

ALLAMAKEE CSD MIDDLE SCHOOL HVAC UPGRADE
WAUKON, IOWA

ADDENDUM 02
March 6, 2026

GENERAL

1. The deadline to submit bids for the Allamakee CSD Middle School HVAC Upgrades Project has been extended:
 - a. Bids shall be submitted no later than 11:00 am CT on Monday, March 16, 2026.
2. Instruction to contractor regarding existing heating hot water hydronic system water chemistry.
 - a. Contractor shall test existing heating hot water system chemistry for glycol type and concentration.
 - b. Contractor needs to add the glycol to the mixture as needed to bring up to a minimum 30% concentration.

CONTRACTOR QUESTIONS / CLARIFICATIONS

1. Is there anticipated work during school hours/days? Clarification regarding substantial completion date in the specification of November 30, 2026.
Work during the '26-27 school year is dependent on equipment lead times. If classroom work is not completed once the school year begins in August 2026, coordination is required with district.
2. HWS/R Mains not sized on sheet M111B.
Refer to revised plans.
3. Is Performance Bond for 2 years?
Performance and Payment Bond requirements are specified in the Instruction to Bidders specification section in the front ends.

Insurance requirements are specified on page GC-13-Comprehensive General Liability – Products and Completed Operations shall be maintained for 2 years after final completion. Performance and payment bonds are not for 2 years.
4. Will classrooms/rooms have furniture moved out by school staff or will contractors?
Allamakee CSD will provide for moving and replacement of furniture and equipment from both base bid and alternate work, under a separate contract. How much moving offsite if required will have to be coordinated with the asbestos abatement contractor.
5. Does the General or Prime contractor need to remove any existing tile flooring, or carry any asbestos removal/abatement in bid?
Owner provides asbestos removal under separate contract. Refer to the Special Conditions in the specification front ends. The General or Prime contractor will need to coordinate install of flooring with the asbestos abatement contractor.
6. Asbestos abatement, who replaces blow in insulation for any roof asbestos abatement?
Refer to revised architectural plan for note regarding blow in insulation replacement.

7. Two DOAS-1 (Middle School & High School).
Refer to revised mechanical plans.
8. Do existing roof ventilators get capped if disconnecting from existing unit ventilator OA intake.
Refer to revised mechanical plans.
9. Any owner salvage items?
Refer to specifications for salvage item. Minor lighting salvage for owner.
10. Do any existing ceilings remain?
No existing ceilings remain unless specifically stated so.
11. Only 1 cafeteria wall cabinet unit heater shown for demo, need to call out both and infill the hole.
Refer to revised mechanical plans.
12. Door replacement only OR frames as well.
Refer to architectural bid documents for instruction on doors and existing frames.
13. Does exposed ductwork in corridor need paint grip?
Refer to revised mechanical plans. Ductwork exposed to view shall be provided with paint grip except in wood shop.
14. Do the existing seats remain installed during work for Alternate 3 Auditorium?
Contractor means and methods. Existing seats are not indicated to be removed. Refer to architectural plans for notes regarding protection of existing seats.
15. Does Alternate 3 Auditorium get new floors?
No new flooring is indicated in Alternate 3 Auditorium.
16. County IT/ICN/911 needs to be operational during the transformer replacement and school HVAC runs through school IT which will need to be operational during the transformer replacement.
Refer to revised electrical plans for instruction on maintaining operation of County IT/ICN/911 system during transformer replacement.
17. Is return air (RA) ductwork required to be insulated?
Refer to specification section 15250 Mechanical Insulation for duct system insulation requirements.

APPROVED SUBSTITUTION REQUESTS:

Specification Section: 15120 PIPING SPECIALTIES

Item: Air Vent, Expansion Tank, Strainers

Manufacturer: American Wheatley

Specification Section: 15240 VIBRATION ISOLATION/NOISE CONTROLS

Item: Vibration Isolation

Manufacturer: Andre Vibration International

Specification Section: 15540 PUMPS

Item: Boiler Circulators

Manufacturer: Wilo

Specification Section: 15780 AIR CONDITIONING UNITS

Item: DOAS
Manufacturer: Nexgen, Addison

Specification Section: 15815 HUMIDITY CONTROL EQUIPMENT

Item: Steam Humidifiers
Manufacturer: Steamovap, Carel, Neptronic

Specification Section: 15835 RADIANT CEILING

Item: Radiant Panels
Manufacturer: Sterling HVAC

Specification Section: 15850 AIR HANDLING EQUIPMENT

Item: Fans
Manufacturer: Twin City Fans

Specification Section: 15910 AIR DUCT ACCESSORIES

Item: Intakes and Outlets
Manufacturer: Twin City Fans

Specification Section: 15955 VARIABLE FREQUENCY DRIVES

Item: VFD
Manufacturer: Invertek

Specification Section: 16510 LIGHTING FIXTURES

Item: HB1, L1, T1 & T2
Manufacturer: Lithonia, Columbia, Daybright
Item: S1
Manufacturer: New Star, Paco

SPECIFICATIONS:

S2-1 Section **00 1100 – SUMMARY**

1. **REFER** to Paragraph 1.2.E Owner Scope of Work and **ADD** the following.
“9. Owner will remove and replace furniture in all spaces as required for remodel base bid and the East Elementary alternate.”

S2-2 Section **11 6700 – REFRIGERATION EQUIPMENT**

1. **REFER** to Paragraph 2.2 Vendors and **ADD** the following.
“C. Benedict Sales and Services
551 Brickl Road
West Salem, WI 54669
Terry Buege 608-792-7615
www.benedictss.com

DRAWINGS:

- C2-1 Drawing **COVER SHEET**
1. Added sheet E-505 ELECTRICAL DETAILS
- D2-1 Drawing **D-101A – DEMO MECHANICAL & ELECTRICAL PLAN – AREA A**
1. Added demo for existing UV.
 2. Added demo for existing hot water baseboard heaters.
 3. Added notes to patch openings and penetrations of demolished equipment and associated components.
- D2-2 Drawing **D-110 – DEMO LIGHTING PLAN – OVERALL**
1. Added fixtures in kitchen corridor to be removed and replaced.
 2. Added fixtures in kitchen offices to be demolished.
- D2-3 Drawing **D-110A – DEMO LIGHTING PLAN – AREA A**
1. Added fixtures in kitchen corridor to be removed and replaced.
 2. Added fixtures in kitchen offices to be demolished.
- D2-4 Drawing **D-201 – DEMO MECHANICAL & ELECTRICAL ROOF PLAN – OVERALL**
1. Added demo for multiple existing gravity OA intakes.
 2. Added note to cap openings for multiple penetrations of demolished equipment and associated components.
- M2-1 Drawing **M-101A – MECHANICAL PLAN – AREA A**
2. Added notes for grease ductwork sizes up to associated fans.
 3. Added note to provide ‘paint grip’ finish for all exposed round ductwork except within room WOOD SHOP | 157A.
- M2-2 Drawing **M-101B – MECHANICAL PLAN – AREA B**
1. Added note to provide ‘paint grip’ finish for all exposed round ductwork except within room WOOD SHOP | 157A.
 2. Removed Mechanical Keynote 1.
- M2-3 Drawing **M-111A – MECHANICAL PIPING & CONTROLS PLAN – AREA A**
1. Removed gas piping to DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6.
 2. Updated gas pipe sizing.
 3. Added hot water supply and return piping to DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6.
 4. Revised hot water piping to be routed within attic space.

- M2-4 Drawing **M-111B – MECHANICAL PIPING & CONTROLS PLAN – AREA B**
1. Added Mechanical Keynote 1 describing automatic drain collection system within Mechanical room.
 2. Removed gas piping to DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6.
 3. Updated gas pipe sizing.
 4. Added hot water supply and return piping to DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6.
 5. Revised hot water piping to be routed within attic space.
 6. Added pipe sizing for hot water supply and return piping.
- M2-5 Drawing **M-201 – MECHANICAL ROOF PLAN**
1. Removed gas piping to DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6.
- M2-6 Drawing **M-503 – MECHANICAL DETAILS**
1. Revised Natural Gas Flow Diagram to remove gas piping to DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6 and updated gas pipe sizing.
- M2-7 Drawing **M-601 – MECHANICAL SCHEDULES**
1. Removed gas-fired DOAS schedule
 2. Added hot water DOAS schedule to include DOAS units DOAS-1, DOAS-2, DOAS-3, DOAS-5, & DOAS-6.
- M2-8 Drawing **M-602 – MECHANICAL SCHEDULES**
1. Revised notes on Kitchen Exhaust Hood Schedule with updated MAU tagging.
- M2-9 Drawing **M-801 – HVAC CONTROLS**
1. Added DOAS Control Diagram for hot water heating units.
 2. Removed not 6 & 10 from gas-fired DOAS Control Diagram sequence.
- ME2-1 Drawing **ME101 – DEMO MECHANICAL & ELECTRICAL PLANS – HIGH SCHOOL**
1. Added demo note for ceiling work.
- ME2-2 Drawing **ME102 – MECHANICAL & ELECTRICAL PLANS – HIGH SCHOOL**
1. Revised DOAS-1 to DOAS-7.
 2. Revised EF-1 to EF-4.
 3. Added note for new ACT ceiling.
- E2-1 Drawing **E-101 – ELECTRICAL PLAN – OVERALL**
1. Added keynote for providing temp and emergency power for ICN and district IT rooms.
- E2-2 Drawing **E-101A – ELECTRICAL PLAN – AREA A**
1. Removed notes referencing photos for panels.
- E2-3 Drawing **E-101B – ELECTRICAL PLAN – AREA B**
1. Added circuiting to circulator pumps for DOAS unit.

- E2-4 Drawing **E-102 – ELECTRICAL ROOF PLAN**
 1. Added note referencing detail for existing kitchen exhaust fan.
- E2-5 Drawing **E-110 – LIGHTING PLAN – OVERALL**
 1. Added lighting to be re-installed after ceiling work is completed.
- E2-6 Drawing **E-110A – LIGHTING PLAN – AREA A**
 1. Added lighting to be re-installed after ceiling work is completed.
- E2-7 Drawing **E-503 – ELECTRICAL DETAILS**
 1. Revised details for kitchen HVAC equipment.
- E2-8 Drawing **E-504 – ELECTRICAL DETAILS**
 1. Revised details for kitchen HVAC equipment.
- E2-9 Drawing **E-505 – ELECTRICAL DETAILS**
 1. Revised details for kitchen HVAC equipment.
- E2-10 Drawing **E-601 – ELECTRICAL EQUIPMENT SCHEDULE**
 1. Revised motor and equipment schedules.
 2. Revised keynote E9 to provide new feeders to sub-panel.
- E2-11 Drawing **E-602 – LIGHTINGS SCHEDULES**
 1. Revised lighting schedule with approved alternates and additional note.
- E2-12 Drawing **E-605 – ELECTRICAL PANEL SCHEDULES – PHOTOS**
 1. Removed circuit on stage panel.

Enclosure:

Architectural Addendum

Pre-Bid Meeting Sign-in Sheet

Plans Holders List

END OF ADDENDUM 02

March 6, 2026

Design Dynamics, Inc.
3745 Center Point Road, NE
Cedar Rapids, IA 52402
319-298-0400
Robert Peck, AIA, LEED AP
robertp@designdynamics.biz

Allamakee Community School District Waukon Middle School HVAC Upgrade

Location: Waukon, Iowa

ADDENDUM NUMBER 2

TO ALL HOLDERS OF PLANS AND SPECIFICATIONS:

This addendum is issued to incorporate the following changes in the plans and specifications DATED: February 20, 2026. For bids to be considered, this addendum must be acknowledged by the bidders by so indicating on the Bid Proposal form.

The Contractor shall make the following corrections or additions to the bidding documents. These items shall supersede, modify, and/or change all statements or drawings to the contrary in the plans and specifications and shall take precedence over these documents. Bidders shall base their bid on the plans and specifications and as modified by the changes herein stated.

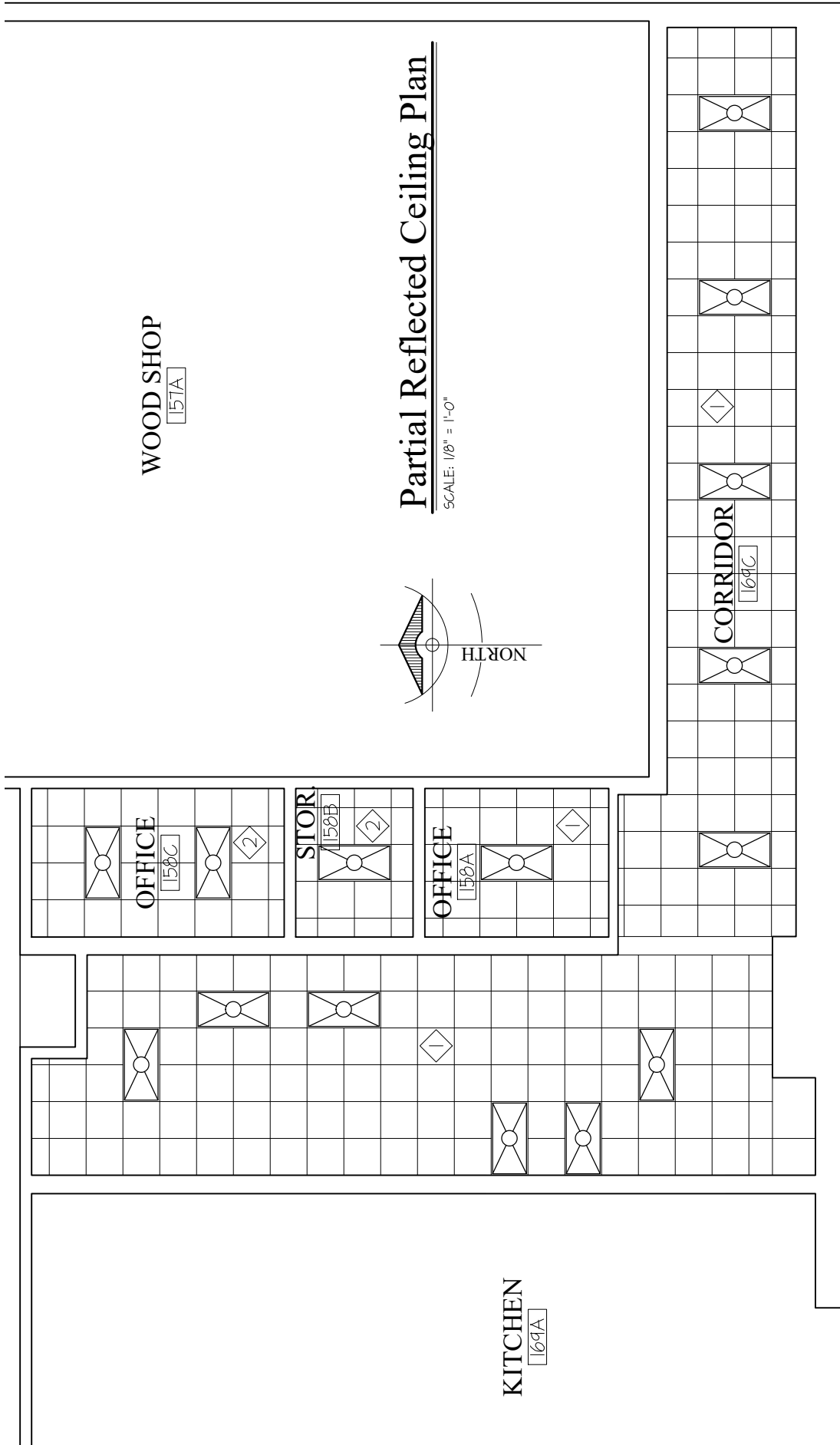
Contents:

DDI Addendum 1 (1 page)
DDI Drawing Ad2.1

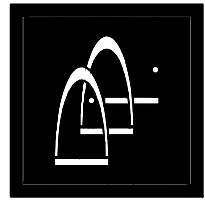
ARCHITECTURAL DRAWINGS:

1. Sheets A.1, General Notes. Add the following Note 3. General Contractor shall coordinate all flooring installation with asbestos abatement contractor.
2. Sheet A.1, General Notes. Add the following Note 4. General Contractor shall replace with similar type, or restore, any attic insulation to its original depth that was disturbed as a result of their or any subcontractors work in the attic space.
3. Sheet A.1, SE Floor Plan, Classroom #167: Remove the keynote #3 requiring the room to be painted.
4. Sheet A.2, NE Floor Plan, Classroom #153A: Remove the keynote #3 requiring the room to be painted.
5. Sheet A.2, NE Floor Plan. Add the following note to the Auditorium #307 as part of Alternate 3: General Contractor must protect all the auditorium seating for the entire duration of the project. If any seating is damaged during construction, it will be the General Contractors responsibility to repair or replace the damaged seating.
6. Sheet A.5, SE Reflected Ceiling Plan. Replace portion of reflected ceiling plan with that shown on attached Sheet Ad2.1. Summary add new ceilings in Office 158C and Storage 158B, remove existing ceiling and replace with new ceiling following mechanical equipment and ductwork installation in Office 158A and Corridor 169C.
7. Sheet A.8, Door Notes. Add the following note: 8. All door frames are to remain unless noted otherwise on the door schedule.
8. Sheet A.8, Door Notes. Add the following note: 9. All existing door frames that are required to be fire rated and do not have a legible fire rating label must be re-certified and a new label applied.
9. Sheet A.8, Door Notes. Add the following note: 10. Paint all door frames that are to receive a new door slab, color as selected by architect.

| REVISION | DATES |
|---------------|-------|
| 1 | 2 |
| DATE OF ISSUE | |
| 3.6.2026 | |



Design Dynamics, Inc.
 7745 CENTER POINT ROAD, NE
 CEDAR RAPIDS, IOWA 52402
 TEL: 319-298-0400
 E-MAIL: DDI@DesignDynamics.biz



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SHEET TITLE
Partial RCP

Ad2.1

PROJECT NUMBER
 042-25

ALLAMAKEE CSD Middle School HVAC

1061 3rd AVENUE, NW WAUKON, IOWA 52712



ALLAMAKEE COMMUNITY SCHOOL DISTRICT



AXIOMCONSULTANTS A RUEKERT & MIELKE COMPANY



ALLAMAKEE COMMUNITY SCHOOL DISTRICT - MIDDLE SCHOOL HVAC UPGRADES
PROJECT ADDRESS: 1059 3RD AVE NW, WAUKON, IA 52172
ISSUE FOR BID - FEBRUARY 20, 2026
AXIOM PROJECT #: 9166-10000

PROJECT DIRECTORY

| | |
|---|--|
| ENGINEER/OWNER'S REP. JOE LOMHEIM, PE AXIOM CONSULTANTS, LLC 300 S CLINTON, #200 IOWA CITY, IOWA 52240 PHONE: (712) 490-5553 jloomheim@axiom-con.com | ARCHITECT ROBERT PECK, AIA DESIGN DYNAMICS, INC. 3745 CENTER POINT ROAD, NE CEDAR RAPIDS, IOWA 52402 PHONE: (319) 298-0400 ddi@designdynamics.biz |
|---|--|

APPLICABLE CODES

- STATE OF IOWA ADOPTED BUILDING CODE
- STATE OF IOWA ADOPTED MECHANICAL CODE
- STATE OF IOWA ADOPTED ENERGY CODE
- STATE OF IOWA ADOPTED FIRE CODE
- STATE OF IOWA ADOPTED PLUMBING CODE
- NATIONAL FIRE PROTECTION ASSOCIATION
 - NFPA 54
 - NFPA 70 (NEC)
- ANY IOWA STATE & LOCAL COUNTY CODES AND AMENDMENTS TO INTERNATIONAL AND UNIFORM CODES

SHEET INDEX

| ID | SHEET NAME |
|--------------------------|---|
| COVER | |
| 000 | COVER SHEET |
| ARCHITECTURAL | |
| A.1 | SE FLOOR PLAN |
| A.2 | NE FLOOR PLAN |
| A.3 | SW FLOOR PLAN |
| A.4 | NW FLOOR PLAN AND AUDITORIUM CEILING SECTION |
| A.5 | SE REFLECTED CEILING PLAN |
| A.6 | NE REFLECTED CEILING PLAN |
| A.7 | EXTERIOR ELEVATIONS AND WINDOW DETAILS - BOTH MIDDLE SCHOOL AND EAST ELEMENTARY |
| A.8 | DOOR SCHEDULE AND NOTES |
| A.9 | EAST ELEMENTARY 1ST FLOOR PLAN |
| A.10 | EAST ELEMENTARY 2ND FLOOR PLAN |
| ARCHITECTURAL DEMOLITION | |
| D.1 | SE DEMOLITION REFLECTED CEILING PLAN |
| D.2 | NE DEMOLITION REFLECTED CEILING PLAN |
| DEMOLITION | |
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| D-101A | DEMO MECHANICAL & ELECTRICAL PLAN - AREA A |
| D-101B | DEMO MECHANICAL & ELECTRICAL PLAN - AREA B |
| D-110 | DEMO LIGHTING PLAN - OVERALL |
| D-110A | DEMO LIGHTING PLAN - AREA A |
| D-110B | DEMO LIGHTING PLAN - AREA B |
| D-201 | DEMO MECHANICAL & ELECTRICAL ROOF PLAN - OVERALL |
| D-501 | EXISTING CONDITIONS - DEMO PHOTOS |
| FIRE PROTECTION | |
| FP000 | FIRE PROTECTION NOTES & SYMBOLS ALT. #3 |
| FP101 | FIRE PROTECTION PLAN - OVERALL ALT. #3 |
| FP501 | FIRE PROTECTION DETAILS & SCHEDULES ALT. #3 |
| MECHANICAL | |
| M-000 | MECHANICAL NOTES & SYMBOLS |
| M-101 | MECHANICAL PLAN - OVERALL |
| M-101A | MECHANICAL PLAN - AREA A |
| M-101B | MECHANICAL PLAN - AREA B |
| M-101C | MECHANICAL PLAN - AREA C |
| M-101D | MECHANICAL PLAN - AREA D |
| M-111A | MECHANICAL PIPING & CONTROLS PLAN - AREA A |
| M-111B | MECHANICAL PIPING & CONTROLS PLAN - AREA B |
| M-111C | MECHANICAL PIPING & CONTROLS PLAN - AREA C |
| M-111D | MECHANICAL PIPING & CONTROLS PLAN - AREA D |
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| M-501 | MECHANICAL DETAILS |
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| M-601 | MECHANICAL SCHEDULES |
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| M-603 | MECHANICAL SCHEDULES - ALTERNATES |
| M-604 | MECHANICAL SCHEDULES |
| M-801 | HVAC CONTROLS |
| M-802 | HVAC CONTROLS |
| MECHANICAL & ELECTRICAL | |
| ME101 | DEMO MECHANICAL & ELECTRICAL PLANS - HIGH SCHOOL |
| ME102 | MECHANICAL & ELECTRICAL PLANS - HIGH SCHOOL |
| ME103 | MECHANICAL & ELECTRICAL PLAN - EAST ELEMENTARY |
| ELECTRICAL | |
| E-000 | ELECTRICAL SYMBOLS |
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| E-101A | ELECTRICAL PLAN - AREA A |
| E-101B | ELECTRICAL PLAN - AREA B |
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| E-501 | ELECTRICAL DETAILS |
| E-502 | ELECTRICAL DETAILS |
| E-503 | ELECTRICAL DETAILS |
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| E-505 | ELECTRICAL DETAILS |
| E-601 | ELECTRICAL EQUIPMENT SCHEDULE |
| E-602 | LIGHTING SCHEDULES |
| E-603 | ELECTRICAL PANEL SCHEDULES |
| E-604 | ELECTRICAL PANEL SCHEDULES |
| E-605 | ELECTRICAL PANEL SCHEDULES - PHOTOS |

ENGINEERING PROJECT SYNOPSIS:

MIDDLE SCHOOL - THIS PROJECT SCOPE INVOLVES MECHANICAL AND ELECTRICAL ENGINEERING WORK TO DEMOLISH AND UPGRADE PORTIONS OF THE EXISTING HVAC SYSTEM AND INCIDENTAL ELECTRICAL CIRCUITS AT WAUKON MIDDLE SCHOOL TO MATCH RECENT CHANGES. THE SCOPE ALSO INCLUDES ELECTRICAL ENGINEERING WORK TO DEMOLISH AND REPLACE SELECTED LIGHT FIXTURES AND ELECTRICAL PANELS AT THIS LOCATION. HVAC SYSTEMS CONSIST OF PACKAGED DOAS AND RTU SYSTEMS AND HOT WATER TERMINAL UNITS, NEW KITCHEN HOOD MAKEUP AIR UNIT AND SPACE HVAC, NEW BOILER CIRCULATORS.

EAST ELEMENTARY SCHOOL - ADDITIONAL SPACE HEAT IN THE GYMNASIUM BY USE OF HOT WATER UNIT HEATERS AND INCIDENTAL ELECTRICAL CIRCUITS.

ARCHITECTURAL PROJECT SYNOPSIS:

MIDDLE SCHOOL - REMOVE AND REPLACE EXISTING WINDOWS ON THE EAST SIDE OF THE BUILDING. REMOVE AND REPLACE VARIOUS ACOUSTICAL CEILINGS, LIGHTING AND REGISTERS. REPLACE MANY EXISTING DOOR SLABS UTILIZING THE EXISTING DOOR HARDWARE WITH SOME DOORS RECEIVING NEW HARDWARE. PAINT WALLS IN SEVERAL CLASSROOMS. REMOVE AND REPLACE THE PROTECTIVE GYMNASIUM STAGE CURTAIN.

EAST ELEMENTARY SCHOOL - REMOVE AND REPLACE EXISTING WINDOWS ON NORTH END OF GYMNASIUM. INSTALL NEW VINYL COMPOSITE TILE FLOORING IN MANY CLASSROOMS, OFFICES AND THE CAFETERIA. REMOVE AND REPLACE STAIR TREAD AND RISER FINISHES IN SEVERAL OF THE STAIRCASES. REMOVE AND REPLACE THE STAGE CURTAIN IN THE GYMNASIUM.

ALTERNATES:

- ALTERNATE 1** - BUILDING AUTOMATION CONTROLS FOR BASE BID WORK EXCLUDING CONTROL WORK SPECIFIED UNDER ALTERNATES NOS. 2, 3, 4
- ALTERNATE 2** - HUMIDIFICATION SUBSYSTEMS FOR BASE BID HVAC UNITS INCLUDING CONTROLS
- ALTERNATE 3** - TOTAL REMODELING SPECIFIED FOR THE MIDDLE SCHOOL AUDITORIUM AND STAGE INCLUDING HVAC, ELECTRICAL, FIRE SPRINKLERS, HEATING HOT WATER ARCHITECTURAL FINISHES, FIRE ALARM, AND AUTOMATIC CONTROLS FOR HVAC
- ALTERNATE 4** - NEW HOT WATER UNIT HEATERS, PIPING, CONTROLS AND ELECTRICAL SERVICE FOR THE STAGE AREA AT EAST ELEMENTARY
- ALTERNATE 5** - NEW STAGE CURTAIN FOR STAGE AT EAST ELEMENTARY
- ALTERNATE 6** - WINDOW REPLACEMENT AT EAST ELEMENTARY
- ALTERNATE 7** - NEW FLOOR REPLACEMENT AT EAST ELEMENTARY
- ALTERNATE 8** - NEW LIGHTS FOR THE STAGE AND GYMNASIUM AT MIDDLE SCHOOL

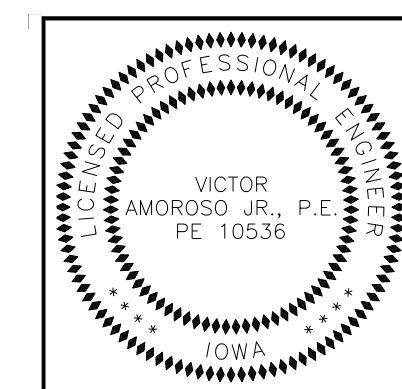
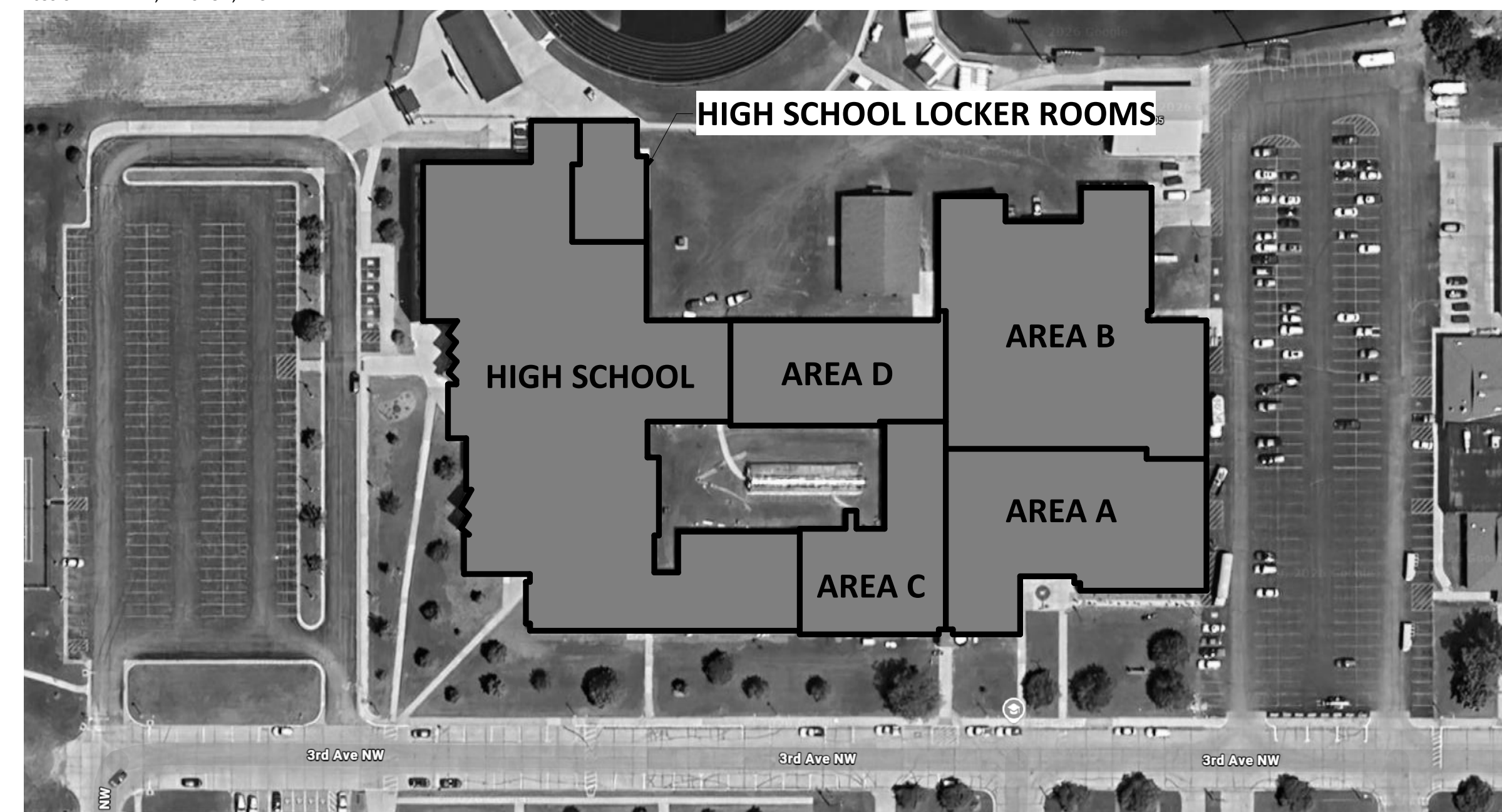
PROJECT LOCATION - EAST ELEMENTARY SCHOOL:

107 6TH ST NW, WAUKON, IA 52172



PROJECT LOCATION - MIDDLE SCHOOL:

1059 3RD AVE NW, WAUKON, IA 52172



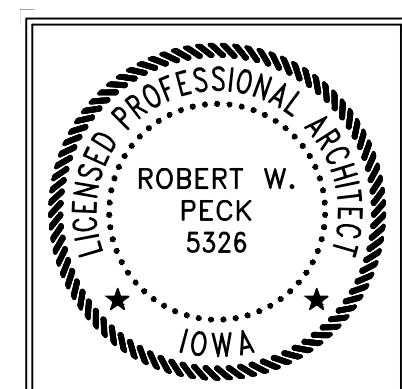
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

VICTOR AMOROSO, JR., P.E.
LICENSE NUMBER 10536

MARCH 06, 2026
DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2026

PAGES OR SHEETS COVERED BY THIS SEAL:

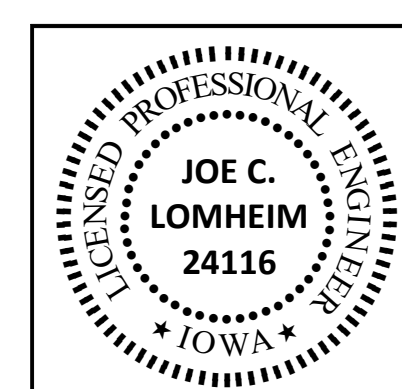


I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly registered architect under the laws of the State of Iowa.

ROBERT W. PECK
5326

MARCH 06, 2026
DATE

Robert W. Peck
Registration number: 05326
Pages or sheets covered by this seal SHEETS A.1 thru A.10, D.1, D.1



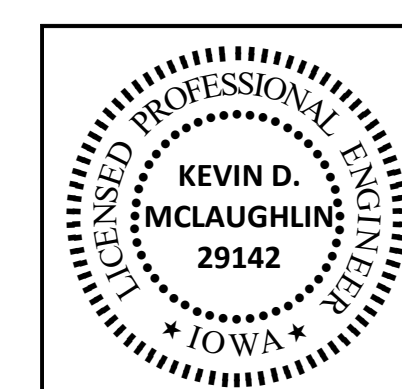
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

JOE C. LOMHEIM, P.E.
LICENSE NUMBER 24116

MARCH 06, 2026
DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2026

PAGES OR SHEETS COVERED BY THIS SEAL: ALL 'FP' SHEETS, ALL 'M' SHEETS, ALL 'ME' SHEETS



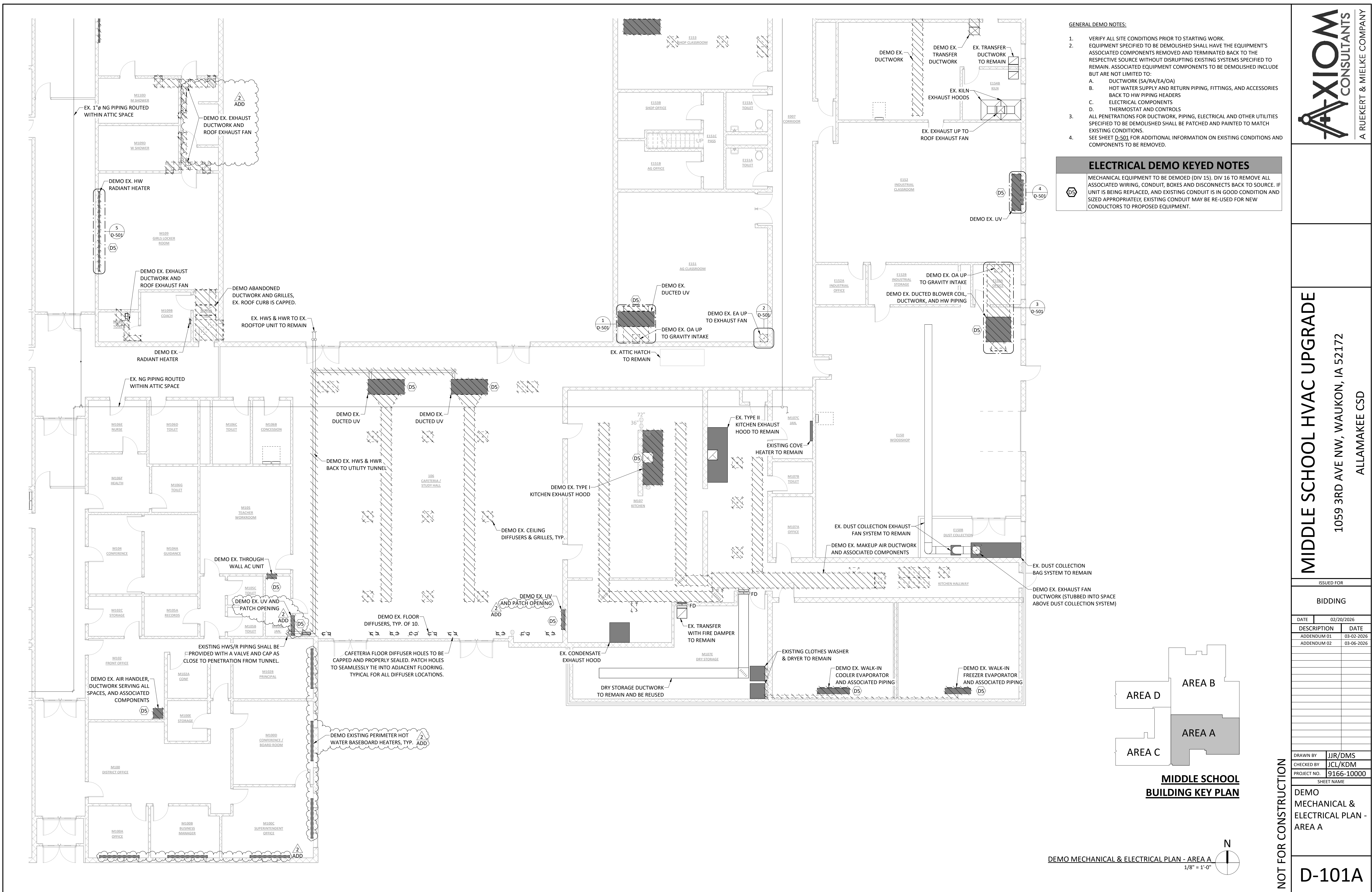
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

KEVIN D. MCLAUGHLIN, P.E.
LICENSE NUMBER 29142

MARCH 06, 2026
DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2027

PAGES OR SHEETS COVERED BY THIS SEAL: ALL 'E' SHEETS, AND ALL 'ME' SHEETS



GENERAL DEMO NOTES:

1. VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
2. EQUIPMENT SPECIFIED TO BE DEMOLISHED SHALL HAVE THE EQUIPMENT'S ASSOCIATED COMPONENTS REMOVED AND TERMINATED BACK TO THE RESPECTIVE SOURCE WITHOUT DISRUPTING EXISTING SYSTEMS SPECIFIED TO REMAIN. ASSOCIATED EQUIPMENT COMPONENTS TO BE DEMOLISHED INCLUDE BUT ARE NOT LIMITED TO:
 - A. DUCTWORK (SA/RA/EA/OA)
 - B. HOT WATER SUPPLY AND RETURN PIPING, FITTINGS, AND ACCESSORIES BACK TO HW PIPING HEADERS
 - C. ELECTRICAL COMPONENTS
 - D. THERMOSTAT AND CONTROLS
3. ALL PENETRATIONS FOR DUCTWORK, PIPING, ELECTRICAL AND OTHER UTILITIES SPECIFIED TO BE DEMOLISHED SHALL BE PATCHED AND PAINTED TO MATCH EXISTING CONDITIONS.
4. SEE SHEET D-501 FOR ADDITIONAL INFORMATION ON EXISTING CONDITIONS AND COMPONENTS TO BE REMOVED.

ELECTRICAL DEMO KEYED NOTES

MECHANICAL EQUIPMENT TO BE DEMOED (DIV 15). DIV 16 TO REMOVE ALL ASSOCIATED WIRING, CONDUIT, BOXES AND DISCONNECTS BACK TO SOURCE. IF UNIT IS BEING REPLACED, AND EXISTING CONDUIT IS IN GOOD CONDITION AND SIZED APPROPRIATELY, EXISTING CONDUIT MAY BE RE-USED FOR NEW CONDUCTORS TO PROPOSED EQUIPMENT.

MIDDLE SCHOOL HVAC UPGRADE

1059 3RD AVE NW, WAUKON, IA 52172

ALLAMAKEE CSD

ISSUED FOR

BIDDING

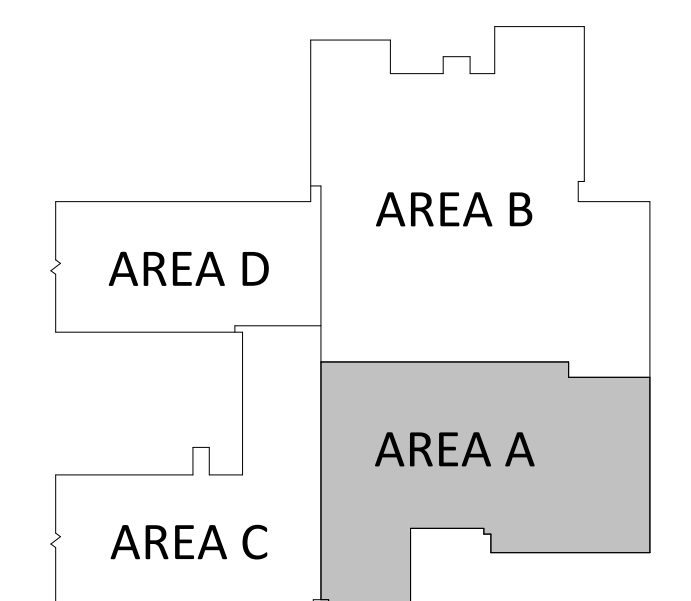
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| 02/20/2026 | | |
| 03-02-2026 | ADDENDUM 01 | |
| 03-06-2026 | ADDENDUM 02 | |

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| DRAWN BY | JJR/DMS |
| CHECKED BY | JCL/KDM |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

DEMO MECHANICAL & ELECTRICAL PLAN - AREA A

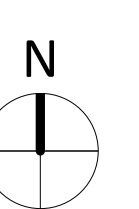
D-101A

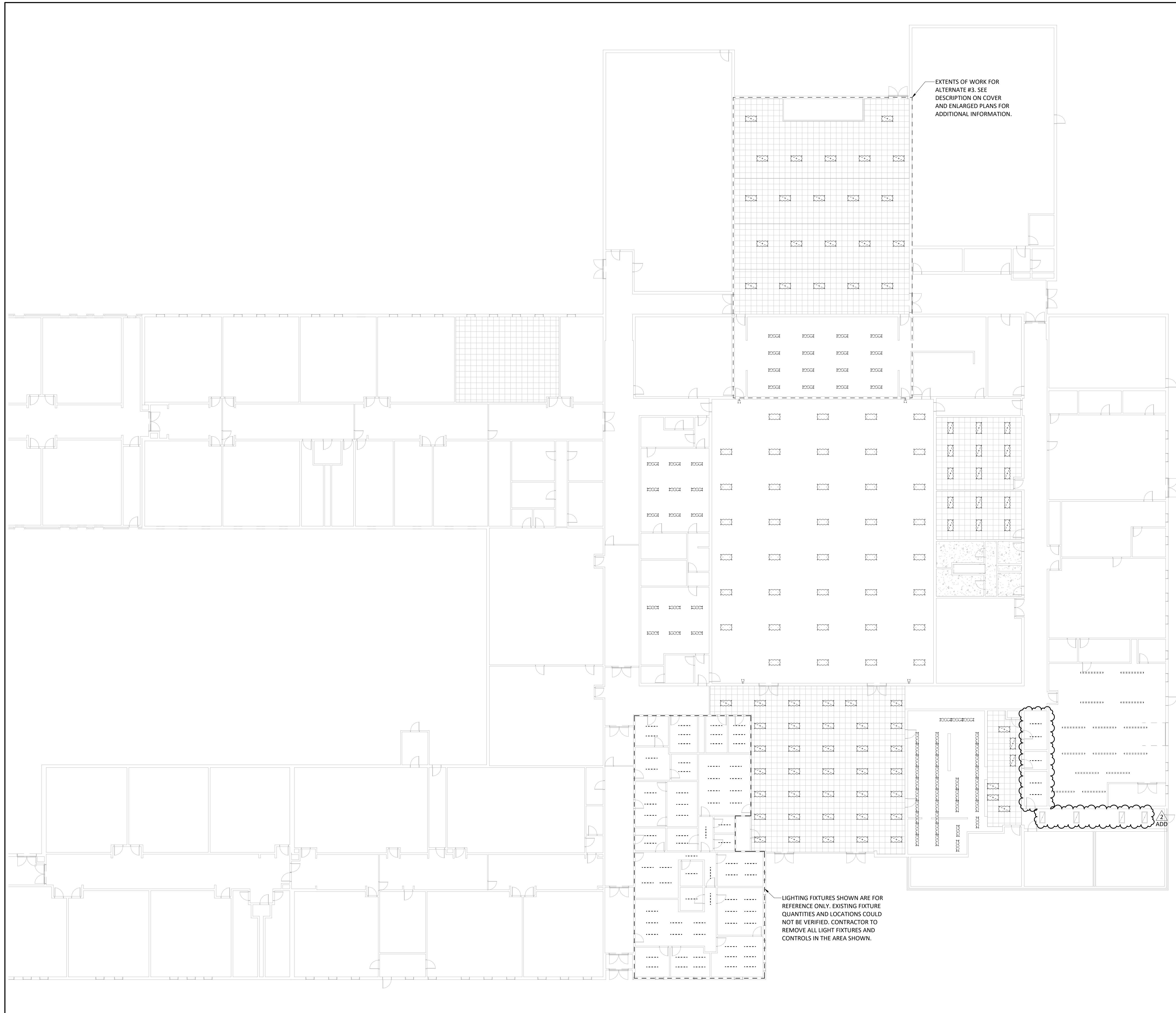
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MIDDLE SCHOOL BUILDING KEY PLAN

DEMO MECHANICAL & ELECTRICAL PLAN - AREA A
1/8" = 1'-0"



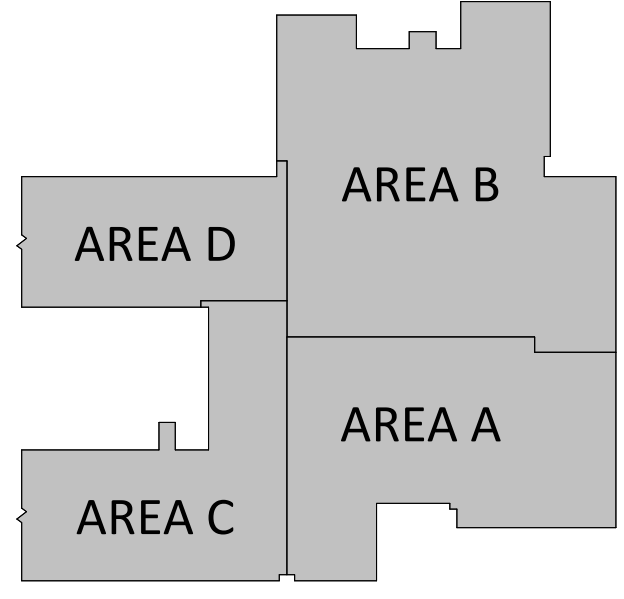


EXTENTS OF WORK FOR ALTERNATE #3. SEE DESCRIPTION ON COVER AND ENLARGED PLANS FOR ADDITIONAL INFORMATION.

LIGHTING FIXTURES SHOWN ARE FOR REFERENCE ONLY. EXISTING FIXTURE QUANTITIES AND LOCATIONS COULD NOT BE VERIFIED. CONTRACTOR TO REMOVE ALL LIGHT FIXTURES AND CONTROLS IN THE AREA SHOWN.

LIGHTING DEMO NOTES

1. REMOVE ALL EXISTING LIGHT FIXTURES IN AREAS INDICATED ON THE DEMOLITION PLANS. FIXTURES SHALL BE REMOVED IN THEIR ENTIRETY UNLESS NOTED TO REMAIN OR BE RELOCATED.
2. DISCONNECT AND REMOVE ASSOCIATED BRANCH CIRCUIT WIRING BACK TO THE NEAREST ACCESSIBLE JUNCTION BOX. CAP AND LABEL REMAINING CONDUCTORS APPROPRIATELY PER CODE.
3. REMOVE ALL EXISTING LIGHTING CONTROL DEVICES, INCLUDING WALL SWITCHES, DIMMERS, OCCUPANCY SENSORS, DAYLIGHT SENSORS, AND RELATED CONTROL WIRING UNLESS SPECIFICALLY NOTED OTHERWISE.
4. COORDINATE ALL FIXTURE AND CONTROL REMOVALS WITH THE NEW LIGHTING LAYOUT TO ENSURE COMPATIBILITY WITH THE NEW SWITCHING AND CONTROL SYSTEM.
5. MAINTAIN SAFE AND ADEQUATE TEMPORARY LIGHTING DURING DEMOLITION AND CONSTRUCTION.
6. RETURN ALL CEILING TO A SAFE CONDITION AFTER DEVICE REMOVAL. PROVIDE BLANK PLATES OR TEMPORARY COVERS AT ANY BOX OPENINGS UNTIL NEW DEVICES ARE INSTALLED.
7. VERIFY ALL CIRCUITS FEEDING REMOVED FIXTURES AND IDENTIFY MULTI-WIRE BRANCH CIRCUITS PRIOR TO DEMOLITION. ENSURE CIRCUITS ARE FULLY DE-ENERGIZED.
8. ALL REMOVED FIXTURES AND CONTROLS SHALL BE DISPOSED OF OFF-SITE UNLESS REQUESTED BY OWNER TO BE SALVAGED.
9. IDENTIFY AND REPORT UNFORESEEN CONDITIONS, SUCH AS CONCEALED JUNCTION BOXES, UNDOCUMENTED WIRING, INACCESSIBLE CONDUITS, OR DAMAGED CEILING, BEFORE PROCEEDING.
10. MAINTAIN EMERGENCY AND EGRESS LIGHTING UNTIL THE NEW SYSTEM IS INSTALLED AND ACCEPTED. DO NOT INTERRUPT LIFE-SAFETY LIGHTING WITHOUT OWNER/ENGINEER APPROVAL.
11. COORDINATE DEMOLITION WORK WITH SCHOOL OPERATIONS TO AVOID DISRUPTION DURING OCCUPIED HOURS AND COMPLY WITH DISTRICT SAFETY PROTOCOLS.
12. WHERE EXISTING CEILING TILES, GRIDS, OR ACCESS PANELS ARE REMOVED OR DAMAGED, PROVIDE TEMPORARY PROTECTION AND COORDINATE WITH CEILING CONTRACTOR FOR FINAL RESTORATION.
13. OTHER CEILING-MOUNTED EQUIPMENT:
 - A. NOTE THAT NOT ALL DEVICES MAY BE SHOWN, IT IS THE INTENT TO RE-INSTALL ALL EXISTING CEILING MOUNTED DEVICES UNLESS OTHERWISE NOTED. REMOVE AND RE-INSTALL CEILING-MOUNTED DEVICES INCLUDING FIRE ALARM DEVICES, WIRELESS ACCESS POINTS, PAGING SYSTEMS, SPEAKERS, PROJECTORS, AND CEILING MOUNTED RECEPTACLES.
 - B. COORDINATE REMOVAL WITH APPROPRIATE TRADES (FIRE ALARM, IT, SECURITY, A/V, ETC.) TO ENSURE PROPER DISCONNECTION, LABELING AND RELOCATION.
 - C. PROTECT ALL DEVICES NOTED TO REMAIN DURING DEMOLITION PROCESS. DO NOT DISTURB EXISTING FIRE ALARM, SECURITY, PAGING, DATA, OR OTHER COMMUNICATION CABLING. ANY ACCIDENTAL DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. DEVICES REMOVED AS PART OF CEILING WORK SHALL BE RE-INSTALLED AFTER NEW CEILING HAS BEEN INSTALLED. THIS INCLUDES FIRE ALARM, WIRELESS ACCESS POINTS, PAGING SYSTEMS, SPEAKERS, CLOCKS, PROJECTORS AND CEILING MOUNTED RECEPTACLES.
 - E. ITEMS BEING REMOVED AND RE-INSTALLED SHALL BE LOCATED AS CLOSE TO ORIGINAL POSITION AS POSSIBLE.



MIDDLE SCHOOL BUILDING KEY PLAN

DEMOLITION PLAN - OVERALL
1/16" = 1'-0"



A RUEKERT & MIELKE COMPANY

MIDDLE SCHOOL HVAC UPGRADE

1059 3RD AVE NW, WAUKON, IA 52172

ALLAMAKEE CSD

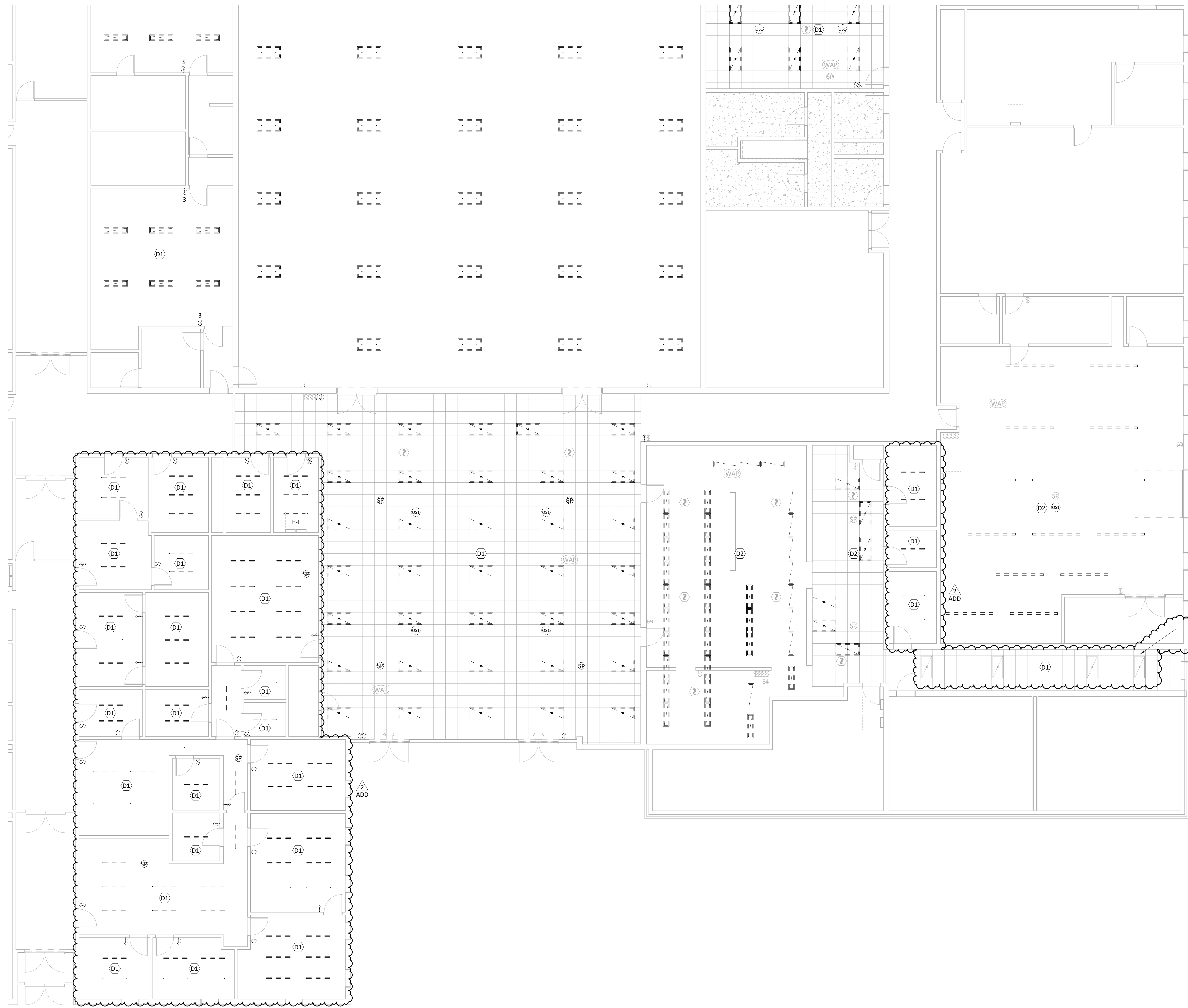
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| ISSUED FOR | |
| BIDDING | |
| DATE | 02/20/2026 |
| DESCRIPTION | DATE |
| ADDENDUM 01 | 03-02-2026 |
| ADDENDUM 02 | 03-06-2026 |

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| DRAWN BY | SMF |
| CHECKED BY | KDM |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

DEMOLITION PLAN - OVERALL

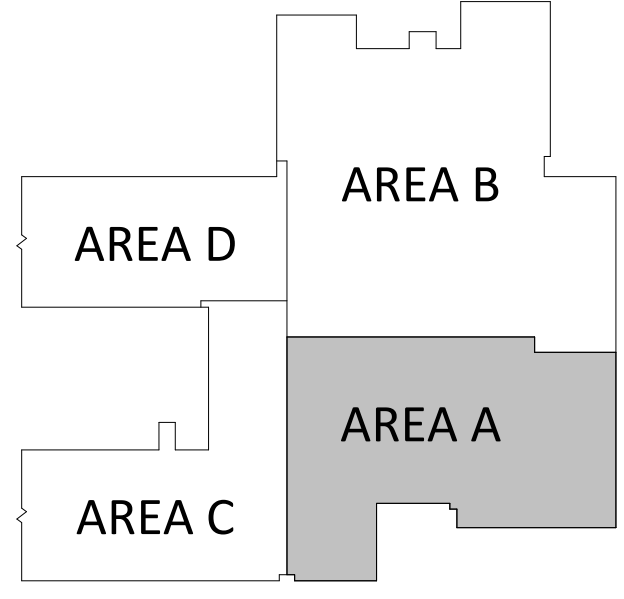
D-110

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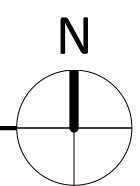
| ELECTRICAL DEMO KEYED NOTES | |
|-----------------------------|--|
| | DEMO EXISTING LIGHTING, CONTROLS AND REMOVE AND RE-INSTALL CEILING MOUNTED DEVICES IN THIS AREA. NOTE THAT NOT ALL DEVICES REQUIRING RE-INSTALLATION MAY BE SHOWN. CONTRACTOR TO VERIFY CEILING MOUNTED DEVICES PRIOR TO BIDDING. RE-INSTALL DEVICES AS CLOSE TO ORIGINAL LOCATION AS POSSIBLE. SEE SHEETS E-110A & E-110B FOR LIGHTING AND CONTROLS LAYOUT. |
| | EXISTING CEILING AND CEILING MOUNTED DEVICE TO REMAIN. DEMO EXISTING LIGHTING IN THIS ROOM. NEW LIGHTING FIXTURES TO CONNECT TO EXISTING CIRCUITING AND CONTROLS. |

REMOVE EXISTING CORRIDOR FIXTURES AND REINSTALL FOLLOWING COMPLETION OF NEW DUCTWORK AND CEILING INSTALLATION.



MIDDLE SCHOOL BUILDING KEY PLAN

DEMO LIGHTING PLAN - AREA A
1/8" = 1'-0"



MIDDLE SCHOOL HVAC UPGRADE

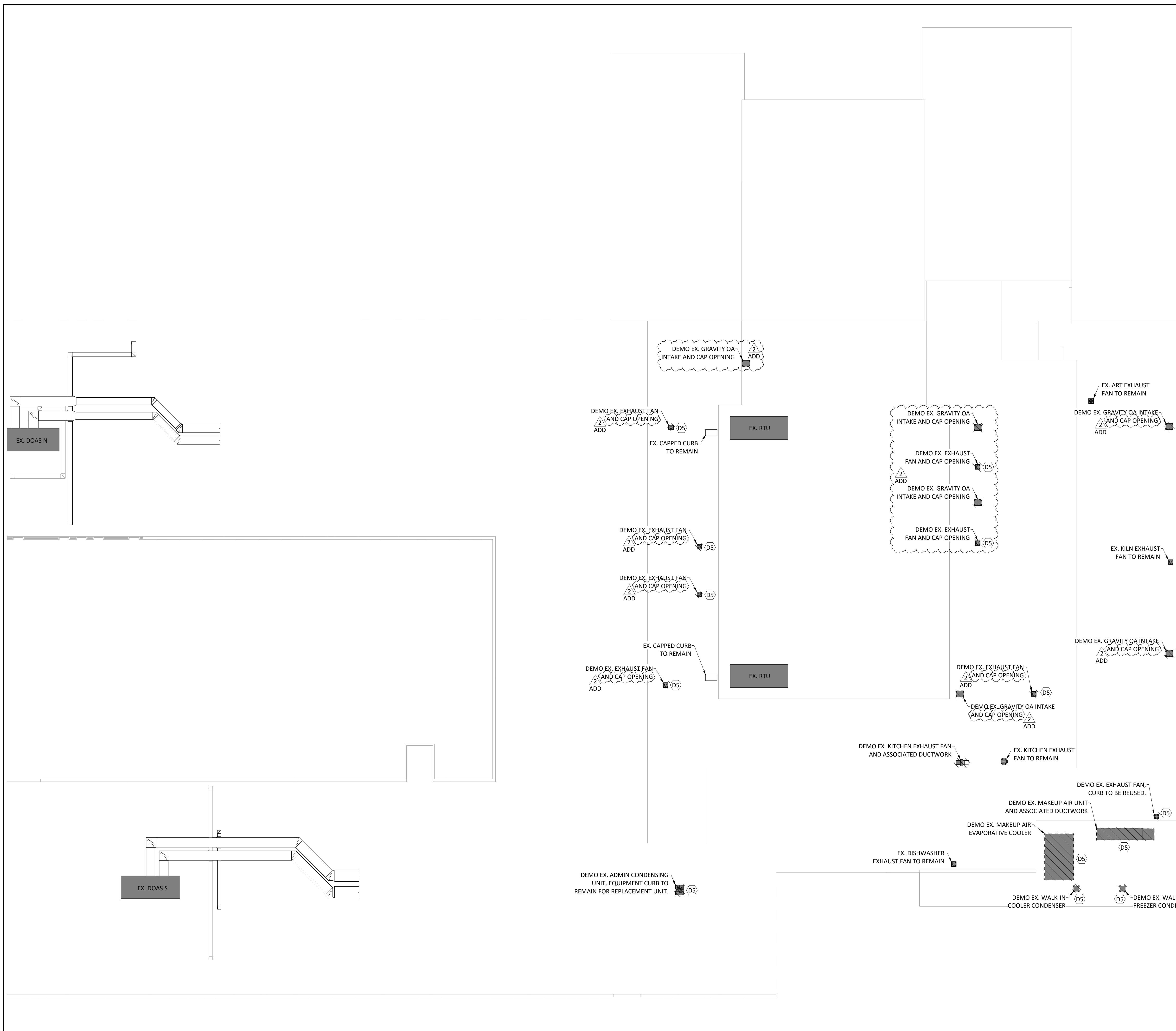
1059 3RD AVE NW, WAUKON, IA 52172
ALLAMAKEE CSD

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|-------------|------------|
| DRAWN BY | SMF |
| CHECKED BY | KDM |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

DEMO LIGHTING PLAN - AREA A

NOT FOR CONSTRUCTION



GENERAL DEMO NOTES:

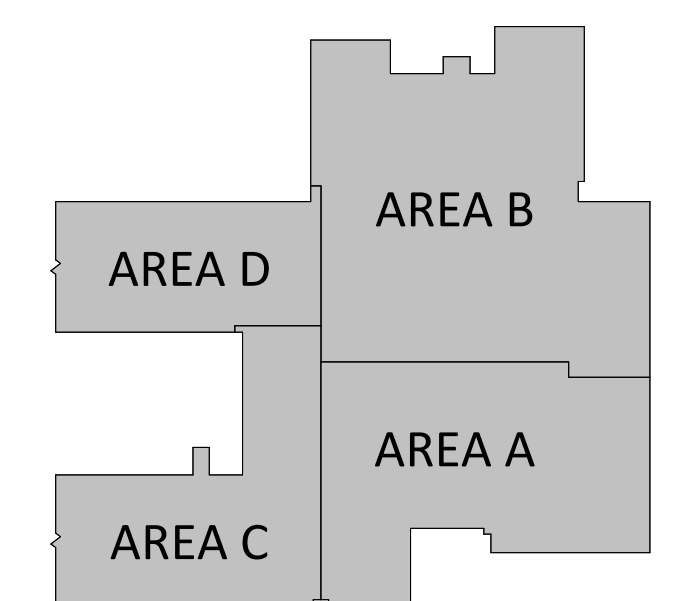
- VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
- EQUIPMENT SPECIFIED TO BE DEMOLISHED SHALL HAVE THE EQUIPMENTS'S ASSOCIATED COMPONENTS REMOVED AND TERMINATED BACK TO THE RESPECTIVE SOURCE WITHOUT DISRUPTING EXISTING SYSTEMS SPECIFIED TO REMAIN. ASSOCIATED EQUIPMENT COMPONENTS TO BE DEMOLISHED INCLUDE BUT ARE NOT LIMITED TO:
 - DUCTWORK (SA/RA/EA/OA)
 - HOT WATER SUPPLY AND RETURN PIPING, FITTINGS, AND ACCESSORIES
 - ELECTRICAL COMPONENTS
 - THERMOSTAT AND CONTROLS
- ALL PENETRATIONS FOR DUCTWORK, PIPING, ELECTRICAL AND OTHER UTILITIES SPECIFIED TO BE DEMOLISHED SHALL BE PATCHED AND PAINTED TO MATCH EXISTING CONDITIONS.
- SEE SHEETS D-501 FOR ADDITIONAL INFORMATION ON EXISTING CONDITIONS AND COMPONENTS TO BE REMOVED.

ELECTRICAL DEMO NOTES:

- EXTREME CARE SHALL BE TAKEN NOT TO DISRUPT ANY ELECTRICAL SERVICES WHICH EXTEND BEYOND BOUNDARIES OF WORK AREA AND ARE TO REMAIN DURING DEMOLITION. POWER TO EQUIPMENT OUTSIDE AREA OF DEMOLITION SHALL NOT BE TURNED OFF WITHOUT PROPER PERMISSION FROM OWNER. ANY CIRCUITS AFFECTED BY THIS DEMOLITION, WHICH ARE SCHEDULED TO REMAIN, SHALL BE PROPERLY REWIRED TO MAINTAIN SERVICE AND COMPLIANCE WITH ALL NATIONAL, STATE, AND LOCAL CODES.
- THE PLANS INDICATE ONLY AFFECTED EQUIPMENT IN THE DESIGNATED DEMOLITION AREAS OF THIS PROJECT ALTHOUGH NOT EVERY ITEM MAY HAVE BEEN SHOWN. REMOVE NECESSARY ITEMS AS REQUIRED BY THIS DEMOLITION WHETHER OR NOT SHOWN ON PLANS.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE PREMISES AND VERIFYING ALL EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL COORDINATE AND ADJUST THE WORK AS REQUIRED TO ENSURE PROPER OPERATION OF ALL INSTALLED EQUIPMENT AND SHALL COORDINATE WITH ALL OTHER TRADES.
- REMOVE ALL EXISTING WIRING DEVICES, WIRING, CONDUIT, AND RELATED MATERIALS AS NOTED OR INDICATED WITHIN DEMOLITION AREAS. NOT ALL ITEMS MAY BE SHOWN. MODIFY AND REWORK EXISTING CIRCUITRY AS REQUIRED TO MAINTAIN CONTINUITY THROUGH AFFECTED AREAS.
- REMOVED OR DAMAGED CONDUIT, WIRING, AND FITTINGS SHALL NOT BE REUSED OR RELOCATED FOR NEW INSTALLATIONS.
- PROVIDE COMPLETE AS-BUILT DRAWINGS AND NEW TYPED PANELBOARD DIRECTORIES IDENTIFYING CIRCUIT NUMBERS AND DESCRIPTIONS.
- WORK INCLUDED FOR EXISTING EQUIPMENT NOTED TO BE REMOVED SHALL INCLUDE:
 - SALVAGING OR DISPOSING OF ALL EQUIPMENT AS DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
 - REMOVAL OF FEEDER FROM EQUIPMENT TO POINT OF FEED.
 - REMOVAL OR RE-CIRCUITING OF ALL BRANCH CIRCUITING AS NOTED ON PLANS.
 - REMOVAL OF ALL FITTINGS, SUPPORTS, BRACKETS, ETC.
 - PATCHING OF WALLS, FLOORS AND CEILINGS.
 - REMOVAL OF FEEDER CONDUIT IF FOUND TO BE UNSALVAGEABLE BY ENGINEER OR OWNER'S REPRESENTATIVE.
- EXISTING EQUIPMENT NOT SHOWN ON DRAWINGS IS INTENDED TO REMAIN UNLESS OTHERWISE NOTED.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING AND REMOVING ALL ELECTRICAL CONNECTIONS AND EQUIPMENT REQUIRED FOR THE INSTALLATION OF NEW EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO CONFIRM AND AGREE UPON THIS SCOPE OF WORK PRIOR TO BID SUBMISSION.
- ANY SPARES MAY BE RE-USED FOR INSTALLATION OF NEW CIRCUITS OR ADDITIONAL LOADS.

ELECTRICAL DEMO KEYED NOTES

(DS) MECHANICAL EQUIPMENT TO BE DEMOED (DIV 15). DIV 16 TO REMOVE ALL ASSOCIATED WIRING, CONDUIT, BOXES AND DISCONNECTS BACK TO SOURCE. IF UNIT IS BEING REPLACED, AND EXISTING CONDUIT IS IN GOOD CONDITION AND SIZED APPROPRIATELY, EXISTING CONDUIT MAY BE RE-USED FOR NEW CONDUCTORS TO PROPOSED EQUIPMENT.



MIDDLE SCHOOL BUILDING KEY PLAN

DEMO MECHANICAL & ELECTRICAL ROOF PLAN - OVERALL
1/16" = 1'-0"

ISSUED FOR

BIDDING

| DATE | DESCRIPTION | DATE |
|------------|-------------|------------|
| 02/20/2026 | | |
| | ADDENDUM 01 | 03-02-2026 |
| | ADDENDUM 02 | 03-06-2026 |

DRAWN BY: JJR/DMS
CHECKED BY: JCL/KDM
PROJECT NO.: 9166-10000
SHEET NAME:

DEMO MECHANICAL & ELECTRICAL ROOF PLAN - OVERALL

ISSUED FOR

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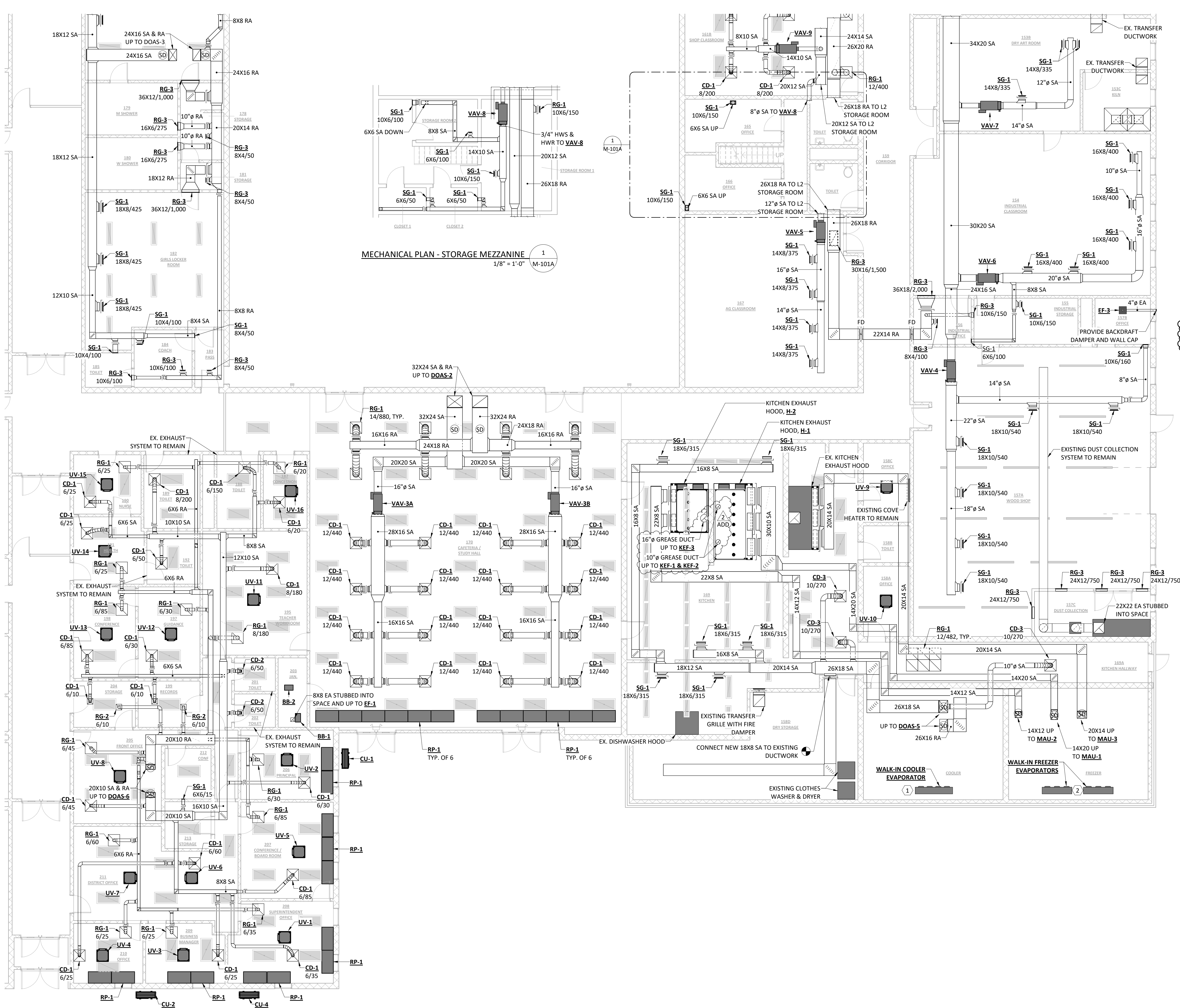
MECHANICAL PLAN - AREA A

M-101A

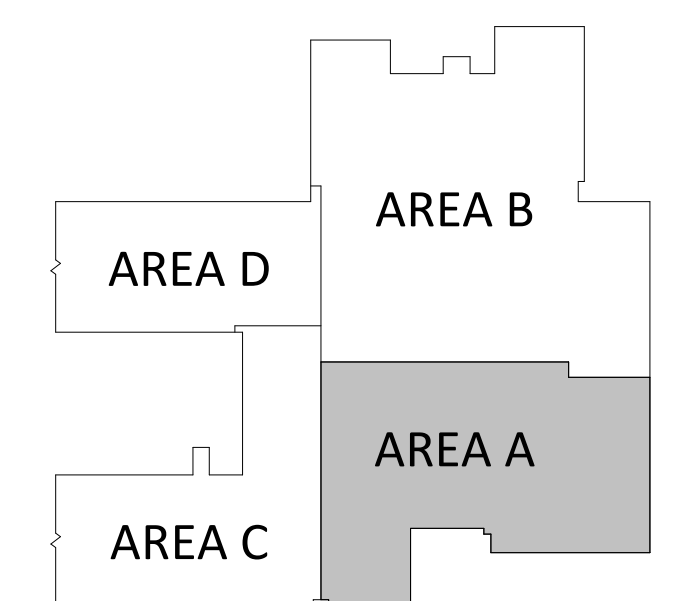
NOT FOR CONSTRUCTION

- GENERAL MECHANICAL NOTES:**
- VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
 - COORDINATE ALL DUCTWORK AND PIPE ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCE SPACE.
 - MAINTAIN SERVICE CLEARANCE REQUIREMENTS AROUND ALL MECHANICAL EQUIPMENT AND ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING OR DUCTWORK IN CLEARANCE SPACE.
 - M.C. COORDINATE REFRIGERANT LINE ROUTING FROM CONDENSING UNITS TO THE RESPECTIVE UNITS.
 - MANUAL VOLUME DAMPERS SHALL BE PROVIDED ON ALL SUPPLY, RETURN, AND EXHAUST BRANCH DUCTS.
 - SHALL COORDINATE ANY AREA WHERE ACCESS TO EQUIPMENT OR HVAC COMPONENTS ARE REQUIRED TO ALLOW ACCESS FOR MAINTENANCE, OR INSPECTION WITH G.C.
 - VAV BOXES WITH MULTIPLE SUPPLY BRANCH DUCTS SHALL BE PROVIDED WITH A MANUAL VOLUME DAMPER ON ALL BRANCHES.
 - VAV BOXES SERVING A SINGLE SUPPLY DIFFUSER SHALL HAVE NO MANUAL VOLUME DAMPERS INSTALLED.
 - NO MANUAL VOLUME DAMPERS SHALL BE INSTALLED UPSTREAM OF VAV BOXES. ALL MANUAL VOLUME DAMPERS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS FOR PURPOSES OF BALANCING THE AIRFLOW OF THE SYSTEM.
 - IF DUCT SIZE REVISIONS ARE NECESSARY FOR COORDINATION PURPOSES ETC. NEW DUCT SIZE SHALL BE EQUIVALENT TO THE DUCT SIZE INDICATED ON PLANS. REFER TO VARIABLE VOLUME TERMINALS SCHEDULE FOR VAV TERMINAL INLET DUCT SIZES ON SHEET M-601.
 - THE SIZE OF EACH BRANCH DUCT TO A VAV SHALL MATCH THE VAV'S INLET SIZE UNLESS THE BRANCH IS GREATER THAN 6'-0" IN LENGTH, THEN THE BRANCH SHOULD BE INCREASED ONE DUCT SIZE, OR NOTED OTHERWISE.
 - VAV INLET DUCTWORK REQUIREMENTS AS FOLLOWS:
 - MINIMUM 3X DIAMETER STRAIGHT INLET DUCT TO EACH VAV BOX.
 - IF BRANCH DUCT IS LONGER THAN 3X DIAMETER, BRANCH DUCT SHALL BE SIZED TO ACCOMMODATE AIRFLOW RATE UNTIL THE 3X DIAMETER STRAIGHT DUCT INLET.
 - VAV BOX DISCHARGE SHALL INCLUDE A SOUND ATTENUATOR, 3'-0" IN LENGTH.
 - ALL EXPOSED ROUND DUCTWORK SHALL HAVE "PAINT GRIP" FINISH FOR FIELD PAINTING EXCEPT WITHIN WOOD SHOP | 157A.
 - EXPOSED DUCTWORK WITHIN WOOD SHOP | 157A SHALL HAVE A GALVANIZED FINISH.

- MECHANICAL KEYNOTES:**
- WALK-IN COOLER REFRIGERATION SYSTEM - EVAPORATOR: ONE (1) EVAPORATIVE COIL INSTALLED IN WALK-IN COOLER COOLING CAPACITY: 25MBH
FOUR (4) FANS, 2-SPEED EC
ELECTRICAL: 15.2A, 120V, 1-PHASE, 60Hz
REFER TO M-201 FOR ROOF MOUNT CONDENSING UNIT INFORMATION BASIS OF DESIGN: BOHN MODEL BEL0250A6MAB0200 LOW P/AIR
 - WALK-IN FREEZER REFRIGERATION SYSTEM - EVAPORATOR: TWO (2) EVAPORATIVE COIL INSTALLED IN WALK-IN COOLER COOLING CAPACITY: 13.5 MBH
THREE (3) FANS, 2-SPEED EC
ELECTRICAL: 15.2A, 208V, 1-PHASE, 60 Hz
REFER TO M-201 FOR ROOF MOUNT CONDENSING UNIT INFORMATION BASIS OF DESIGN: BOHN MODEL BEL0130S6MAB0200 P/ELEC



MECHANICAL PLAN - STORAGE MEZZANINE
1/8" = 1'-0" M-101A



MIDDLE SCHOOL BUILDING KEY PLAN

MECHANICAL PLAN - AREA A
1/8" = 1'-0"

ISSUED FOR

BIDDING

| | |
|-------------|------------|
| DATE | 02/20/2026 |
| DESCRIPTION | DATE |
| ADDENDUM 01 | 03-02-2026 |
| ADDENDUM 02 | 03-06-2026 |

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| DRAWN BY | JJR |
| CHECKED BY | JCL |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

MECHANICAL PLAN - AREA B

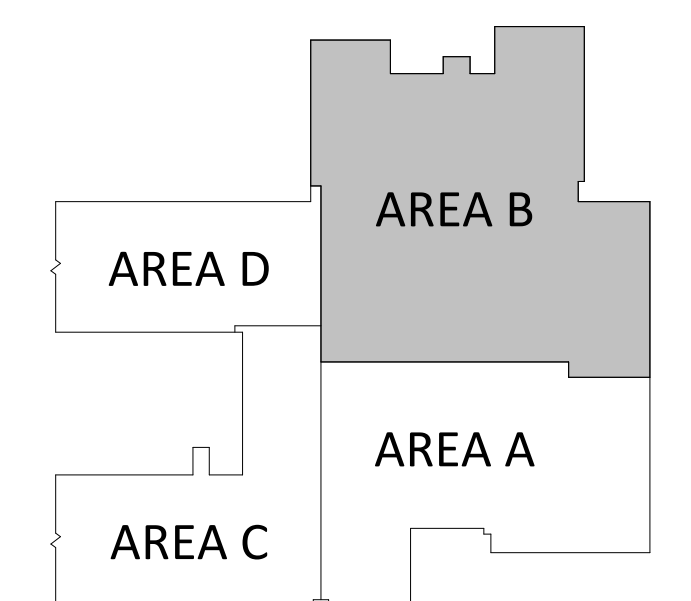
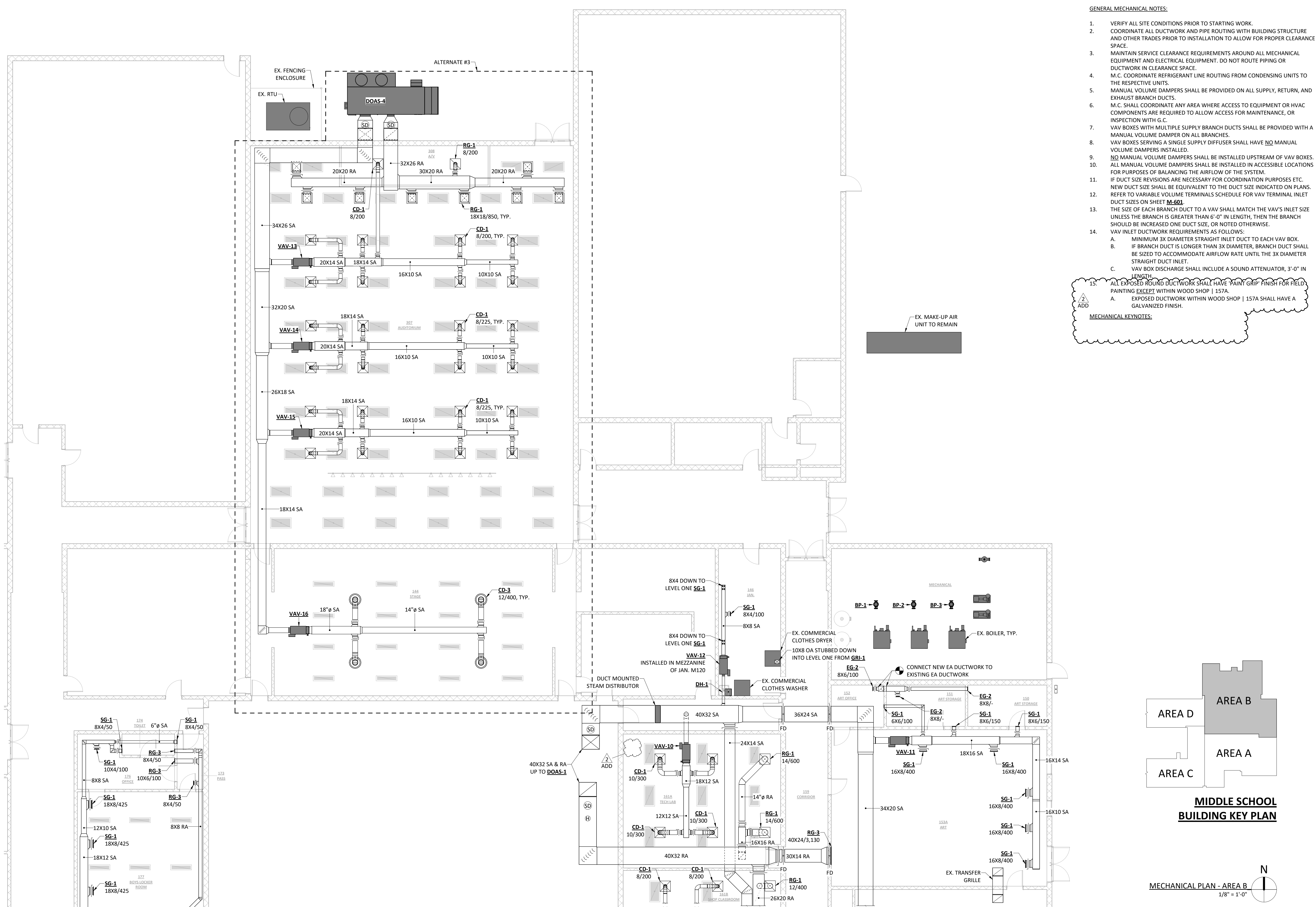
M-101B

NOT FOR CONSTRUCTION

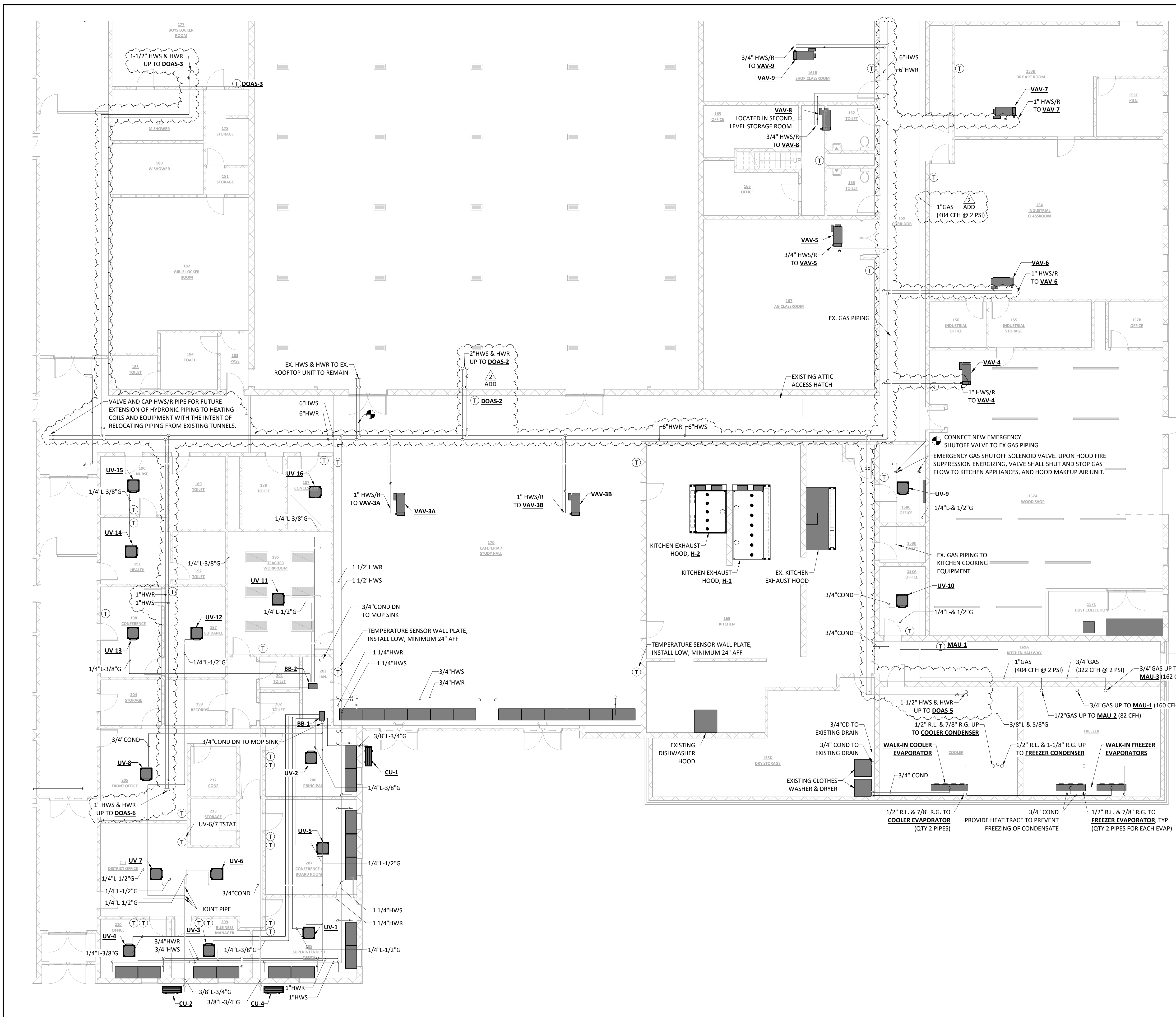
GENERAL MECHANICAL NOTES:

- VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
- COORDINATE ALL DUCTWORK AND PIPE ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCE SPACE.
- MAINTAIN SERVICE CLEARANCE REQUIREMENTS AROUND ALL MECHANICAL EQUIPMENT AND ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING OR DUCTWORK IN CLEARANCE SPACE.
- M.C. COORDINATE REFRIGERANT LINE ROUTING FROM CONDENSING UNITS TO THE RESPECTIVE UNITS.
- MANUAL VOLUME DAMPERS SHALL BE PROVIDED ON ALL SUPPLY, RETURN, AND EXHAUST BRANCH DUCTS.
- M.C. SHALL COORDINATE ANY AREA WHERE ACCESS TO EQUIPMENT OR HVAC COMPONENTS ARE REQUIRED TO ALLOW ACCESS FOR MAINTENANCE, OR INSPECTION WITH G.C.
- VAV BOXES WITH MULTIPLE SUPPLY BRANCH DUCTS SHALL BE PROVIDED WITH A MANUAL VOLUME DAMPER ON ALL BRANCHES.
- VAV BOXES SERVING A SINGLE SUPPLY DIFFUSER SHALL HAVE NO MANUAL VOLUME DAMPERS INSTALLED.
- NO MANUAL VOLUME DAMPERS SHALL BE INSTALLED UPSTREAM OF VAV BOXES.
- ALL MANUAL VOLUME DAMPERS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS FOR PURPOSES OF BALANCING THE AIRFLOW OF THE SYSTEM.
- IF DUCT SIZE REVISIONS ARE NECESSARY FOR COORDINATION PURPOSES ETC. NEW DUCT SIZE SHALL BE EQUIVALENT TO THE DUCT SIZE INDICATED ON PLANS. REFER TO VARIABLE VOLUME TERMINALS SCHEDULE FOR VAV TERMINAL INLET DUCT SIZES ON SHEET **M-501**.
- THE SIZE OF EACH BRANCH DUCT TO A VAV SHALL MATCH THE VAV'S INLET SIZE UNLESS THE BRANCH IS GREATER THAN 6'-0" IN LENGTH, THEN THE BRANCH SHOULD BE INCREASED ONE DUCT SIZE, OR NOTED OTHERWISE.
- VAV INLET DUCTWORK REQUIREMENTS AS FOLLOWS:
 - MINIMUM 3X DIAMETER STRAIGHT INLET DUCT TO EACH VAV BOX.
 - IF BRANCH DUCT IS LONGER THAN 3X DIAMETER, BRANCH DUCT SHALL BE SIZED TO ACCOMMODATE AIRFLOW RATE UNTIL THE 3X DIAMETER STRAIGHT DUCT INLET.
 - VAV BOX DISCHARGE SHALL INCLUDE A SOUND ATTENUATOR, 3'-0" IN LENGTH.
- ALL EXPOSED ROUND DUCTWORK SHALL HAVE "PAINT GRIP" FINISH FOR FIELD PAINTING EXCEPT WITHIN WOOD SHOP | 157A.
 - EXPOSED DUCTWORK WITHIN WOOD SHOP | 157A SHALL HAVE A GALVANIZED FINISH.

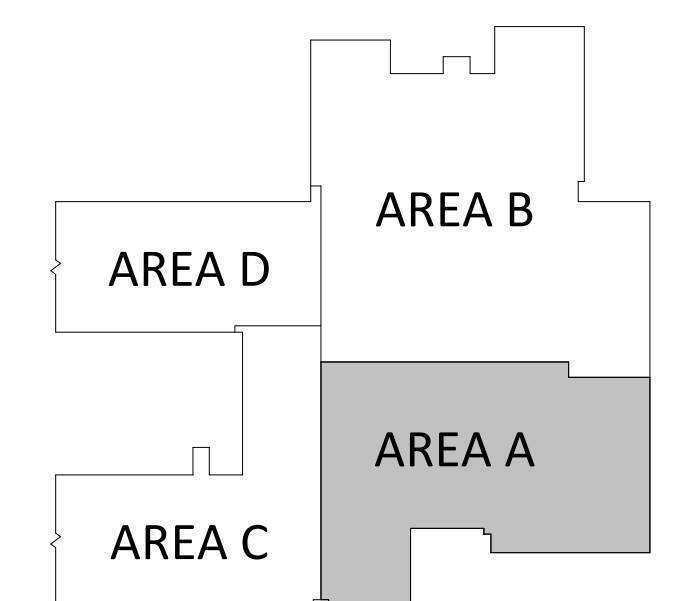
MECHANICAL KEYNOTES:



MIDDLE SCHOOL BUILDING KEY PLAN
MECHANICAL PLAN - AREA B
1/8" = 1'-0"



- GENERAL MECHANICAL NOTES:**
1. VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
 2. COORDINATE ALL DUCTWORK AND PIPE ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCE SPACE.
 3. MAINTAIN SERVICE CLEARANCE REQUIREMENTS AROUND ALL MECHANICAL EQUIPMENT AND ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING OR DUCTWORK IN CLEARANCE SPACE.
 4. M.C. COORDINATE REFRIGERANT LINE ROUTING FROM CONDENSING UNITS TO THE RESPECTIVE UNITS.
 5. MANUAL VOLUME DAMPERS SHALL BE PROVIDED ON ALL SUPPLY, RETURN, AND EXHAUST BRANCH DUCTS.
 6. M.C. SHALL COORDINATE ANY AREA WHERE ACCESS TO EQUIPMENT OR HVAC COMPONENTS ARE REQUIRED TO ALLOW ACCESS FOR MAINTENANCE, OR INSPECTION WITH G.C.



MIDDLE SCHOOL BUILDING KEY PLAN
MECHANICAL PIPING & CONTROLS PLAN - AREA A
1/8" = 1'-0"

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| ISSUED FOR | |
| BIDDING | |
| DATE | 02/20/2026 |
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| ADDENDUM 01 | 03-02-2026 |
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| DRAWN BY JJR | |
| CHECKED BY JCL | |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |
| MECHANICAL PIPING & CONTROLS PLAN - AREA A | |
| NOT FOR CONSTRUCTION | |
| M-111A | |

ISSUED FOR

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| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

MECHANICAL
PIPING &
CONTROLS PLAN -
AREA B

M-111B

GENERAL MECHANICAL NOTES:

- VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
- COORDINATE ALL DUCTWORK AND PIPE ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCE SPACE.
- MAINTAIN SERVICE CLEARANCE REQUIREMENTS AROUND ALL MECHANICAL EQUIPMENT AND ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING OR DUCTWORK IN CLEARANCE SPACE.
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- M.C. SHALL COORDINATE ANY AREA WHERE ACCESS TO EQUIPMENT OR HVAC COMPONENTS ARE REQUIRED TO ALLOW ACCESS FOR MAINTENANCE, OR INSPECTION WITH G.C.

GENERAL NATURAL GAS NOTES

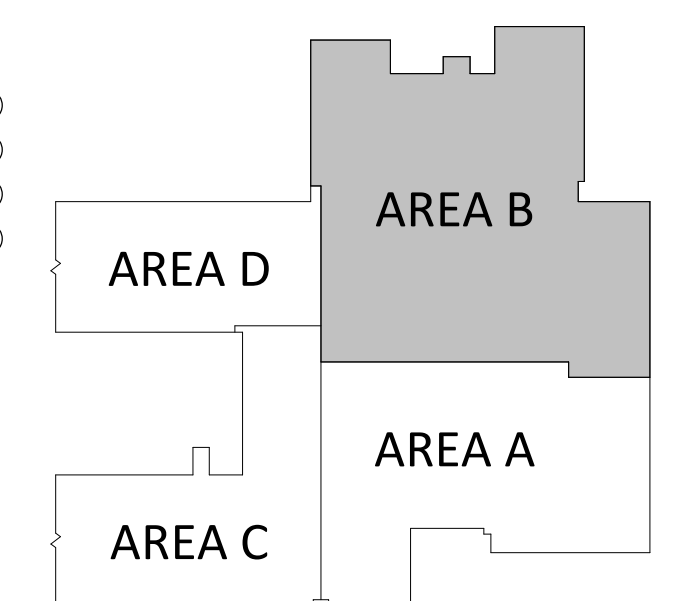
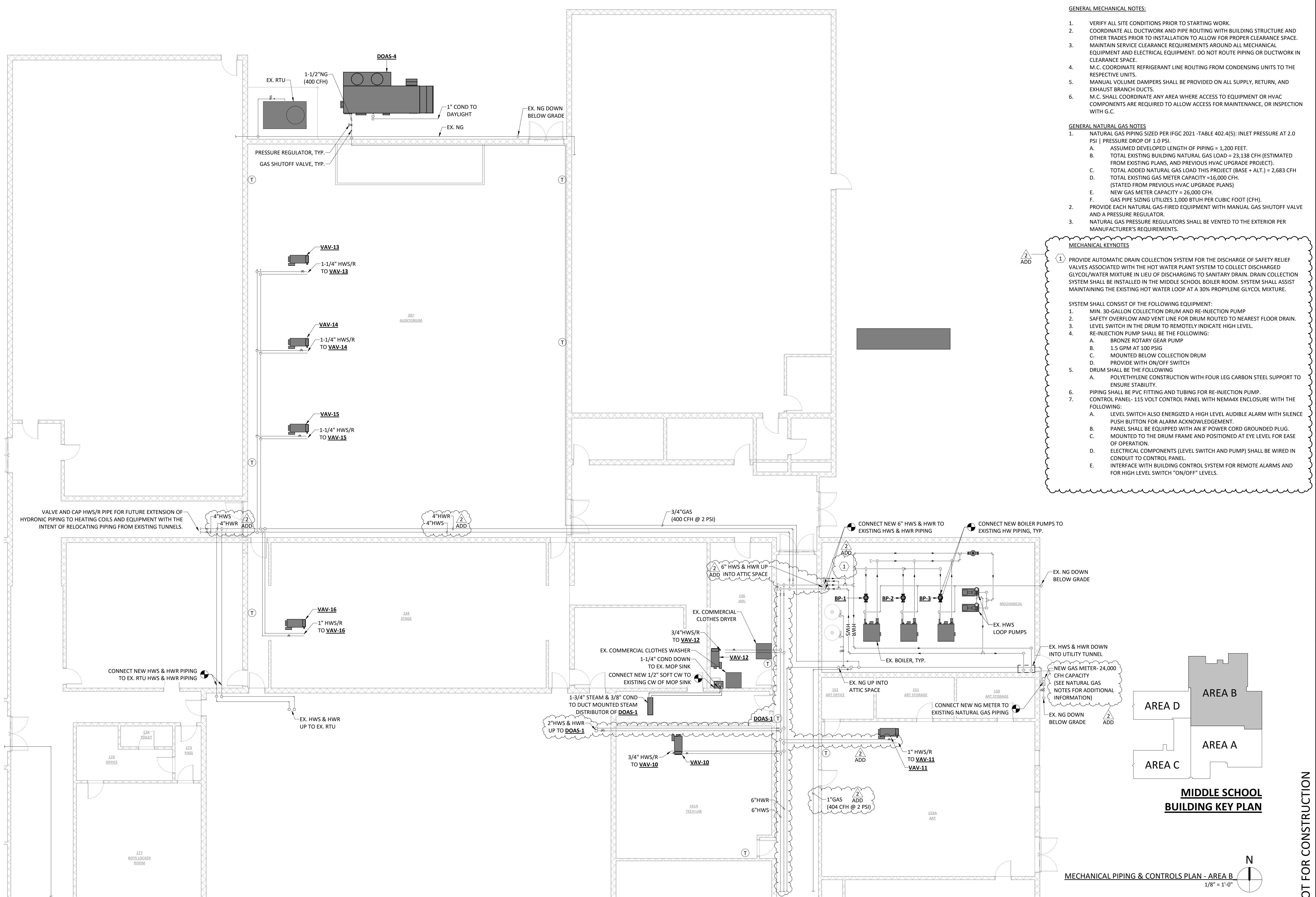
- NATURAL GAS PIPING SIZED PER IFGC 2021 - TABLE 402.4(5); INLET PRESSURE AT 2.0 PSI | PRESSURE DROP OF 1.0 PSI.
 - ASSUMED DEVELOPED LENGTH OF PIPING = 1,200 FEET.
 - TOTAL EXISTING BUILDING NATURAL GAS LOAD = 23,138 CFH (ESTIMATED FROM EXISTING PLANS, AND PREVIOUS HVAC UPGRADE PROJECT).
 - TOTAL ADDED NATURAL GAS LOAD THIS PROJECT (BASE + ALT.) = 2,683 CFH.
 - TOTAL EXISTING GAS METER CAPACITY = 16,000 CFH. (STATED FROM PREVIOUS HVAC UPGRADE PLANS)
 - NEW GAS METER CAPACITY = 26,000 CFH.
 - GAS PIPE SIZING UTILIZES 1,000 BTUH PER CUBIC FOOT (CFH).
- PROVIDE EACH NATURAL GAS-FIRED EQUIPMENT WITH MANUAL GAS SHUTOFF VALVE AND A PRESSURE REGULATOR.
- NATURAL GAS PRESSURE REGULATORS SHALL BE VENTED TO THE EXTERIOR PER MANUFACTURER'S REQUIREMENTS.

MECHANICAL KEYNOTES

- PROVIDE AUTOMATIC DRAIN COLLECTION SYSTEM FOR THE DISCHARGE OF SAFETY RELIEF VALVES ASSOCIATED WITH THE HOT WATER PLANT SYSTEM TO COLLECT DISCHARGED GLYCOL/WATER MIXTURE IN LIEU OF DISCHARGING TO SANITARY DRAIN. DRAIN COLLECTION SYSTEM SHALL BE INSTALLED IN THE MIDDLE SCHOOL BOILER ROOM. SYSTEM SHALL ASSIST MAINTAINING THE EXISTING HOT WATER LOOP AT A 30% PROPYLENE GLYCOL MIXTURE.

SYSTEM SHALL CONSIST OF THE FOLLOWING EQUIPMENT:

- MIN. 30-GALLON COLLECTION DRUM AND RE-INJECTION PUMP
- SAFETY OVERFLOW AND VENT LINE FOR DRUM ROUTED TO NEAREST FLOOR DRAIN.
- LEVEL SWITCH IN THE DRUM TO REMOTELY INDICATE HIGH LEVEL.
- RE-INJECTION PUMP SHALL BE THE FOLLOWING:
 - BRONZE ROTARY GEAR PUMP
 - 1.5 GPM AT 100 PSIG
 - MOUNTED BELOW COLLECTION DRUM
 - PROVIDE WITH ON/OFF SWITCH
- DRUM SHALL BE THE FOLLOWING:
 - POLYETHYLENE CONSTRUCTION WITH FOUR LEG CARBON STEEL SUPPORT TO ENSURE STABILITY.
- PIPING SHALL BE PVC FITTING AND TUBING FOR RE-INJECTION PUMP.
- CONTROL PANEL- 115 VOLT CONTROL PANEL WITH NEMA4X ENCLOSURE WITH THE FOLLOWING:
 - LEVEL SWITCH ALSO ENERGIZED A HIGH LEVEL AUDIBLE ALARM WITH SILENCE PUSH BUTTON FOR ALARM ACKNOWLEDGEMENT.
 - PANEL SHALL BE EQUIPPED WITH AN 8' POWER CORD GROUNDED PLUG.
 - MOUNTED TO THE DRUM FRAME AND POSITIONED AT EYE LEVEL FOR EASE OF OPERATION.
 - ELECTRICAL COMPONENTS (LEVEL SWITCH AND PUMP) SHALL BE WIRED IN CONDUIT TO CONTROL PANEL.
 - INTERFACE WITH BUILDING CONTROL SYSTEM FOR REMOTE ALARMS AND FOR HIGH LEVEL SWITCH "ON/OFF" LEVELS.

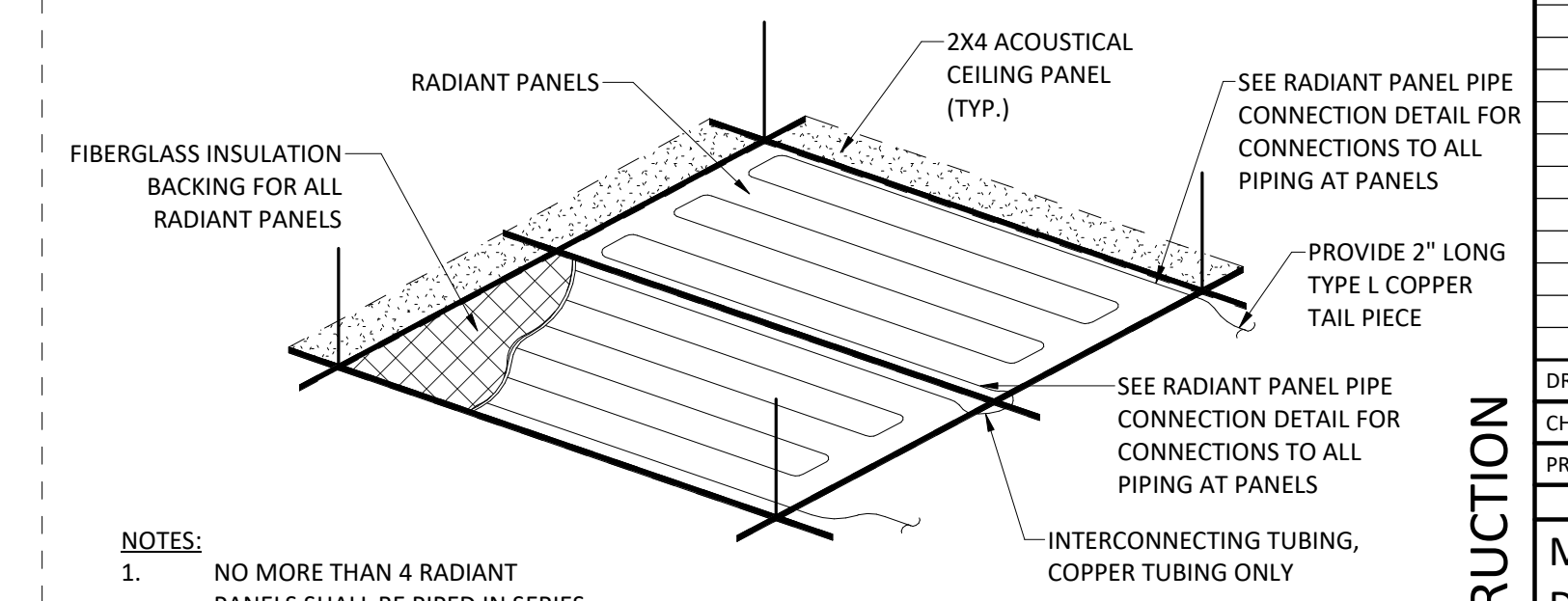
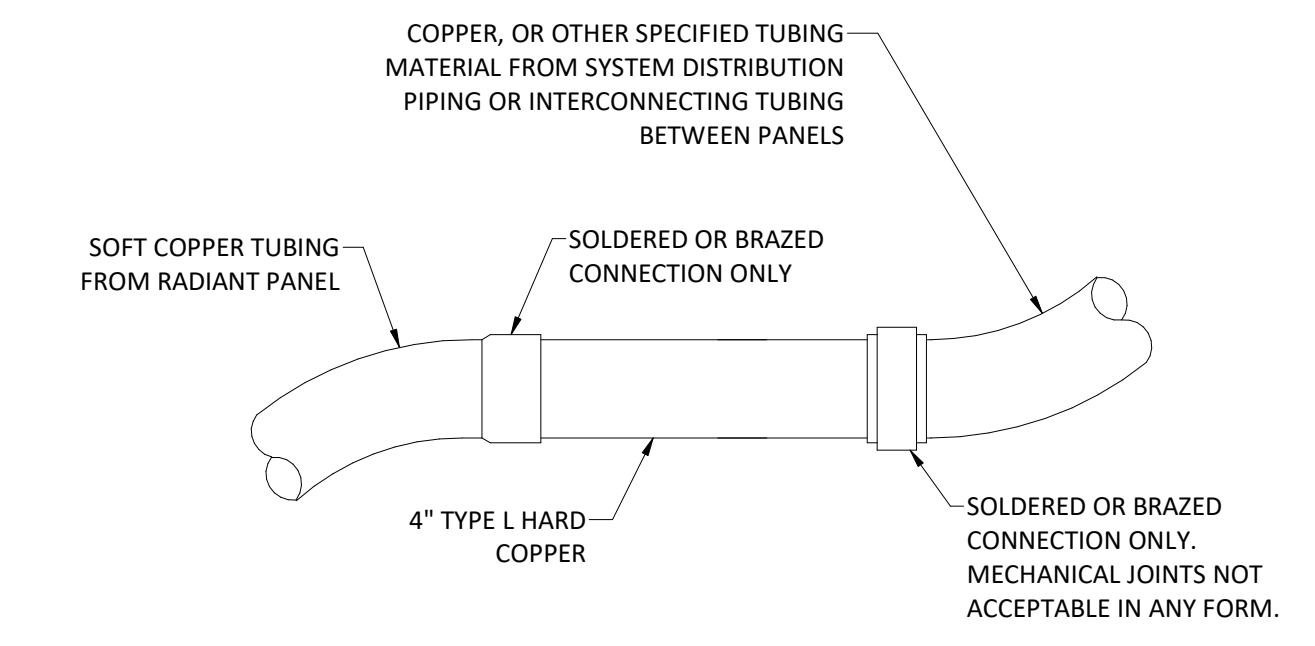
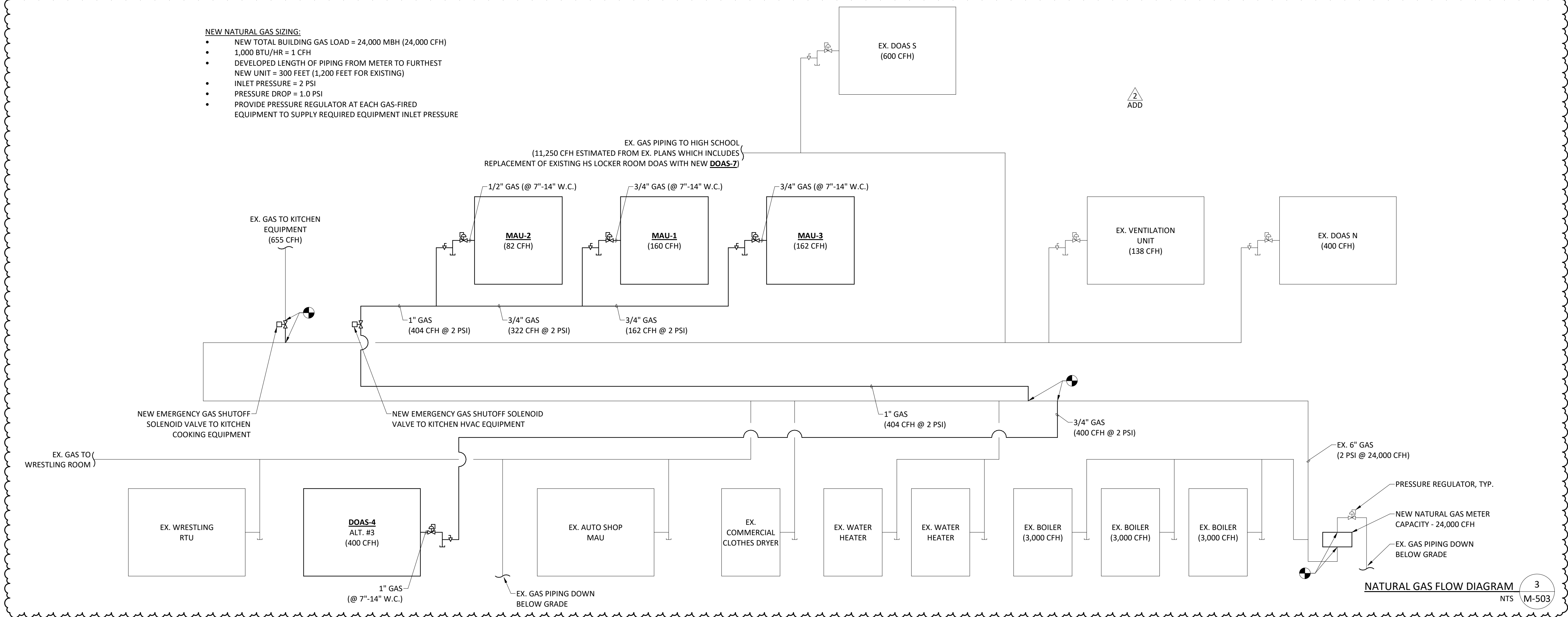


MIDDLE SCHOOL BUILDING KEY PLAN

MECHANICAL PIPING & CONTROLS PLAN - AREA B
1/8" = 1'-0"

NOT FOR CONSTRUCTION

- NEW NATURAL GAS SIZING:**
- NEW TOTAL BUILDING GAS LOAD = 24,000 MBH (24,000 CFH)
 - 1,000 BTU/HR = 1 CFH
 - DEVELOPED LENGTH OF PIPING FROM METER TO FURTHEST NEW UNIT = 300 FEET (1,200 FEET FOR EXISTING)
 - INLET PRESSURE = 2 PSI
 - PRESSURE DROP = 1.0 PSI
 - PROVIDE PRESSURE REGULATOR AT EACH GAS-FIRED EQUIPMENT TO SUPPLY REQUIRED EQUIPMENT INLET PRESSURE



- NOTES:**
1. NO MORE THAN 4 RADIANT PANELS SHALL BE PIPED IN SERIES EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.

ISSUED FOR

BIDDING

| DATE | DESCRIPTION | DATE |
|-------------|-------------|------------|
| 02/20/2026 | | |
| ADDENDUM 01 | | 03-02-2026 |
| ADDENDUM 02 | | 03-06-2026 |

NOT FOR CONSTRUCTION

| | |
|-------------|------------|
| DRAWN BY | JJR |
| CHECKED BY | JCL |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

| VARIABLE AIR VOLUME TERMINALS SCHEDULE | | | | | | | | | | | | | | | | |
|--|----------------------------|---------------------|--------------------------------|--------------------|----------------|-------------------|------|-----------------|---------------|----------|----------|-----------|---|---------------|-------|--|
| PLAN MARK | MAX. COOLING AIRFLOW (CFM) | INLET SIZE (INCH Ø) | STATIC PRESSURE (IN. W.G.) (1) | HEATING CONDITIONS | | HEATING COIL DATA | | | | | | NC RATING | MANUFACTURER MODEL | WEIGHT (LBS.) | NOTES | |
| | | | | AIRFLOW (CFM) | APD (IN. W.G.) | ROWS | MBH | FLOW RATE (GPM) | WPD (FT. HD.) | EAT (°F) | LAT (°F) | | | | | |
| VAV-1 | | | | | | | | | | | | | | | | |
| VAV-2 | | | | | | | | | | | | | | | | |
| VAV-3A | 3,500 | 16 | 0.75 | 2,600 | 0.45 | 2 | 98.3 | 5 | 1.1 | 61 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF16 | 94 | ALL | |
| VAV-3B | 3,500 | 16 | 0.75 | 2,600 | 0.45 | 2 | 98.3 | 5 | 1.1 | 61 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF16 | 94 | ALL | |
| VAV-4 | 3,400 | 16 | 0.75 | 2,200 | 0.35 | 2 | 83.2 | 5 | 1.1 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF16 | 94 | ALL | |
| VAV-5 | 1,500 | 12 | 0.42 | 900 | 0.20 | 2 | 34.1 | 3.5 | 0.7 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF12 | 66 | ALL | |
| VAV-6 | 2,250 | 14 | 0.45 | 1,400 | 0.25 | 2 | 69.4 | 5 | 1.1 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF12 | 66 | ALL | |
| VAV-7 | 1,000 | 10 | 0.65 | 700 | 0.25 | 2 | 41.3 | 2.5 | 1.0 | 55.0 | 90.0 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF10 | 52 | ALL | |
| VAV-8 | 750 | 8 | 0.56 | 500 | 0.47 | 2 | 18.9 | 2.5 | 0.5 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF08 | 39 | ALL | |
| VAV-9 | 800 | 8 | 0.68 | 600 | 0.38 | 2 | 30.8 | 2.5 | 0.5 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF08 | 39 | ALL | |
| VAV-10 | 1,200 | 10 | 0.30 | 600 | 0.15 | 1 | 23.3 | 1.5 | 6.3 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF10 | 48 | ALL | |
| VAV-11 | 2,400 | 14 | 0.28 | 1,800 | 0.20 | 1 | 54.8 | 3.0 | 2.4 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF14 | 75 | ALL | |
| VAV-12 | 300 | 6 | 0.17 | 200 | 0.12 | 1 | 9.5 | 1.0 | 1.7 | 55 | 90 | (2) | TRANE SINGLE-DUCT HW VAV BOX MODEL VCVF06 | 32 | ALL | |

1. STATIC PRESSURE DROP AT LISTED AIRFLOW RATE THROUGH VAV BOX (DAMPER 100% OPEN).
2. NC RATING IS MAXIMUM DISCHARGE OR RADIATED RATING ALLOWED. NC RATINGS TO BE CALCULATED IN ACCORDANCE WITH AHRI-885.
3. PROVIDE VARIABLE VOLUME TERMINALS WITH SOUND ATTENUATION.
4. HEATING COIL SHALL BE INSTALLED UPSTREAM OF SOUND ATTENUATOR.

| MINI-SPLIT MULTI-ZONE HEAT PUMP SCHEDULE | | | | | | | | | | | | | | | | | | | |
|--|--|---------------|------------------------|------------------|--------------|-------------------------------|--------------------------------|------------|---------|---|-------------------|-------|--------|------------------|---------------|--|----------------------|--|--|
| PLAN MARK | AREA SERVED / CONNECTED SYSTEM (INDOOR/OUTDOOR UNIT) | AIRFLOW (CFM) | COOLING CAPACITY (MBH) | REFRIGERANT TYPE | SEER2 / HSPF | HEATING CAPACITY @ 47°F (MBH) | HEATING CAPACITY @ -13°F (MBH) | ELECTRICAL | | | DIMENSIONS (INCH) | | | REFRIG (LBS, OZ) | WEIGHT (LBS.) | MANUFACTURER MODEL | NOTES | | |
| | | | | | | | | AMP (MCA) | VOLTAGE | Ø | WIDTH | DEPTH | HEIGHT | | | | | | |
| UNIT VENTILATOR (INDOOR UNIT) | | | | | | | | | | | | | | | | | | | |
| UV-1 | SUPERINTENDENT OFFICE (M100C) / CU-1 | 530 | 12 | (4) | -- | 14 | -- | 1 | 208 | 1 | 33 | 33 | 10 | -- | 46 | TRANE CEILING CASSETTE UNIT MODEL PL-AE12NL | 1, 2, 3 | | |
| UV-2 | PRINCIPAL OFFICE (M102B) / CU-1 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| UV-3 | BUSINESS MGR OFFICE (M100B) / CU-1 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| UV-4 | OFFICE (M100A) / CU-1 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| UV-5 | CONF & BOARD ROOM (M1000) / CU-1 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-6 | DISTRICT OFFICE (M100) / CU-2 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-7 | DISTRICT OFFICE (M100) / CU-2 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-8 | FRONT OFFICE (M102) / CU-2 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-9 | KITCHEN OFFICE (M107C) / CU-3 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-10 | KITCHEN OFFICE (M107A) / CU-3 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-11 | TEACHER WORKROOM / CU-4 | 600 | 18 | (4) | -- | 19 | -- | 1 | 208 | 1 | 33 | 33 | 10 | -- | 46 | TRANE CEILING CASSETTE UNIT MODEL PL-AE12NL | 1, 2, 3 | | |
| UV-12 | GUIDANCE / CU-2 | 335 | 12 | (4) | -- | 13.5 | -- | 0.36 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL PLYF-L12NFMU-A | 1, 2, 3 | | |
| UV-13 | CONFERENCE / CU-4 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| UV-14 | HEALTH / CU-4 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| UV-15 | NURSE / CU-4 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| UV-16 | CONCESSION / CU-4 | 300 | 9 | (4) | -- | 11 | -- | 1 | 208 | 1 | 23 | 23 | 9 | -- | 31 | TRANE CEILING CASSETTE UNIT MODEL SLZ-AF09NL | 1, 2, 3 | | |
| HEAT PUMP (OUTDOOR UNIT) | | | | | | | | | | | | | | | | | | | |
| CU-1 | ADMIN PERIMETER OFFICES / UV-1 THRU UV-5 | -- | 60 | R454B (4) | 20/10.5 | 65 | 30 | 55 | 208 | 1 | 42 | 13 | 53 | 6, 10 | 280 | TRANE AIR-COOLED HEAT PUMP MODEL MXZ-SM60NL | 3, 5, 6, 7, 8, 9, 10 | | |
| CU-2 | ADMIN INTERIOR OFFICES / UV-6 THRU UV-8, UV-12 | -- | 60 | R454B (4) | 20/10.5 | 65 | 30 | 55 | 208 | 1 | 42 | 13 | 53 | 6, 10 | 280 | TRANE AIR-COOLED HEAT PUMP MODEL MXZ-SM60NL | 3, 5, 7, 8, 9, 10 | | |
| CU-3 | KITCHEN OFFICES / UV-9 AND UV-10 | -- | 36 | R454B (4) | 23/12 | 42 | 42 | 55 | 208 | 1 | 42 | 13 | 53 | 6, 10 | 280 | TRANE AIR-COOLED HEAT PUMP MODEL MXZ-SM36NLHZ | 3, 5, 7, 8, 9, 10 | | |
| CU-4 | ADMIN INTERIOR OFFICES / UV-11 AND UV-16 (NO UV-12) | -- | 60 | R454B (4) | 20/10.5 | 65 | 30 | 55 | 208 | 1 | 42 | 13 | 53 | 6, 10 | 280 | TRANE AIR-COOLED HEAT PUMP MODEL MXZ-SM60NL | 3, 5, 6, 7, 8, 9, 10 | | |

1. PROVIDE UNIT VENTILATORS WITH BUILT-IN CONDENSATE LIFT MECHANISM. ROUTE CONDENSATE TO NEAREST ACCEPTABLE DRAIN LOCATION, OR TERMINATE ON EXTERIOR OF BUILDING. DIVISION 16 CONTRACTOR SHALL WIRE THE CONDENSATE LIFT PUMP.
2. PROVIDE CONTROLLER MODEL PAR-42MAAUB WHICH PROVIDES REFRIGERANT LEAK ALARMS. BUILDING AUTOMATION CONTRACTOR SHALL PROVIDE COMBINATION HUMIDITY, AND CO2 SENSOR.
3. REFRIGERANT LINESETS SHALL BE ROUTED IN MOST EFFICIENT PATH AND MINIMAL REFRIGERANT PIPE SHALL BE EXPOSED. ALL REFRIGERANT LINESET SHALL BE INSULATED PER ENERGY CODE REQUIREMENTS. PRE-INSULATED LINESETS ARE ACCEPTABLE.
4. MINI-SPLIT MANUFACTURER SHALL PROVIDE REFRIGERANT TYPE THAT MEETS ALL NEW FEDERAL REQUIREMENTS. REFER TO INTERNATIONAL MECHANICAL CODE, CHAPTER 11 REFRIGERANTS FOR MAXIMUM ALLOWABLE QUANTITY FOR SUBMITTED REFRIGERANT.
5. REFER TO SUBMITTED MANUFACTURER PIPING LENGTHS AND ROUTING RESTRICTIONS.
6. PROVIDE WITH 5 PORT BRANCH BOX, MODEL PAC-LMA50BC. BRANCH BOX SHALL BE POWERED THROUGH THE ASSOCIATED HEAT PUMP (OUTDOOR UNIT). ELECTRICAL REQUIREMENTS: 208V, 1-PHASE, 0.003 KW INPUT, 0.15 AMP RUNNING CURRENT.
7. PROVIDE HAIL GUARD.
8. PROVIDE WIND BAFFLE.
9. PROVIDE WALL BRACKET FOR INSTALLATION, MINIMUM 18" ABOVE GRADE.
10. PROVIDE LINE-HIDE COVER ON ALL PIPING EXPOSED ON THE EXTERIOR WALL OF THE BUILDING PRIOR TO PENETRATING INTO INTERIOR SPACE.

| DEDICATED OUTSIDE AIR SYSTEM (DOAS) SCHEDULE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|------------|------------|-------|----|----------------|------------|------------|-------|-----|------------------|----------------|--------------|------------------------|----------|----------------|----------|-------------|------------------------|----------------|-------------------------------|--------------|------------|----------|-----------------|-------|------------------|---------|---------------|-------------------|----------|----------|------------|----------|---------------|--------------------------|--------|---------------------------------------|----------------------------------|
| PLAN MARK | SUPPLY FAN(S) | | | | | EXHAUST FAN(S) | | | | | COOLING CAPACITY | | | SUMMER ENERGY RECOVERY | | | | REFRIGERANT | ELECTRIC PRE-HEAT | | WINTER DESIGN ENERGY RECOVERY | | | | PRIMARY HEATING | | | | | DIMENSIONS (INCH) | | | ELECTRICAL | | WEIGHT (LBS.) | MANUFACTURER MODEL NO. | NOTES | | |
| | DESIGN AIRFLOW | ESP / TSP | DRIVE TYPE | MOTOR | | DESIGN AIRFLOW | ESP / TSP | DRIVE TYPE | MOTOR | | TOTAL (MBH) | SENSIBLE (MBH) | LATENT (MBH) | OUTSIDE AIR (°F) | | FRESH AIR (°F) | | | HEATING CAPACITY (MBH) | FLOWRATE (GPM) | WATER PD (FT H2O) | EWT/LWT (°F) | FLUID TYPE | LAT (°F) | LENGTH | WIDTH | HEIGHT (NOTE 16) | AMPS | VOLTAGE | Ø | | | | | | | | | |
| | | | | QTY | HP | | | | QTY | HP | | | | EAT (DB) | EAT (WB) | LAT (DB) | LAT (WB) | | | | | | | | | | | | | | EAT (DB) | EAT (WB) | LAT (DB) | LAT (WB) | | | | | |
| DOAS-1 | 13,500 | 1.7 / 3.4 | DIRECT/VFD | 1 | 10 | 3,000 | 1.0 / 1.7 | DIRECT/VFD | 1 | 3 | 562 | 371 | 191 | 95 | 78 | 80 | 68 | R454B | 20.0 | -10 / 11 | 11 | -- | 46 | 41 | 486 | 33.4 | 0.8 | 180/150 | 30% PROPYLENE | 97 | 338 | 278 | 108 | 268 | 208 | 3 | 10,400 | TRANE HORIZON DOAS MODEL OANG055C1 | ALL |
| DOAS-2 | 7,000 | 1.0 / 3.35 | DIRECT/VFD | 1 | 10 | 2,000 | 1.2 / 2.1 | DIRECT/VFD | 1 | 1.5 | 215 | 154 | 61 | 95 | 78 | 80 | 69 | R454B | 15.0 | -10 / 13 | 13 | -- | 45 | 40 | 324 | 26.8 | 1.6 | 180/150 | 30% PROPYLENE | 105 | 213 | 100 | 62 | 109 | 208 | 3 | 4,392 | TRANE HORIZON DOAS MODEL OADG020C1 | ALL |
| DOAS-3 | 3,000 | 1.4 / 3.0 | DIRECT/VFD | 1 | 3 | 3,000 | 1.2 / 2.4 | DIRECT/VFD | 1 | 2 | 203 | 108 | 95 | 95 | 78 | 80 | 69 | R454B | 20.0 | -10 / 11 | 11 | NA | NA | NA | 160 | 11.9 | 0.3 | 180/150 | 30% PROPYLENE | 101 | 183 | 95 | 68 | 108 | 208 | 3 | 4,223 | TRANE HORIZON DOAS OADG020C1 | 1,2,3,4,5,6,7,8,9,10,13,14,15,16 |
| DOAS-5 | 3,400 | 0.5 / - | DIRECT/VFD | 1 | 3 | 2,890 | N/A | N/A | N/A | N/A | 139 | 94 | 45 | 85 | 78 | N/A | N/A | R454B | N/A | N/A | -10 | NA | NA | NA | 140 | 9.4 | 0.8 | 180/150 | 30% PROPYLENE | 90 | 108 | 81 | 61 | 62 | 208 | 3 | 2,036 | ECON-AIR RTU MODEL EARTU2-1200-18-10T | 1,2,3,4,5,6,7,8,9,10,13,14,15,16 |
| DOAS-6 | 1,200 | 1.7 / 2.46 | DIRECT/VFD | 1 | 1 | 650 | 1.2 / 1.72 | DIRECT/VFD | 1 | 2 | 45 | 30 | 15 | 95 | 78 | 80 | 68 | R454B | 5.0 | -10 / 7 | 7 | 4 | 54 | 46 | 60 | 4.0 | 0.4 | 180/150 | 30% PROPYLENE | 92 | 161 | 52 | 55 | 34 | 208 | 3 | 1,964 | TRANE HORIZON DOAS MODEL OABD048A3-C1 | ALL |

1. SUPPLY FAN AND EXHAUST FAN MOTORS SHALL BE DIRECT-DRIVE WITH FACTORY INSTALLED VARIABLE FREQUENCY DRIVES.
2. UNITS SHALL BE MULTI-ZONE VAV CONTROLS.
3. PROVIDE THE FOLLOWING MOTORIZED CONTROL DAMPERS: OUTSIDE AIR, EXHAUST AIR, ENERGY RECOVERY WHEEL BYPASS, AND RECIRCULATION AIRSTREAMS.
4. DIRECT EXPANSION (DX) COOLING COIL: SHALL BE TYPE 6-ROW.
5. PROVIDE UNITS WITH MODULATING HOT GAS REHEAT (HGRH) COIL DOWNSTREAM OF DX COOLING COIL TO PROVIDE DEHUMIDIFICATION.
6. PROVIDE UNITS WITH FACTORY MOUNTED AND WIRED UV LIGHTS BETWEEN EVAPORATOR COIL AND THE HGRH COIL.
7. PROVIDE 2-INCH MERV8 PRE-FILTER UPSTREAM OF THE ENERGY RECOVERY WHEEL.
8. PROVIDE 2-INCH MERV13 PRIMARY FILTER UPSTREAM OF DX COOLING COIL DOWNSTREAM OF THE RECIRCULATING MODULATING DAMPER.
9. COMPRESSORS SHALL BE DIGITAL-SCROLL, MINIMUM OF 2-CIRCUITS.
10. PRIMARY HEATING SECTION SHALL BE HOT WATER COIL(S) SUITABLE FOR 30% PROPYLENE GLYCOL / WATER MIXTURE.
11. OUTSIDE AIR PRE-HEAT SHALL BE STAGED ELECTRIC HEATING COIL UPSTREAM OF THE ENERGY RECOVERY WHEEL ON THE OUTSIDE AIRSTREAM.
12. ENERGY RECOVERY SECTION SHALL BE A TOTAL ENERGY RECOVERY WHEEL WITH FROST PROTECTION AND VARIABLE FREQUENCY DRIVE.
13. PROVIDE FACTORY MOUNT NON-FUSED DISCONNECT.
14. PROVIDE POWERED CONVENIENCE OUTLET.
15. PROVIDE UNITS WITH HAIL GUARDS ON THE CONDENSER COIL.
16. PROVIDE UNITS WITH ROOF CURB. CURB SHALL MAINTAIN MINIMUM 18" CLEAR ABOVE ROOF AND INSULATION FINISHED ELEVATION.



| | |
|-------------|------------|
| ISSUED FOR | |
| BIDDING | |
| DATE | 02/20/2026 |
| DESCRIPTION | |
| ADDENDUM 01 | 03-02-2026 |
| ADDENDUM 02 | 03-06-2026 |

| | |
|-------------|------------|
| DRAWN BY | JJR |
| CHECKED BY | JCL |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

MECHANICAL SCHEDULES

NOT FOR CONSTRUCTION

| AIRFLOW MATRIX | | | | | | | | | | | | |
|-------------------------|--------|------------|----------|----------|------------------------|------------|----------|----------|--------------------------------------|----------------------------------|---------------------|--------|
| ROOM NAME | ROOM # | AREA (FT2) | SUPPLY | RETURN | MIN. VENTILATION RATES | | | | ZONE DISTRIBUTION EFFECTIVENESS (Ez) | IMC CALCULATED VENTILATION (CFM) | TOTAL EXHAUST (CFM) | SYSTEM |
| | | | | | OCCUPANCY | CFM/PERSON | CFM/FT2 | EXHAUST | | | | |
| AG CLASSROOM | 167 | 882 SF | 1500 CFM | 1500 CFM | 30 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 507 CFM | 0 CFM | DOAS-1 |
| ART | 153A | 1225 SF | 2000 CFM | 2000 CFM | 20 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 434 CFM | 0 CFM | DOAS-1 |
| ART OFFICE | 152 | 81 SF | 100 CFM | 0 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 19 CFM | 100 CFM | DOAS-1 |
| ART STORAGE | 151 | 118 SF | 150 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 9 CFM | 150 CFM | DOAS-1 |
| ART STORAGE | 150 | 119 SF | 150 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 9 CFM | 150 CFM | DOAS-1 |
| CLOSET 1 | | 33 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 0 CFM | 0.8 | 0 CFM | 0 CFM | DOAS-1 |
| CLOSET 2 | | 33 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 0 CFM | 0.8 | 0 CFM | 0 CFM | DOAS-1 |
| CORRIDOR | 159 | 1507 SF | 800 CFM | 800 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 113 CFM | 0 CFM | DOAS-1 |
| DRY ART ROOM | 153B | 587 SF | 1000 CFM | 1000 CFM | 10 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 213 CFM | 0 CFM | DOAS-1 |
| DUST COLLECTION | 157C | 158 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 12 CFM | 50 CFM | DOAS-1 |
| INDUSTRIAL CLASSROOM | 154 | 1132 SF | 2000 CFM | 2000 CFM | 25 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 482 CFM | 0 CFM | DOAS-1 |
| INDUSTRIAL OFFICE | 156 | 80 SF | 100 CFM | 100 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 19 CFM | 0 CFM | DOAS-1 |
| INDUSTRIAL STORAGE | 155 | 144 SF | 150 CFM | 150 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 11 CFM | 0 CFM | DOAS-1 |
| JAN. | 146 | 332 SF | 300 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 25 CFM | 0 CFM | DOAS-1 |
| KILN | 153C | 119 SF | 0 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 9 CFM | 800 CFM | DOAS-1 |
| OFFICE | 157B | 77 SF | 250 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 6 CFM | 0 CFM | DOAS-1 |
| OFFICE | 166 | 137 SF | 150 CFM | 150 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 23 CFM | 0 CFM | DOAS-1 |
| OFFICE | 165 | 135 SF | 150 CFM | 150 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 23 CFM | 0 CFM | DOAS-1 |
| SHOP CLASSROOM | 161B | 511 SF | 800 CFM | 800 CFM | 20 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 327 CFM | 0 CFM | DOAS-1 |
| STORAGE ROOM 1 | | 236 SF | 150 CFM | 150 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 18 CFM | 0 CFM | DOAS-1 |
| STORAGE ROOM 2 | | 81 SF | 100 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 6 CFM | 0 CFM | DOAS-1 |
| TECH LAB | 161A | 753 SF | 1200 CFM | 1200 CFM | 20 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 363 CFM | 0 CFM | DOAS-1 |
| WOOD SHOP | 157A | 1892 SF | 3400 CFM | 0 CFM | 20 | 10.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 534 CFM | 3400 CFM | DOAS-1 |
| CAFETERIA / STUDY HALL | 170 | 3134 SF | 7000 CFM | 7000 CFM | 130 | 7.5 CFM | 0.18 CFM | 0 CFM | 0.8 | 1924 CFM | 0 CFM | DOAS-2 |
| BOYS LOCKER ROOM | 177 | 705 SF | 1275 CFM | 1000 CFM | 0 | 0.0 CFM | 0.00 CFM | 450 CFM | 0.8 | 0 CFM | 450 CFM | DOAS-3 |
| COACH | 184 | 100 SF | 100 CFM | 100 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 20 CFM | 0 CFM | DOAS-3 |
| GIRLS LOCKER ROOM | 182 | 593 SF | 1275 CFM | 1000 CFM | 0 | 0.0 CFM | 0.00 CFM | 375 CFM | 0.8 | 0 CFM | 375 CFM | DOAS-3 |
| M SHOWER | 179 | 145 SF | 0 CFM | 275 CFM | 0 | 0.0 CFM | 0.00 CFM | 200 CFM | 0.8 | 0 CFM | 250 CFM | DOAS-3 |
| OFFICE | 176 | 148 SF | 100 CFM | 100 CFM | 1 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 17 CFM | 70 CFM | DOAS-3 |
| PASS | 173 | 53 SF | 50 CFM | 50 CFM | 0 | 0.0 CFM | 0.00 CFM | 0 CFM | 0.8 | 0 CFM | 0 CFM | DOAS-3 |
| PASS | 183 | 50 SF | 50 CFM | 50 CFM | 0 | 0.0 CFM | 0.00 CFM | 0 CFM | 0.8 | 0 CFM | 0 CFM | DOAS-3 |
| STORAGE | 181 | 35 SF | 0 CFM | 50 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 3 CFM | 0 CFM | DOAS-3 |
| STORAGE | 178 | 99 SF | 0 CFM | 50 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 7 CFM | 0 CFM | DOAS-3 |
| TOILET | 174 | 40 SF | 50 CFM | 50 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | DOAS-3 |
| TOILET | 185 | 48 SF | 100 CFM | 100 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | DOAS-3 |
| W SHOWER | 180 | 145 SF | 0 CFM | 275 CFM | 0 | 0.0 CFM | 0.00 CFM | 200 CFM | 0.8 | 0 CFM | 250 CFM | DOAS-3 |
| A/V | 308 | 210 SF | 200 CFM | 200 CFM | 5 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 47 CFM | 0 CFM | DOAS-4 |
| AUDITORIUM | 307 | 4438 SF | 5400 CFM | 7000 CFM | 400 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 2833 CFM | 0 CFM | DOAS-4 |
| STAGE | 144 | 1740 SF | 1600 CFM | 0 CFM | 30 | 10.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 506 CFM | 0 CFM | DOAS-4 |
| BUSINESS MANAGER | 209 | 139 SF | 150 CFM | 150 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 23 CFM | 0 CFM | DOAS-6 |
| CONCESSION | 187 | 97 SF | 150 CFM | 150 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 20 CFM | 0 CFM | DOAS-6 |
| CNF | 212 | 70 SF | 100 CFM | 100 CFM | 1 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 12 CFM | 0 CFM | DOAS-6 |
| CONFERENCE | 198 | 170 SF | 300 CFM | 300 CFM | 10 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 75 CFM | 0 CFM | DOAS-6 |
| CONFERENCE / BOARD ROOM | 207 | 268 SF | 400 CFM | 400 CFM | 8 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 70 CFM | 0 CFM | DOAS-6 |
| DISTRICT OFFICE | 211 | 451 SF | 400 CFM | 400 CFM | 4 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 59 CFM | 0 CFM | DOAS-6 |
| FRONT OFFICE | 205 | 318 SF | 250 CFM | 250 CFM | 4 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 49 CFM | 0 CFM | DOAS-6 |
| GUIDANCE | 197 | 170 SF | 200 CFM | 200 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 25 CFM | 0 CFM | DOAS-6 |
| HEALTH | 191 | 142 SF | 200 CFM | 200 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 23 CFM | 0 CFM | DOAS-6 |
| NURSE | 190 | 120 SF | 150 CFM | 150 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 22 CFM | 0 CFM | DOAS-6 |
| OFFICE | 210 | 124 SF | 150 CFM | 150 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 22 CFM | 0 CFM | DOAS-6 |
| PRINCIPAL | 206 | 193 SF | 200 CFM | 200 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 27 CFM | 0 CFM | DOAS-6 |
| RECORDS | 199 | 86 SF | 50 CFM | 50 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 6 CFM | 0 CFM | DOAS-6 |
| STORAGE | 213 | 65 SF | 100 CFM | 100 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 5 CFM | 0 CFM | DOAS-6 |
| STORAGE | 204 | 86 SF | 50 CFM | 50 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 6 CFM | 0 CFM | DOAS-6 |
| SUPERINTENDENT OFFICE | 208 | 247 SF | 250 CFM | 250 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 31 CFM | 0 CFM | DOAS-6 |
| TEACHER WORKROOM | 195 | 389 SF | 815 CFM | 815 CFM | 20 | 5.0 CFM | 0.12 CFM | 0 CFM | 0.8 | 180 CFM | 0 CFM | DOAS-6 |
| TOILET | 188 | 97 SF | 150 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 210 CFM | 0.8 | 0 CFM | 210 CFM | DOAS-6 |
| TOILET | 189 | 124 SF | 200 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 280 CFM | 0.8 | 0 CFM | 280 CFM | DOAS-6 |
| TOILET | 192 | 85 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | DOAS-6 |
| TOILET | 201 | 41 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | DOAS-6 |
| TOILET | 202 | 41 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | DOAS-6 |
| JAN. | 203 | 60 SF | 0 CFM | 0 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 5 CFM | 70 CFM | EF-1 |
| DRY STORAGE | 158D | 573 SF | 400 CFM | 400 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 43 CFM | 0 CFM | MAU-1 |
| KITCHEN | 169 | 1839 SF | 3400 CFM | 3400 CFM | 10 | 7.5 CFM | 0.12 CFM | 1290 CFM | 0.8 | 370 CFM | 5470 CFM | MAU-1 |
| KITCHEN HALLWAY | 169A | 353 SF | 300 CFM | 300 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 26 CFM | 0 CFM | MAU-1 |
| OFFICE | 158C | 110 SF | 100 CFM | 100 CFM | 0 | 0.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 8 CFM | 0 CFM | MAU-1 |
| OFFICE | 158A | 98 SF | 100 CFM | 100 CFM | 2 | 5.0 CFM | 0.06 CFM | 0 CFM | 0.8 | 20 CFM | 0 CFM | MAU-1 |
| TOILET | 158B | 51 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | MAU-1 |
| TOILET | 162 | 66 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | RTU-1 |
| TOILET | 163 | 68 SF | 50 CFM | 0 CFM | 0 | 0.0 CFM | 0.00 CFM | 70 CFM | 0.8 | 0 CFM | 70 CFM | RTU-1 |

| GRAVITY ROOF INTAKE VENTILATOR SCHEDULE | | | | | | | | |
|---|---------------|--------------------------|-------------|----------|--------------------------------|----------------------------------|---|-------|
| PLAN MARK | AIRFLOW (CFM) | EXTERNAL STATIC PRESSURE | APPLICATION | MOUNTING | DUCT CONNECTION SIZE (W" X D") | OVERALL HOOD SIZE (W" X L" X H") | MANUFACTURER MODEL | NOTES |
| GRI-1 | 400 | 0.13 | INTAKE | ROOF | 10" X 10" | 18.75" X 18.75" X 10.25" | LOREN COOK GRAVITY INTAKE VENTILATOR 8 PR | ALL |

1. INSTALL INTAKE VENTILATOR, GRI-1 ON MANUFACTURER'S PROVIDED CURB CAP.

| RADIANT HEATING PANEL SCHEDULE | | | | | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------------|----------------|--|--------------------------|-------|------------------|-------------------|-------|-----------|---------|-------------------------|----------------|--|-------|
| PLAN MARK | HEATING PERFORMANCE (BTUH / LF) | HW SUPPLY SIZE | FLOWRATE (GPM) | WATER PD / 100 FT OF 0.505 ID TUBE (FT HEAD) | MEAN WATER TEMP MWT (°F) | ΔT °F | NUMBER OF PASSES | DIMENSIONS (INCH) | | | | MOUNTING / INSTALLATION | AREA SERVED | MANUFACTURER MODEL | NOTES |
| | | | | | | | | LENGTH | WIDTH | THICKNESS | TUBE ID | | | | |
| RP-1 | 430 | 3/4" | 2.05 | 12.9 | 180 | 20 | 4 | 48 | 24 | 0.08 | 0.505 | LAY-IN 2X4 ACT CEILING | REFER TO PLANS | AERO TECH RADIANT LINEAR EXTRUDED PANELS - MODEL AXO | ALL |

1. HEATING PERFORMANCE BASED ON PERIMETER RADIANT PANELS.
2. PROVIDE WALL-MOUNTED THERMOSTATS, SEE PLANS FOR LOCATIONS AND PAIRING.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS IN ARCHITECT'S CEILING TYPE.

| VIBRATION ISOLATION SCHEDULE | | | | | |
|------------------------------|------------------------------|-----------|----------------|--------------------|---------|
| PLAN MARK | EQUIPMENT DESCRIPTION | BASE TYPE | ISOLATION TYPE | MINIMUM DEFLECTION | NOTES |
| DOAS | DEDICATED OUTSIDE AIR SYSTEM | A | 3 | 2" | 1, 2, 3 |
| BP | INLINE CIRCULATING PUMPS | A | 3 | 0.75" | 1, 2 |
| CONDENSER | CONDENSING UNITS | A | 4 | 1.5" | 1, 2 |

1. SEE SPECIFICATION SECTION 15 240 FOR BASE TYPE AND ISOLATOR TYPE DESCRIPTIONS.
2. TYPICAL FOR ALL UNITS OF THIS TYPE.
3. FOR UNITS WITH FANS INTERNALLY ISOLATED WITH SPRING ISOLATORS, EXTERNAL ISOLATORS MAY BE OMITTED. INTERNAL FAN ISOLATION SHALL BE MINIMUM 2" DEFLECTION. PROVIDE ISOLATORS FOR THE FIRST THREE PIPE SUPPORTS.
4.

| CIRCULATING PUMP SCHEDULE | | | | | | | | | | |
|---------------------------|-----------------|----------------------|-------------------|------------|---------|---|------------|------------------------------------|-------------------|-------|
| PLAN MARK | FLOW RATE (GPM) | HEAD LOSS (FT. HEAD) | INLET SIZE (DIA.) | ELECTRICAL | | | MOUNT TYPE | MANUFACTURER / MODEL NO. | SYSTEM | NOTES |
| | | | | HP | VOLTAGE | Ø | | | | |
| BP-1 | 135.0 | 30.0 | 3" | 1-1/2 | 208 | 3 | IN-LINE | TACO CIRCULATING PUMP MODEL KV3006 | BOILER CIRCULATOR | ALL |
| BP-2 | 135.0 | 30.0 | 3" | 1-1/2 | 208 | 3 | IN-LINE | TACO CIRCULATING PUMP MODEL KV3006 | BOILER CIRCULATOR | ALL |
| BP-3 | 135.0 | 30.0 | 3" | 1-1/2 | 208 | 3 | IN-LINE | TACO CIRCULATING PUMP MODEL KV3006 | BOILER CIRCULATOR | ALL |

1. PUMPS SHALL BE CAPABLE OF CIRCULATING 30% PROPYLENE GLYCOL / 70% WATER MIXTURE WORKING FLUID.
2. PUMP SELECTIONS SHALL HAVE THE ABILITY FOR AT LEAST ONE (1) IMPELLER SIZE INCREASE.
3. PUMPS SHALL BE PROVIDED WITH CHECK VALVE DOWN STREAM OF PUMP.

| EXHAUST FAN SCHEDULE | | | | | | | | | | |
|----------------------|---------------|-----------------|--------------|------------|------|---------|----------|----------------------|---|-----------|
| PLAN MARK | AIRFLOW (CFM) | STATIC PRESSURE | EXHAUST TYPE | ELECTRICAL | | | MOUNTING | MANUFACTURER MODEL | NOTES | |
| | | | | HP | AMPS | VOLTAGE | | | | |
| EF-1 | 70 | 0.15 | GENERAL | 0.04 | 0.3 | 120 | 1 | ROOF | LOREN COOK ROOF EXHAUST FAN MODEL 70C100H | 1 & 5 |
| EF-2 | 3,400 | 0.20 | INDUSTRIAL | 1.25 | 11.0 | 208 | 1 | ROOF | LOREN COOK ROOF INDUSTRIAL EF MODEL 225 VCRD-XP | 2, 3, & 5 |
| EF-3 | 180 | 0.15 | GENERAL | 0.06 | 0.4 | 120 | 1 | CEILING | LOREN COOK CEILING EXHAUST FAN MODEL GC-148 | 1 & 5 |
| KEF-1 | 1,010 | 0.73 | TYPE I | 0.5 | 6.3 | 115 | 1 | ROOF | ECON-AIR ROOF KITCHEN EF MODEL EADU50H | 4 & 5 |
| KEF-2 | 1,010 | 0.73 | TYPE I | 0.5 | 6.3 | 115 | 1 | ROOF | ECON-AIR ROOF KITCHEN EF MODEL EADU50H | 4 & 5 |
| KEF-3 | 1,050 | 0.60 | TYPE I | 0.5 | 6.3 | 115 | 1 | ROOF | ECON-AIR ROOF KITCHEN EF MODEL EADU50H | 4 & 5 |

1. EXHAUST FAN EF-1 & EF-3 SHALL ENERGIZE WITH THE LIGHT SWITCH.
2. EXHAUST FAN EF-2 TO ENERGIZE WITH THE ASSOCIATED HVAC UNIT, DOAS-1.
3. EXHAUST FAN EF-3 SHALL BE INSTALLED ON THE EXISTING FAN ROOF CURB.
4. KITCHEN EXHAUST FANS KEF-1, KEF-2, & KEF-3 SHALL BE INSTALLED ON 18" TALL HINGED ROOF CURB.
5. SEE MANUFACTURER'S MANUALS FOR INSTALL AND MOUNTING REQUIREMENTS.

| KITCHEN EXHAUST HOOD SCHEDULE | | | | | | | | | | | | | |
|-------------------------------|-------------|--------------|----------------|-----------------------|---------------------|------------------------|------------------------|------------|-------------|--------|---------------|-------------------------------|-------|
| PLAN MARK | HOOD LENGTH | EXHAUST TYPE | APPLIANCE DUTY | DESIGN EXHAUST CFM/FT | TOTAL EXHAUST (CFM) | EXHAUST CONNECTION (Ø) | TOTAL MAKEUP AIR (CFM) | DIMENSIONS | | | WEIGHT (LBS.) | MANUFACTURER MODEL | NOTES |
| | | | | | | | | LENGTH | WIDTH | HEIGHT | | | |
| H-1 | 12'-3" | TYPE I | HEAVY | 165 | 2,020 | 10" (QTY. 2) | 1,805 | 12'-3" | 5'-6" + 14" | 2'-0" | 1,125 | CAPTIVEAIRE 6624 EX-2-PSP-F | ALL |
| H-2 | 7'-6" | TYPE I | HEAVY | 140 | 1,050 | 10" (QTY. 1) | 915 | 7'-6" | 5'-6" + 12" | 2'-0" | 783 | CAPTIVEAIRE 6624 EX-2-PSP-F | ALL |
| EX. HOOD PLENUM | 11'-0" | N/A | N/A | N/A | N/A | N/A | 1,800</ | | | | | | |

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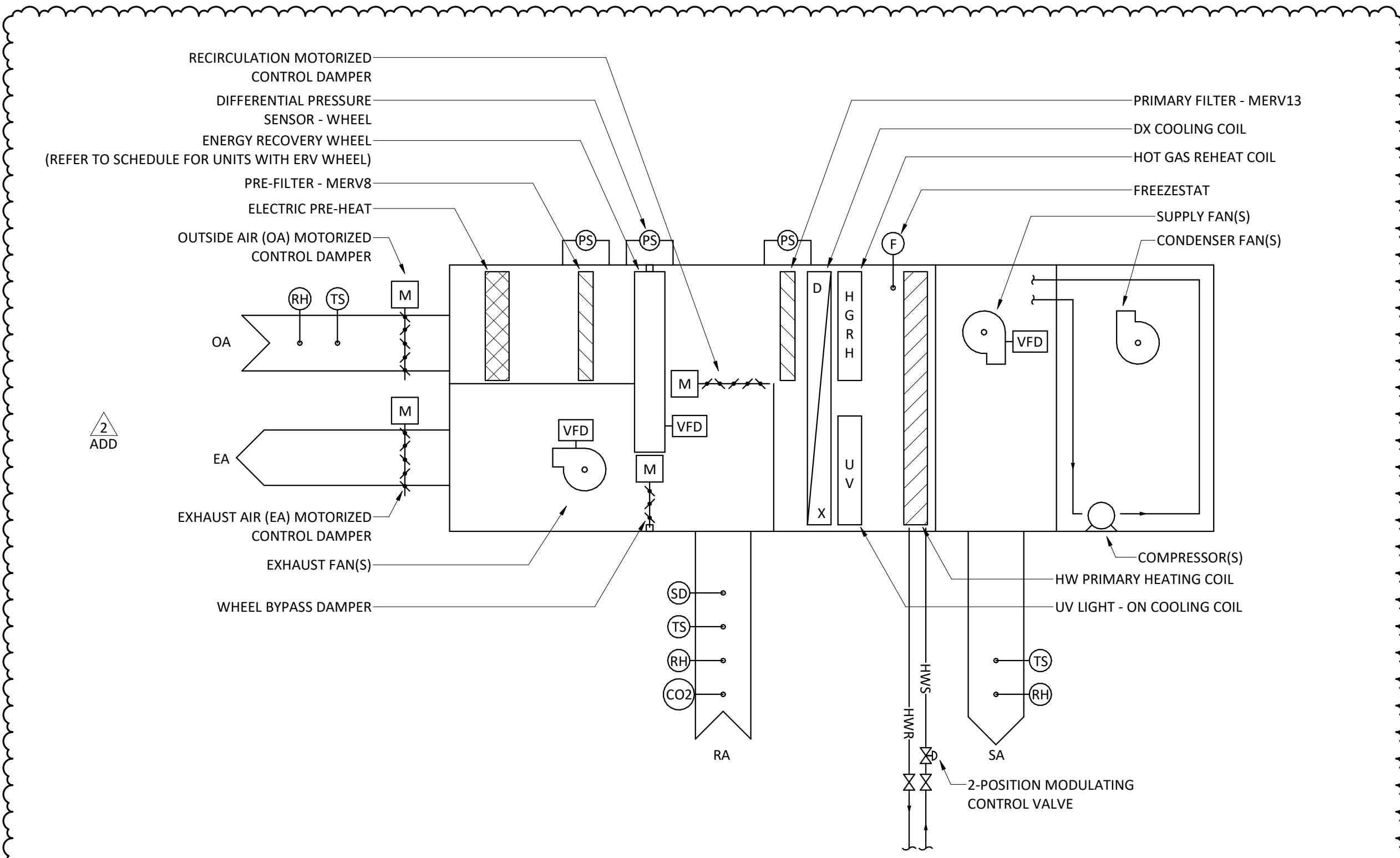
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HVAC CONTROLS

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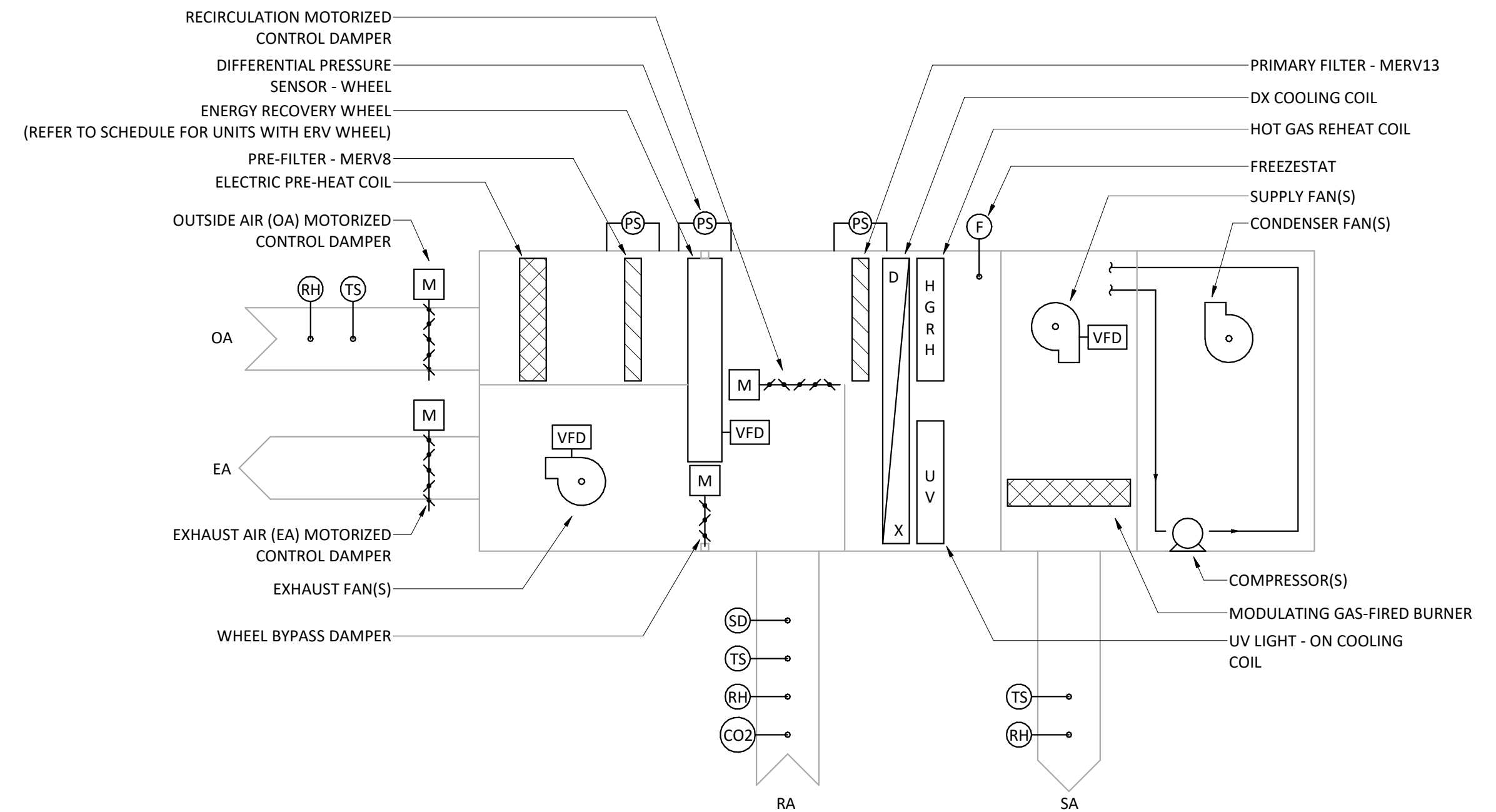
DEDICATED OUTSIDE AIR SYSTEM (DOAS) CONTROL DIAGRAM

NOT TO SCALE

DEDICATED OUTSIDE AIR SYSTEM (DOAS) CONTROL SEQUENCE

THE DEDICATED OUTSIDE AIR SYSTEM CONSISTS OF SUPPLY FAN(S), EXHAUST FAN(S), OUTSIDE AIR AND EXHAUST AIR MOTORIZED CONTROL DAMPERS, ELECTRIC PRE-HEAT COIL, ENERGY RECOVER WHEEL, HOT WATER PRIMARY HEATING COIL, DIRECT EXPANSION (DX) COOLING COIL, UV LIGHT AND HOT GAS REHEAT (DEHUMIDIFICATION) COIL.

1. RUN CONTROL
 - A. WHEN THE SYSTEM IS INDEXED TO THE "AUTO" POSITION BY THE BUILDING AUTOMATION SYSTEM (BAS), THE SUPPLY FAN AND EXHAUST FAN SHALL START SIMULTANEOUSLY AND RUN CONTINUOUSLY. WHEN THE H.O.A. SELECTION IS INDEXED TO THE "OFF" POSITION, THE SUPPLY FAN AND THE EXHAUST FAN SHALL DE-ENERGIZE, THE OUTDOOR AIR CONTROL DAMPER SHALL FULLY CLOSE, THE RECIRCULATING CONTROL DAMPER SHALL FULLY OPEN. UPON INITIATION OF THE START SIGNAL FOR THE SYSTEM, THE RECIRCULATING CONTROL DAMPER SHALL START IN THE OPEN POSITION AND THE OUTSIDE AIR CONTROL DAMPER SHALL START IN THE CLOSED POSITION. THE DOAS UNIT SHALL NOT ENERGIZE UNTIL EITHER DAMPERS ARE PROVEN OPEN.
 - B. EXHAUST FAN SYSTEM SHALL BE CONTROLLED BY DEMAND CONTROL VENTILATION (DCV) AS MEASURED BY THE CO2 SENSOR IN THE RETURN AIR DUCT. THE OUTSIDE AIR CONTROL DAMPER AND EXHAUST FAN SHALL MODULATE TO MAINTAIN CO2 SET POINT OF 800 PPM (ADJ).
2. HEATING MODE SEQUENCE:
 - A. DURING THE OCCUPIED HEATING MODE, THE SUPPLY AIR DISCHARGE AIR TEMPERATURE (DAT) SHALL BE ROOM NEUTRAL. THE 2-WAY CONTROL VALVE SHALL MODULATE OPEN/CLOSE TO MAINTAIN A RETURN TEMPERATURE SET POINT OF 70F (ADJ).
 - B. LOW TEMPERATURE EMERGENCY - IF THE RETURN AIR TEMPERATURE SENSOR FALLS BELOW 60F (ADJ) EXCEEDING 2 MINUTES, THE SYSTEM SHALL AUTOMATICALLY GO INTO BUILDING LOW TEMPERATURE EMERGENCY MODE. IF THE RETURN AIR TEMPERATURE SENSOR READING FALLS BELOW 55F (ADJ) FOR MORE THAN 1 MINUTE, THE SYSTEM SHALL DE-ENERGIZE.
 - C. PROVIDE A FREEZE STAT THAT DE-ENERGIZES THE UNIT IF DAT FALLS BELOW 50F (ADJ).
 - D. BUILDING LOW TEMPERATURE EMERGENCY - DURING BUILDING LOW TEMPERATURE EMERGENCY MODE (OUTSIDE AMBIENT AIR BELOW -20F (ADJ)), THE DCV SYSTEM SHALL BE DISABLED. THE DOAS UNIT SHALL ENTER INTO RECIRCULATING MODE BY CLOSING THE OUTSIDE AIR CONTROL DAMPER, DE-ENERGIZING THE EXHAUST FAN AND OPENING THE RECIRCULATING CONTROL DAMPER. DURING THE BUILDING LOW TEMPERATURE EMERGENCY MODE, THE DOAS UNIT SHALL MODULATE THE PRIMARY HOT WATER COIL 2-WAY CONTROL VALVE TO MAINTAIN 68F (ADJ) RETURN AIR TEMPERATURE SET POINT. ONCE THE EMERGENCY HAS BEEN CLEARED (OUTSIDE AMBIENT TEMPERATURE GREATER THAN -5F (ADJ)) THE DOAS UNIT SHALL RETURN TO NORMAL OPERATION. THE SYSTEM SHALL UTILIZE ELECTRIC PRE-HEAT WHENEVER THE OUTSIDE AIR TEMPERATURE IS BELOW THE LOW SET POINT OF THE TEMPERATURE SENSOR LOCATED IN THE OUTSIDE AIR INTAKE. ACTUAL SET POINT SHALL BE DETERMINED DURING SYSTEM CHECKOUT.
 - E. DURING THE UNOCCUPIED MODE, THE SUPPLY FAN AND EXHAUST FAN SHALL BE DE-ENERGIZED, THE RECIRCULATING CONTROL DAMPER SHALL OPEN AND THE OUTSIDE AIR DAMPER SHALL CLOSE. FOR 15 MINUTES OUT OF EVERY HOUR, THE SUPPLY FAN SHALL RUN TO CIRCULATE AIR THROUGH THE FILTERS.
3. HEATING MODE MORNING WARM-UP AND DAILY AIR FLUSH
 - A. FOR 2 HOURS PRIOR TO THE BUILDING BEING OCCUPIED EACH DAY, THE SYSTEM SHALL OPERATE AS A ONCE-THROUGH SYSTEM TO PROVIDE A DAILY AIR FLUSH. DURING THIS PERIOD, THE RETURN AIR TEMPERATURE SET POINT SHALL BE SET TO 75F (ADJ). OCCUPANCY SCHEDULE SHALL BE DETERMINED BY DISTRICT STAFF.
4. COOLING MODE
 - A. DURING THE OCCUPIED COOLING MODE, THE DX COOLING COIL SHALL MODULATE TO MAINTAIN A RETURN AIR TEMPERATURE OF 70F (ADJ), THE HOT GAS REHEAT COIL SHALL MODULATE TO MAINTAIN A RETURN AIR RELATIVE HUMIDITY OF 50%RH (ADJ).
 - B. ECONOMIZER MODE - SYSTEM SHALL INDEX TO ECONOMIZER MODE WHEN OUTDOOR AMBIENT AIR TEMPERATURE IS BETWEEN 45F AND 60F (ADJ), AND CLOSE THE RETURN AIR DAMPER. MECHANICAL COOLING AND REHEAT SHALL BE PROVIDED FOR DE-HUMIDIFICATION ONLY AND SHALL BE CONTROLLED BY THE RETURN AIR TEMPERATURE SENSOR. THE ECONOMIZER CYCLE SHALL RUN UNTIL THE HUMIDITY IN THE RETURN DUCT FALLS OUTSIDE OF SET POINT +/- 2%RH (ADJ) OR THE TEMPERATURE FALLS OUTSIDE OF SET POINT +/- 2F (ADJ).
 - C. DURING THE UNOCCUPIED MODE, THE DX COOLING COIL SHALL BE DE-ENERGIZED, THE OUTSIDE AIR CONTROL DAMPER SHALL CLOSE, AND THE RECIRCULATING CONTROL DAMPER SHALL OPEN. FOR 15 MINUTES OUT OF EVERY HOUR, THE SUPPLY FAN SHALL RUN TO CIRCULATE AIR THROUGH THE FILTERS.
 - D. COOLING MODE DAILY AIR FLUSH - FOR 2 HOURS PRIOR TO THE BUILDING BEING OCCUPIED EACH DAY, THE SYSTEM SHALL OPERATE AS A ONCE-THROUGH SYSTEM TO PROVIDE A DAILY AIR FLUSH. DURING THIS PERIOD, THE RETURN AIR TEMPERATURE SET POINT SHALL BE SET TO 75F (ADJ) AND THE RETURN AIR RELATIVE HUMIDITY SET TO 50%RH (ADJ).
 - E. HIGH BUILDING TEMPERATURE EMERGENCY MODE - IF THE RETURN TEMPERATURE RISES ABOVE 80F (ADJ), THE UNIT SHALL CLOSE THE OUTSIDE AIR CONTROL DAMPER AND OPEN THE RECIRCULATING CONTROL DAMPER AND SEND AN ALARM TO THE BAS.
5. SMOKE CONTROL MODE
 - A. IF SMOKE IS DETECTED IN THE RETURN AIR DUCT, THE UNIT SHALL DE-ENERGIZE AND SEND A SIGNAL TO THE FIRE ALARM PANEL.
 - B. PROVIDE A MANUAL OVERRIDE FOR SMOKE CONTROL MODE THAT CLOSSES THE RECIRCULATING CONTROL DAMPER AND OPENS THE OUTSIDE AIR CONTROL DAMPER TO PUT THE UNIT IN ONCE-THROUGH OPERATION.
6. HIGH RELATIVE HUMIDITY MODE (GREATER THAN 80% RH(ADJ)) - THE UNIT SHALL ENTER RECIRCULATION MODE, WITH OUTSIDE AIR CONTROL DAMPER CLOSED AND RECIRCULATING CONTROL DAMPER OPEN, EXHAUST FAN DE-ENERGIZED, AND SUPPLY FAN ENERGIZED.
7. INFECTIOUS DISEASE CONTROL MODE - ENABLED/DISABLED THROUGH THE BAS.
 - A. WHEN THIS CONTROL MODE IS ENABLED, THE UNIT SHALL OPEN THE OUTSIDE AIR CONTROL DAMPER, CLOSE THE RECIRCULATING CONTROL DAMPER.
 - B. DURING THE INFECTIOUS DISEASE CONTROL MODE, THE DCV SHALL BE DISABLED, AND THE UNIT SHALL MAXIMIZE VENTILATION AIR WHERE PERMISSIBLE. REFER TO THE CONTROL HIERARCHY BELOW.
8. CONTROL HIERARCHY (HIGHEST PRIORITY TO LOWEST PRIORITY)
 - A. SMOKE CONTROL MODE
 - B. FREEZE-STAT
 - C. SYSTEM LOW TEMPERATURE EMERGENCY MODE
 - D. BUILDING LOW TEMPERATURE EMERGENCY MODE
 - E. HIGH RELATIVE HUMIDITY MODE
 - F. INFECTIOUS DISEASE CONTROL MODE
 - G. DEMAND CONTROL VENTILATION
 - H. NORMAL OPERATION
9. ALL SET POINTS SHALL BE ADJUSTABLE.



DEDICATED OUTSIDE AIR SYSTEM (DOAS) CONTROL DIAGRAM

NOT TO SCALE

DEDICATED OUTSIDE AIR SYSTEM (DOAS) CONTROL SEQUENCE

THE DEDICATED OUTSIDE AIR SYSTEM CONSISTS OF SUPPLY FAN(S), EXHAUST FAN(S), OUTSIDE AIR AND EXHAUST AIR MOTORIZED CONTROL DAMPERS, ELECTRIC PRE-HEAT COIL, ENERGY RECOVER WHEEL, MODULATING INDIRECT FIRED GAS-FIRED BURNER, DIRECT EXPANSION (DX) COOLING COIL, UV LIGHT AND HOT GAS REHEAT (DEHUMIDIFICATION) COIL.

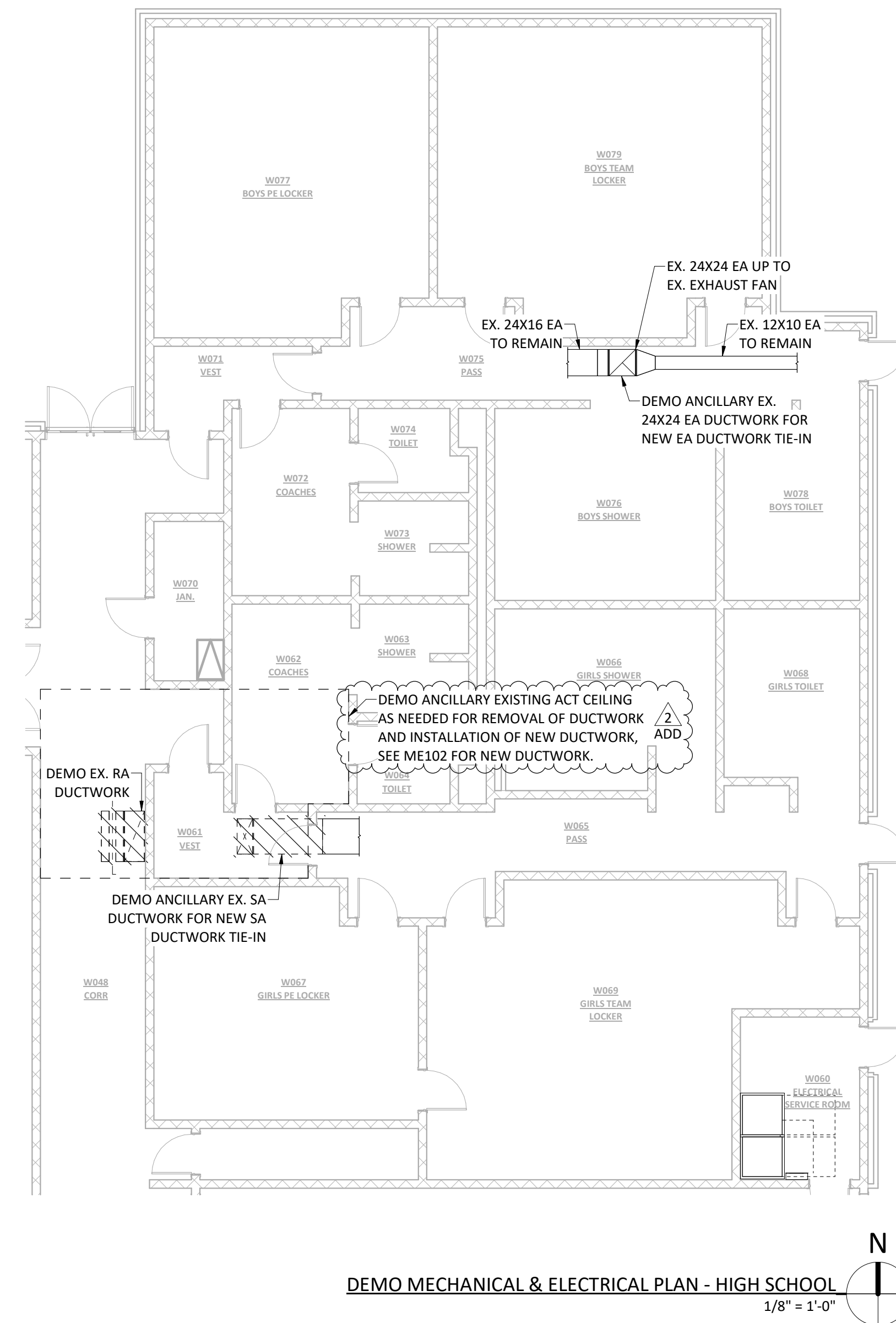
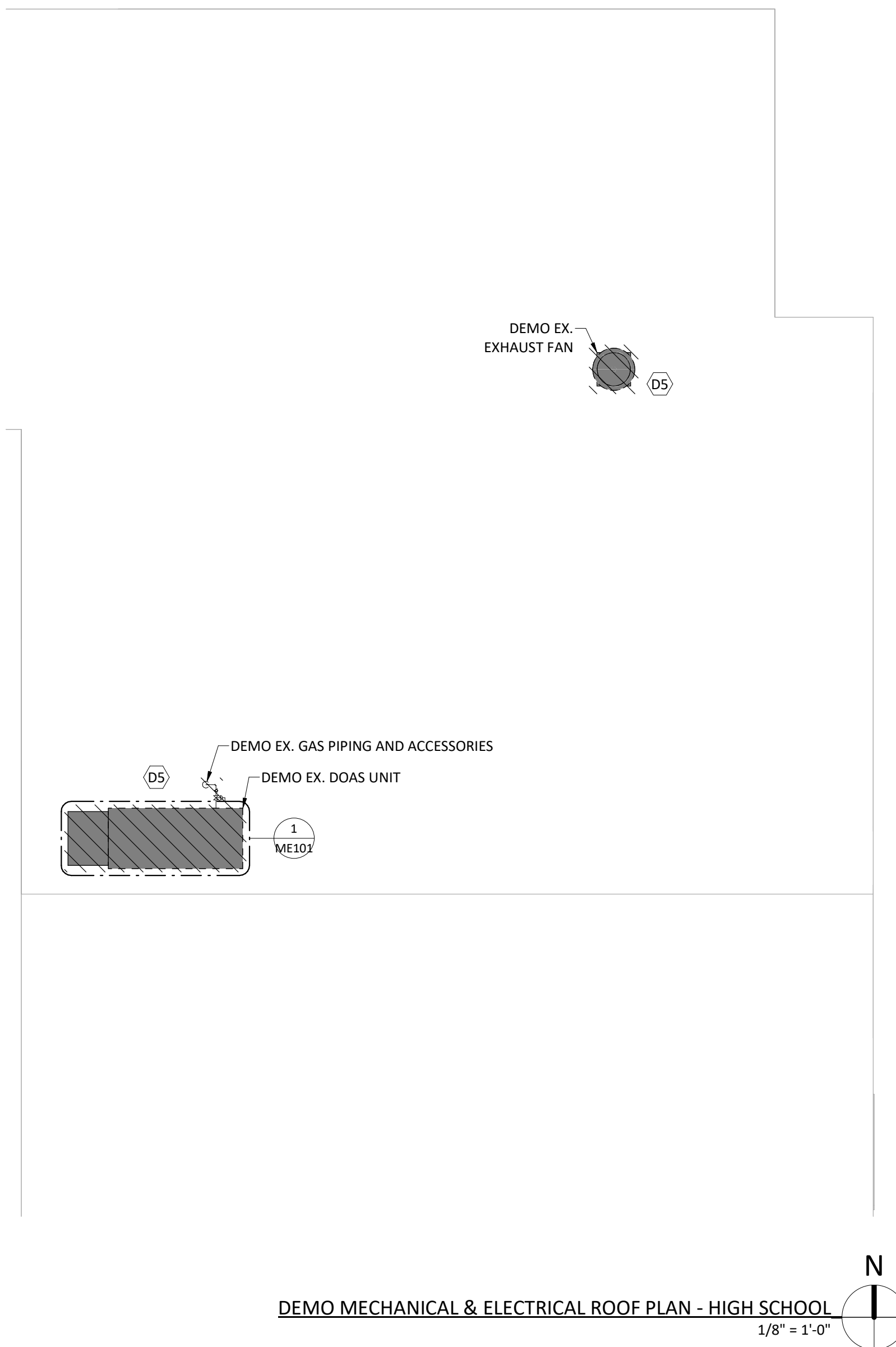
1. RUN CONTROL
 - A. WHEN THE SYSTEM IS INDEXED TO THE "AUTO" POSITION BY THE BUILDING AUTOMATION SYSTEM (BAS), THE SUPPLY FAN AND EXHAUST FAN SHALL START SIMULTANEOUSLY AND RUN CONTINUOUSLY. WHEN THE H.O.A. SELECTION IS INDEXED TO THE "OFF" POSITION, THE SUPPLY FAN AND THE EXHAUST FAN SHALL DE-ENERGIZE, THE OUTDOOR AIR CONTROL DAMPER SHALL FULLY CLOSE, THE RECIRCULATING CONTROL DAMPER SHALL FULLY OPEN. UPON INITIATION OF THE START SIGNAL FOR THE SYSTEM, THE RECIRCULATING CONTROL DAMPER SHALL START IN THE OPEN POSITION AND THE OUTSIDE AIR CONTROL DAMPER SHALL START IN THE CLOSED POSITION. THE DOAS UNIT SHALL NOT ENERGIZE UNTIL EITHER DAMPERS ARE PROVEN OPEN.
 - B. EXHAUST FAN SYSTEM SHALL BE CONTROLLED BY DEMAND CONTROL VENTILATION (DCV) AS MEASURED BY THE CO2 SENSOR IN THE RETURN AIR DUCT. THE OUTSIDE AIR CONTROL DAMPER AND EXHAUST FAN SHALL MODULATE TO MAINTAIN CO2 SET POINT OF 800 PPM (ADJ).
2. HEATING MODE SEQUENCE:
 - A. DURING THE OCCUPIED HEATING MODE, THE SUPPLY AIR DISCHARGE AIR TEMPERATURE (DAT) SHALL BE ROOM NEUTRAL. THE INDIRECT FIRED GAS-FIRED BURNER SHALL MODULATE TO MAINTAIN A RETURN TEMPERATURE SET POINT OF 70F (ADJ).
 - B. LOW TEMPERATURE EMERGENCY - IF THE RETURN AIR TEMPERATURE SENSOR FALLS BELOW 60F (ADJ) EXCEEDING 2 MINUTES, THE SYSTEM SHALL AUTOMATICALLY GO INTO BUILDING LOW TEMPERATURE EMERGENCY MODE. IF THE RETURN AIR TEMPERATURE SENSOR READING FALLS BELOW 55F (ADJ) FOR MORE THAN 1 MINUTE, THE SYSTEM SHALL DE-ENERGIZE.
 - C. PROVIDE A FREEZE STAT THAT DE-ENERGIZES THE UNIT IF DAT FALLS BELOW 50F (ADJ).
 - D. BUILDING LOW TEMPERATURE EMERGENCY - DURING BUILDING LOW TEMPERATURE EMERGENCY MODE (OUTSIDE AMBIENT AIR BELOW -20F (ADJ)), THE DCV SYSTEM SHALL BE DISABLED. THE DOAS UNIT SHALL ENTER INTO RECIRCULATING MODE BY CLOSING THE OUTSIDE AIR CONTROL DAMPER, DE-ENERGIZING THE EXHAUST FAN AND OPENING THE RECIRCULATING CONTROL DAMPER. DURING THE BUILDING LOW TEMPERATURE EMERGENCY MODE, THE DOAS UNIT SHALL MODULATE THE GAS BURNER TO MAINTAIN 68F (ADJ) RETURN AIR TEMPERATURE SET POINT. ONCE THE EMERGENCY HAS BEEN CLEARED (OUTSIDE AMBIENT TEMPERATURE GREATER THAN -5F (ADJ)) THE DOAS UNIT SHALL RETURN TO NORMAL OPERATION.
 - E. THE SYSTEM SHALL UTILIZE ELECTRIC PRE-HEAT WHENEVER THE OUTSIDE AIR TEMPERATURE IS BELOW THE LOW SET POINT OF THE TEMPERATURE SENSOR LOCATED IN THE OUTSIDE AIR INTAKE. ACTUAL SET POINT SHALL BE DETERMINED DURING SYSTEM CHECKOUT.
 - F. DURING THE UNOCCUPIED MODE, THE SUPPLY FAN AND EXHAUST FAN SHALL BE DE-ENERGIZED, THE RECIRCULATING CONTROL DAMPER SHALL OPEN AND THE OUTSIDE AIR DAMPER SHALL CLOSE. FOR 15 MINUTES OUT OF EVERY HOUR, THE SUPPLY FAN SHALL RUN TO CIRCULATE AIR THROUGH THE FILTERS.
3. HEATING MODE MORNING WARM-UP AND DAILY AIR FLUSH
 - A. FOR 2 HOURS PRIOR TO THE BUILDING BEING OCCUPIED EACH DAY, THE SYSTEM SHALL OPERATE AS A ONCE-THROUGH SYSTEM TO PROVIDE A DAILY AIR FLUSH. DURING THIS PERIOD, THE RETURN AIR TEMPERATURE SET POINT SHALL BE SET TO 75F (ADJ). OCCUPANCY SCHEDULE SHALL BE DETERMINED BY DISTRICT STAFF.
4. COOLING MODE
 - A. DURING THE OCCUPIED COOLING MODE, THE DX COOLING COIL SHALL MODULATE TO MAINTAIN A RETURN AIR TEMPERATURE OF 70F (ADJ), THE HOT GAS REHEAT COIL SHALL MODULATE TO MAINTAIN A RETURN AIR RELATIVE HUMIDITY OF 50%RH (ADJ).
 - B. ECONOMIZER MODE - SYSTEM SHALL INDEX TO ECONOMIZER MODE WHEN OUTDOOR AMBIENT AIR TEMPERATURE IS BETWEEN 45F AND 60F (ADJ), AND CLOSE THE RETURN AIR DAMPER. MECHANICAL COOLING AND REHEAT SHALL BE PROVIDED FOR DE-HUMIDIFICATION ONLY AND SHALL BE CONTROLLED BY THE RETURN AIR TEMPERATURE SENSOR. THE ECONOMIZER CYCLE SHALL RUN UNTIL THE HUMIDITY IN THE RETURN DUCT FALLS OUTSIDE OF SET POINT +/- 2%RH (ADJ) OR THE TEMPERATURE FALLS OUTSIDE OF SET POINT +/- 2F (ADJ).
 - C. DURING THE UNOCCUPIED MODE, THE DX COOLING COIL SHALL BE DE-ENERGIZED, THE OUTSIDE AIR CONTROL DAMPER SHALL CLOSE, AND THE RECIRCULATING CONTROL DAMPER SHALL OPEN. FOR 15 MINUTES OUT OF EVERY HOUR, THE SUPPLY FAN SHALL RUN TO CIRCULATE AIR THROUGH THE FILTERS.
 - D. COOLING MODE DAILY AIR FLUSH - FOR 2 HOURS PRIOR TO THE BUILDING BEING OCCUPIED EACH DAY, THE SYSTEM SHALL OPERATE AS A ONCE-THROUGH SYSTEM TO PROVIDE A DAILY AIR FLUSH. DURING THIS PERIOD, THE RETURN AIR TEMPERATURE SET POINT SHALL BE SET TO 75F (ADJ) AND THE RETURN AIR RELATIVE HUMIDITY SET TO 50%RH (ADJ).
 - E. HIGH BUILDING TEMPERATURE EMERGENCY MODE - IF THE RETURN TEMPERATURE RISES ABOVE 80F (ADJ), THE UNIT SHALL CLOSE THE OUTSIDE AIR CONTROL DAMPER AND OPEN THE RECIRCULATING CONTROL DAMPER AND SEND AN ALARM TO THE BAS.
5. SMOKE CONTROL MODE
 - A. IF SMOKE IS DETECTED IN THE RETURN AIR DUCT, THE UNIT SHALL DE-ENERGIZE AND SEND A SIGNAL TO THE FIRE ALARM PANEL.
 - B. PROVIDE A MANUAL OVERRIDE FOR SMOKE CONTROL MODE THAT CLOSSES THE RECIRCULATING CONTROL DAMPER AND OPENS THE OUTSIDE AIR CONTROL DAMPER TO PUT THE UNIT IN ONCE-THROUGH OPERATION.
6. HIGH RELATIVE HUMIDITY MODE (GREATER THAN 80% RH(ADJ)) - THE UNIT SHALL ENTER RECIRCULATION MODE, WITH OUTSIDE AIR CONTROL DAMPER CLOSED AND RECIRCULATING CONTROL DAMPER OPEN, EXHAUST FAN DE-ENERGIZED, AND SUPPLY FAN ENERGIZED.
7. INFECTIOUS DISEASE CONTROL MODE - ENABLED/DISABLED THROUGH THE BAS.
 - A. WHEN THIS CONTROL MODE IS ENABLED, THE UNIT SHALL OPEN THE OUTSIDE AIR CONTROL DAMPER, CLOSE THE RECIRCULATING CONTROL DAMPER.
 - B. DURING THE INFECTIOUS DISEASE CONTROL MODE, THE DCV SHALL BE DISABLED, AND THE UNIT SHALL MAXIMIZE VENTILATION AIR WHERE PERMISSIBLE. REFER TO THE CONTROL HIERARCHY BELOW.
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 - F. INFECTIOUS DISEASE CONTROL MODE
 - G. DEMAND CONTROL VENTILATION
 - H. NORMAL OPERATION
9. ALL SET POINTS SHALL BE ADJUSTABLE.

ADD

ADD



EX. MAKEUP AIR UNIT
NTS ME101



GENERAL DEMO NOTES:

- VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
- EQUIPMENT SPECIFIED TO BE DEMOLISHED SHALL HAVE THE EQUIPMENT'S ASSOCIATED COMPONENTS REMOVED AND TERMINATED BACK TO THE RESPECTIVE SOURCE WITHOUT DISRUPTING EXISTING SYSTEMS SPECIFIED TO REMAIN. ASSOCIATED EQUIPMENT COMPONENTS TO BE DEMOLISHED INCLUDE BUT ARE NOT LIMITED TO:
 - DUCTWORK (SA/RA/EA/OA)
 - HOT WATER SUPPLY AND RETURN PIPING, FITTINGS, AND ACCESSORIES BACK TO HW PIPING HEADERS
 - ELECTRICAL COMPONENTS
 - THERMOSTAT AND CONTROLS
- ALL PENETRATIONS FOR DUCTWORK, PIPING, ELECTRICAL AND OTHER UTILITIES SPECIFIED TO BE DEMOLISHED SHALL BE PATCHED AND PAINTED TO MATCH EXISTING CONDITIONS.
- ALL EXISTING DUCTWORK AND ASSOCIATED DIFFUSERS, REGISTERS, AND GRILLES BEING REUSED SHALL BE INSPECTED AND CLEANED.

ELECTRICAL DEMO NOTES:

- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE PREMISES AND VERIFYING ALL EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL COORDINATE AND ADJUST THE WORK AS REQUIRED TO ENSURE PROPER OPERATION OF ALL INSTALLED EQUIPMENT AND SHALL COORDINATE WITH ALL OTHER TRADES.
- REMOVE ALL EXISTING WIRING DEVICES, WIRING, CONDUIT, AND RELATED MATERIALS AS NOTED OR INDICATED WITHIN DEMOLITION AREAS. NOT ALL ITEMS MAY BE SHOWN. MODIFY AND REWORK EXISTING CIRCUITRY AS REQUIRED TO MAINTAIN CONTINUITY THROUGH AFFECTED AREAS.
- REMOVED OR DAMAGED CONDUIT, WIRING, AND FITTINGS SHALL NOT BE REUSED OR RELOCATED FOR NEW INSTALLATIONS.
- PROVIDE COMPLETE AS-BUILT DRAWINGS AND NEW TYPED PANELBOARD DIRECTORIES IDENTIFYING CIRCUIT NUMBERS AND DESCRIPTIONS.
- WORK INCLUDED FOR EXISTING EQUIPMENT NOTED TO BE REMOVED SHALL INCLUDE:
 - SALVAGING OR DISPOSING OF ALL EQUIPMENT AS DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
 - REMOVAL OF FEEDER FROM EQUIPMENT TO POINT OF FEED.
 - REMOVAL OR RE-CIRCUITING OF ALL BRANCH CIRCUITING AS NOTED ON PLANS.
 - REMOVAL OF ALL FITTINGS, SUPPORTS, BRACKETS, ETC.
 - PATCHING OF WALLS, FLOORS AND CEILINGS.
 - REMOVAL OF FEEDER CONDUIT IF FOUND TO BE UNSALVAGEABLE BY ENGINEER OR OWNER'S REPRESENTATIVE.
- EXISTING EQUIPMENT NOT SHOWN ON DRAWINGS IS INTENDED TO REMAIN UNLESS OTHERWISE NOTED.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING AND REMOVING ALL ELECTRICAL CONNECTIONS AND EQUIPMENT REQUIRED FOR THE INSTALLATION OF NEW EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO CONFIRM AND AGREE UPON THIS SCOPE OF WORK PRIOR TO BID SUBMISSION.

ELECTRICAL DEMO KEYED NOTES

(D5) MECHANICAL EQUIPMENT TO BE DEMOED (DIV 15). DIV 16 TO REMOVE ALL ASSOCIATED WIRING, CONDUIT, BOXES AND DISCONNECTS BACK TO SOURCE. IF UNIT IS BEING REPLACED, AND EXISTING CONDUIT IS IN GOOD CONDITION AND SIZED APPROPRIATELY, EXISTING CONDUIT MAY BE RE-USED FOR NEW CONDUCTORS TO PROPOSED EQUIPMENT.

ISSUED FOR

BIDDING

| DATE | DESCRIPTION | DATE |
|-------------|-------------|------------|
| 02/20/2026 | | |
| ADDENDUM 01 | | 03-02-2026 |
| ADDENDUM 02 | | 03-06-2026 |

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| DRAWN BY | JJR |
| CHECKED BY | JCL |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

DEMO MECHANICAL & ELECTRICAL PLANS - HIGH SCHOOL

NOT FOR CONSTRUCTION

GENERAL MECHANICAL NOTES:

1. VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.
2. COORDINATE ALL DUCTWORK AND PIPE ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCE SPACE.
3. MAINTAIN SERVICE CLEARANCE REQUIREMENTS AROUND ALL MECHANICAL EQUIPMENT AND ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING OR DUCTWORK IN CLEARANCE SPACE.
4. M.C. SHALL COORDINATE ANY AREA WHERE ACCESS TO EQUIPMENT OR HVAC COMPONENTS ARE REQUIRED TO ALLOW ACCESS FOR MAINTENANCE, OR INSPECTION WITH G.C.
5. ALL EXISTING DUCTWORK AND ASSOCIATED DIFFUSERS, REGISTERS, AND GRILLES BEING REUSED SHALL BE INSPECTED AND CLEANED.

| MOTOR AND EQUIPMENT SCHEDULE | | | | | | | | | | | | | | | |
|------------------------------|---|--------|---------|------------|--------------|---------|-------|------|------|------|--|-----------|-------------|-------|---------|
| EQUIP TAG | NOTES: EQUIPMENT TAGS NOTED AS ## & ## ARE WIRED TO SAME CIRCUIT. AMPACITY SHOWN IS TOTAL CIRCUIT AMPS. | | | | | | | | | | STARTER/DISCONNECT E-FURNISHED BY ELECTRICAL CONTRACTOR M-FURNISHED BY MECHANICAL CONTRACTOR | | | | |
| | DESCRIPTION | AMP | VOLTAGE | # OF POLES | WIRE SIZE | CONDUIT | PANEL | MCA | MOCP | DISC | SW AMPS | FUSE AMPS | NEMA RATING | NOTES | REMARKS |
| DOAS-7 | DEDICATED OUTSIDE AIR SYSTEM | 42.0 A | 480 V | 3 | 3-#6, 1-#10 | 1" | SB-HS | 48.7 | 60 A | M | | | | | |
| EF-4 | EXHAUST FAN | 3.0 A | 480 V | 3 | 3-#12, 1-#12 | 3/4" | H1 | 3.75 | 15 A | N/A | | | | | |

| EXHAUST FAN SCHEDULE | | | | | | | | | | | |
|----------------------|---------------|-----------------|--------------|------------|------|---------|---|----------|--|-------|--|
| PLAN MARK | AIRFLOW (CFM) | STATIC PRESSURE | EXHAUST TYPE | ELECTRICAL | | | | MOUNTING | MANUFACTURER MODEL | NOTES | |
| | | | | HP | AMPS | VOLTAGE | Ø | | | | |
| EF-4 | 3,080 | 0.9 | GENERAL | 1.5 | 1.5 | 460 | 3 | ROOF | LOREN COOK ROOF EXHAUST FAN MODEL 195 ACED | ALL | |

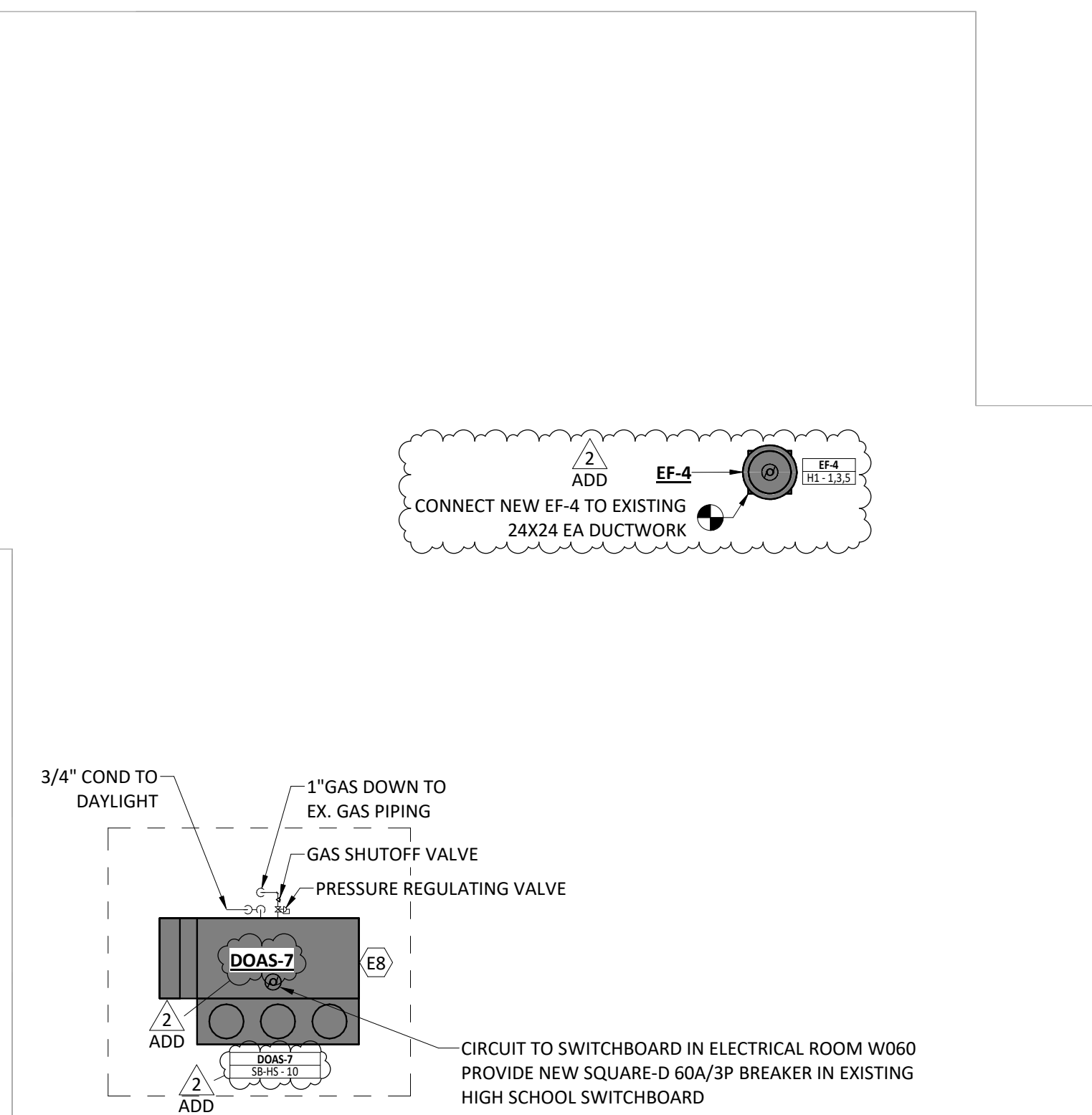
1. EXHAUST FAN EF-4 SHALL ENERGIZE WITH THE DOAS-7.
 2. EXHAUST FAN EF-4 TO ENERGIZE WITH THE ASSOCIATED HVAC UNIT, DOAS-7.
 3. EXHAUST FAN EF-4 SHALL BE INSTALLED ON THE EXISTING FAN ROOF CURB.
 4. SEE MANUFACTURER'S MANUALS FOR INSTALL AND MOUNTING REQUIREMENTS.

| DEDICATED OUTSIDE AIR SYSTEM (DOAS) SCHEDULE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|-----|------------|-------|----------------|-----|------------|-------|------------------|----------------|--------------|------------------------|----------------|----------|----------|-------------|-------------------|----------|---------------|------------------|-------------------------------|--------------|------------------|----------------|----------|-------------------------|--------------------|----------|-------------|-------------------|--------------------------|--------|------------|-----------------|---------------|--------------------------|------------------------|------|---------|---|
| PLAN MARK | SUPPLY FAN(S) | | | | EXHAUST FAN(S) | | | | COOLING CAPACITY | | | SUMMER ENERGY RECOVERY | | | | REFRIGERANT | ELECTRIC PRE-HEAT | | GAS HEATING | | WINTER DESIGN ENERGY RECOVERY | | | | LAT (°F) | HEAT EXCHANGER MATERIAL | FUEL - NATURAL GAS | | | DIMENSIONS (INCH) | | | ELECTRICAL | | WEIGHT (LBS.) | MANUFACTURER MODEL NO. | NOTES | | | |
| | DESIGN AIRFLOW | ESP | DRIVE TYPE | MOTOR | DESIGN AIRFLOW | ESP | DRIVE TYPE | MOTOR | TOTAL (MBH) | SENSIBLE (MBH) | LATENT (MBH) | OUTSIDE AIR (°F) | FRESH AIR (°F) | EAT (DB) | EAT (WB) | | LAT (DB) | LAT (WB) | CAPACITY (KW) | EAT / LAT (DB°f) | INPUT (MBH) | OUTPUT (MBH) | OUTSIDE AIR (°F) | FRESH AIR (°F) | | | LAT (DB) | LAT (WB) | AFUE | GAS SIZE (Ø) | MIN.-MAX. INLET PRESSURE | LENGTH | WIDTH | HEIGHT (NOTE 7) | | | | AMPS | VOLTAGE | Ø |
| | QTY | HP | QTY | HP | QTY | HP | QTY | HP | EAT (DB) | EAT (WB) | LAT (DB) | LAT (WB) | EAT (DB) | EAT (WB) | LAT (DB) | | LAT (WB) | EAT (DB) | EAT (WB) | LAT (DB) | LAT (WB) | EAT (DB) | EAT (WB) | LAT (DB) | | | LAT (WB) | Ø | Ø | Ø | Ø | Ø | Ø | Ø | | | | Ø | | |
| DOAS-7 | 3,140 | 1.4 | DWVD / VFD | 1 3.0 | 3,140 | 1.2 | DWVD / VFD | 1 2.0 | 203.7 | 108.7 | 95.0 | 95.0 | 78.0 | 80.7 | 69.5 | R-454B | 20 | -10 / 11 | 200 | 160 | 11 | 8 | 52 | 43 | 100 | STAINLESS STEEL | 81% | 1" | 7"-14" W.C. | 183 | 95 | 68 | 48.7 | 480 | 3 | 4,223 | TRANE HORIZON OADGD020 | ALL | | |

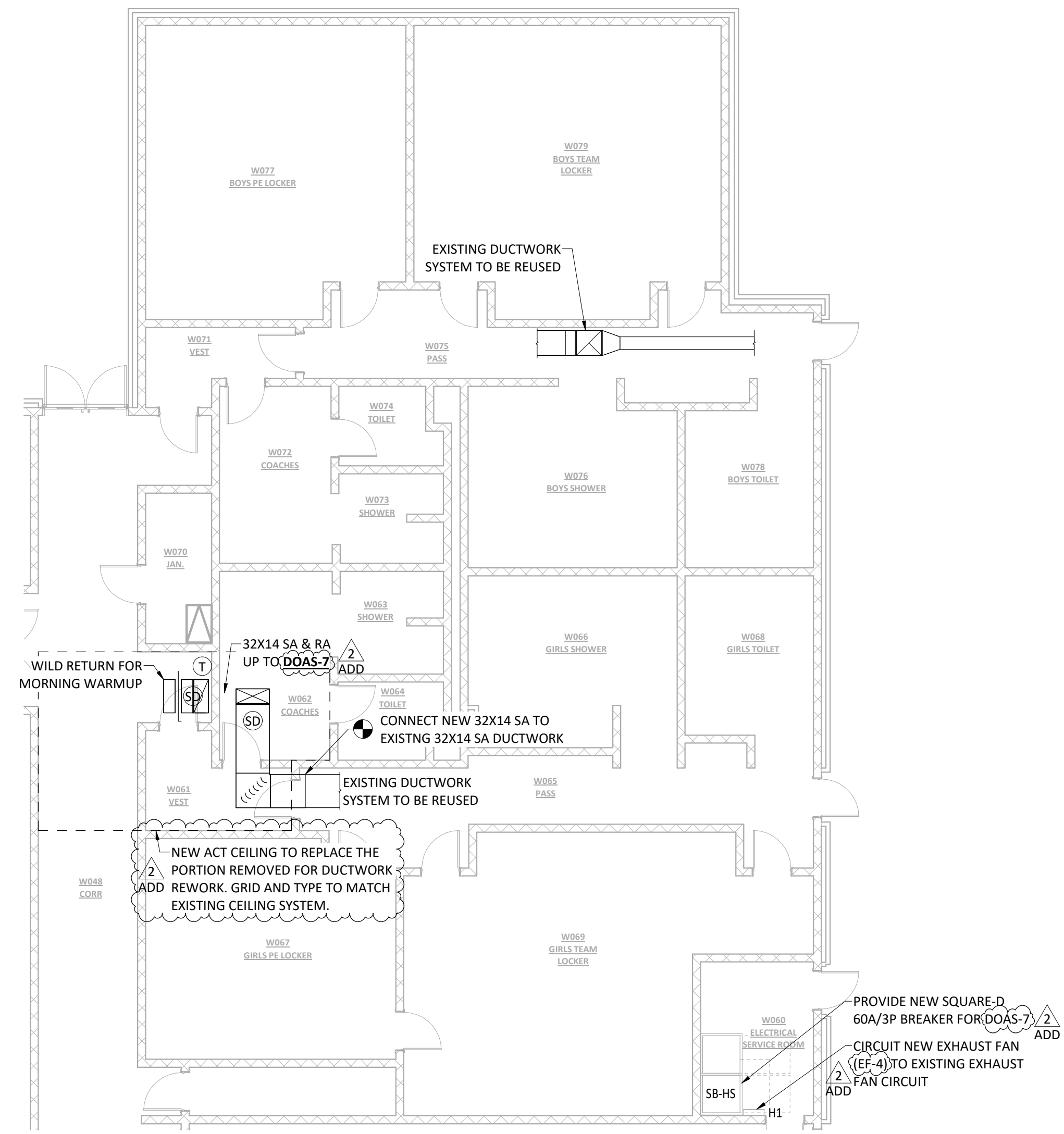
1. SUPPLY FAN AND EXHAUST FAN MOTORS SHALL BE DIRECT-DRIVE WITH FACTORY INSTALLED VARIABLE FREQUENCY DRIVES.
2. UNIT SHALL BE MULTI-ZONE VAV CONTROLS.
3. PROVIDE THE FOLLOWING MOTORIZED CONTROL DAMPERS: OUTSIDE AIR, EXHAUST AIR, AND RECIRCULATION AIRSTREAMS.
4. DIRECT EXPANSION (DX) COOLING COIL: SHALL BE TYPE 6-ROW.
5. PROVIDE UNIT WITH MODULATING HOT GAS REHEAT (HGRH) COIL DOWNSTREAM OF DX COOLING COIL TO PROVIDE DEHUMIDIFICATION.
6. PROVIDE UNIT WITH FACTORY MOUNTED AND WIRED UV LIGHTS BETWEEN EVAPORATOR COIL AND THE HGRH COIL.
7. PROVIDE 2-INCH MERV8 PRE-FILTER ON OUTSIDE AIRSTREAM.
8. PROVIDE 2-INCH MERV13 PRIMARY FILTER UPSTREAM OF DX COOLING COIL DOWNSTREAM OF THE RECIRCULATING MODULATING DAMPER.
9. COMPRESSORS SHALL BE DIGITAL-SCROLL, MINIMUM OF 2-CIRCUITS.
10. PRIMARY HEATING SECTION SHALL BE INDIRECT-FIRED GAS BURNER AND SHALL BE STAINLESS STEEL, INDUCED DRAFT COMBUSTION AND USE A DIRECT SPARK IGNITION SYSTEM.
11. SECONDARY HEATING SHALL BE STAGED ELECTRIC HEATING COIL IN THE OUTSIDE AIRSTREAM. CONTROL SHALL BE ON/OFF.
12. PROVIDE FACTORY MOUNT NON-FUSED DISCONNECT.
13. PROVIDE POWERED CONVENIENCE OUTLET.
14. PROVIDE UNITS WITH HAIL GUARDS ON THE CONDENSER COIL.
15. PROVIDE UNITS WITH ROOF CURB. CURB SHALL MAINTAIN MINIMUM 18" CLEAR ABOVE ROOF AND INSULATION FINISHED ELEVATION.

ELECTRICAL KEYED NOTES

ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE RETURN AND SUPPLY SIDE OF THE DOAS UNITS AND SUPPLY SIDE OF EACH MAU UNIT. CONNECT NEW DUCT SMOKE DETECTOR TO THE EXISTING FIRE ALARM CONTROL PANEL LOCATED IN ROOM W060 IN THE HIGH SCHOOL. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR TEST RESET SWITCH. CONTRACTOR TO INSTALL (1) DUCT SMOKE DETECTOR TEST RESET SWITCH PER DOAS/MAU UNIT. SEE DETAILS ON SHEETS E-503 AND E-504 FOR POWER, CONTROL AND FIRE ALARM WIRING.



MECHANICAL & ELECTRICAL ROOF PLAN - HIGH SCHOOL
1/8" = 1'-0"



MECHANICAL & ELECTRICAL PLAN - HIGH SCHOOL
1/8" = 1'-0"

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| DESCRIPTION | DATE |
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| ADDENDUM 02 | 03-06-2026 |

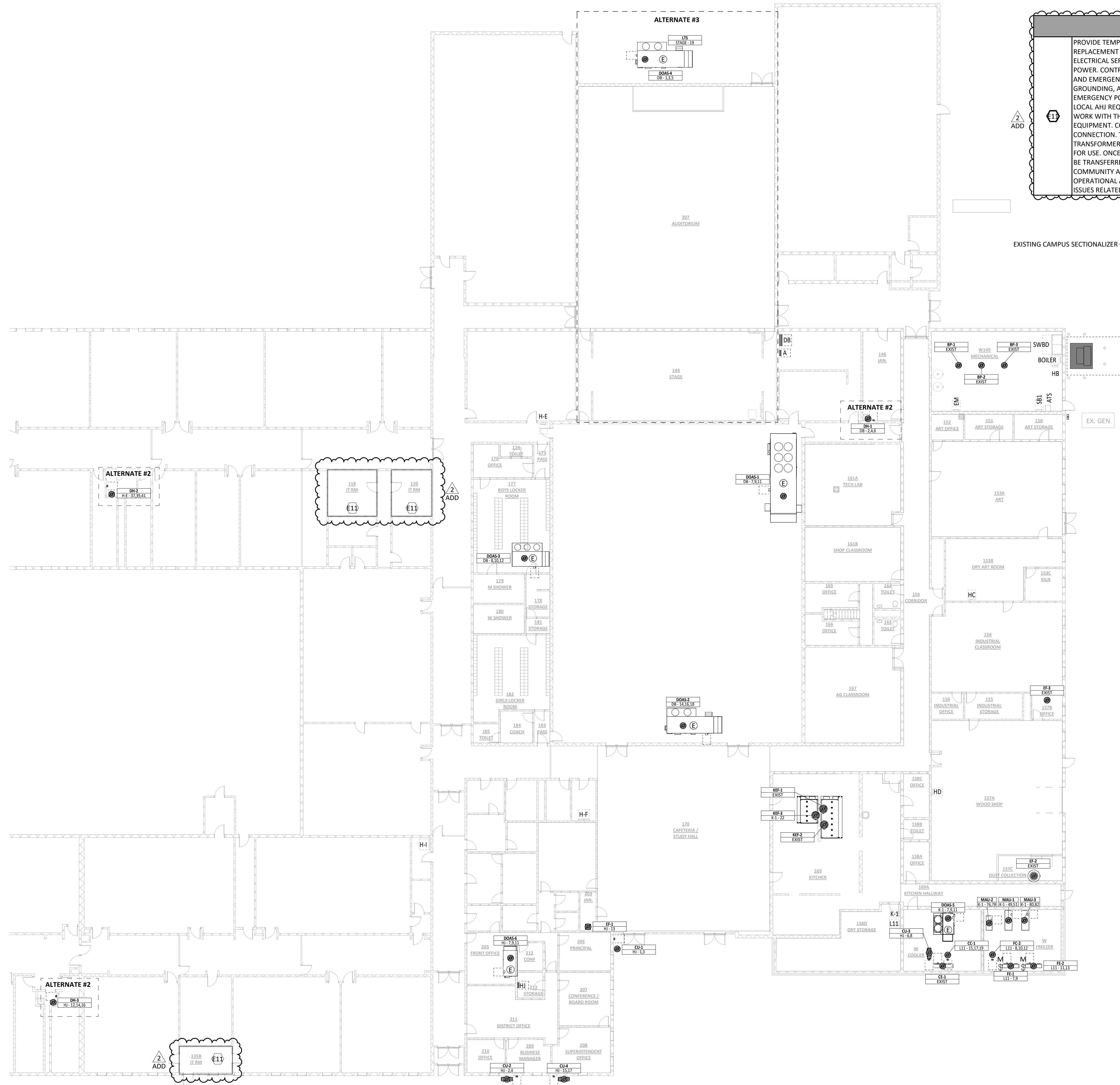
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 CHECKED BY: JCL
 PROJECT NO.: 9166-10000
 SHEET NAME

MECHANICAL & ELECTRICAL PLANS - HIGH SCHOOL

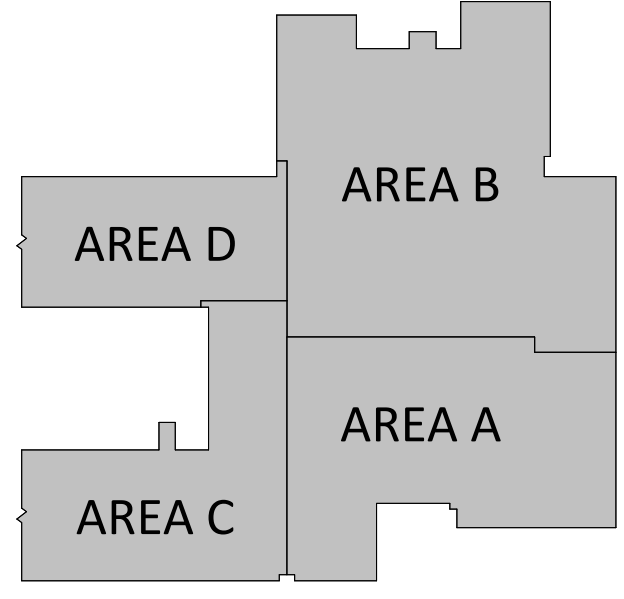
REFER TO SPECIFICATION SECTION 01100 SUMMARY, COVER PAGE AND ENLARGED PLANS FOR SCOPE OF WORK FOR ALTERNATES

ELECTRICAL KEYED NOTES

PROVIDE TEMPORARY AND EMERGENCY POWER TO THE MIDDLE SCHOOL IT ROOMS PRIOR TO REPLACEMENT OF THE MIDDLE SCHOOL TRANSFORMER AND ELECTRICAL SERVICE. THE HIGH SCHOOL ELECTRICAL SERVICE SHALL REMAIN ENERGIZED AND SHALL BE USED AS THE SOURCE FOR TEMPORARY POWER. CONTRACTOR SHALL DETERMINE THE MEANS AND METHODS OF PROVIDING BOTH TEMPORARY AND EMERGENCY POWER, INCLUDING ROUTING, PROTECTION, OVERCURRENT PROTECTION, GROUNDING, AND ANY REQUIRED TEMPORARY DISTRIBUTION EQUIPMENT. TEMPORARY AND EMERGENCY POWER SYSTEMS SHALL BE INSTALLED IN COMPLIANCE WITH NEC REQUIREMENTS AND LOCAL AHJ REQUIREMENTS. COORDINATE ALL OUTAGES, CONNECTIONS, AND TEMPORARY POWER WORK WITH THE OWNER AND SCHOOL DISTRICT TO MAINTAIN CONTINUOUS OPERATION OF IT EQUIPMENT. CONTRACTOR SHALL VERIFY AVAILABLE CAPACITY AT THE HIGH SCHOOL SERVICE PRIOR TO CONNECTION. TEMPORARY POWER SHALL REMAIN IN SERVICE UNTIL THE NEW MIDDLE SCHOOL TRANSFORMER AND PERMANENT SERVICE ARE FULLY INSTALLED, ENERGIZED, TESTED, AND APPROVED FOR USE. ONCE THE MIDDLE SCHOOL TRANSFORMER IS INSTALLED AND ENERGIZED, THE IT ROOM SHALL BE TRANSFERRED BACK TO ITS ORIGINAL POWER SOURCE. IT ROOM 135B SUPPORTS CRITICAL COMMUNITY AND EMERGENCY SERVICES. ALL EQUIPMENT WITHIN THIS ROOM SHALL REMAIN OPERATIONAL AT ALL TIMES. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ISSUES RELATED TO THIS WORK PRIOR TO OR DURING TRANSFORMER REPLACEMENT.



EXISTING CAMPUS SECTIONALIZER



MIDDLE SCHOOL BUILDING KEY PLAN

ELECTRICAL PLAN - OVERALL
1/16" = 1'-0"

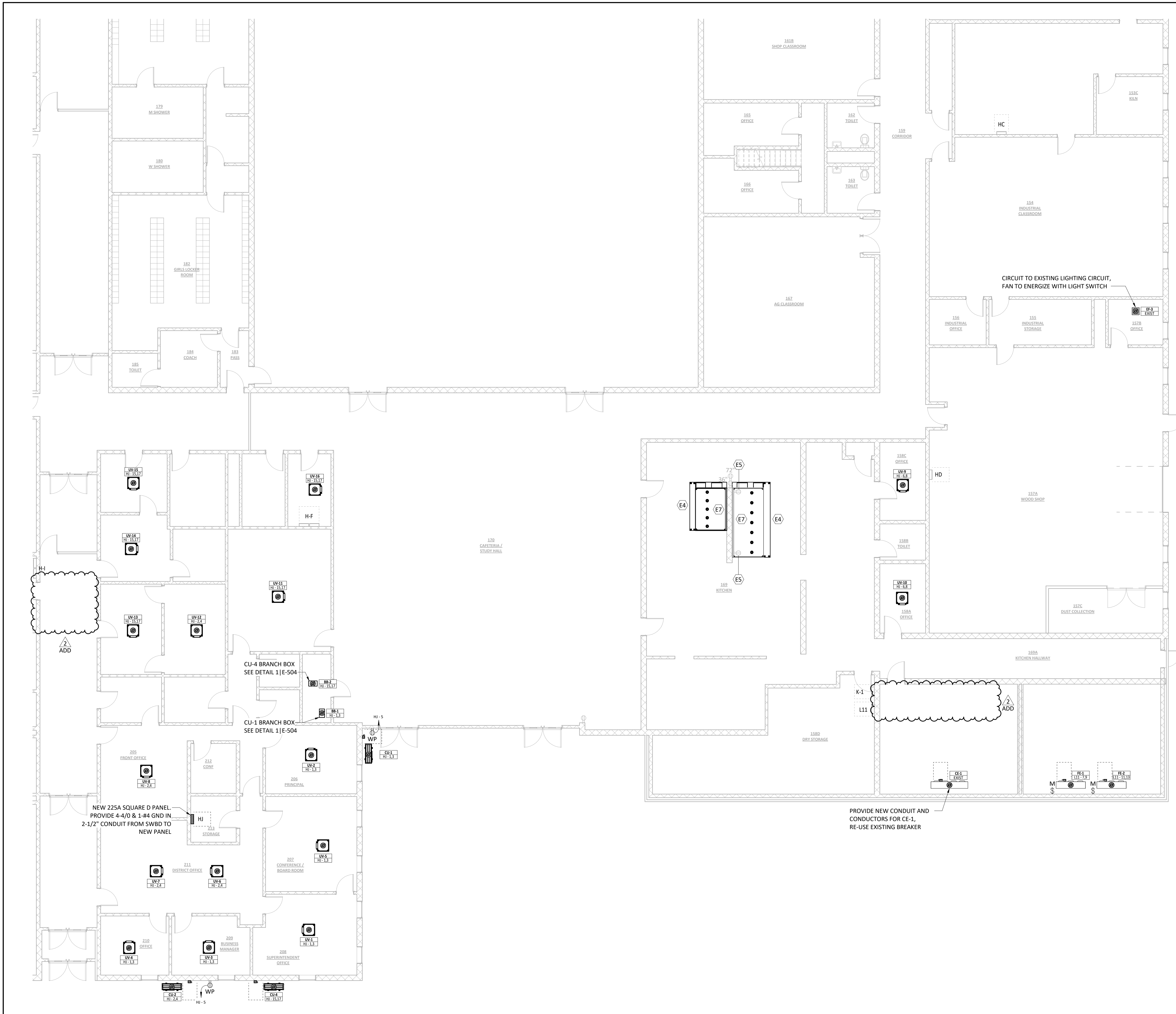
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| CHECKED BY | KDM |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

ELECTRICAL PLAN - OVERALL

NOT FOR CONSTRUCTION



| ALTERNATE NOTES | |
|-----------------|---|
| ALT-#2 | PROVIDE CONDUIT AND CONDUCTORS TO NEW DUCT HUMIDIFIER(S). REFER TO MOTOR AND EQUIPMENT SCHEDULE ON SHEET E-601 FOR CONDUIT, CONDUCTOR AND DISCONNECT SIZING. PROVIDE NEW 70A/3P BREAKER IN ASSOCIATED PANEL FOR DH-2. |

| ELECTRICAL KEYED NOTES | |
|------------------------|--|
| E4 | PROVIDE AN ADDRESSABLE MONITOR MODULE TO INTERFACE WITH THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM. UPON ACTIVATION OF THE SUPPRESSION SYSTEM, THE MONITOR MODULE SHALL INITIATE A GENERAL FIRE ALARM CONDITION THROUGH THE FIRE ALARM CONTROL PANEL (FACP). MODULE SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72 AND MANUFACTURER REQUIREMENTS. COORDINATE WIRING AND TERMINATION REQUIREMENTS WITH THE KITCHEN HOOD SUPPRESSION CONTRACTOR. |
| E5 | EXISTING RECEPTACLES MOUNTED UNDER HOOD SHALL BE RE-INSTALLED ONCE NEW HOOD IS INSTALLED. |
| E7 | ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO SHUNT TRIP COIL TO SHUT OFF EQUIPMENT UNDER HOOD IN FIRE CONDITION. ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO N.C. CONTACTS OF GAS SOLENOID TO SHUT OFF GAS IN FIRE CONDITION. ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO SUPPLY FANS/MAKE-UP AIR FANS TO SHUT OFF IN FIRE CONDITION. ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO EXHAUST FANS, HOOD LIGHTS, AND TEMPERATURE SENSOR. EXHAUST FANS TO BE WIRED TO UNIT INTERLOCK SO THAT EXHAUST FANS ENERGIZE AUTOMATICALLY WHEN COOKING APPLIANCES ARE IN USE. |



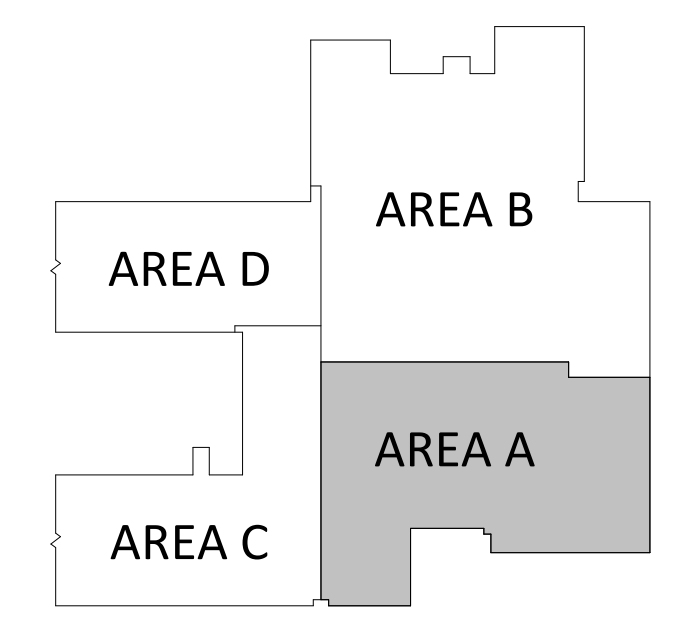
A RUEKERT & MIELKE COMPANY

MIDDLE SCHOOL HVAC UPGRADE

1059 3RD AVE NW, WAUKON, IA 52172

ALLAMAKEE CSD

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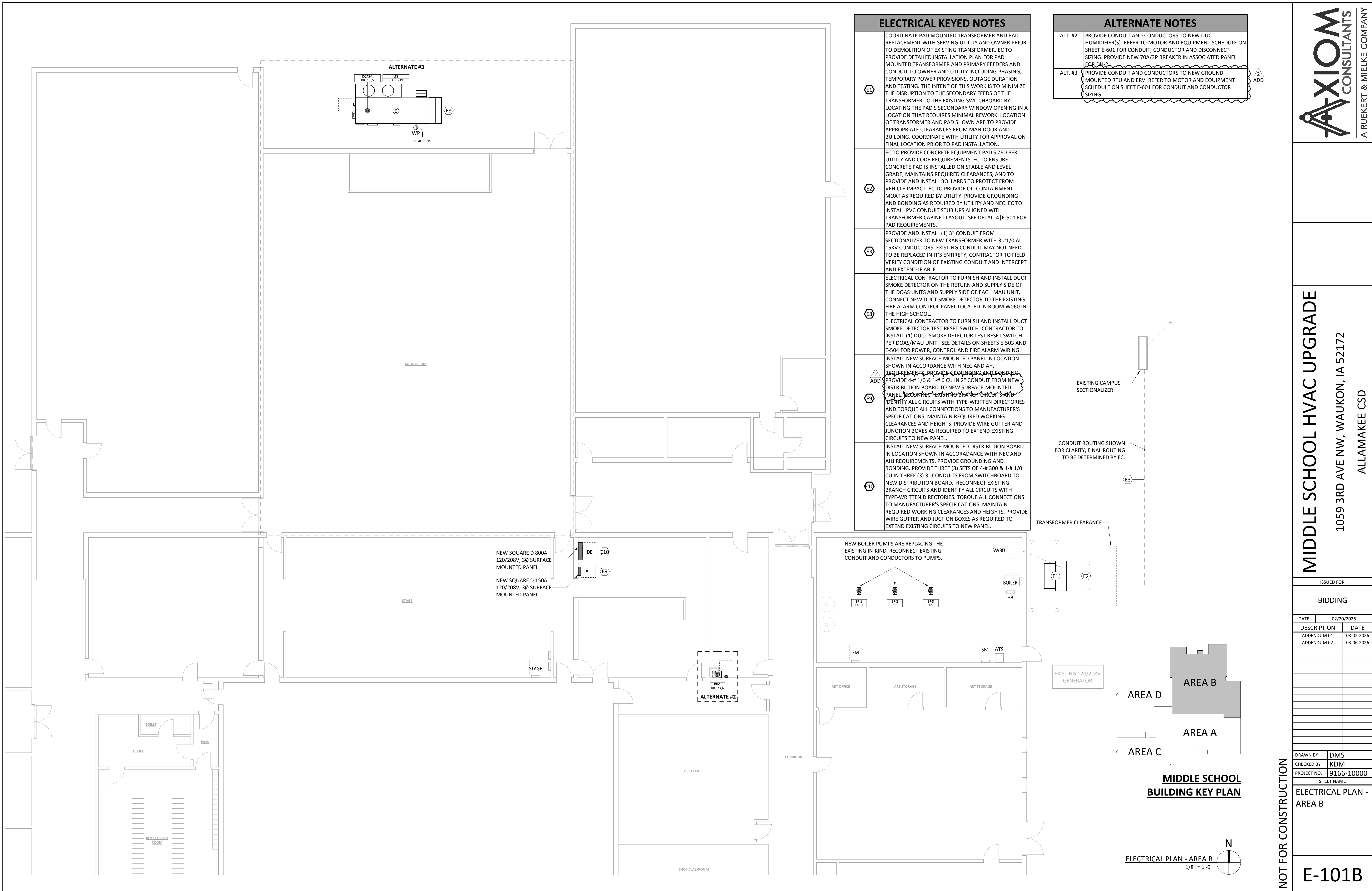
MIDDLE SCHOOL BUILDING KEY PLAN

ELECTRICAL PLAN - AREA A
1/8" = 1'-0"

NOT FOR CONSTRUCTION

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| DRAWN BY | DMS |
| CHECKED BY | KDM |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | ELECTRICAL PLAN - AREA A |

E-101A



ELECTRICAL KEYED NOTES

- E1** COORDINATE PAD MOUNTED TRANSFORMER AND PAD REPLACEMENT WITH SERVING UTILITY AND OWNER PRIOR TO DEMOLITION OF EXISTING TRANSFORMER. EC TO PROVIDE DETAILED INSTALLATION PLAN FOR PAD MOUNTED TRANSFORMER AND PRIMARY FEEDERS AND CONDUIT TO OWNER AND UTILITY INCLUDING PHASING, TEMPORARY POWER PROVISIONS, OUTAGE DURATION AND TESTING. THE INTENT OF THIS WORK IS TO MINIMIZE THE DISRUPTION TO THE SECONDARY FEEDS OF THE TRANSFORMER TO THE EXISTING SWITCHBOARD BY LOCATING THE PAD'S SECONDARY WINDOW OPENING IN A LOCATION THAT REQUIRES MINIMAL REWORK. LOCATION OF TRANSFORMER AND PAD SHOWN ARE TO PROVIDE APPROPRIATE CLEARANCES FROM MAN DOOR AND BUILDING. COORDINATE WITH UTILITY FOR APPROVAL ON FINAL LOCATION PRIOR TO PAD INSTALLATION.
- E2** EC TO PROVIDE CONCRETE EQUIPMENT PAD SIZED PER UTILITY AND CODE REQUIREMENTS. EC TO ENSURE CONCRETE PAD IS INSTALLED ON STABLE AND LEVEL GRADE, MAINTAINS REQUIRED CLEARANCES, AND TO PROVIDE AND INSTALL BOLLARDS TO PROTECT FROM VEHICLE IMPACT. EC TO PROVIDE OIL CONTAINMENT MOAT AS REQUIRED BY UTILITY. PROVIDE GROUNDING AND BONDING AS REQUIRED BY UTILITY AND NEC. EC TO INSTALL PVC CONDUIT STUB UPS ALIGNED WITH TRANSFORMER CABINET LAYOUT. SEE DETAIL 4|E-501 FOR PAD REQUIREMENTS.
- E3** PROVIDE AND INSTALL (1) 3" CONDUIT FROM SECTIONALIZER TO NEW TRANSFORMER WITH 3-#1/0 AL 15KV CONDUCTORS. EXISTING CONDUIT MAY NOT NEED TO BE REPLACED IN IT'S ENTIRETY, CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING CONDUIT AND INTERCEPT AND EXTEND IF ABLE.
- E4** ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE RETURN AND SUPPLY SIDE OF THE DOAS UNITS AND SUPPLY SIDE OF EACH MAU UNIT. CONNECT NEW DUCT SMOKE DETECTOR TO THE EXISTING FIRE ALARM CONTROL PANEL LOCATED IN ROOM W060 IN THE HIGH SCHOOL.
- E5** ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR TEST RESET SWITCH. CONTRACTOR TO INSTALL (1) DUCT SMOKE DETECTOR TEST RESET SWITCH PER DOAS/MAU UNIT. SEE DETAILS ON SHEETS E-503 AND E-504 FOR POWER, CONTROL AND FIRE ALARM WIRING.
- E6** ² ADD INSTALL NEW SURFACE-MOUNTED PANEL IN LOCATION SHOWN IN ACCORDANCE WITH NEC AND AHJ REQUIREMENTS. PROVIDE 4-# 1/0 & 1-# 6 CU IN 2" CONDUIT FROM NEW DISTRIBUTION BOARD TO NEW SURFACE-MOUNTED PANEL. RECONNECT EXISTING BRANCH CIRCUITS AND IDENTIFY ALL CIRCUITS WITH TYPE-WRITTEN DIRECTORIES AND TORQUE ALL CONNECTIONS TO MANUFACTURER'S SPECIFICATIONS. MAINTAIN REQUIRED WORKING CLEARANCES AND HEIGHTS. PROVIDE WIRE GUTTER AND JUNCTION BOXES AS REQUIRED TO EXTEND EXISTING CIRCUITS TO NEW PANEL.
- E7** INSTALL NEW SURFACE-MOUNTED DISTRIBUTION BOARD IN LOCATION SHOWN IN ACCORDANCE WITH NEC AND AHJ REQUIREMENTS. PROVIDE GROUNDING AND BONDING. PROVIDE THREE (3) SETS OF 4-# 300 & 1-# 1/0 CU IN THREE (3) 3" CONDUITS FROM SWITCHBOARD TO NEW DISTRIBUTION BOARD. RECONNECT EXISTING BRANCH CIRCUITS AND IDENTIFY ALL CIRCUITS WITH TYPE-WRITTEN DIRECTORIES. TORQUE ALL CONNECTIONS TO MANUFACTURER'S SPECIFICATIONS. MAINTAIN REQUIRED WORKING CLEARANCES AND HEIGHTS. PROVIDE WIRE GUTTER AND JUNCTION BOXES AS REQUIRED TO EXTEND EXISTING CIRCUITS TO NEW PANEL.

ALTERNATE NOTES

- ALT. #2** PROVIDE CONDUIT AND CONDUCTORS TO NEW DUCT HUMIDIFIER(S). REFER TO MOTOR AND EQUIPMENT SCHEDULE ON SHEET E-601 FOR CONDUIT, CONDUCTOR AND DISCONNECT SIZING. PROVIDE NEW 70A/3P BREAKER IN ASSOCIATED PANEL FOR DOAS.
- ALT. #3** PROVIDE CONDUIT AND CONDUCTORS TO NEW GROUND MOUNTED RTU AND ERV. REFER TO MOTOR AND EQUIPMENT SCHEDULE ON SHEET E-601 FOR CONDUIT AND CONDUCTOR SIZING. ² ADD

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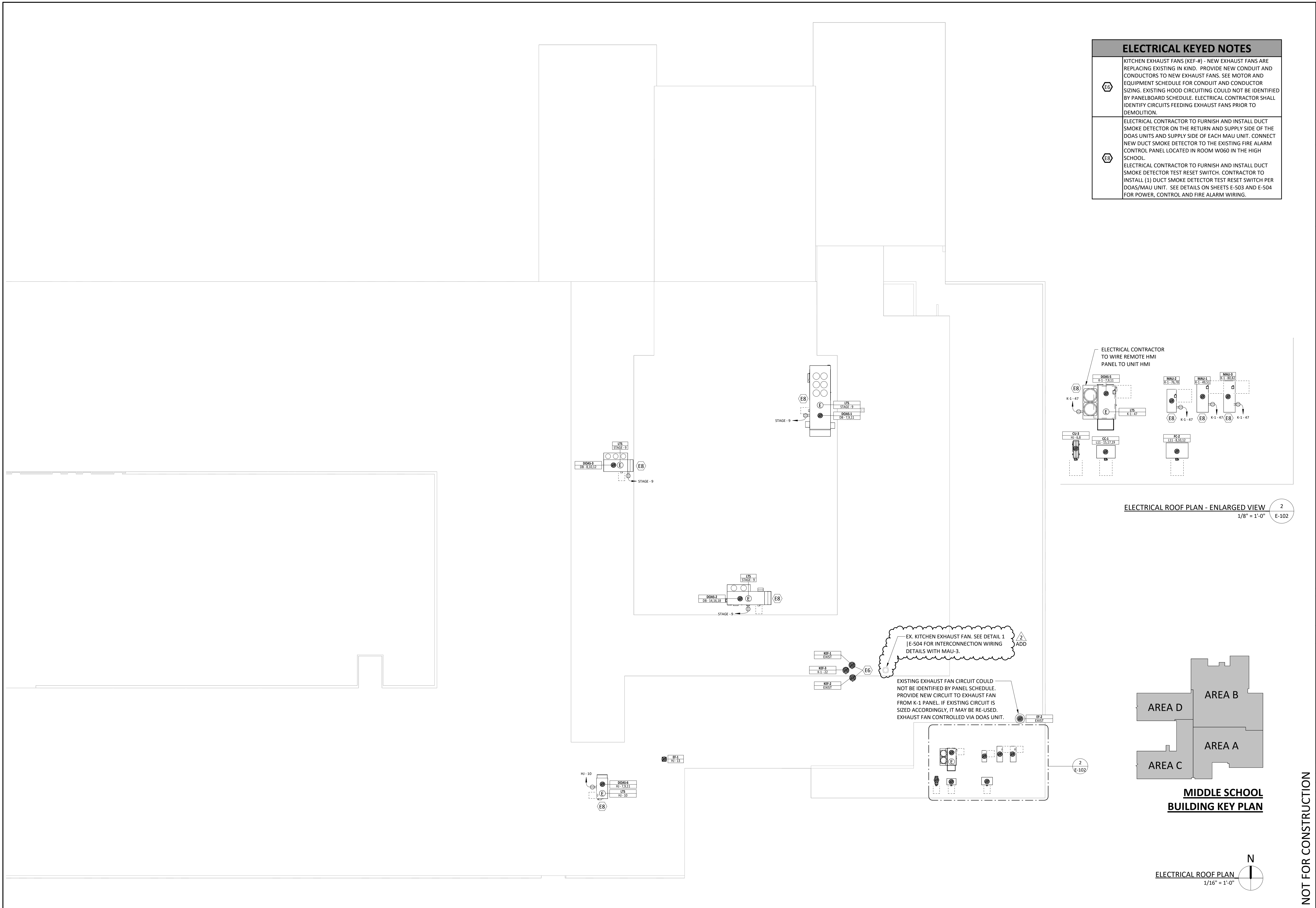
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PROJECT NO.: 9166-10000

SHEET NAME
ELECTRICAL PLAN - AREA B

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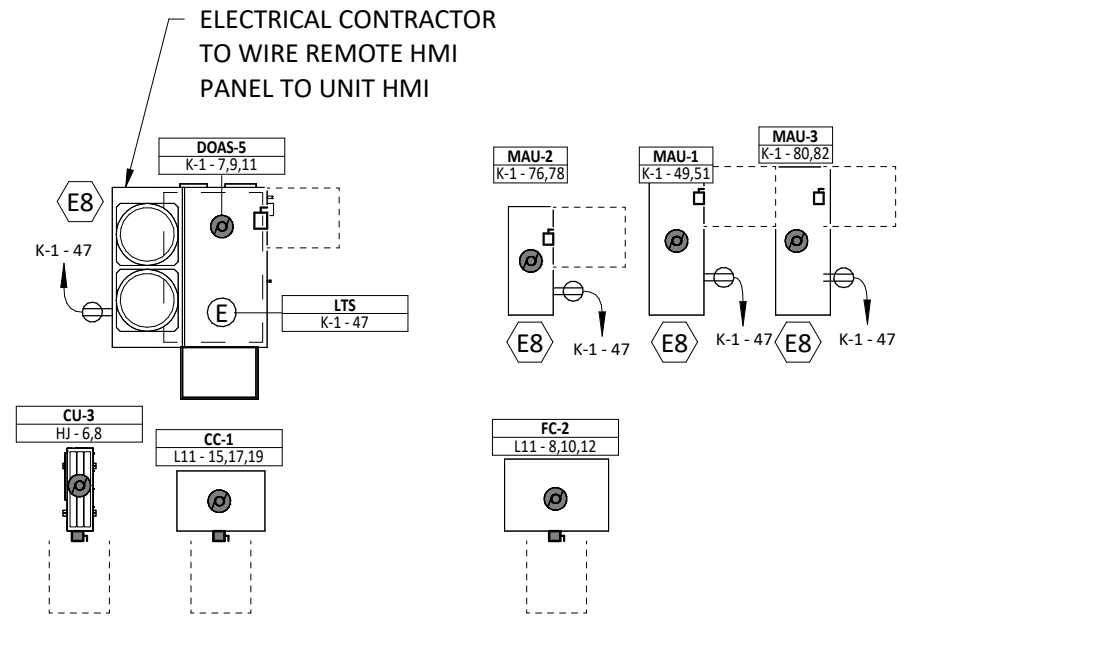


ELECTRICAL KEYED NOTES

EG KITCHEN EXHAUST FANS (KEF-#) - NEW EXHAUST FANS ARE REPLACING EXISTING IN KIND. PROVIDE NEW CONDUIT AND CONDUCTORS TO NEW EXHAUST FANS. SEE MOTOR AND EQUIPMENT SCHEDULE FOR CONDUIT AND CONDUCTOR SIZING. EXISTING HOOD CIRCUITING COULD NOT BE IDENTIFIED BY PANELBOARD SCHEDULE. ELECTRICAL CONTRACTOR SHALL IDENTIFY CIRCUITS FEEDING EXHAUST FANS PRIOR TO DEMOLITION.

EG ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE RETURN AND SUPPLY SIDE OF THE DOAS UNITS AND SUPPLY SIDE OF EACH MAU UNIT. CONNECT NEW DUCT SMOKE DETECTOR TO THE EXISTING FIRE ALARM CONTROL PANEL LOCATED IN ROOM W060 IN THE HIGH SCHOOL.

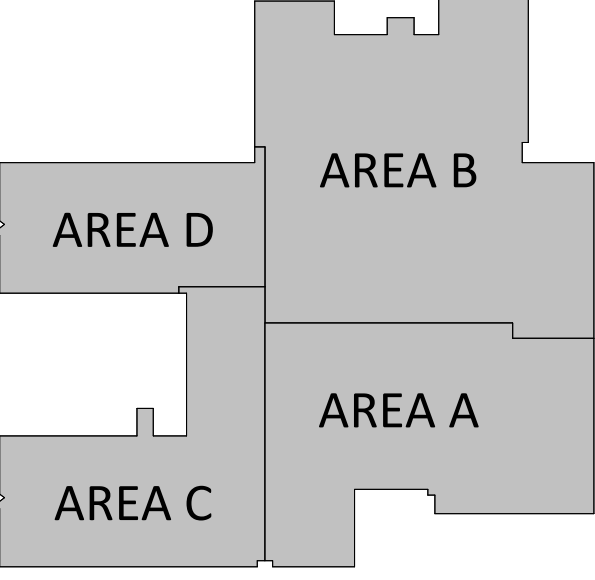
EG ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR TEST RESET SWITCH. CONTRACTOR TO INSTALL (1) DUCT SMOKE DETECTOR TEST RESET SWITCH PER DOAS/MAU UNIT. SEE DETAILS ON SHEETS E-503 AND E-504 FOR POWER, CONTROL AND FIRE ALARM WIRING.



ELECTRICAL ROOF PLAN - ENLARGED VIEW 2
1/8" = 1'-0" E-102

EX. KITCHEN EXHAUST FAN. SEE DETAIL 1 | E-504 FOR INTERCONNECTION WIRING DETAILS WITH MAU-3.

EXISTING EXHAUST FAN CIRCUIT COULD NOT BE IDENTIFIED BY PANEL SCHEDULE. PROVIDE NEW CIRCUIT TO EXHAUST FAN FROM K-1 PANEL. IF EXISTING CIRCUIT IS SIZED ACCORDINGLY, IT MAY BE RE-USED. EXHAUST FAN CONTROLLED VIA DOAS UNIT.



MIDDLE SCHOOL BUILDING KEY PLAN

ELECTRICAL ROOF PLAN
1/16" = 1'-0"

ISSUED FOR

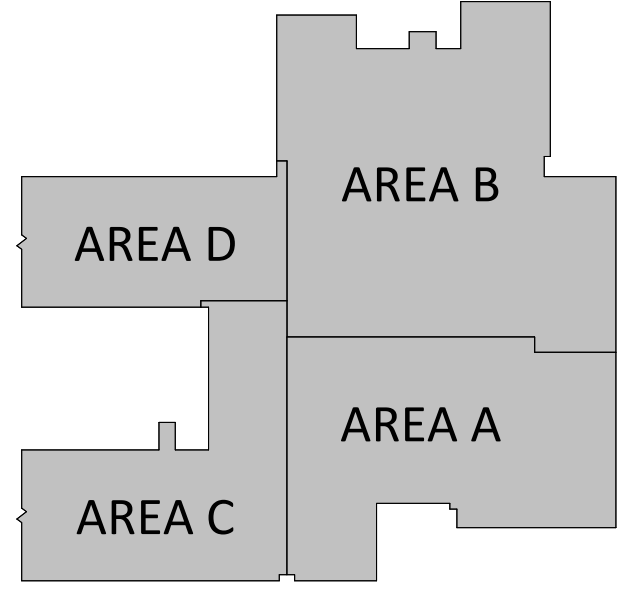
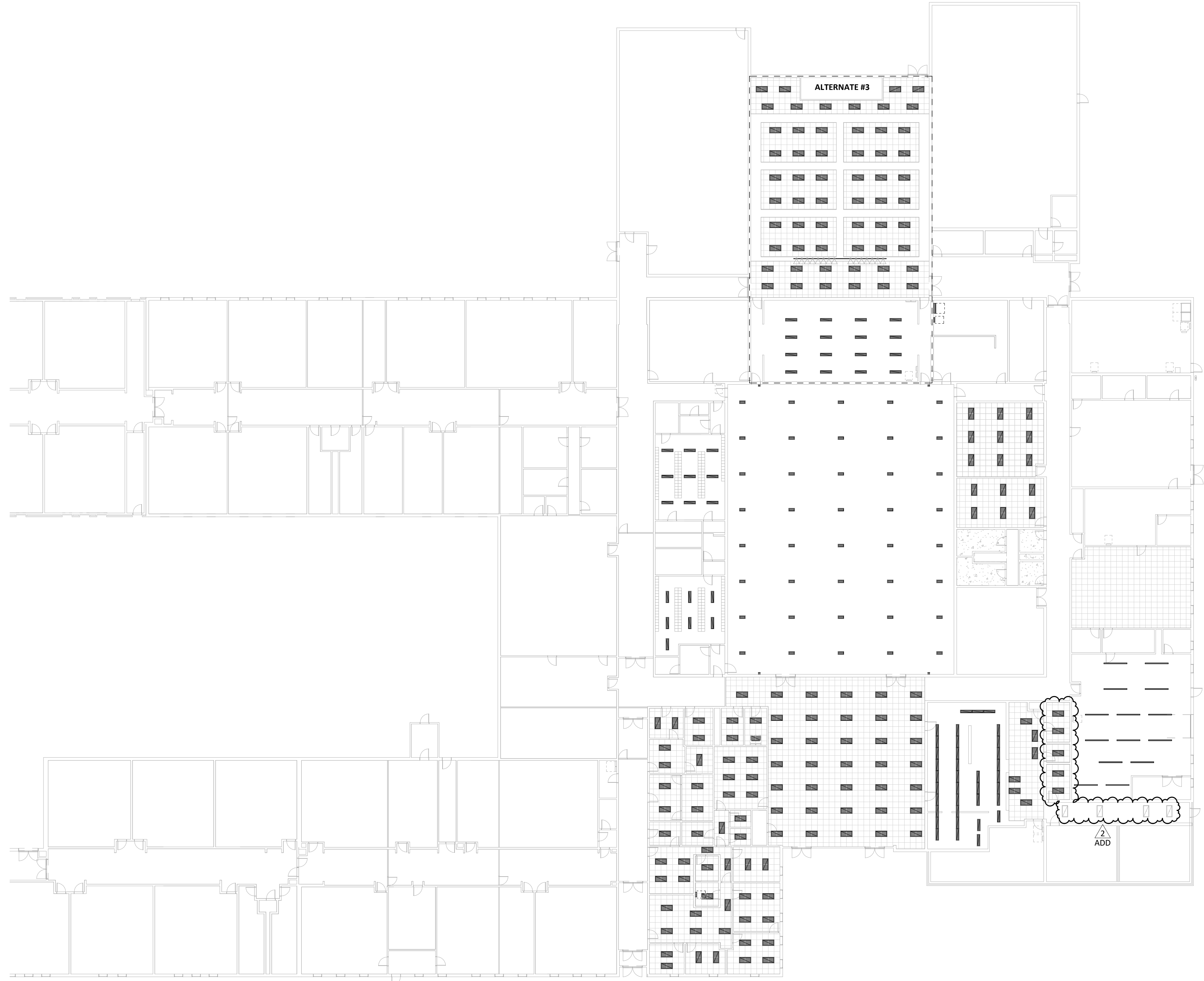
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| PROJECT NO. | 9166-10000 |
| SHEET NAME | ELECTRICAL ROOF PLAN |

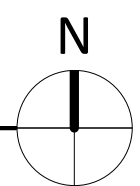
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REFER TO SPECIFICATION SECTION 01100 SUMMARY, COVER PAGE AND ENLARGED PLANS FOR SCOPE OF WORK FOR ALTERNATES



**MIDDLE SCHOOL
BUILDING KEY PLAN**

LIGHTING PLAN - OVERALL
3/64" = 1'-0"



MIDDLE SCHOOL HVAC UPGRADE

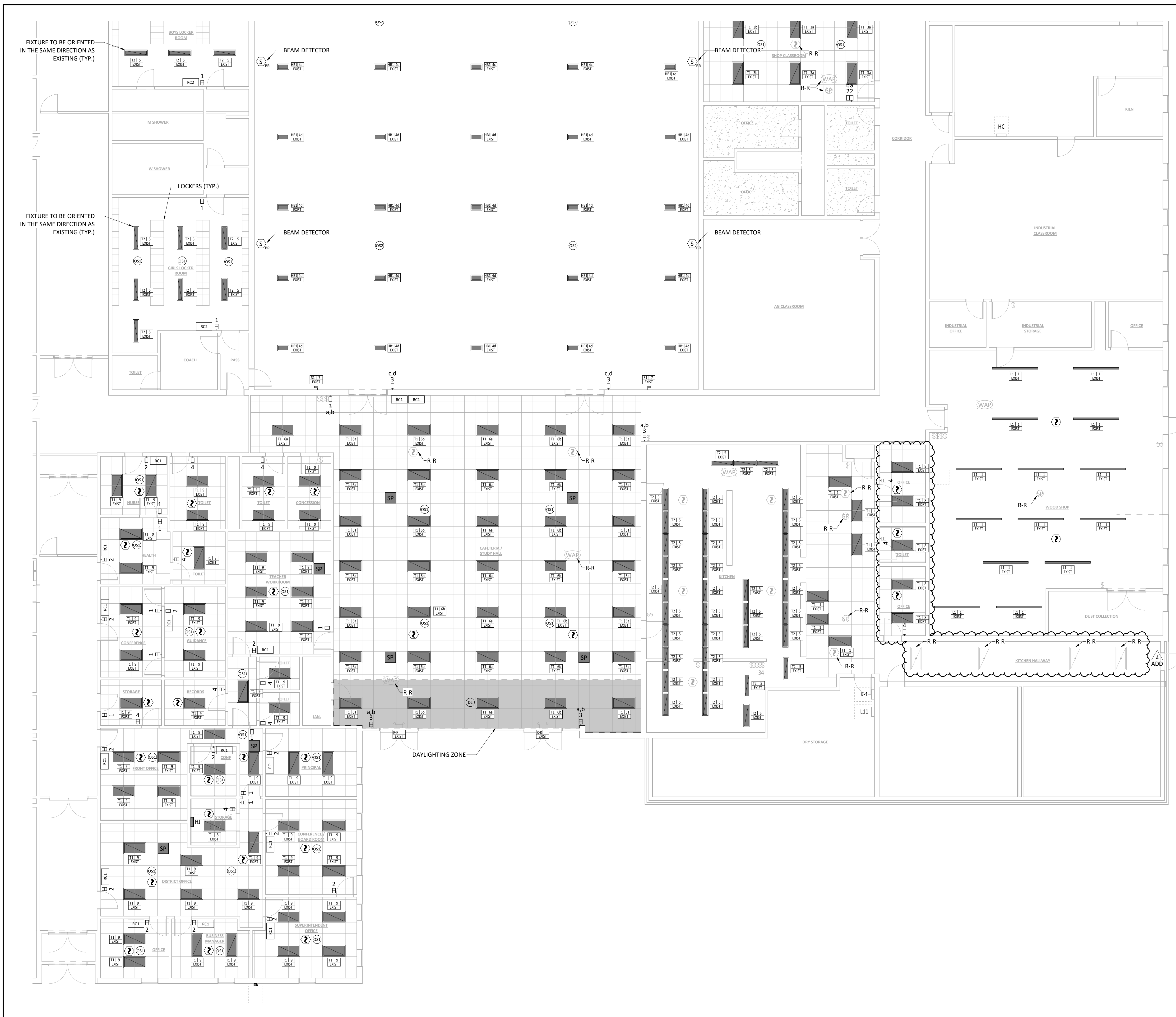
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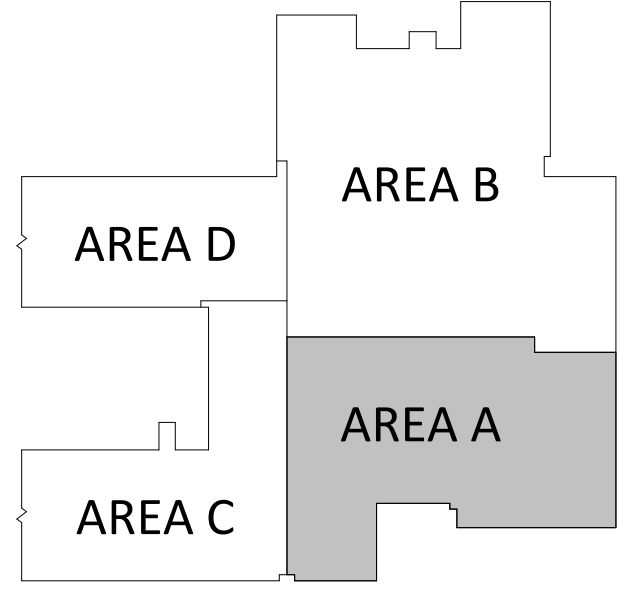
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LIGHTING PLAN - OVERALL

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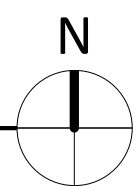


- ### REFLECTED CEILING PLAN NOTES
- CONTRACTOR SHALL REMOVE ALL CEILING MOUNTED DEVICES AND STORE FOR RE-INSTALLATION ONCE CEILING WORK IS COMPLETED. THIS INCLUDES LIGHTING, FIRE ALARM, WIRELESS ACCESS POINTS AND OTHER CEILING MOUNTED DEVICES. THESE DEVICES ARE DENOTED WITH "R-R", ALL DEVICES MAY NOT BE SHOWN. EXTEND WIRING AND CONDUIT TO DEVICES AS REQUIRED FOR OPERATION. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE BUILDING PRIOR TO BIDDING TO EVALUATE THE NUMBER AND TYPES OF DEVICES TO BE RE-INSTALLED. WHERE NEW SPEAKERS ARE SHOWN, PROVIDE AND INSTALL NEW SPEAKERS AND TIE INTO EXISTING SPEAKER WIRING. NEW CEILING HAS BEEN INSTALLED, RE-INSTALL DEVICES IN NEW CEILING.
 - PROVIDE NEW CONTROLS IN ALL ROOMS PROVIDED WITH NEW LIGHTING. PROVIDE CONTROL WIRING, SENSORS, SWITCHES, ROOM CONTROLLERS, POWER PACKS AND CONDUIT AS REQUIRED FOR OPERATION.
 - EXISTING CEILING MOUNTED SPEAKER TO BE DEMOED IN CAFETERIA AND ADMIN AREA. NEW SPEAKERS SHALL BE A 2X2 DROP IN CEILING SPEAKER, 70V, PLENUM RATED. CONFIRM EXISTING SPEAKER VOLTAGE AND TAP SETTINGS PRIOR TO ORDERING. BASIS OF DESIGN: LEGRAND CG41509
 - GYMNASIUM LIGHTING IS CONTROLLED THROUGH AN EXISTING MIGHT RELAY PANEL. PRIOR TO ORDERING OCCUPANCY SENSORS, CONFIRM SENSORS WILL INTEGRATE WITH EXISTING CONTROL PANEL.
 - ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL NEW SMOKE DETECTOR COMPATIBLE WITH THE EXISTING "NOTIFIER" FIRE ALARM SYSTEM. CONNECT NEW SMOKE DETECTORS TO THE EXISTING FIRE ALARM CONTROL PANEL. FIRE ALARM CONTROL PANEL LOCATED IN ROOM W060.
 - ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL NEW BEAM DETECTORS IN GYMNASIUM. PROVIDE DETECTORS THAT ARE COMPATIBLE WITH EXISTING "NOTIFIER" FIRE ALARM SYSTEM. CONNECT NEW BEAM DETECTORS TO THE EXISTING FIRE ALARM CONTROL PANEL. CONTROL PANEL LOCATED IN ROOM W060 IN HIGH SCHOOL.
 - ALL PLATES SHALL BE STAINLESS STEEL. PROVIDE DUAL GANG PLATES WHERE REQUIRED



MIDDLE SCHOOL BUILDING KEY PLAN

LIGHTING PLAN - AREA A
1/8" = 1'-0"



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LIGHTING PLAN - AREA A

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LIGHTING PLAN - AREA B

E-110B

ALTERNATE NOTES

ALT-#3

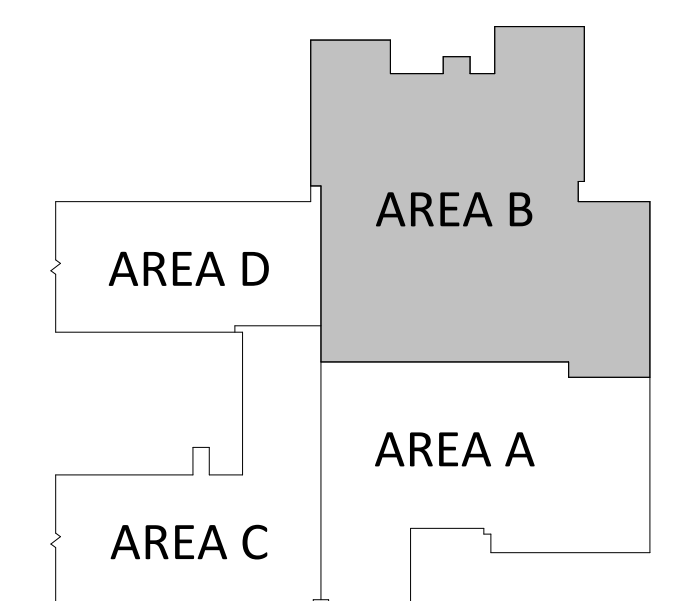
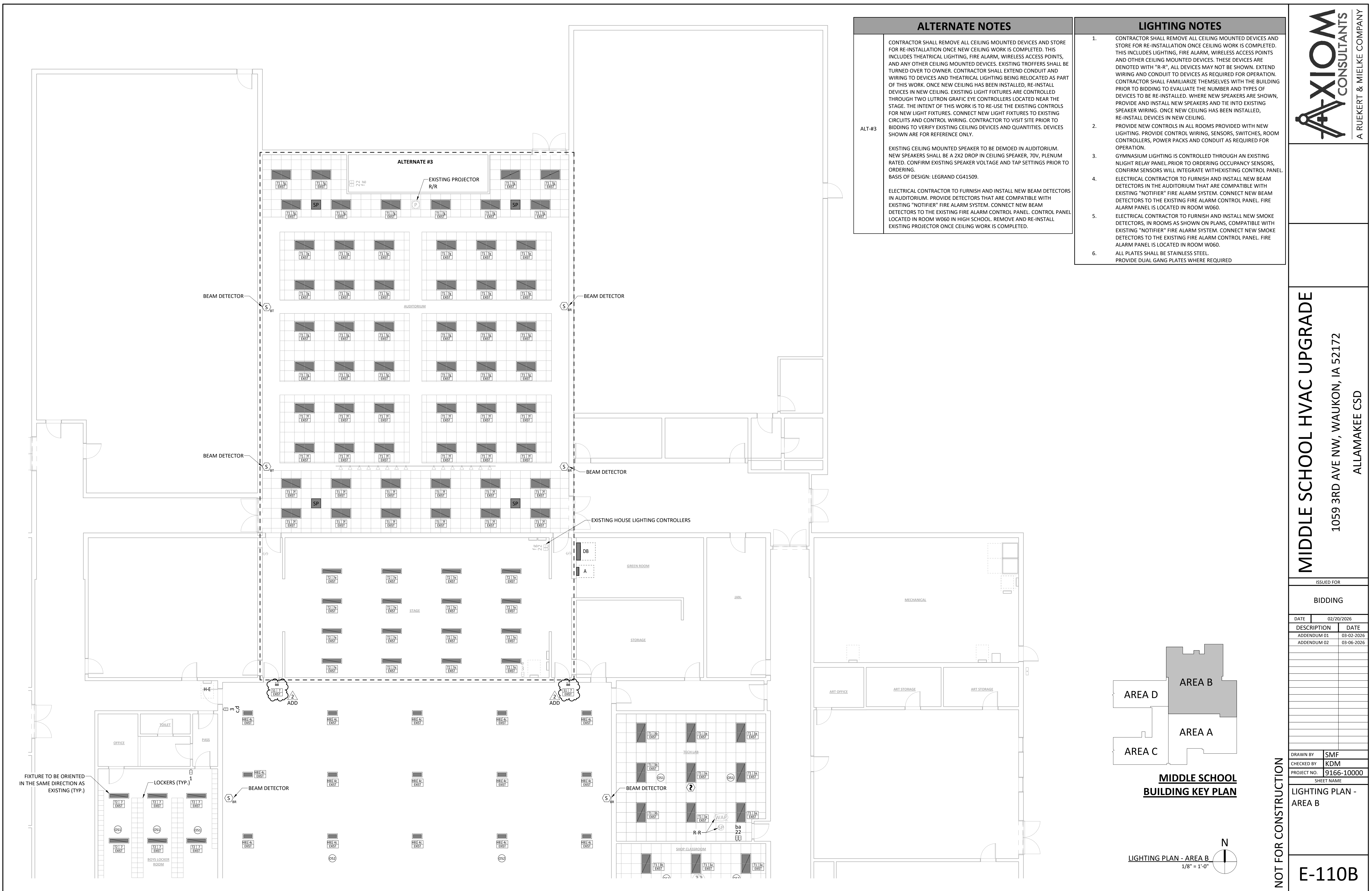
CONTRACTOR SHALL REMOVE ALL CEILING MOUNTED DEVICES AND STORE FOR RE-INSTALLATION ONCE NEW CEILING WORK IS COMPLETED. THIS INCLUDES THEATRICAL LIGHTING, FIRE ALARM, WIRELESS ACCESS POINTS, AND ANY OTHER CEILING MOUNTED DEVICES. EXISTING TROFFERS SHALL BE TURNED OVER TO OWNER. CONTRACTOR SHALL EXTEND CONDUIT AND WIRING TO DEVICES AND THEATRICAL LIGHTING BEING RELOCATED AS PART OF THIS WORK. ONCE NEW CEILING HAS BEEN INSTALLED, RE-INSTALL DEVICES IN NEW CEILING. EXISTING LIGHT FIXTURES ARE CONTROLLED THROUGH TWO LUTRON GRAFIC EYE CONTROLLERS LOCATED NEAR THE STAGE. THE INTENT OF THIS WORK IS TO RE-USE THE EXISTING CONTROLS FOR NEW LIGHT FIXTURES. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITS AND CONTROL WIRING. CONTRACTOR TO VISIT SITE PRIOR TO BIDDING TO VERIFY EXISTING CEILING DEVICES AND QUANTITIES. DEVICES SHOWN ARE FOR REFERENCE ONLY.

EXISTING CEILING MOUNTED SPEAKER TO BE DEMOED IN AUDITORIUM. NEW SPEAKERS SHALL BE A 2X2 DROP IN CEILING SPEAKER, 70V, PLENUM RATED. CONFIRM EXISTING SPEAKER VOLTAGE AND TAP SETTINGS PRIOR TO ORDERING.
BASIS OF DESIGN: LEGRAND CG41509.

ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL NEW BEAM DETECTORS IN AUDITORIUM. PROVIDE DETECTORS THAT ARE COMPATIBLE WITH EXISTING "NOTIFIER" FIRE ALARM SYSTEM. CONNECT NEW BEAM DETECTORS TO THE EXISTING FIRE ALARM CONTROL PANEL. CONTROL PANEL LOCATED IN ROOM W060 IN HIGH SCHOOL. REMOVE AND RE-INSTALL EXISTING PROJECTOR ONCE CEILING WORK IS COMPLETED.

LIGHTING NOTES

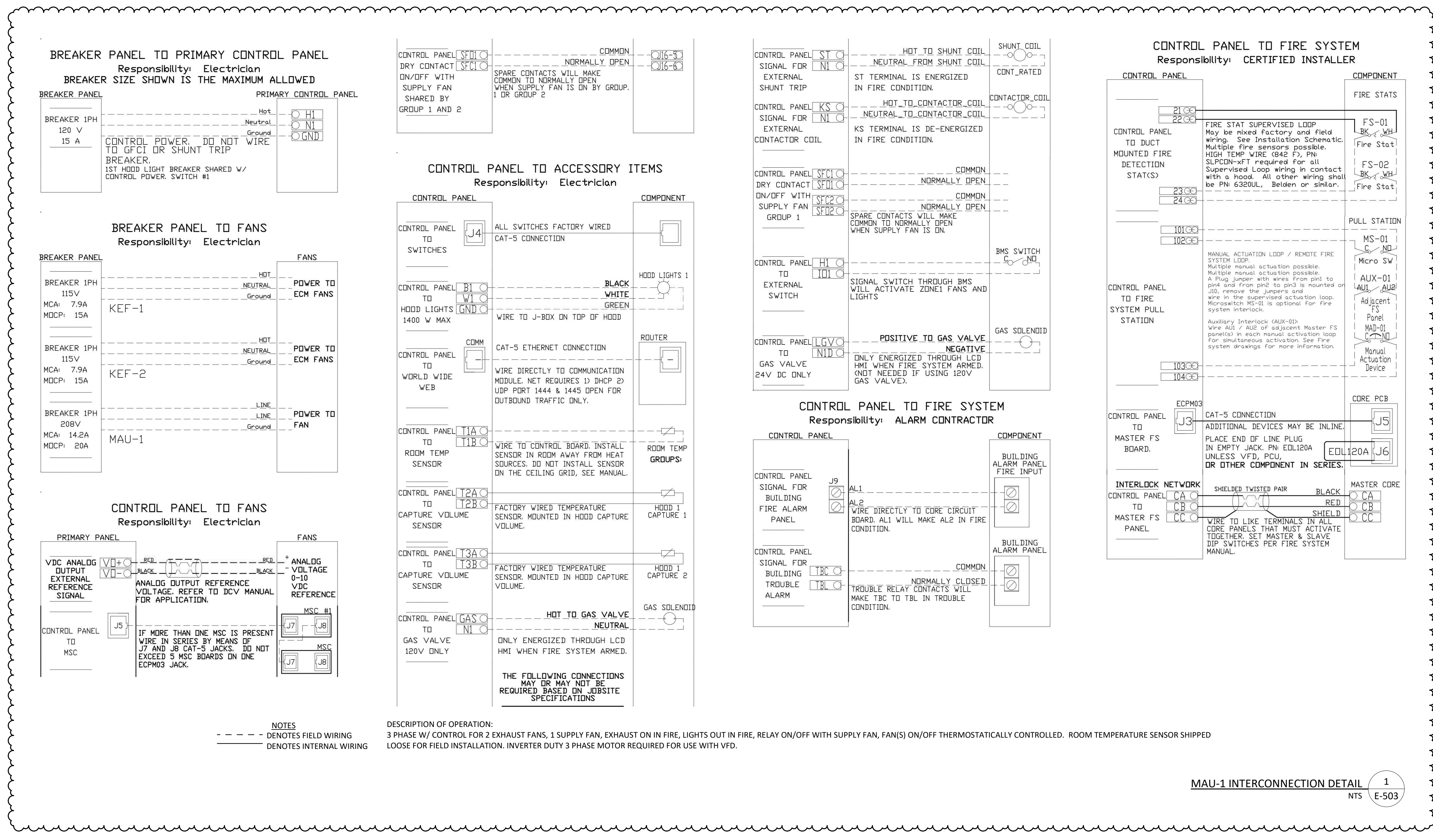
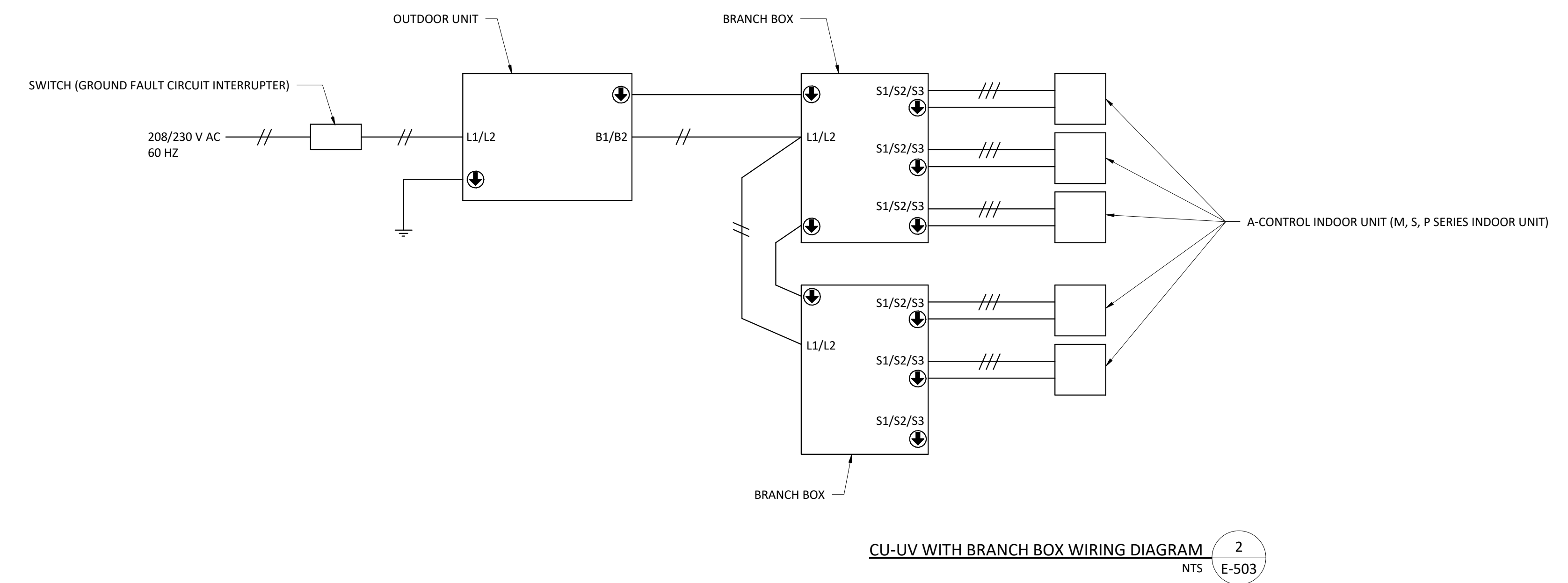
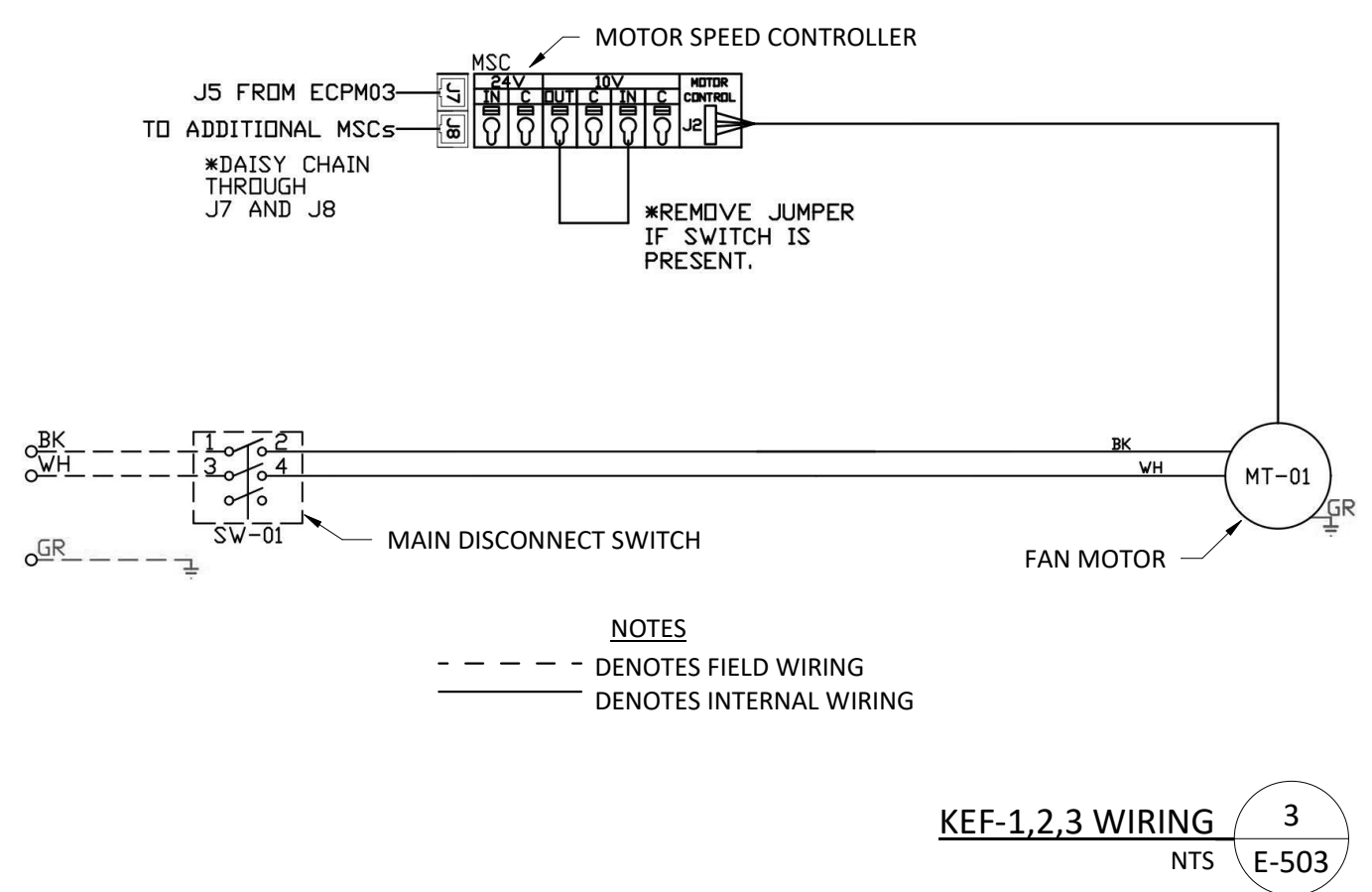
- CONTRACTOR SHALL REMOVE ALL CEILING MOUNTED DEVICES AND STORE FOR RE-INSTALLATION ONCE CEILING WORK IS COMPLETED. THIS INCLUDES THEATRICAL LIGHTING, FIRE ALARM, WIRELESS ACCESS POINTS AND OTHER CEILING MOUNTED DEVICES. THESE DEVICES ARE DENOTED WITH "R-R", ALL DEVICES MAY NOT BE SHOWN. EXTEND WIRING AND CONDUIT TO DEVICES AS REQUIRED FOR OPERATION. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE BUILDING PRIOR TO BIDDING TO EVALUATE THE NUMBER AND TYPES OF DEVICES TO BE RE-INSTALLED. WHERE NEW SPEAKERS ARE SHOWN, PROVIDE AND INSTALL NEW SPEAKERS AND TIE INTO EXISTING SPEAKER WIRING. ONCE NEW CEILING HAS BEEN INSTALLED, RE-INSTALL DEVICES IN NEW CEILING.
- PROVIDE NEW CONTROLS IN ALL ROOMS PROVIDED WITH NEW LIGHTING. PROVIDE CONTROL WIRING, SENSORS, SWITCHES, ROOM CONTROLLERS, POWER PACKS AND CONDUIT AS REQUIRED FOR OPERATION.
- GYMNASIUM LIGHTING IS CONTROLLED THROUGH AN EXISTING NIGHT RELAY PANEL PRIOR TO ORDERING OCCUPANCY SENSORS, CONFIRM SENSORS WILL INTEGRATE WITH EXISTING CONTROL PANEL.
- ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL NEW BEAM DETECTORS IN THE AUDITORIUM THAT ARE COMPATIBLE WITH EXISTING "NOTIFIER" FIRE ALARM SYSTEM. CONNECT NEW BEAM DETECTORS TO THE EXISTING FIRE ALARM CONTROL PANEL. FIRE ALARM PANEL IS LOCATED IN ROOM W060.
- ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL NEW SMOKE DETECTORS, IN ROOMS AS SHOWN ON PLANS, COMPATIBLE WITH EXISTING "NOTIFIER" FIRE ALARM SYSTEM. CONNECT NEW SMOKE DETECTORS TO THE EXISTING FIRE ALARM CONTROL PANEL. FIRE ALARM PANEL IS LOCATED IN ROOM W060.
- ALL PLATES SHALL BE STAINLESS STEEL
PROVIDE DUAL GANG PLATES WHERE REQUIRED



MIDDLE SCHOOL BUILDING KEY PLAN

LIGHTING PLAN - AREA B
1/8" = 1'-0"

NOT FOR CONSTRUCTION



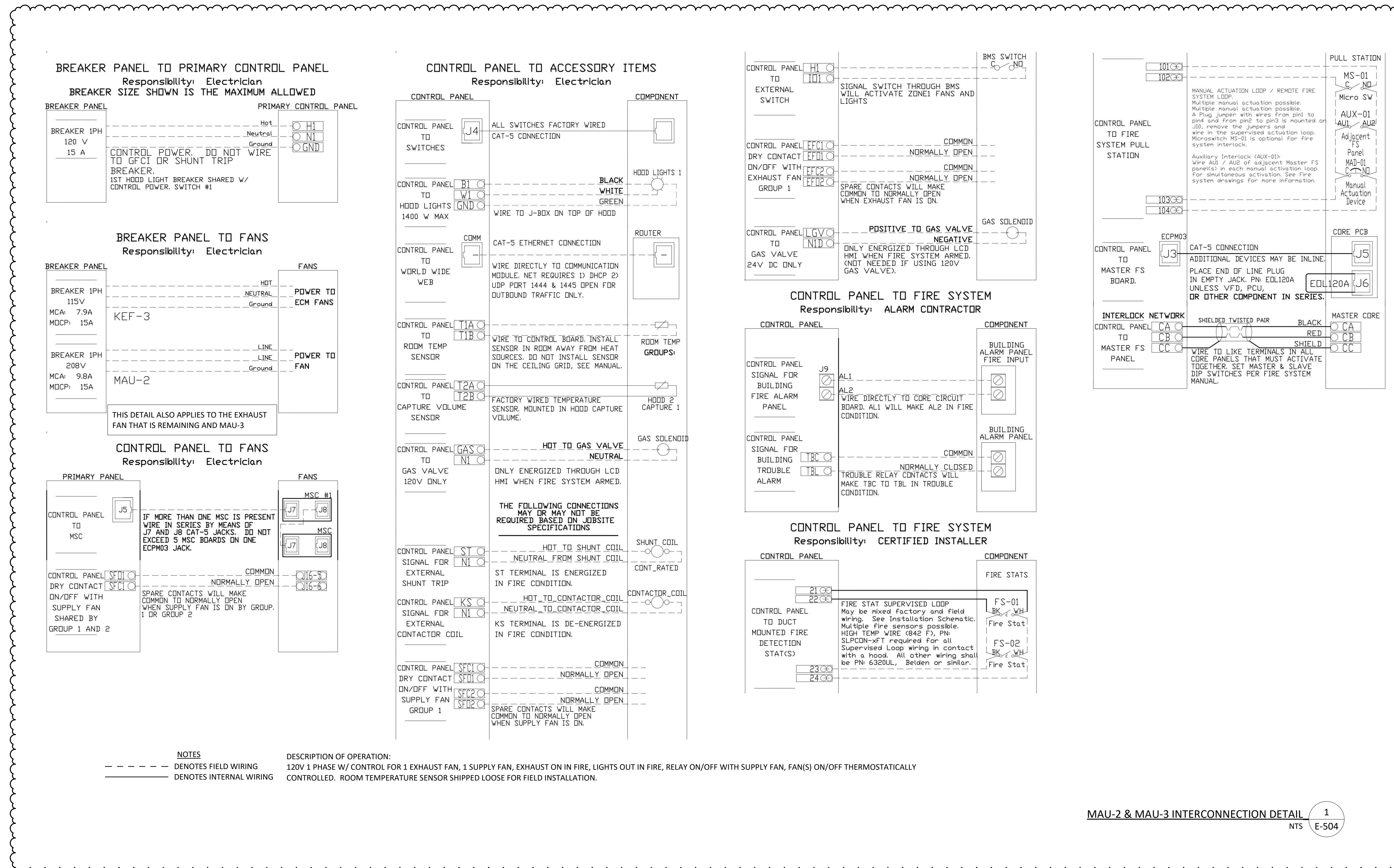
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MAU-2 & MAU-3 INTERCONNECTION DETAIL 1
NTS E-504

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| SHEET NAME | |

ELECTRICAL DETAILS

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DATE 02/20/2026

DESCRIPTION DATE

ADDENDUM 02 03-06-2026

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PROJECT NO. 9166-10000

SHEET NAME

ELECTRICAL

DETAILS

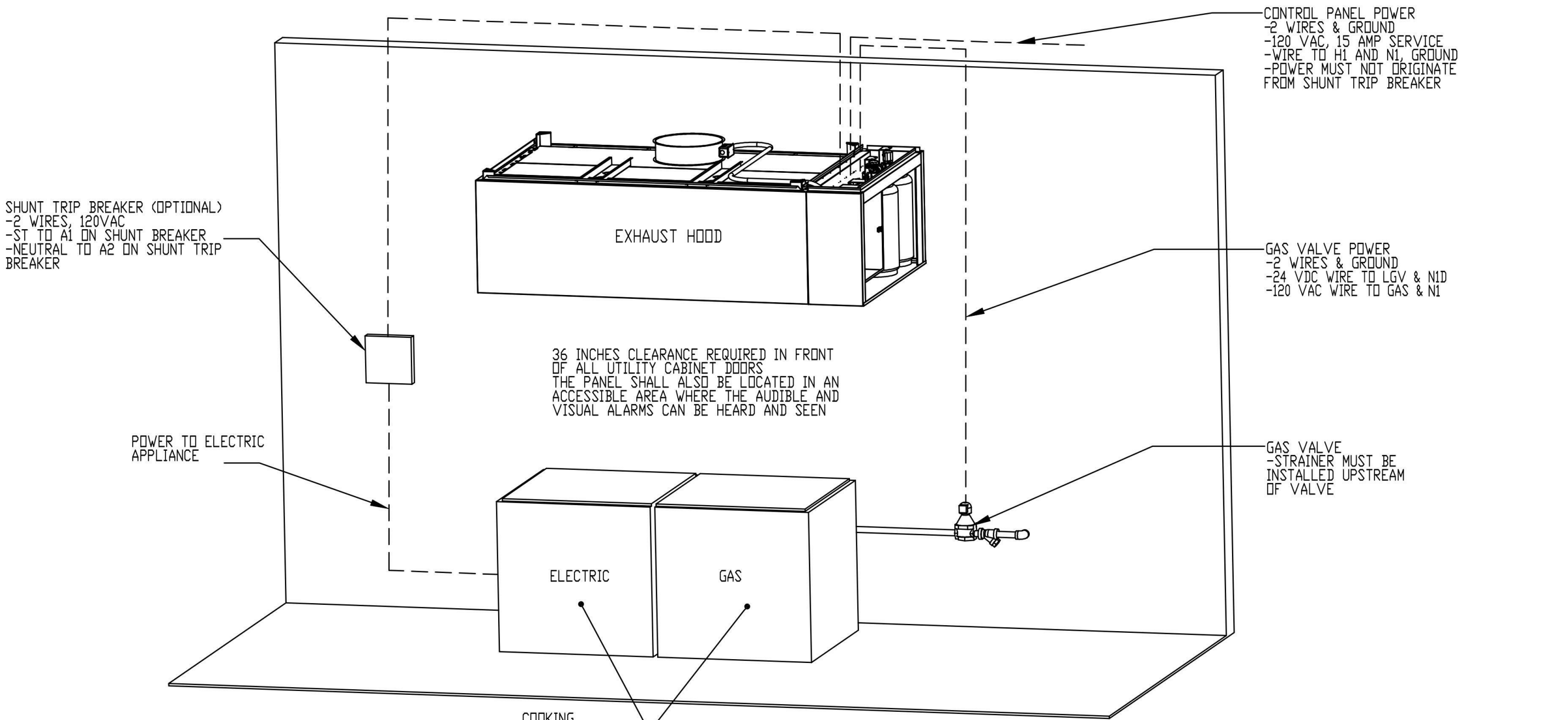
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ADD

E-505

- ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

| ELECTRICAL CONTRACTOR REQUIREMENT | | | | | |
|--|--|------------------------|----------------------|------------|---|
| ITEM | CONNECTION IN PANEL | CONNECTION IN DEVICE | VOLTAGE | AMPERAGE | COMMENTS |
| SHUNT TRIP BREAKER (OPTIONAL) | ST & NI | BREAKER COIL (A1 & A2) | 120 VAC | < 4 AMPS | ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL |
| CONTROL PANEL POWER | HI & NI + GROUND | CIRCUIT BREAKER | 120 VAC | 15 AMPS | CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER |
| UDS APPLIANCE KILL SWITCH (OPTIONAL) | KTS & NI | KTS & NI | 120 VAC | < 4 AMPS | KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES |
| REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL) | AUI, AU2 | SOLENOID | 120 VAC | < 6 AMPS | 120V TO AUI, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL |
| GAS VALVE | LGV & NID (IF 24 VDC) GAS & NI (IF 120 VAC) | RED/RED/GREEN | 24 VDC OR 120 VAC | < 1.0 AMPS | IF 24 VDC - 2 WIRES & GROUND, NID TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, NI TO RED, AND GREEN TO GROUND |



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

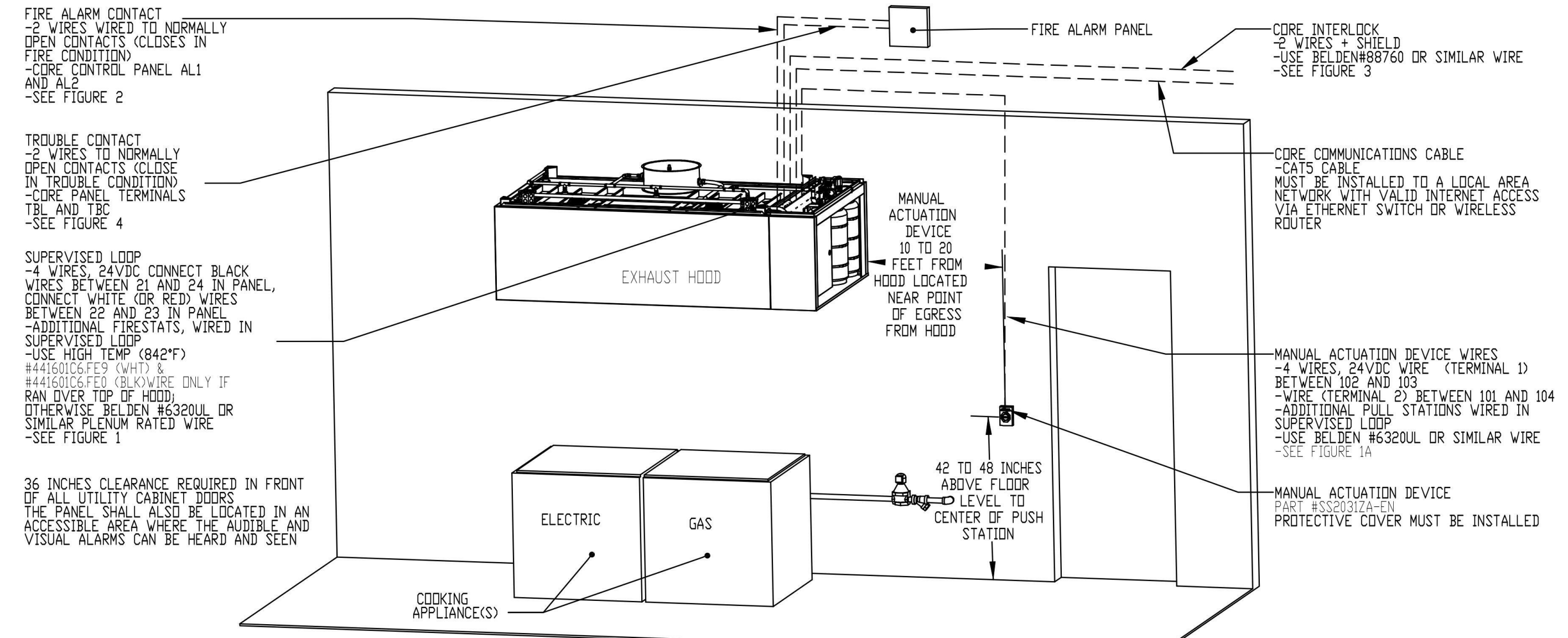
NOTES
- - - DENOTES FIELD WIRING
_____ DENOTES INTERNAL WIRING

DESCRIPTION OF OPERATION:
FIRE SYSTEM #1 TANK FS - 4.0/4.0. TANK-BASED FIRE PROTECTION SYSTEM EQUIPPED WITH ELECTRONIC DETECTION UTILIZING CORE BOARD AS A LISTED RELEASE MECHANISM. INSTALLED IN HOOD UTILITY CABINET WITH INTEGRAL HOOD PREWIRE PANEL.

TANK PROTECTION ELECTRICAL DETAIL (TYP.) 2
NTS E-505

- ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), *REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST
*REMOTE FIRESTAT(S) MAY BE REQUIRED DEPENDING ON THE DUCT LAYOUT AND HOOD TEMPERATURE RATING. REFERENCE MANUAL FOR LOCATION AND GUIDELINES.

| ALARM CONTRACTOR REQUIREMENT | | | | | |
|-------------------------------|----------------------------|----------------------|------------------------------|--------------|---|
| ITEM | CONNECTION IN PANEL | CONNECTION ON DEVICE | VOLTAGE | AMPERAGE | COMMENTS |
| MANUAL ACTUATION DEVICE(S) | 101 AND 104 102 AND 103 | 1 & 2 | 24 VDC | < 1.0 AMPS | WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED |
| MANUAL ACTUATION DEVICE COVER | N/A | N/A | N/A | N/A | MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED USE COVER EXTENSION STI-5531B |
| REMOTE FIRESTAT SENSOR(S) | 21 AND 24 22 AND 23 | BLACK AND WHITE | 24 VDC | < 1.0 AMPS | WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #441601C(FE9) (WHT) & #441601C(FE9) (BLK) WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD. OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1 |
| FIRE ALARM CONTACT | AL1, AL2 | VARIES | 50V MAX (AC/DC) | UP TO 1 AMP | FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL |
| CORE INTERLOCK(S) | CA, CB, CC | CA, CB, CC | RS-485 COMMUNICATIONS SIGNAL | | CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB. CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN# 88760 OR SIMILAR WIRE |
| TROUBLE CONTACT | TBC, TBL, TDK | VARIES | MAX 120 VAC | UP TO 6 AMPS | WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSSES IN TROUBLE CONDITION |
| CORE COMMUNICATIONS CABLE | RJ-45 Jack | INTERNET CONNECTION | SIGNAL | <1.0 AMPS | TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION |



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTES
- - - DENOTES FIELD WIRING
_____ DENOTES INTERNAL WIRING

DESCRIPTION OF OPERATION:
FIRE SYSTEM #1 TANK FS - 4.0/4.0. TANK-BASED FIRE PROTECTION SYSTEM EQUIPPED WITH ELECTRONIC DETECTION UTILIZING CORE BOARD AS A LISTED RELEASE MECHANISM. INSTALLED IN HOOD UTILITY CABINET WITH INTEGRAL HOOD PREWIRE PANEL.

TANK PROTECTION LOW-VOLTAGE DETAIL (TYP.) 1
NTS E-505

| ELECTRICAL DEMO KEYED NOTES - MASTER | |
|--------------------------------------|---|
| E1 | DEMO EXISTING LIGHTING, CONTROLS AND REMOVE AND RE-INSTALL CEILING MOUNTED DEVICES IN THIS AREA. NOTE THAT NOT ALL DEVICES REQUIRING RE-INSTALLATION MAY BE SHOWN. CONTRACTOR TO VERIFY CEILING MOUNTED DEVICES PRIOR TO BIDDING. RE-INSTALL DEVICES AS CLOSE TO ORIGINAL LOCATION AS POSSIBLE. SEE SHEETS E-110A & E-110B FOR LIGHTING AND CONTROLS LAYOUT. |
| E2 | EXISTING CEILING AND CEILING MOUNTED DEVICE TO REMAIN. DEMO EXISTING LIGHTING IN THIS ROOM. NEW LIGHTING FIXTURES TO CONNECT TO EXISTING CIRCUITING AND CONTROLS. |
| E3 | EXISTING STAGE LIGHTING AND ASSOCIATED WIRING TO BE REMOVED AND RE-INSTALLED ONCE CEILING WORK IS COMPLETED. |
| E4 | EXISTING PAD MOUNTED TRANSFORMER IN DETERIORATED CONDITION AND SHALL BE COMPLETELY REMOVED INCLUDING ALL ASSOCIATED WIRING AND GROUNDING COMPONENTS. THE EXISTING CONCRETE PAD IS UNDERSIZED AND DOES NOT MEET CURRENT UTILITY OR CODE REQUIREMENTS. CONTRACTOR SHALL DEMOLISH AND DISPOSE OF THE EXISTING CONCRETE PAD IN ITS ENTIRETY. EC TO MAINTAIN ALL SAFETY MEASURES AND PROVIDE TEMPORARY PROTECTION, BARRICADES AND REQUIRED NOTICES DURING TRANSFORMER REMOVAL AND PAD REPLACEMENT. EC TO COORDINATE WITH OWNER PRIOR TO ANY DEMOLITION OR TERMINATION OF SERVICE TO BUILDING. |
| E5 | MECHANICAL EQUIPMENT TO BE DEMOED (DIV 15). DIV 16 TO REMOVE ALL ASSOCIATED WIRING, CONDUIT, BOXES AND DISCONNECTS BACK TO SOURCE. IF UNIT IS BEING REPLACED, AND EXISTING CONDUIT IS IN GOOD CONDITION AND SIZED APPROPRIATELY, EXISTING CONDUIT MAY BE RE-USED FOR NEW CONDUCTORS TO PROPOSED EQUIPMENT. |
| E6 | REMOVE AND RE-INSTALL EXISTING PROJECTOR AND ASSOCIATED RECEPTACLE. |
| E7 | DEMO EXISTING SPEAKER. SEE ELECTRICAL PLANS FOR NEW SPEAKER TO BE PROVIDED. |
| E8 | DEMO EXISTING PANEL. DE-ENERGIZE ALL FEEDERS AND BRANCH CIRCUITS SERVING THE EXISTING FLUSH-MOUNTED PANEL PRIOR TO WORK. COORDINATE OUTAGES WITH OWNER. IDENTIFY, TAG, AND DOCUMENT ALL EXISTING CIRCUITS PRIOR TO DISCONNECTION FOR RECONNECTION TO NEW SURFACE-MOUNTED PANEL. REMOVE EXISTING PANEL, BREAKERS, TRIM, GROUNDING/BONDING, AND ASSOCIATED CONDUITS. REMOVE ABANDONED CONDUCTORS IN COMPLIANCE WITH NEC. MAINTAIN GROUNDING AND BONDING CONTINUITY AND PROTECT ADJACENT SYSTEMS DURING DEMOLITION. PROVIDE TEMPORARY POWER AS REQUIRED. PATCH AND RESTORE WALL SURFACES TO MATCH EXISTING CONDITIONS. |

COPPER FEEDER & BRANCH CIRCUIT SCHEDULE

| RATING (SEE NOTE A) | PHASE CONDUCTORS & NEUTRAL | EQUIPMENT GROUNDING CONDUCTOR | CONDUIT SIZE FOR 4W | CONDUIT SIZE FOR 2W OR 3W |
|---------------------|----------------------------|-------------------------------|---------------------|---------------------------|
| 15 | 12 | 12 | 3/4" | 3/4" |
| 20 | 12 | 12 | 3/4" | 3/4" |
| 25 | 10 | 10 | 3/4" | 3/4" |
| 30 | 10 | 10 | 3/4" | 3/4" |
| 35 | 8 | 10 | 1 | 3/4" |
| 40 | 8 | 10 | 1 | 3/4" |
| 45 | 8 | 10 | 1 | 3/4" |
| 50 | 8 | 10 | 1 | 3/4" |
| 60 | 6 | 10 | 1 | 1 |
| 70 | 4 | 8 | 1 1/4" | 1 |
| 80 | 4 | 8 | 1 1/4" | 1 |
| 90 | 3 | 8 | 1 1/4" | 1 1/4" |
| 100 | 3 | 8 | 1 1/4" | 1 1/4" |
| 110 | 2 | 6 | 1 1/2" | 1 1/4" |
| 125 | 1 | 6 | 2" | 1 1/2" |
| 150 | 1/0 | 6 | 2" | 1 1/2" |
| 175 | 2/0 | 6 | 2" | 2" |
| 200 | 3/0 | 6 | 2 1/2" | 2" |
| 225 | 4/0 | 4 | 2 1/2" | 2 1/2" |
| 250 | 250 KCMIL | 4 | 3" | 2 1/2" |
| 275 | 300 KCMIL | 4 | 3" | 3" |
| 300 | 350 KCMIL | 4 | 3" | 3" |
| 325 | 400 KCMIL | 3 | 3 1/2" | 3 1/2" |
| 350 | 500 KCMIL | 3 | 3 1/2" | 3 1/2" |
| 400 | (2) 3/0 | (2) 3 | (2) 2 1/2" | (2) 2" |

COPPER FEEDER & BRANCH CIRCUIT SCHEDULE NOTES:

A. UNLESS SPECIFICALLY NOTED OTHERWISE, THIS SCHEDULE APPLIES TO ALL ONE-LINE DIAGRAMS, PANEL SCHEDULES, AND EQUIPMENT CONNECTIONS SCHEDULES. A FEEDER OR BRANCH CIRCUIT RATING SHALL BE EQUAL TO THE SPECIFIED RATING OF ITS CORRESPONDING OCPD (OVERCURRENT PROTECTION DEVICE), UNLESS SPECIFICALLY NOTED OTHERWISE. RATINGS FOR EQUIPMENT CONNECTIONS SCHEDULES ARE NOTED IN THE "FEEDER RATING" COLUMN. THE TERM "RATING" IS NOT NECESSARILY SYNONYMOUS WITH "CURRENT-CARRYING CAPACITY" AND IS INTENDED SOLELY TO IDENTIFY PARTICULAR FEEDER SPECIFICATIONS.

B. VALUES IN PARENTHESES INDICATE THE QUANTITY OF PARALLEL SETS IN SEPARATE CONDUITS.

C. IF A FEEDER OR BRANCH CIRCUIT RATING EXCEEDS THAT OF IT CORRESPONDING OCPD, THEN ITS EQUIPMENT GROUNDING CONDUCTOR MUST BE INCREASED PROPORTIONALLY CROSS-SECTIONAL AREA TO THAT OF THE PHASE CONDUCTORS. THEREFORE, THE EQUIPMENT GROUNDING CONDUCTOR SIZE INDICATED IN THIS SCHEDULE SHALL APPLY ONLY IF IT IS NOT SPECIFICALLY NOTED OTHERWISE ON THE PLANS, ONE-LINE DIAGRAMS, OR EQUIPMENT CONNECTIONS SCHEDULES.

D. A FEEDER RATING CAN BE SPECIFIED LESS THAN ITS ASSOCIATED OCPD WHEN IT SERVES A MOTOR LOAD WITH DEDICATED OVERLOAD PROTECTION AND ITS BREAKER IS "OVERSIZED" TO ALLOW FOR INCREASED STARTING CAPACITY (IN RUSH CURRENT).

E. WIRE SIZES ARE BASED ON N.E.C. TABLE 310.15(B)(16) FOR COPPER. THHN/THWN. 75-DEG C. CONDUIT SIZES ARE BASED ON TABLES IN N.E.C. "ANNEX C" THAT ARE APPLICABLE FOR RACEWAY TYPES SPECIFIED UNDER SECTION 2605.33 "RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS".

ELECTRICAL KEYED NOTES - MASTER

| | |
|-----|--|
| E1 | COORDINATE PAD MOUNTED TRANSFORMER AND PAD REPLACEMENT WITH SERVING UTILITY AND OWNER PRIOR TO DEMOLITION OF EXISTING TRANSFORMER. EC TO PROVIDE DETAILED INSTALLATION PLAN FOR PAD MOUNTED TRANSFORMER AND PRIMARY FEEDERS AND CONDUIT TO OWNER AND UTILITY INCLUDING PHASING, TEMPORARY POWER PROVISIONS, OUTAGE DURATION AND TESTING. THE INTENT OF THIS WORK IS TO MINIMIZE THE DISRUPTION TO THE SECONDARY FEEDS OF THE TRANSFORMER TO THE EXISTING SWITCHBOARD BY LOCATING THE PAD'S SECONDARY WINDOW OPENING IN A LOCATION THAT REQUIRES MINIMAL REWORK. LOCATION OF TRANSFORMER AND PAD SHOWN ARE TO PROVIDE APPROPRIATE CLEARANCES FROM MAIN DOOR AND BUILDING. COORDINATE WITH UTILITY FOR APPROVAL ON FINAL LOCATION PRIOR TO PAD INSTALLATION. |
| E2 | EC TO PROVIDE CONCRETE EQUIPMENT PAD SIZED PER UTILITY AND CODE REQUIREMENTS. EC TO ENSURE CONCRETE PAD IS INSTALLED ON STABLE AND LEVEL GRADE, MAINTAINS REQUIRED CLEARANCES, AND TO PROVIDE AND INSTALL BOLLARDS TO PROTECT FROM VEHICLE IMPACT. EC TO PROVIDE OIL CONTAINMENT MOAT AS REQUIRED BY UTILITY. PROVIDE GROUNDING AND BONDING AS REQUIRED BY UTILITY AND NEC. EC TO INSTALL PVC CONDUIT STUB UPS ALIGNED WITH TRANSFORMER CABINET LAYOUT. SEE DETAIL 41E-501 FOR PAD REQUIREMENTS. |
| E3 | PROVIDE AND INSTALL (1) 3" CONDUIT FROM SECTIONALIZER TO NEW TRANSFORMER WITH 3-#1/0 AL 15KV CONDUCTORS. EXISTING CONDUIT MAY NOT NEED TO BE REPLACED IN ITS ENTIRETY. CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING CONDUIT AND INTERCEPT AND EXTEND IF ABLE. |
| E4 | PROVIDE AN ADDRESSABLE MONITOR MODULE TO INTERFACE WITH THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM. UPON ACTIVATION OF THE SUPPRESSION SYSTEM, THE MONITOR MODULE SHALL INITIATE A GENERAL FIRE ALARM CONDITION THROUGH THE FIRE ALARM CONTROL PANEL (FACP). MODULE SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72 AND MANUFACTURER REQUIREMENTS. COORDINATE WIRING AND TERMINATION REQUIREMENTS WITH THE KITCHEN HOOD SUPPRESSION CONTRACTOR. |
| E5 | EXISTING RECEPTACLES MOUNTED UNDER HOOD SHALL BE RE-INSTALLED ONCE NEW HOOD IS INSTALLED. |
| E6 | KITCHEN EXHAUST FANS (KEF-H) - NEW EXHAUST FANS ARE REPLACING EXISTING IN KIND. PROVIDE NEW CONDUIT AND CONDUCTORS TO NEW EXHAUST FANS. SEE MOTOR AND EQUIPMENT SCHEDULE FOR CONDUIT AND CONDUCTOR SIZING. EXISTING HOOD CIRCUITING COULD NOT BE IDENTIFIED BY PANELBOARD SCHEDULE. ELECTRICAL CONTRACTOR SHALL IDENTIFY CIRCUITS FEEDING EXHAUST FANS PRIOR TO DEMOLITION. |
| E7 | ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO SHUNT TRIP COIL TO SHUT OFF EQUIPMENT UNDER HOOD IN FIRE CONDITION. ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO N.C. CONTACTS OF GAS SOLENOID TO SHUT OFF GAS IN FIRE CONDITION. ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO SUPPLY FANS/MAKE-UP AIR FANS TO SHUT OFF IN FIRE CONDITION. ELECTRICAL CONTRACTOR TO WIRE CONTROL PANEL TO EXHAUST FANS, HOOD LIGHTS, AND TEMPERATURE SENSOR. EXHAUST FANS TO BE WIRED TO UNIT INTERLOCK SO THAT EXHAUST FANS ENERGIZE AUTOMATICALLY WHEN COOKING APPLIANCES ARE IN USE. |
| E8 | ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE RETURN AND SUPPLY SIDE OF THE DOAS UNITS AND SUPPLY SIDE OF EACH MAU UNIT. CONNECT NEW DUCT SMOKE DETECTOR TO THE EXISTING FIRE ALARM CONTROL PANEL LOCATED IN ROOM W060 IN THE HIGH SCHOOL. |
| E9 | ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR TEST RESET SWITCH. CONTRACTOR TO INSTALL (1) DUCT SMOKE DETECTOR TEST RESET SWITCH PER DOAS/MAU UNIT. SEE DETAILS ON SHEETS E-503 AND E-504 FOR POWER, CONTROL AND FIRE ALARM WIRING. |
| E10 | INSTALL NEW SURFACE-MOUNTED PANEL IN LOCATION SHOWN IN ACCORDANCE WITH NEC AND AHJ REQUIREMENTS. PROVIDE GROUNDING AND BONDING. PROVIDE 4-# 1/0 & 1-# 6 CU IN 2" CONDUIT FROM NEW DISTRIBUTION BOARD TO NEW SURFACE-MOUNTED PANEL. RECONNECT EXISTING BRANCH CIRCUITS AND IDENTIFY ALL CIRCUITS WITH TYPE-WRITTEN DIRECTORIES AND TORQUE ALL CONNECTIONS TO MANUFACTURER'S SPECIFICATIONS. MAINTAIN REQUIRED WORKING CLEARANCES AND HEIGHTS. PROVIDE WIRE GUTTER AND JUNCTION BOXES AS REQUIRED TO EXTEND EXISTING CIRCUITS TO NEW PANEL. |
| E11 | INSTALL NEW SURFACE-MOUNTED DISTRIBUTION BOARD IN LOCATION SHOWN IN ACCORDANCE WITH NEC AND AHJ REQUIREMENTS. PROVIDE GROUNDING AND BONDING. PROVIDE THREE (3) SETS OF 4-# 300 & 1-# 1/0 CU IN THREE (3) 3" CONDUITS FROM SWITCHBOARD TO NEW DISTRIBUTION BOARD. RECONNECT EXISTING BRANCH CIRCUITS AND IDENTIFY ALL CIRCUITS WITH TYPE-WRITTEN DIRECTORIES. TORQUE ALL CONNECTIONS TO MANUFACTURER'S SPECIFICATIONS. MAINTAIN REQUIRED WORKING CLEARANCES AND HEIGHTS. PROVIDE WIRE GUTTER AND JUNCTION BOXES AS REQUIRED TO EXTEND EXISTING CIRCUITS TO NEW PANEL. |
| E12 | PROVIDE TEMPORARY AND EMERGENCY POWER TO THE MIDDLE SCHOOL IT ROOMS PRIOR TO REPLACEMENT OF THE MIDDLE SCHOOL TRANSFORMER AND ELECTRICAL SERVICE. THE HIGH SCHOOL ELECTRICAL SERVICE SHALL REMAIN ENERGIZED AND SHALL BE USED AS THE SOURCE FOR TEMPORARY POWER. CONTRACTOR SHALL DETERMINE THE MEANS AND METHODS OF PROVIDING BOTH TEMPORARY AND EMERGENCY POWER, INCLUDING ROUTING, PROTECTION, OVERCURRENT PROTECTION, GROUNDING, AND ANY REQUIRED TEMPORARY DISTRIBUTION EQUIPMENT. TEMPORARY AND EMERGENCY POWER SYSTEMS SHALL BE INSTALLED IN COMPLIANCE WITH NEC REQUIREMENTS AND LOCAL AHJ REQUIREMENTS. COORDINATE ALL OUTAGES, CONNECTIONS, AND TEMPORARY POWER WORK WITH THE OWNER AND SCHOOL DISTRICT TO MAINTAIN CONTINUOUS OPERATION OF IT EQUIPMENT. CONTRACTOR SHALL VERIFY AVAILABLE CAPACITY AT THE HIGH SCHOOL SERVICE PRIOR TO CONNECTION. TEMPORARY POWER SHALL REMAIN IN SERVICE UNTIL THE NEW MIDDLE SCHOOL TRANSFORMER AND PERMANENT SERVICE ARE FULLY INSTALLED, ENERGIZED, TESTED, AND APPROVED FOR USE. ONCE THE MIDDLE SCHOOL TRANSFORMER IS INSTALLED AND ENERGIZED, THE IT ROOM SHALL BE TRANSFERRED BACK TO ITS ORIGINAL POWER SOURCE. IF ROOM 135B SUPPORTS CRITICAL COMMUNITY AND EMERGENCY SERVICES. ALL EQUIPMENT WITHIN THIS ROOM SHALL REMAIN OPERATIONAL AT ALL TIMES. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ISSUES RELATED TO THIS WORK PRIOR TO OR DURING TRANSFORMER REPLACEMENT. |

MOTOR AND EQUIPMENT SCHEDULE

| EQUIP TAG | NOTES: EQUIPMENT TAGS NOTED AS ## & ## ARE WIRED TO SAME CIRCUIT. AMPACITY SHOWN IS TOTAL CIRCUIT AMPS. | | | | | | | | | STARTER/DISCONNECT E-FURNISHED BY ELECTRICAL CONTRACTOR M-FURNISHED BY MECHANICAL CONTRACTOR | | | | | |
|--------------------|---|---------|---------|------------|---------------------|---------|----------|---------|-------|--|---------|-----------|-------------|-------|-----------------------|
| | DESCRIPTION | AMP | VOLTAGE | # OF POLES | WIRE SIZE | CONDUIT | PANEL | MCA | MOC | DISC | SW AMPS | FUSE AMPS | NEMA RATING | NOTES | REMARKS |
| BP-1 | BOILER PUMP | 6.9 A | 208 V | 3 | 3-#12, 1-#12 | 3/4" | EXISTING | 8.6 A | 15 A | N/A | | | | 5 | WITHIN SIGHT |
| BP-2 | BOILER PUMP | 6.9 A | 208 V | 3 | 3-#12, 1-#12 | 3/4" | EXISTING | 8.6 A | 15 A | N/A | | | | 5 | WITHIN SIGHT |
| BP-3 | BOILER PUMP | 6.9 A | 208 V | 3 | 3-#12, 1-#12 | 3/4" | EXISTING | 8.6 A | 15 A | N/A | | | | 5 | WITHIN SIGHT |
| CC-1 | COOLER CONDENSER | 14.3 A | 208 V | 3 | 3-#10, 1-#10 | 3/4" | L11 | 20 A | 25 A | E | 30A | NF | 3R | | |
| CE-1 | COOLER EVAPORATOR | 14.4 A | 120 V | 1 | 1-#12, 1-#12, 1-#12 | 3/4" | EXISTING | 15.5 A | 20 A | E | 30A | NF | 3R | 5 | |
| CU-1 / BB-1 / UV-# | CONDENSING UNIT / UNIT VENTILLATORS | 44.0 A | 208 V | 2 | 2-#6, 1-#10 | 1" | HJ | 55 A | 60 A | E | 60A | NF | 3R | 4 | |
| CU-2 / UV-# | CONDENSING UNIT / UNIT VENTILLATORS | 36.0 A | 208 V | 2 | 2-#8, 1-#10 | 1" | HJ | 45 A | 50 A | E | 60A | NF | 3R | 4 | |
| CU-3 / UV-# | CONDENSING UNIT / UNIT VENTILLATORS | 36.0 A | 208 V | 2 | 2-#8, 1-#10 | 1" | HJ | 45 A | 50 A | E | 60A | NF | 3R | 4 | |
| CU-4 / BB-2 / UV-# | CONDENSING UNIT / UNIT VENTILLATORS | 44.0 A | 208 V | 2 | 2-#6, 1-#10 | 1" | HJ | 55 A | 60 A | E | 60A | NF | 3R | 4 | |
| DH-1 | DUCT HUMIDIFIER | 52.0 A | 208 V | 3 | 3-#4, 1-#8 | 1 1/4" | DB | 65 A | 70 A | E | 100 A | 100 A | 1 | 2 | |
| DH-2 | DUCT HUMIDIFIER | 52.0 A | 208 V | 3 | 3-#4, 1-#8 | 1 1/4" | H-E | 65 A | 70 A | E | 100 A | 100 A | 1 | 2 | |
| DH-3 | DUCT HUMIDIFIER | 52.0 A | 208 V | 3 | 3-#4, 1-#8 | 1 1/4" | HJ | 65 A | 70 A | E | 100 A | 100 A | 1 | 2 | |
| DOAS-1 | DEDICATED OUTSIDE AIR SYSTEM | 258.0 A | 208 V | 3 | 3-#350 KCMIL, 1-#4 | 3" | DB | 268.1 A | 300 A | M | | | | 1 | |
| DOAS-2 | DEDICATED OUTSIDE AIR SYSTEM | 101.6 A | 208 V | 3 | 3-#1, 1-#6 | 2" | DB | 109 A | 125 A | M | | | | 1 | |
| DOAS-3 | DEDICATED OUTSIDE AIR SYSTEM | 91.1 A | 208 V | 3 | 3-#1, 1-#6 | 2" | DB | 107.7 A | 125 A | M | | | | 1 | |
| DOAS-4 | DEDICATED OUTSIDE AIR SYSTEM | 105.5 A | 208 V | 3 | 3-#1, 1-#6 | 2" | DB | 112.9 A | 125 A | M | | | | 1, 3 | |
| DOAS-5 | DEDICATED OUTSIDE AIR SYSTEM | 49.5 A | 208 V | 3 | 3-#4, 1-#8 | 1 1/4" | K-1 | 61.9 A | 70 A | M | | | | 1 | |
| DOAS-6 | DEDICATED OUTSIDE AIR SYSTEM | 33.6 A | 208 V | 3 | 3-#8, 1-#10 | 1" | HJ | 41 A | 50 A | M | | | | 1 | |
| EF-1 | EXHAUST FAN | 0.3 A | 120 V | 1 | 1-#12, 1-#12, 1-#12 | 3/4" | HJ | 0.4 A | 15 A | N/A | | | | | CONTROLLED VIA SWITCH |
| EF-2 | EXHAUST FAN | 7.0 A | 208 V | 2 | 2-#10, 1-#10 | 3/4" | EXISTING | 8.8 A | 30 A | N/A | | | | | ENERGIZED VIA RTU |
| EF-3 | EXHAUST FAN | 0.4 A | 120 V | 1 | 1-#12, 1-#12, 1-#12 | 3/4" | EXISTING | 0.5 A | 20 A | N/A | | | | 5 | CONTROLLED VIA SWITCH |
| FC-2 | FREEZER CONDENSER | 26.7 A | 208 V | 3 | 3-#8, 1-#10 | 1" | L11 | 32.7 A | 50 A | E | 60A | NF | 3R | | |
| FE-1 | FREEZER EVAPORATOR | 13.7 A | 208 V | 2 | 2-#12, 1-#12 | 3/4" | L11 | 18.6 A | 20 A | E | 30A | NF | 3R | 6 | TOGGLE TYPE |
| FE-2 | FREEZER EVAPORATOR | 13.7 A | 208 V | 2 | 2-#12, 1-#12 | 3/4" | L11 | 18.6 A | 20 A | E | 30A | NF | 3R | 6 | TOGGLE TYPE |
| KEF-1 | KITCHEN EXHAUST FAN | 6.3 A | 120 V | 1 | 1-#12, 1-#12, 1-#12 | 3/4" | EXISTING | 7.9 A | 15 A | M | | | | 5 | |
| KEF-2 | KITCHEN EXHAUST FAN | 6.3 A | 120 V | 1 | 1-#12, 1-#12, 1-#12 | 3/4" | EXISTING | 7.9 A | 15 A | M | | | | 5 | |
| KEF-3 | KITCHEN EXHAUST FAN | 6.3 A | 120 V | 1 | 1-#12, 1-#12, 1-#12 | 3/4" | K-1 | 7.9 A | 15 A | M | | | | | |
| MAU-1 | MAKE-UP AIR FAN | 11.4 A | 208 V | 2 | 2-#12, 1-#12 | 3/4" | K-1 | 14.2 | 20 A | M | | | | | |
| MAU-2 | MAKE-UP AIR FAN | 7.8 A | 208 V | 2 | 2-#12, 1-#12 | 3/4" | K-1 | 9.8 A | 15 A | M | | | | | |
| MAU-3 | MAKE-UP AIR FAN | 7.8 A | 208 V | 2 | 2-#12, 1-#12 | 3/4" | K-1 | 9.8 A | 15 A | M | | | | | |

NOTES:

- UNIT PROVIDED WITH UV LAMP AND CONVENIENCE RECEPTACLE. PROVIDE 20A/1P CIRCUIT TO UNIT FOR UV AND RECEPTACLE.
- EQUIPMENT INCLUDED UNDER ALTERNATE #2.
- EQUIPMENT INCLUDED UNDER ALTERNATE #3.
- ELECTRICAL CONTRACTOR TO WIRE CONDENSER PUMPS FOR EACH UNIT VENTILATOR (UV).
- EQUIPMENT SHALL BE REPLACED IN-KIND. ELECTRICAL CONTRACTOR TO FIELD-VERIFY THE EXISTING CIRCUIT AND PANEL SERVING THE ORIGINAL EQUIPMENT AND CONNECT THE NEW EQUIPMENT TO EXISTING CIRCUIT.
- TOGGLE SWITCH BASIS OF DESIGN: SQUARE D 2510FGS
-

| LIGHTING SCHEDULE | | | | | | | | | | | | | |
|-------------------|--------|--------------|--------------------------------------|--------------------|---------------|--------------|------|-----|---------|-------|---------------------|-------|-------------------------------|
| TAG | SYMBOL | MANUFACTURER | MODEL NUMBER | DESCRIPTION | MOUNTING | TOTAL LUMENS | CCT | CRI | VOLTAGE | WATTS | EMERGENCY COMPONENT | NOTES | APPROVED EQUALS |
| HB1 | ■ | KEystone | KT-HBLEd215PS-2C-OSC-8C-SD-VDIM-P/WG | HIGH BAY | CEILING 22' | 30500 lm | 40 K | 80 | 120 V | 215 W | | 1 | LITHONIA, COLUMBIA, DAYBRIGHT |
| L1 | — | KEystone | KT-MSLED54-8-835-VDIM-P/LSM | 8' LINEAR | CEILING | 7100 lm | 35 K | 80 | 120 V | 54 W | | 2 | LITHONIA, COLUMBIA, FSC |
| S1 | ■ | HE WILLIMAS | NLV-L17/840-O-WHT-DRV-UNV | GYM WALL LIGHT | WALL 9' | 700 lm | 40 K | 80 | 120 V | 15 W | | 3 | NEW STAR, PACO |
| T1 | ■ | KEystone | KT-BPLED50PS-24-8CSA-VDIM | 2X4 LED FLAT PANEL | CEILING | 5600 lm | 35 K | 80 | 120 V | 50 W | | | LITHONIA, COLUMBIA, DAYBRIGHT |
| T2 | ■ | KEystone | KT-BPLED35PS-14C-8CSA-VDIM/G2 | 1X4 LED FLAT PANEL | CEILING | 4000 lm | 35 K | 80 | 120 V | 35 W | | | LITHONIA, COLUMBIA, DAYBRIGHT |

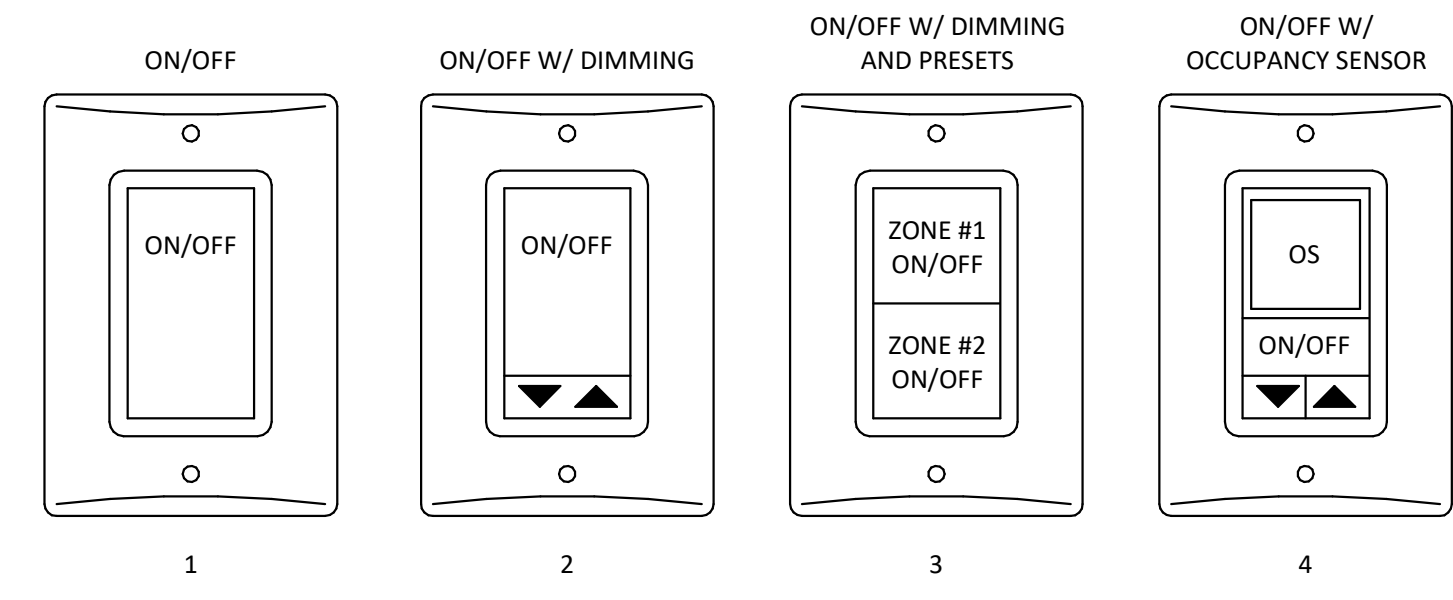
NOTES:
 1. PROVIDE WITH KT-HBLEd-CABLE-1B-KIT CABLE MOUNT IT
 2. PROVIDE WITH KT-MSLED-VH-KIT-V-HOOK AND CHAIN KIT & ALL REQUIRED BRACKETS
 3. PROVIDE ADEQUATE WALL CAVITY CLEARANCE TO ALLOW FOR INSTALLATION OF FIXTURE IN CINDER BLOCK WALL. PATCH AND FINISH ALL AFFECTED WALL SURFACES TO MATCH ADJACENT CONSTRUCTION.

| SENSOR SCHEDULE | | | | | | |
|-----------------|-------------------------------|---------------|--------------|----------------------|-----------|--------------|
| TAG | DESCRIPTION | COVERAGE TYPE | MOUNTING | DETECTION TECHNOLOGY | MODEL # | MANUFACTURER |
| DL | CEILING MOUNT PHOTO SENSOR | N/A | CEILING | PHOTOCELL | LMLS-500 | WATTSTOPPER |
| OS1 | OCCUPANCY SENSOR | STANDARD | CEILING | PDT | LMDC-100 | WATTSTOPPER |
| OS2 | OCCUPANCY SENSOR - HIGH MOUNT | HIGH MOUNT | CEILING | PIR | NCM-6-30M | ACUITY |
| RC1 | DUAL RELAY ROOM CONTROLLER | N/A | CEILING/WALL | N/A | LMRC-212 | WATTSTOPPER |
| RC2 | DUAL RELAY ROOM CONTROLLER | N/A | CEILING/WALL | N/A | LMRC-101 | WATTSTOPPER |

| SWITCH SCHEDULE | | | |
|-----------------|-------------------------------|-----------------|--------------|
| TAG | DESCRIPTION | BASIS OF DESIGN | MANUFACTURER |
| 1 | ON/OFF | LMSW-210 | WATTSTOPPER |
| 2 | ON/OFF WITH DIMMING | LMSW-211 | WATTSTOPPER |
| 3 | ON/OFF (TWO ZONES) | LMSW-220 | WATTSTOPPER |
| 4 | OCCUPANCY SENSOR WITH DIMMING | CS-50 | WATTSTOPPER |

| LIGHTING CONTROL SEQUENCE OF OPERATION | | | | | | | | |
|--|--------------------------|------------|--------------------------------|--------------------------------|--|-------------------------|---------------------|---|
| OPERATION SEQUENCE | ROOM TYPE | TIME DELAY | LIGHTING SEQUENCE | | | | RECEPTACLE SEQUENCE | DESCRIPTION |
| | | | POWER ON | POWER OFF | DAY LIGHT CONTROLS | DAYLIGHT SET POINT (FC) | | |
| 1 | WOOD SHOP/KITCHEN | N/A | MANUAL SWITCH | MANUAL SWITCH | N/A | | N/A | MANUAL ON MANUAL OFF |
| 2 | CORRIDOR | N/A | OCCUPANCY SENSOR | OCCUPANCY SENSOR | N/A | | N/A | AUTO-ON BY OCCUPANCY SENSOR. AUTO-OFF BY OCCUPANCY SENSOR. |
| 3 | CLASSROOM | 20 MIN. | MANUAL SWITCH | MANUAL SWITCH/OCCUPANCY SENSOR | N/A | | N/A | LIGHTING IS CONTROLLED VIA VACANCY SENSING. FIXTURES ARE SPLIT INTO TWO ZONES AND FULLY DIMMABLE FROM THE WALL SWITCHES. |
| 4 | GYMNASIUM | 20 MIN. | OCCUPANCY SENSOR | MANUAL SWITCH/OCCUPANCY SENSOR | N/A | | N/A | LIGHTS CONTROLLED THROUGH EXISTING NIGHT RELAY PANELS. PROVIDE NEW OCCUPANCY SENSORS. AUTO-ON VIA OCCUPANCY SENSOR OR SWITCH, AUTO-OFF VIA OCCUPANCY SENSOR OR SWITCH. |
| 5 | LOCKER ROOM | 20 MIN. | OCCUPANCY SENSOR | MANUAL SWITCH/OCCUPANCY SENSOR | N/A | | N/A | AUTO ON BY OCCUPANCY SENSOR, AUTO OFF BY OCCUPANCY SENSOR |
| 6 | CAFETERIA W/ DAYLIGHTING | 20 MIN. | OCCUPANCY SENSOR | MANUAL SWITCH/OCCUPANCY SENSOR | PHOTOSENSOR TO AUTOMATICALLY DIM FIXTURES TO LIGHT LEVEL SET POINT INDICATED | 45 | N/A | LIGHTING IS CONTROLLED VIA VACANCY SENSING. PROVIDE WALL SWITCHES FOR MANUAL CONTROL OF FIXTURES. FIXTURES ARE SPLIT INTO TWO ZONES AND CONTROLLED VIA TWO-BUTTON SWITCHES, EACH BUTTON CONTROLLING A ZONE, NEAR EACH ENTRANCE TO THE ROOM. DAYLIGHTING FIXTURES SERVING THE DESIGNATED PORTION OF THE CAFETERIA SHALL BE CONTROLLED BY A DAYLIGHTING SENSOR WITH 0-10V DIMMING |
| 7 | AUDITORIUM | N/A | MANUAL SWITCH | MANUAL SWITCH | N/A | | N/A | AUDITORIUM LIGHTING IS CONTROLLED BY TWO EXISTING LUTRON GRAFIK EYE INTERFACES WITH DIMMERS LOCATED AT THE STAGE AND IN THE SOUND BOOTH. PROVIDE NEW CONTROL WIRING TO DIVIDE THE HOUSE LIGHTING INTO TWO ZONES. REFER TO SHEET E-1108 FOR ZONES. |
| 8 | STORAGE/SM RESTROOM | 20 MIN. | MANUAL SWITCH/OCCUPANCY SENSOR | MANUAL SWITCH/OCCUPANCY SENSOR | N/A | N/A | N/A | LIGHTING IS CONTROLLED BY VACANCY SENSING. AUTO OFF BY OCCUPANCY SENSOR OR MANUAL OFF BY WALL SWITCH. |
| 9 | ADMIN | 20 MIN. | MANUAL SWITCH | MANUAL SWITCH/OCCUPANCY SENSOR | N/A | 45 | | LIGHTING IS CONTROLLED BY VACANCY SENSING, FIXTURES ARE FULLY DIMMABLE FROM THE WALL SWITCH |

ELECTRICAL CONTRACTOR SHALL PROVIDE NEW CONTROL WIRING FOR ROOMS WITH LV LIGHTING CONTROLS. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR WIRING REQUIRED.



LIGHT SWITCH ID DETAIL 1
NTS E-602

NOT FOR CONSTRUCTION

| | |
|-------------|------------|
| ISSUED FOR | |
| BIDDING | |
| DATE | 02/20/2026 |
| DESCRIPTION | DATE |
| ADDENDUM 01 | 03-02-2026 |
| ADDENDUM 02 | 03-06-2026 |

| | |
|-------------|------------|
| DRAWN BY | SMF |
| CHECKED BY | KDM |
| PROJECT NO. | 9166-10000 |
| SHEET NAME | |

LIGHTING SCHEDULES

PROVIDE NEW TYPE-WRITTEN CIRCUIT DIRECTORIES TO INCLUDE NEW LOADS FOR ALL PANELBOARDS



ALTERNATE #2
REMOVE EXISTING BREAKER
AND PROVIDE NEW 70A/3P
BREAKER FOR DH-2

HE PANEL 2
NTS E-605



DOAS-3 LIGHTS AND RECPT

ALTERNATE #3
DOAS-4 LIGHTS AND RECPT

ADD

STAGE PANEL 1
NTS E-605

ADD

ADD

MIDDLE SCHOOL HVAC UPGRADE

1059 3RD AVE NW, WAUKON, IA 52172

ALLAMAKEE CSD

ISSUED FOR

BIDDING

| DATE | 02/20/2026 |
|-------------|------------|
| DESCRIPTION | DATE |
| ADDENDUM 01 | 03-02-2026 |
| ADDENDUM 02 | 03-06-2026 |

DRAWN BY DMS
CHECKED BY KDM
PROJECT NO. 9166-10000

SHEET NAME
ELECTRICAL PANEL
SCHEDULES -
PHOTOS

E-605

NOT FOR CONSTRUCTION

ALLAMAKEE CSD MIDDLE SCHOOL HVAC UPGRADE

9166-10000

PRE-BID MEETING SIGN-IN

DATE: Wednesday, March 4, 2026 @ 3:00 PM

| NAME | FIRM | PHONE | EMAIL |
|------------------|----------------------|---------------|------------------------------------|
| Joe Lomheim | Axiom Consultants | (712)490-5553 | jlomheim@axiom-con.com |
| Tyler Plein | ACSD | 563-380-1725 | tplein@allamakee-ksd-ia.us |
| Jason Yahnke | Olympic Builders | 608-326-6200 | Jason.Yahnke@olympicbuildersgc.com |
| Brent Freilinger | Perry Novak Electric | 563-379-4109 | brent@pne.us |
| Jordan McCabe | Master Metals | 608-784-0210 | tpeters@mastermetalsinc.com |
| John McCabe | Master Metals | | |
| Doug Wall | UNZEITIG CONST | 319-362-3221 | doug.wall@unzeitig.com |
| Kenneth Kerr | Kerr Elect | 563 568 1422 | Kerr_electric@hotmail.com |
| Brennan Sweeney | Sweeney Builders | 563-794-1237 | Brennan@sweeneybuilders.com |
| Matt Schutte | Perry Novak Electric | 563-379-3673 | matt@pne.us |
| Adam Augedahl | Winona Controls | 507-450-0173 | adam@winonaccontrols.com |
| Kent Knutson | Winona Controls | 507-458-7685 | Kent@winonaccontrols.com |
| Randy Voigt | Casper Pkg & Htz | 563-414-8178 | rvoigt@casperdecorah.com |
| | | | |
| | | | |

Axiom Consultants # 9166-10000 - Allamakee CSD - Middle School HVAC Upgrades

The Allamakee Community School District Middle School HVAC Upgrades Project shall consist of providing ductless mini-split heat pump / air conditioning systems, hot water pumps, dedicated outside air units, kitchen air handling units, dining room air handling unit, terminal heating units, control valves, test and balancing, individual room heating and cooling units, ducted air distribution systems, control system upgrades, electrical system upgrades, new ceilings, new lights, incidental fire alarm modifications, incidental plumbing system modifications, incidental painting, flooring, incidental sprinkler protection, walk-in cooler and freezer cooling equipment, new primary electrical transformer, ventilation units for High School and Middle School locker room areas, and replacement windows under the base bid work to in the Waukon Middle School. Also included in the Waukon Middle School base bid work are demolition of specified components and removal, off site storage, and return of movable items to make way for asbestos removal and project construction. Alternate work shall include new windows and exterior wall work at East Elementary School, Middle School humidification systems, and the total remodeling of the Middle School Auditorium and Stage systems, and associated architectural component changes. Alternates for work shall include new heating for the East Elementary School stage, new stage curtains for East Elementary School and Middle School Auditorium stages, replacement windows, and replacement flooring materials at East Elementary School. All work is within the city limits of Waukon, Iowa. All project work shall be substantially complete by November 30, 2026. All contract work must be completed by December 31, 2026.

Plan Holders

| Date | Company | Contact | Bid Categories |
|------------------|--|---|------------------------------|
| 2/23/26 9:20 am | 03/2023 42617 County Road 12, Dakota, MN 55925 Dakota, MN 55925 | Landon Jorgenson Managing Member Tel: 5074591896 landon@fpsprinklers.com | Fire Protection |
| 2/20/26 4:25 pm | A&J Associates 206 North Point Ln Dallas Center, IA 50063 | Victor Amoroso Tel: 319-333-9955 amorosovic@ajengineers.net | Architect/Engineer |
| 2/20/26 4:27 pm | Air Control Products, Inc 8230 Hickman Road Clive, IA 50325 | Linda Albrecht President Tel: 515-271-5994 Fax: 515-274-2641 lindaa@aircntrl.com | HVAC |
| 2/23/26 10:41 am | Allamakee CSD 1059 3rd Ave. NW Waukon, IA 52172 | Jay Mathis jmathis@allamakee.k12.ia.us | Owner Plumbing Windows |

| Date | Company | Contact | Bid Categories |
|------------------|--|--|---|
| 2/23/26 9:17 am | American Fence Company 15225 Industrial Rd Omaha, NE 68144 | Dave Birge Lead Generation Tel: (531) 329-4400 x269 Fax: 402-896-9730 leadgeneration@americafence.com | Fencing |
| 2/20/26 4:23 pm | Axiom Consultants 300 S. Clinton Unit 200 Iowa City, IA 52240 | Joe Lomheim Tel: 7124905553 jlomheim@axiom-con.com | Architect/Engineer |
| 2/23/26 12:39 pm | Blackridge Research & consulting 4041 w Hollow Creek Drive Peoria, IL 61615 | Venkatesh Siva Tel: 9179937467 venkatesh@blackridgeresearch.com | General/Prime |
| 2/23/26 9:14 am | Blake Electric, Inc. PO BOX 171 Waukon, IA 52172 | John Blake Tel: 563-568-3686 john@blakeelectricinc.com | Electrical |
| 3/6/26 9:03 am | Bowman & Associates, Inc. 3802 34th St. Moline, IL 61265 | Mike Christensen sales Tel: (309)762-1537 mike@bowmanandassociates.com | Other |
| 2/21/26 10:17 am | Casper Plumbing & Heating 804 Pole Line Rd Decorah, 52101 | Randy Voigt Tel: 563-382-0642 Fax: 563-382-0503 rvoigt@casperdecorah.com | General/Prime HVAC Mechanical Plumbing |
| 3/3/26 9:31 am | CED - Universal Electric 2775 University Avenue DUBUQUE, IA 52001 | MARK SAND QUOTATIONS Tel: 563-583-1765 Fax: 563-583-5058 msand@ceduniversal.com | Electrical |
| 2/24/26 8:26 am | Crescent Electric Supply 1225 26th Ave Court SW Cedar Rapids, IA 52404 | William Reiter Quotations Tel: 563-583-6411 Fax: 319-866-4536 wjreit@cesco.com | Electrical |
| 2/20/26 4:25 pm | Design Dynamics, Inc. 1500 2nd Ave SE Suite 212 Cedar Rapids, IA 52403 | Robert Peck Tel: 319-298-0400 robertp@designdynamics.biz | |
| 2/22/26 2:15 pm | Dodge Data Analytics 2860 S Stage Hwy 161 Ste 160 #501 Grand Prairie, TX | Jayalakshmi L Tel: 4133767032 jayalakshmil@construction.com | Other |

| Date | Company | Contact | Bid Categories |
|------------------|--|---|---------------------------|
| 3/6/26 3:49 pm | Flow-Tech Solutions 2309 Pear Lane Madrid, IA 50156 | Brittney Burrows Project Operations Coordinator Tel: 5152051045 brittney.burrows@flow-techsolutions.com | HVAC Mechanical |
| 3/6/26 10:17 am | H2I Group Inc. 3120 Capital Way Cedar Falls, IA 50613 | Kurt Steiert Solutions Specialist Tel: 319-553-4352 ksteiert@h2igroup.com | Equipment |
| 2/24/26 5:44 pm | HYDRONIC ENERGY 3307 104TH STREET Des Moines, IA 50322 | Rick Kapustka Tel: 5152764935 rick@hydronicenergy.com | Supplier |
| 2/23/26 8:47 am | LaCrosse Builders Exchange 427 Gillette St LaCrosse, 54603 | Room Plan Tel: 608-781-1819 Fax: 608-781-1718 planroom@laxbx.com | Planroom |
| 2/23/26 2:18 pm | Master Builders of Iowa 221 Park Street Des Moines, IA 50309 | Cindy Adams Project Information Specialist Tel: 515-288-7339 Fax: 515-288-8718 mbiplanroom-dsm@mbionline.com | Planroom |
| 2/26/26 2:24 pm | Matt Construction, Inc. 203 Y Avenue Sumner, IA 50674 | Megan Matt-Callahan Project Manager Tel: 3194296476 Fax: 563-578-5791 megan.mattconstruction@gmail.com | General/Prime |
| 2/23/26 7:25 am | Minnesota Builders Exchange 1123 Glenwood Minneapolis, MN 55405 | Jeff Boelter Tel: 612-381-2620 mbex1123@gmail.com | General/Prime Planroom |
| 2/23/26 10:42 am | Olympic Builders General Contractors, Inc. 405 North Star Road Holmen, WI 54636 | Cindy Broer Office Assistant Tel: 608-526-4622 Fax: 608-526-4690 office@olympicbuildersgc.com | General/Prime |
| 2/25/26 9:27 am | Omaha Builders Exchange 4159 S. 94th St Omaha, NE 68127 | Lisa Shockey Tel: 402-991-6906 Fax: 402-884-7055 lisa.shockey@omahaplanroom.com | Planroom |

| Date | Company | Contact | Bid Categories |
|------------------|--|--|--------------------------|
| 2/23/26 9:43 am | PERRY NOVAK ELECTRIC INC. 2727 LOCUST ROAD DECORAH, IA 52101 | Brent Freilinger General Manager Tel: 563-382-2179 Fax: 563-382-9877 brent@pne.us | Electrical |
| 3/2/26 8:18 am | Personified Inc 326 W 17th St Waterloo, IA 50702 | Chris Jessen Estimator/Project Coordinator Tel: 319-232-3369 Fax: 319-232-5870 chris@personifiedpmi.com | Insulation Mechanical |
| 3/6/26 6:13 am | QCI Thermal Systems 2365 Northeast Drive Waterloo, 50703 | Brian Milius Tel: 319-235-0949 Fax: 319-235-9514 brianmilius@qcits.com | Insulation Mechanical |
| 2/20/26 4:23 pm | Rapids Reproductions, Inc. 415 Highland Avenue Suite 100 Iowa City, IA 52240 | Iowa City Repro Project Reprographer Tel: 319-354-5950 Fax: 319-354-8973 iowacity@rapidsrepro.com | |
| 2/23/26 3:21 pm | Republic Electric Company 737 Charlotte Street Davenport, IA 52803 | Michael Beninga Territory Manager Tel: 319-415-7113 beningam@republicco.com | Electrical |
| 2/23/26 9:19 am | SEE Electric 2337 Shag Bark Lane Road Decorah, IA 52101 | Don Van Duyn Tel: 563-382-6116 Fax: 563-382-4133 info@seeelectric.com | Electrical |
| 3/4/26 9:17 am | Setpoint Mechanical 8951 Thomas Ave Johnston, IA 50131 | Austin Deeming Tel: 5159746497 austin@setpointmech.com | HVAC |
| 2/24/26 10:37 am | Setpoint Mechanical 8951 Thomas Ave Johnston, IA 50131 | Isaac Anderson Air Distribution Specialist Tel: 5157837124 isaac@setpointmech.com | HVAC |
| 3/3/26 8:50 am | Siemens 3175 12th St SW Cedar Rapids, IA 52404 | Zachary Lyness Tel: 9727651814 zachary.lyness@siemens.com | HVAC |

| Date | Company | Contact | Bid Categories |
|------------------|--|---|------------------------------|
| 3/3/26 12:30 pm | Sweeney Builders, Inc 511 8th Ave. NW Waukon, IA 52172 | Brennan Sweeney Project Manager / Estimator Tel: (563) 568-2887 brennan@sweeneybuilders.com | General/Prime |
| 3/6/26 7:36 am | Systems Management & Balancing 925 SE Olson Drive Waukee, IA 50263 | Tesha Thrailkill Estimator Tel: 515-987-2825 teshat@hvactab.com | HVAC Mechanical Piping |
| 3/3/26 10:35 am | The La Crosse Builders Exchange 709 Gillette Street La Crosse, WI 54603 | Data Reporter Construction Reporter Tel: 6087811819 Fax: 608-781-1819 planroom@laxbx.com | Planroom |
| 3/1/26 8:55 pm | Trane 4801 Grand Avenue Davenport, IA 52807 | Trane Bids Iowa Tel: 5634684910 tranebidsiowa@trane.com | HVAC |
| 2/24/26 9:37 am | Tricon Construction Group 1230 East 12th St Dubuque, IA 52001 | Tricon Estimator Tel: 563-588-9516 Fax: 563-588-9519 tricon@triconcg.com | General/Prime |
| 3/3/26 3:44 pm | Unzeitig Construction 1619 F ave NE cedar rapids, 52403 | Jim Unzeitig Tel: 319-362-3221 Fax: 319-362-2849 jim.unzeitig@unzeitig.com | General/Prime |
| 3/3/26 8:59 am | Unzeitig Construction 1619 F ave NE cedar rapids, IA 52403 | Jim Unzietig Tel: 319-362-3221 jim.unzeitig@unzeitig.com | General/Prime |
| 2/23/26 10:54 am | VHF Sales Inc 2655 SE Enterprise Dr Grimes, IA 50111 | Michael Skallerud Engineering and Sales Tel: 515-986-3671 Fax: 515-986-2564 mike@vhfsales.com | HVAC |
| 2/23/26 10:44 am | winona controls 108 bitten st caledonia, MN 55921 | Adam Augedahl Tel: 5074500173 adam@winonacontrols.com | HVAC |
| 3/5/26 11:33 am | Woodruff Construction, LLC 1717 Falls Avenue Waterloo, IA 50701 | Nate Harden Tel: 319-233-3349 Fax: 319-233-3369 nateh@woodruff.build | General/Prime |

| Date | Company | Contact | Bid Categories |
|----------------|--|--|----------------|
| 3/4/26 7:18 am | zephyr aluminum products 555 huff st. dubuque, IA 52003 | Scott Timmerman Project Manager/Estimator Tel: 5635882036 Fax: 563 588-4355 scottt@zephyralum.com | Glass/Glazing |