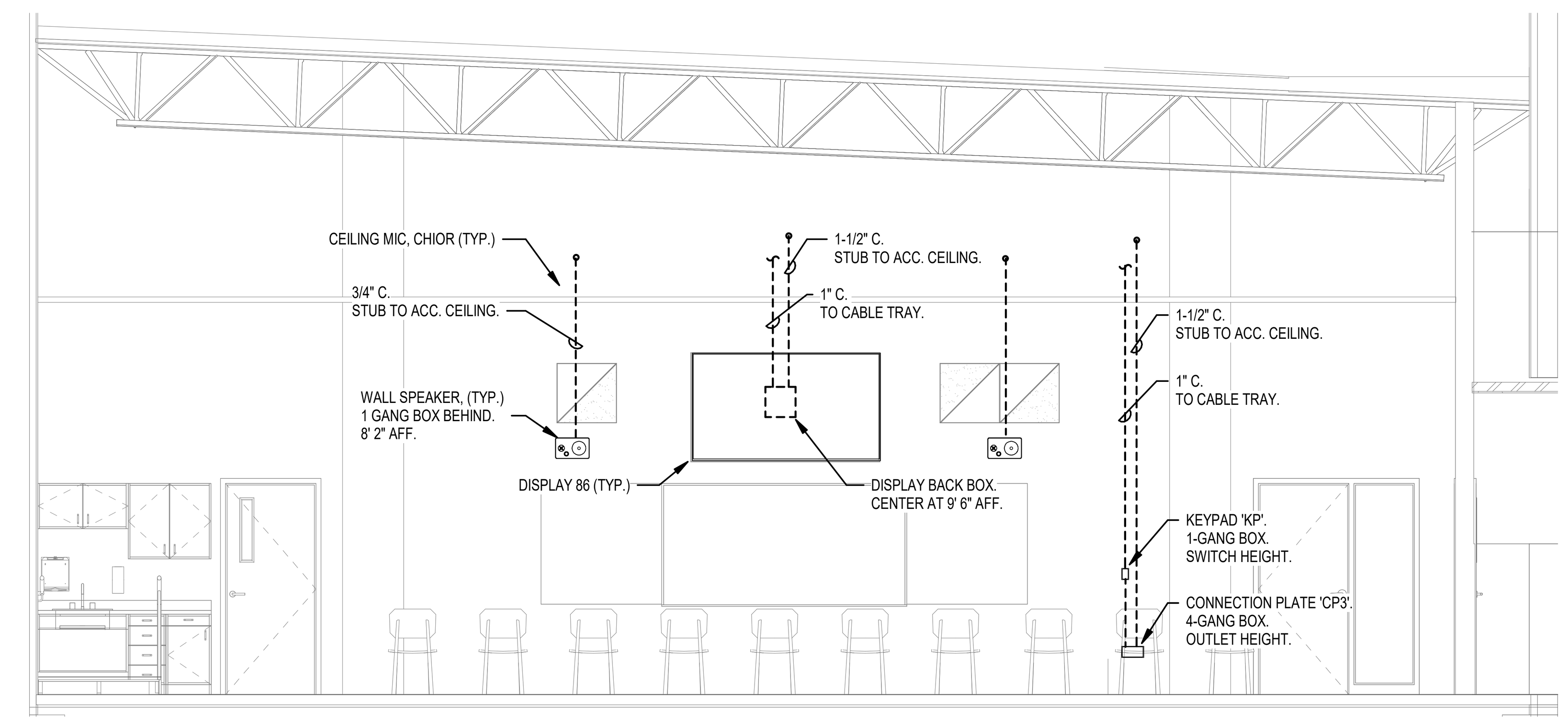

6 **ENLARGED ORCHESTRA SECTION 1**
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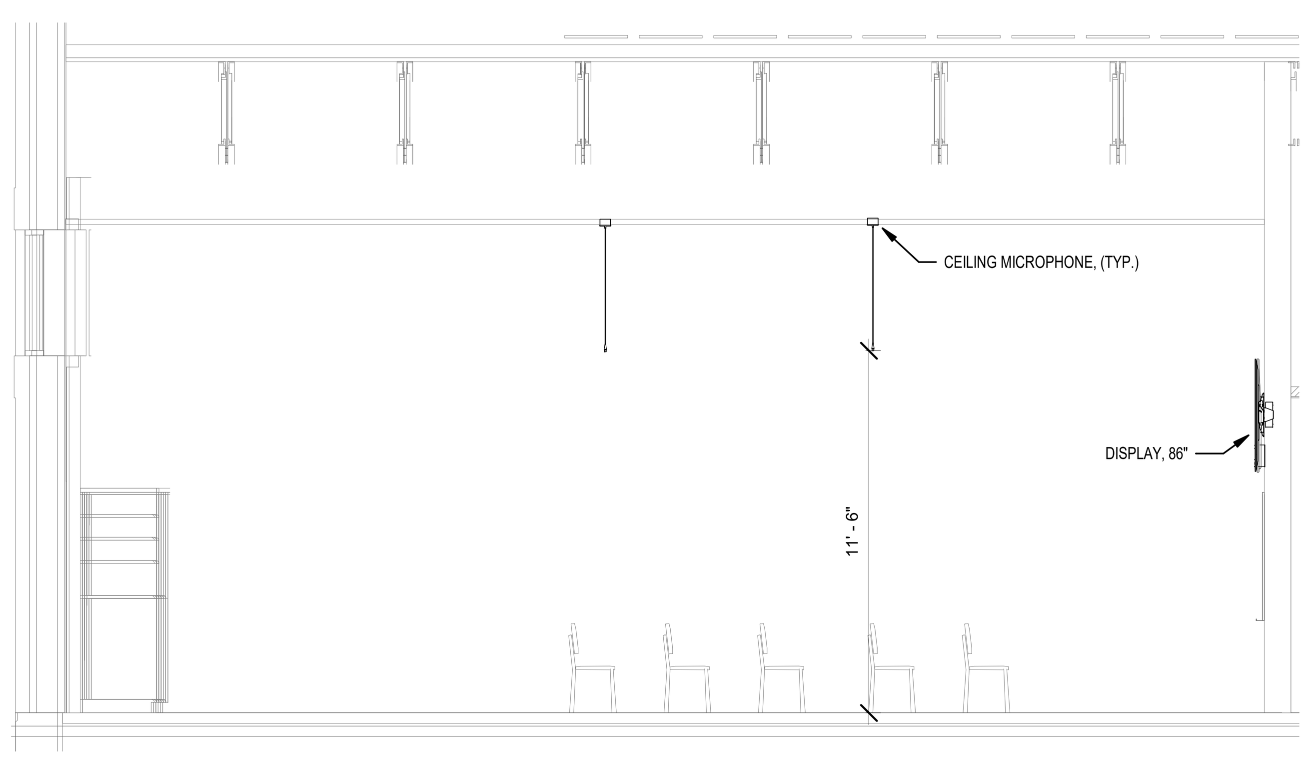

3 **ENLARGED BAND SECTION 2**
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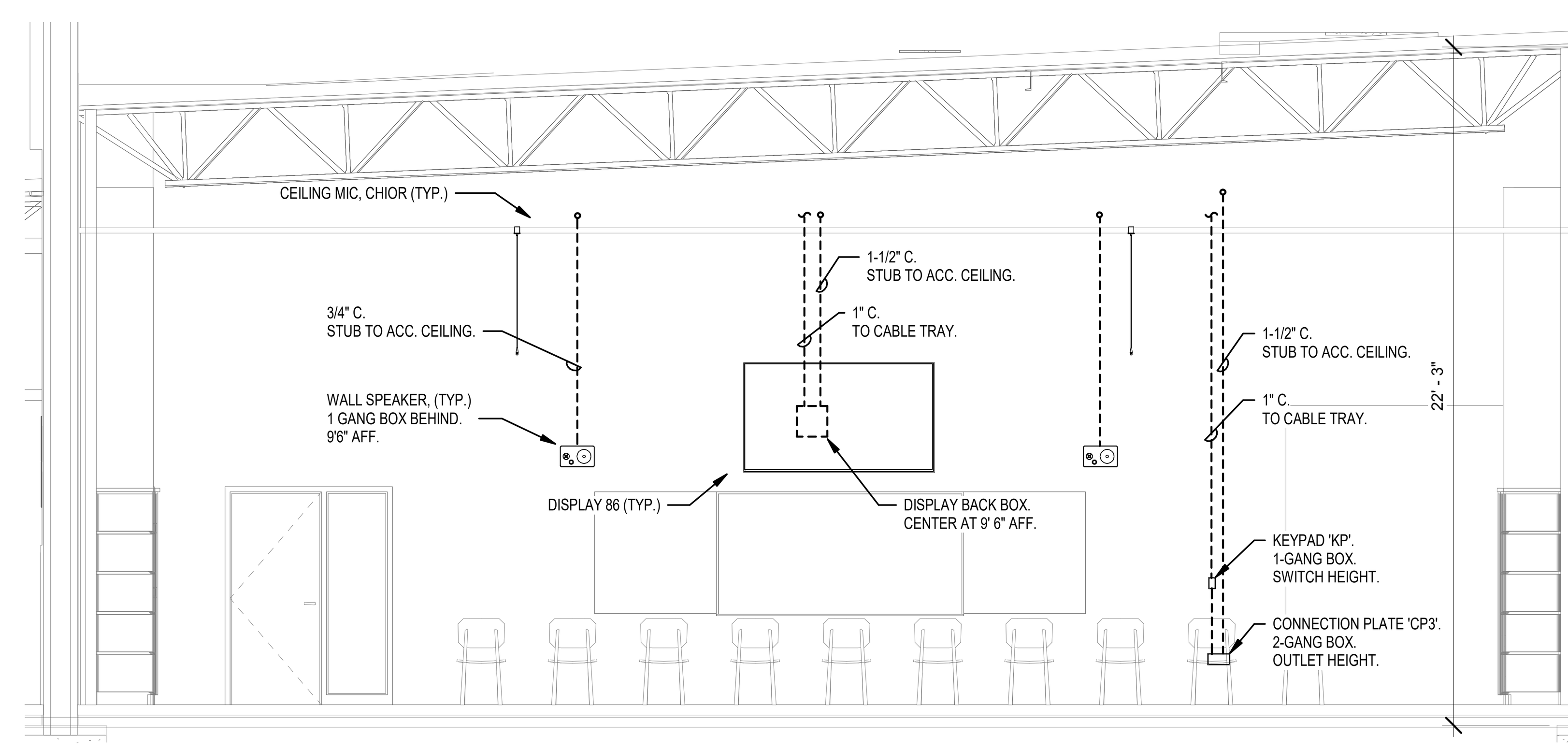

5 **ENLARGED BAND SECTION 1**
SCALE: **1/4" = 1'-0"**

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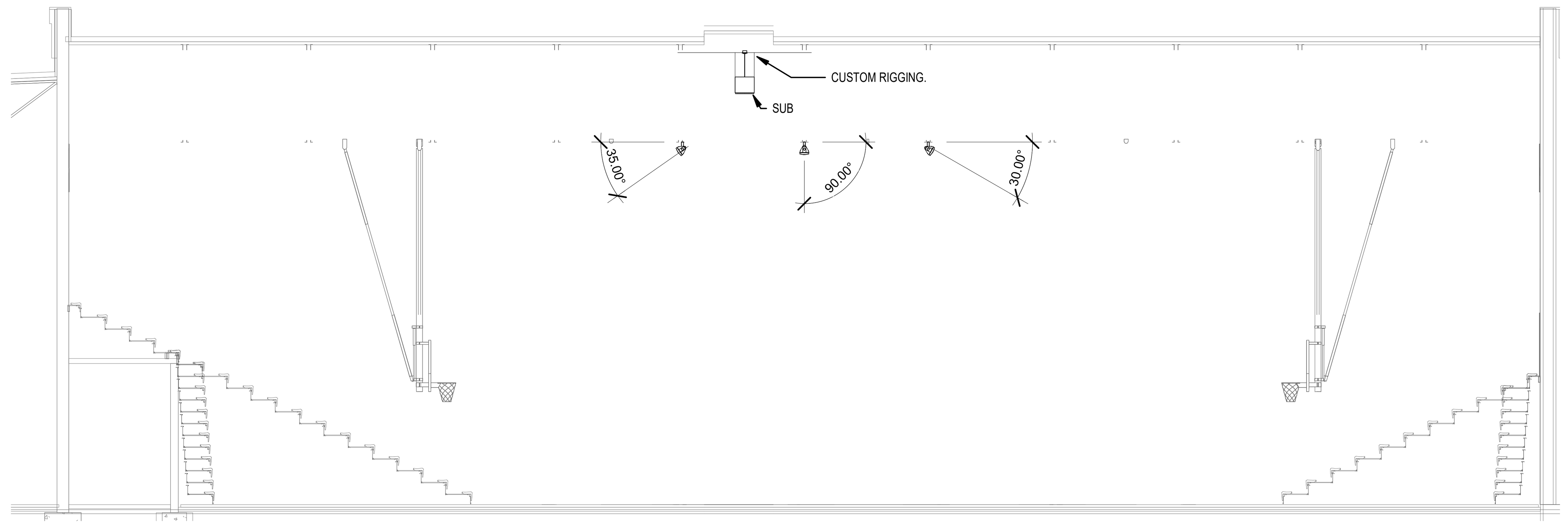
REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

AV -MUSIC ROOMS - SECTIONS AND ELEVATIONS

E-532



2 **ENLARGED GYMNASIUMS 610 SECTION 2**
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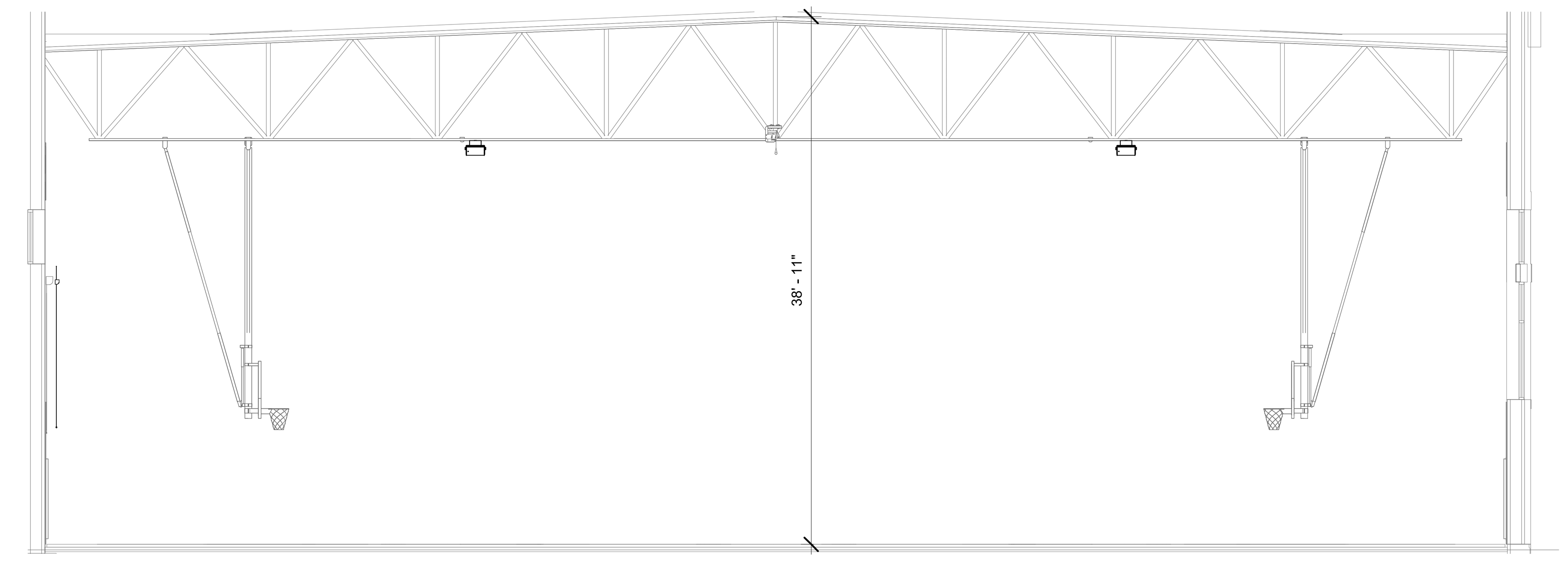

1 **ENLARGED GYMNASIUMS 610 SECTION 1**
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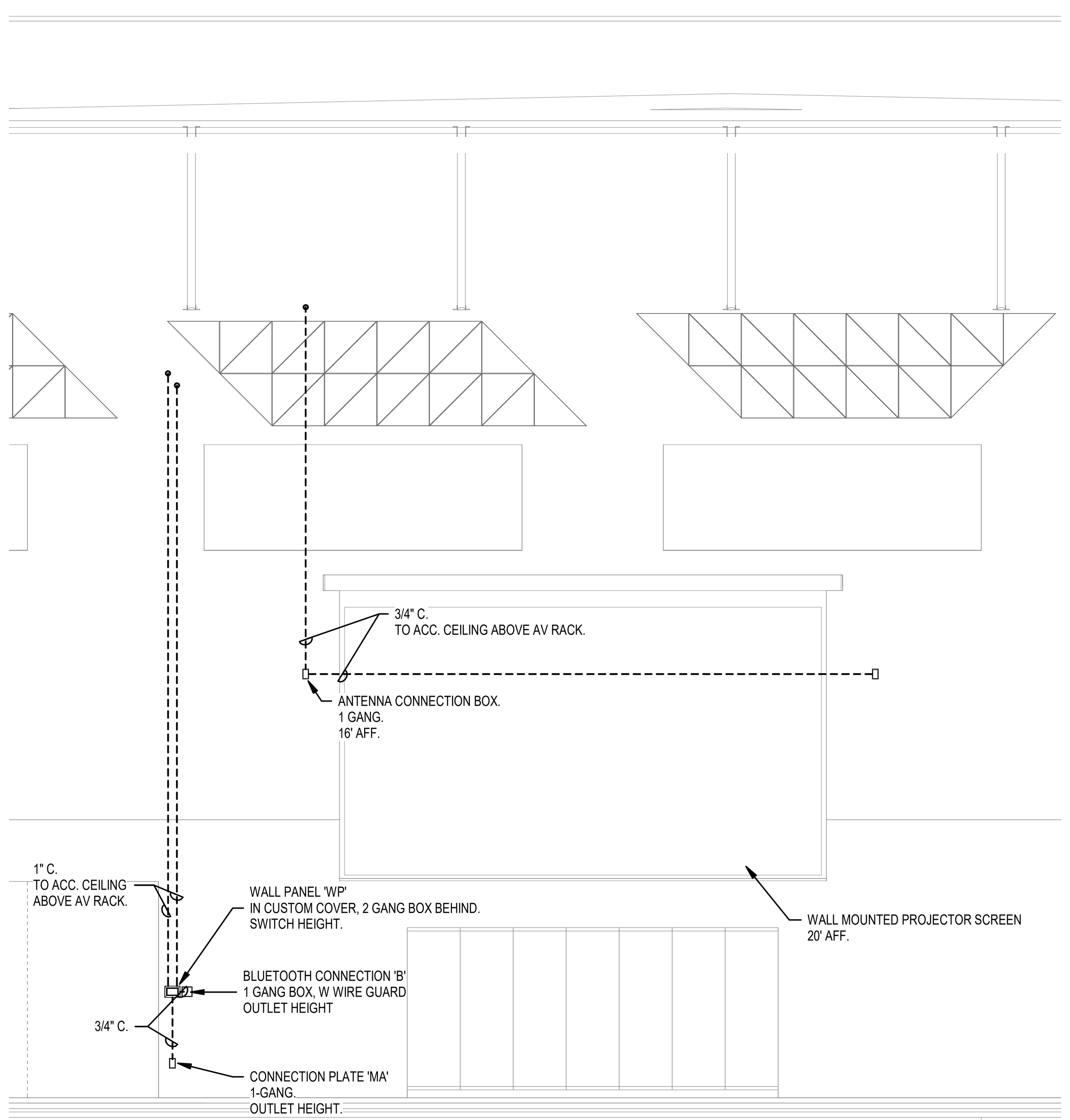
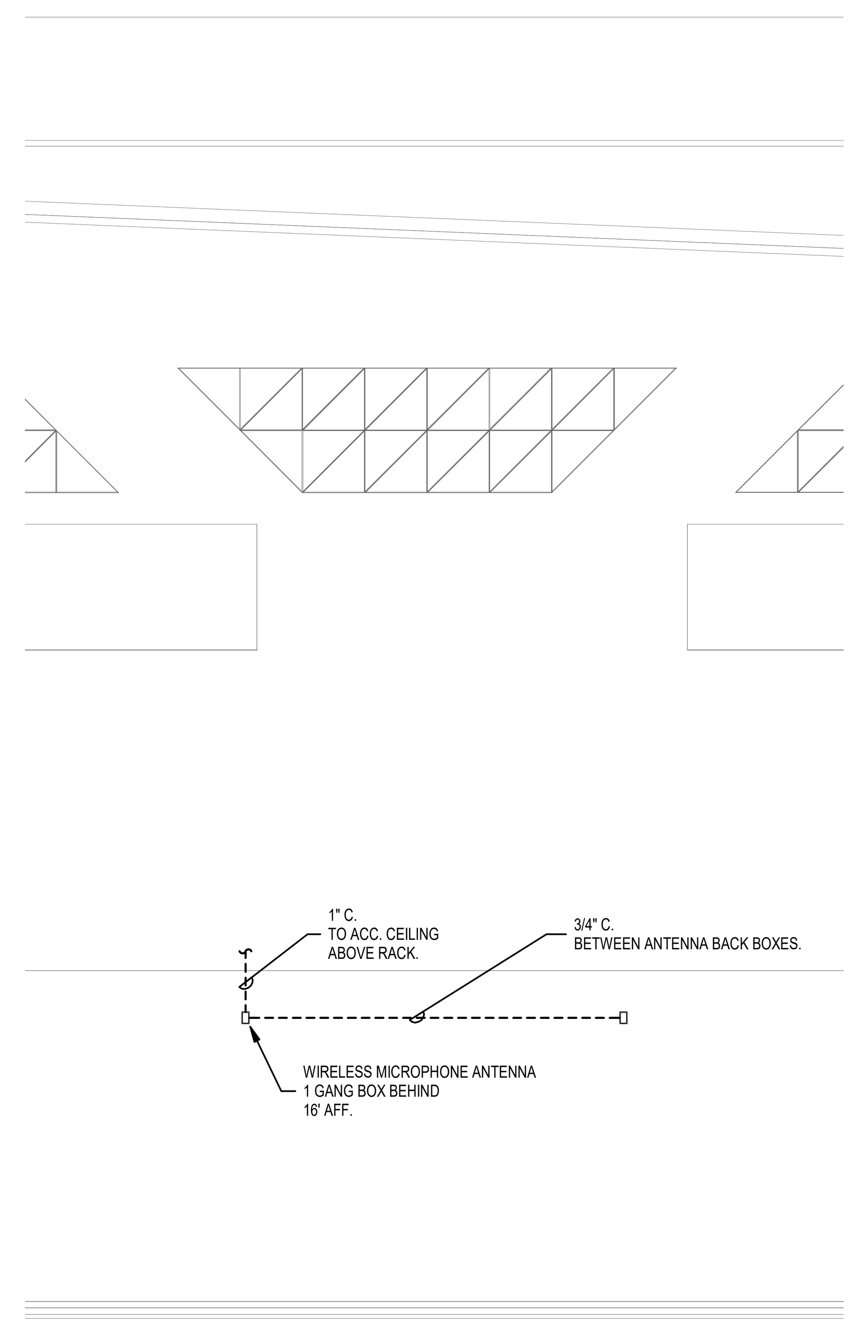
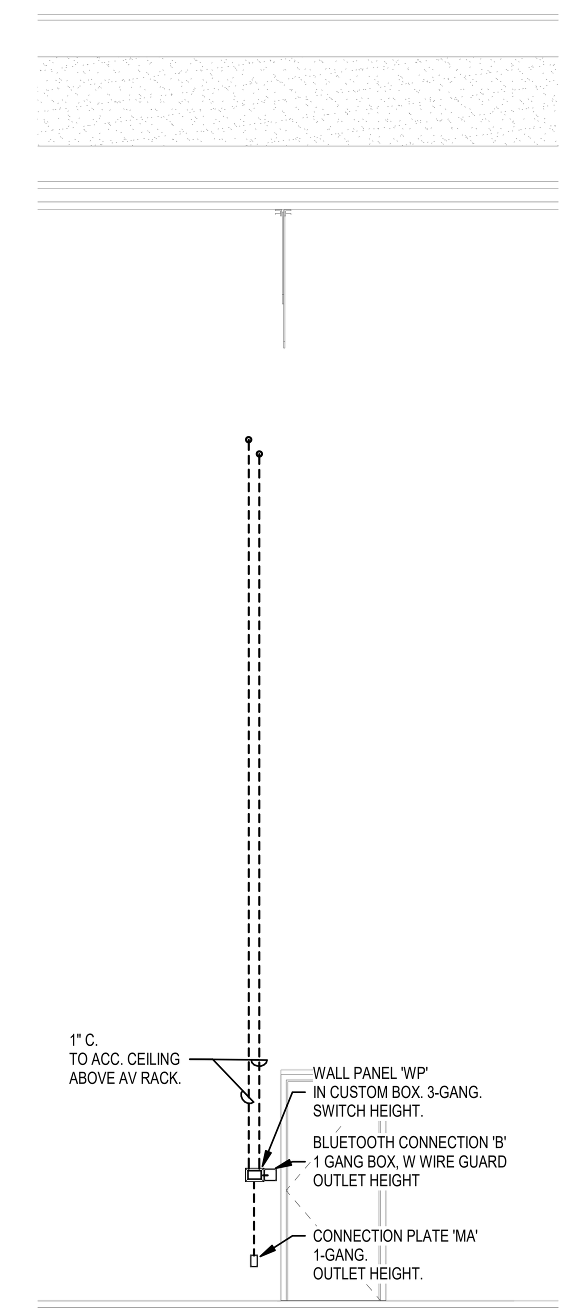


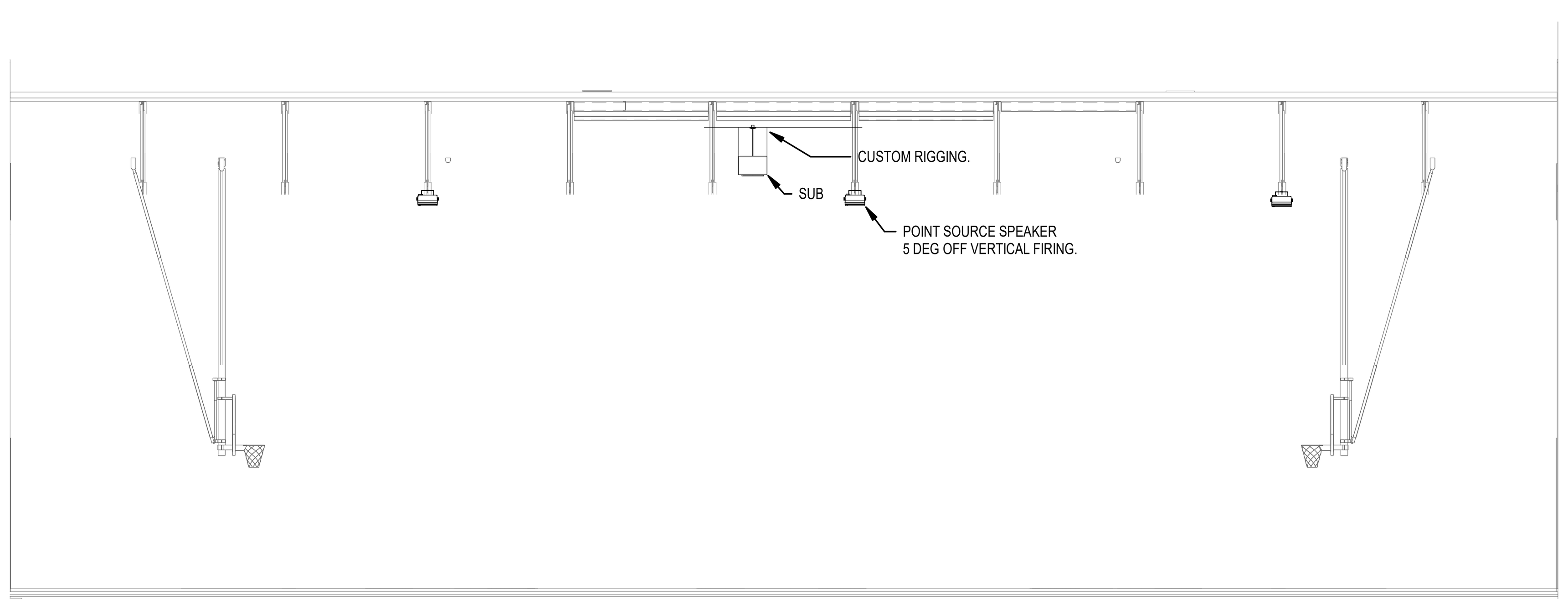
3 **GYM PROJECTOR WALL ELEVATION**
SCALE: **1/4" = 1'-0"**



4 **ENLARGED AUX GYM WIRELESS MIC ANTENNA ELEVATION**
SCALE: **1/4" = 1'-0"**



6 **ENLARGED AUX GYM AV CONTROLS ELEVATION**
SCALE: **1/4" = 1'-0"**



5 **ENLARGED AUX GYM SECTION 1**
SCALE: **1/8" = 1'-0"**

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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CHECKED BY: AH
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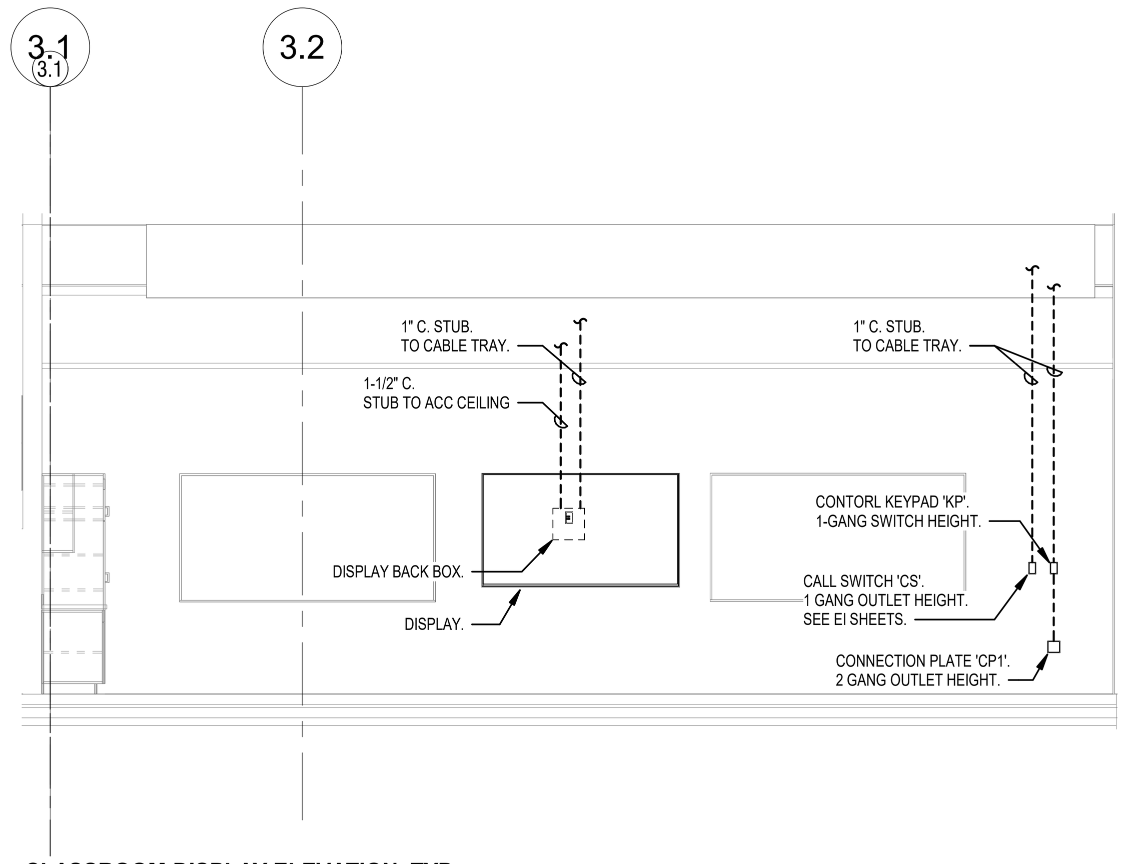
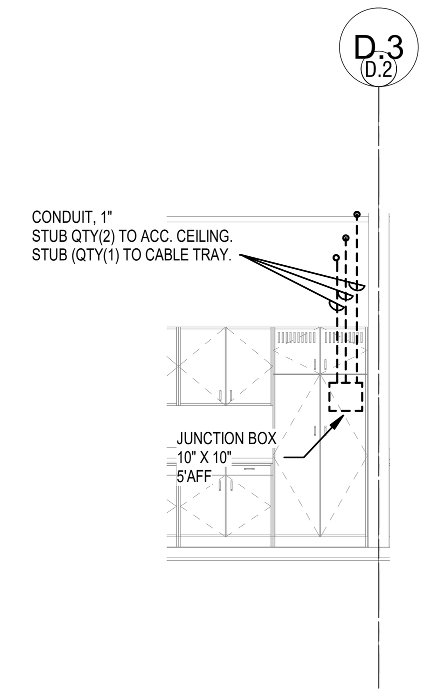
REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

AV - GYM - SECTIONS AND ELEVATIONS

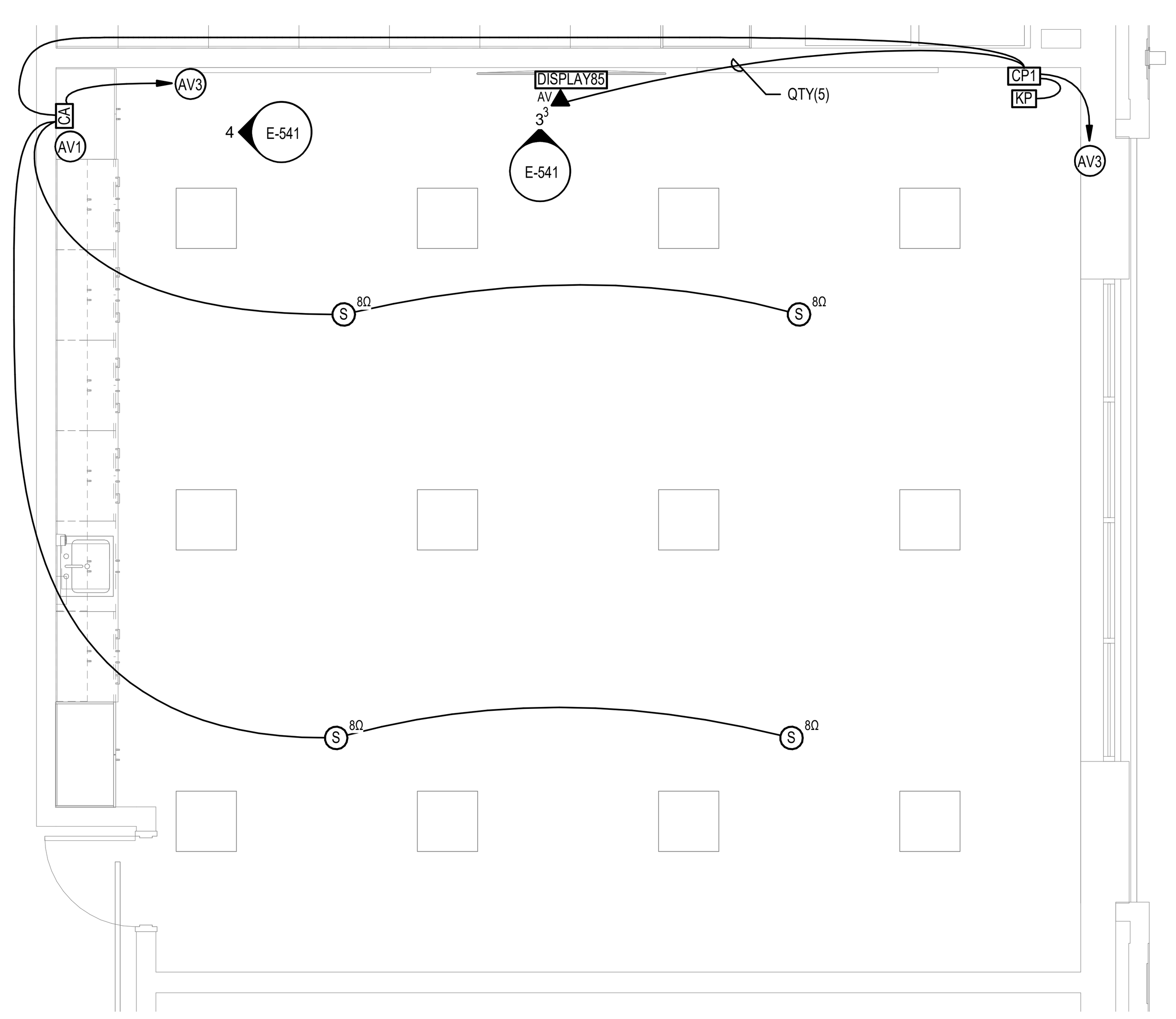
E-533



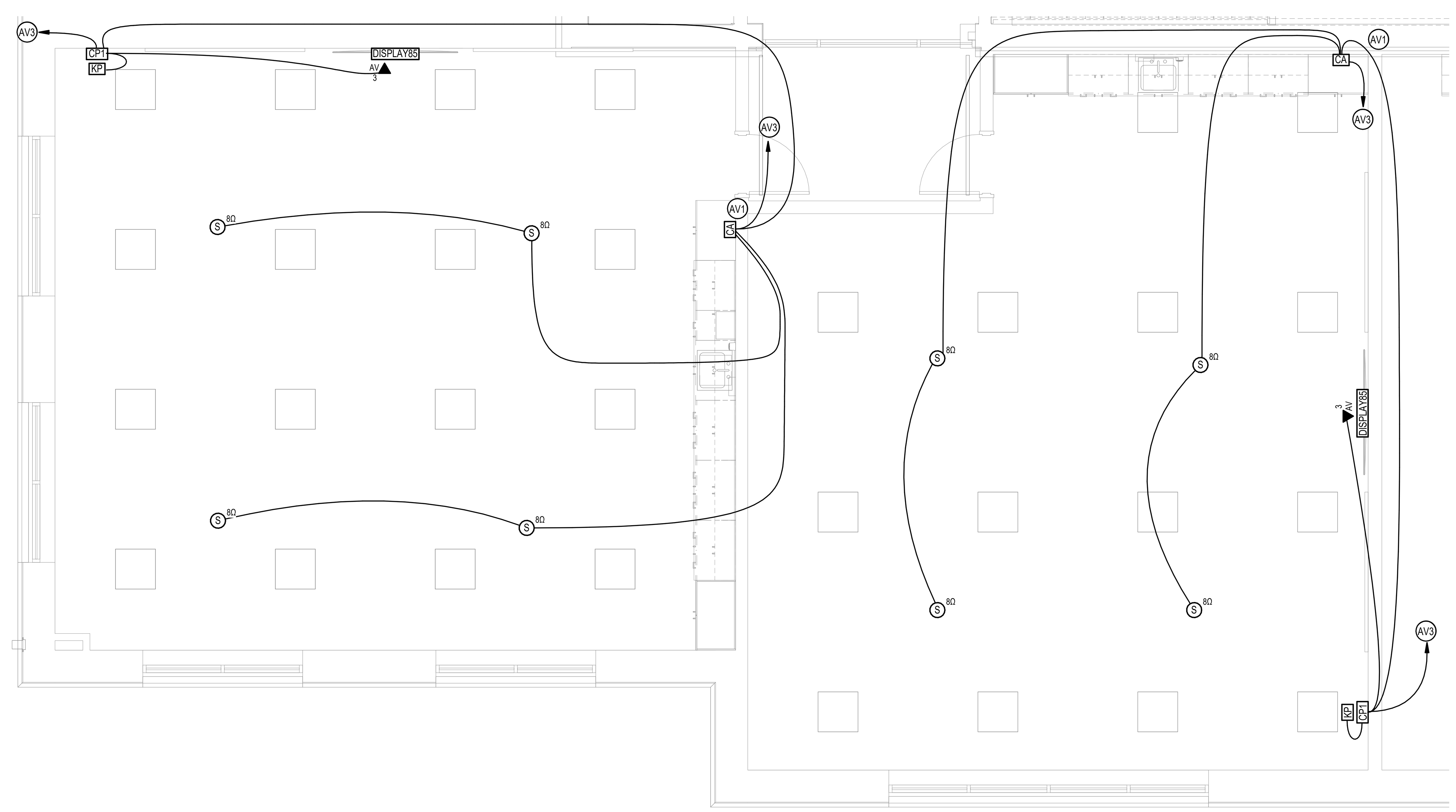
3 **CLASSROOM DISPLAY ELEVATION, TYP.**
SCALE: 1/4" = 1'-0"



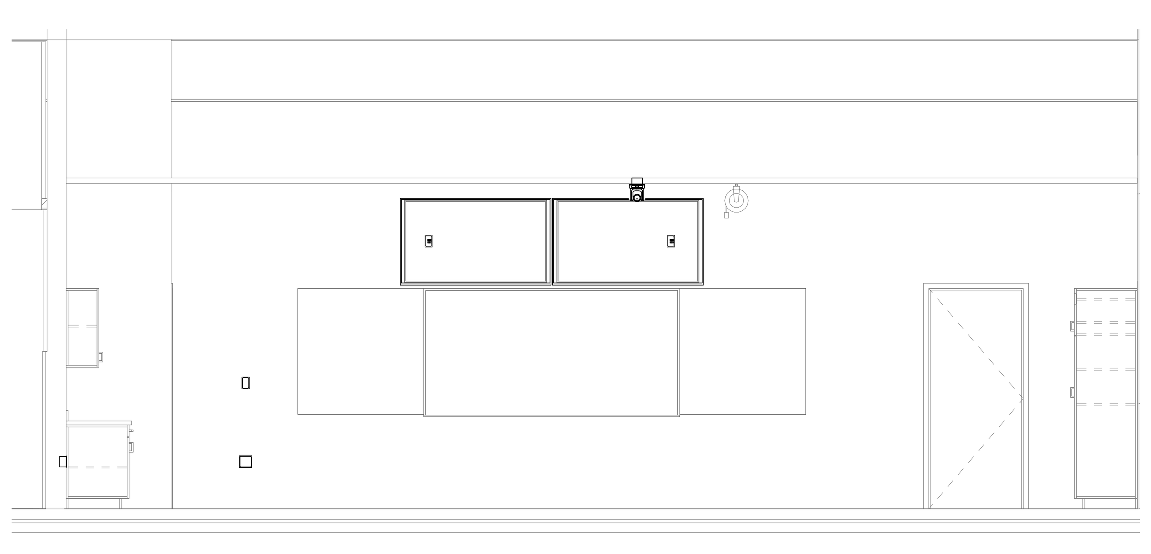
4 **CLASSROOM JUNCTION BOX ELEVATION**
SCALE: 1/4" = 1'-0"



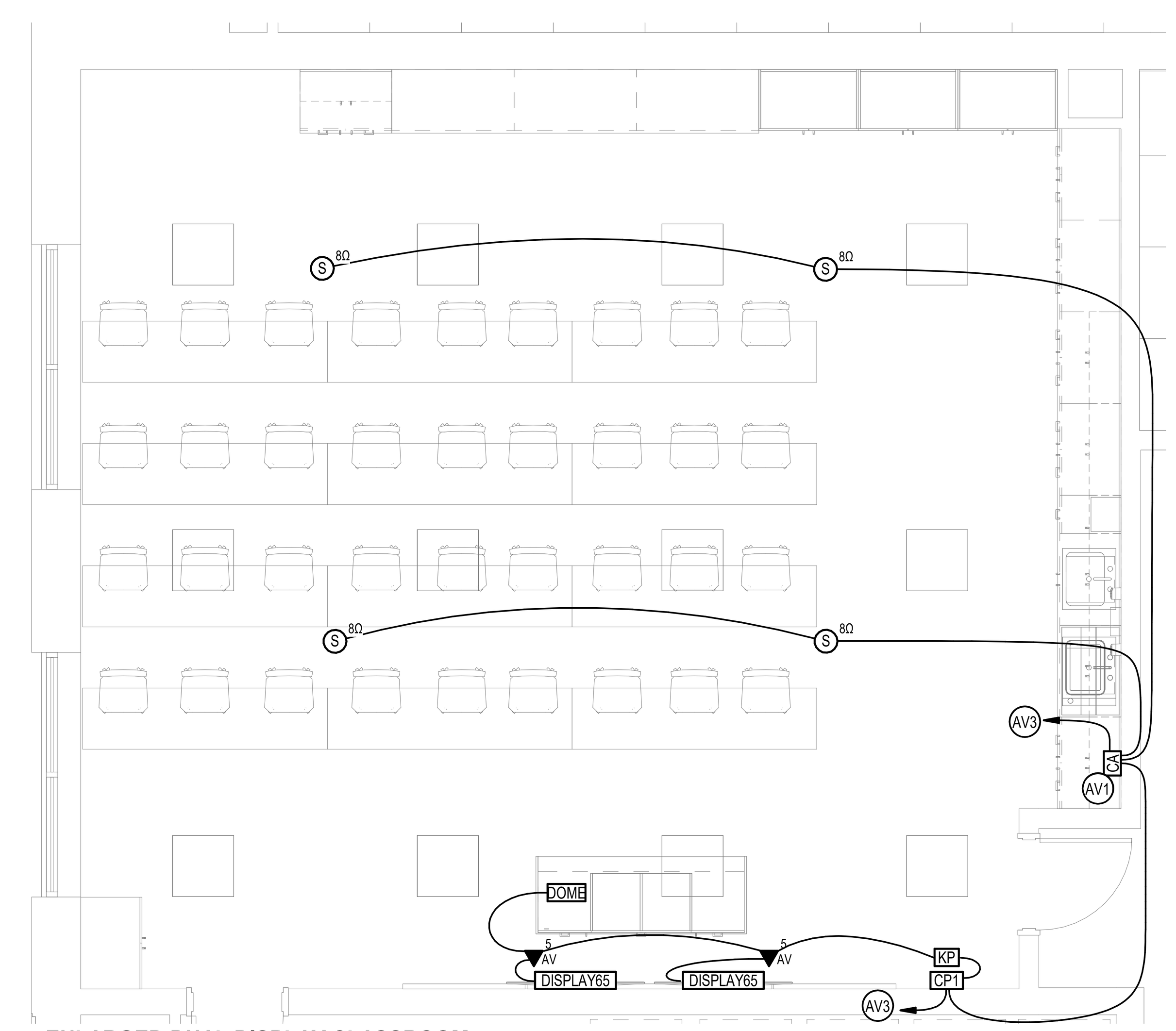
1 **ENLARGED CLASSROOM A/V - PLANS**
SCALE: 1/4" = 1'-0"



2 **ENLARGED ALTERNATE CLASSROOM**
SCALE: 1/4" = 1'-0"



6 **ENLARGED DUAL DISPLAY CLASSROOM TEACHING WALL ELEEVATION**
SCALE: 1/4" = 1'-0"



5 **ENLARGED DUAL DISPLAY CLASSROOM**
SCALE: 1/4" = 1'-0"

AUDIO VISUAL GENERAL NOTES:

1. NO CHANGES SHALL BE MADE WITHOUT THE AV CONSULTANT'S WRITTEN CONSENT.
2. TO MINIMIZE SIGNAL CROSS TALK, GROUP CABLES ACCORDING TO SIGNALS BEING CARRIED. MAINTAIN SEPARATION BETWEEN POWER AND ALL OTHER CABLE GROUPS OF AT LEAST 24", AND 6" BETWEEN ALL OTHER CABLE GROUPS WHEN RUN IN PARALLEL. GROUPS SHALL BE:
   - A. POWER.
   - B. CONTROL.
   - C. VIDEO.
   - D. MIC LEVEL AUDIO CABLES (LESS THAN -20dBM).
   - E. LINE LEVEL AUDIO CABLES (-20dBM TO +20dBM).
   - F. SPEAKER LEVEL CABLES (+20dBM OR GREATER).
   - G. DATA CABLES.
3. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
4. COLORS OF ALL SOUND DEVICES THAT ARE EXPOSED, INCLUDING INPUT AND OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, SPEAKER ENCLOSURES, SPEAKER MOUNTING HARDWARE, ETC. SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO ORDERING.
5. CABLE ROUTES SHOWN ON DRAWINGS DO NOT ACTUALLY REFLECT THE RACEWAYS. THE RACEWAYS SHALL BE DETERMINED IN THE FIELD.
6. LABEL ALL THE WIRELESS HANDHELD MICROPHONES AND BELT PACKS WITH NAMES OR NUMBERS FOR EASY IDENTIFICATION.
7. REFER TO RISER DIAGRAMS AND EQUIPMENT LISTS FOR THE TYPES AND NUMBERS OF WIRES REQUIRED FOR EACH AV DEVICE.
8. SETUP COMPRESSORS AND LIMITERS IN ALL OF THE DSPS TO PROTECT THE AMPLIFIERS AND SPEAKERS. ALSO, SETUP A PASSWORD ON THE DSPS, TO CONTROL THE ACCESS TO THEM. COORDINATE W. OWNER TO DETERMINE APPROPRIATE PASSWORDS.
9. MOCKUP A TYPICAL CLASSROOM AV SYSTEM FIRST, TEST AND TRY OUT ALL THE FUNCTIONS OF THE SYSTEM AND PERFORMANCE OF EACH AV COMPONENT BEFORE PURCHASING EVERYTHING FOR ALL THE CLASSROOMS.
10. EQUALIZE ALL AUDIO SYSTEMS WITH DSP PRIOR TO SYSTEM COMMISSIONING.
11. AUDIO INPUT AND OUTPUT LEVELS SHALL BE BALANCED. EQUALIZERS SHALL BE SET TO THE FOLLOWING PARAMETERS AS MEASURED IN 1/3 OCTAVE BANDS FROM 10HZ TO 2 KHZ,
    - A. FLAT WITHIN PLUS OR MINUS 2 DBA, FROM 71HZ TO 17KHZ.
    - B. SLOPE DOWN ALONG AN APPROXIMATED 3 DBA PER OCTAVE SLOPE FROM 0 TO 71HZ AND 17KHZ AND UP.
12. USE SEPARATE CHANNEL FOR EACH ASSISTIVE LISTENING SYSTEM ‘ALS’ IN THE FACILITY. PROGRAM ALL RECEIVERS, REGARDLESS OF WHICH ‘ALS’ THEY ARE ASSOCIATED WITH SO THAT USERS’ MAY SELECT ANY OF THE AVAILABLE CHANNELS.
13. ALL CABLES IN PLENUM SPACES SHALL BE PLENUM RATED. WHEN NON-PLENUM CABLE IS SPECIFIED, IN PLENUM SPACES, INTEGRATOR SHALL SUBSTITUTE PLENUM CABLE.

KEYED NOTES

AV1 INSTALL JUNCTION BOX, 10" X 10" IN WALL BEHIND CABINET, AT 18" AFF. UNLESS OTHERWISE NOTED, PROVIDE QTY. (3) 1" C. TO ACC. CEILING.

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

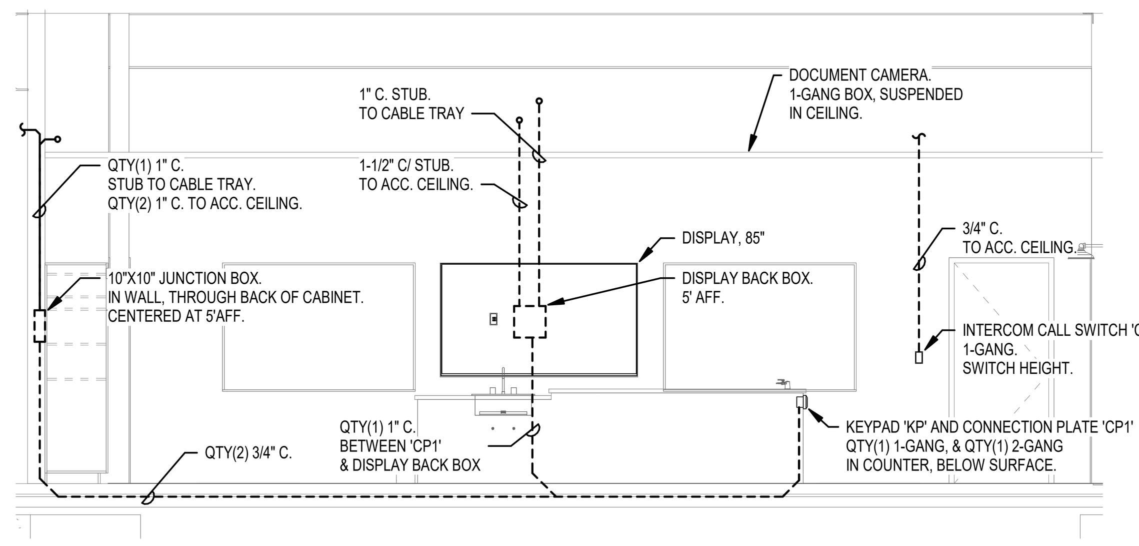
CONSTRUCTION DOCUMENTS

MARK:	DATE:	DESCRIPTION:

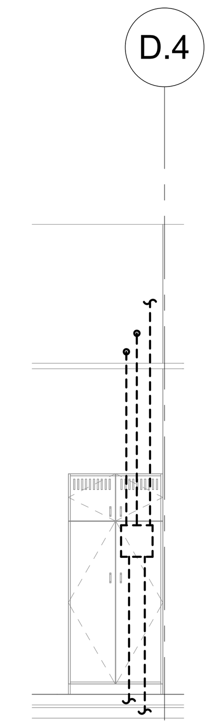
PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

AUDIO VISUAL ENLARGED PLANS - TYPICAL CLASSROOMS

E-541



4 **LAB CLASSROOM DISPLAY ELEVATION, TYP.**
SCALE: **1/4" = 1'-0"**



3 **LAB CLASSROOM JUNCTION BOX ELEVATION, TYP.**
SCALE: **1/4" = 1'-0"**

AUDIO VISUAL GENERAL NOTES:

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   C. VIDEO.
   D. MIC LEVEL AUDIO CABLES (LESS THAN -20dBM).
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    A. FLAT WITHIN PLUS OR MINUS 2 DBA, FROM 71HZ TO 17KHZ.
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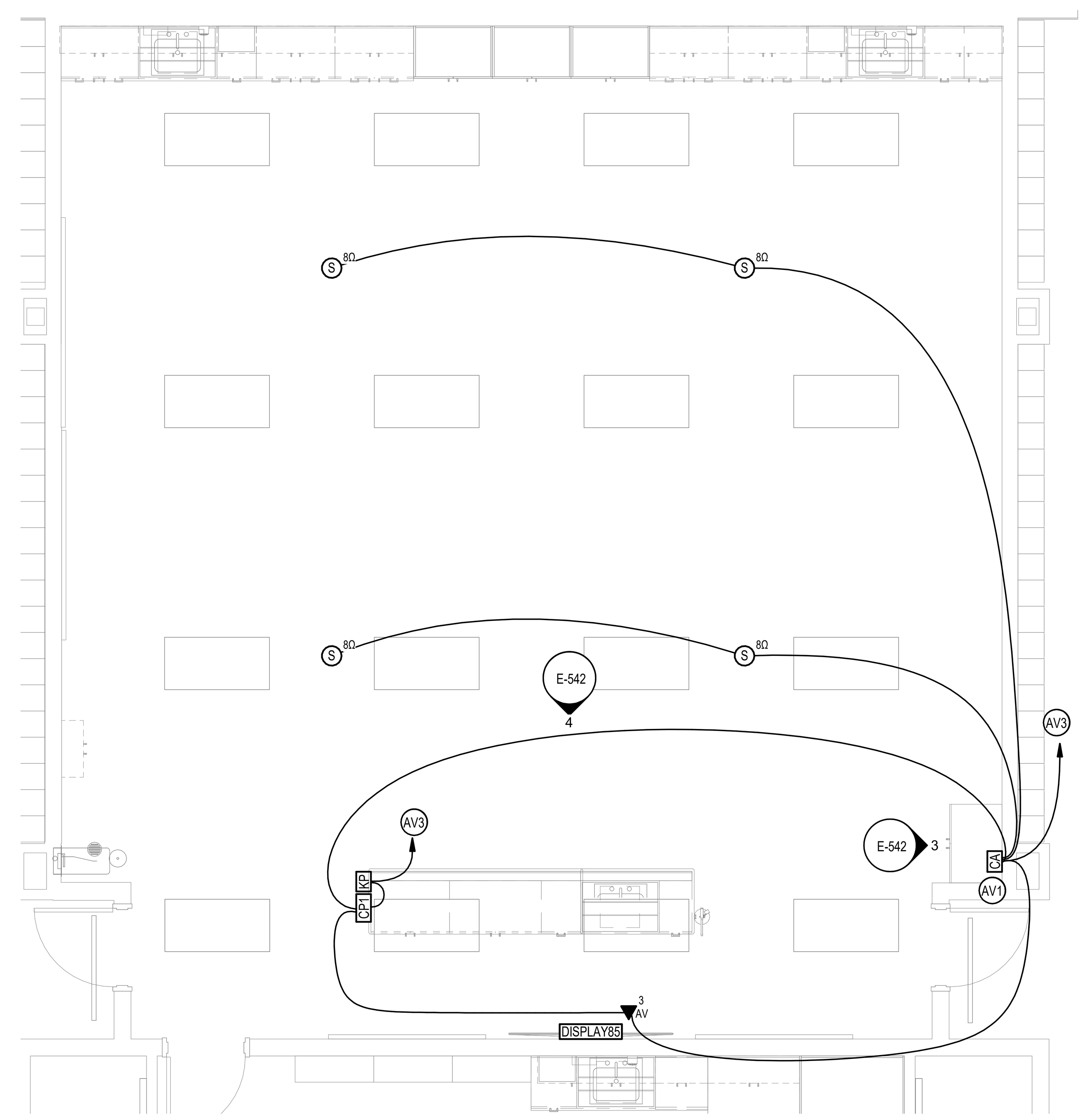
13. ALL CABLES IN PLENUM SPACES SHALL BE PLENUM RATED. WHEN NON-PLENUM CABLE IS SPECIFIED, IN PLENUM SPACES, INTEGRATOR SHALL SUBSTITUTE PLENUM CABLE.

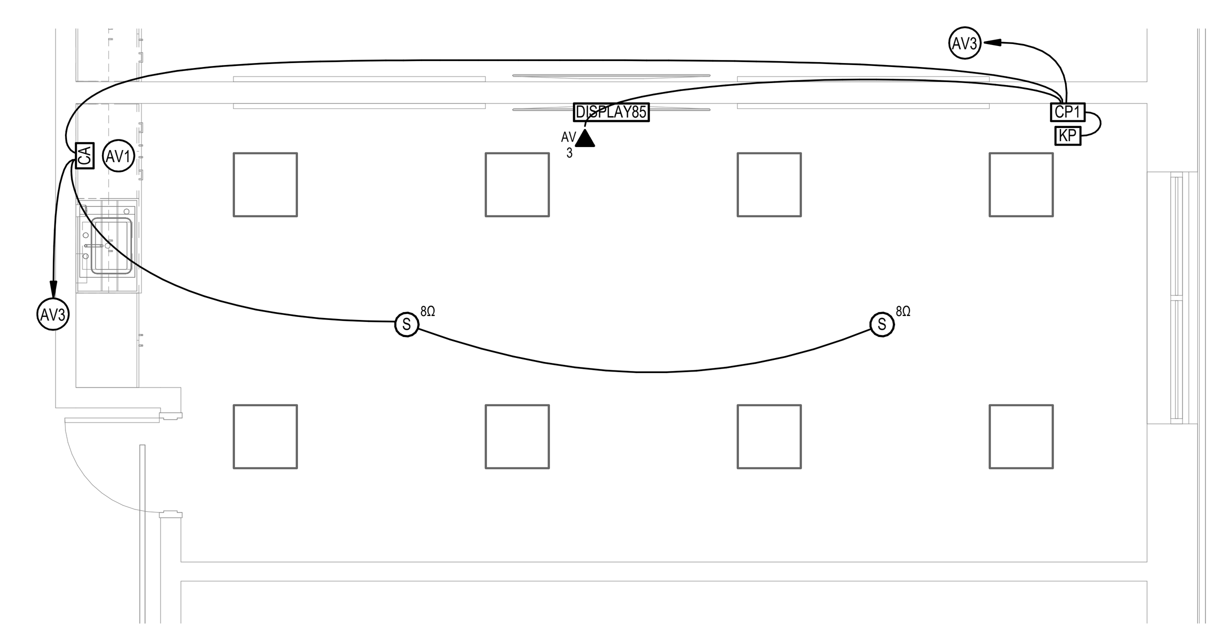
KEYED NOTES

AV1 INSTALL JUNCTION BOX, 10" X 10" IN WALL BEHIND CABINET, AT 18" AFF. UNLESS OTHERWISE NOTED, PROVIDE QTY. (3) 1" C. TO ACC. CEILING.

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.



1 **ENLARGED LAB A/V PLAN**
SCALE: **1/4" = 1'-0"**



2 **ENLARGED SMALL CLASSROOM A/V PLAN (TYP.)**
SCALE: **1/4" = 1'-0"**

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

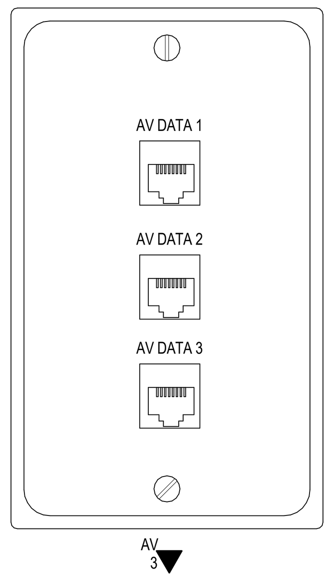
DESCRIPTION:
MARK: DATE:

CONSTRUCTION DOCUMENTS

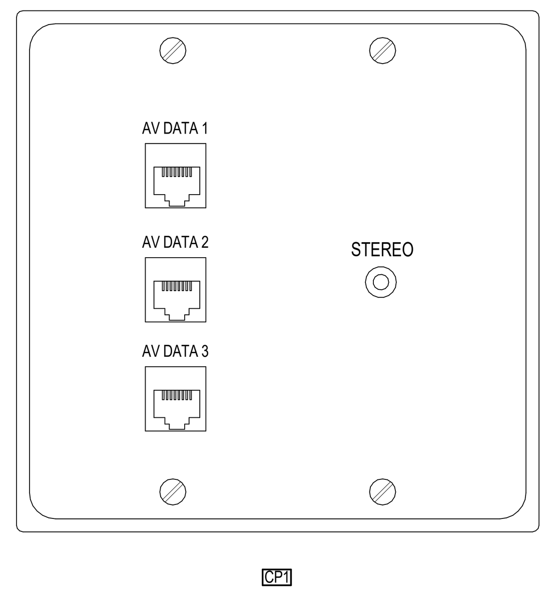
PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

AUDIO VISUAL
ENLARGED PLANS

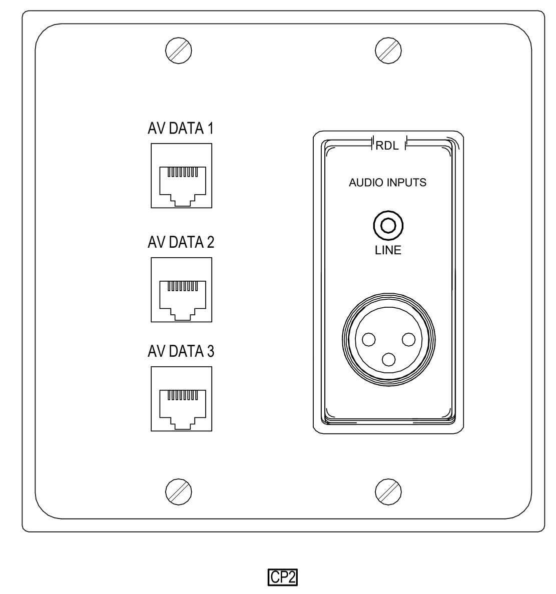
E-542



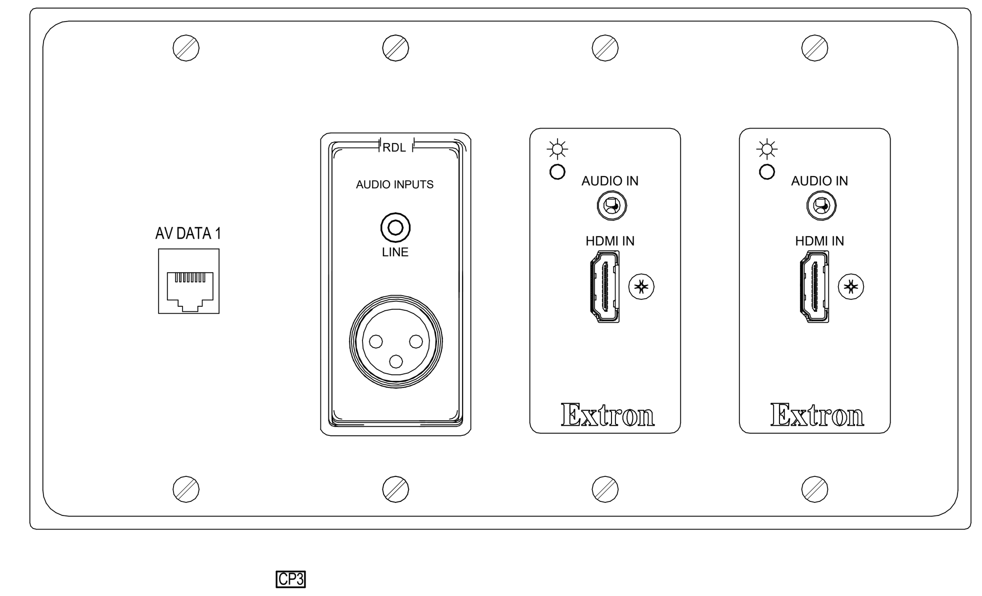
1 AV DATA PATCH PLATE
SCALE: NONE



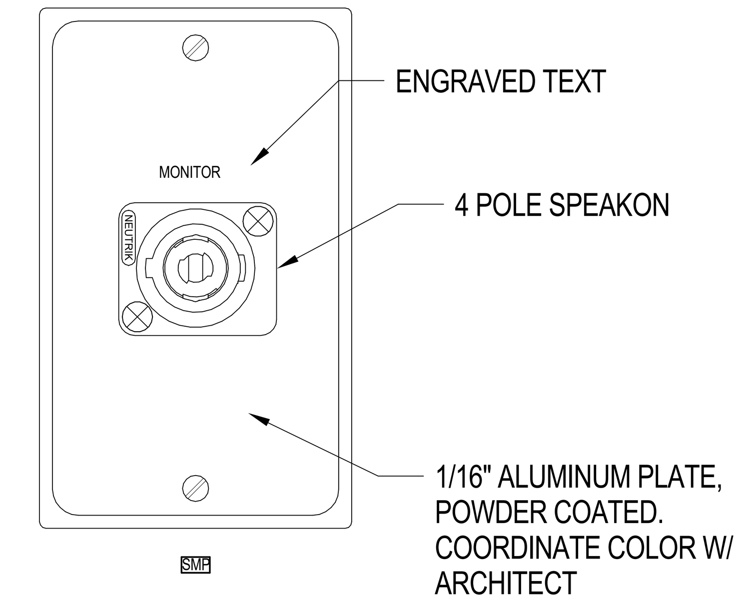
2 CONNECTION PLATE #1 - TEACHER STATION
SCALE: NONE



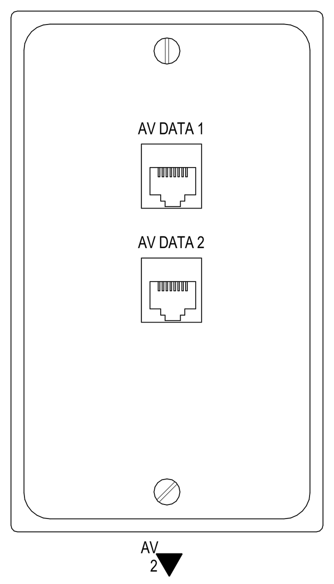
3 CONNECTION PLATE #2 - TEACHER STATION
SCALE: NONE



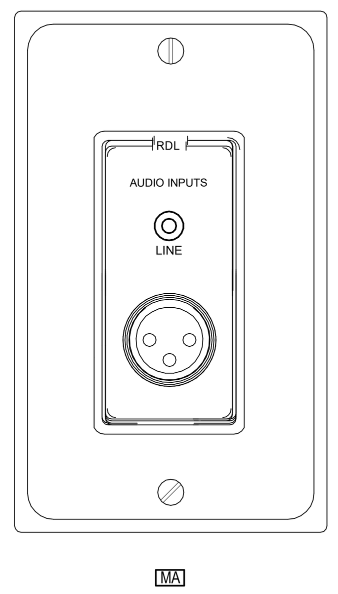
4 CONNECTION PLATE #3 - TEACHER STATION
SCALE: NONE



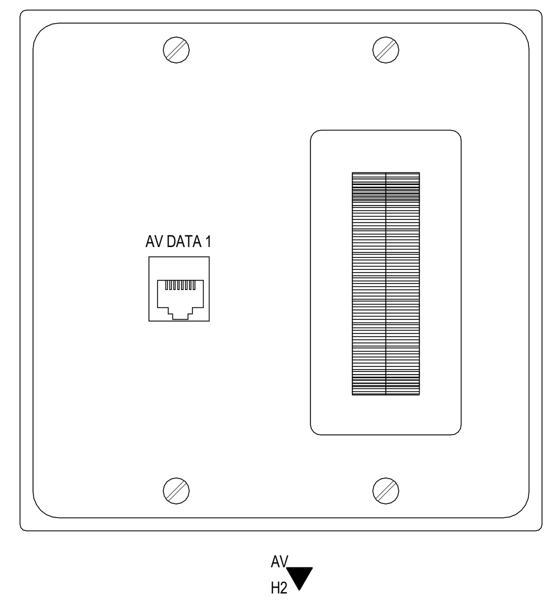
13 SPEAKER MONITOR CONNECTION PLATE
SCALE: NONE



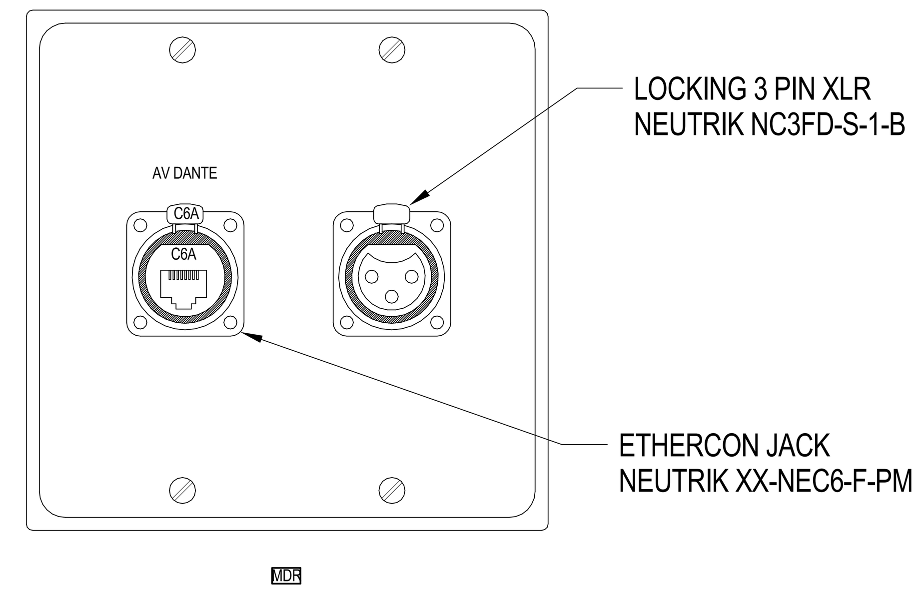
5 AV DATA PATCH PLATE
SCALE: NONE



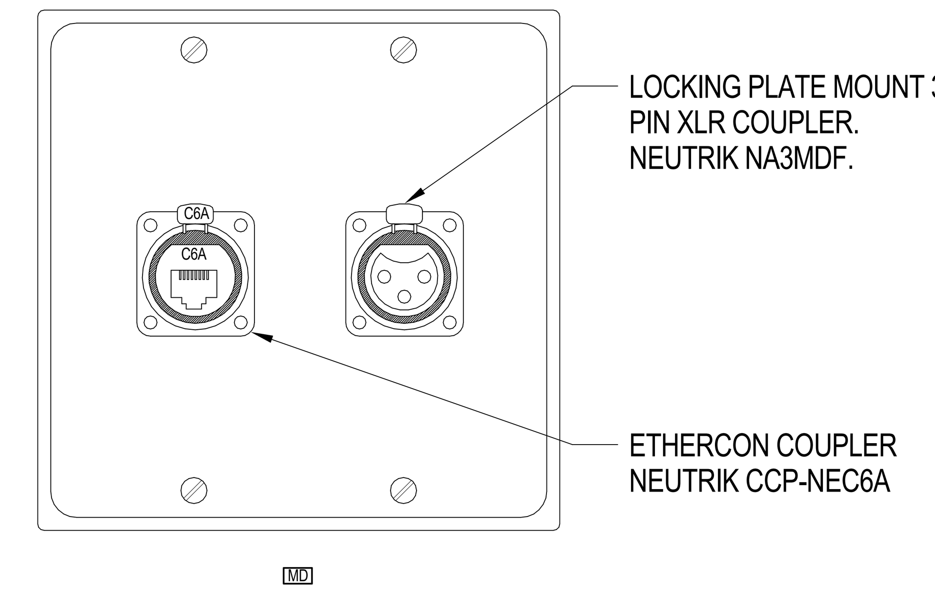
6 MIC & AUX INPUT PLATE
SCALE: NONE



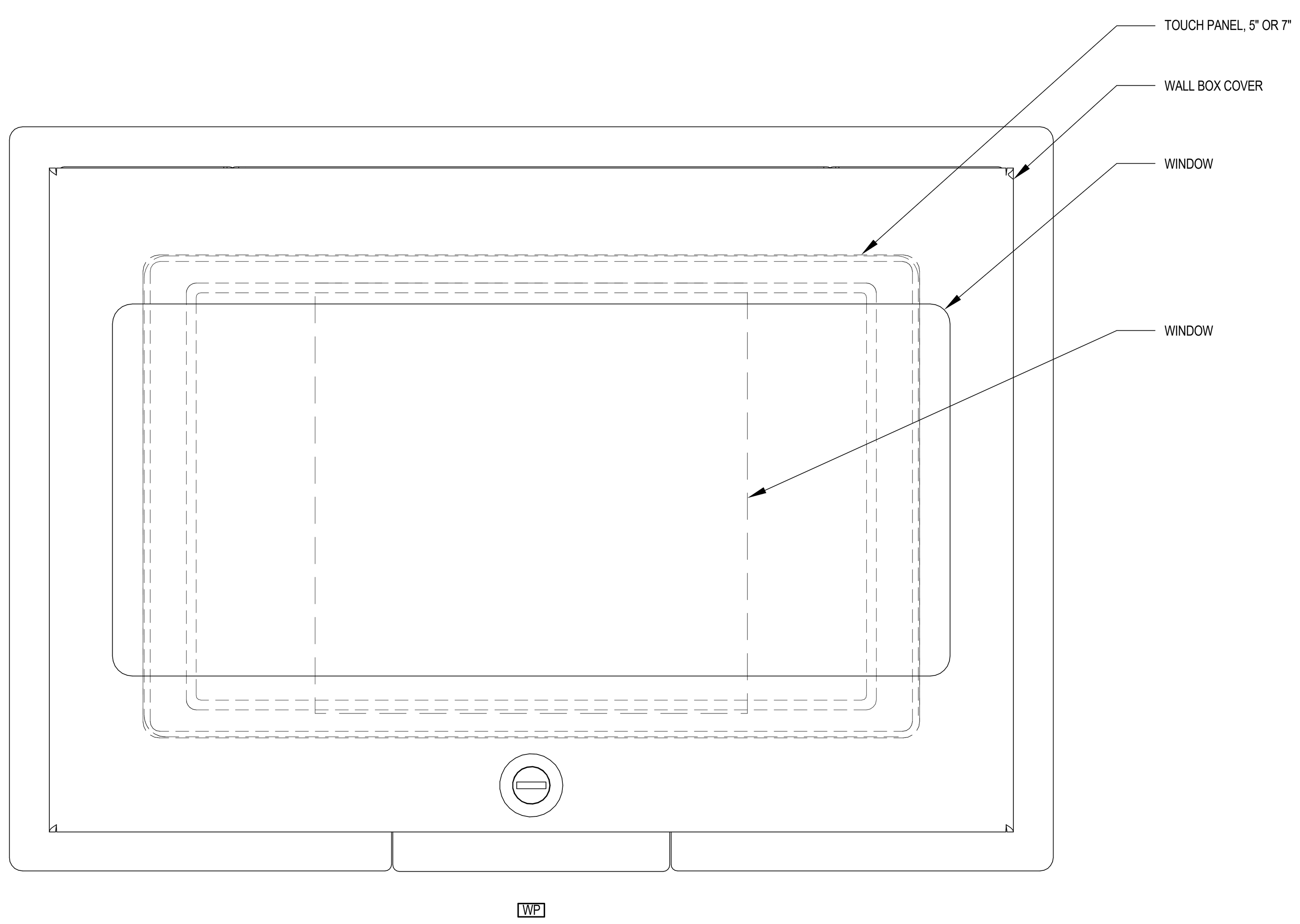
7 CONNECTION PLATE H2 - TEACHER STATION
SCALE: NONE



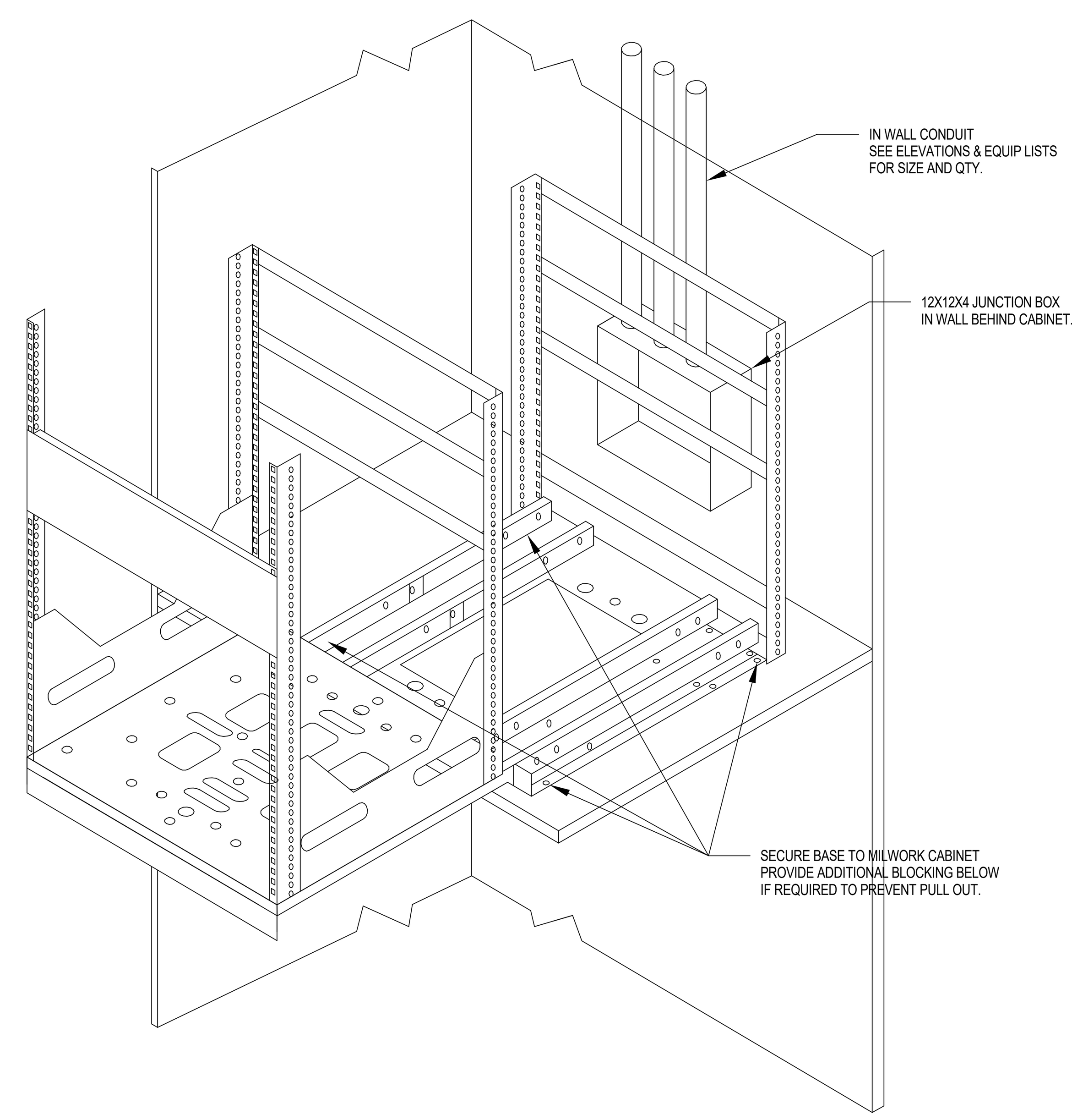
11 REAR MIC DATA CONNECTION PLATE - BLEACHERS
SCALE: NONE



12 MIC DATA CONNECTION PLATE - BLEACHERS
SCALE: NONE

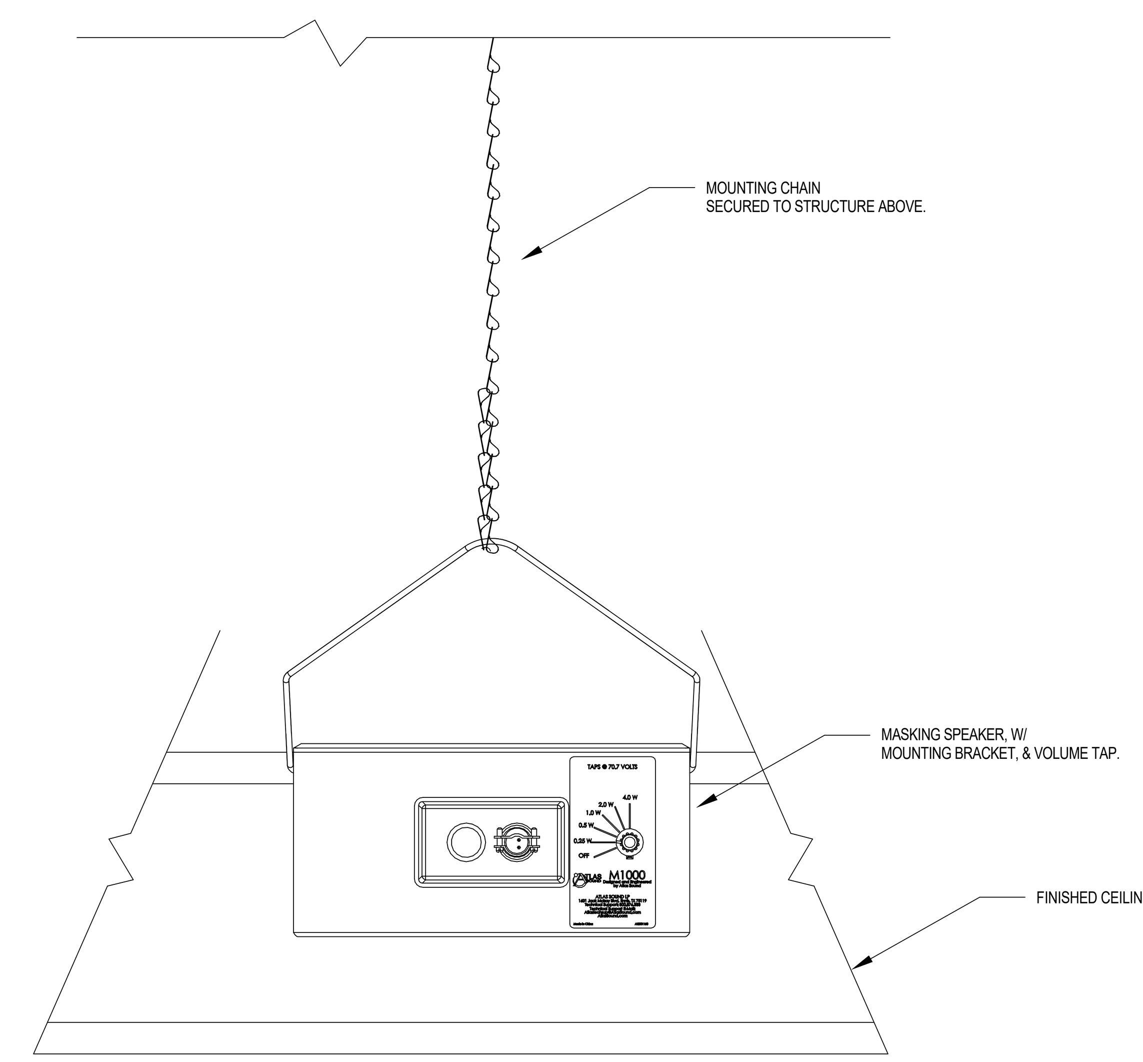


8 WP SECURE PANEL DETAIL
SCALE: NONE



RACK SHOWN EXTENDED. STORE IN RETRACTED POSITION
DRESS CABLES NEATLY, IN WOVEN WIRE LOOM.

9 PULL OUT RACK FRAME (SRSR SERIES)



10 ABOVE CEILING MAKSING SPEAKER MOUNTING DETAIL

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

CONSTRUCTION DOCUMENTS

PROJECT #:	123006
DRAWN BY:	SB
CHECKED BY:	AH
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

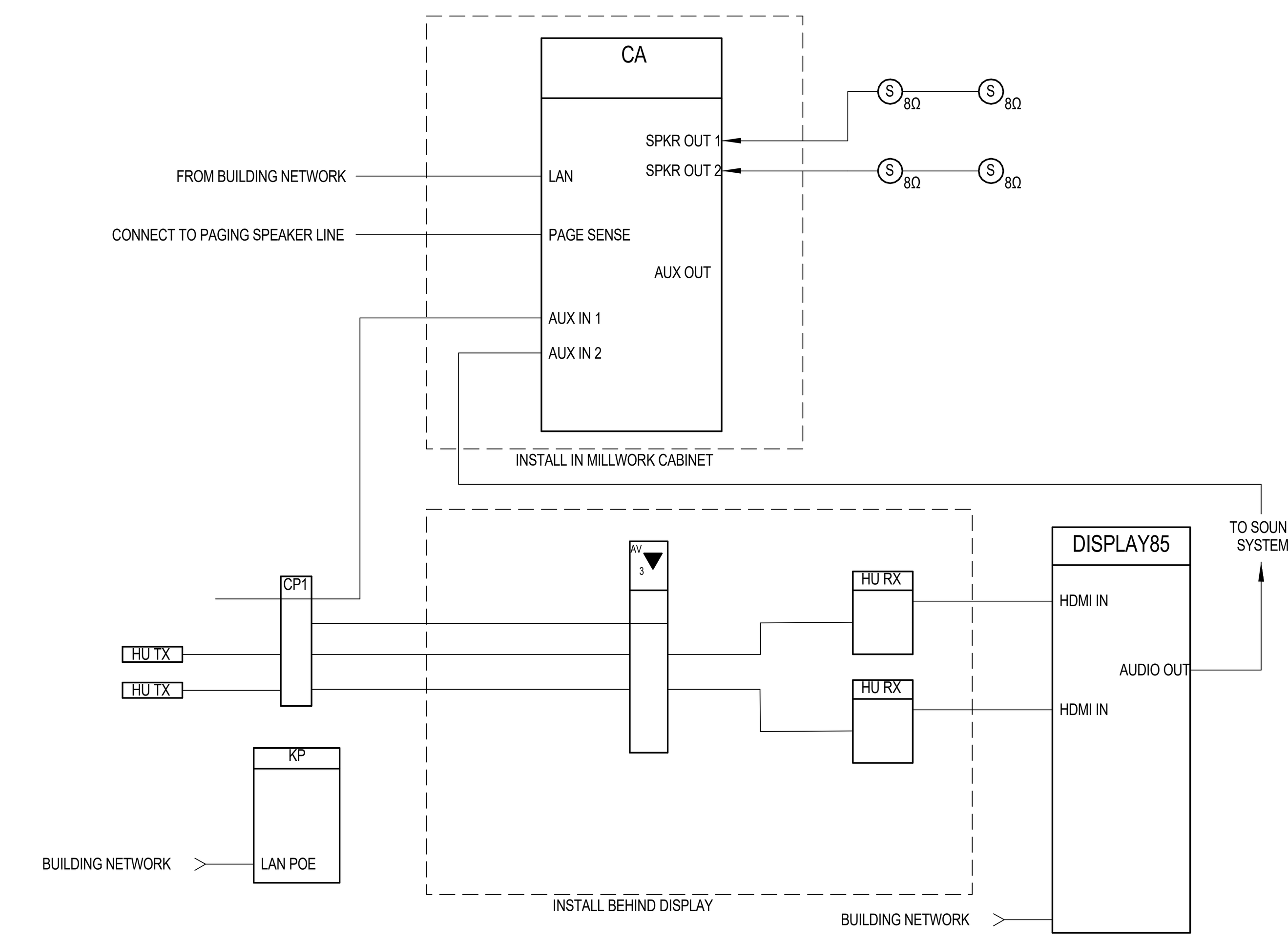
AUDIO VISUAL DETAILS

E-551

GENERAL SYSTEM NOTES:

1. CLASSROOMS HAVE 8 OHM SPEAKERS.
2. COORDINATE WITH OWNER TO DETERMINE WHICH HDBASET DATA DROP TO CONNECT HU TX & HU RX TO. RUN CABLES FOR ALL CONNECTIONS.
3. PROVIDE ETHERNET CONTROL OF DISPLAY TO PROVIDE ON/OFF, AND SOURCE SELECTION.
4.

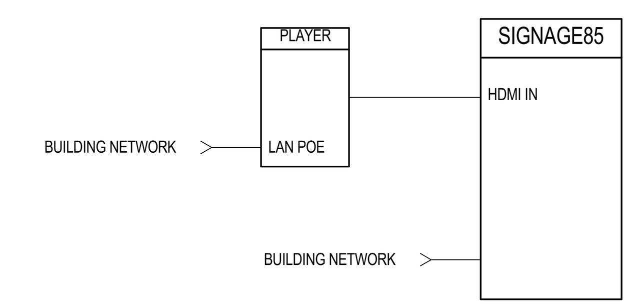
1. THIS RISER & EQUIPMENT LIST APPLY TO:
   1.1. TYPICAL CLASSROOMS
   1.2. SPECIAL EDUCATION CLASSROOMS



1 AV SYSTEM RISER - TYPICAL CLASSROOMS - RISER
SCALE: NONE

AV SYSTEM - TYPICAL CLASSROOM - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/RM	SUPPLIER	MODEL	ROUGH-IN	CABLE
CA	CLASSROOM AMP PAGE SENSE CABLE	OFI	LIGHTSPEED	CASCADIA PAGE SENSE CABLE		
	JUNCTION BOX AMPLIFIER LOCATION	1	NR	10"X10"X4"	SEE ELEVATION DETAIL	
S 8Ω	RECESSED SPEAKER, DROP TILE KIT W/ TILE BRIDGE BACK CAN BAFFLE SPEAKER, BYPASS TRANSFORMER	OFP	ATLASIED	SD72W-KIT 81-8R CS95-8 62-8 SD72		WEST PENN 25225B
DISPLAY85	DISPLAY	OFCI	COORDINATE W/ OWNER		BACK BOX REFER TO EP SHEETS FOR DETAILS.	
	DISPLAY WALL MOUNT	OFCI	COORDINATE W/ OWNER			
	JUNCTION BOX	1	BY DIV 26 SEE SCHEDULE			
CP1	TEACHER STATION CONNECTION PLATE 'CP1'	OFP	CUSTOM	SEE DETAIL	2 GANG BOX SEE ELEVATION DETAIL	WEST PENN 254346 WEST PENN 445
AV 3 ▼	TV CONNECTION PLATE 'AV3'	OFP	CUSTOM	SEE DETAIL	INSTALL IN DISPLAY BACK BOX	WEST PENN 254346
HU TX	HDMI & USB TRANSMITTER	2	EXTRON	DTP HDMI 4K 230		
HU RX	HDMI & USB RECEIVER	2	EXTRON	DTP HDMI 4K 230 RX		
KP	KEYPAD	OFP	EXTRON	MLC PLUS 50		
	CABLES, PATCH & CONNECTION, PER ROOM GIGABIT PATCH CABLE, POE RATED, 6' GIGABIT PATCH CABLE, POE RATED, 10' HMDI PATCH CABLE. 6' HDMI PATCH CABLE, 10' USB PATCH CABLE 3.5 MM TRS STEREO TO 3.5MM TRS, 10'	 2 1 1 1 2 1	 BELDEN BELDEN KRAMER KRAMER CUSTOM EXTRON	 VERIFY REQ W/ OWNER 		

A/R = AS REQUIRED; NIC= NOT IN CONTRACT; NR = NO REQUIREMENT, OFCI = OWNER FURNISHED CONTRACTOR INSTALLED; OFP = OBTAIN FROM PLANS; OFOI =OWNER FURNISHED & INSTALLED



3 AV SYSTEM - SIGNAGE - RISER
SCALE: NONE

SIGNAGE SYSTEM EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/ROOM	SUPPLIER	MODEL	ROUGH-IN	CABLE
SIGNAGE80	DISPLAY, 80", 4K, HDMI INPUTS	OFCI	COORDINATE W/ OWNER			EXTRON HDMI PRO SERIES
	DISPLAY MOUNT, WALL TILT	OFCI	COORDINATE W/ OWNER		SEE EP SHEETS	
PLAYER	SIGNAGE PLAYER	OFCI	COORDINATE W/ OWNER			EXTRON HDMI PRO SERIES

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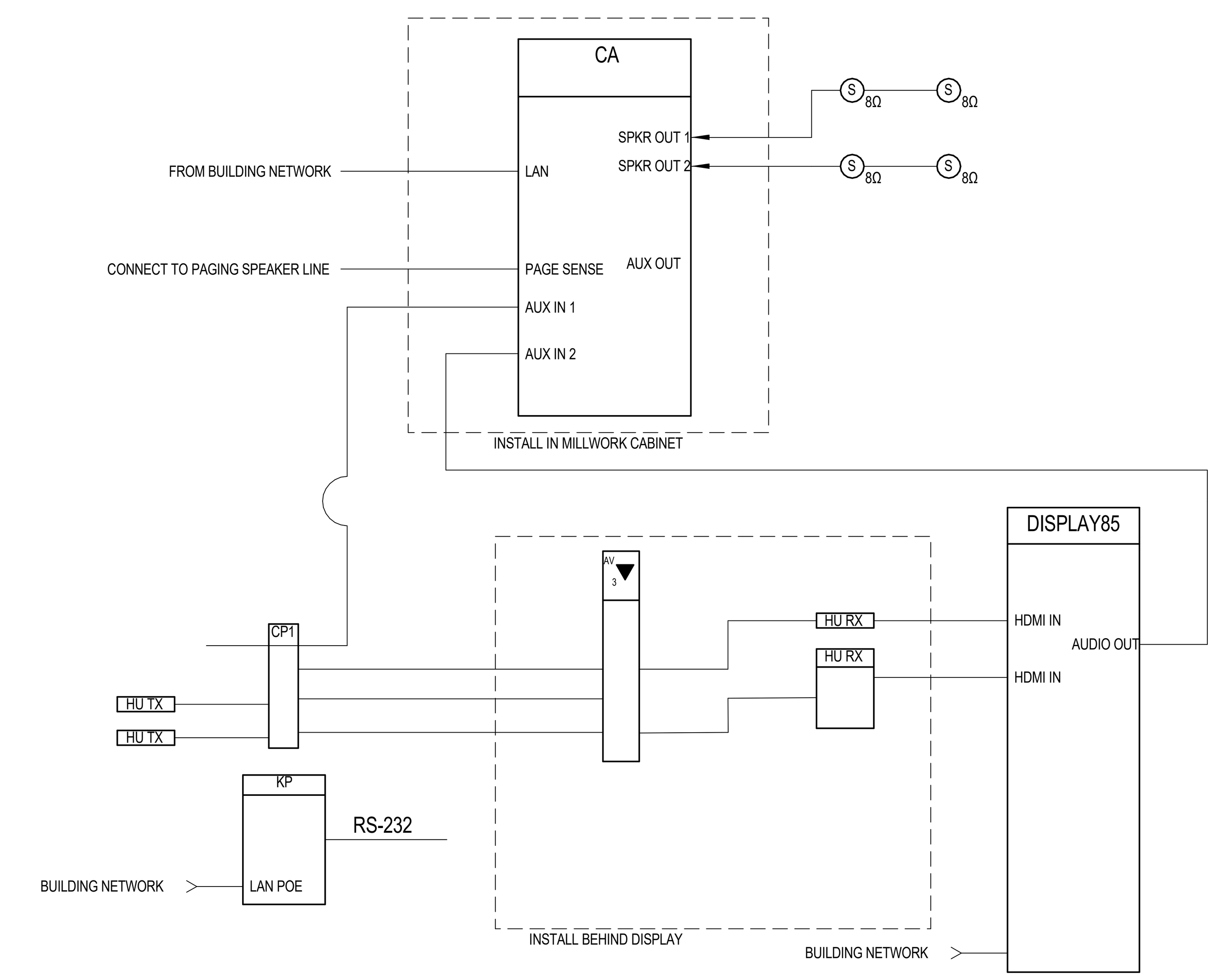
3. PROVIDE RS-232 CONTROL OF CEILING MOUNTED DOCUMENT CAMERA & ETHERNET CONTROL OF DISPLAY TO PROVIDE ON/OFF, AND SOURCE SELECTION.



4 VIDEO SYSTEM RISER LIBRARY)
SCALE: NONE

AV SYSTEM - TYPE 2 CLASSROOM - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/RM	SUPPLIER	MODEL	ROUGH-IN	CABLE
CA	CLASSROOM AMP PAGE SENSE CABLE	OFI	LIGHTSPEED	CASCADIA PAGE SENSE CABLE		WEST PENN 454 WEST PENN 254346 - YELLOW
	JUNCTION BOX AMPLIFIER LOCATION	1	NR	10"X10"X4"	SEE ELEVATION DETAIL	
S 8Ω	RECESSED SPEAKER, DROP TILE KIT W/ TILE BRIDGE BACK CAN BAFFLE SPEAKER, BYPASS TRANSFORMER	OFP	ATLASIED	SD72W-KIT 81-8R CS95-8 62-8 SD72		WEST PENN 25225B
DISPLAY85	DISPLAY	OFCI	COORDINATE W/ OWNER		BACK BOX REFER TO EP SHEETS FOR DETAILS.	
	DISPLAY WALL MOUNT	OFCI	COORDINATE W/ OWNER			
	JUNCTION BOX	1	BY DIV 26 SEE SCHEDULE			
CP1	TEACHER STATION CONNECTION PLATE 'CP1'	OFP	CUSTOM	SEE DETAIL	2 GANG BOX SEE ELEVATION DETAIL	WEST PENN 254346 WEST PENN 445
AV 3 ▼	TV CONNECTION PLATE 'AV3'	OFP	CUSTOM	SEE DETAIL	INSTALL IN DISPLAY BACK BOX	WEST PENN 254346
HU TX	HDMI & USB TRANSMITTER	2	EXTRON	DTP HDMI 4K 230		WEST PENN 254346
HU RX	HDMI & USB RECEIVER	2	EXTRON	DTP HDMI 4K 230 RX		WEST PENN 254346
	CABLES, PATCH & CONNECTION, PER ROOM GIGABIT PATCH CABLE, POE RATED, 6' GIGABIT PATCH CABLE, POE RATED, 10' HMDI PATCH CABLE. 6' HDMI PATCH CABLE, 10' USB PATCH CABLE 3.5 MM TRS STEREO TO 3.5MM TRS, 10'	 2 1 1 1 2 1	 BELDEN BELDEN KRAMER KRAMER CUSTOM EXTRON	 VERIFY REQ W/ OWNER 		
KP	KEYPAD & CONTROLLER	1	EXTRON	MLC PLUS 50	1-GANG BOX 1" C. TO ACCESSIBLE CEILING SPACE	

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CONSTRUCTION DOCUMENTS

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CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
No. 77411
05-01-2024
STATE OF UTAH

AV RISER & EQUIPMENT LIST
E-571

AV SYSTEM - DUAL DISPLAY CLASSROOM - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/RM	SUPPLIER	MODEL	ROUGH-IN	CABLE
CA	CLASSROOM AMP	OFI	LIGHTSPEED	CASCADIA		
	PAGE SENSE CABLE			PAGE SENSE CABLE		
	JUNCTION BOX	1	NR	10"X10"X4"	SEE ELEVATION DETAIL	
	AMPLIFIER LOCATION					
S 8Ω	RECESSED SPEAKER, DROP TILE KIT W/	4	ATLASIED	SD72W-KIT		WEST PENN 25225B
	TILE BRIDGE			81-8R		
	BACK CAN			CS95-8		
	BAFFLE			62-8		
	SPEAKER, BYPASS TRANSFORMER			SD72		
DISPLAY65	DISPLAY	OFCI	COORDINATE W/ OWNER		BACK BOX SEE ELEVATION	
	DISPLAY WALL MOUNT	OFCI	COORDINATE W/ OWNER			
	JUNCTION BOX	2	BY DIV 26 SEE SCHEDULE			
CP1	TEACHER STATION CONNECTION PLATE 'CP1'	OFP	CUSTOM	SEE DETAIL	2 GANG BOX SEE ELEVATION DETAIL	WEST PENN 254346 WEST PENN 445
AV3 ▼	TV CONNECTION PLATE 'AV3'	OFP	CUSTOM	SEE DETAIL	INSTALL IN DISPLAY BACK BOX	WEST PENN 254346
VS	VIDEO SWITCHER, MATRIX 8X2, HDMI	1	EXTRON	DTP CROSSPOINT 82 4K	INSTALL IN DISPLAY BACK BOX	
HU TX	HDMI & USB TRANSMITTER	2	EXTRON	DTP HDMI 4K 230		WEST PENN 254346
HU RX	HDMI & USB RECEIVER	2	EXTRON	DTP HDMI 4K 230 RX		WEST PENN 254346
	CABLES, PATCH & CONNECTION, PER ROOM					
	GIGABIT PATCH CABLE, POE RATED, 6'	4	BELDEN			
	GIGABIT PATCH CABLE, POE RATED, 10'	1	BELDEN			
	HMDI PATCH CABLE, 6'	2	KRAMER			
	HDMI PATCH CABLE, 10'	1	KRAMER			
	USB PATCH CABLE	2	CUSTOM	VERIFY REQ W/ OWNER		
	3.5 MM TRS STEREO TO 3.5MM TRS, 10'	1	EXTRON			
DOME	DOCUMENT CAMERA, CEILING MOUNT, HDMI, USB ETEHRNET, RS-232 CONTROL	OFP	LUMENS	CL511		
KP	KEYPAD & CONTROLLER	1	EXTRON	MLC PLUS 50	1-GANG BOX 1" C. TO ACCESSIBLE CEILING SPACE	

A/R = AS REQUIRED; NIC= NOT IN CONTRACT; NR = NO REQUIREMENT, OFCI = OWNER FURNISHED CONTRACTOR INSTALLED; OFP = OBTAIN FROM PLANS; OFOI =OWNER FURNISHED & INSTALLED

AV SYSTEM - BAND, CHIOR, & ORCHESTRA - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/ROOM	SUPPLIER	MODEL	ROUGH-IN	CABLE
11 OR 12 OR 13	EQUIPMENT CABINET #11, #12, AND #13	1	MIDDLE ATLANTIC	SRSR-X-12	12"X12"X4" OR SIZE TO FIT 40", AFF	
	RACK MOUNT DRAWER	1	MIDDLE ATLANTIC	UD3	PROVIDE CONDUITS IN SIZES AS REQUIRED	
	BLANK PANEL	A/R	MIDDLE ATLANTIC			
	FRONT DOOR	1	MIDDLE ATLANTIC	LVFD-24		
TVSS	POWER CONDITIONER & SEQUENCER	1	FURMAN	CN-1800S	INSTALL IN RACK	
CA	CLASSROOM AMP	OFCI	LIGHTSPEED	CASCADIA	INSTALL IN RACK	WEST PENN 454
	TEACHER MIC					WEST PENN 254346 - YELLOW
	STUDENT MIC					
	PAGE SENSE					
	JUNCTION BOX	1	NR	NR	10"X10"X4"	
	AMPLIFIER LOCATION				SEE ELEVATION	
DSP	DSP	OPF	Q-SYS	CORE 110F V2	INSTALL IN RACK	
	UCI, SCRIPTING, & DANTE LICESNSES	A/R	Q-SYS	AS REQUIRED		
	LOGIC IO EXPANSION	1	Q-SYS	QIO-GP8X8		
AMP	AMPLIFER, POWER 2 CHANNEL, 600W.	OFP	CROWN	DCI 2/600		
			QSC	MP-A20V		
IPAD	IPAD 9.7", 16GB	OFP	APPLE	IPAD 9.7", 16GB		
M C	MICROPHONE, CEILING	OFP	AUDIO TECHNICA	U853AW	3" DEEP, 1-GANG JUNCTION BOX	WEST PENN 25291B
CP2	CONNECTION PLATE #3	OFP	CUSTOM	SEE DETAIL	4-GANG 3" DEEP	WEST PENN 291
	MIC/AUX, DECORA INSEERT	1/PLATE	RDL	D-J3M	(2) 3/4" C. TO ACCESSIBLE CEILING SPACE	WEST PENN 25510
	HDMI INPUT, DECORA PLATE, W PIGTAIL	2/PLATE	COVID	D1114.P		CERTIFIED HDMI HIHGSPEED CABLE, TO DISPLAY, LEN A/R.
	AV DATA CONNECTIONS	1/PLATE	CUSTOM	SEE DETAIL	SEE SECTION VIEW	
AV H2 ▼	TV CONNECTION PLATE 'AV H2'	OFP	CUSTOM	SEE DETAIL	INSTALL IN DISPLAY BACK BOX	WEST PENN 254346
	PASS THROUGH PLATE	1	C2G			
	AV DATA CONNECTIONS	1	CUSTOM	SEE DETAIL		
	MICROPHONE FLOOR STAND W/	1	ATLAS	MS20E		
	BOOM	1		PB21XEB		
	MICROPHONE, INSTRUMENT	1	SHURE	PG81-LC		
	CABLES, PATCH & CONNECTION, PER ROOM					
	GIGABIT PATCH CABLE, POE RATED, 6'	2	BELDEN			
	GIGABIT PATCH CABLE, POE RATED, 10'	1	BELDEN			
	HMDI PATCH CABLE. 6'	1	KRAMER			
	HDMI PATCH CABLE, 10'	1	KRAMER			
	USB PATCH CABLE	2	CUSTOM	VERIFY REQ W/ OWNER		
	3.5 MM TRS STEREO TO 3.5MM TRS, 10'	1	EXTRON			
	MICROPHONE CORD	1	PRO-CO	M-25		
(wall speaker)	WALL SPEAKERS, 90 X 50 COVERAGE PATTERN	OFP	JBL	AM5212/95	1-GANG BOX	WEST PENN 252251
	EYEBOLT, SECURE TO WALL FOR SAFETY	NR	NR	M10 FORGED EYEBOLT		
	WALL BRACKET	1/ SPEAKER	JBL	MTU-3	SEE ELEVATION	
DISPLAY85	DISPLAY	OFCI	COORDINATE W/ OWNER		BACK BOX REFER TO EP SHEETS FOR DETAILS.	
	DISPLAY WALL MOUNT	OFCI	COORDINATE W/ OWNER			
	JUNCTION BOX	2	BY DIV 26 SEE SCHEDULE			
S2M	STEREO TO MONO, SUMMER	A/R	EXTRON	ASA SERIES		
HU TX	HDMI & USB TRANSMITTER	2	EXTRON	DTP HDMI 4K 230		WEST PENN 254346
HU RX	HDMI & USB RECEIVER	2	EXTRON	DTP HDMI 4K 230 RX		WEST PENN 254346
KP	WALL PANEL TOUCH CONTROLLER	1	Q-SYS	TSC-70-G3	2-GANG BOX SEE ELEVATION	WEST PENN 25359B
	WALL COVER	1	FSR	PSTSC-70-G3		

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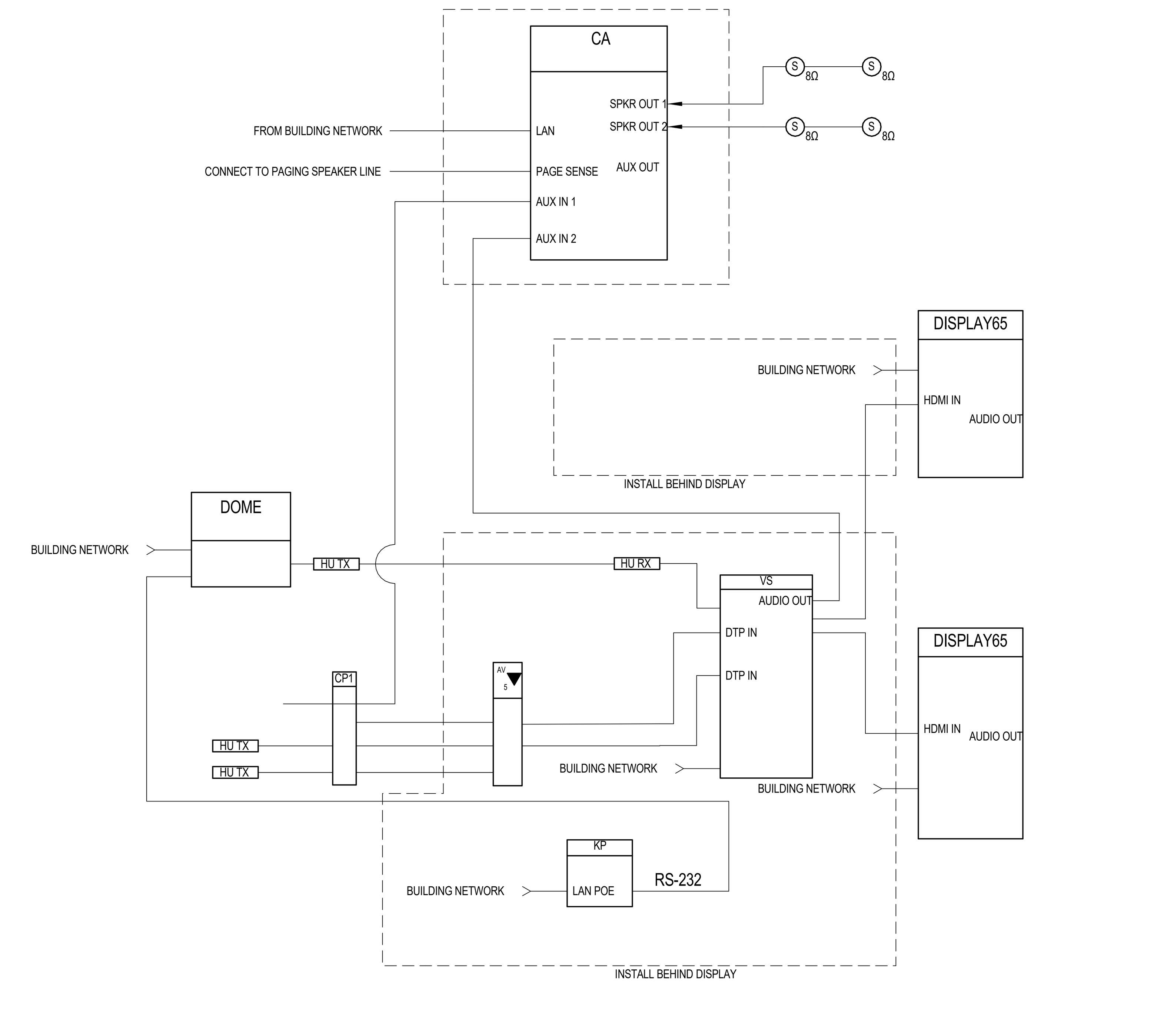
GENERAL SYSTEM NOTES:

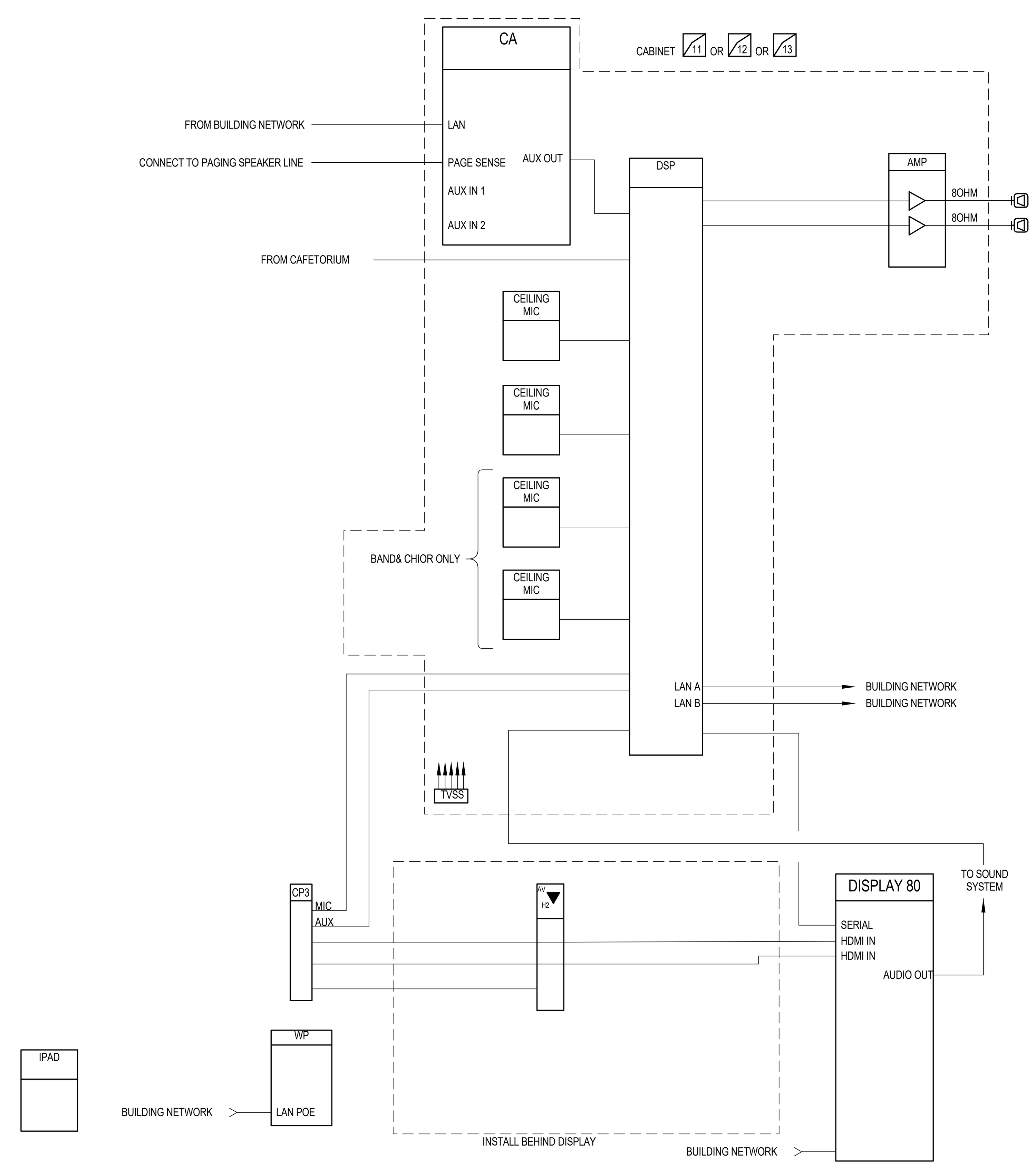
1. CLASSROOMS HAVE 8 OHM SPEAKERS.
2. COORDINATE WITH OWNER TO DETERMINE WHICH HDBASET DATA DROP TO CONNECT HU TX & HU RX TO. RUN CABLES FOR ALL CONNECTIONS.
3. PROVIDE RS-232 CONTROL OF CEILING MOUNTED DOCUMENT CAMERA & ETHERNET CONTROL OF DISPLAY TO PROVIDE ON/OFF, AND SOURCE SELECTION.



1 AV SYSTEM - DUAL DISPLAY CLASSROOM - RISER
SCALE: NONE

GENERAL SYSTEM NOTES:

1. CONNECT FEED FROM CAFETERIA TO MIXER, SO BAND CHIOR AND ORCHESTRA ROOMS MAY FUNCTION AS GREEN ROOMS DURING PERFORMANCES.
2. SETUP LIMITER ON DSP OUTPUT TO PREVENT DAMAGE SPEAKERS FROM BEING OVERDRIVEN.
3. SETUP ALL MIXER AND DSP LEVELS TO PROVIDE ACOUSTICAL LEVEL FROM SPEAKERS AT +30DB ABOVE AMBIENT, AT UNITY GAIN.
4. INSTALL WIFI ANTENNA OUTSIDE OF EQUIPMENT CABINET.
5. CONFIGURE IPAD W/ LINK FOR QUICK ACCESS TO TOUCH PANEL CONTROLS FROM IPAD.
6. COORDINATE TOUCH PANEL CONTROL INTERFACE TO MIMIC CONTROLS FROM EXISTING SCHOOLS.
7. COORDINATE W/ OWNER TO DETERMINE APPROPRIATE VLANS FOR EACH NETWORK CONNECTION.
8. CONFRIM W. OWNER IF PROVIDED DISPLAYS WILL HAVE SERIAL CONTROL CAPABILITIES. IF NOT IMPLEMENT IP CONTROL.



2 AV SYSTEM - BAND, CHIOR, & ORCHESTRA - RISER DIAGRAM

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

CONSTRUCTION DOCUMENTS

AV RISER & EQUIPMENT LIST

E-572

NOTES:

1. THE SPEAKER COVERAGE SETTINGS SHALL BE OPTIMIZED ON-SITE DURING THE INSTALLATION.
2. PROGRAM THE TOUCH PANEL TO CONTROL AUDIO VOLUMES. AUDIO/VIDEO SOURCE SELECTIONS, PROJECTOR POWER ON/OFF, PROJECTION SCREEN UP/DOWN.
3. PROGRAM THE DIGITAL PROCESSORS, THE MIXING CONSOLE, AND AUTOMANUAL SWITCH SO THAT THE AUDIO SYSTEM MAY FUNCTION AS EITHER AN AUTO MIXING SYSTEM OR MANUAL MIXING SYSTEM. PROGRAM LED'S ON THE SWITCH TO BE ON AND OFF ACCORDINGLY. ALSO PROVIDE CUSTOM LABELS ON THE SWITCH AS BEING SHOWN ON THE SWITCH DETAIL.
4. PROGRAM THE DSP SO THAT THE MAIN AUDIO OUTPUT LEVELS WILL BE AUTOMATICALLY LOWED THEN THERE IS A PAGING AUDIO COMING INTO THE SYSTEM.
5. CONFIGURE PLATFROM 'WP' TO PROVIDE SYSTEM ON/OFF, AND AUTO/MANUAL MODES. WHEN IN MANUAL MODE, SYSTEM AUDIO IS ROUTED THROUGH MIXING CONSOLE IN AV BOOTH.
6. CONFIGURE SYSTEM TO TURN SYSTEMS OFF AT 12:30 AM EACH NIGHT, AND RESET ALL SYSTEM ROUTINGS, LEVELS TO DEFAULT.

AUDIO SYSTEM - CAFETORIUM - EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY/ROOM	SUPPLIER	MODEL	ROUGH-IN	CABLE
2	EQUIPMENT RACK, 46RU, 28" D. X 23.5" W.	1	MIDDLE ATLANTIC	SR-46-28	12X12X6" BACK BOX IN WALL	
	FRONT DOOR	1		PFD-46		
	VERTICAL POWER STRIP	1		PD-2420SC-NS	SEE DETAIL	
	RACK MOUNT DRAWER	1		UD3		
	VERTICAL CABLE LACING STRIP	4		LACE-44-OWP		
	HORIZONTAL LACING BAR	A/R		LBP-2A		
	BLANK PANEL	A/R		NR		
TVSS	POWER CONDITIONER	1	FURMAN	CN-1800S	INSTALL IN RACK	
M2	MICROPHONE INPUT, DUAL	A/R	PRO-CO	WP1013	1-GANG, 3" DEEP 3/4"CM THROUGHOUT SEE ELEVATION	WEST PENN 452
CDREC	BLUETOOTH RECEIEVER	OFP	RDL	DD-BTN44	SEE DETAILS	WEST PENN 254346
B	CD RECORDER	1	TASCAM	SS-CDR-200		
WR4 ANT W WANTD	WIRELESS MICROPHONE SYSTEM				QTY(2) 1-GANG BOX FOR ANTENNA W/	GIGABIT PATCH CABLE - CONNECT TO AV NETWORK
	RECEVIER, 4CH	3	SHURE	ULXD4QGV=-G50	3/4" C. TO RACK.	WEST PENN 454 INSTALLED MIC CABLE, W NEUTRIK NC3MXX-B
	1/2 WAVE ANTENNA	2	SHURE	UA844+ SWB	INSTALL TRANSMITTER IN RACK.	WEST PENN 810
	REMOTE ANTENNA MOUNTING KIT	2	SHURE	UA505		
	POWERED ANTENNA DISTRIBUTOR	1	SHURE	UA844+ SWB		
	HANDHELD MIC	2	SHURE	ULXD2/SM58	STORE EQUIPMENT IN RACK.	
	BODY PACK TRANSMITTER & MIC	10	SHURE	ULXD1/MX153		
	TABLE TOP MICROPHONE CHARGER	6	SHURE	SBC220		
	TABLE TOP BATTERY CHARGER	1	SHURE	SBC800		
	SPARE BATTERIES	8	SHURE	SB900B		
	REMOTE ANTENNA MOUNTING KIT	2	SHURE	UA505		
DSP	DSP, AUDIO W/ REQUIRED UCI, SCRIPTING, AND DANTE LICENSES	A/R	Q-SYS	CORE 110F V2		WEST PENN 254246 WEST PENN 454
AV NETWORK SWITCH	AV NETWORK SWTICH, 24X1G, POE+, 300W	1	NETGEAR AV LINE	GSM4230P		WEST PENN 254246 GIGBIT PATCH CABLES
ALS	ASSISTIVE LISTENING SYSTEM, 2 CH, DANTE ENABLED		LISTEN			GIGBIT PATCH CABLES
	SERVER	1		LW-150P-02-D		
	RECEIVERS	4		LW-200P-04		
CONSOLE	MIXING CONSOLE, 32CH	1	SOUND CRAFT	SI PERFORMER 3		GIGBIT PATCH CABLES
	DANTE CARD	1		DANTE CARD D		
AMP#1	AMP #1, 8 CH, 8K W	2	Q-SYS	CX-Q 8K8		WEST PENN 227
AMP#2	AMP #2	1	CROWN	DCI 2/600		WEST PENN 227
AMP#3	AMP #3	1	CROWN	DCI 2/300		WEST PENN 227
S6	FOLD BACK SPEAKER	2	COMMUNITY	I2-W8	1-GANG 3" DEEP BOX	WEST PENN 227
	SPEAKER FLYING HARDWARE	A/R	CUSTOM	CUSTOM	3/4" C. THROUGHOUT	
SMP	MONITOR SPEAKER CONNECTION PLATE	OFP	CUSTOM	SEE DETAIL	1 GANG BOX	WEST PENN 227
	PANEL MOUNT 4 POLE SPEAKON	1	NEUTRIK	NL4	1" C THROUGHOUT	
S10	MONITOR SPEAKER	1	EV	SX100+WE		
	MOUNTING HARDWARE	AR	CUSTOM	CUSTOM		
S2M	STEREO TO MON	A/R	EDCOR	S2M		
▼2	NETWORK JACK	2	CUSTOM	SINGLE GANG WITH 2 RJ45	1-GANG 3" DEEP BOX 3/4" C. THROUGHOUT	WEST PENN 254246
M C	CEILING MICROPHONE	OFP	AUDIO TECHNICA	U853AW	DEEP 3", 1-GANG BACK BOX 3/4" C. THROUGHOUT	WEST PENN 25291B
Aux	AUX INPUT	OFP	RDL		1-GANG 3" DEEP BOX 3/4" C. THROUGHOUT	WEST PENN 25291B
	LINE ARRAY SPEAKER	5	Q-SYS	WL3082	DEEP 1-GANG BOX	WEST PENN 25210
	CABLE CONNECTOR	A/R	NEUTRIK	NL8FC		
	ARRAY FRAME	1	Q-SYS	AF3082-S		
	PULL BACK BAR	1	Q-SYS	PB3082		
S6	CLASSROOM AMPLIFIER	OFCI	LIGHTSPEED	CASCADIA	INSTALL IN RACK	WEST PENN 454 WEST PENN 254346 - YELLOW

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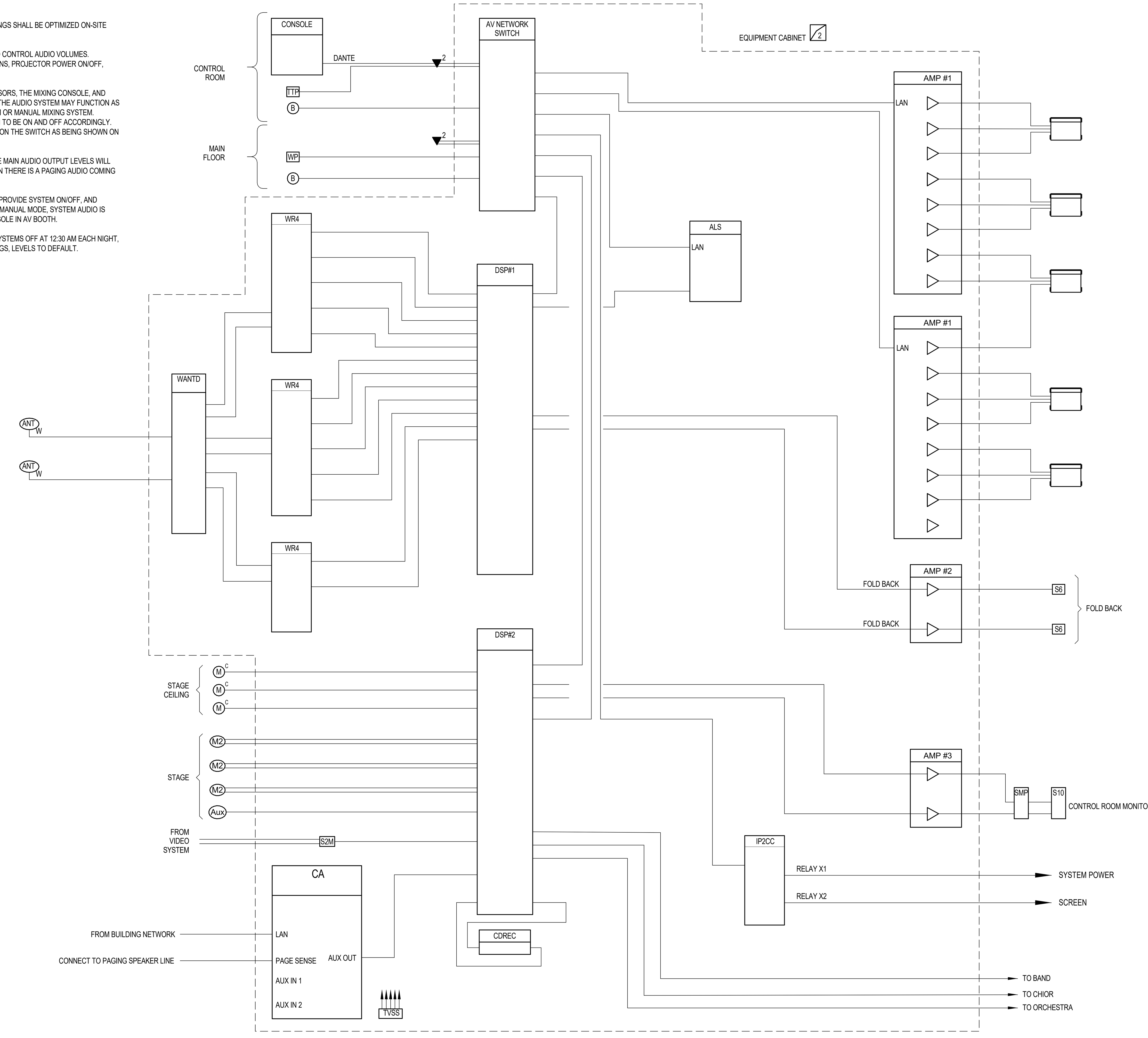

1 AUDIO SYSTEM (CAFETERIUM D104)
SCALE: NONE

VIDEO SYSTEM - CAFETORIUM - EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
	SURFACE MOUNTED SCREEN 160"X284" 12" BLACK DROP 16:9 PROFESSIONAL ELECTROL, MATT WHITE BLACK SCREEN CASE, PROJECTOR SCREEN SURFACE FACING AUDIENCE	1	DA-LITE	CUSTOM 38701		
UD	THREE POSITION CONTROL SWITCH	1	DA-LITE	AS RECOMMENDED BY DA-LITE	1-GANG 3" DEEP 3/4" CONDUIT THROUGHOUT SWITCH HEIGHT	AS RECOMMENDED BY MANUFACTURER
	LOW VOLTAGE CONTROLLER	1	DA-LITE	LVC-IV		
H	HDMI INPUT, WALL	A/R	EXTRON	DTP T HWP 4K 331 D	1-GANG 3" DEEP (2) 3/4"C. TO EQUIPMENT CABINET #2	WEST PENN 254246F
HDMI RX	HDMI RECEIVER, BEHIND DISPLAYS	A/R A/R	EXTRON	DTP R HWP 4K 331 D	1-GANG, 3" DEEP 3/4" C. TO EQUIPMENT CABINET #2	WEST PENN 254246F WEST PENN 25591
VS	HDMI SWITCHER & CONTROL PROCESSOR	A/R	EXTRON	DTP CROSS POINT 82 4K IPCP MA70		EXTRON HDMI PRO
DTPDA	DTP DA, 4 PORTS	1	EXTRON	DTP HD DA4 4K 230		EXTRON HDMI PRO EXTRON XTP DTP 24P
TTP	TOUCH PANEL, 5", TABLE TOP	1	EXTRON	TLP PRO 525T		WEST PENN 254246F
AV NETWORK SWITCH	AV NETWORK SWTICH	1	NETGEAR	AV LINE GSM4212PX		WEST PENN 254246
SIGNAGE80	SHARED WITH SIGNAGE SYSTEM	2				
	PROJECTOR. 16:9, 16K LUMENS W/LENS	1	PANASONIC	PT-RQ18K		EXTRON HDMI PRO
	LENS	1	PANASONIC	ET-D3LET30		
	PROJECTOR MOUNT, MICRO ADJUSTABLE	1	CHIEF	VCTU		
	INTEFACE PLATE	1	CHIEF	HCUW (INCLUDED)		
	CEILING MOUNTING	1	CUSTOM	CUSTOM		
	POLE	A/R	CUSTOM	CUSTOM		
	RIGGING	A/R	CUSTOM	CUSTOM		
	VIBRATION ISSOLATOR	1	MIDDLE ATLANTIC	CMA347		

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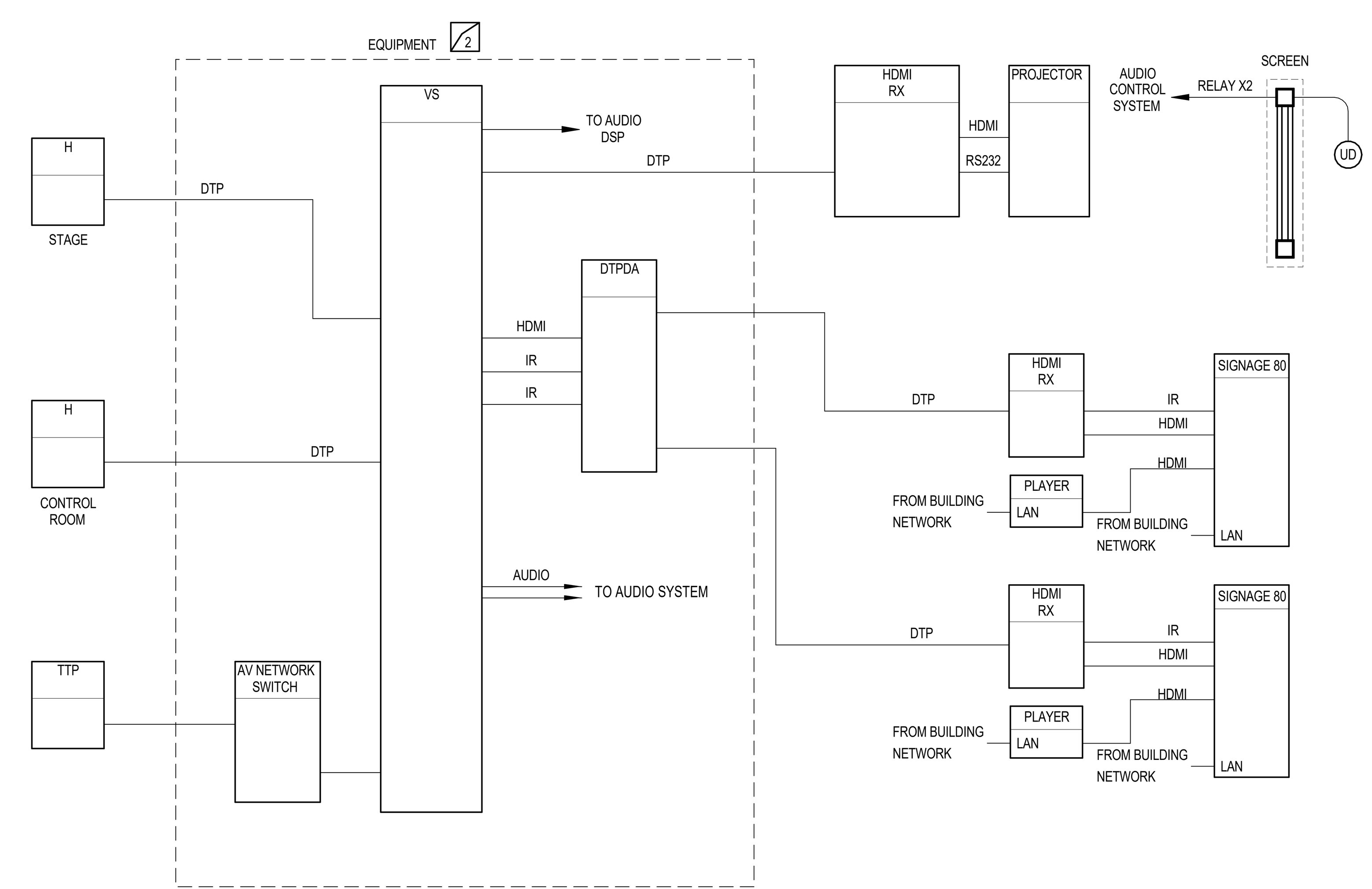

1 VIDEO SYSTEM RISER (CAFETORIUM-1, D104-1)
SCALE: NONE

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:
DATE:
MARK:

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

AV RISER & EQUIPMENT LIST

E-573

AUDIO SYSTEM - FORUM - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
	EQUIPMENT CABINET:		MID ATLANTIC		12X12 BACK BOXIN WALL	
	WALL MOUNT PIVOTING	1		DWR-24-26	SEE DETAIL	
	VENTED FRONT DOOR	1		LVFD-24		
	RACK DRAWER	1		D3		
	BLANK PANEL	A/R		1RU, 2RU, 3RU		
	POWER STRIP, VERTICAL	1		PDT-1620C-NS		
	HORIZONTAL LACE BAR	A/R		LBP-2A		
	VERTICAL CABLE LACING STRIP	A/R		LACE-23-OP		
DSP	DSP, AUDIO W/	A/R	Q-SYS	CORE 110F V2		WEST PENN 254246
	REQUIRED UCI, SCRIPTING, AND DANTE LICENSES					WEST PENN 454
WP	WALL PANEL TOUCH CONTROLLER	1	Q-SYS	TSC-70-G3	2-GANG BOX SEE ELEVATION	WEST PENN 254346
	WALL COVER	1	FSR	PSTSC-70-G3		
AMP #1	AMPLIFIER, #1	1	CROWN	DCI 8/600	INSTALL IN RACK	WEST PENN 25225B OR APPROVED EQUAL
WM4 ANT W	WIRELESS MICROPHONE SYSTEM				QTY(2) 1-GANG BOX FOR ANTENNA W/	GIGABIT PATCH CABLE - CONNECT TO AV NETWORK
	RECEVIER, 4CH	1	SHURE	ULXD4QGV=-G50	3/4" C. TO RACK.	WEST PENN 225 INSTALLED MIC CABLE, W NEUTRIK NC3MXX-B
	1/2 WAVE ANTENNA	2	INCLUDED		INSTALL TRANSMITTER IN RACK.	WESTY PENN 810
	HANDHELD MIC	2	SHURE	ULXD2/SM58	STORE EQUIPMENT IN RACK.	
	BODY PACK TRANSMITTER	1	SHURE	ULXD1/MX153		
	BATTERY CHARGING STATION	1	SHURE	SBC200		
	SPARE BATTERIES	2	SHURE	SB900B		
	SHELF FOR CHAGING STATION, (3RU)	1	NR	NR		
	REMOTE ANTENNA MOUNTING KIT	2	SHURE	UA505		
TVSS	POWER CONDITIONER & SEQUENCER	1	FURMAN	CN-1800S	INSTALL IN RACK	
	PORTABLE EQUIPMENT				PROVIDE TO OWNER, AND STORE IN RACK	
	HANDHELD MIC, WIRED	1	SHURE	BETA 58A	DRAWER	
	MICROPHONE CORD, 25'	1	AUDIO TECHNICA	AT8314-25		
	MIC CORD 50'	1	AUDIO TECHNICA	AT8314-50		
CP3	CONNECTION PLATE #3. SEE DETAIL	OFP			3 GANG	
	MIC & AUX INPUT	1	RDL	DS-J3M	SEE DETAIL	WEST PENN 25510
	HDMI INPUT	2	COMPREHENSIVE	WPD-HD1-AW		
	AV DATA CONNECTIONS	1	CUSTOM	SEE DETAIL		
S 70-8	SPEAKER, RECESSED, 70V, 2 WAY, 8"	OFP	COMMUNITY Q-SYS	CMX20DT OR AC-C6T	INTALL IN CEILING AT LOCATION SHOWN SEISMICALLY SECURE TO STRUCTURE.	WEST PENN 25225B
ALS	ASSISTIVE LISTENING SYSTEM, 2 CH WIFI W/	1	LISTEN	LWS-10-A1		
	SERVER	INC				
	RECEIVERS	INC				
S2M	STEREO TO MONO	A/R	EDCOR	S2M		
CA	CLASSROOM AMPLIFIER	OFCI	LIGHTSPEED	CASCADIA	INSTALL IN RACK	WEST PENN 454 WEST PENN 254346 - YELLOW

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VIDEO SYSTEM - FORUM - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
	PROJECTION SCREEN, 16:9, 108" X 192", 110V MOTOR	1	DRAPER	140034U		
	MATT WHITE XTT1000VB, WHITE CASE W/					
KS	KEY SWITCH	1		KS-1	INSTALL IN RACK PLATE	WEST PENN 254246
	LVC CONTROL MODULE	1		LVC-IV		
CP3	CONNECTION PLATE #3	OFP	SPECIFIED AS PART OF FORUM AUDIO SYSTEM			
HDMI RX	HDMI RECEIVER, PROJECTOR	1	EXTRON	DTP HDMI 4K 230 RX		WEST PENN 254246F
SW4	HDMI SWITCHER 1X4, 4K	1	EXTRON	IN 1804 DO		EXTRON HDMI PRO
AV SWITCH	AV NETWORK SWTICH	1	NETGEAR	AV LINE GSM4212P		WEST PENN 254246
WPS	WIRELESS PRESENTATION SYSTEM	OFCI	COORDIANTE W/ OWNER			
	PROJECTOR. 16:9, 16K LUMENS W/LENS	1	EPSON	EB PU1007W		EXTRON HDMI PRO
	LENS, TR: 1.04 TO 1.46	1	EPSON	ELPW05		
	PROJECTOR MOUNT, MICRO ADJUSTABLE	OFP	CHIEF			
	PROJECTOR MOUNT, MICRO ADJUSTABLE	1	CHIEF	RPMAU		
	VIBRATION ISSOLATOR	1	CHIEF	CMA348	INSTALL BETWEEN POLE SEGEMENTS	
	POLE	2	CUSTOM	CUSTOM		
	UNISTRUT OFFSET ADAPTER	1	CHIEF	CMA372	INSTALL UNISTRUT BETWEEN STRUCTURE	

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AV SYSTEM - CONFERENCE ROOM - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/RM	SUPPLIER	MODEL	ROUGH-IN	CABLE
SMARTPANEL	DISPLAY, 75"	OFCI	COORDINATE W/ OWNER		BACK BOX REFER TO EP SHEETS FOR DETAILS.	
	DISPLAY WALL MOUNT	OFCI	COORDINATE W/ OWNER			
	JUNCTION BOX	1	BY DIV 26 SEE SCHEDULE			
AV 2	TV CONNECTION PLATE 'AV2'	OFP	CUSTOM	SEE DETAIL	INSTALL IN DISPLAY BACK BOX INSTALL ON WALL OR IN FLOOR BOX AS SHOWN ON PLANS	WEST PENN 254346
HU TX	HDMI & USB TRANSMITTER, WALL	OFP	EXTRON	DTP3 T 212 D		WEST PENN 254346
	HDMI & USB TRANSMITTER, FLOOR BOX	OFP	EXTRON	DTP3 T 301	INSTALL IN FLOOR BOX	WEST PENN 254346
HU RX	HDMI & USB RECEIVER	OFP	EXTRON	DTP3 R 301	INSTALL BEHIND DISPLAY	WEST PENN 254346
	CABLES, PATCH & CONNECTION, PER ROOM					
	GIGABIT PATCH CABLE, POE RATED, 6'	2	BELDEN			
	GIGABIT PATCH CABLE, POE RATED, 10'	1	BELDEN			
	HMDI PATCH CABLE. 6'	1	KRAMER			
	HDMI PATCH CABLE, 10'	1	KRAMER			
	USB PATCH CABLE	2	CUSTOM	VERIFY REQ W/ OWNER		
CA	CLASSROOM AMP	OFI	LIGHTSPEED	CASCADIA		WEST PENN 454
	PAGE SENSE CABLE			PAGE SENSE CABLE		WEST PENN 254346 - YELLOW
	JUNCTION BOX AMPLIFIER LOCATION	1	NR	10"X10"X4"	SEE ELEVATION DETAIL	
S 8Ω	RECESSED SPEAKER, DROP TILE KIT W/	OFP	ATLASIED	SD72W-KIT		WEST PENN 25225B
	TILE BRIDGE			81-8R		
	BACK CAN			CS95-8		
	BAFFLE			62-8		
	SPEAKER, BYPASS TRANSFORMER			SD72		
KP	KEYPAD & CONTROLLER	1	EXTRON	MLC PLUS 50	1-GANG BOX 1" C. TO ACCESSIBLE CEILING SPACE	WEST PENN 254346

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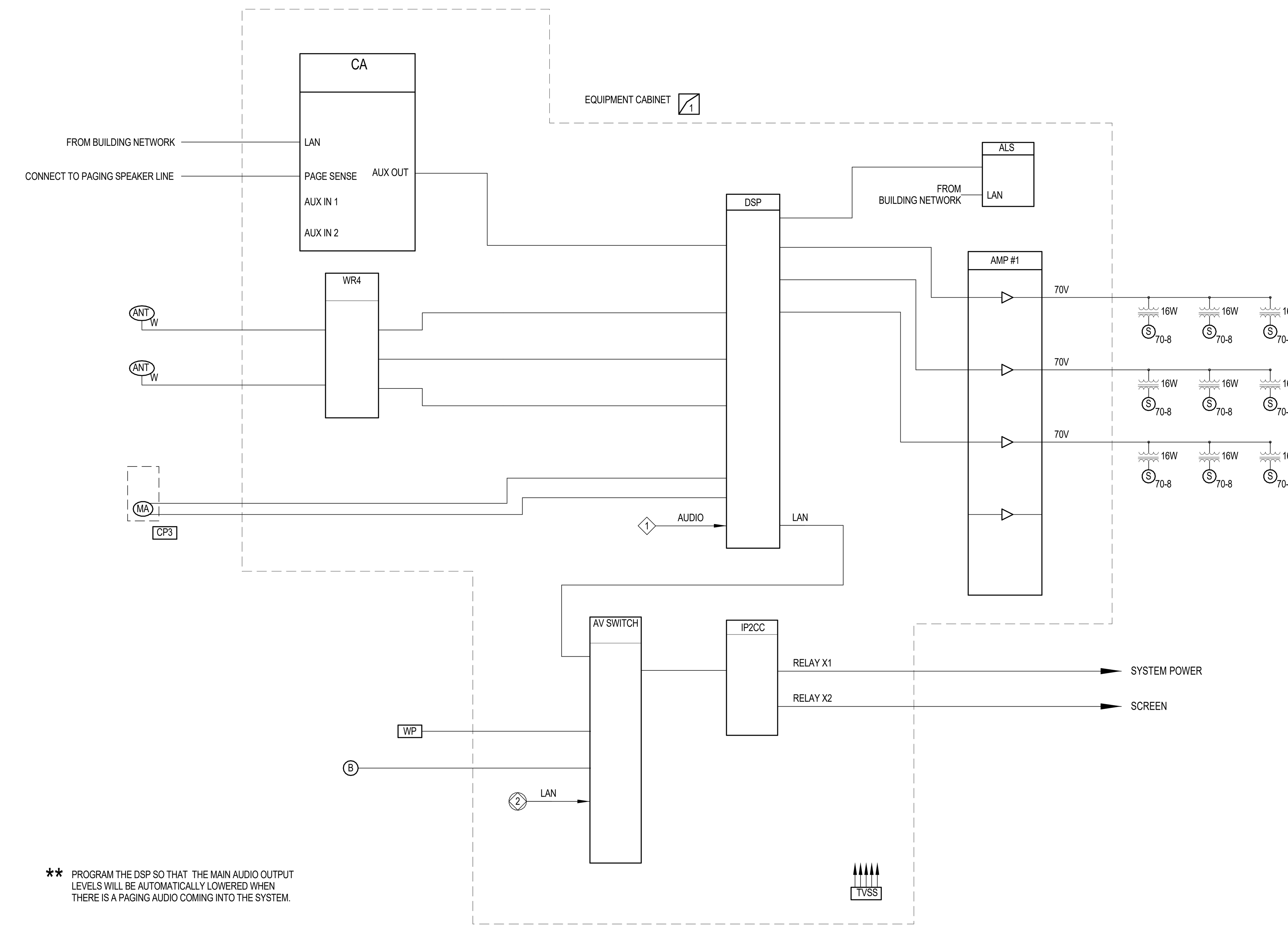
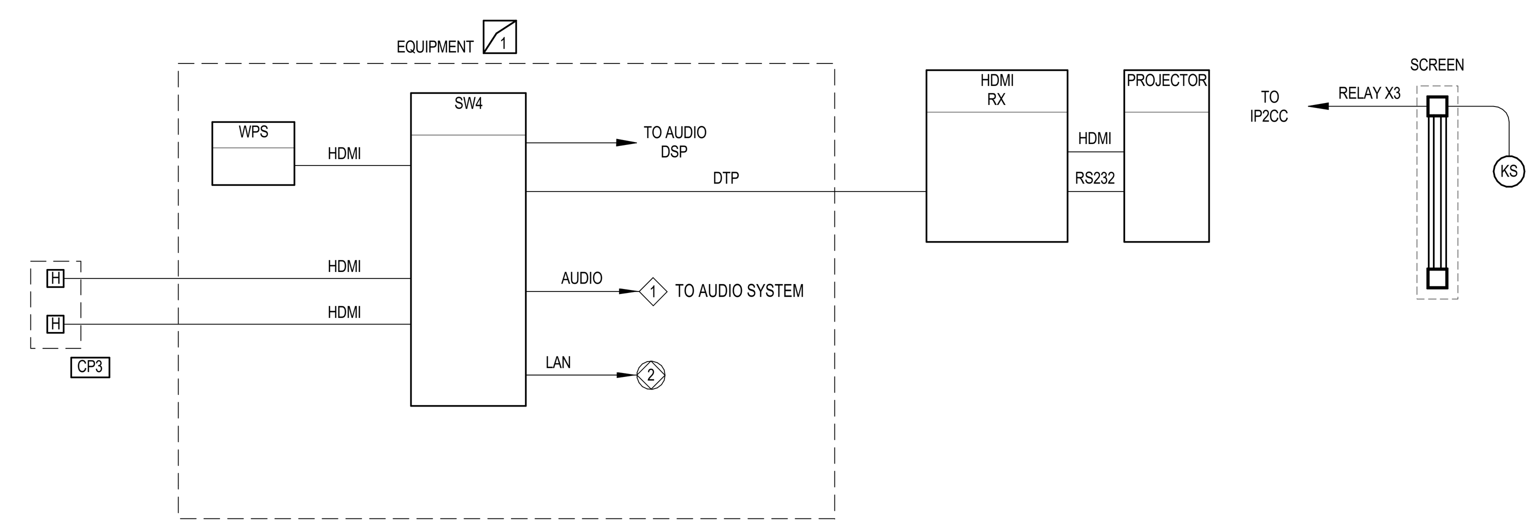
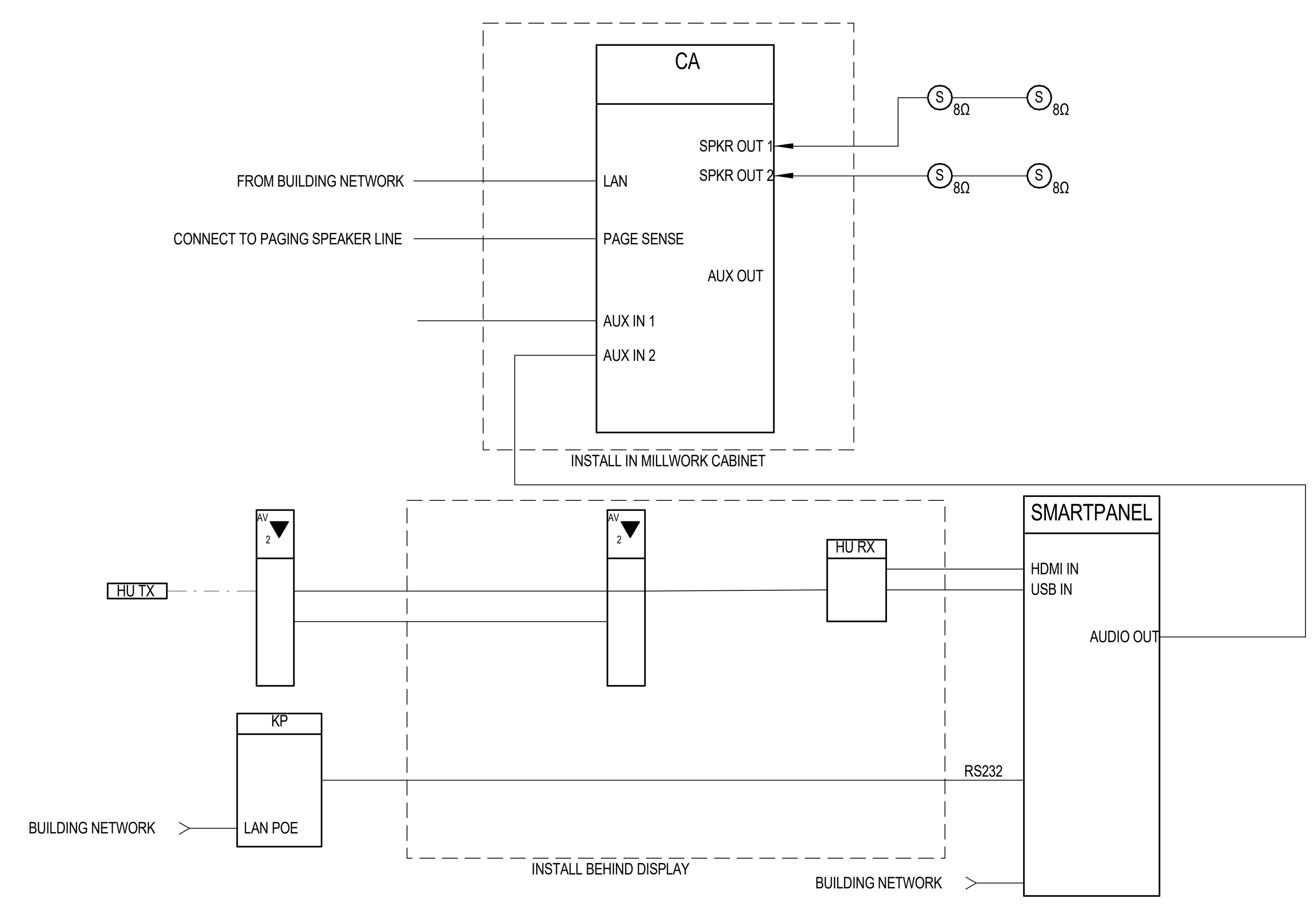


1 AUDIO SYSTEM - FORUM - RISER
SCALE: NONE



2 VIDEO SYSTEM -FORUM - RISER
SCALE: NONE



3 AV SYSTEM - CONFERNCE ROOM - RISER DIAGRAM
SCALE: NONE

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CACHE COUNTY SCHOOL DISTRICT

MARK: | DATE: | DESCRIPTION:

CONSTRUCTION DOCUMENTS

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

AV RISER & EQUIPMENT LIST

E-574

AV SYSTEM - GYM - EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
3	EQUIPMENT RACK, 46RU, 28" D. X 23.5" W.	1	MIDDLE ATLANTIC	SR-46-28	12X12X6" BACK BOX IN WALL	
	FRONT DOOR	1		PFD-46		
	VERTICAL POWER STRIP	1		PD-2420SC-NS	SEE DETAIL	
	RACK MOUNT DRAWER	1		UD3		
	VERTICAL CABLE LACING STRIP	4		LACE-44-OWP		
	HORIZONTAL LACING BAR	A/R		LBP-2A		
	BLANK PANEL	A/R		NR		
WR4	WIRELESS MICROPHONE SYSTEM				QTY(2) 1-GAGN BOX FOR ANTENNA W/	GIGABIT PATCH CABLE - CONNECT TO AV NETWORK
	RECEVIER, 4CH	1	SHURE	ULXD4QGV=-G50	3/4" C. TO RACK.	WEST PENN 225 INSTALLED MIC CABLE, W NEUTRIK NC3MXX-B
	1/2 WAVE ANTENNA	2	INCLUDED		INSTALL TRANSMITTER IN RACK.	WEST PENN 810
	HANDHELD MIC	2	SHURE	ULXD2/SM58	STORE EQUIPMENT IN RACK.	
	BODY PACK TRANSMITTER	2	SHURE	ULXD1/MX153		
	BATTERY CHARGING STATION	2	SHURE	SBC200		
	SPARE BATTERIES	4	SHURE	SB900B		
	SHELF FOR CHAGING STATION, (3RU)	1	NR	NR		
	REMOTE ANTENNA MOUNTING KIT	2	SHURE	UA505		
	1/8" THICK PLEXI-GLASS ANTENNA CONVER	2	AMERICAN TIME OR EQUAL	CUSTOM - HTTPS://WWW.AMERICAN-TIME.COM/GET-QUOTE-GUARD-BUILDER/		
DSP	DIGITAL SIGNAL PROCESSOR, W/	1	Q-SYS	CORE 110F V2		WEST PENN 25225
	UCI, SCRIPTING AND DANTE LICENSES	A/R				WEST PENN454
	AUDIO IO EXPANSION	A/R		QIO-ML4I, QIO-LO4, QIO-ML2X2		WEST PENN 254346
	GPIO EXPANSION	A/R		QIO-GP8X8		
	RELAY CONTOL MODULE	A/R	GLOBAL CACHE	ITACH IP2CC		
TVSS	POWER CONDITIONER & SEQUENCER	1	FURMAN	CN-1800S	INSTALL IN RACK	
AMP#1	AMPLIFER, 70V 8 CHANEL	1	CROWN	DCI\8400	INSTALL IN RACK	WEST PENN 25225
	PORTABLE EQUIPMENT				PROVIDE TO OWNER, AND STORE IN RACK	
	MIC STAND	2	ATLAS IED	MS-203		
	MIC STAND BOOM	2	ATLAS IED	PB21XEB		
	HANDHELD MIC, WIRED	2	SHURE	BETA 58A	DRAWER	
	MICROPHONE CORD, 25'	2	AUDIO TECHNICA	AT8314-25		
	MIC CORD 50'	2	AUDIO TECHNICA	AT8314-50		
WP	WALL PLATE, TOUCH SCREEN CONTROLLER	OFP			SEE DETAIL	WEST PENN 254345
	WALL PLATE	1/PLATE	Q-SYS	TSC-70-G3		
	BACK BOX, AND COVER	1/PLATE	FSR	WB-PSTSC-70-G3		
B	BLUETOOTH CONNECTION PLATE	OFP			SEE DETAIL	WEST PENN 254345
	BLUETOOTH, FRMT A		RDL	D-BT1A		
	FRMT A RECEIVER, IN RACK	1	RDL	TX-TPR2A		
	1-GANG WIRE COVER	1	NR	NR		
	SPEAKER, MAIN FLOOR	OFP	COMMUNITY	R-35COAX	1-GANG BOX	WEST PENN 25225B
	SURFACED, WHITE, 200W EACH	OFP	CUSTOM	FLYING HARDWARE	3/4" C. THROUGHOUT	
PS	SPEAKER, BLEACHERS, WHITE 200 W. 70V	OFP	COMMUNITY	IC6-2082T26	CUSTOM MOUNTING	WEST PENN 25225B
	SAFETY CABLE EYEBOLT MOUNT		CUSTOM	CUSTOM	IP81152	
	HORIZONTAL MOUNTING BRACKET			IUB2082W		
SUB	SPEAKER, SUB	OFP	COMMUNITY	IS8-115W		WEST PENN 25227B
AMP#2	AMPLIFER, 70V, FOR SUB	1	BIAMP	ALC-404D	INSTALL IN RACK	
ALS	ASSISTIVE LISTNING SYSTEM, 2 CH	1	LISTEN	LW-100P-02		
	RECEIVERS	4		LWR-1020		
S2M	STEREO TO MONO	A/R	EDCOR	S2M		
AV SWITCH	AV SWTICH, 30 PORT, POE+, 300w	1	NETGEAR AVLINE	GSM4230P (OR EQUAL)		GIGABIT PATCH CABLES, LEN AS REQUIRED
MA	MICROPHONE & AUX INPUT PLATE	OFP	RDL	D-J3M	1 GANG BOX 3/4" C THROUGHOUT	WEST PENN 454
MD MDR	MICROPHONE & DANTE BLEACHER CONNECTION PLATE	OFP	SEE DETAIL			CUSTOM XLR PATCH CABLE
	PANELMOUNT ETHERCON COUPLER					LAIRD ETHERCON PATCH CABLE CAT6-EC-XXX, DENOTES LENGTH
	PANEL MOUNT, XLR JACK					
	XLR PATCH CABLE	1/PLATE	CUSTOM			CANARE L-2TS
	LOCKING 3 PIN XLR MALE		NEUTRIK	NC3MXX-EMC		
	LOCKING 3 PIN XLR FEMALE		NEUTRIK	NC3FXX-EMC		
	MICROPHONE & DANTE REAR BLEACHER PLATE	OFP	SEE DETAIL			CUSTOM XLR PATCH CABLE
	PANELMOUNT ETHERCON JACK					
	PANEL MOUNT, XLR COUPLER, MAKE TO FEMALE					
IP2CC	IP CONTACT CLOSURE MODULE	OFP	GLOBAL CACHE	ITACH IP2CC		GIGBIT PATCH CABLE, POE RATED
CA	ZONE MODULE	1	LIGHTSPEED	CASCADIA		

A/R = AS REQUIRED; NIC= NOT IN CONTRACT; NR = NO REQUIREMENT, OFCI = OWNER FURNISHED CONTRACTOR INSTALLED; OFP = OBTAIN FROM PLANS; OFOI =OWNER FURNISHED & INSTALLED

AV SYSTEM - GYM SCREEN - EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY/ROOM	SUPPLIER	MODEL	ROUGH-IN	CABLE
	PROJECTOR SCREEN, WALL MOUNT, MOTORIZED, 110V 216" X 121-1/2", W/	1	DRAPER	CL510		
	LOW VOLTAGE CONTROL INTERFACE	1		LVC-IV		
	ROCKER AND KEY SWITCH	1		KS1/SS-1R		

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AV SYSTEM - AUX GYM - EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
3	EQUIPMENT RACK, 46RU, 28" D. X 23.5" W.	SPECIFIED AS PART OF GYM SYSTEM				
WR4	WIRELESS MICROPHONE SYSTEM				QTY(2) 1-GANG BOX FOR ANTENNA W/	GIGABIT PATCH CABLE - CONNECT TO AV NETWORK
	RECEVIER, 4CH	1	SHURE	ULXD4QGV=-G50	3/4" C. TO RACK.	WEST PENN 225 INSTALLED MIC CABLE, W NEUTRIK NC3MXX-B
	1/2 WAVE ANTENNA	2	INCLUDED		INSTALL TRANSMITTER IN RACK.	
	HANDHELD MIC	1	SHURE	ULXD2/SM58	STORE EQUIPMENT IN RACK.	
	BODY PACK TRANSMITTER	1	SHURE	ULXD1/MX153		
	BATTERY CHARGING STATION	1	SHURE	SBC200		
	SPARE BATTERIES	2	SHURE	SB900B		
	SHELF FOR CHAGING STATION, (3RU)	1	NR	NR		
	REMOTE ANTENNA MOUNTING KIT	2	SHURE	UA505		
	1/8" THICK PLEXI-GLASS ANTENNA CONVER	2	AMERICAN TIME OR EQUAL	CUSTOM - HTTPS://WWW.AMERICAN-TIME.COM/GET-QUOTE-GUARD-BUILDER/		
DSP	DIGITAL SIGNAL PROCESSOR, W/	1	Q-SYS	CORE 110F V2		
	UCI, SCRIPTING AND DANTE LICENSES	A/R				
	AUDIO IO EXPANSION	A/R		QIO-ML4I, QIO-LO4, QIO-ML2X2		
	GPIO EXPANSION	A/R	QIO-GP8X8	QIO-GP8X8		
	RELAY CONTOL MODULE	A/R	GLOBAL CACHE	ITACH IP2CC		
TVSS	POWER CONDITIONER & SEQUENCER	1	FURMAN	CN-1800S	INSTALL IN RACK	
AMP#3	AMPLIFER, 70V 8 CHANEL	1	CROWN	DCI\2400	INSTALL IN RACK	
	PORTABLE EQUIPMENT				PROVIDE TO OWNER, AND STORE IN RACK	
	MIC STAND	2	ATLAS IED	MS-203		
	MIC STAND BOOM	2	ATLAS IED	PB21XEB		
	HANDHELD MIC, WIRED	2	SHURE	BETA 58A	DRAWER	
	MICROPHONE CORD, 25'	2	AUDIO TECHNICA	AT8314-25		
	MIC CORD 50'	2	AUDIO TECHNICA	AT8314-50		
WP	WALL PLATE, TOUCH SCREEN CONTROLLER	OFP			SEE DETAIL	WEST PENN 4246AF
	WALL PLATE	1/PLATE	Q-SYS	TSC-70-G3		
	BACK BOX, AND COVER	1/PLATE	FSR	WB-PSTSC-70-G3		
B	BLUETOOTH CONNECTION PLATE	OFP			SEE DETAIL	WEST PENN 4246AF
	BLUETOOTH, FRMT A		RDL	D-BT1A		
	FRMT A RECEIVER, IN RACK	1	RDL	TX-TPR2A		
	1-GANG WIRE COVER	1	NR	NR		
	SPEAKER, MAIN FLOOR	OFP	COMMUNITY	R-35COAX	1-GANG BOX	
	SURFACED, WHITE, 200W EACH	OFP	CUSTOM	FLYING HARDWARE	3/4" C. THROUGHOUT	WEST PENN 25225B
SUB	SPEAKER, SUB	OFP	COMMUNITY	IS8-115W		
AMP#4	AMPLIFER, 70V, FOR SUB	1	BIAMP	ALC-404D	INSTALL IN RACK	
ALS	ASISTIVE LISTNING SYSTEM, 2 CH RECEIVERS	SPECIFIED AS PART OF GYM SYSTEM				
S2M	STEREO TO MONO	A/R	EDCOR	S2M		
AV SWITCH	AV SWTICH, 30 PORT, POE+, 300w	SPECIFIED AS PART OF GYM SYSTEM				
ZONE MODULE	ZONE MODULE	OFCI	LIGHTSPEED	CASCADIA		

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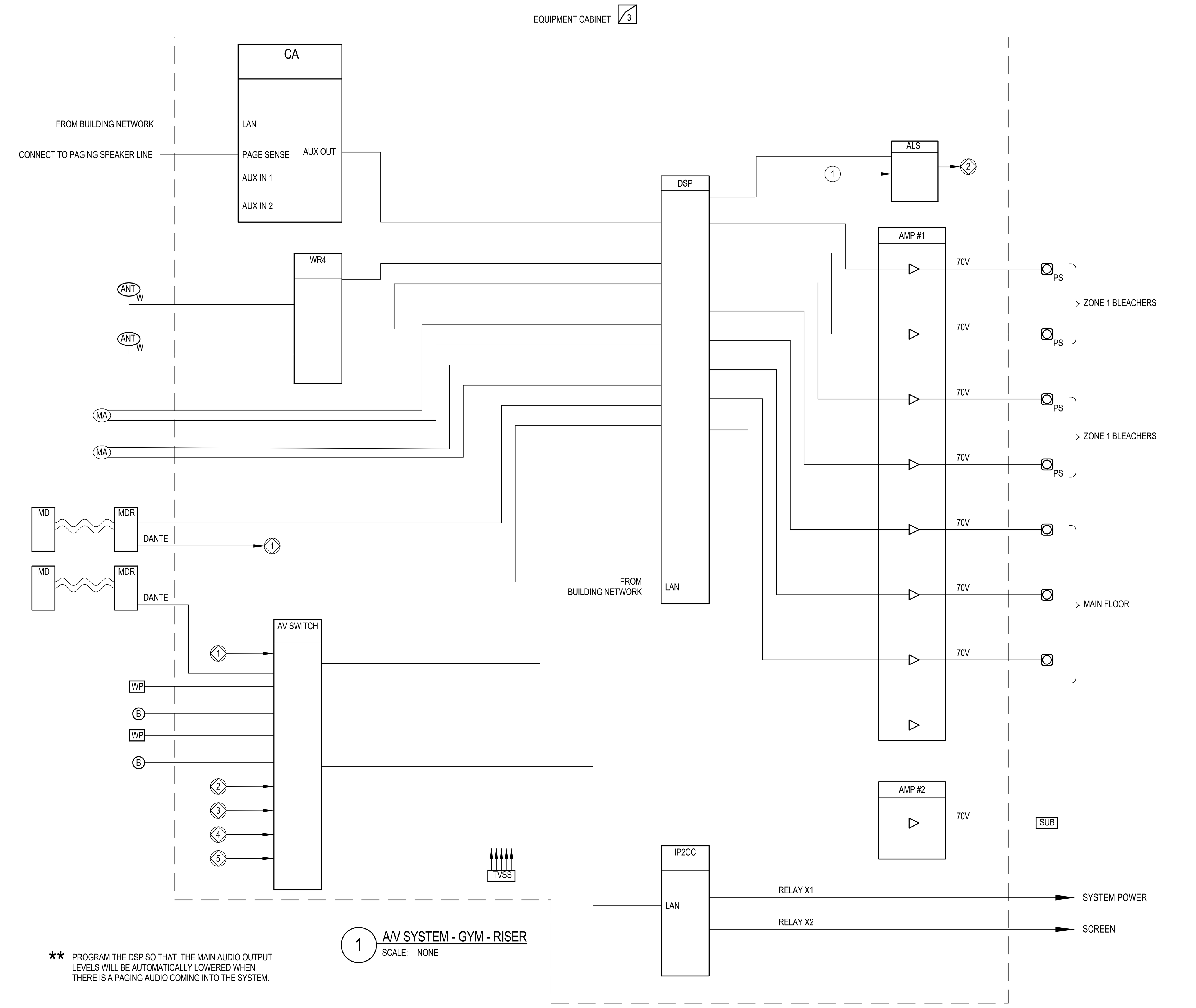
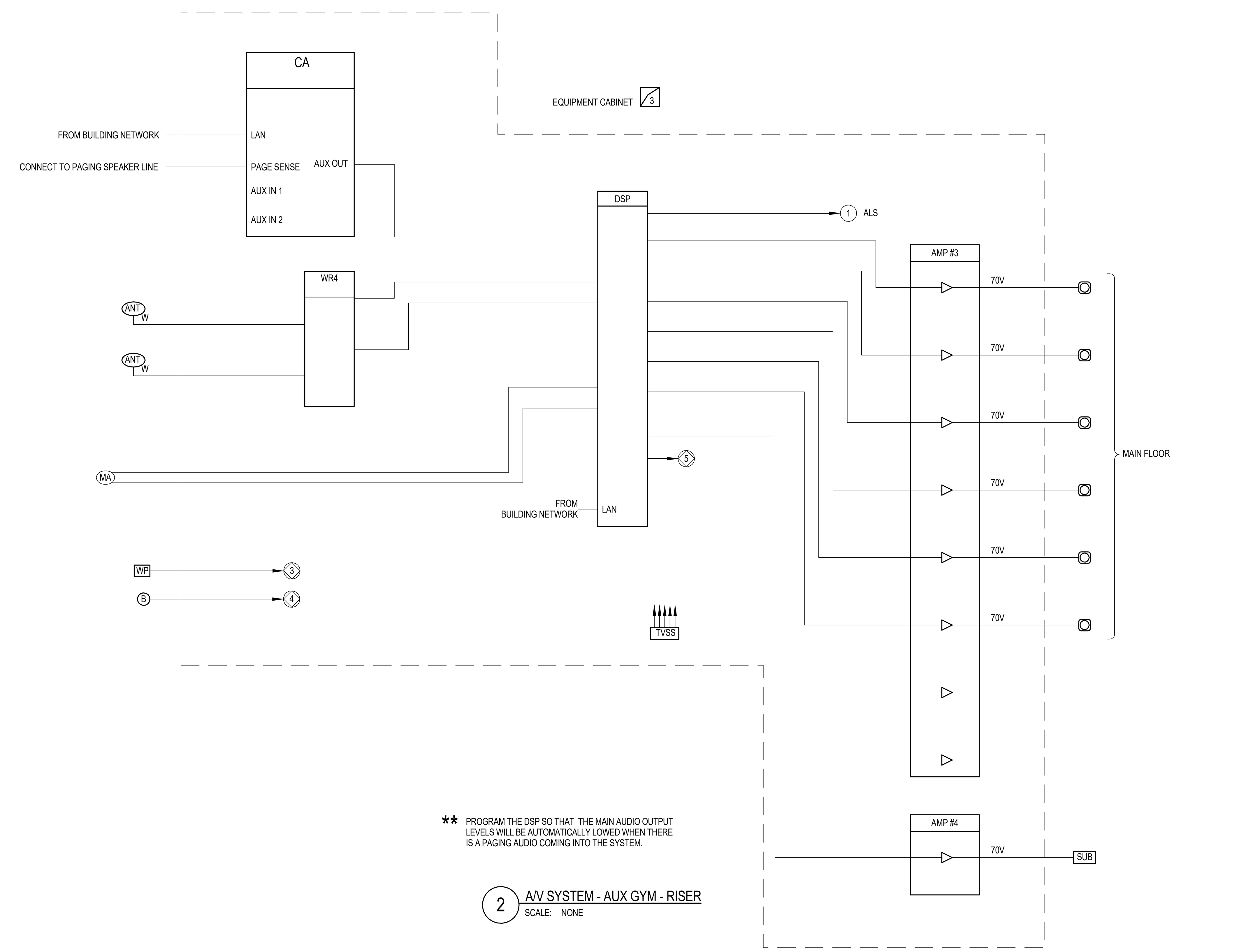


** PROGRAM THE DSP SO THAT THE MAIN AUDIO OUTPUT LEVELS WILL BE AUTOMATICALLY LOWERED WHEN THERE IS A PAGING AUDIO COMING INTO THE SYSTEM.

1 A/V SYSTEM - GYM - RISER
SCALE: NONE



** PROGRAM THE DSP SO THAT THE MAIN AUDIO OUTPUT LEVELS WILL BE AUTOMATICALLY LOWED WHEN THERE IS A PAGING AUDIO COMING INTO THE SYSTEM.

2 A/V SYSTEM - AUX GYM - RISER
SCALE: NONE

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CACHE COUNTY SCHOOL DISTRICT

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PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

CONSTRUCTION DOCUMENTS

AV RISER & EQUIPMENT LIST

E-575

AV SYSTEM - SOUND MASKING - EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
	RACK	SPECIFIED AS PART OF DATA SYSTEM				
S	MASKING SPEAKER, 70 V, 4W, SUSPENDED SUSPENSION CHAIN	OFP	ATLAS SOUND	M1000 MCHAIN72		
MGEN	MASKING GENERATOR KIT W/ GENERATOR RACK MOUNT POWER SUPPLY	1 INC INC INC	ATLAS SOUND	GPN1200K	INSTALL IN RACK	WEST PENN 25225B
AMP	AMPLIFIER, 40 W RACK MOUNT KIT	1 1	ATLAS SOUND	MA40G PA702RMK	INSTALL IN RACK	WEST PENN 454

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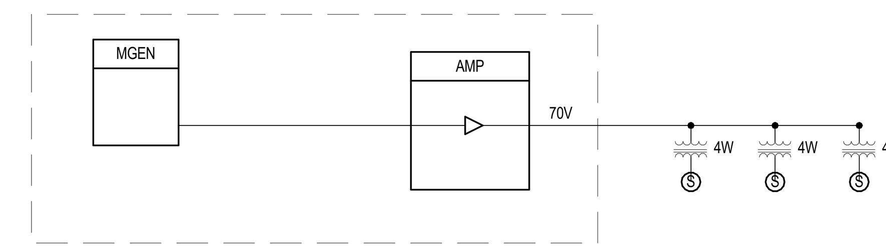

SET MASKING LEVELS BETWEEN 42 & 46 DBA, WHEN MEASURED AT 5' AFF.

2 A/V SYSTEM - MASKING SYSTEM - RISER
SCALE: NONE

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MARK:	DATE:	DESCRIPTION:

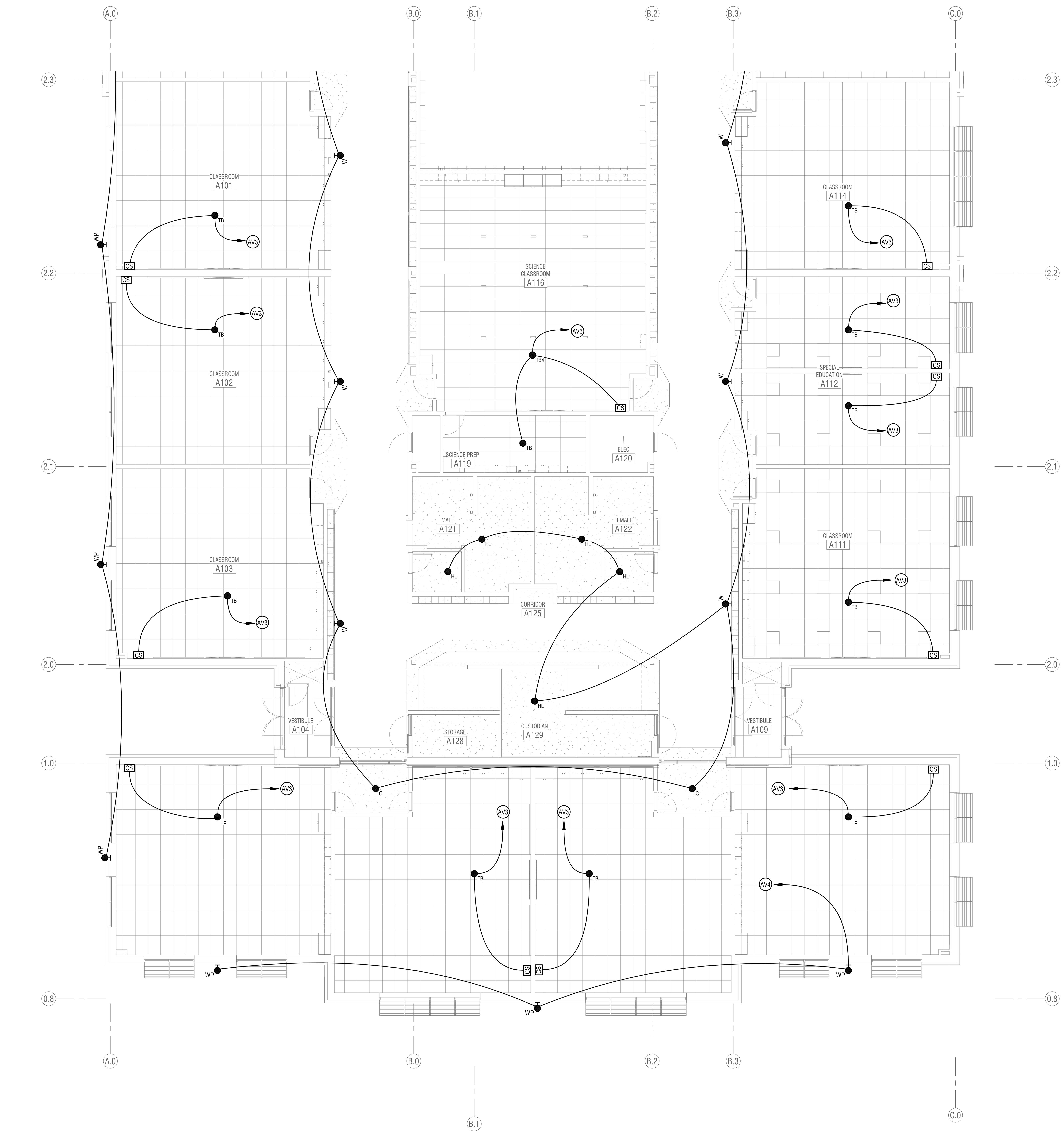
CONSTRUCTION DOCUMENTS

PROJECT #: 123006
DRAWN BY: SB
CHECKED BY: AH
ISSUED: 04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

AV RISER &
EQUIPMENT LIST

E-576



1 LEVEL 1 FLOOR PLAN - AREA A - INTERCOM
SCALE: 1/8" = 1'-0"

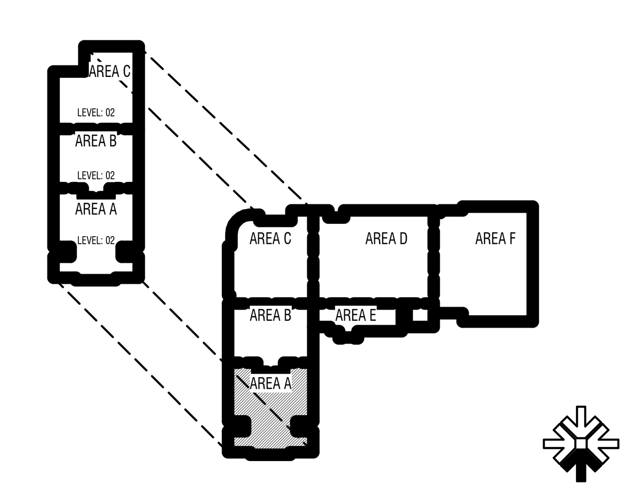
INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
2. WIRE ALL VOLUME CONTROLS SO THEY CONTROL ONLY SINGLE SPEAKER.
3. INTERCOM SYSTEM RISER DIAGRAMS, LAYOUTS, AND EQUIPMENT LISTS ARE BASED ON SIGNAL FLOWS OF AUDIO ENHANCEMENT EQUIPMENT. IF APPROVED ALTERNATE EQUIPMENT IS CHOSEN, LAYOUTS AND DIAGRAMS MAY BE DIFFERENT THAN THOSE SHOWN ON DRAWINGS. ADDITIONAL BOXES, PLATES, CABLES, RACK SPACES, AND POWER OUTLETS MAY BE REQUIRED AS DETERMINED BY THE INTEGRATOR WHO CHOOSES THE ALTERNATE EQUIPMENT. ALTERNATE EQUIPMENT INTEGRATOR SHALL BE RESPONSIBLE TO COORDINATE ALL CHANGES REQUIRED BY ALTERNATE EQUIPMENT TO ENSURE TURN-KEY SYSTEM WITH SIMILAR FUNCTIONALITY TO THAT SPECIFIED.
4. PROGRAM AND INSTALL REQUIRED RELAY CABLES AND CONDUITS BETWEEN THE ACCESS CONTROL SYSTEM AND THE INTERCOM SYSTEM AS DESIRED BY OWNER. PROGRAM THE INTERCOM SYSTEM SO THAT THE SYSTEM MAY TRIGGER ACCESS CONTROL SYSTEM WHEN RELAYS ARE ENERGIZED OR DE-ENERGIZED.
5. AV SYSTEMS INTEGRATORS WHO WISH TO BID ON THIS PROJECT MUST BE TRAINED AND CERTIFIED BY CLASSROOM VOICE LIFT SYSTEM MANUFACTURER SPECIFIED FOR THIS PROJECT.
6. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
7. COLORS OF ALL EXPOSED INTERCOM DEVICES INCLUDING INPUT & OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, AND SPEAKER ENCLOSURES SHALL BE REVIEWED BY OWNER PRIOR TO ORDERING.
8. CLASSROOM AMPLIFIERS MAY BE LOCATED ON WALL, CEILINGS, OR IN MILLWORK CABINETS. REFER TO PLANS FOR SPECIFIC DEVICE LOCATIONS.
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3	TO DATA RACK IN NEAREST MDF/IDF CLOSET.
AV4	TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.

KEY PLAN



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CONSTRUCTION DOCUMENTS

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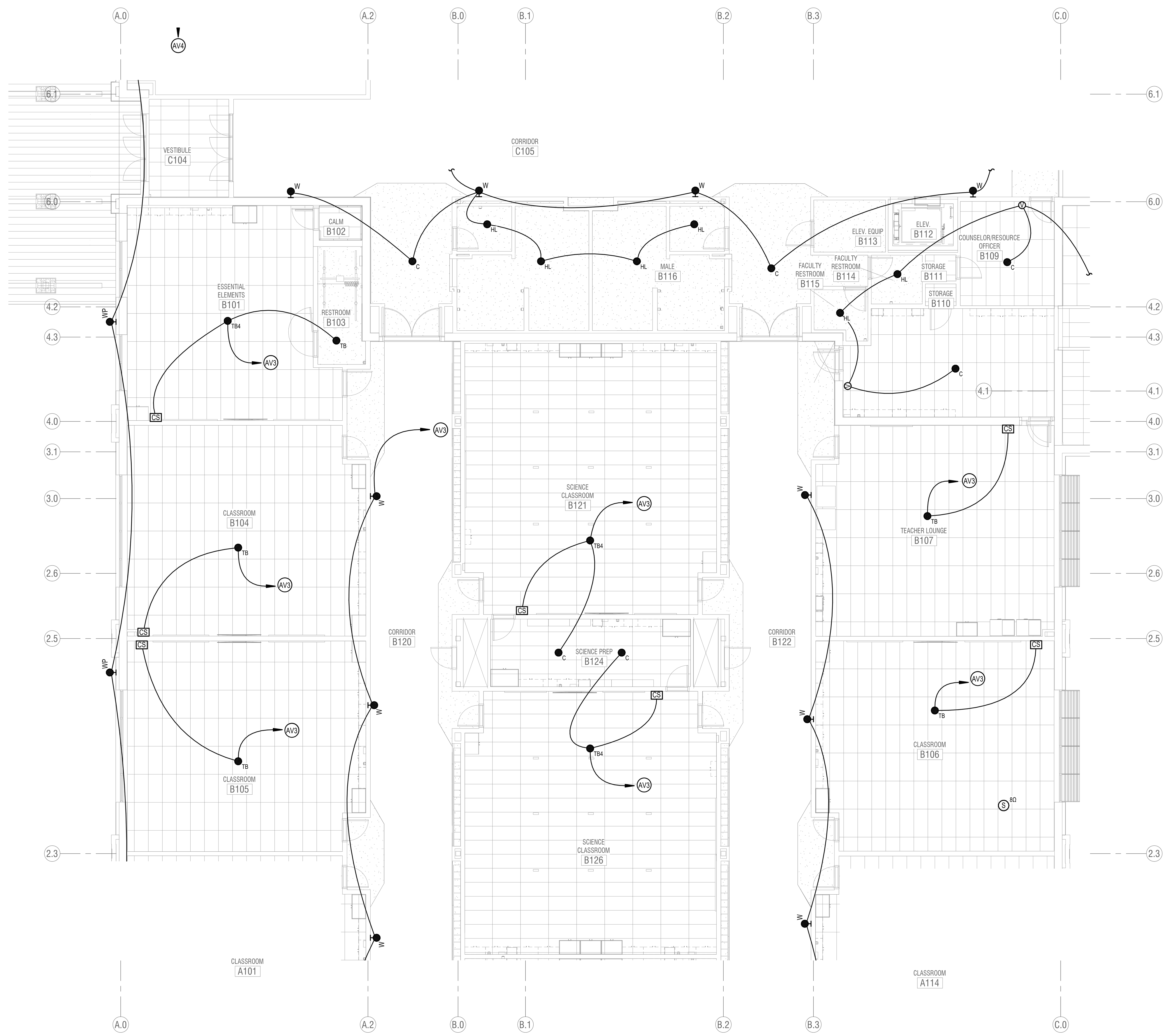
ISSUED: 04.26.2024

LEVEL 1 - AREA A - INTERCOM

E-611



1 LEVEL 1 FLOOR PLAN - AREA B - INTERCOM
SCALE: 1/8" = 1'-0"

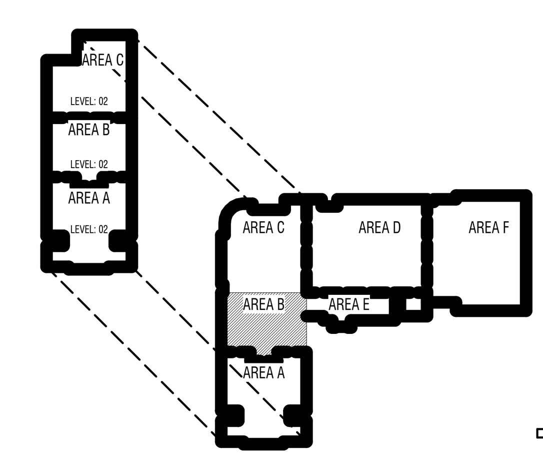
INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
2. WIRE ALL VOLUME CONTROLS SO THEY CONTROL ONLY SINGLE SPEAKER.
3. INTERCOM SYSTEM RISER DIAGRAMS, LAYOUTS, AND EQUIPMENT LISTS ARE BASED ON SIGNAL FLOWS OF AUDIO ENHANCEMENT EQUIPMENT. IF APPROVED ALTERNATE EQUIPMENT IS CHOSEN, LAYOUTS AND DIAGRAMS MAY BE DIFFERENT THAN THOSE SHOWN ON DRAWINGS. ADDITIONAL BOXES, PLATES, CABLES, RACK SPACES, AND POWER OUTLETS MAY BE REQUIRED AS DETERMINED BY THE INTEGRATOR WHO CHOOSES THE ALTERNATE EQUIPMENT. ALTERNATE EQUIPMENT INTEGRATOR SHALL BE RESPONSIBLE TO COORDINATE ALL CHANGES REQUIRED BY ALTERNATE EQUIPMENT TO ENSURE TURN-KEY SYSTEM WITH SIMILAR FUNCTIONALITY TO THAT SPECIFIED.
4. PROGRAM AND INSTALL REQUIRED RELAY CABLES AND CONDUITS BETWEEN THE ACCESS CONTROL SYSTEM AND THE INTERCOM SYSTEM AS DESIRED BY OWNER. PROGRAM THE INTERCOM SYSTEM SO THAT THE SYSTEM MAY TRIGGER ACCESS CONTROL SYSTEM WHEN RELAYS ARE ENERGIZED OR DE-ENERGIZED.
5. AV SYSTEMS INTEGRATORS WHO WISH TO BID ON THIS PROJECT MUST BE TRAINED AND CERTIFIED BY CLASSROOM VOICE LIFT SYSTEM MANUFACTURER SPECIFIED FOR THIS PROJECT.
6. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
7. COLORS OF ALL EXPOSED INTERCOM DEVICES INCLUDING INPUT & OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, AND SPEAKER ENCLOSURES SHALL BE REVIEWED BY OWNER PRIOR TO ORDERING.
8. CLASSROOM AMPLIFIERS MAY BE LOCATED ON WALL, CEILINGS, OR IN MILLWORK CABINETS. REFER TO PLANS FOR SPECIFIC DEVICE LOCATIONS.
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3	TO DATA RACK IN NEAREST MDF/IDF CLOSET.
AV4	TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.

KEY PLAN



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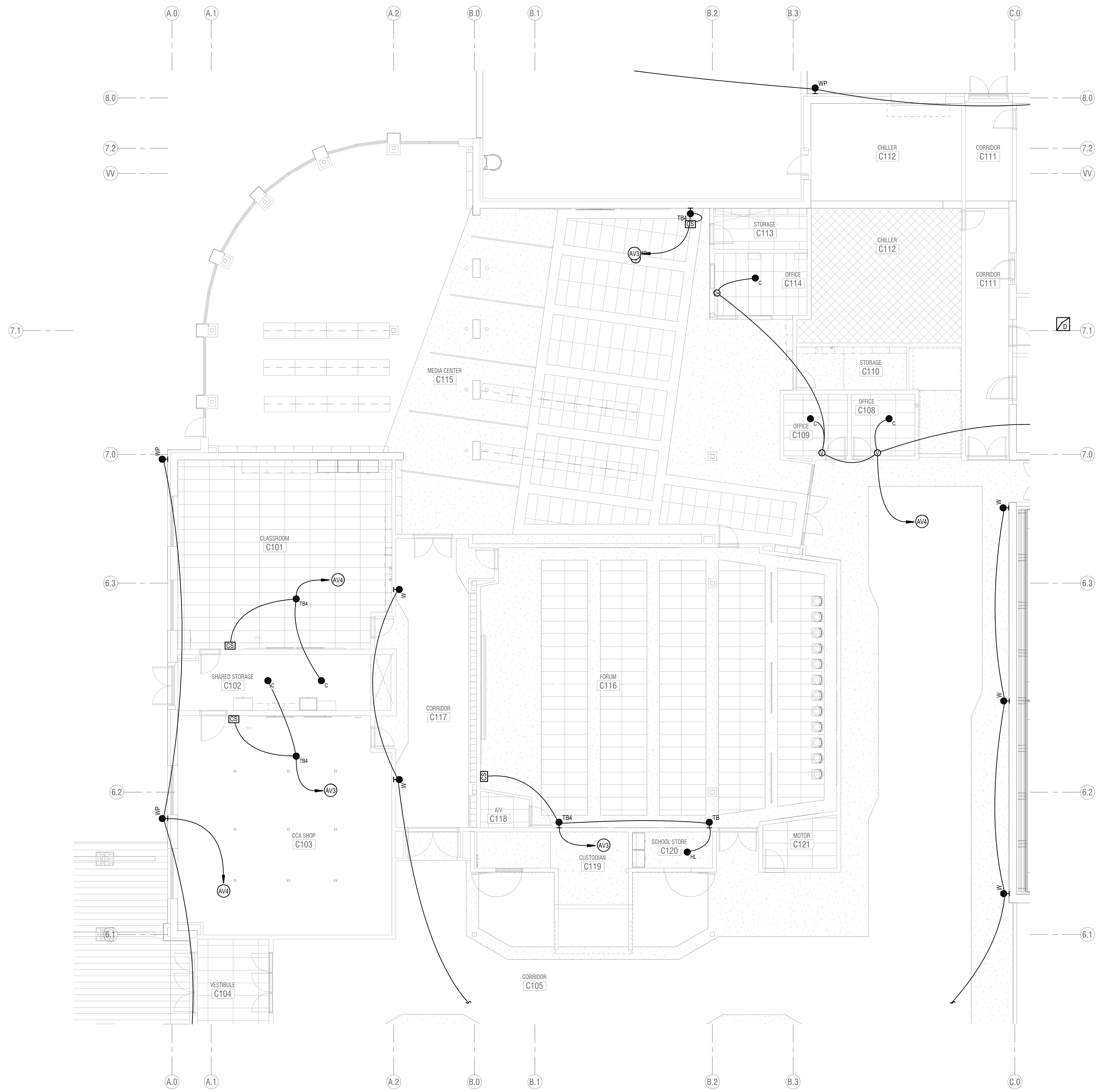
CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA B - INTERCOM

E-612



1 LEVEL 1 FLOOR PLAN - AREA C - INTERCOM
SCALE: 1/8" = 1'-0"

INTERCOM GENERAL NOTES:

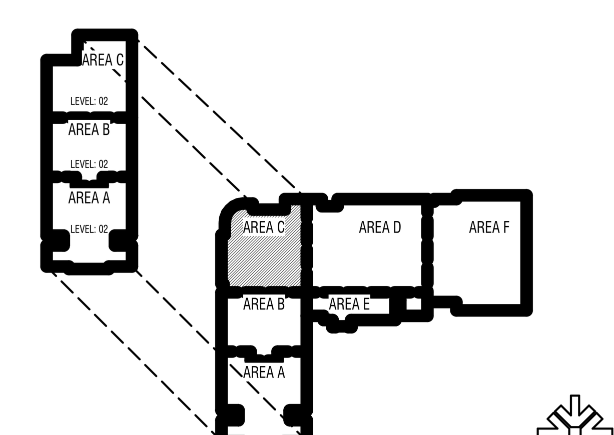
1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
2. WIRE ALL VOLUME CONTROLS SO THEY CONTROL ONLY SINGLE SPEAKER.
3. INTERCOM SYSTEM RISER DIAGRAMS, LAYOUTS, AND EQUIPMENT LISTS ARE BASED ON SIGNAL FLOWS OF AUDIO ENHANCEMENT EQUIPMENT. IF APPROVED ALTERNATE EQUIPMENT IS CHOSEN, LAYOUTS AND DIAGRAMS MAY BE DIFFERENT THAN THOSE SHOWN ON DRAWINGS. ADDITIONAL BOXES, PLATES, CABLES, RACK SPACES, AND POWER OUTLETS MAY BE REQUIRED AS DETERMINED BY THE INTEGRATOR WHO CHOOSES THE ALTERNATE EQUIPMENT. ALTERNATE EQUIPMENT INTEGRATOR SHALL BE RESPONSIBLE TO COORDINATE ALL CHANGES REQUIRED BY ALTERNATE EQUIPMENT TO ENSURE TURN-KEY SYSTEM WITH SIMILAR FUNCTIONALITY TO THAT SPECIFIED.
4. PROGRAM AND INSTALL REQUIRED RELAY CABLES AND CONDUITS BETWEEN THE ACCESS CONTROL SYSTEM AND THE INTERCOM SYSTEM AS DESIRED BY OWNER. PROGRAM THE INTERCOM SYSTEM SO THAT THE SYSTEM MAY TRIGGER ACCESS CONTROL SYSTEM WHEN RELAYS ARE ENERGIZED OR DE-ENERGIZED.
5. AV SYSTEMS INTEGRATORS WHO WISH TO BID ON THIS PROJECT MUST BE TRAINED AND CERTIFIED BY CLASSROOM VOICE LIFT SYSTEM MANUFACTURER SPECIFIED FOR THIS PROJECT.
6. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
7. COLORS OF ALL EXPOSED INTERCOM DEVICES INCLUDING INPUT & OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, AND SPEAKER ENCLOSURES SHALL BE REVIEWED BY OWNER PRIOR TO ORDERING.
8. CLASSROOM AMPLIFIERS MAY BE LOCATED ON WALL, CEILINGS, OR IN MILLWORK CABINETS. REFER TO PLANS FOR SPECIFIC DEVICE LOCATIONS.
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV4 TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
240 E. MORRIS AVE., SUITE 200
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P (801) 534-1130
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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK	DATE	DESCRIPTION

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA C - INTERCOM

E-613

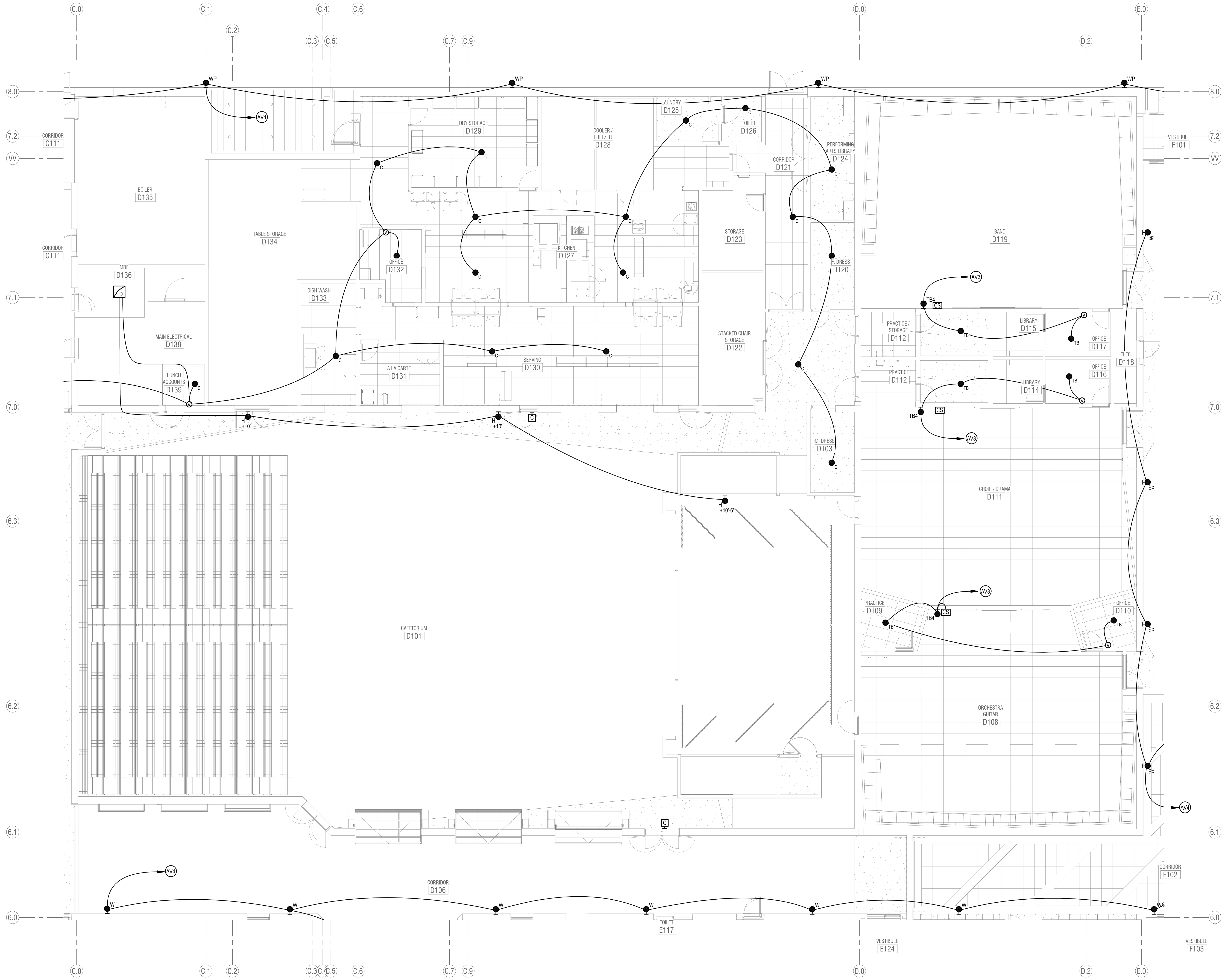
INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
2. WIRE ALL VOLUME CONTROLS SO THEY CONTROL ONLY SINGLE SPEAKER.
3. INTERCOM SYSTEM RISER DIAGRAMS, LAYOUTS, AND EQUIPMENT LISTS ARE BASED ON SIGNAL FLOWS OF AUDIO ENHANCEMENT EQUIPMENT. IF APPROVED ALTERNATE EQUIPMENT IS CHOSEN, LAYOUTS AND DIAGRAMS MAY BE DIFFERENT THAN THOSE SHOWN ON DRAWINGS. ADDITIONAL BOXES, PLATES, CABLES, RACK SPACES, AND POWER OUTLETS MAY BE REQUIRED AS DETERMINED BY THE INTEGRATOR WHO CHOOSES THE ALTERNATE EQUIPMENT. ALTERNATE EQUIPMENT INTEGRATOR SHALL BE RESPONSIBLE TO COORDINATE ALL CHANGES REQUIRED BY ALTERNATE EQUIPMENT TO ENSURE TURN-KEY SYSTEM WITH SIMILAR FUNCTIONALITY TO THAT SPECIFIED.
4. PROGRAM AND INSTALL REQUIRED RELAY CABLES AND CONDUITS BETWEEN THE ACCESS CONTROL SYSTEM AND THE INTERCOM SYSTEM AS DESIRED BY OWNER. PROGRAM THE INTERCOM SYSTEM SO THAT THE SYSTEM MAY TRIGGER ACCESS CONTROL SYSTEM WHEN RELAYS ARE ENERGIZED OR DE-ENERGIZED.
5. AV SYSTEMS INTEGRATORS WHO WISH TO BID ON THIS PROJECT MUST BE TRAINED AND CERTIFIED BY CLASSROOM VOICE LIFT SYSTEM MANUFACTURER SPECIFIED FOR THIS PROJECT.
6. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
7. COLORS OF ALL EXPOSED INTERCOM DEVICES INCLUDING INPUT & OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, AND SPEAKER ENCLOSURES SHALL BE REVIEWED BY OWNER PRIOR TO ORDERING.
8. CLASSROOM AMPLIFIERS MAY BE LOCATED ON WALL, CEILINGS, OR IN MILLWORK CABINETS. REFER TO PLANS FOR SPECIFIC DEVICE LOCATIONS.
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

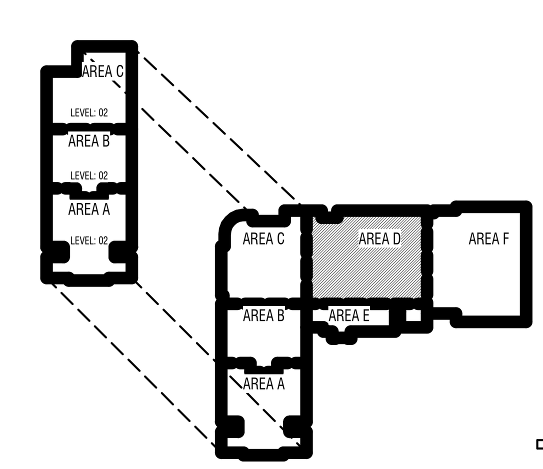
AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV4 TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.



1 LEVEL 1 FLOOR PLAN - AREA D - INTERCOM
SCALE: 1/8" = 1'-0"

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

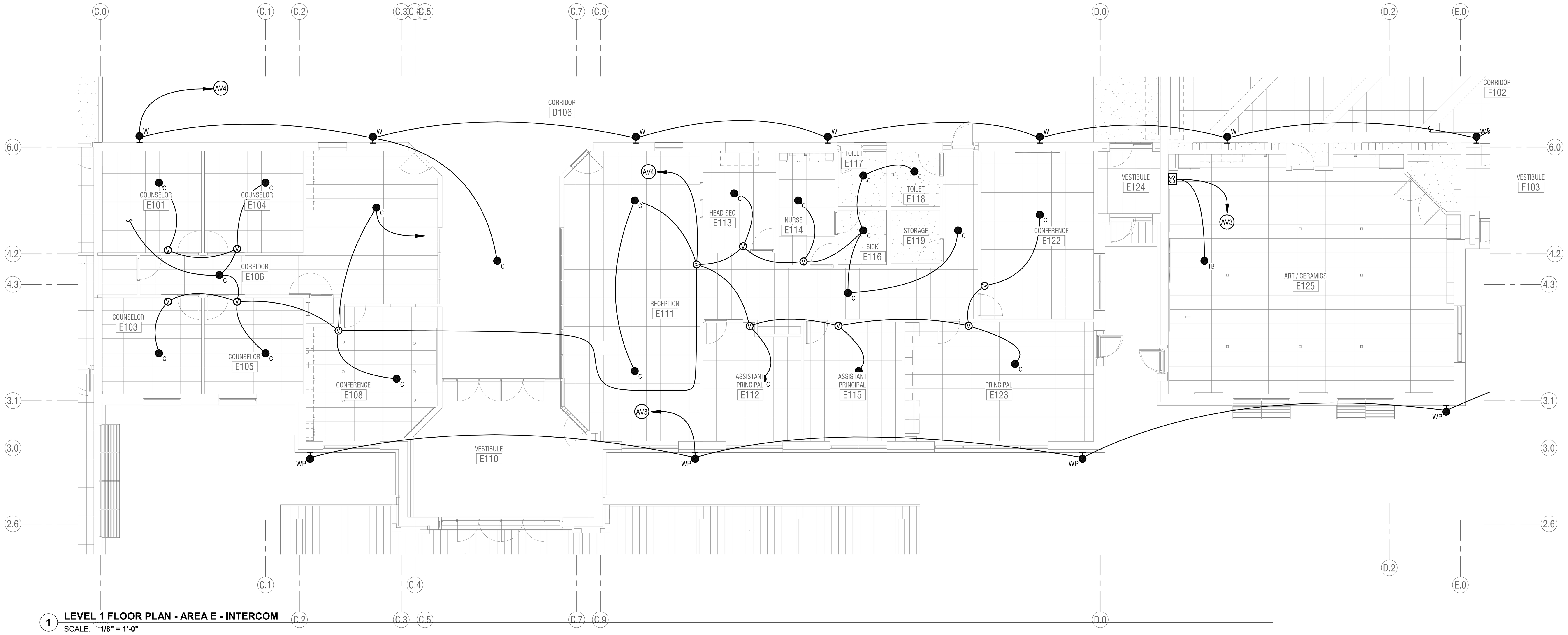
ENVISION ENGINEERING

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 1 - AREA D - INTERCOM

E-614



1 LEVEL 1 FLOOR PLAN - AREA E - INTERCOM
SCALE: 1/8" = 1'-0"

INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
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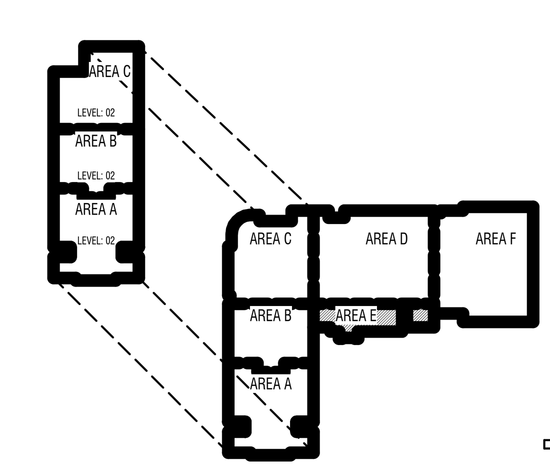
6. PROVIDE #6 AWG THHN WIRE W/ GREEN INSULATION FROM EACH AV EQUIPMENT CABINET TO THE NEAREST MAIN BUILDING GROUND. CONNECT GROUNDING WIRE TO BARE METAL ON EQUIPMENT CABINET.
7. COLORS OF ALL EXPOSED INTERCOM DEVICES INCLUDING INPUT & OUTPUT PLATES, VOLUME CONTROLS, SWITCHES, SPEAKERS, AND SPEAKER ENCLOSURES SHALL BE REVIEWED BY OWNER PRIOR TO ORDERING.
8. CLASSROOM AMPLIFIERS MAY BE LOCATED ON WALL, CEILINGS, OR IN MILLWORK CABINETS. REFER TO PLANS FOR SPECIFIC DEVICE LOCATIONS.
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3	TO DATA RACK IN NEAREST MDF/IDF CLOSET.
AV4	TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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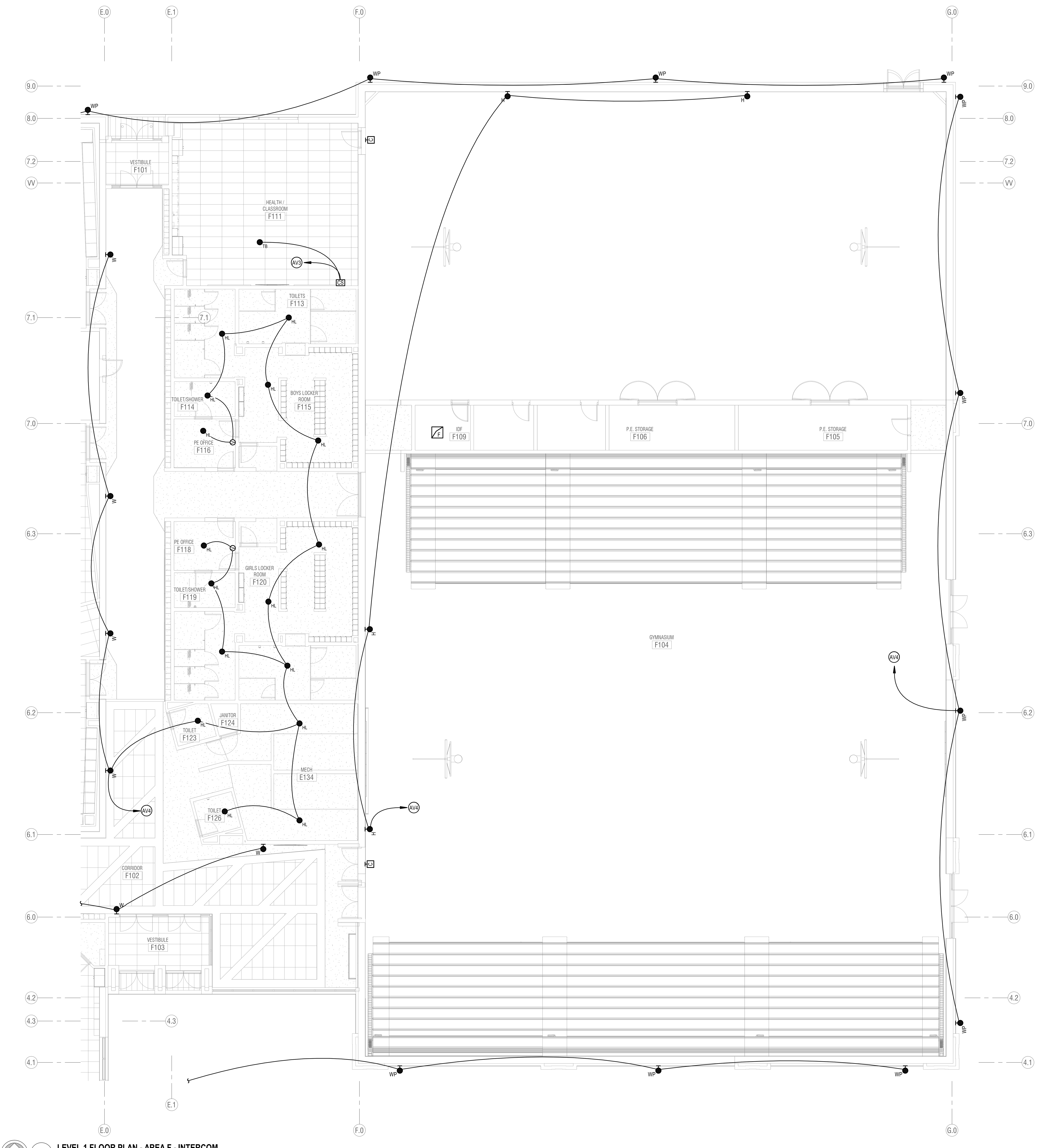
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER No. 77411 05-01-2024 STATE OF UTAH

LEVEL 1 - AREA E - INTERCOM
E-615



1 LEVEL 1 FLOOR PLAN - AREA F - INTERCOM
SCALE: NTS

INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
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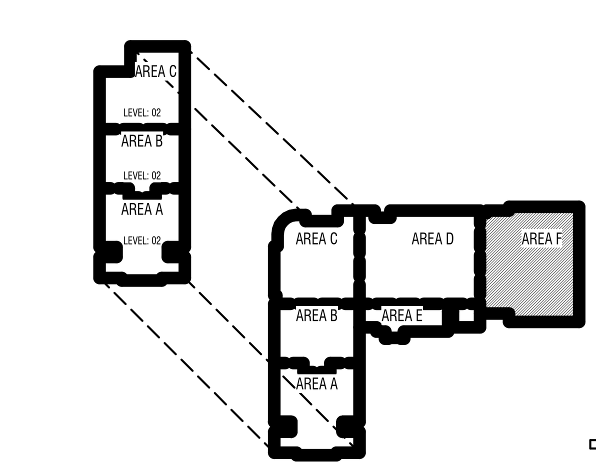
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV4 TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

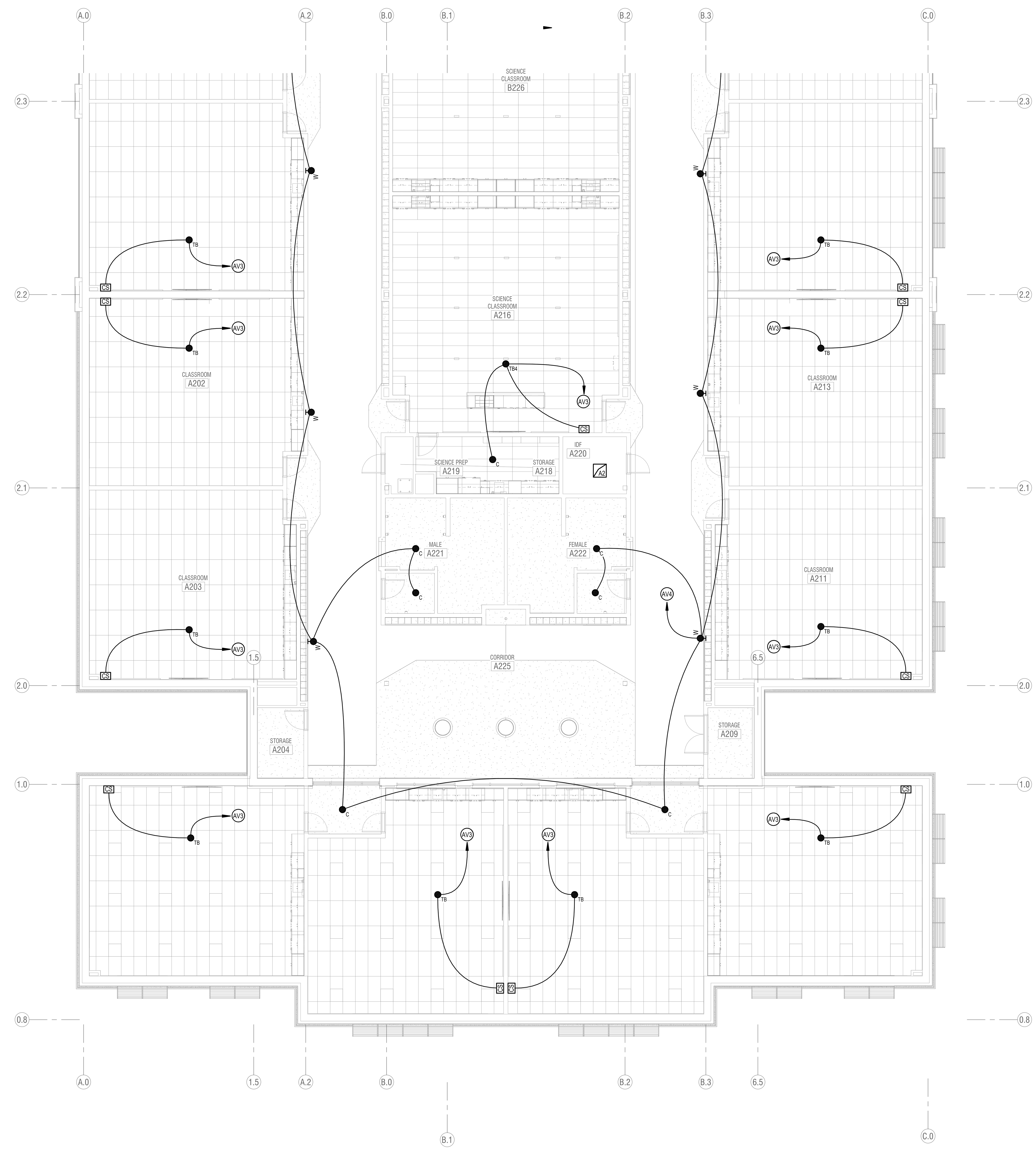
DESCRIPTION:
MARK: DATE:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 1 - AREA F - INTERCOM

E-616



1 LEVEL 2 FLOOR PLAN - AREA A - INTERCOM
SCALE: 1/8" = 1'-0"

INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
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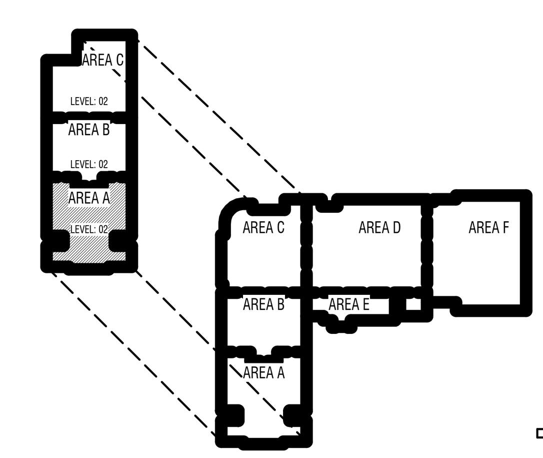
KEYED NOTES

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

AV4 TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

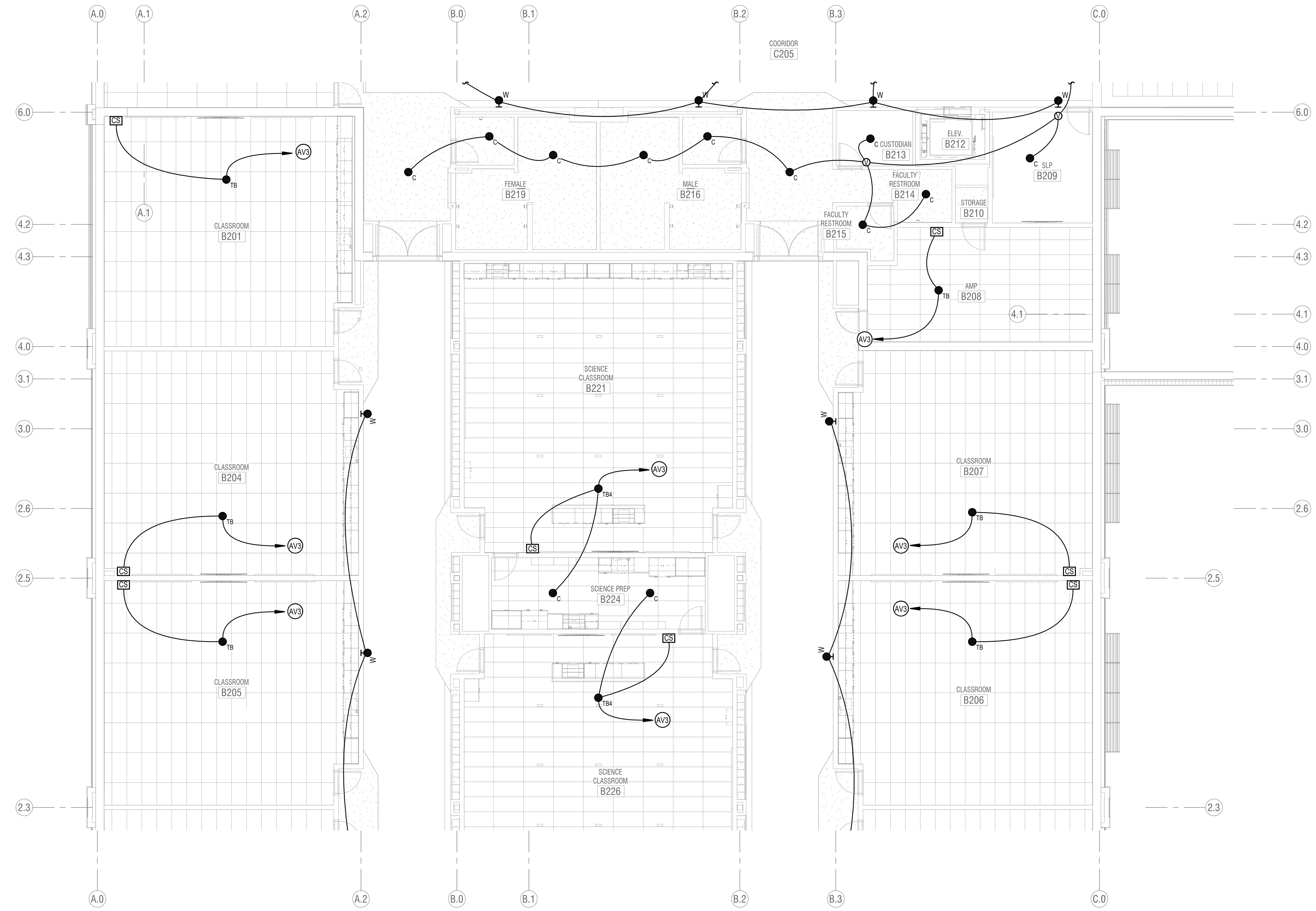
MARK: DATE: DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. OWEN
No. 177411
05-01-2024
STATE OF UTAH

LEVEL 2 - AREA A - INTERCOM

E-621



1 LEVEL 2 FLOOR PLAN - AREA B - INTERCOM

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

INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
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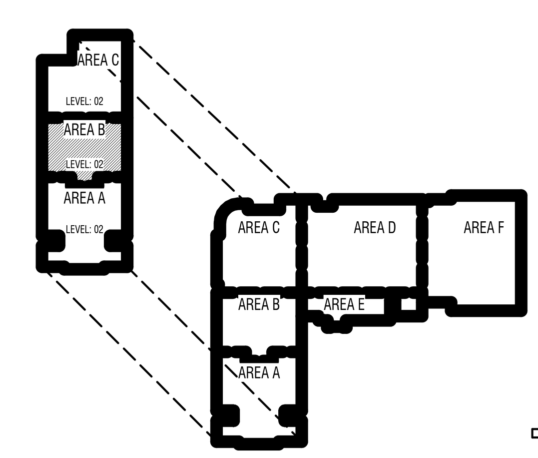
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3 TO DATA RACK IN NEAREST MDF/IDF CLOSET.

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

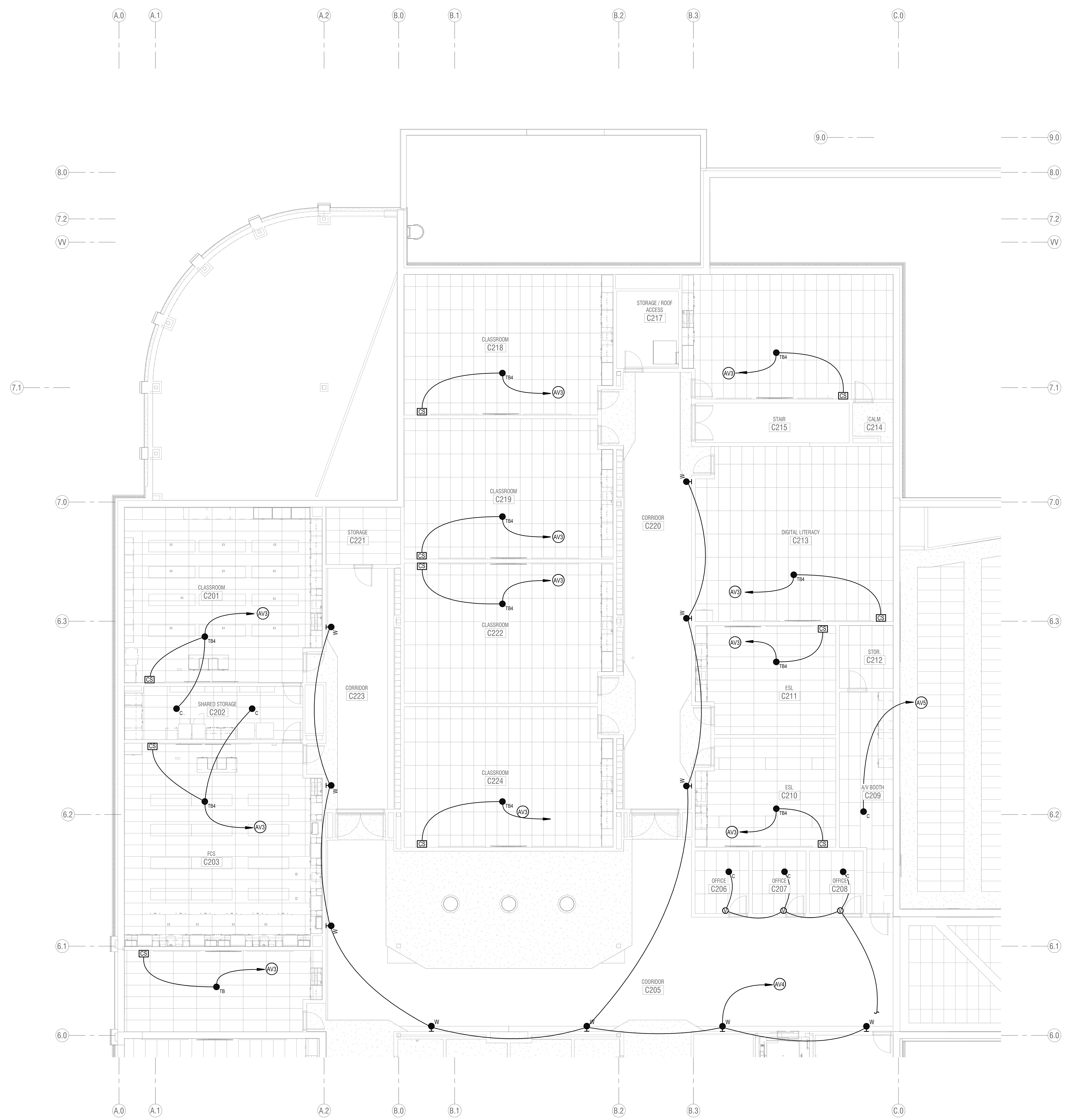
CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

LEVEL 2 - AREA B - INTERCOM

E-622



1 LEVEL 2 FLOOR PLAN - AREA C - INTERCOM
SCALE: 1/8" = 1'-0"

INTERCOM GENERAL NOTES:

1. RUN 1 CAT6 CABLE WITH CONDUIT FROM THE INTERCOM MAIN CONTROLLER TO THE DIGITAL TELEPHONE HEADEND EQUIPMENT. PROGRAM THE OWNER SUPPLIED TELEPHONE SYSTEM SO THAT A DIGITAL TELEPHONE CAN PERFORM THE CALL CLASSROOM INTERCOM SYSTEM & PAGING FUNCTIONS OF AN INTERCOM CONSOLE.
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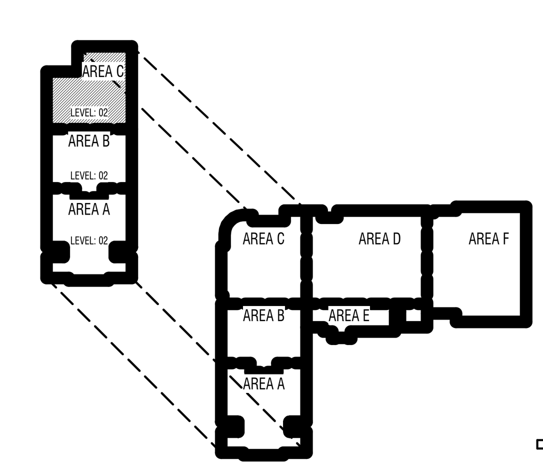
9. INSTALL CLOCKS CENTERED, 6" ABOVE TOP OF DOOR FRAME.

KEYED NOTES

AV3	TO DATA RACK IN NEAREST MDF/IDF CLOSET.
AV4	TO INTERCOM PAGING AMPLIFIER IN DATA RACK #D.
AV5	TO CAFETERIA WALL SPEAKER (SHEET E-525).

KEY PLAN



TO BE DETERMINED

CONSTRUCTION DOCUMENTS

design west | architects
LOGAN UT 84321
SALT LAKE CITY UT 84103
255 SOUTH 300 WEST
795 NORTH 400 WEST

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NIBLEY MIDDLE SCHOOL

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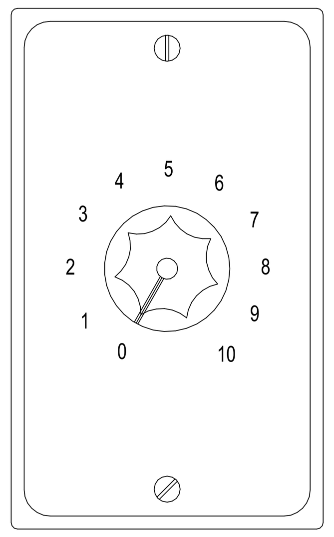
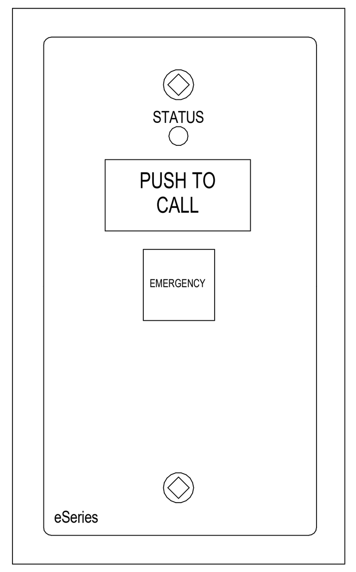
LEVEL 2 - AREA C - INTERCOM

E-623



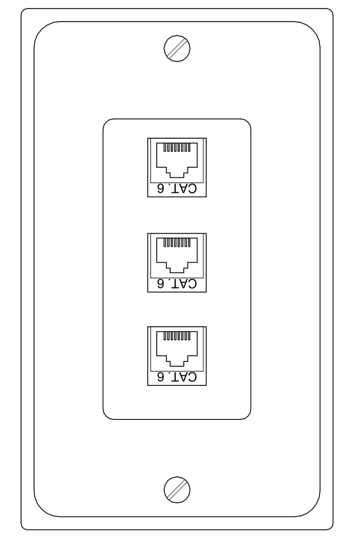
1 ATTENUATOR DETAIL 'V'

V



2 CALL SWITCH 'CS'

CS



3 NETWORK INTERFACE 'NUC'

SCALE: NONE

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

ENVISION ENGINEERING
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P (801) 534-1130
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NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:	123006
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUED:	04.26.2024

REGISTERED PROFESSIONAL ENGINEER
STATE OF UTAH

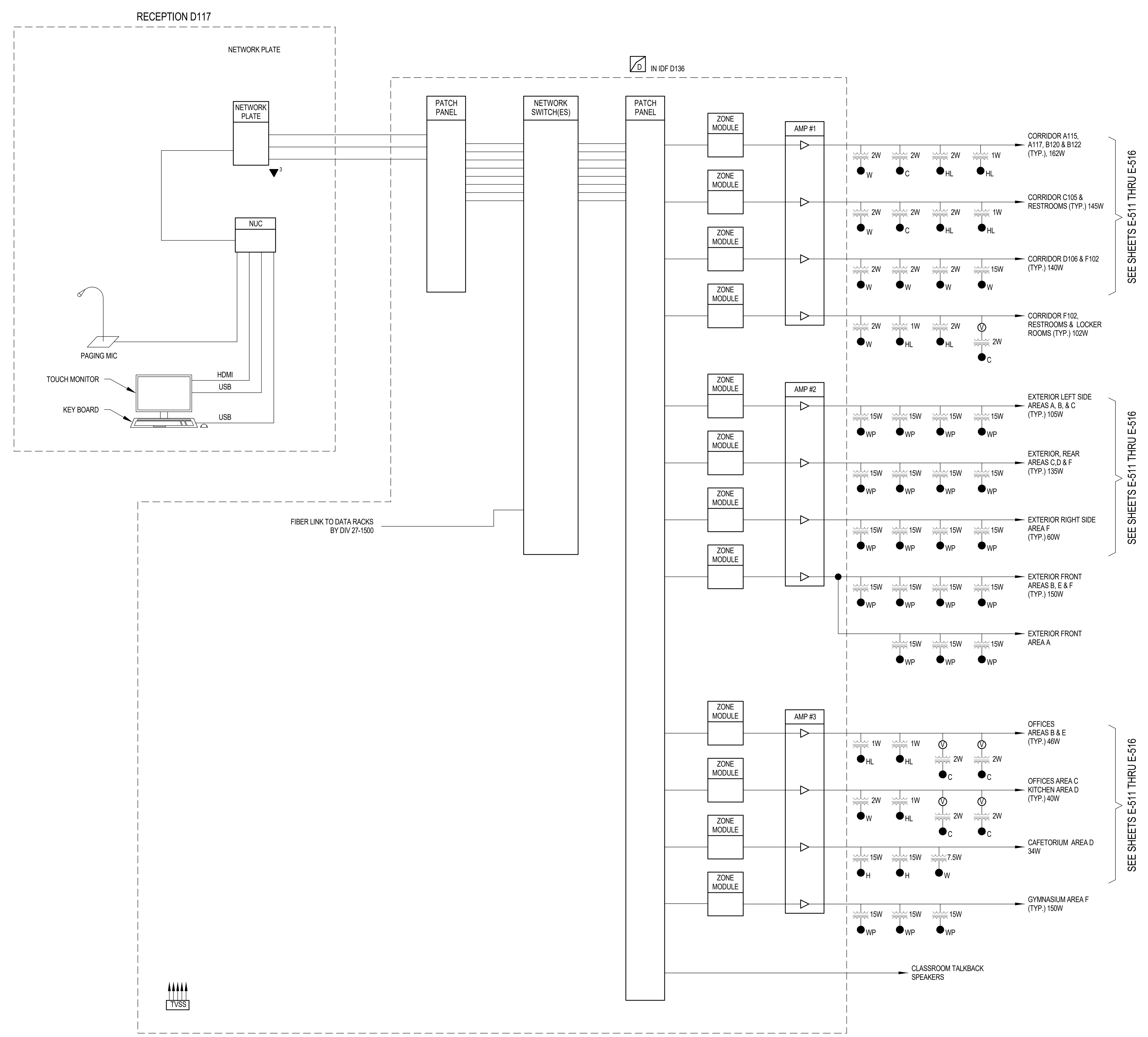
INTERCOM DETAILS

E-651

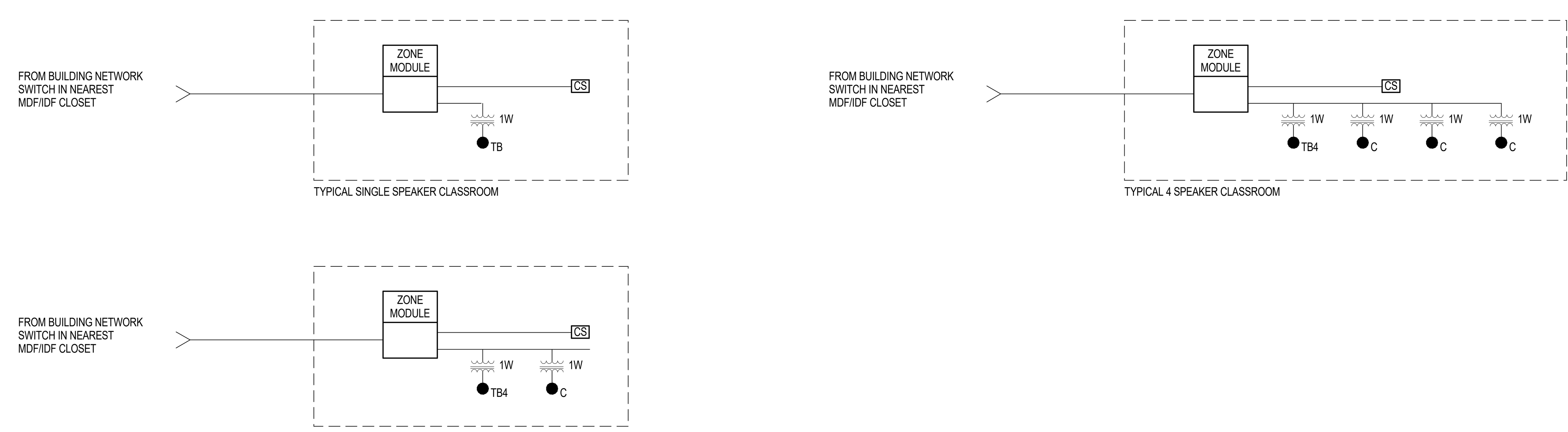
INTERCOM SYSTEM - SCHOOL - EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY	SUPPLIER	MODEL	ROUGH-IN	CABLE
1 2 3	EQUIPMENT CABINET:	FURNISHED AND INSTALLED BY DIV 27 DATA INSTALLER SEE			(5) 2" C. TO CABLE TRAY	
	POWER CONDITIONER	1	FURMAN	CN-2400N		
	POWER STRIP, RACK MOUNT	1	MIDDLE ATLANTIC	PD-2415SC-NS		
	ZONE MODULE RACK MOUNT KIT	OFP A/R	TELECOR	eAMP	INSTALLS IN RACK.	WEST PENN 254246 - YELLOW YELLOW PATCH CABLES
V	VOLUME CONTROL SWITCH	OFP	TELECORE	ECS-4	1-GANG 3" DEEP SEE ELEVATION	WEST PENN 25225B
TB	TALKBACK SPEAKER,8", ROUND, CEILING RECESSED ZONE MODULE 8" SPEAKER, * GRILL ROUND BACKBOX TILE SUPPORT	OFP	TELECOR	INCLUDED W/ SPEAKER ES8-TB-MA-R H10 CC1	3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT. PAINT GRILL IN COLOR AS SELECTED BY ARCHITECT	WEST PENN 25225B WEST PENN 254246 - YELLOW
TB	TALKBACK SPEAKER, 8", SQUARE SURFACE MOUNT ZONE MODULE 8" SPEAKER & GRILL SH20-BB	OFP	TELECOR	INCLUDED W/ SPEAKER ES8-TB-MA-SQ SD72 JG8X	3/4" C. TO ACCESSIBLE CEILING PAINT GRILL IN COLOR AS SELECTED BY ARCHITECT	WEST PENN 25225B
TB4	TALKBACK MULTI-SPEAKER, 8", ROUND, CEILING ZONE MODULE 8" SPEAKER, * GRILL ROUND BACKBOX TILE SUPPORT	OFP	TELECOR	INCLUDED W/ SPEAKER ES8-TB-MA-R H10 CC1	3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT. PAINT GRILL IN COLOR AS SELECTED BY ARCHITECT	WEST PENN 25225B
TB4	TALKBACK SPEAKER, 8", SQUARE SURFACE MOUNT ZONE MODULE 8" SPEAKER & GRILL SH20-BB	OFP	TELECOR	INCLUDED W/ SPEAKER ES8-TB-MA-SQ SD72 JG8X	3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT. PAINT GRILL IN COLOR AS SELECTED BY ARCHITECT	WEST PENN 25225B
W	WALL MOUNT SPEKER, INTERNAL RECESSED WALL MOUNT BOX SPEAKER & GRILLE	OFP	ATLAS IED	VP-77 VP14MB	3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT.	
WP H	HORN & GRILLE WITH WEATHERPROOF BACK BOX WALL MOUNT RECESSED +8' AFF	OFP	ATLAS IED	VT(F)-157UC MR EXTENSION RING FP MOUNTING PLATE	4-11/16" SQ X 2-1/8" DEEP 3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT. PAINT GRILL IN COLOR AS SELECTED BY ARCHITECT	WEST PENN 25225B
HL	SPEAKER, RECESSED, HARDLID RECESSED ENCLOSURE MOUNTING RING SPEAKER	OFP A/R A/R A/R	ATLAS IED	CS-95-8 P78-8 SD-72W	3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT.	WEST PENN 252215B
C	SPEAKER, RECESSED, DROP TILE RECESSED ENCLOSURE TILE BRIDGE SPEAKER	OFP A/R A/R A/R	ATLAS IED	CS-95-8 81-8R SD-72W	3/4" C TO ACC. CEILING OR NEXT SPEAKER IN CIRCUIT.	WEST PENN 252215B
AMP#	POWER AMPLIFIER, 4CH, 1, 2 AND 3	OFP	CROWN	DCI 4/300		
NETWORK SWITCH	NETWORK SWITCH	OFCI	COORDINATE W/ OWNER		INSTALL IN RACK	WEST PENN 254246
DPP	PATCH PANEL	A/R	OWNER		INSTALL IN RACK	WEST PENN 254246 - YELLOW YELLOW KEYSTONE JACKS YELLOW PATCH CABLES
CS	CALL SWITCH	OFP	TELECOR	ECS-11	SEE DETAIL	YELLOW PATCH CABLES
ESIP	SIP INTERFACE	OFP	TELECOR	ESIP	INSTALL IN RACK	YELLOW PATCH CABLES
3	DATA JACK RECEPTION	OFP	CUSTOM	SEE DETAIL	1-GANG, 3" DEEP 3/4" C. TO CABLE TRAY	WEST PENN 254246 - YELLOW YELLOW KEYSTONE JACK
	SYSTEM HEADEND W/ TOUCH MONITOR KEYBOARD MOUSE CONFGURATION PORT MICROPHONE ADMIN CONSOLE SIP INTERFACE MANAGEMENT GATEWAY VISUAL CONSOLE SOFTWARE	 OFCI OFCI OFCI 2 1 1 1 1 1	TELECOR	3500-0500 COORDIANTE W/ OWNER COORDIANTE W/ OWNER COORDIANTE W/ OWNER EPORT MCC-PM-MA E300-MA ESIP EMH eDSKT-1.1		

A/R = AS REQUIRED; NIC= NOT IN CONTRACT; NR = NO REQUIREMENT, OFCI = OWNER FURNISHED CONTRACTOR INSTALLED; OFP = OBTAIN FROM PLANS; OFOI =OWNER FURNISHED & INSTALLED



1 INTERCOM RISER
SCALE: NONE



1 TYPICAL CLASSROOM RISER
SCALE: NONE

CONSTRUCTION DOCUMENTS

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

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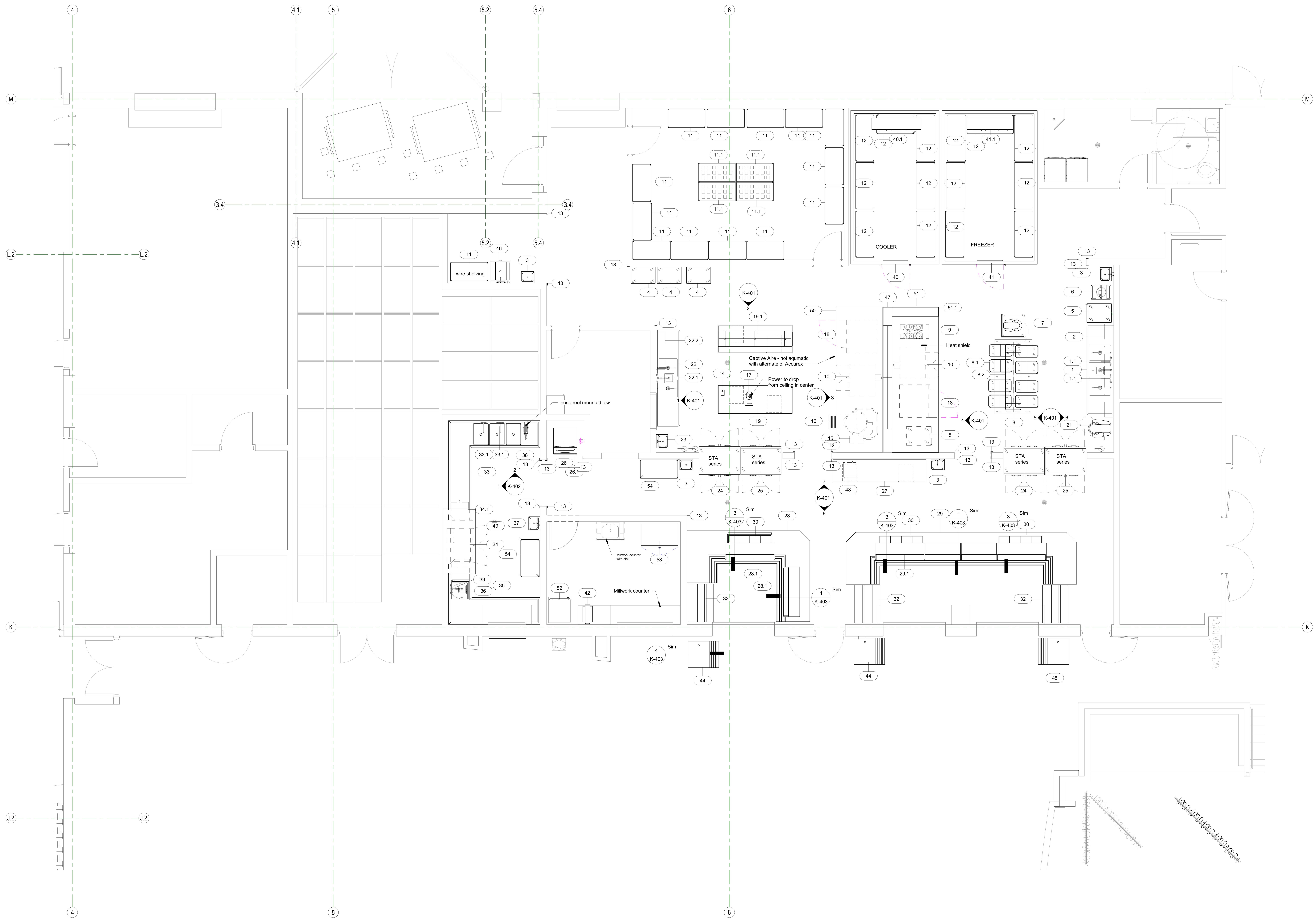
NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

DESCRIPTION:
DATE:
MARK:

PROJECT #: 123006
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 04.26.2024

INTERCOM - RISER & EQUIP LIST

E-671



1 KITCHEN EQUIPMENT PLAN
1/4" = 1'-0"

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255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103

WSR & Associates
Foodservice Design Concepts

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH

CACHE COUNTY SCHOOL DISTRICT

MARK:	DATE:	DESCRIPTION:

PROJECT #:
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 05.02.2024

CONSTRUCTION DOCUMENTS

KITCHEN EQUIPMENT LAYOUT

K-101

MAIN EQUIPMENT SCHEDULE

wt	QTY	CATEGORY	MANUFACTURER	MODEL NUMBER	Equipment Remarks
1	1	THREE COMPARTMENT SINK	ADVANCE	94-83-60-24RL	
1.1	2	FAUCET, SPLASH MOUNT	T&S Brass	B-0231-CR	
2	1	SHELVING, WALL MOUNTED	ADVANCE TABCO	WS-12-120	
3	4	HAND SINK	JOHN BOOS	PBHS-W-1410	
4	3	CABINET, BUN/FOOD PAN	WINHOLT	AL-1820B	
5	2	PROOFER CABINET	CRES COR	121-PH-UA-11D	
6	1	DOUGH DIVIDER	DUTCHESS BAKERS	BMIH-36 / b4-436-0072	WITH MOBILE STAND
7	1	MIXER - 20 QT.	HOBART	HL200-1STD	WITH MOBILE STAND
8	1	BAKERS TABLE, S/S TOP	ADVANCE	TSS-488	
8.1	8	INGREDIENT BIN 27 GAL	CAMBRO	IBS27148	
8.2	1	POT RACK, CEILING MOUNT	ADVANCE	SC-84	
9	1	RANGE, 18"	VULCAN	V2B18B	
10	2	CONVECTION OVEN, GAS	SOUTHBEND	SLGS/22SC	
11	14	SHELVING, WIRE	METRO		Metroseal finish
11.1	4	DUNNAGE RACK	METRO	HP2248PD	
12	14	WIRE SHELVING	METRO	<varies>	
13	20	CORNER GUARD 16 GA	CUSTOM	CUSTOM	
14	1	CAN OPENER, ELECTRIC	EDLUND	266/115	
15	1	KETTLE, GAS, TILTING	VULCAN	K40GLT	WITH PANTRY FAUCET
16	1	FLOOR TROUGH	JOHN BOOS	FTSG-1836-X	WITH FIBER GLASS SQUARE GRATING
17	1	FOOD PROCESSOR	HOBART	FP100-1B	
18	2	COMBI OVEN, GAS, DOUBLE STACKED	RATIONAL	ICP 6-FULL / 6-FULL	
19	1	WORK TABLE	ADVANCE	VSS-368	
19.1	1	WORK TABLE	ADVANCE	VSS-368	
20	1	SPARE NUMBER			
21	1	MIXER 30 QT.	HOBART	HL300-1STD	
22	1	TWO COMPARTMENT SINK	ADVANCE	94-42-48-36RL	
22.1	1	PRE-RINSE FAUCET	T&S	B0133-CR-BJ-SW	
22.2	1	SHELVING, WALL MOUNTED	ADVANCE TABCO	WS-12-48	
22.3	1	PRE-RINSE FAUCET, WITH ADD ON FAUCET	T&S Brass	5PR-8WWS12	
23	1	HAND SINK	JOHN BOOS	PBHS-W-1410	
24	2	PASS THRU REFRIGERATOR	TRUE	STA2RPT-2S-2S	
25	2	HEATED CABINET, PASS THRU	TRUE	STA2HPT-2S-2S	
26	1	ICE CUBER	MANITOWOC	IYT-0450A	WITH FILTER
26.1	1	ICE BIN	MANITOWOC	D-400	
27	1	WORK TABLE	ADVANCE	KSS-3010	
28	1	SERVING COUNTER - MAIN ENTREE & SALAD	CUSTOM	-	
28.1	2	SNEEZE GUARD	CUSTOM		
29	1	SERVING COUNTER - PIZZA & POTATOES	CUSTOM	-	
29.1	1	SNEEZE GUARD	CUSTOM		
30	3	HOT FOOD WELL (4), DROP-IN	HATCO	HWBI-4MA	WITH AUTOFILL
31	1	SPARE NUMBER			
32	3	MILK COOLER	TRUE	TMC-49-HC	
33	1	DISHTABLE WITH 3 COMP SINK	CUSTOM	-	
33.1	2	FAUCET, SPLASH MOUNT	T&S Brass	B-0231-CR	
34	1	WAREWASHER, CONVEYOR	HOBART	CL54EN-EGR+BUILDUP	WITH ELEC BOOSTER
34.1	1	BOOSTER HEATER, ELECT	HUBBELL	J615	
35	1	DISHTABLE WITH PASS THRU WINDOW	CUSTOM	-	
36	1	SCRAP COLLECTOR	SALVAJOR	S914	
37	1	HAND SINK	JOHN BOOS	PBHS-W-1410	
38	1	HOSE REEL, OPEN	T&S BRASS	B-7232-U05XS1E / G019430-45	WITH SWING BRACKET
39	1	PRE-RINSE FAUCET	T&S	B0133-CR-BJ-SW	
40	1	WALK-IN COOLER	KOLPAK	-	
40.1	1	WALK-IN COOLER EVAPORATER	KOLPAK		
40.2	1	WALK-IN COOLER CONDENSER	KOLPAK		
41	1	WALK-IN FREEZER	KOLPAK	-	
41.1	1	WALK-IN FREEZER EVAPORATER	KOLPAK		
41.2	1	WALK-IN FREEZER CONDENSER	KOLPAK		
42	1	FRENCH FRY WARMER	HATCO	GRFF	
43	1	SPARE NUMBER			
44	2	CASHIER COUNTER, MOBILE	CUSTOM	-	
45	1	CASHIER COUNTER, MOBILE	CUSTOM	-	
46	1	CAN WASH	IMC/TEDDY	DL-2	
47	1	UTILITY DISTRIBUTION SYSTEM - WALL	CAPTIVE AIRE	-	
48	1	MICROWAVE	ACP	HDC182	
49	1	CONDENSATE HOOD	CAPTIVE AIRE		
50	1	EXHAUST HOOD	CAPTIVE AIRE		
51	1	EXHAUST HOOD	CAPTIVE AIRE		
51.1	1	FIRE PROTECTION SYSTEM	ANSUL	R102	
52	1	WARMING CABINET	CRES COR	H-137-UA-12D	
53	1	DISPLAY CASE, REFRIGERATED	TRUE	GDM-43-HC	
54	2	WIRE SHELVING	METRO	A2448NS	

ELECTRICAL ROUGH-IN SCHEDULE

ITEM NO	QTY	Category	Amps	KW	HP	Volts	Phase	Conn Type	Conn Height	Electrical Remarks	With Elect
5	2	PROOFER CABINET	16.7			120	1	PLUG	24"		Yes
10	2	CONVECTION OVEN, GAS	15.4		1/2	120	1	Plug	See UDS wall details		Yes
15	1	KETTLE, GAS, TILTING	5.0			120	1	Plug	-	See UDS wall details	Yes
18	2	COMBI OVEN, GAS, DOUBLE STACKED	(2)4.3	.9		208	1	Plug	-	See UDS wall details	Yes
21	1	MIXER 30 QT.	9.5		3/4	120	1	Plug	24"		Yes
24	2	PASS THRU REFRIGERATOR	5.9		1/2	120	1	Plug	86"	Power dropped from above	Yes
25	2	HEATED CABINET, PASS THRU	20.0			208	1	Plug	86"	Power dropped from above	Yes
26	1	ICE CUBER	11.9			120	1	Plug	48"		Yes
30	3	HOT FOOD WELL (4), DROP-IN	15.8	4.8		208	3	Direct	Stub up		Yes
32	3	MILK COOLER	2.7		.33	120	1	Plug	12"		Yes
34	1	WAREWASHER, CONVEYOR	175.0			208	3	Direct	63"	Single Point Elect Connection - E.C. to interconnect table limit switch to dishwasher	Yes
34.1	1	BOOSTER HEATER, ELECT	42.0	15.0		208	3	PLUG	24"		Yes
36	1	SCRAP COLLECTOR	5.5		3/4	208	1	Direct	24"		Yes
40	1	WALK-IN COOLER		350w		115	1	Direct	Down from ceiling	Lights and heat tape	Yes
40.1	1	WALK-IN COOLER EVAPORATER	1.1			208-230	1	Direct	DFA		Yes
40.2	1	WALK-IN COOLER CONDENSER	5.0		1.25	208-230	3	Direct	ROOF		Yes
41	1	WALK-IN FREEZER		350w		115	1	Direct	Down from ceiling	Lights and heat tape	Yes
41.1	1	WALK-IN FREEZER EVAPORATER	1.5 / 9.5			208-230	1	Direct	DFA		Yes
41.2	1	WALK-IN FREEZER CONDENSER	16.4		4.0	208-230	3	Direct	ROOF		Yes
42	1	FRENCH FRY WARMER	4.2			120	1	PLUG	42"		Yes
47	1	UTILITY DISTRIBUTION SYSTEM - WALL	100.0			120/208	3	Direct	Dropped from ceiling		Yes
48	1	MICROWAVE	14.4			208	1	Plug	60"		Yes
49	1	CONDENSATE HOOD								SEE MECH. DRAWINGS FOR FAN REQUIREMENTS	Yes
50	1	EXHAUST HOOD	10.0			120	1	Direct	Down from ceiling	SEE MECH. DRAWINGS FOR FAN REQUIREMENTS	Yes
51	1	EXHAUST HOOD	10.0			120	1	Direct	Down from ceiling	SEE MECH. DRAWINGS FOR FAN REQUIREMENTS	Yes
51.1	1	FIRE PROTECTION SYSTEM	X					DIRECT	60"	ELECT TO PROVIDE SHUNT TRIP SWITCH & JBOX MOUNTED FOR PULL STATION	Yes
52	1	WARMING CABINET	12.0			120	1	PLUG	24"		Yes

PLUMBING ROUGH-IN SCHEDULE

ITEM NO	QTY	Category	CW size	HW size	Water Height	Indirect Drain size	Direct Drain size	Direct Drain HT	Gas size	Gas Height	Gas MBTU	Plumbing Remarks	With Mech
1	1	THREE COMPARTMENT SINK				1-1/2"						Drain to floor sink	Yes
1.1	2	FAUCET, SPLASH MOUNT	1/2"	1/2"	18"								Yes
3	4	HAND SINK	1/2"	1/2"	20"		1-1/2"	20"					Yes
9	1	RANGE, 18"							1-1/4"	16	70.0		Yes
10	2	CONVECTION OVEN, GAS							3/4"	-	100	See UDS wall details - Gas manifold	Yes
15	1	KETTLE, GAS, TILTING	1/2"	1/2"	UDS				1/2"	-	100	See UDS wall details - Drain to floor trough	Yes
16	1	FLOOR TROUGH					4"						Yes
18	2	COMBI OVEN, GAS, DOUBLE STACKED	(2) 3/4" Split		12" & 43"	2"			1/2"	See UDS wall	(2)106.5	See UDS wall details - Filtered and Unfiltered water	Yes
22	1	TWO COMPARTMENT SINK				1-1/2"						Drain to floor sink	Yes
22.1	1	PRE-RINSE FAUCET	1/2"	1/2"	18"								Yes
23	1	HAND SINK	1/2"	1/2"	20"		1-1/2"	20"					Yes
26	1	ICE CUBER	3/8"		72"	1/2"						Run water thru filter - Drain to floor sink	Yes
26.1	1	ICE BIN				3/4"						Drain to floor sink	Yes
30	3	HOT FOOD WELL (4), DROP-IN	1/4"		Stub up	1"						Manifold drain - Drain to floor sink	Yes
33	1	DISHTABLE WITH 3 COMP SINK				(3)1-1/2"						Drain to floor sink	Yes
33.1	2	FAUCET, SPLASH MOUNT	1/2"	1/2"	18"								Yes
34	1	WAREWASHER, CONVEYOR		1/2"	12"	2"						Drain to floor sink	Yes
34.1	1	BOOSTER HEATER, ELECT		3/4"	12"								Yes
35	1	DISHTABLE WITH PASS THRU WINDOW				1-1/2"						Drain to floor sink	Yes
36	1	SCRAP COLLECTOR	3/4"	3/4"	18"		2"	6"					Yes
37	1	HAND SINK	1/2"	1/2"	20"		1-1/2"	20"					Yes
38	1	HOSE REEL, OPEN	1/2"	1/2"	24"								Yes
39	1	PRE-RINSE FAUCET	1/2"	1/2"	18"								Yes
40.1	1	WALK-IN COOLER EVAPORATER				5/8"						Drain to floor sink	Yes
41	1	WALK-IN FREEZER				5/8"						Drain to floor sink	Yes
41.1	1	WALK-IN FREEZER EVAPORATER				5/8"						Drain to floor sink	Yes
46	1	CAN WASH	1/2"	1/2"	24"	1-1/2"						Drain to floor sink	Yes
47	1	UTILITY DISTRIBUTION SYSTEM - WALL	1"	3/4"	Dropped from ceiling				1-1/2"	Dropped from ceiling	1360		Yes

G.C. NOTES

1. GENERAL CONTRACTOR TO COORDINATE W/ K.E.C. ON ALL MILLWORK, CRITICAL DIMENSIONS, DELIVERY OF EQUIPMENT & TIME SCHEDULE.

2. GENERAL CONTRACTOR WILL REINFORCE ALL WALLS BEHIND WALL-MOUNTED EQUIPMENT. (SEE SPECIAL CONDITIONS PLAN)

3. PLUMBER WILL COMPLETELY INSTALL ALL HAND SINKS, FLOOR TROUGHS, DISPOSERS, & FAUCETS (AS PROVIDED BY THE K.E.C.).

4. REFER TO ARCHITECTURAL DRAWINGS FOR FINISH SCHEDULE AND MILLWORK DETAILS.

5. ALL ROUGH-INS AND FINAL CONNECTIONS WILL BE DONE BY GENERAL CONTRACTOR, EXCEPT WHERE NOTED.

6. GENERAL CONTRACTOR TO PREVIEW SPECIAL CONDITIONS PLAN FOR ADDITIONAL G.C. RELATED SCOPE OF WORK SUCH AS, BEER SODA CONDUITS, WALL BACKINGS, SLAB WORK & MILLWORK CUT-OUTS.

7. GENERAL CONTRACTOR TO READ ALL NOTES AND REVIEW ALL FOODSERVICE PLANS FOR COMPLETE SCOPE OF WORK.

design west | architects
LOGAN UT 84321
SALT LAKE CITY UT 84103
255 SOUTH 300 WEST
795 NORTH 400 WEST
WSR & Associates
Foodservice Design Concepts

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

CONSTRUCTION DOCUMENTS

PROJECT #:
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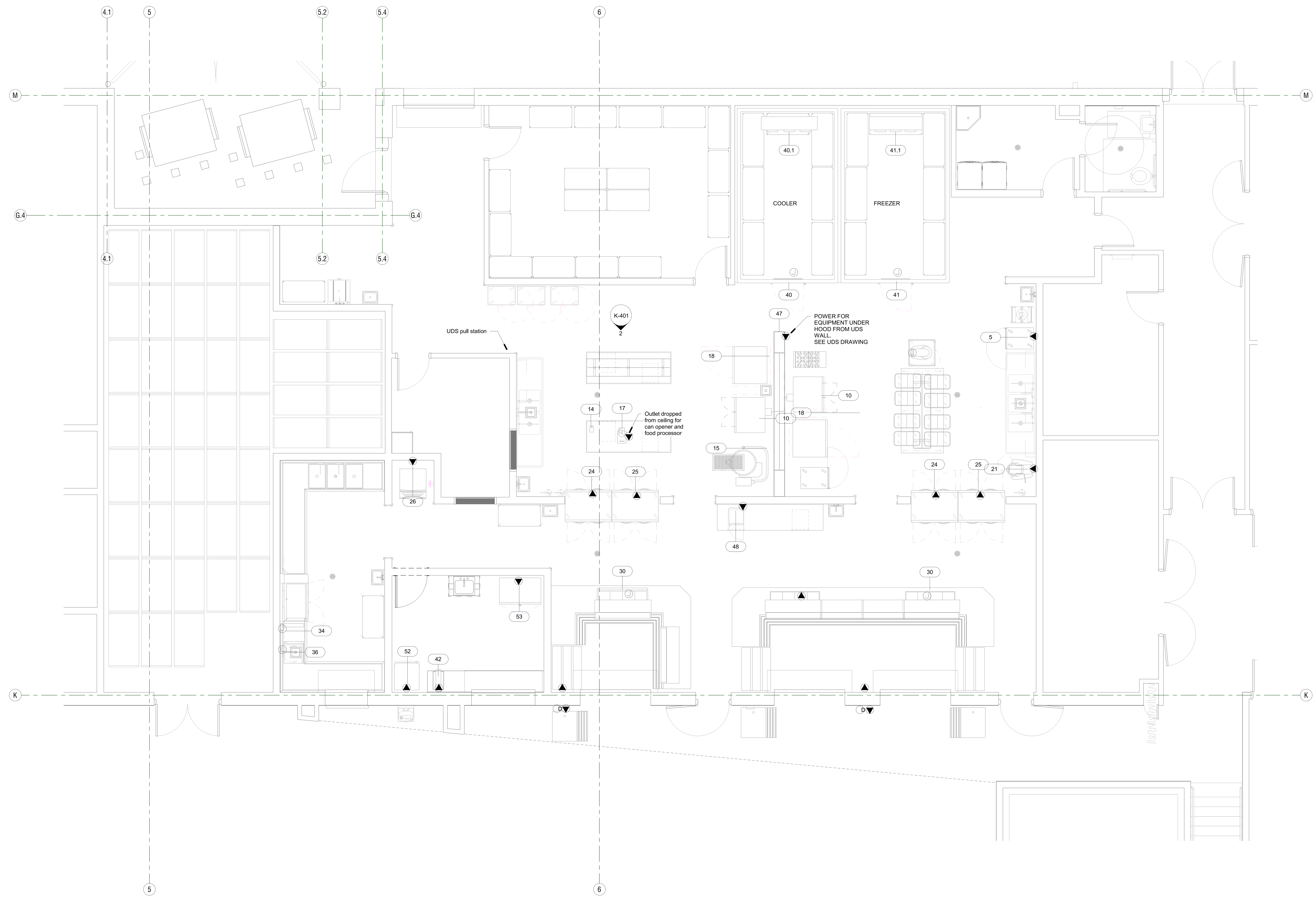
ISSUED: 05.02.2024

KITCHEN EQUIPMENT SCHEDULES

K-102



1 KITCHEN ELECTRICAL PLAN
1/4" = 1'-0"

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795 NORTH 400 WEST SALT LAKE CITY UT 84103

WSR & Associates
Foodservice Design Concepts

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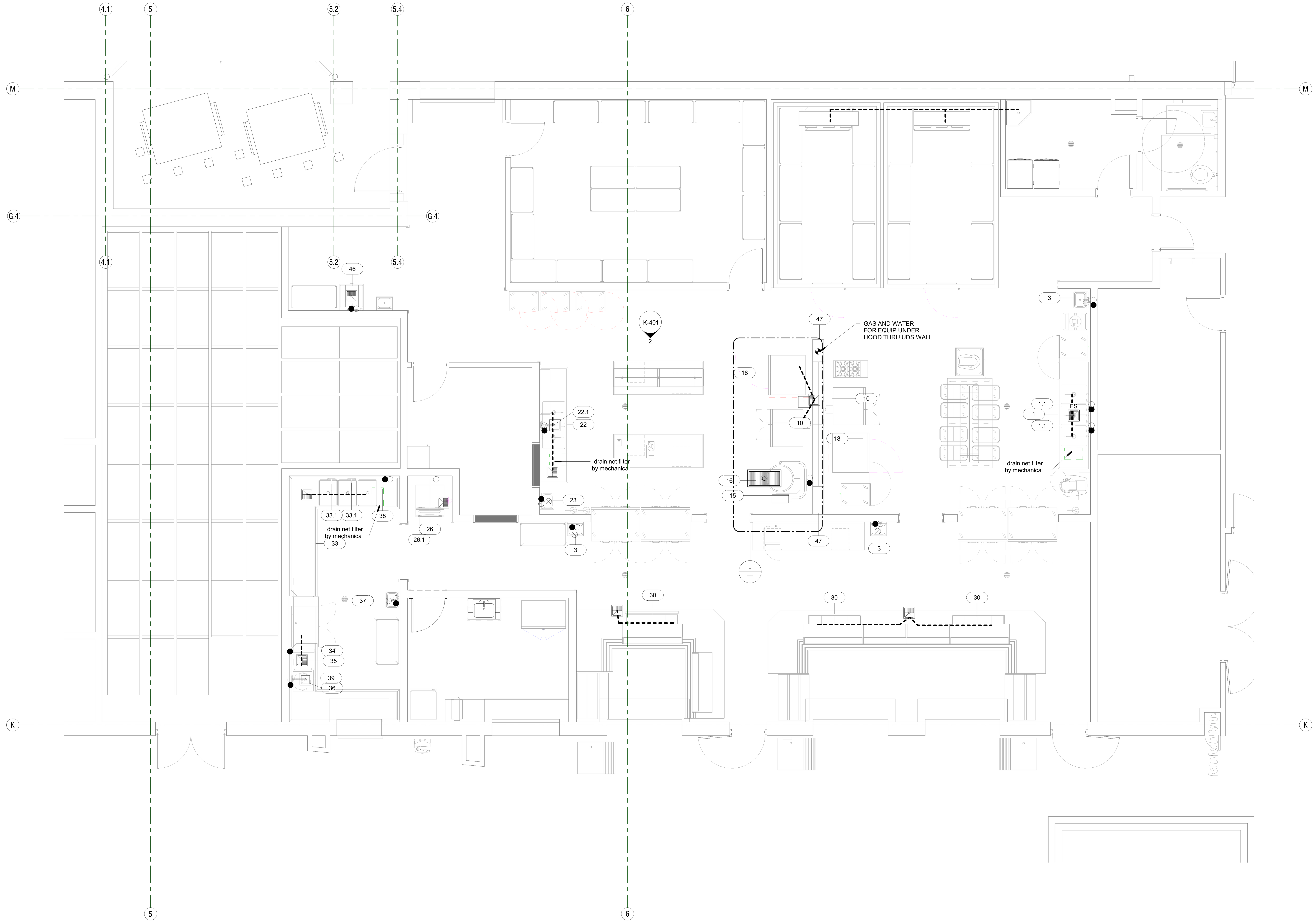
CONSTRUCTION DOCUMENTS

KITCHEN ELECTRICAL ROUGH-INS

K-201



1 KITCHEN PLUMBING PLAN
1/4" = 1'-0"

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
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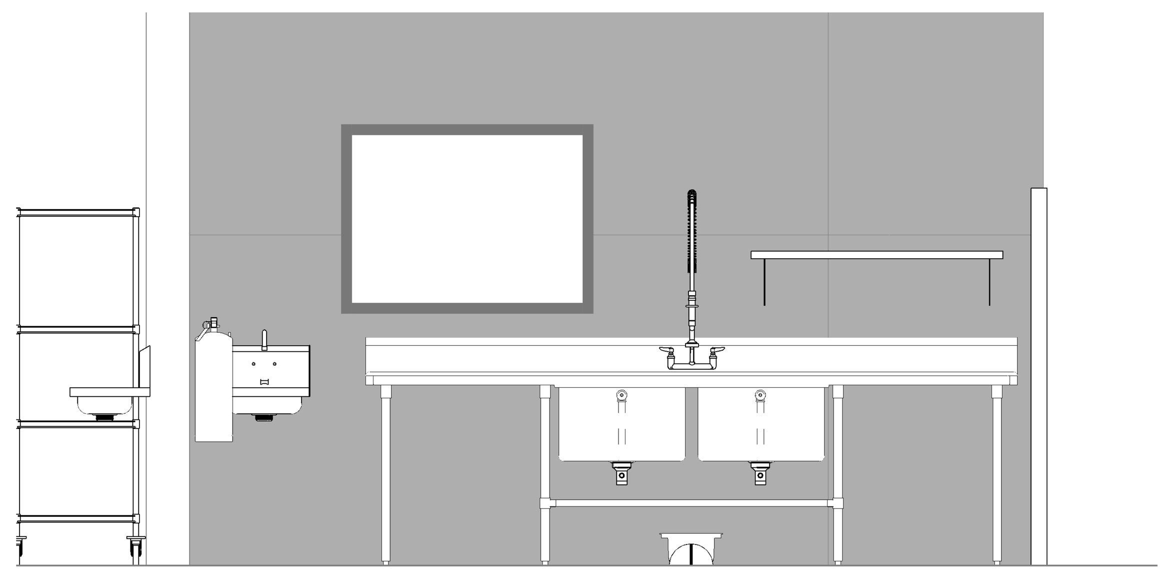
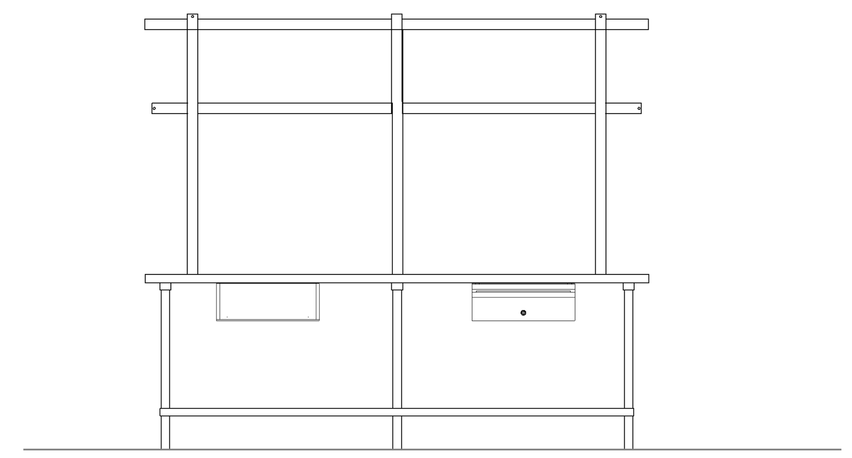
CONSTRUCTION DOCUMENTS

KITCHEN PLUMBING ROUGH-INS

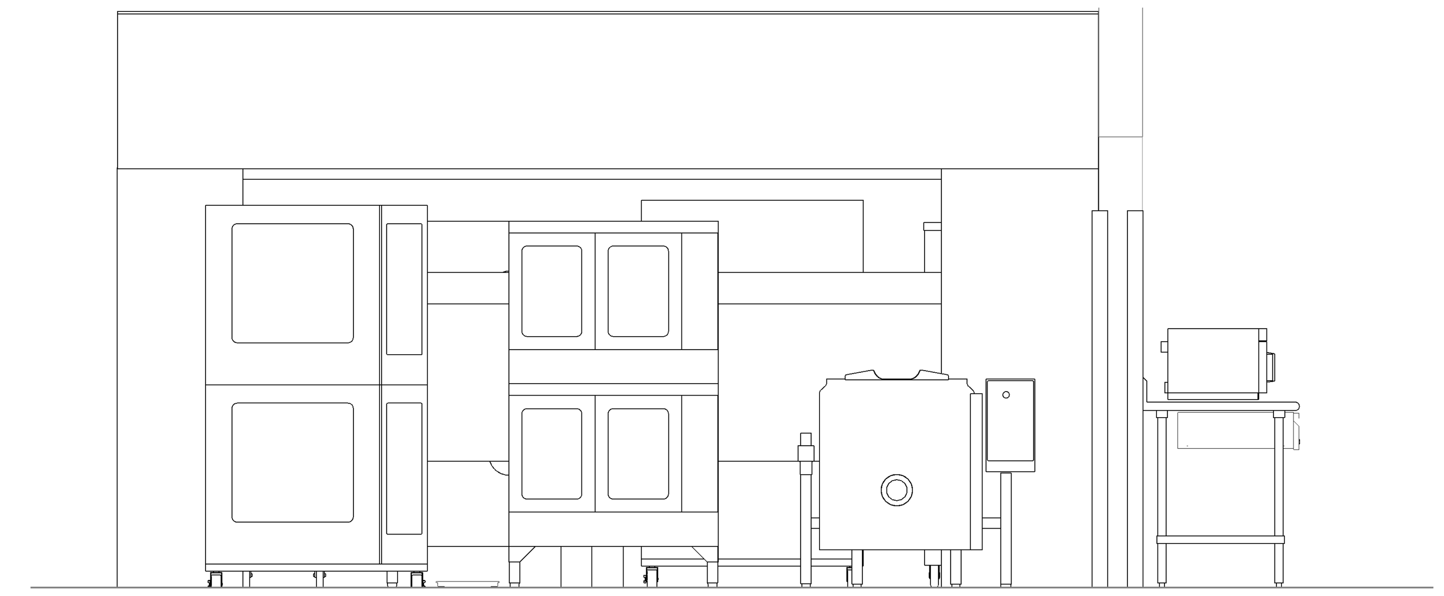
K-301



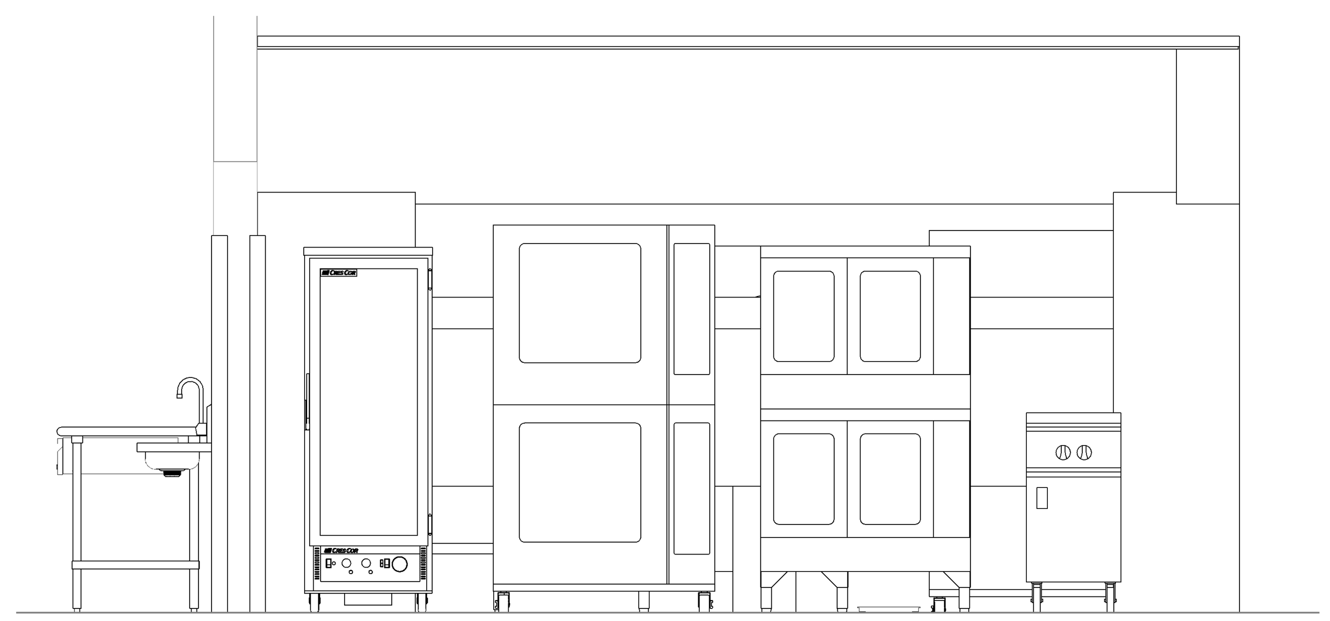
1 Elevation Prep sink
1/2" = 1'-0"



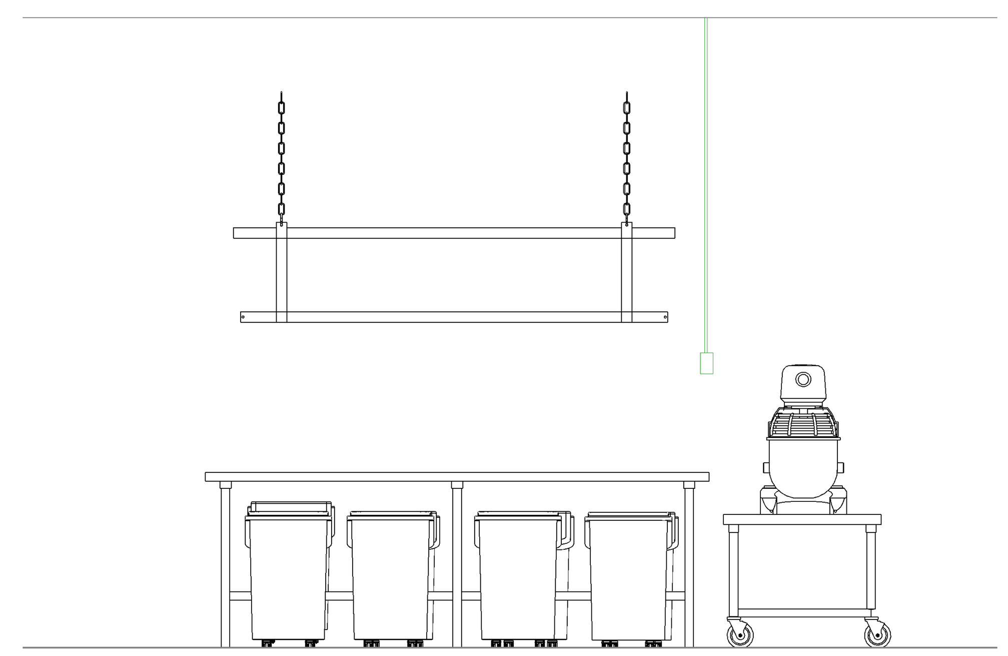
2 Elevation at Prep Table
1/2" = 1'-0"



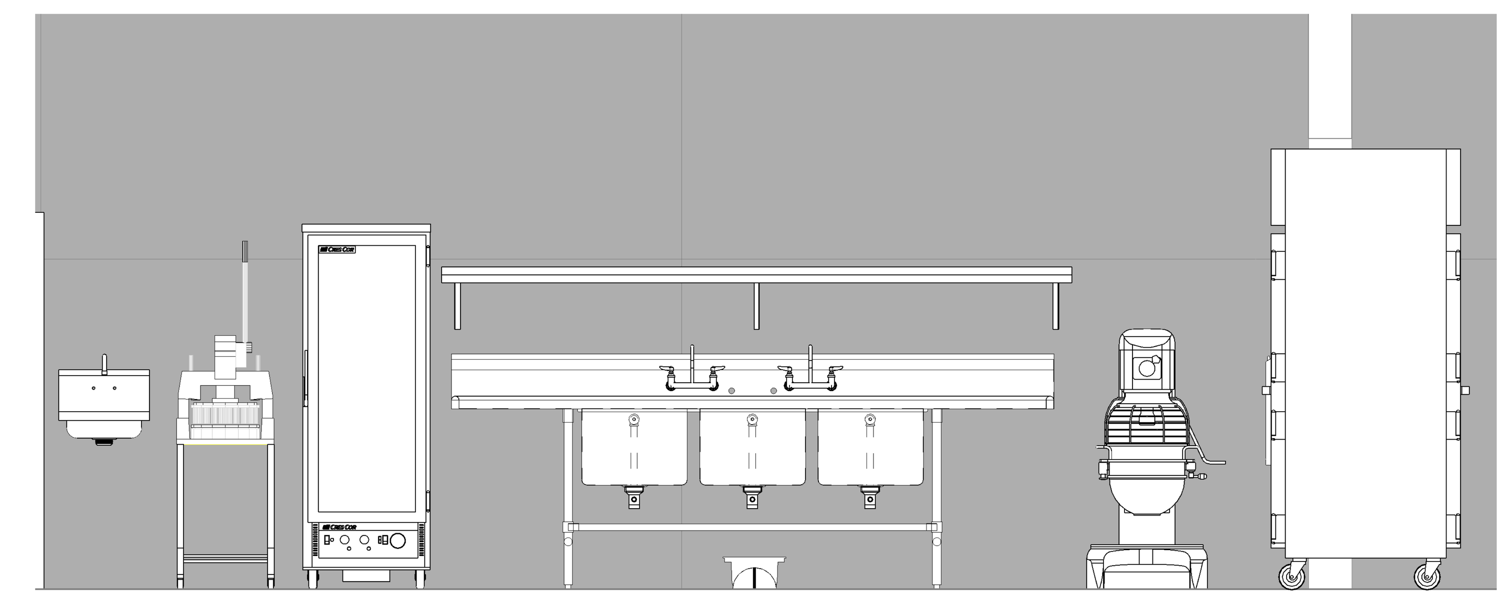
3 Elevation at Cook line West
1/2" = 1'-0"



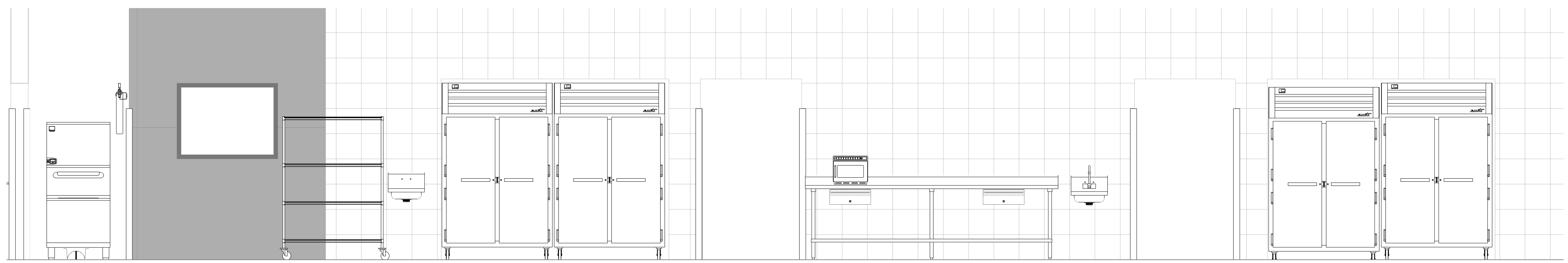
4 Elevation at Cook line East
1/2" = 1'-0"



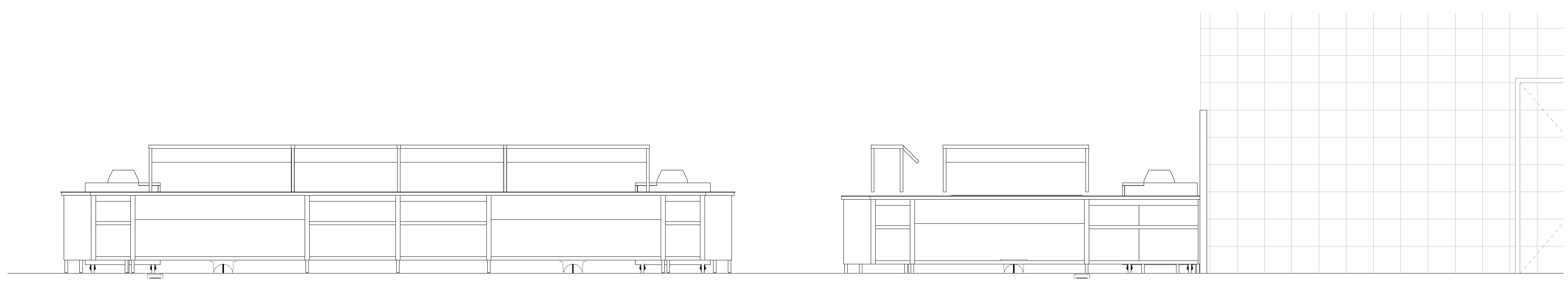
5 Elevation at Bakers Table
1/2" = 1'-0"



6 Elevation Three Comp Sink
1/2" = 1'-0"



7 Elevation at Back Wall
1/2" = 1'-0"



8 Elevation at Serving Counters Kitchen Side
1/2" = 1'-0"

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Using Systems For Design

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

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PROJECT #:
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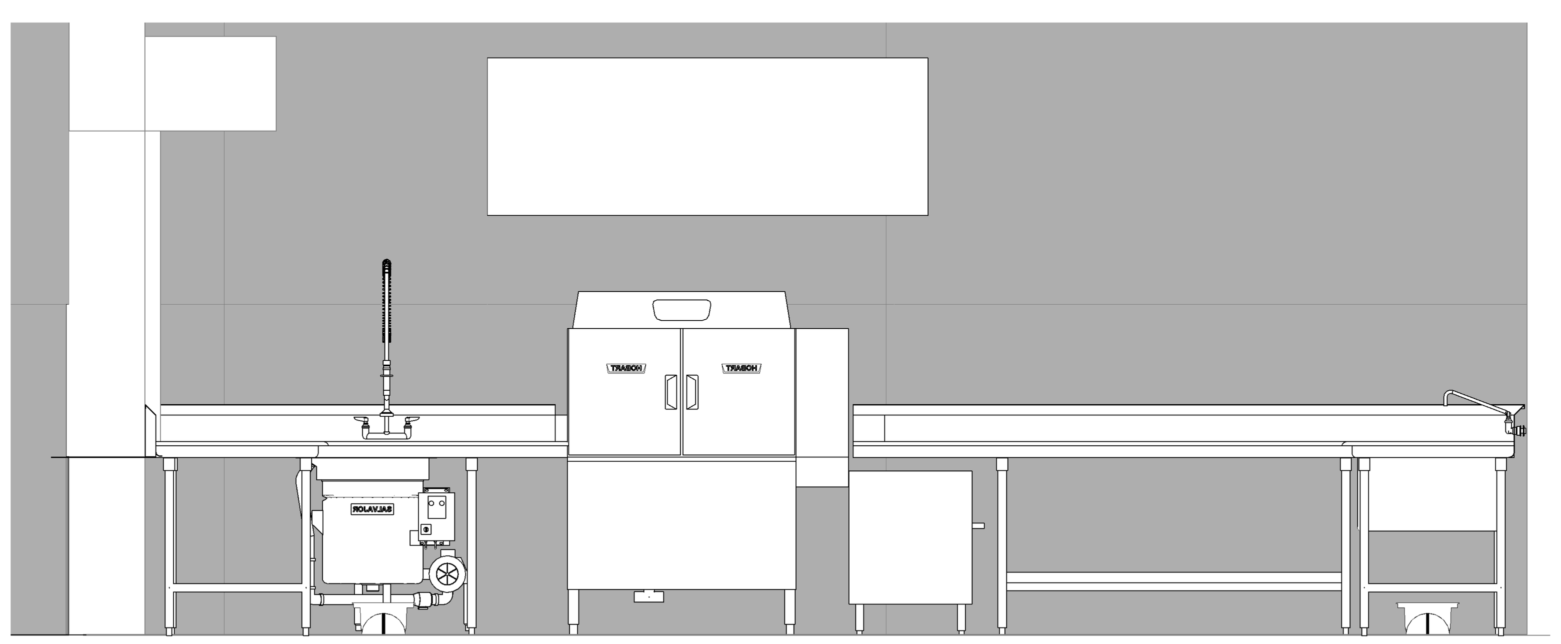
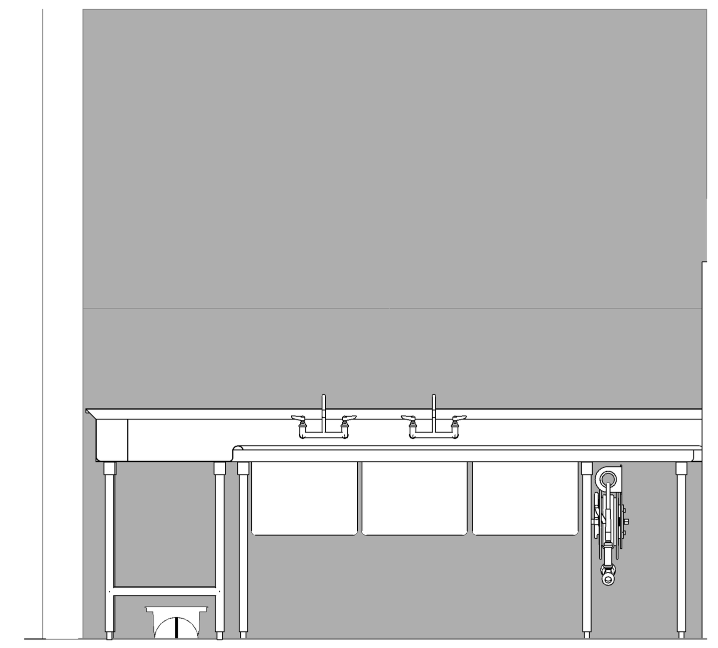
ISSUED: 05.02.2024

KITCHEN ELEVATIONS

K-401

E





1 Elevation at Dish Washer
1/2" = 1'-0"

2 Elevation At Pot Sink
1/2" = 1'-0"

D

C

B

A

1 | 2 | 3 | 4 | 5 | 6

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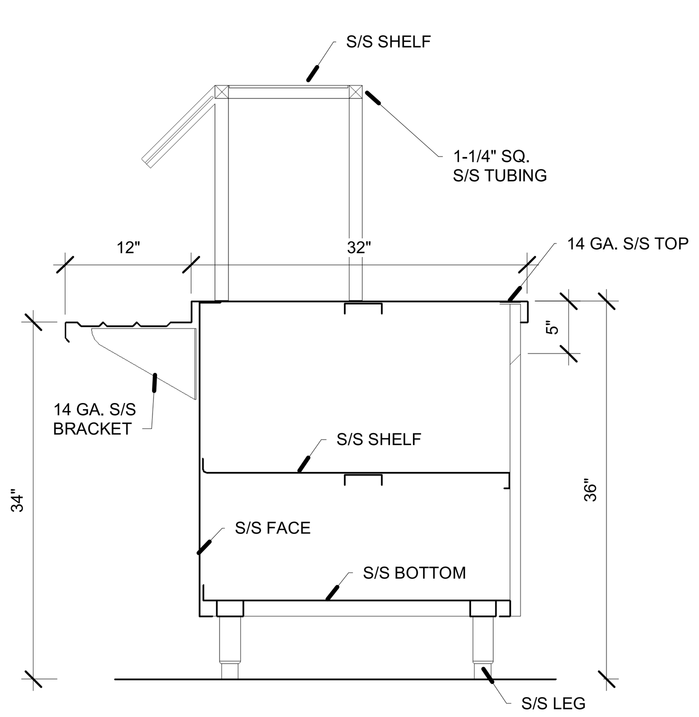
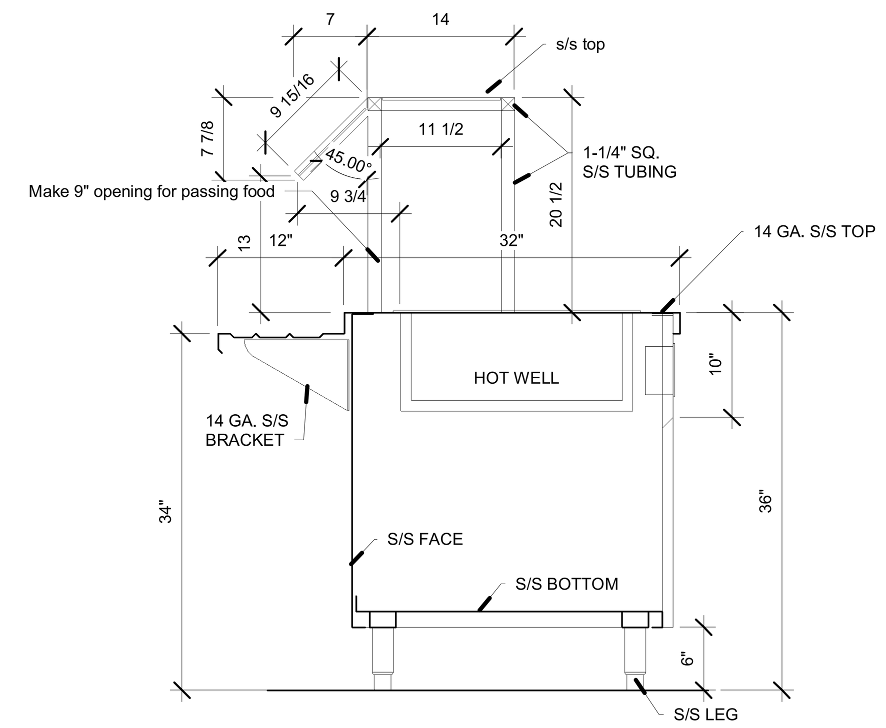
KITCHEN
ELEVATIONS

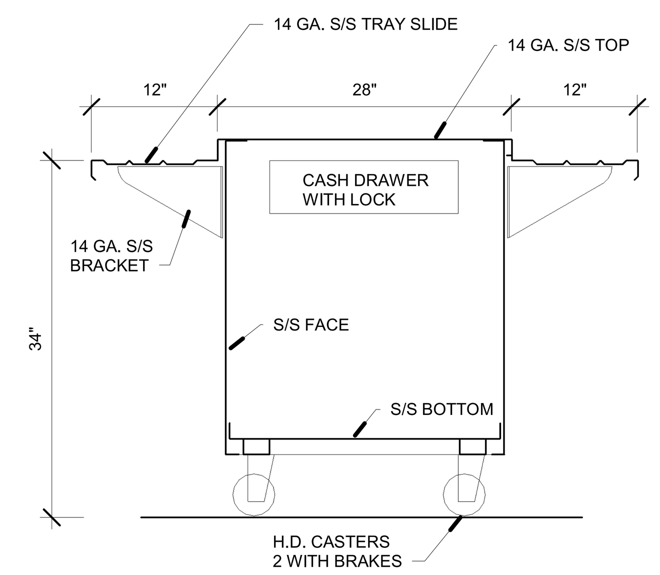
K-402



1 SECTION AT DESSERT
1" = 1'-0"



3 SECTION AT HOT WELL
1" = 1'-0"



4 SECTION AT CASHIER COUNTER
1" = 1'-0"

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NIBLEY MIDDLE SCHOOL

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CACHE COUNTY SCHOOL DISTRICT

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CONSTRUCTION DOCUMENTS

SECTIONS AND DETAILS

K-403

FOR QUESTIONS, CALL THE
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REGION 87
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PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION - JOB#4995437

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP			END TO END	ROW
1		6030 AM-ND-2-PSP-F	AQUAMATIC	15' 4"	600 DEG	I	HEAVY	240	3680			4"	14"	1840	1721	-0.809"	2981	304 SS WHERE EXPOSED	ALONE	BACK
												4"	14"	1840	1721	-0.809"				
2		6030 AM-ND-2-PSP-F	AQUAMATIC	14' 4"	600 DEG	I	HEAVY	240	3440			4"	14"	1720	1609	-0.707"	2786	304 SS WHERE EXPOSED	ALONE	FRONT
												4"	14"	1720	1609	-0.707"				
3		4230 AM-VHB-G-REM1	AQUAMATIC	7' 0"	700 DEG	II	N/A	150	1050			4"	12"	1050	1337	-0.129"	0	304 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)						FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY		
1		CAPTRATE SOLO FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO							NO	980 LBS
2		CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x60"x30"			SC-011110FP	1 LIGHT 1 FAN	NO	993 LBS
3							0									NO	263 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		RIGHT END STANDOFF (FINISHED) 3" WIDE 60" LONG.
		BACK STANDOFF (FLAT) 12" WIDE 187" LONG.
		MIN 18 GAUGE HOOD.
2		LEFT END STANDOFF (FINISHED) 3" WIDE 60" LONG.
		MIN 18 GAUGE HOOD.
3		MIN 18 GAUGE HOOD.

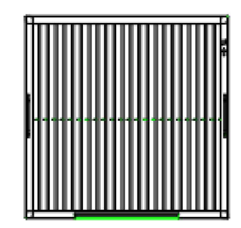
PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1		Front	187"	16"	6"	MUA	12"	28"		745	0.208"
						MUA	12"	28"		745	0.208"
						MUA	12"	28"		745	0.208"
						MUA	12"	28"		745	0.208"
2		Front	187"	14"	6"	MUA	12"	28"		696	0.183"
						MUA	12"	28"		696	0.183"
						MUA	12"	28"		696	0.183"
						MUA	12"	28"		696	0.183"

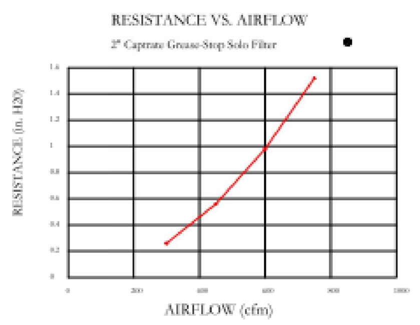
NOTE: MODEL ND-2 IS AN ETL LISTED HOOD
ETL LISTING IS 200 CFM/FT (600 DEGREES)
Q = ETL LISTING * 15' 4" = 3066 CFM < 3680 CFM (DESIGN)
MODEL ND-2 IS ETL LISTED WITH 1 EX RISER UP TO 16'

NOTE: MODEL ND-2 IS AN ETL LISTED HOOD
ETL LISTING IS 200 CFM/FT (600 DEGREES)
Q = ETL LISTING * 14' 4" = 2867 CFM < 3440 CFM (DESIGN)
MODEL ND-2 IS ETL LISTED WITH 1 EX RISER UP TO 16'

NOTE: MODEL VHB IS AN ETL LISTED TYPE II HOOD
ETL LISTING IS 100 CFM/FT (700 DEGREES)
Q = ETL LISTING * 7' 0" = 700 CFM < 1050 CFM (DESIGN)
MODEL VHB IS ETL LISTED WITH 1 EX RISER UP TO 16'



Captrate
Grease-Stop Solo Filter



Filter Detail

CAPTRATE®

EXHAUST CFM=LENGTH OF HOOD X CFM/LIN.FT. (LOAD)

SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED

$$\text{TOTAL DUCT AREA} = 144 \times \frac{\text{CFM}}{\text{FPM}(*)}$$

$$\text{DUCT LENGTH} = \frac{\text{TOTAL DUCT AREA}}{\text{DUCT DEPTH}}$$

* CAPTIVE-AIRE VENTILATOR DUCT SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1600-1800 FPM AND A SUPPLY VELOCITY OF 1000 FPM PLEASE CONSULT FACTORY FOR MAXIMUM ALLOWABLE DUCT SIZES

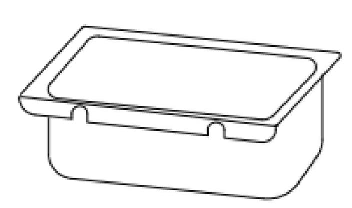
CALCULATIONS UTILIZED

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

- NFPA #96
- ETL SANITATION
- E.T.L. LISTED 3054804-001
- ETL IS LISTED TO ULC STANDARDS
- NSF

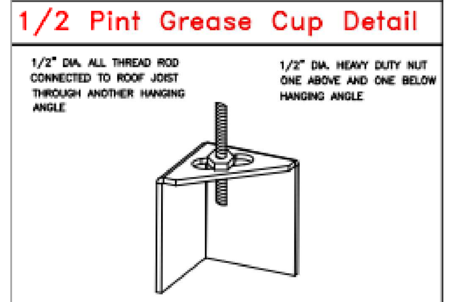
Intertek

BUILDING CODES



Grease Cup will be supported by 2 studs on the inside wall of the hood The grease will drain through a concealed grease trough and into this removable cup.

1/2 Pint Grease Cup Detail



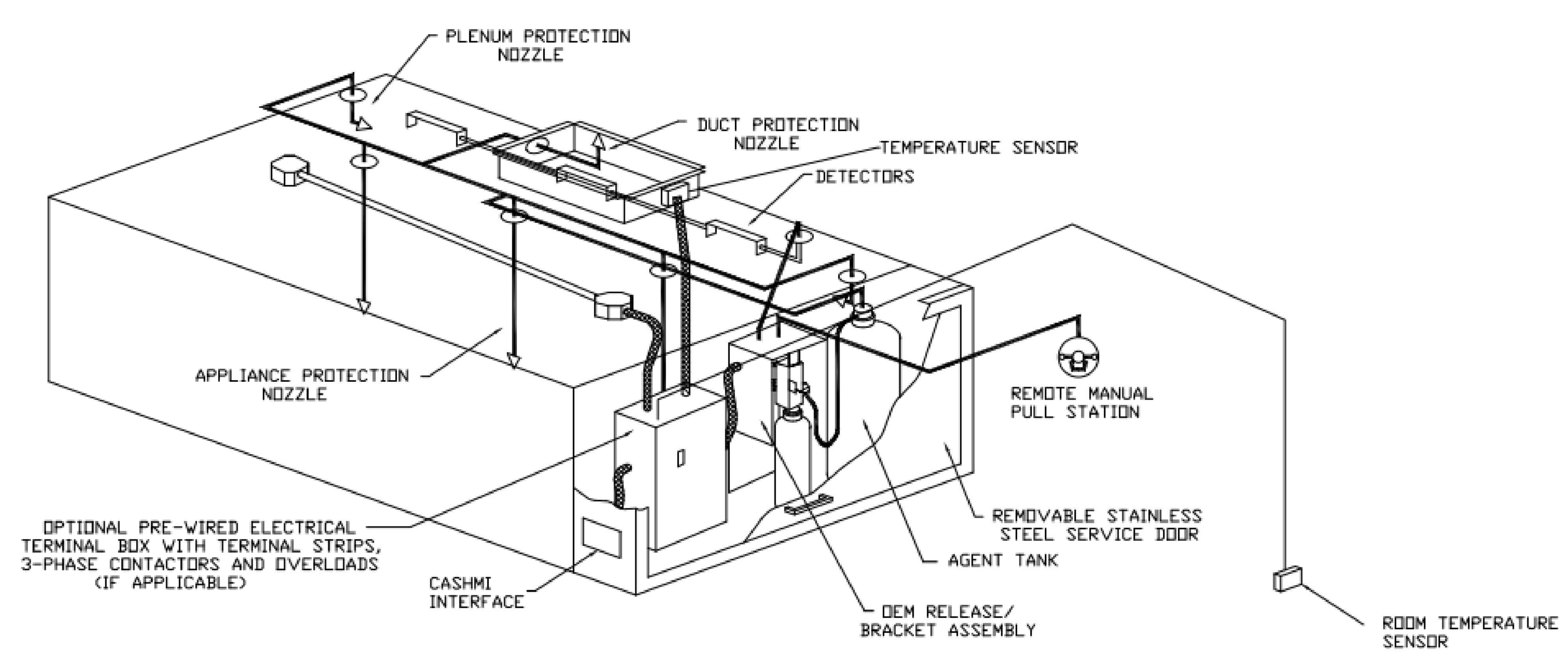
* ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR HANGING ANGLE IS PRE-PUNCHED AT FACTORY

ND-2 HANGING ANGLE DETAIL

HANGING ANGLES WILL BE LOCATED IN THE FOLLOWING LOCATIONS FOR WALL CANOPIES

HOOD STYLE		DIM FROM REAR	DIM FROM FRONT (24" High Hood)	DIM FROM FRONT (30" High Hood)
Wall	Exhaust Only	4.166"	2.25"	2.25"
	With MUA		2.25"	2.25"
Back Shelf	Exhaust Only	4.166"	2.25"	2.25"
	With MUA		2.25"	2.25"
Condensate		2.25"	2.25"	

HANGING ANGLE LOCATIONS



TYPICAL ANSUL R-102 SYSTEM LAYOUT

FOR QUESTIONS CONTACT
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REVISIONS

DESCRIPTION	DATE

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West Haven Junior High

DATE: 7/19/2021

DWG.#: 4995437

DRAWN BY: EH

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 1

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NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

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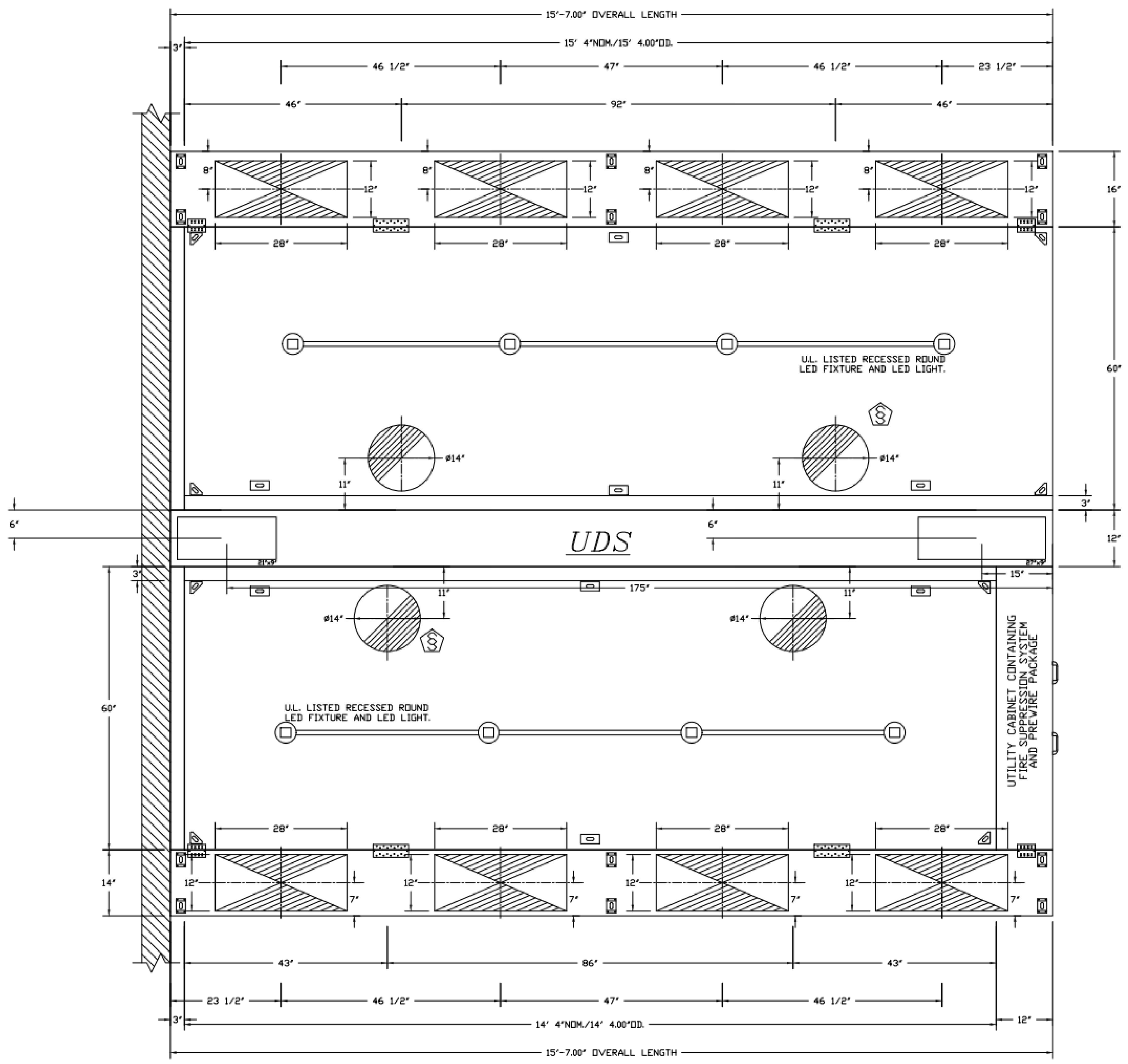
KITCHEN EXHAUST HOOD DETAILS

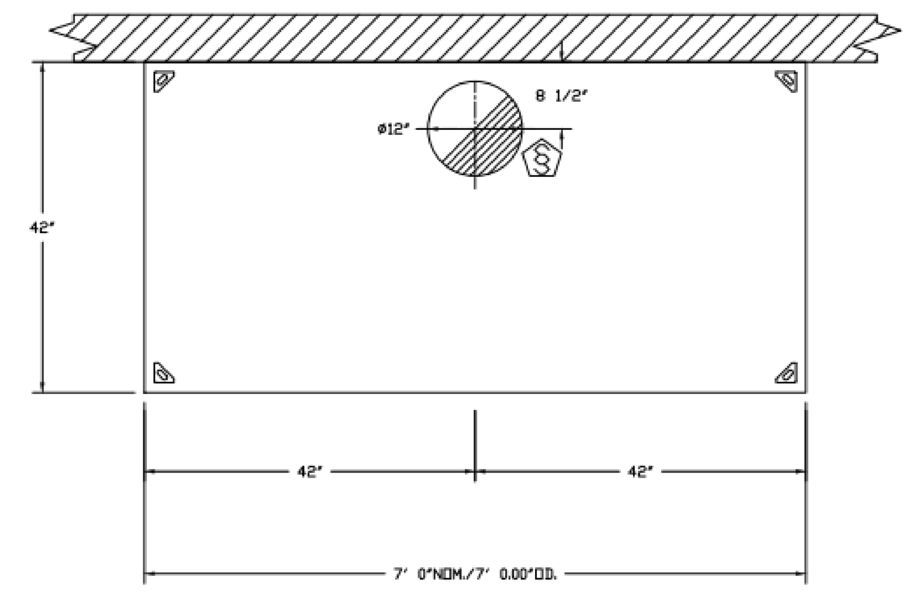
K-501

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

PLAN VIEW – HOOD #1
15' 4.00" LONG 6030AM-ND-2-PSP-F



PLAN VIEW – HOOD #2
14' 4.00" LONG 6030AM-ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



PLAN VIEW – HOOD #3
7' 0.00" LONG 4230AM-VHB-G-REM1

SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

FOR QUESTIONS CONTACT
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REVISIONS

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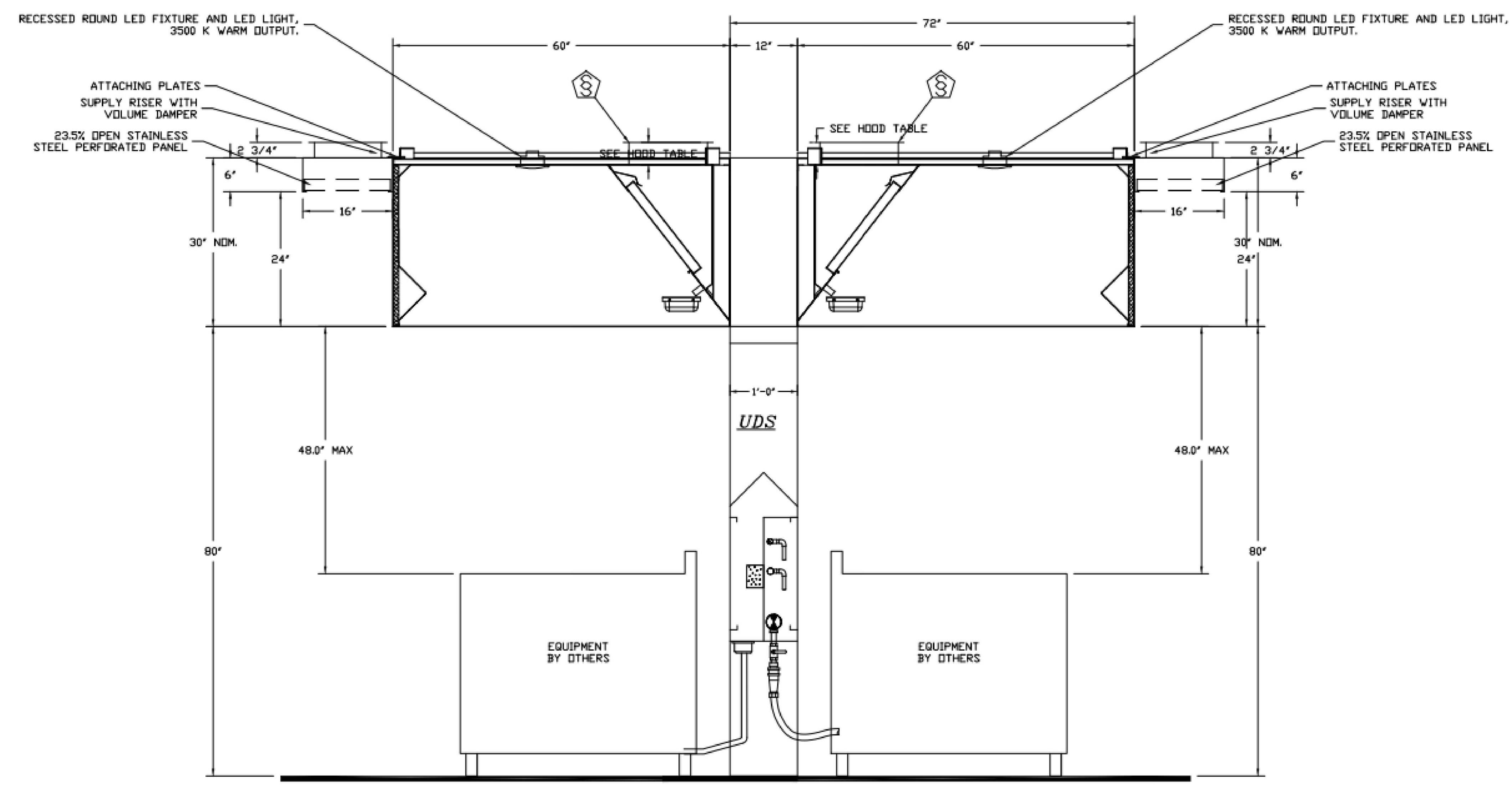
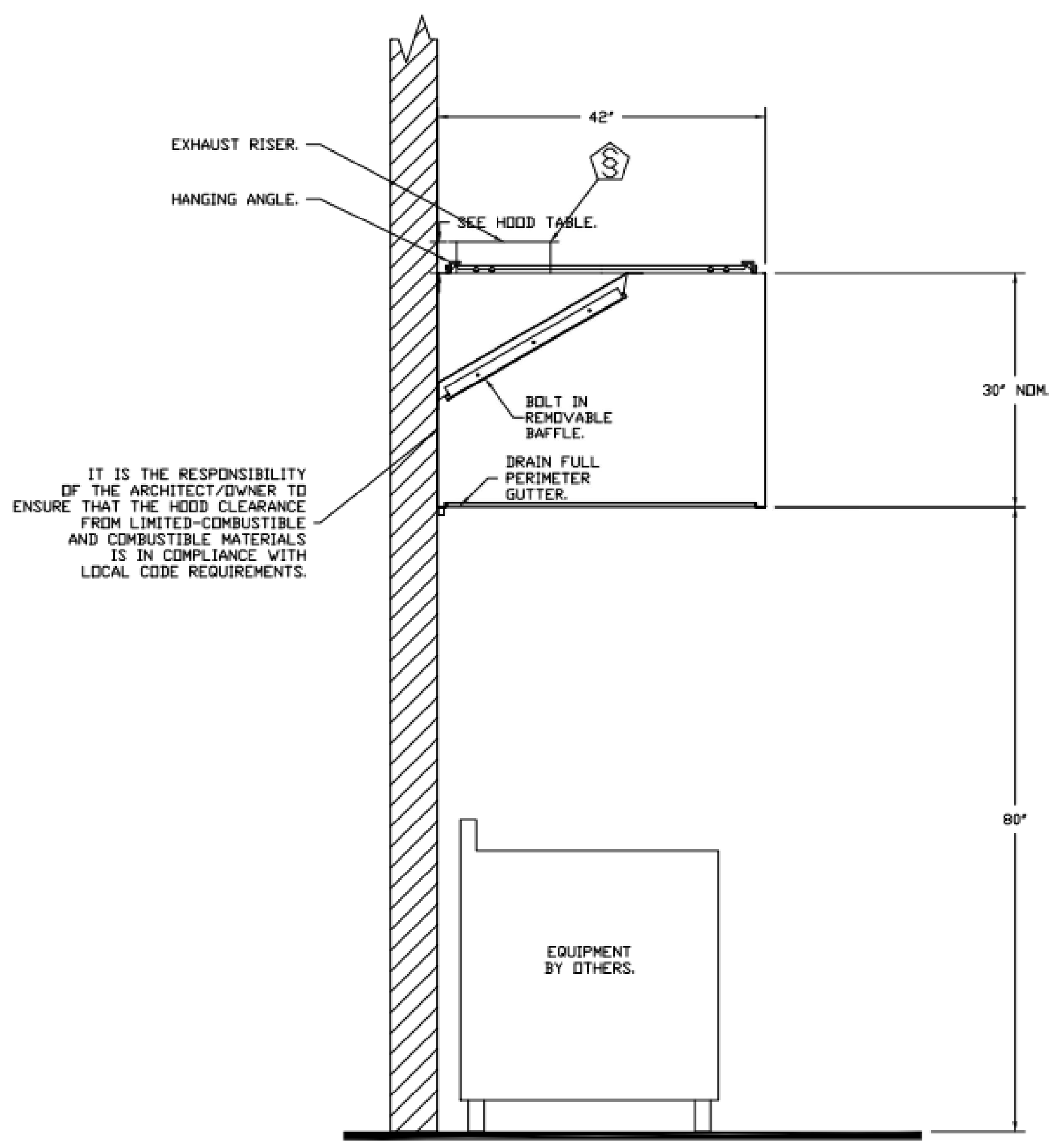
CONSTRUCTION DOCUMENTS

KITCHEN EXHAUST HOOD DETAILS
K-502



SECTION VIEW – MODEL 6030AM-ND-2-PSP-F
HOOD – #2

SECTION VIEW – MODEL 6030AM-ND-2-PSP-F
HOOD – #1



SECTION VIEW – MODEL 4230AM-VHB-G-REM1
HOOD – #3

FOR QUESTIONS CONTACT
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NIBLEY MIDDLE SCHOOL
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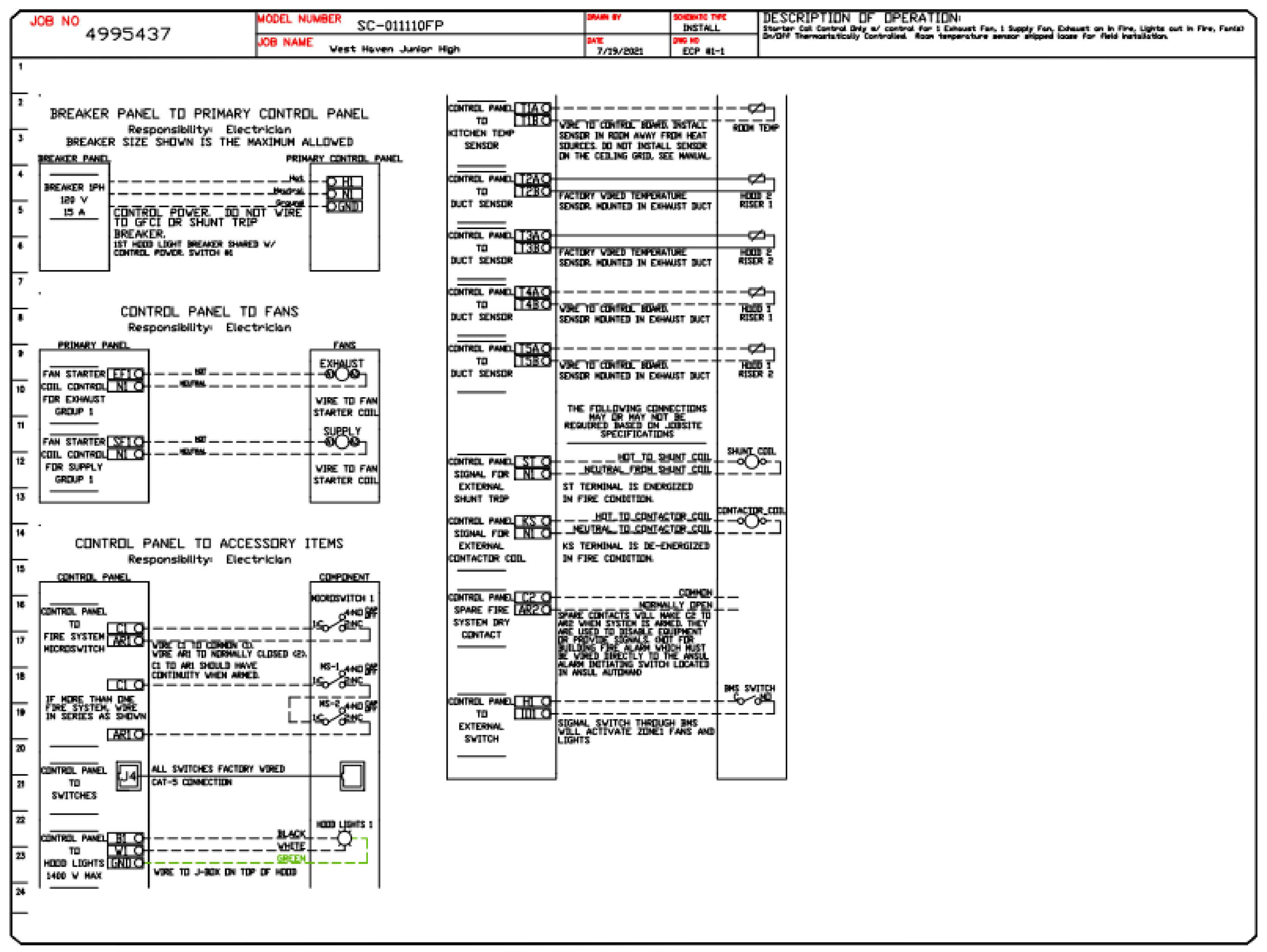
CONSTRUCTION DOCUMENTS

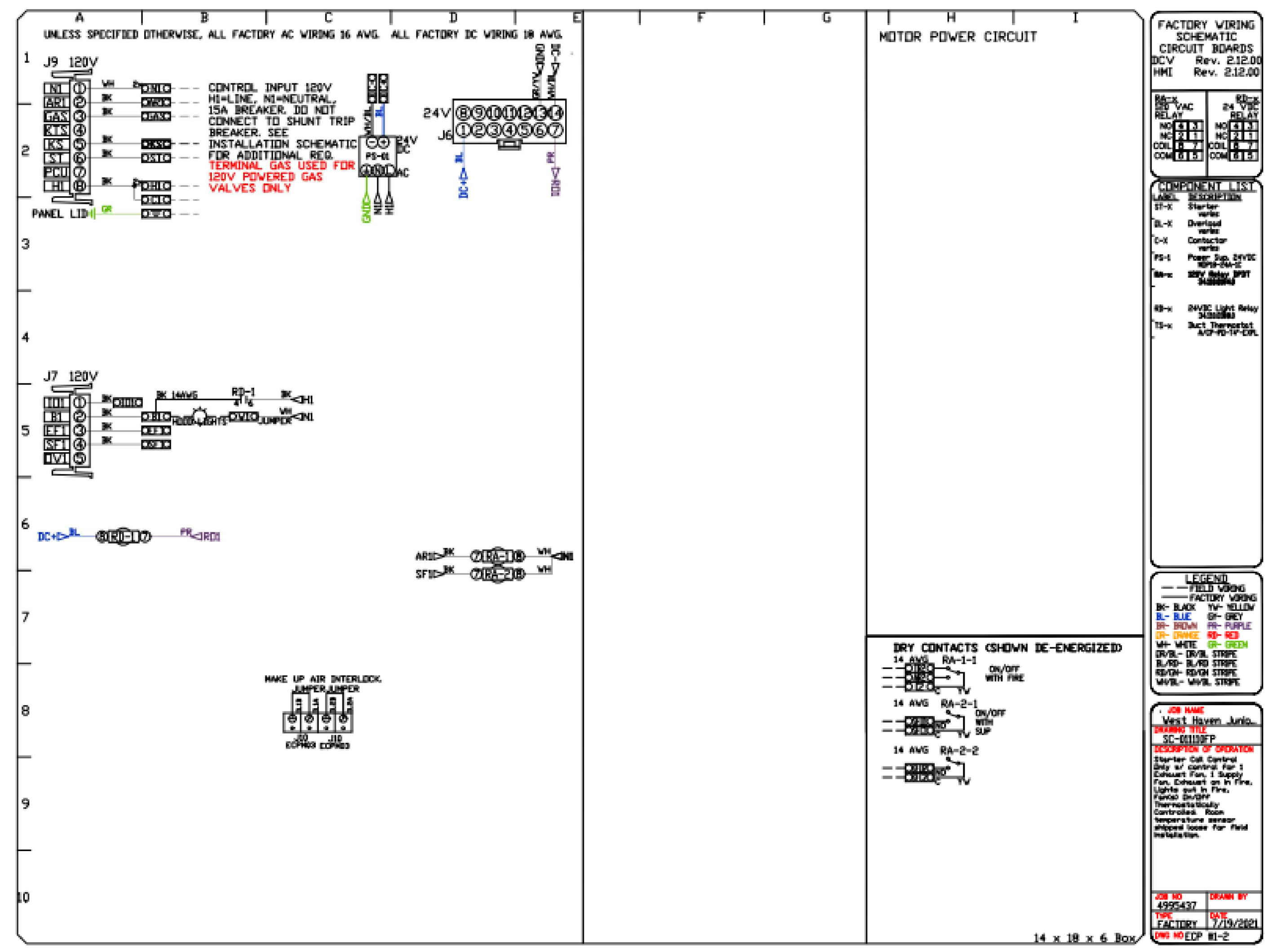
KITCHEN EXHAUST HOOD DETAILS

K-503

ELECTRICAL PACKAGE - JOB#4995437

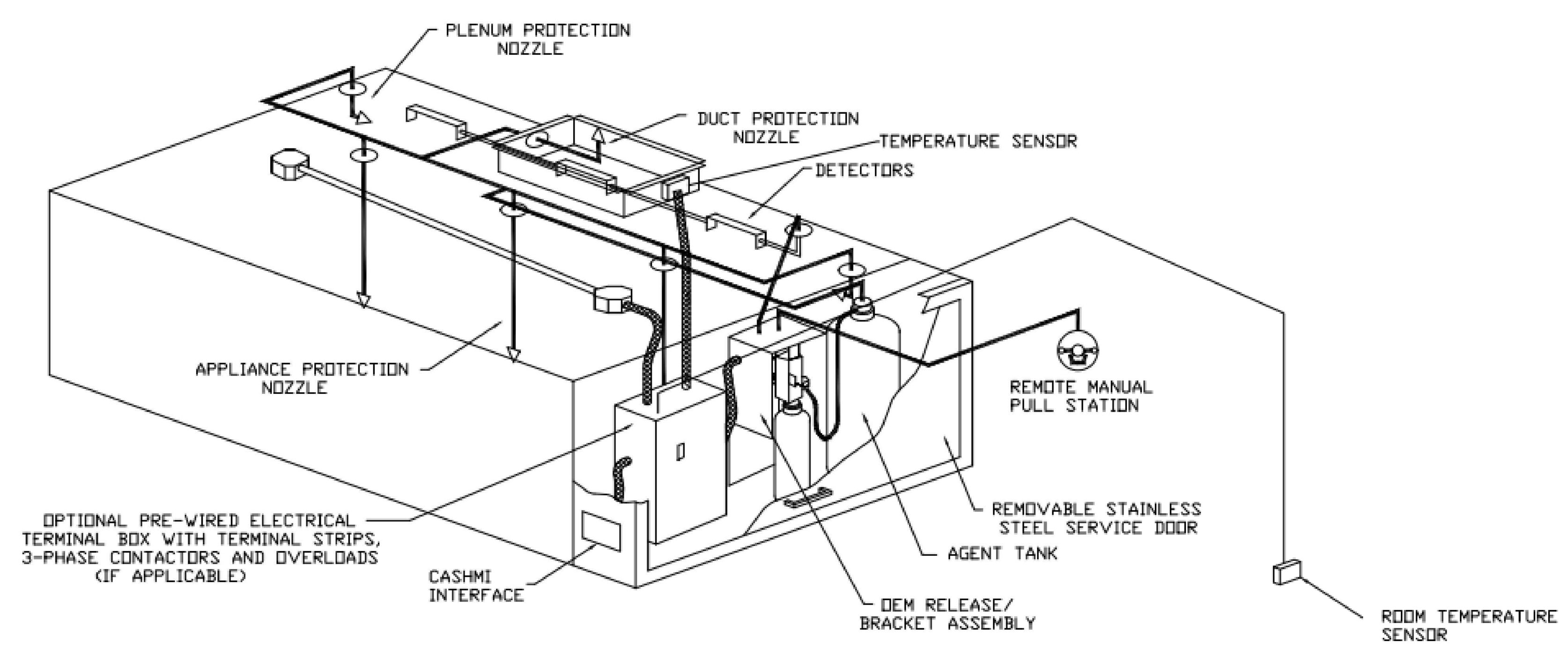
NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Φ	HP	VOLT	FLA
1		SC-011110FP	UTILITY CABINET RIGHT	04 - UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL					
				HOOD # 2	1 FAN						





Hood Control Panel Specifications:

- Control panel shall be listed to UL standard UL508A.
- The control enclosure shall be NEMA 1 rated and listed for installation inside of the exhaust hood utility cabinet. The control enclosure may be constructed of stainless steel or painted steel.
- Temperature probe(s) located in the exhaust duct riser(s) shall be constructed of stainless steel.
- A digital thermostat controller, listed to UL standard UL61010-1, shall be provided to activate the hood exhaust fans dynamically based on a +10 degree adjustable offset from the room temperature sensor. This function shall meet the requirements of IMC 507.2.1.1
- A digital thermostat controller shall provide adjustable hysteresis settings to prevent cycling of the fans after the cooking appliances have been turned off and/or the heat in the exhaust system is reduced.
- A digital thermostat controller shall provide an adjustable minimum fan run-time setting to prevent fan cycling.
- A digital thermostat controller shall disable the supply fan(s), activate the exhaust fan(s), activate the appliance shunt trip, and disable an electric gas valve automatically under the following conditions (as applicable):
  a. Fire condition detected on a covered hood
  b. Excessive temperature detected on any duct temperature sensor in the system (250 F adjustable)
- A digital thermostat controller shall allow for external BMS fan control via dry contact (external control shall not override fan operation logic as required by code).
- An LCD interface shall be provided with the following features:
  a. On/Off push button fan & light switch activation
  b. Integrated gas valve reset for electronic gas valves (no reset relay required)
  c. Fan starter overload trip detection with audible & visual alarm notification.
  d. Temperature sensor failure/mis-wiring detection with audible & visual alarm notification
  e. A single low voltage Cat-5 RJ45 wiring connection



TYPICAL CONTROL SYSTEM LAYOUT

FOR QUESTIONS CONTACT
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West Haven Junior High

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CONSTRUCTION DOCUMENTS

KITCHEN EXHAUST HOOD DETAILS
K-504

IMPORTANT SPECIAL UDS PARTS/NOTES

☆	TWO (2) VULCAN V3MRO-2 REVERSE OSMOSIS FILTERS WITH MOUNTING BRACKETS, MOUNTING BRACKETS SUPPLIED BY C.A.S. FILTERS SUPPLIED BY OTHERS.
☆	ECP MOUNTED IN ELECTRICAL RISER.

UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31-M89

PRIOR TO SCHEDULING UDS FOR PRODUCTION PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED

ANY CHANGES TO SUBMITTAL DRAWING MAY AFFECT PRICE AND PRODUCTION TIME PLEASE FORWARD CHANGES ASAP

----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE

- COLD WATER
- HOT WATER
- FILTERED WATER
- NATURAL GAS
- PROPANE
- 120 VAC 1 PHASE
- 208 VAC 1 PHASE
- 208 VAC 3 PHASE
- 480 VAC 3 PHASE
- STEAM SUPPLY
- STEAM CONDENSATE RETURN

STANDARD FLAG NOTES

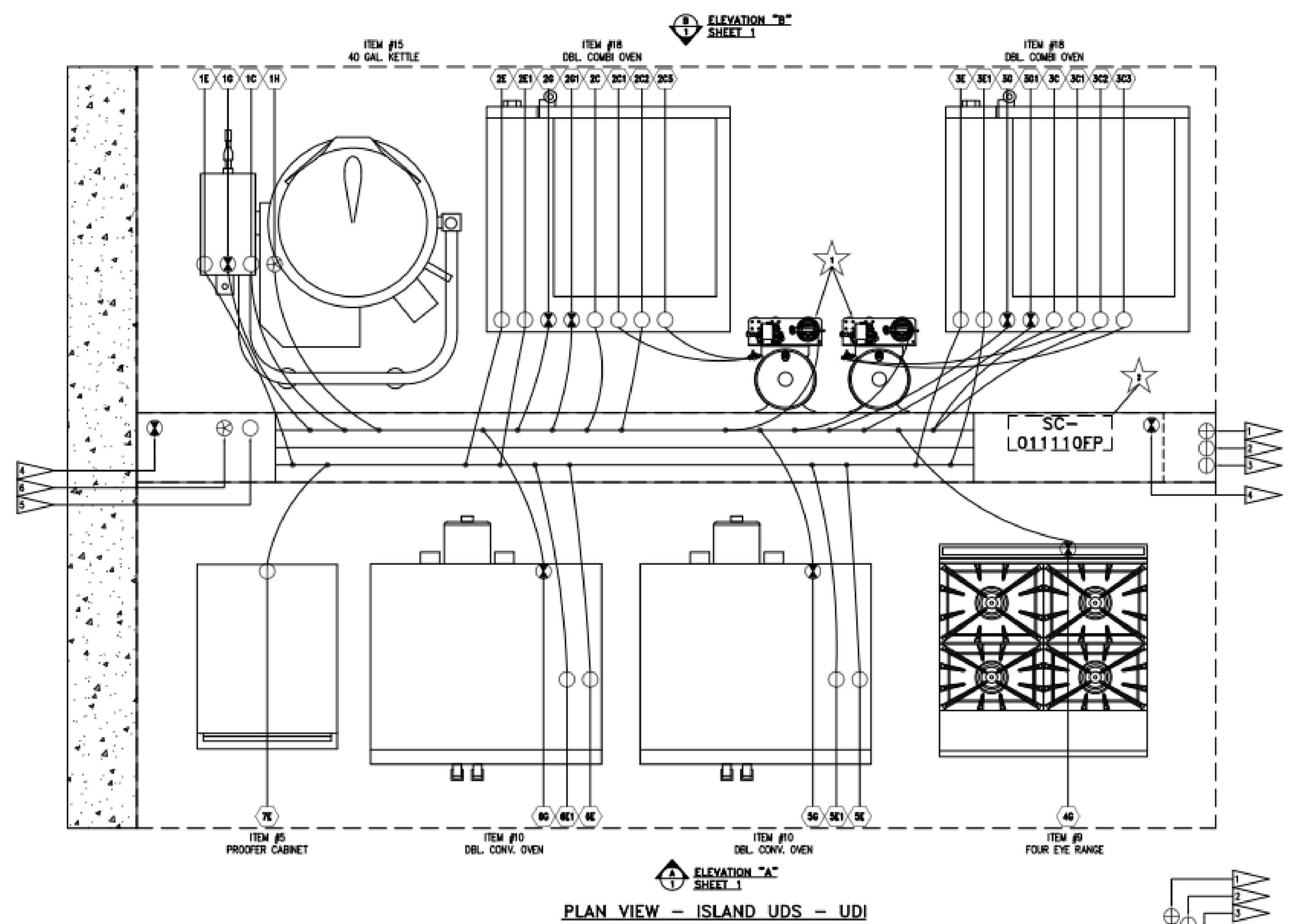
1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTRICAL CONTRACTOR.
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1" FOR FUEL/SHUNT CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3. 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & KTS" TO UDS LIKE TERMINALS "GAS, ST & KTS" FOR UDS SHUT DOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR). SEE SCHEMATIC BELOW.
4. GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
5. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
6. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
7. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
8. STATUS INDICATOR LIGHTS.
9. EMERGENCY KILL SWITCH W/ HMD/DCV SWITCH PLATE.
10. DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
11. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
12. ELECTRICAL WIRING TO APPLIANCES.
13. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
15. MANUAL SHUT OFF VALVE.
16. 120V ELECTRICAL GAS VALVE.
17. REMOVABLE ACCESS DOORS.

UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

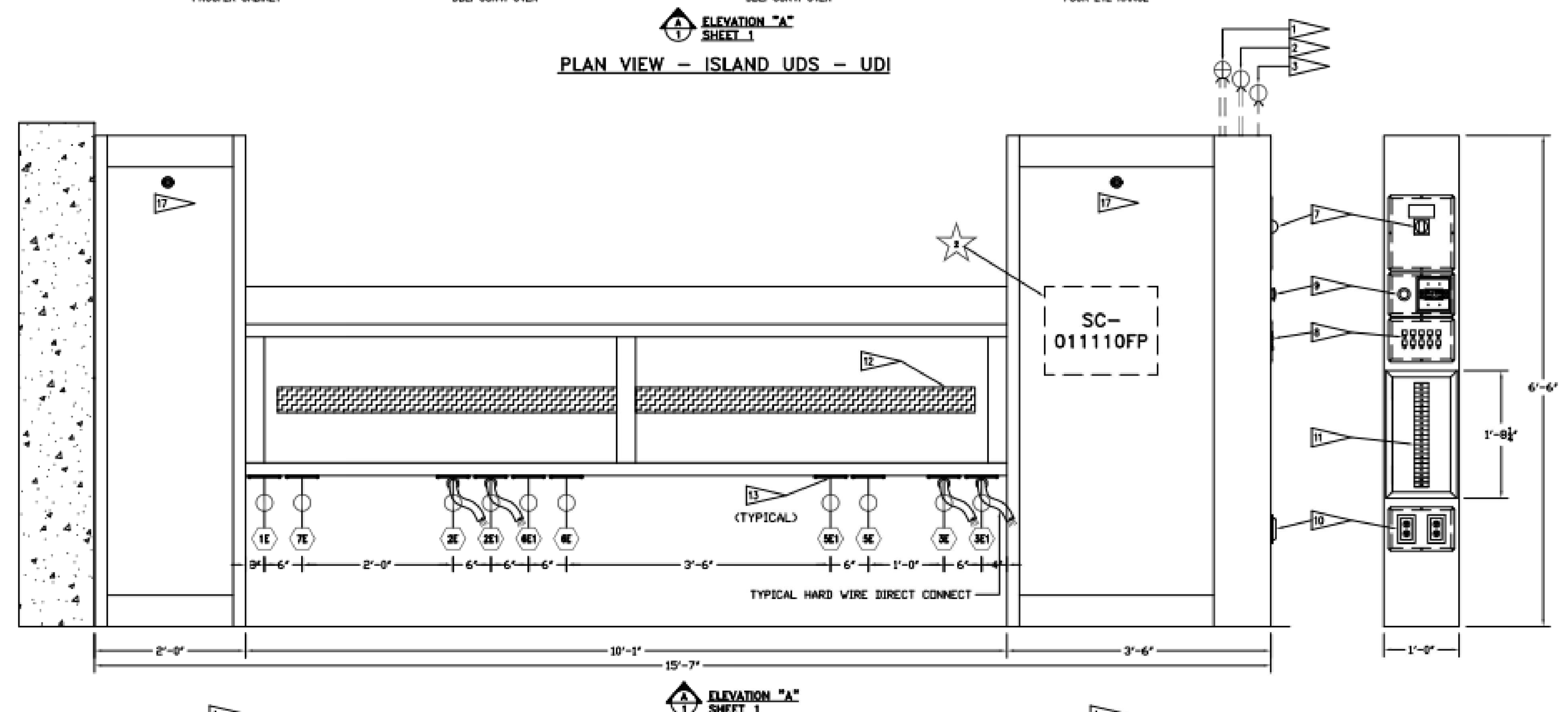
EQUIPMENT					ELECTRICAL					CIRCUIT BREAKER		RECEPTACLE	GAS		WATER		STEAM			CONNECTION		NOTES
CONN.#	ITEM	DESCRIPTION	MANUFACTURER	MODEL #	KW.	AMPS	HP	VOLT	PH	AMPS	POLES	PART #	SIZE	MBH	HOT	COLD	SUPPLY	COLD RETURN	LBS/HR	TYPE	LENGTH	
1E	15	40 GAL. KETTLE	VULCAN	K40GLT	0.6	5.0	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED	-	GFI BREAKER
1G	15	40 GAL. KETTLE	VULCAN	K40GLT	-	-	-	-	-	-	-	-	1/2"	100	-	-	-	-	-	QUICK DISCONNECT	5'	-
1C	15	40 GAL. KETTLE	VULCAN	K40GLT	-	-	-	-	-	-	-	-	-	-	-	1/2"	-	-	-	QUICK DISCONNECT	5'	-
1H	15	40 GAL. KETTLE	VULCAN	K40GLT	-	-	-	-	-	-	-	-	-	-	1/2"	-	-	-	-	QUICK DISCONNECT	5'	-
2E	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	1.8	15.0	-	120	1	20	1	-	-	-	-	-	-	-	-	DIRECT	8'	CONDUIT & WIRE
2E1	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	1.8	15.0	-	120	1	20	1	-	-	-	-	-	-	-	-	DIRECT	8'	CONDUIT & WIRE
2G	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	3/4"	80	-	-	-	-	-	QUICK DISCONNECT	5'	-
2G1	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	3/4"	80	-	-	-	-	-	QUICK DISCONNECT	5'	-
2C	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	-
2C1	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	FILTERED
2C2	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	-
2C3	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	FILTERED
3E	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	1.8	15.0	-	120	1	20	1	-	-	-	-	-	-	-	-	DIRECT	8'	CONDUIT & WIRE
3E1	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	1.8	15.0	-	120	1	20	1	-	-	-	-	-	-	-	-	DIRECT	8'	CONDUIT & WIRE
3G	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	3/4"	80	-	-	-	-	-	QUICK DISCONNECT	5'	-
3G1	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	3/4"	80	-	-	-	-	-	QUICK DISCONNECT	5'	-
3C	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	-
3C1	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	FILTERED
3C2	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	-
3C3	18	DBL. COMBI OVEN	VULCAN	ABC7G-NATP	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	FILTERED
4G	9	FOUR EYE RANGE	VULCAN	V4B36B	-	-	-	-	-	-	-	-	1-1/4"	140	-	-	-	-	-	QUICK DISCONNECT	5'	-
5E	10	DBL. CONV. OVEN	VULCAN	VC66GD	0.9	7.7	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED	-	GFI BREAKER
5E1	10	DBL. CONV. OVEN	VULCAN	VC66GD	0.9	7.7	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED	-	GFI BREAKER
5G	10	DBL. CONV. OVEN	VULCAN	VC66GD	-	-	-	-	-	-	-	-	3/4"	100	-	-	-	-	-	QUICK DISCONNECT	5'	-
6E	10	DBL. CONV. OVEN	VULCAN	VC66GD	0.9	7.7	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED	-	GFI BREAKER
6E1	10	DBL. CONV. OVEN	VULCAN	VC66GD	0.9	7.7	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED	-	GFI BREAKER
6G	10	DBL. CONV. OVEN	VULCAN	VC66GD	-	-	-	-	-	-	-	-	3/4"	100	-	-	-	-	-	QUICK DISCONNECT	5'	-
7E	5	PROOFER CABINET	CRES COR	121-PH-UA-11D	2.0	16.7	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED	-	GFI BREAKER
D1	-	DUPLEX OUTLET	-	-	-	-	-	120	1	20	1	DR20	-	-	-	-	-	-	-	FACTORY	-	GFI BREAKER
D2	-	DUPLEX OUTLET	-	-	-	-	-	120	1	20	1	DR20	-	-	-	-	-	-	-	FACTORY	-	GFI BREAKER

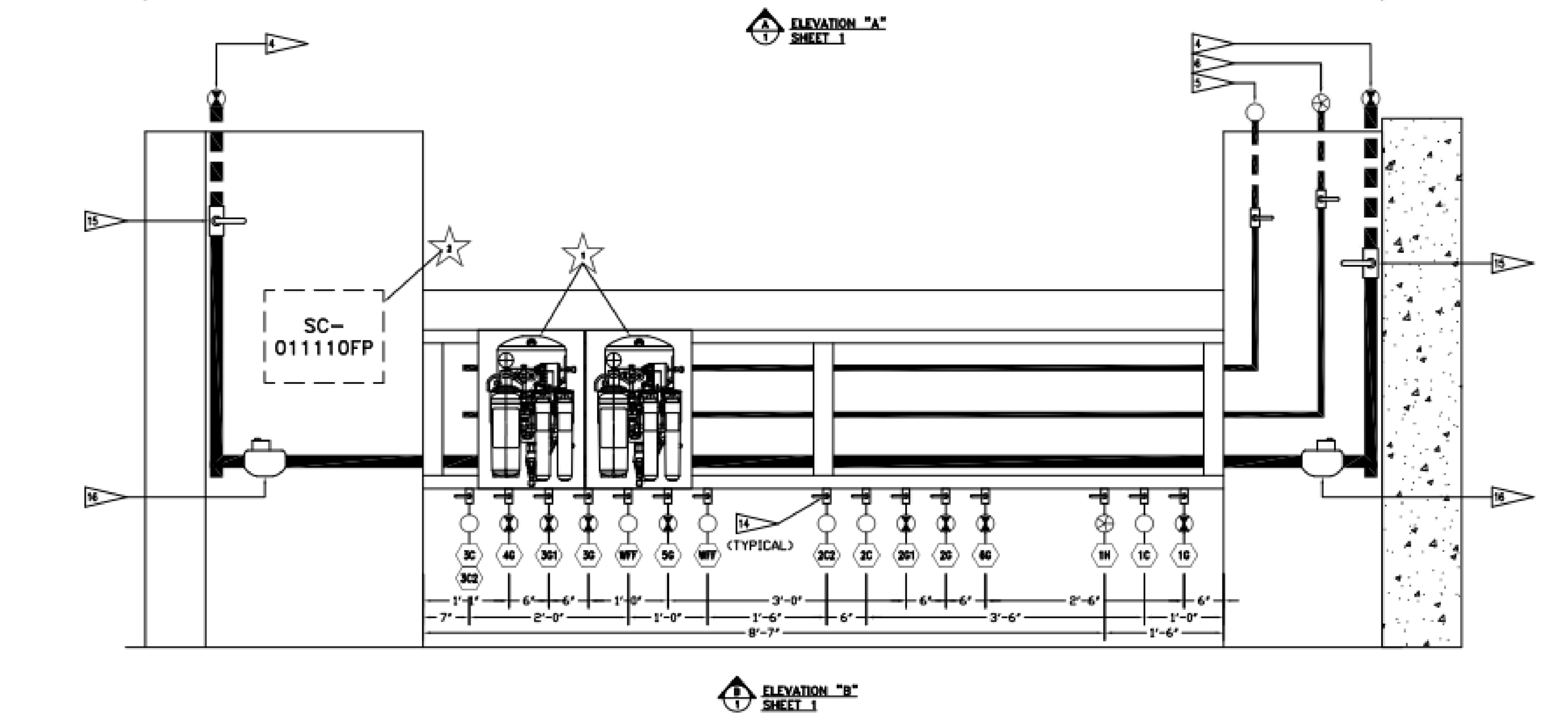
TOTAL CONNECTED LOAD:	13.5	KW.	37.5	AMP	0.0	KW.	0.0	AMP	760	MBH	H.W.	STEAM SUPPLY
FUTURE AVAILABLE LOAD CAPACITY:	15.3	KW.	42.5	AMP	0.0	KW.	0.0	AMP	600	MBH	3/4"	-
SYSTEM CAPACITY:	28.8	KW.	80.0	AMP	0.0	KW.	0.0	AMP	1360	MBH	C.W.	COND. RETURN
SERVICE SIZE:	120/208 V/ 3 PH/ 100 AMP				V/ PH/ AMP				1-1/2" IPS LOOPED		1"	-

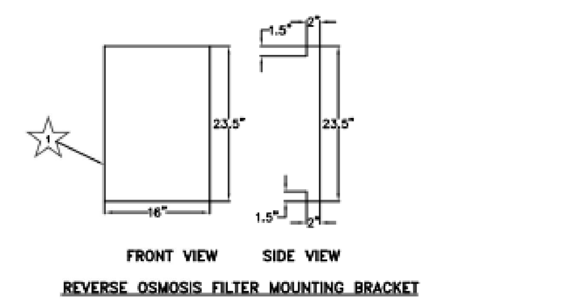
LEGEND
MBH = BTU PER HOUR (1000S)
SB = STRAIGHT BLADE PLUGS
TL = TWIST LOCK PLUGS
PS = PIN & SLEEVE PLUGS
DCO = DUAL CONVENIENCE OUTLET
DIRECT = CONDUIT & WIRE



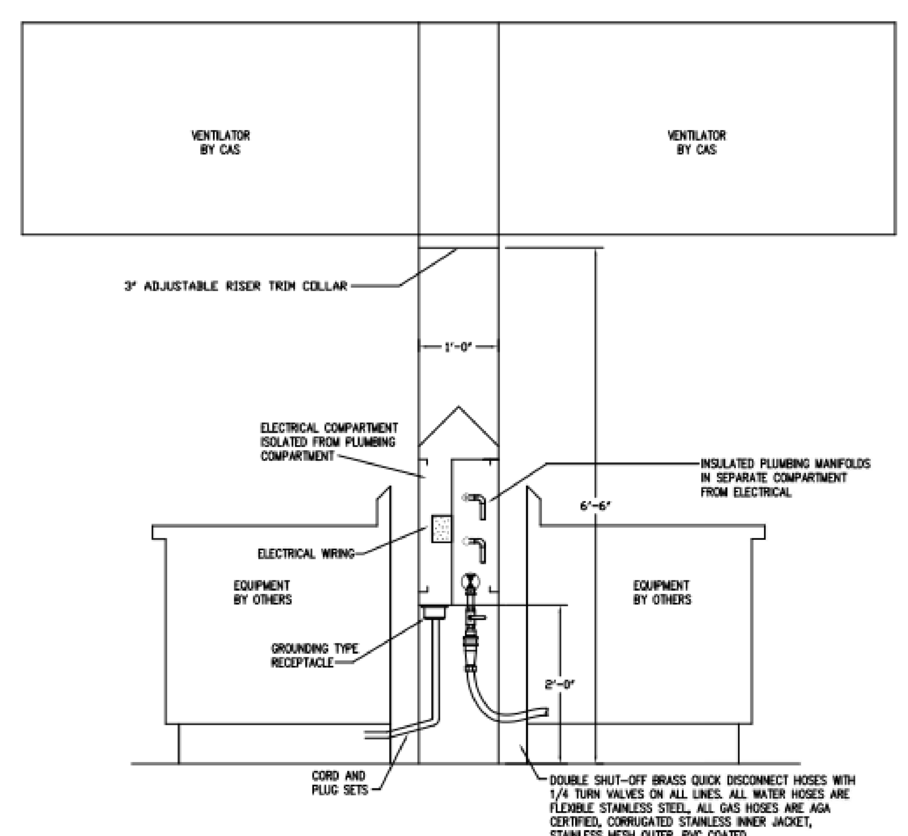
PLAN VIEW - ISLAND UDS - UDI



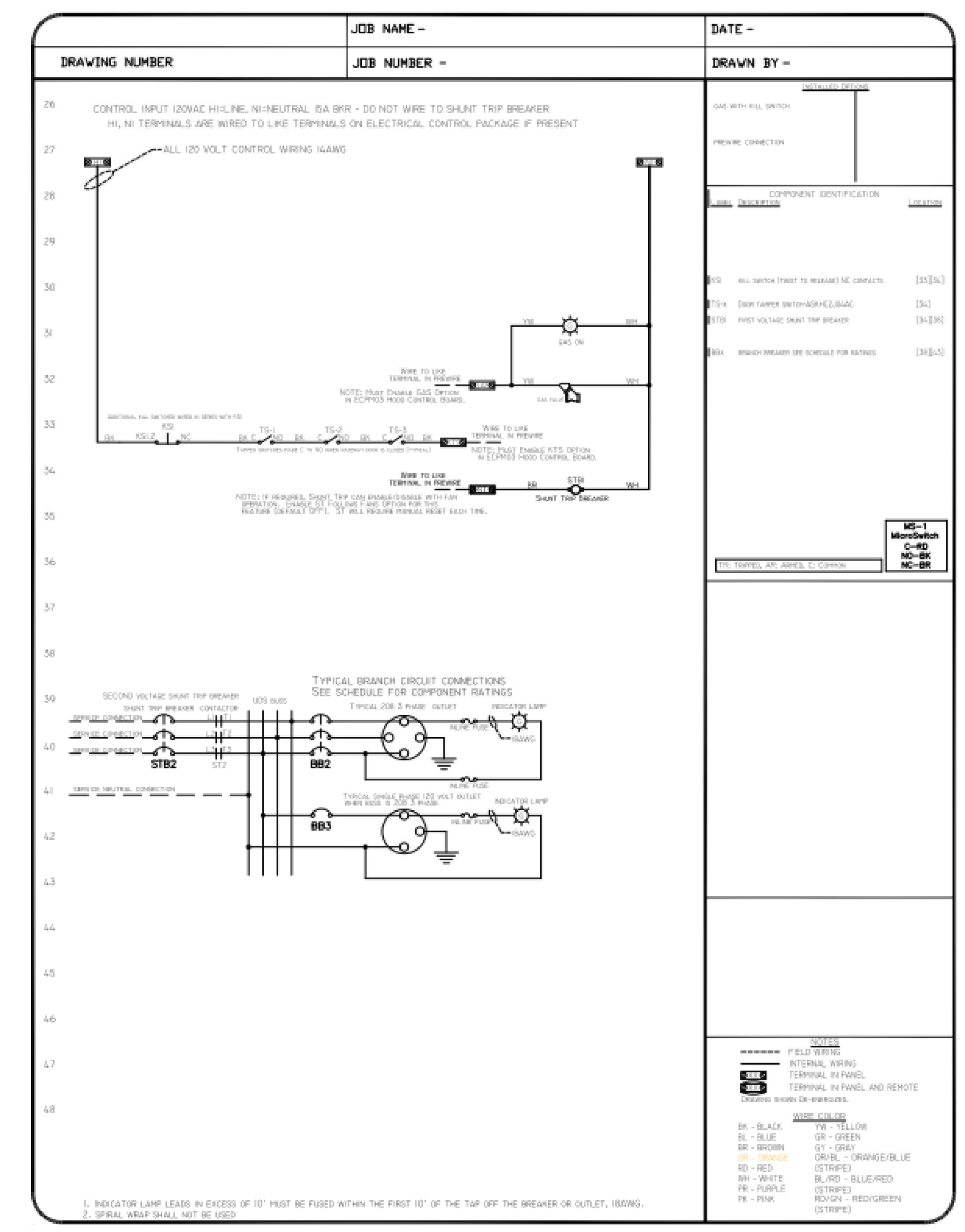




FILTER MOUNTING BRACKET DETAIL
SCALE: NONE
NOTE: BRACKET TO BE MADE OF 18G STAINLESS STEEL.



TYPICAL SECTION VIEW
MODEL UDI DISTRIBUTION SYSTEM



Aqua-Matic	JOB	WEST HAVEN JUNIOR HIGH	
	LOCATION -		
	DATE 07/22/21	JOB # -	
	DWG # -	DRAWN BY MJW	
	REV.-	SCALE 3/4"	

design west | architects
255 SOUTH 300 WEST LOGAN UT 84321
795 NORTH 400 WEST SALT LAKE CITY UT 84103
WSR & Associates Foodservice Design Concepts

NIBLEY MIDDLE SCHOOL
3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

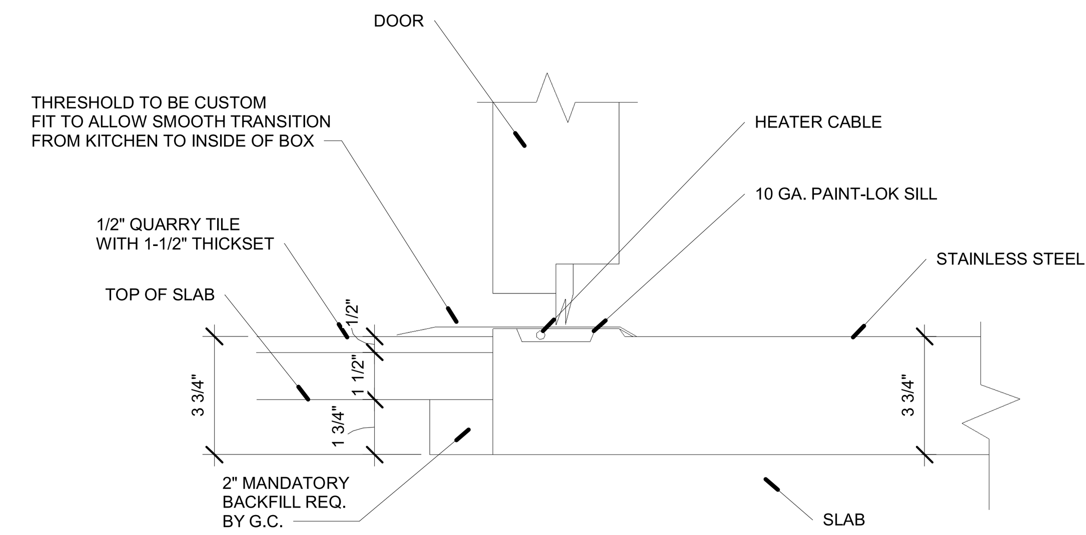
MARK: DATE: DESCRIPTION:

CONSTRUCTION DOCUMENTS

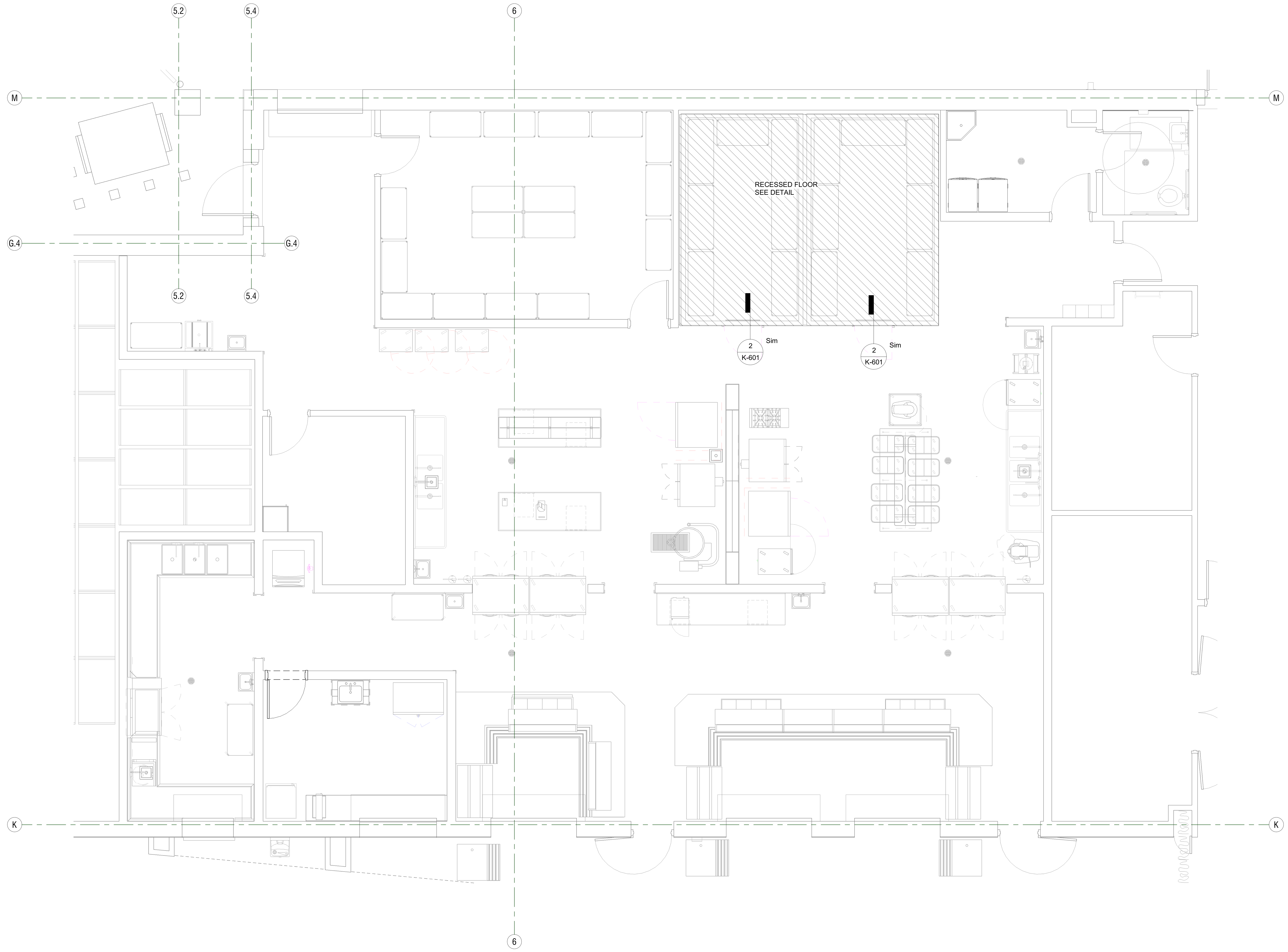
PROJECT #:
DRAWN BY: Author
CHECKED BY: Checker
ISSUED: 05.02.2024

KITCHEN UDS WALL DETAILS

K-505



2 RECESSED FLOOR AT COOLER AND FREEZER DETAIL
3" = 1'-0"



1 SLAB DEPRESSION PLAN
1/4" = 1'-0"

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SALT LAKE CITY UT 84103
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795 NORTH 400 WEST

WSR & Associates
Foodservice Design Concepts

NIBLEY MIDDLE SCHOOL

3050 S 920 W NIBLEY, UTAH
CACHE COUNTY SCHOOL DISTRICT

MARK: DATE: DESCRIPTION:

PROJECT #:
DRAWN BY: Author
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ISSUED: 05.02.2024

CONSTRUCTION DOCUMENTS

BUILDING CONDITIONS - SLAB DEPRESSION PLAN

K-601