WEST MIDDLE SCHOOL
HVAC SYSTEM UPGRADES
ROCKFORD, ILLINOIS

RPS PROJECT #2242
IFB# 22-22

ROCKFORD PUBLIC SCHOOLS

Larson & Darby Group

4949 Harrison Avenue Suite 100

Architects Engineers Interiors

Rockford, Illinois

ISSUED FOR: BIDDING

JAN 21, 2022

ABBREVIATIONS

ALUM.	ALUMINUM
ACOUST.	ACOUSTICAL
CLG.	CEILING
CONT.	CONTINUOUS
BTM.	BOTTOM
DTL.	DETAIL
DWG.	DRAWING
EA.	EACH
F.B.O.	FURNISHED BY OWNER
GALV.	GALVANIZED
HDWR.	HARDWARE
HR.	HOUR
INSUL.	INSULATION
MATL.	MATERIAL
MTL.	METAL
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
OPNG.	OPENING
RTG.	RATING
SPEC.	SPECIFICATION
STD.	STANDARD
STL.	STEEL
U.N.O.	UNLESS NOTED OTHERWISE
W/	WITH

MATERIALS

- CMU
- CONCRETE
- EARTH
- GRAVEL (GRANULAR FILL)
- STEEL
- WOOD BLOCKING (LUMBER)
- FINISHED WOOD TRIM
- PLYWOOD
- GYP. WALLBOARD
- BATT INSULATION
- RIGID INSULATION

SHEET INDEX

CODE SUMMARY

Building Code: 2015 International Building Code (IBC)

Other Codes: 2015 International Mechanical Code
2014 NFPA National Electrical Code
2014 Illinois Plumbing Code
2015 International Fire Prevention Code

Accessibility Code: 2018 Illinois Accessibility Code (IAC)

Type of Project: Renovation
Use & Occupancy Class: E (Educational)
Type of Construction: IB
Fire Suppression: Non-Sprinklered
Allowable Height: 5-Stories at 160' (Table 503)
Actual Height: 48'-8" (at tallest point)
Allowable Area: Unlimited (Table 503)
Actual Area: 99,392 s.f.

Exit Access Travel Distance (1016.1)
without Sprinkler System: 200'

Fire-resistance Rating Requirements: (Table 601)
Structural Frame: 2 hr.
Bearing Walls - Exterior: 2 hr.
Bearing Walls - Interior: 2 hr.
Non-bearing Walls & Partitions - Exterior: 1 hr.
Non-bearing Walls & Partitions - Interior: 0 hr.
Floor Construction - Beams & Joists: 2 hr.
Roof Construction - Beams & Joists: 1 hr.

Exterior Wall Ratings base on Separation Distance (Table 602)
X < 5', IB, Group E: 1 hr.
5' ≤ X < 10', Group E: 1 hr.
10' ≤ X < 30', Group E: 1 hr.
X > 30', Group E: 0 hr.

Corridor Fire-resistance Ratings (1018.1)
without Sprinkler System: 1 hr.

Elevator Machine Room (3006.4): N/A

Shaft Ratings (708.4):
Elevator shaft: N/A
Stair shafts: N/A

Incidental Use Areas (509):
Furnace rooms: 1 hr.
Boiler Rooms: 1 hr.
Incinerator Rooms: 2 hr.

SEALS

STATE OF ILLINOIS
STEPHEN M. NELSON
001-016066
LICENSED ARCHITECT

EXPIRES: _____

STEPHEN M. NELSON
LICENSED ARCHITECT

DATE

Larson & Darby Group Design Firm Registration Number:
184-000280 (1-012449) (62-031399)

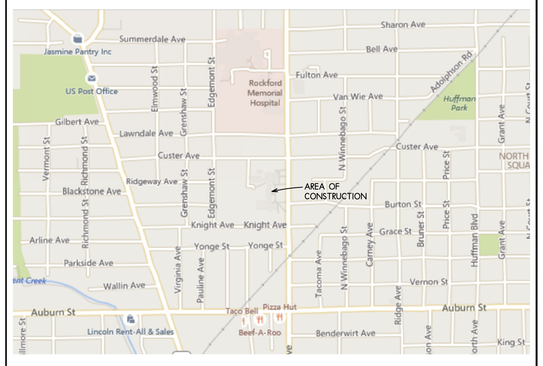
RAED SALEM
062-059650
LICENSED PROFESSIONAL ENGINEER
ILLINOIS

EXPIRES: _____

RAED SALEM
PROFESSIONAL ENGINEER

DATE

SITE LOCATION MAP



COMPLIANCE STATEMENT

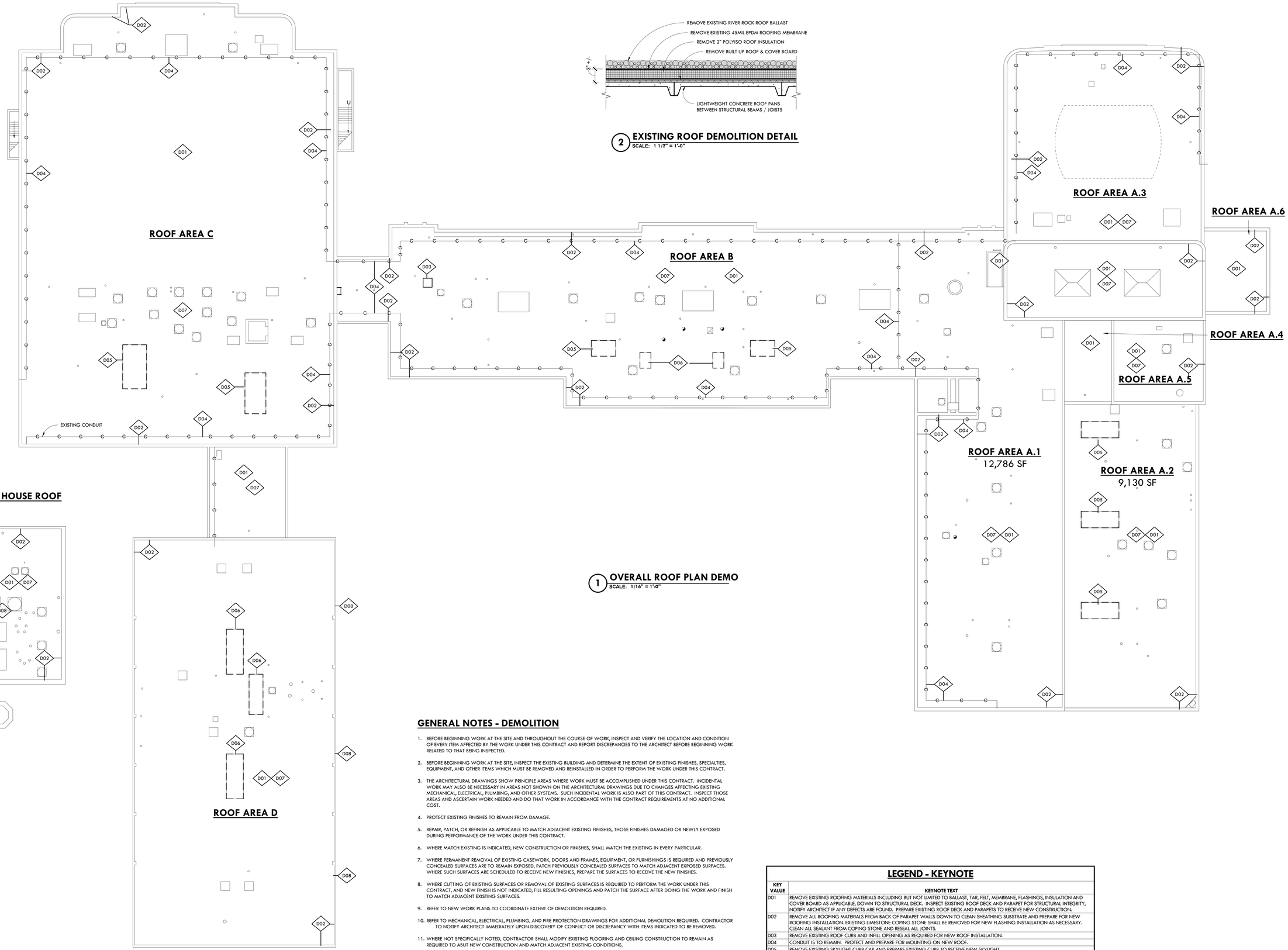
I HAVE PREPARED, OR CAUSED TO BE PREPARED UNDER MY DIRECT SUPERVISION, THE ATTACHED PLANS AND SPECIFICATIONS AND STATE THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF AND TO THE EXTENT OF MY CONTRACTUAL OBLIGATION, THEY ARE IN COMPLIANCE WITH THE ENVIRONMENTAL BARRIERS ACT (410 ILCS 25) AND THE ILLINOIS ACCESSIBILITY CODE, (71 IL. ADM. CODE 400). ADA HAS NEITHER A SUBMITTAL REVIEW, NOR AN INSPECTION PROCESS TO INTERPRET DISABILITY LAWS. AS PART OF THE CIVIL RIGHTS ACT AND NOT A CODE, ADA COMPLIANCE CAN NOT BE CERTIFIED TO. TO THE BEST OF MY ABILITY AND KNOWLEDGE, I HAVE INTERPRETED AND ATTEMPTED TO COMPLY WITH ALL ADA STANDARDS, 42 U.S.C. SECTION 12101 ET SEQ. THIS IS PERCEIVED COMPLIANCE, NOT CERTIFICATION.

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING		
DRAWN BY:		CHECKED BY:		APPROVED BY:	

DATE:	01-21-2022
PROJECT NUMBER	31029-01
SHEET NUMBER	CS



2 EXISTING ROOF DEMOLITION DETAIL
SCALE: 1 1/2" = 1'-0"

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

GENERAL NOTES - DEMOLITION

1. BEFORE BEGINNING WORK AT THE SITE AND THROUGHOUT THE COURSE OF WORK, INSPECT AND VERIFY THE LOCATION AND CONDITION OF EVERY ITEM AFFECTED BY THE WORK UNDER THIS CONTRACT AND REPORT DISCREPANCIES TO THE ARCHITECT BEFORE BEGINNING WORK RELATED TO THAT BEING INSPECTED.
2. BEFORE BEGINNING WORK AT THE SITE, INSPECT THE EXISTING BUILDING AND DETERMINE THE EXTENT OF EXISTING FINISHES, SPECIALTIES, EQUIPMENT, AND OTHER ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT.
3. THE ARCHITECTURAL DRAWINGS SHOW PRINCIPLE AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS DUE TO CHANGES AFFECTING EXISTING MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER SYSTEMS. SUCH INCIDENTAL WORK IS ALSO PART OF THIS CONTRACT. INSPECT THOSE AREAS AND ASCERTAIN WORK NEEDED AND DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AT NO ADDITIONAL COST.
4. PROTECT EXISTING FINISHES TO REMAIN FROM DAMAGE.
5. REPAIR, PATCH, OR REFINISH AS APPLICABLE TO MATCH ADJACENT EXISTING FINISHES, THOSE FINISHES DAMAGED OR NEWLY EXPOSED DURING PERFORMANCE OF THE WORK UNDER THIS CONTRACT.
6. WHERE MATCH EXISTING IS INDICATED, NEW CONSTRUCTION OR FINISHES, SHALL MATCH THE EXISTING IN EVERY PARTICULAR.
7. WHERE PERMANENT REMOVAL OF EXISTING CASEWORK, DOORS AND FRAMES, EQUIPMENT, OR FURNISHINGS IS REQUIRED AND PREVIOUSLY CONCEALED SURFACES ARE TO REMAIN EXPOSED, PATCH PREVIOUSLY CONCEALED SURFACES TO MATCH ADJACENT EXPOSED SURFACES. WHERE SUCH SURFACES ARE SCHEDULED TO RECEIVE NEW FINISHES, PREPARE THE SURFACES TO RECEIVE THE NEW FINISHES.
8. WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING SURFACES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT, AND NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK AND FINISH TO MATCH ADJACENT EXISTING SURFACES.
9. REFER TO NEW WORK PLANS TO COORDINATE EXTENT OF DEMOLITION REQUIRED.
10. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL DEMOLITION REQUIRED. CONTRACTOR TO NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF CONFLICT OR DISCREPANCY WITH ITEMS INDICATED TO BE REMOVED.
11. WHERE NOT SPECIFICALLY NOTED, CONTRACTOR SHALL MODIFY EXISTING FLOORING AND CEILING CONSTRUCTION TO REMAIN AS REQUIRED TO ABUT NEW CONSTRUCTION AND MATCH ADJACENT EXISTING CONDITIONS.
12. COORDINATE SLAB REMOVAL AND REPLACEMENT WITH PLUMBING AND ELECTRICAL UNDERGROUND AND IN-SLAB WORK.
13. WHERE AN ITEM IS SHOWN TO BE REMOVED OR DEMO'ED ALL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS SHALL BE REMOVED WITH IT U.N.O. PIPING SHALL BE REMOVED TO WITHIN NEARES WALL TO REMAIN AND CAPPED. ELECTRICAL WIRING AND CONDUIT SHALL BE REMOVED BACK TO NEAREST JUNCTION BOX TO REMAIN. DUCTS AND TERMINALS SHOULD BE REMOVED AS FAR AS NECESSARY FOR NEW DISTRIBUTION SYSTEM OR COMPONENTS TO TIE INTO, OR CAP WITHIN CONCEALED SPACE.
14. ALL ANCILLARY ROOF AREAS OF PENTHOUSES AND CANOPIES SHALL BE INCLUDED WITH RE-ROOFING WORK EVEN WHERE NOT EXPLICITLY IDENTIFIED ON THE DRAWINGS
15. COORDINATE DEMOLITION WITH MECHANICAL DRAWINGS

LEGEND - KEYNOTE

KEY VALUE	KEYNOTE TEXT
D01	REMOVE EXISTING ROOFING MATERIALS INCLUDING BUT NOT LIMITED TO BALLAST, TAR, FELT, MEMBRANE, FLASHINGS, INSULATION AND COVER BOARD AS APPLICABLE, DOWN TO STRUCTURAL DECK. INSPECT EXISTING ROOF DECK AND PARAPET FOR STRUCTURAL INTEGRITY, NOTIFY ARCHITECT IF ANY DEFECTS ARE FOUND. PREPARE EXISTING ROOF DECK AND PARAPETS TO RECEIVE NEW CONSTRUCTION.
D02	REMOVE ALL ROOFING MATERIALS FROM BACK OF PARAPET WALLS DOWN TO CLEAN SHEATHING SUBSTRATE AND PREPARE FOR NEW ROOFING INSTALLATION. EXISTING LIMESTONE COPING STONE SHALL BE REMOVED FOR NEW FLASHING INSTALLATION AS NECESSARY. CLEAN ALL SEALANT FROM COPING STONE AND RESEAL ALL JOINTS.
D03	REMOVE EXISTING ROOF CURB AND INFILL OPENING AS REQUIRED FOR NEW ROOF INSTALLATION.
D04	CONDUIT IS TO REMAIN. PROTECT AND PREPARE FOR MOUNTING ON NEW ROOF.
D05	REMOVE EXISTING SKYLIGHT CURB CAP AND PREPARE EXISTING CURB TO RECEIVE NEW SKYLIGHT.
D06	REMOVE EXISTING SKYLIGHT CURB AND CAP. INFILL OPENING AND PREPARE TO RECEIVE NEW CONSTRUCTION.
D07	COORDINATE WITH MECHANICAL, PLUMBING, AND ELECTRICAL FOR EXISTING ROOF EQUIPMENT, PIPING, CURBS AND PENETRATION DEMOLITION AND MODIFICATION.
D08	REMOVE EXISTING SCUPPERS, SCUPPER BOXES, AND DOWNSPOUTS. KEEP ONE AS TEMPLATE FOR NEW CONSTRUCTION.

DEMOLITION PLAN

SCALE: AS NOTED

NORTH

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Architecture Engineering Interiors

WEST MIDDLE SCHOOL ROOF REPLACEMENT
RPS DISTRICT 205 - PROJECT #2239 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL 61103

ISSUED FOR:	DATE	ISSUED FOR:	DATE
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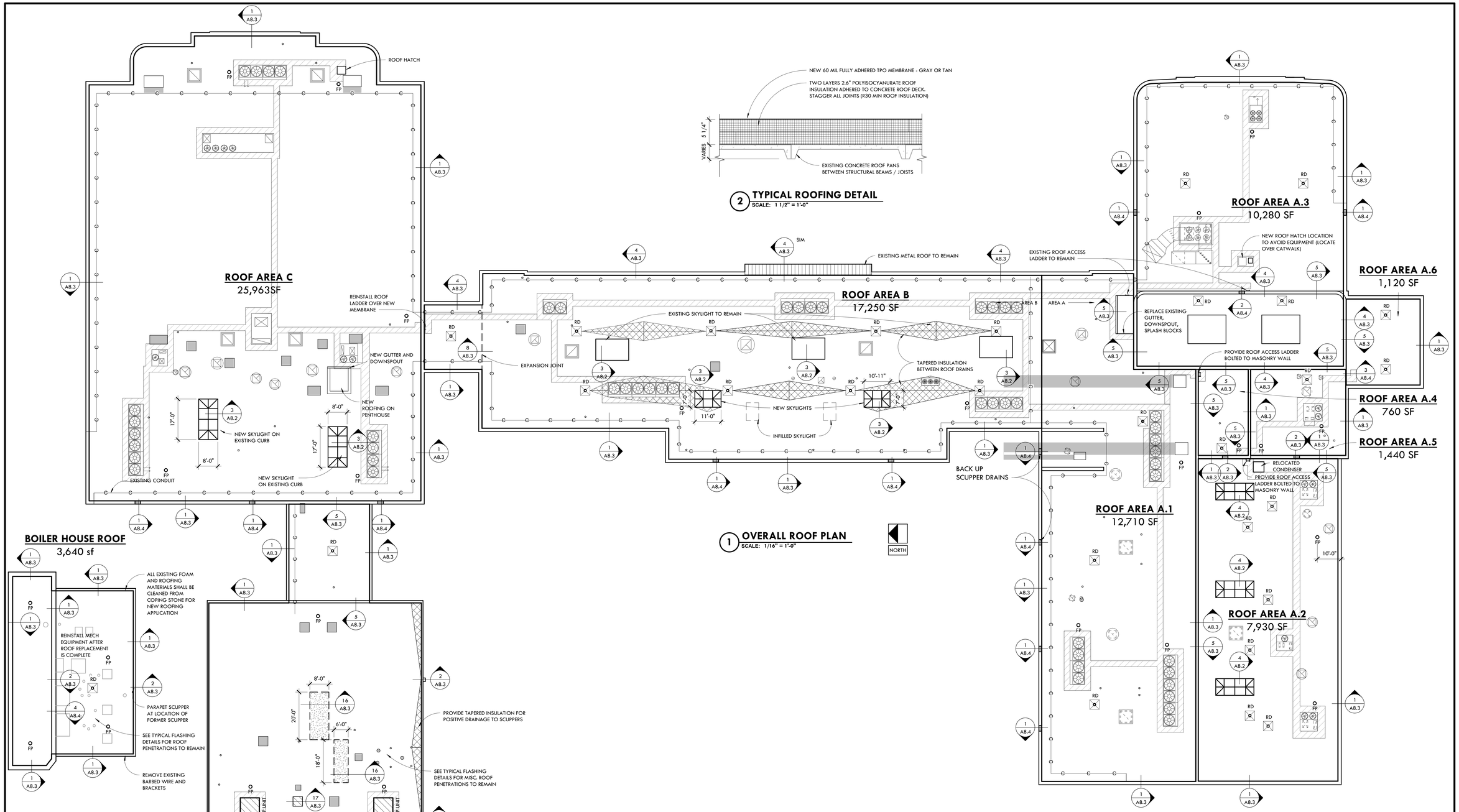
DATE: 01/21/22
PROJECT NUMBER 31029-01
SHEET NUMBER AD0.1



2 TYPICAL ROOFING DETAIL
SCALE: 1 1/2" = 1'-0"

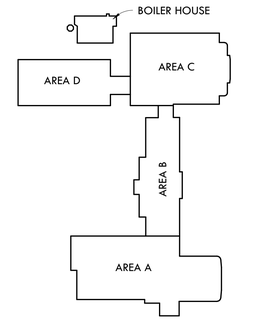
1 OVERALL ROOF PLAN
SCALE: 1/16" = 1'-0"

GENERAL NOTES - ROOF

1. PROVIDE TAPERED INSULATION AS NOTED AND AS REQUIRED TO ACCOMPLISH POSITIVE SLOPE TO ALL DRAINS. MINIMUM INSULATION THICKNESS FOR TAPERED AREAS IS TO BE 1" AT DRAINS, 2" AT THE 4'-0" SQUARE DISHED AREAS, AND 7" AT RIDGES
2. COORDINATE WITH PLUMBING DRAWINGS FOR PLUMBING VENT PENETRATIONS THROUGH ROOF. SEE TYPICAL PENETRATION DETAILS.
3. COORDINATE WITH ALL OTHER DRAWINGS FOR ADDITIONAL PENETRATIONS THROUGH ROOF. (STRUCTURAL, HVAC, ELECTRICAL, TECH)
4. REFER TO SPECIFICATIONS FOR DESCRIPTION OF ROOF MEMBRANE SYSTEM AND REQUIREMENTS. PROVIDE SINGLE SOURCE SYSTEM. PROVIDE SYSTEM STANDARD DETAILS FOR ALL APPLICABLE FLASHING, OPENING, PENETRATION, TERMINATION, ETC., CONDITIONS.
5. PROVIDE TAPERED INSULATION SADDLES AT ALL MECHANICAL EQUIPMENT CURBS.
6. PROVIDE CURBS FOR ALL NEW ROOF TOP EQUIPMENT
7. ROOF TOP EQUIPMENT THAT IS NO LONGER USED SHALL BE REMOVED AND OPENINGS FRAMED AND FILLED TO MATCH FIELD OF ROOF. COORDINATE WITH MECHANICAL PLANS
8. ALL VENT PIPES SHALL EXTEND 18" (MIN) ABOVE ROOF. PRIOR TO BID CONTRACTOR SHALL SURVEY ALL EXISTING VENTS AND PROVIDE NECESSARY EXTENSION TO ANY VENTS THAT WILL BE LESS THAN 18" FROM TOP OF ROOF.
9. DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL SCOPE CONCEPT OF THE PROJECT, AND AS SUCH DO NOT NECESSARILY INDICATE OR DESCRIBE ALL OF THE WORK REQUIRED FOR THE FULL PERFOMANCE AND COMPLETION OF THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING CONDITIONS PRIOR TO BID. CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS REQUIRED FOR PROPER INSTALLATION OF WORK AND COMPLETE AND FUNCTIONING SYSTEMS.

LEGEND - ROOF

- RD — ROOF DRAIN
- WALK PADS
- MECHANICAL EQUIPMENT - SEE MECH DRAWINGS FOR DETAILS
- FP — FALL PROTECTION TIE OFF POST



KEY PLAN

ROOF PLAN
SCALE: AS NOTED

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Architecture Engineering Interiors

WEST MIDDLE SCHOOL ROOF REPLACEMENT
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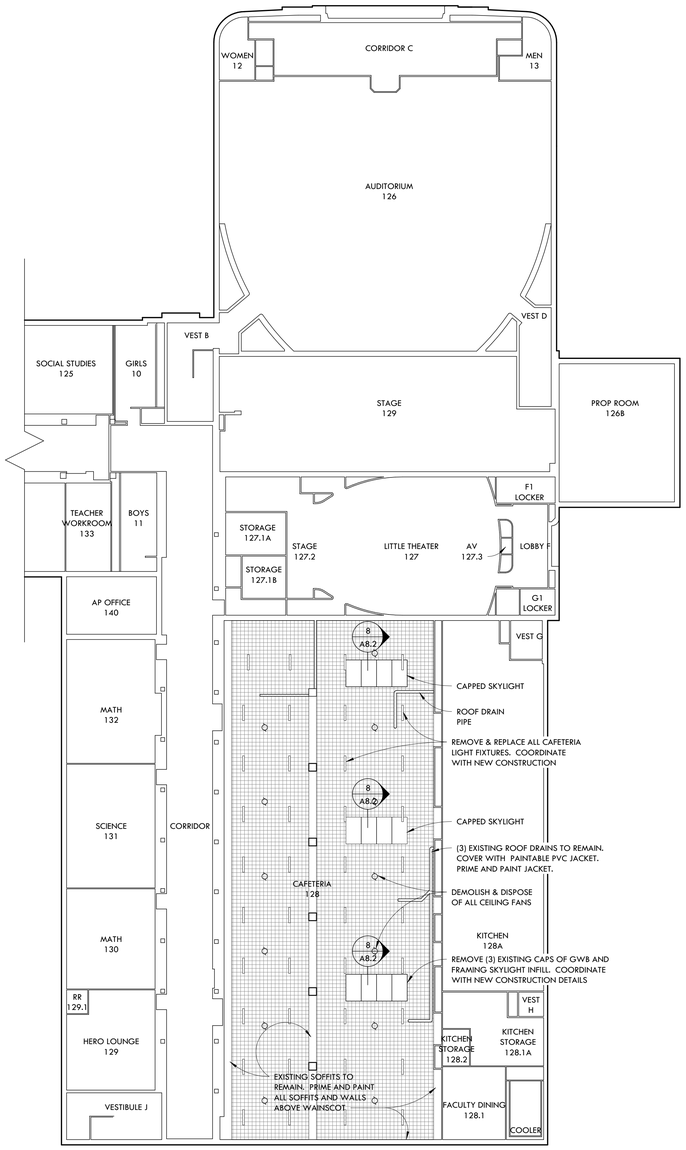
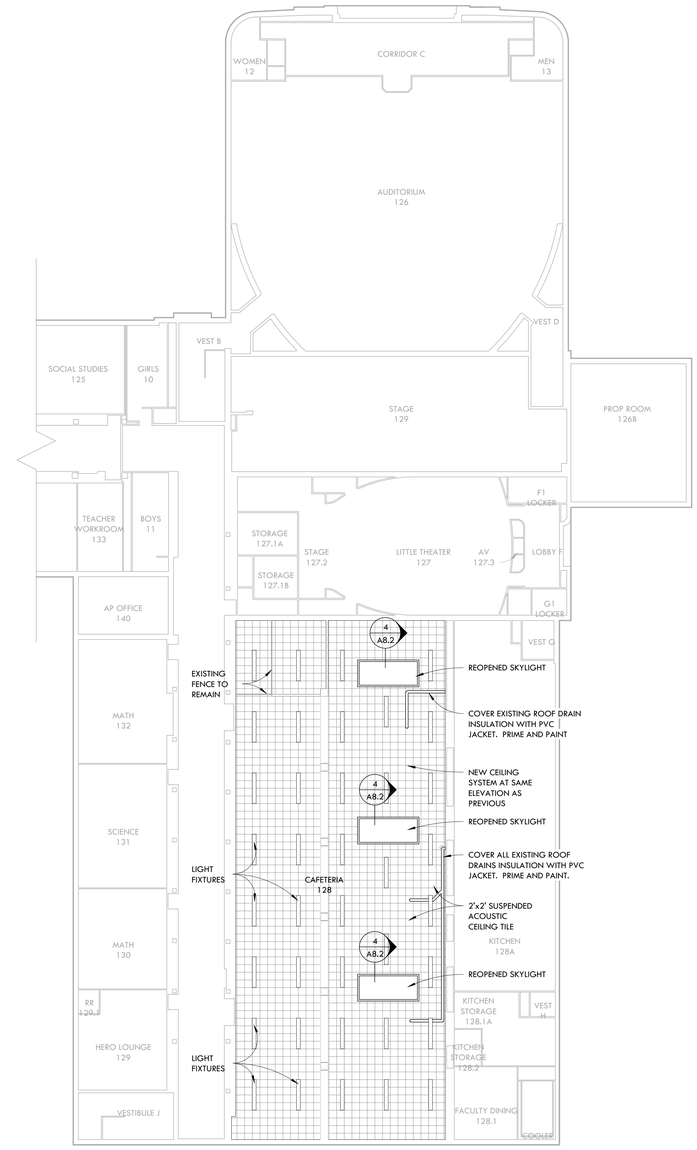


1 REFLECTED CEILING PLAN DEMO

SCALE: 1/16" = 1'-0"



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15. COORDINATE DEMOLITION WITH MECHANICAL DRAWINGS

GENERAL NOTES - REFLECTED CEILING

1. COORDINATE LIGHTING LAYOUT WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS.
2. COORDINATE DIFFUSERS, GRILLES, AND DUCTWORK WITH MECHANICAL DRAWINGS AND SPECIFICATIONS.
3. SEE FIRE PROTECTION DRAWINGS FOR LOCATIONS OF SPRINKLER HEADS. HEADS SHOULD ALWAYS BE LOCATED IN CENTER OF CEILING TILE WHEN POSSIBLE.
4. ALL EXPOSED ROOF STRUCTURE, MISCELANEOUS STEEL, PIPING, CONDUIT, DUCT WORK, HANGARS, RODS, BRACES, UNISTRUT, AND TIES ARE TO BE PRIMED AND PAINTED
5. NEW CEILING SYSTEM SHALL BE EQUAL TO USG MARS HIGH NRC #88135 2x2x7/8" - slt EDGE, 85/35 - NRC/CAC. SUSPEND SYSTEM FROM STRUCTURE ABOVE.

LEGEND - REFLECTED CEILING

- 2' X 2' LAY-IN ACOUSTICAL CEILING PANEL SYSTEM
- EXISTING 2' X 2' LAY-IN ACOUSTICAL CEILING PANEL SYSTEM
- GYPSUM WALLBOARD CEILING
- 2'x4' RECESSED TROFFER LIGHT FIXTURE
- RECESSED LIGHT FIXTURE
- RECESSED WALL WASHER
- SUPPLY AIR DIFFUSER
- RETURN AIR REGISTER / TRANSFER GRILLE
- EXHAUST AIR REGISTER
- ACP 8'-0" CLNG MTRL / CEILING HEIGHT (WHERE MTRL IS "ES" HEIGHT INDICATES BOTTOM CEILING FINISH ON WALLS)

CAFETERIA REFLECTED CEILING PLAN

SCALE: AS NOTED

NORTH

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RPS DISTRICT 205 - PROJECT #2239 - IFB #22-22
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Author	Checker	Approver

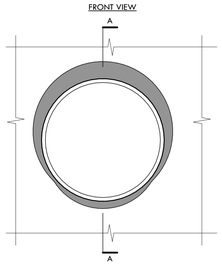
DATE: 01/21/22
PROJECT NUMBER 31029-01
SHEET NUMBER A6.1

UL SYSTEM NO. WL1054

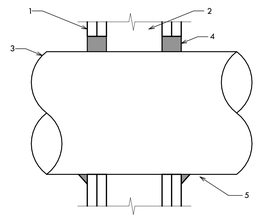
METAL PIPE THROUGH 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING = 0-HR
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. (NOT SHOWN), WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 30" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 30" NOMINAL DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 6" NOMINAL DIAMETER EMT.
   E. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
4. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT:
   A. MINIMUM 5/8", FOR A 1-HR. FIRE RATING.
   B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR. FIRE RATING.
5. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

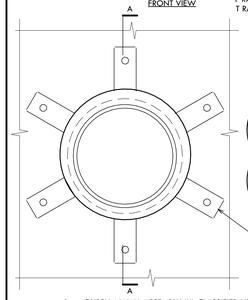
NOTES:
1. MAXIMUM DIAMETER OF OPENING:
   A. 32-1/4" FOR STEEL STUD WALLS.
   B. 14-1/2" FOR WOOD STUD WALLS.
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/2".

UL SYSTEM NO. WL2078

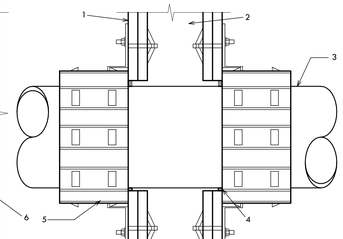
PLASTIC PIPE THROUGH 1-HR. OR 2HR. GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING - 1-HR OR 2-HR.

FRONT VIEW



SECTION A-A



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2. (NOT SHOWN), WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 6" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
   B. MAXIMUM 6" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
   C. MAXIMUM 6" NOMINAL DIAMETER FRPP PLASTIC PIPE.
   D. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE.
4. SEE NOTE NO. 1 BELOW.
5. HILTI CP 642 OR HILTI CP 643 FIRESTOP COLLAR (SEE TABLE BELOW).
6. FASTEN EACH MOUNTING TAB TO WALL ASSEMBLY WITH APPROPRIATE HILTI ANCORS.

NOM. PIPE DIA.	PRODUCT DESCRIPTION	NO. OF MOUNTING TABS	MAX. HOLE SIZE
1-1/2"	CP 643 50/1.5"	2	2-1/8"
2"	CP643 63/2"	2	2-5/8"
3"	CP643 90/3"	3	4"
4"	CP643 110/4"	3	5"
6"	CP 642 160/6"	6	7"

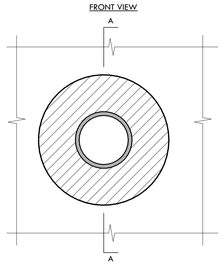
NOTES:
1. TO IMPEDE COLD SMOKE, PROVIDE 1/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IN ANNULAR SPACE AROUND PLASTIC PIPE.
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2"
3. CLOSED OR VENTED PIPING SYSTEMS. (PVC, ABS, FRPP - SCH. 40, CPVC = SDR 17).

UL SYSTEM NO. WL2098

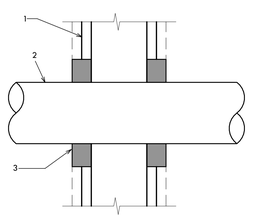
CLOSED PVC/CPVC PLASTIC PIPE THROUGH 1-HR. OR 2HR. GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING - 1-HR OR 2-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CLOSED PIPING SYSTEM).
   B. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM).
3. HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT FORCED INTO ANNULAR SPACE TO MAXIMUM EXTENT POSSIBLE.
   A. MINIMUM 5/8" DEPTH, FOR A 1-HR FIRE-RATING.
   B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR FIRE-RATING.

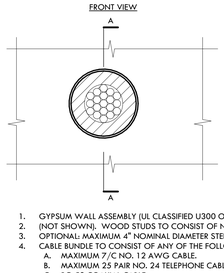
NOTES:
1. MAXIMUM DIAMETER OF OPENING = 4-3/8"
2. ANNULAR SPACE = MINIMUM 3/4".. MAXIMUM 1-1/4"

UL SYSTEM NO. WL3065

CABLE BUNDLE THROUGH 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING - 0-HR
L RATING AT AMBIENT = LESS THAN 5 CFM/SQ. FT.
L RATING AT 400°F = 2 CFM/SQ. FT.

FRONT VIEW



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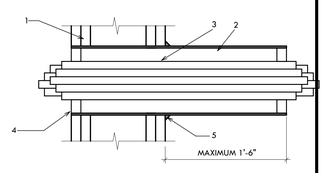


1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. (NOT SHOWN), WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. OPTIONAL: MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER) (SEE NOTE NO. 4 BELOW).
4. CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING:
   A. MAXIMUM 7/C NO. 12 AWG CABLE.
   B. MAXIMUM 25 PAIR NO. 24 TELEPHONE CABLE.
   C. RG 59 COAXIAL CABLE.
   D. 3/C NO. 14 AWG METAL-CLAD CABLE.
   E. 2/C NO. 8 AWG METAL-CLAD CABLE.
   F. MAXIMUM 5/8" DIAMETER FIBER-OPTIC CABLE.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
6. SEE NOTE NO. 4 BELOW.

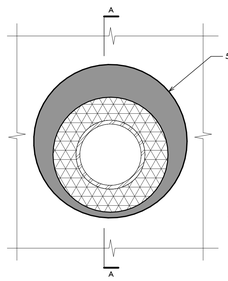
NOTES:
1. MAXIMUM SIZE OF OPENING = 4-1/2".
2. ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 3/4".
3. CABLES TO FILL MAXIMUM 45% OF CROSS-SECTIONAL AREA OF OPENING.
4. STEEL SLEEVE MAY BE FLUSH WITH WALL SURFACE OR EXTEND UP TO 1'-6" BEYOND WALL SURFACE. WHEN SLEEVE IS EXTENDED BEYONE ONE OR BOTH SIDES OF WALL, APPLY MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT TO WALL/SLEEVE INTERFACE.

UL SYSTEM NO. WL5029

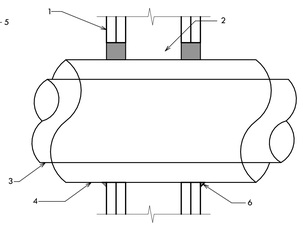
INSULATED METAL PIPE THROUGH 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING = 1/2-HR., 3/4-HR. 1-HR., OR 1-3/4 HR. (SEE U.L. FIRE RESISTANCE DIRECTORY)
L RATING AT AMBIENT = 4 CFM/SQ. FT.
L RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN).
2. (NOT SHOWN), WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 20 OR HEAVIER).
   B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   D. MAXIMUM 4" NOMINAL DIAMETER EMT.
4. MAXIMUM 2" THICK GLASS FIBER PIPE INSULATION.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
6. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

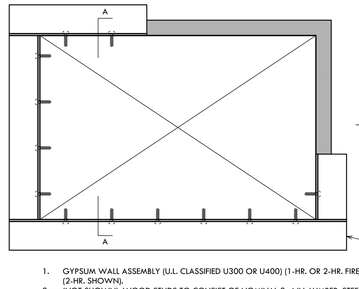
NOTES:
1. MAXIMUM DIAMETER OF OPENING = 18"
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM = 1-7/8"

UL SYSTEM NO. WL7040

METAL DUCT (WITHOUT DAMPER) THROUGH 1-HR. OR 2-HR.

GYPSUM WALL ASSEMBLY
F RATING = 1-HR. OR 2-HR.
T RATING = 0-HR.

FRONT VIEW



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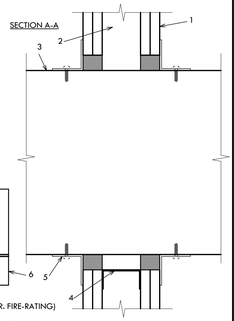


1. GYPSUM WALL ASSEMBLY (U.L. CLASSIFIED U300 OR U400) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. (NOT SHOWN), WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. RECTANGULAR SHEET METAL DUCT (MAXIMUM SIZE: 24" x 48", MINIMUM 24 GA. THICKNESS). (NOTE: NOT FOR USE IN DUCT SYSTEMS CONTAINING A FIRE DAMPER).
4. OPENING TO BE "FRAMED OUT" WHT LIGHT GAGE METAL FRAMING STUDS.
5. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT:
   A. MINIMUM 5/8" DEPTH OF SEALANT FOR A 1-HR. FIRE-RATING.
   B. MINIMUM 1-1/4" DEPTH OF SEALANT FOR A 2-HR. FIRE-RATING.
6. SEE NOTE NO. 3 BELOW.

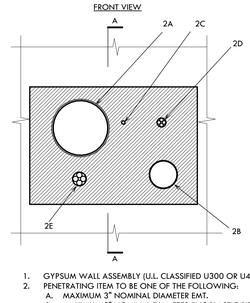
NOTES:
1. MAXIMUM AREA OF OPENING = 1244 SQUARE INCHES WITH A MAXIMUM DIMENSION OF 49-1/4 IN.
2. ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 1".
3. AFTER SEALING SPACE BETWEEN DUCT AND GYPSUM WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLE (MINIMUM 1-1/2" x 1-1/2" x 16 GA.) TO DUCT WITH MINIMUM NO. 8 x 3/4" LONG SHEET METAL SCREWS. ANGLE DOES NOT HAVE TO BE FASTENED TO THE WALL ASSEMBLY.

UL SYSTEM NO. WL8004

MULTIPLE PENETRATIONS THROUGH 2-HR. GYPSUM WALL ASSEMBLY

F RATING = 2-HR.
T RATING = 1/4-HR.

FRONT VIEW



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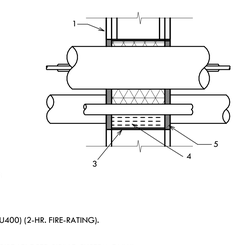


1. GYPSUM WALL ASSEMBLY (U.L. CLASSIFIED U300 OR U400) (2-HR. FIRE-RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 3" NOMINAL DIAMETER EMT.
   B. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
   C. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE.
   D. MAXIMUM 3/C NO. 10 (+GRND) AWG CABLE (ROMEX).
   E. MAXIMUM 300 KCMIL POWER CABLE.
3. NO. 8 STEEL WIRE MESH, 4-1/4" LONG (OR STANDARD METAL DRYWALL TRACK SCREWED SECURELY IN PLACE) CENTERED IN OPENING.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT INSTALLED FLUSH WITH BOTH SURFACES OF WALL.

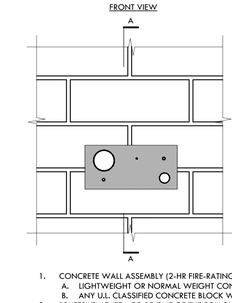
NOTES:
1. MAXIMUM AREA OF OPENING = 96 SQUARE INCHES, WITH A MAXIMUM DIMENSION OF 12 INCHES.
2. DISTANCE BETWEEN ITEMS = MINIMUM 1-3/4", MAXIMUM 7"
3. DISTANCE FROM EDGE OF OPENING = MINIMUM 1/2", MAXIMUM 7", (EXCEPTION: 300 KCMIL POWER CABLE MUST BE MINIMUM 1-1/2" FROM THE EDGE OF OPENING).

UL SYSTEM NO. WL18004

MULTIPLE PENETRATIONS THROUGH 2-HR. CONCRETE WALL OR CONCRETE BLOCK WALL

F RATING = 2-HR.
T RATING = 1/4-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.

FRONT VIEW



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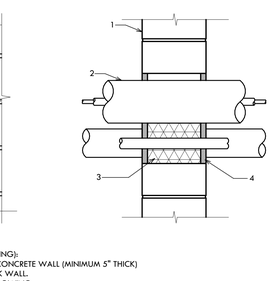


1. CONCRETE WALL ASSEMBLY (2-HR FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK)
   B. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 3" NOMINAL DIAMETER EMT.
   B. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
   C. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE.
   D. MAXIMUM 3/C NO. 10 (+GRND) AWG CABLE (ROMEX).
   E. MAXIMUM 300 KCMIL POWER CABLE.
3. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT INSTALLED FLUSH WITH BOTH SURFACES OF WALL.

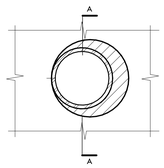
NOTES:
1. MAXIMUM AREA OF OPENING = 96 SQUARE INCHES, WITH A MAXIMUM DIMENSION OF 12 INCHES.
2. DISTANCE BETWEEN ITEMS = MINIMUM 1-3/4", MAXIMUM 7"
3. DISTANCE FROM EDGE OF OPENING = MINIMUM 1/2", MAXIMUM 7", (EXCEPTION: 300 KCMIL POWER CABLE MUST BE MINIMUM 1-1/2" FROM THE EDGE OF OPENING).

UL SYSTEM NO. FA-1014

METAL PIPE THROUGH CONCRETE FLOOR OVER METAL DECKING

F RATING = 2-HR.
T RATING = 0-HR.

TOP VIEW



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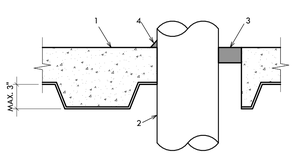


1. NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING (2-HR. FIRE RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   C. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   D. MAXIMUM 6" NOMINAL DIAMETER EMT.
3. MINIMUM 1" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

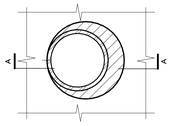
NOTES:
1. MAXIMUM DIAMETER OF OPENING = 14-5/8".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".

UL SYSTEM NO. CAJ-1184

METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F RATING = 3-HR.
T RATING = 0-HR.

TOP VIEW



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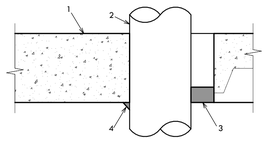


1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MIN. 4-1/2" THICK).
   B. PRECAST (HOLLOW CORE) CONCRETE FLOOR (MIN. 7-1/2" THICK).
   C. ANY UL CLASSIFIED BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 10" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 10" NOMINAL DIAMETER CAST IRON PIPE.
   C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 4" NOMINAL DIAMETER EMT OR STEEL CONDUIT.
3. MINIMUM 1" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT FLUSH WITH TOP OR BOTTOM OF FLOOR. (SEE NOTE NO. 3 BELOW).
4. MINIMUM 1/2" CROWN HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

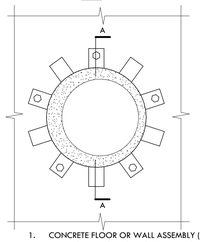
NOTES:
1. MAXIMUM DIAMETER OF OPENING = 14-5/8".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".

UL SYSTEM NO. CAJ-2095

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F RATING = 3-HR.
T RATING = 2-1/2-HR.

TOP VIEW



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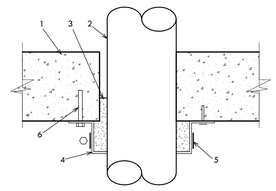


1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING).
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MIN. 4-1/2"; THICK).
   B. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 4" NOMINAL DIAMETER PVC OR CPVC PLASTIC PIPE (CLOSED OR VENTED PIPING SYSTEM).
3. MINIMUM 1-1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, APPLIED WITHIN THE ANNULUS.
4. HILTI RETAINING COLLAR COMPLETELY FILLED WITH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT. MAINTAIN 3/4" SPACE BETWEEN HILTI RETAINING COLLAR AND PIPE.
5. HILTI COLLAR CLAMP(S) FASTENED TO MID-HEIGHT OF COLLAR.
6. ATTACH EVERY OTHER TAB WITH APPROPRIATE FASTENERS (SEE NOTE NO. 4).

NOTES:
1. MAXIMUM DIAMETER OF OPENING = 5".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2".
3. WALL REQUIRE COLLARS AND SEALANT ON BOTH SIDES.
4. FASTERNERS: FOR CONCRETE FLOORS AND WALLS USE EITHER 1/4" HILTI KWIK-BOLT II OR POWDER ACUATED FASTENERS (X-ZF 27 PINS WITH STEEL WASHERS). FOR CONCRETE BLOCK WALLS, USE HILTI SLEEVE ANCHORS.

GENERAL FIRE-STOP SYSTEM NOTES:

1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FIRE-STOP DETAILS AND RESPONSIBILITIES AND CONFIRMING THAT EACH TRADE HAS INCLUDED APPROPRIATE COSTS FOR SUCH FIRE-STOP WORK IN THEIR BID OR THAT THE G.C. WILL ASSUME THE RESPONSIBILTY FOR THIS WORK HIMSELF.
2. THESE DETAILS & NOTES ARE INTENDED TO BE A GENERAL GUIDE AS TO TYPICAL EXPECTED CONDITIONS. ACTUAL CONDITIONS AND DETAILS SHALL BE REVIEWED BY EACH TRADE WITH THE GENERAL CONTRACTOR. ALTERNATIVE UL APPROVED FIRE-STOP SYSTEMS OR DETAILS MAY BE USED WHICH SATISFY THE FIRE RATING REQUIREMENTS.
3. FOR LARGER OPENINGS, ADDITIONAL ITEMS PENETRATING OPENINGS, ETC. SECURE "ENGINEERING JUDGEMENT" SHEETS FROM FIRE-STOP SYSTEM MANUFACTURER'S TECHNICAL SUPPORT DEPARTMENTS (SUCH AS HILTI OR TREMCO)
4. IN LIEU OF SECURING SPECIAL "ENGINEERING JUDGEMENTS", FOR LARGER OPENINGS WITH MULTIPLE PENETRATING ITEMS OF VARIOUS SIZES AND MATERIALS PENETRATING AN OPENING, THE CONTRACTOR MAY POUR A MINIMUM 6" THICK CONCRETE AROUND ALL SUCH ITEMS TO FILL THE BULK OF THE OPENING AND THEN FIRE-STOP/SEAL EACH ITEM AS AN INDIVIDUAL PENETRATION AS PER TYPICAL UL APPROVED DETAILS. ASSUME A MINIMUM #5 RE-BAR DOWELS OR 1/2" Ø STUDS 12" O.C. TO TIE THIS CONCRETE IN-FILL INTO ADJACENT CONSTRUCTION. (WELD RE-BAR DOWELS TO LARGE OPENING LINTELS OR STEEL FRAMES AS REQUIRED. COORDINATE EXACT DETAILS OF THIS INFILL CONCRETE WITH THE STRUCTURAL ENGINEER/ ARCHITECT PRIOR TO PROCEEDING.)
5. SUBMIT A DETAILED SCHEDULE OF PENETRATION LOCATIONS, INTENDED FIRE-STOP DETAILS, MATERIALS/ CUT-SHEETS, ETC. FOR ALL PENETRATIONS FOR ARCHITECT REVIEW AND CITY APPROVAL PRIOR TO PROCEEDING TO ORDER MATERIAL AND INSTALL THE WORK.
6. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

TYPICAL PENETRATION DETAILS

SCALE: AS NOTED

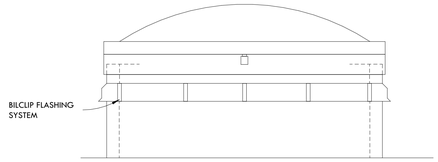
Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL ROOF REPLACEMENT
RPS DISTRICT 205 - PROJECT #2239 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL 61103

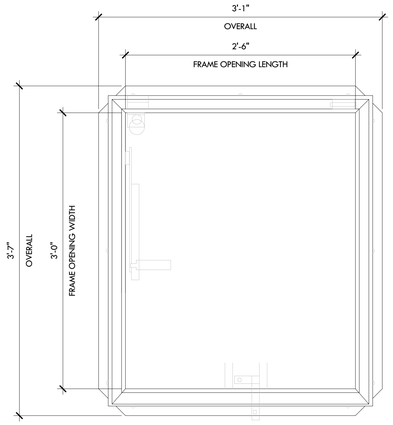
ISSUED FOR:	DATE	ISSUED FOR:	DATE

DRAWN BY:	CHECKED BY:	APPROVED BY:
Author	Checker	Approver

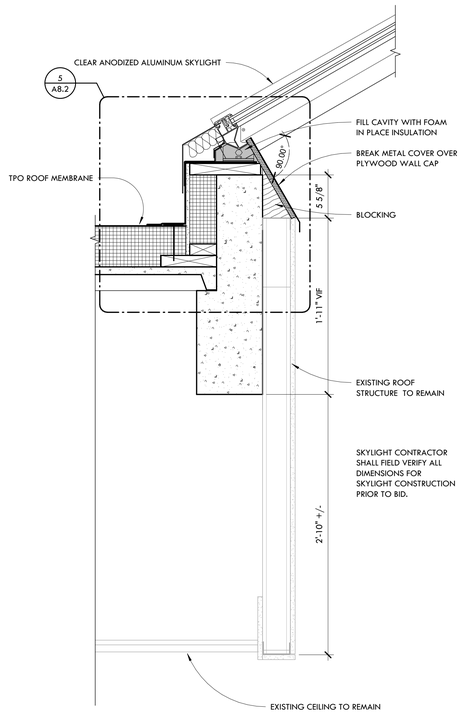
DATE: 01/21/22
PROJECT NUMBER 31029-01
SHEET NUMBER A8.1



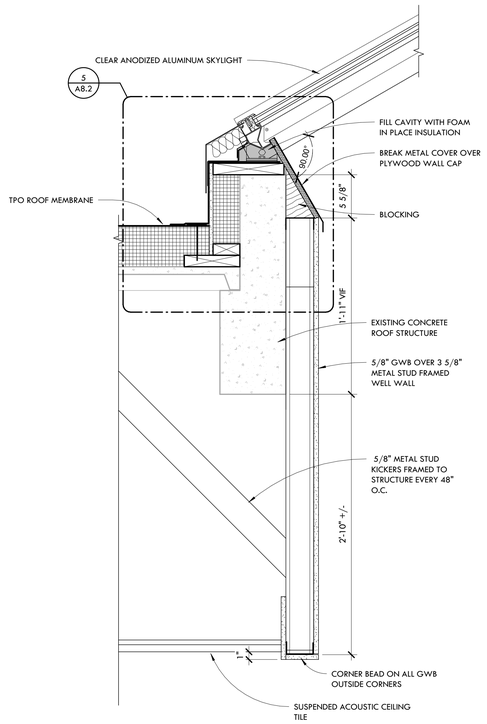
1 ROOF HATCH ELEVATION
SCALE: 1 1/2" = 1'-0"



2 ROOF HATCH LID
SCALE: 1 1/2" = 1'-0"

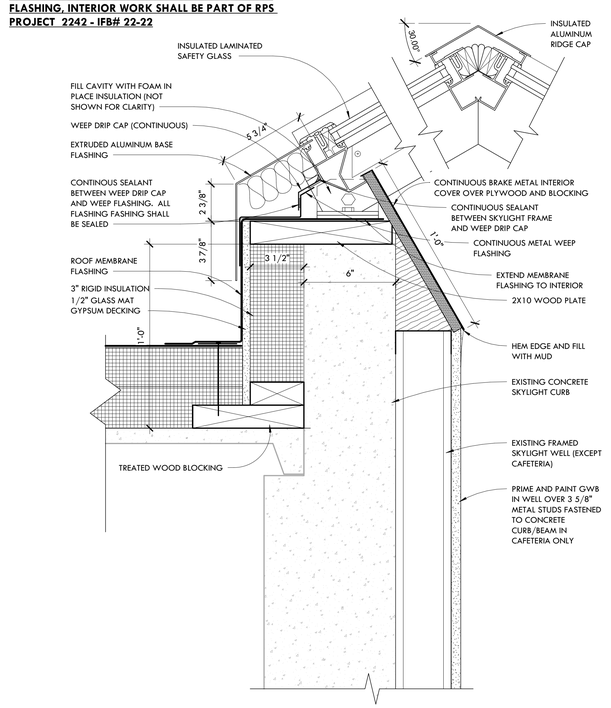


3 SKYLIGHT SILL AND WELL
SCALE: 1 1/2" = 1'-0"

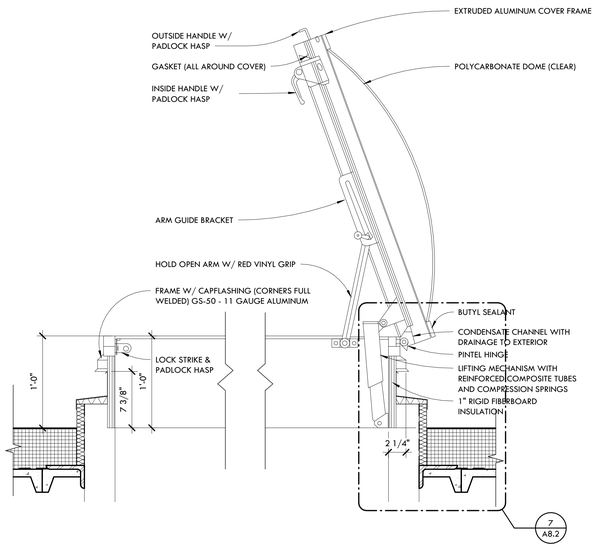


4 SKYLIGHT SILL AND WELL - CAFETERIA
SCALE: 1 1/2" = 1'-0"

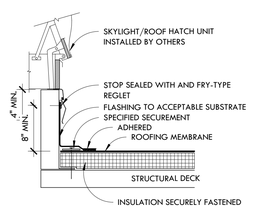
SKYLIGHT CURB AND MEMBRANE FLASHING SHALL BE PART OF ROOFING CONTRACT. SKYLIGHT, METAL FLASHING, INTERIOR WORK SHALL BE PART OF RPS PROJECT 2242 - IFB# 22-22



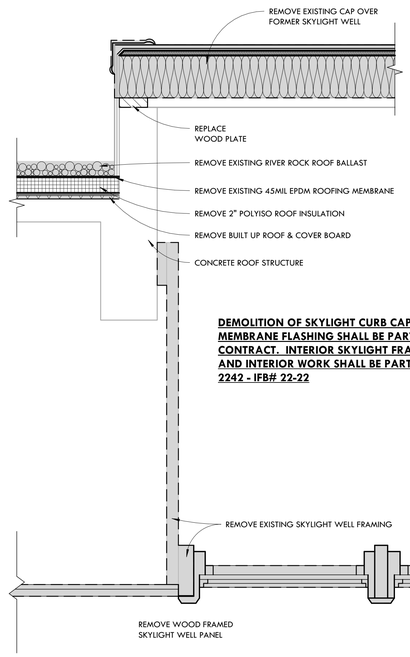
5 SKYLIGHT SILL & RIDGE
SCALE: 3" = 1'-0"



6 ROOF HATCH SECTION
SCALE: 1 1/2" = 1'-0"

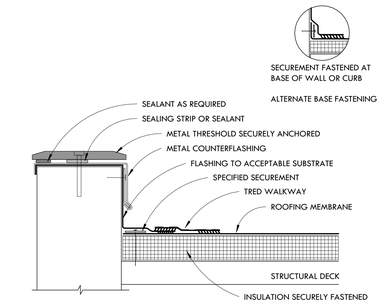


7 ROOF HATCH CURB DETAIL
SCALE: 1 1/2" = 1'-0"



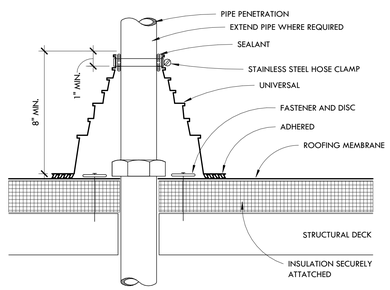
DEMOLITION OF SKYLIGHT CURB CAP AND ASSOCIATED MEMBRANE FLASHING SHALL BE PART OF ROOFING CONTRACT. INTERIOR SKYLIGHT FRAMING, FINISHES, AND INTERIOR WORK SHALL BE PART OF RPS PROJECT 2242 - IFB# 22-22

8 SKYLIGHT CAP DEMO
SCALE: 1 1/2" = 1'-0"



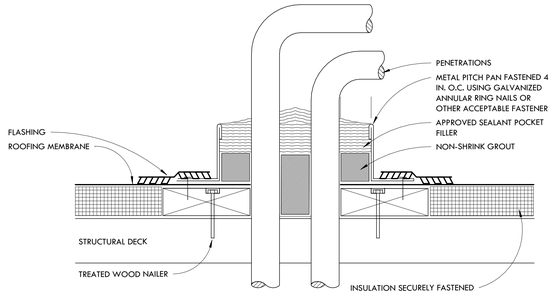
NOTES:
1) METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING IS LESS THAN 4 IN. WIDE.

9 THRESHOLD
SCALE: 3" = 1'-0"



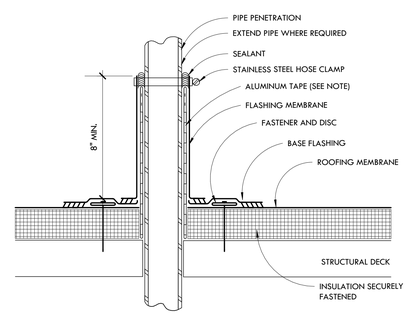
NOTE:
1) PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.
2) DECK FLANGES OF THE PRE-MOLDED PIPE SEAL SHALL NOT BE OVERLAPPED, CUT OR APPLIED OVER ANY ANGLE CHANGE.
3) THE EMPTY SPACE MAY BE FILLED WITH AN EXPANDING URETHANE FOAM. THIS WILL MINIMIZE CONDENSATION FORMATION AS WELL AS PROVIDING SOME RESILIENCY TO THE FINISHED DETAIL.

11 UNIVERSAL
SCALE: 3" = 1'-0"



NOTES:
1) PITCH POCKETS ARE TO BE ELIMINATED WHERE POSSIBLE.

10 SEALANT POCKET
SCALE: 3" = 1'-0"



NOTES:
1) ALUMINUM TAPE IS REQUIRED IF EXISTING PENETRATION IS CONTAMINATED.

12 PIPE PENETRATION FLASHING
SCALE: 3" = 1'-0"

SECTIONS & DETAILS

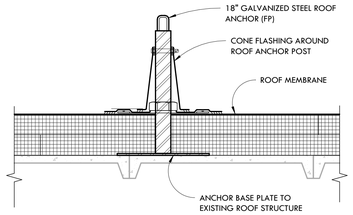
SCALE: AS NOTED

Larson & Darby Group
Architecture Engineering Interiors

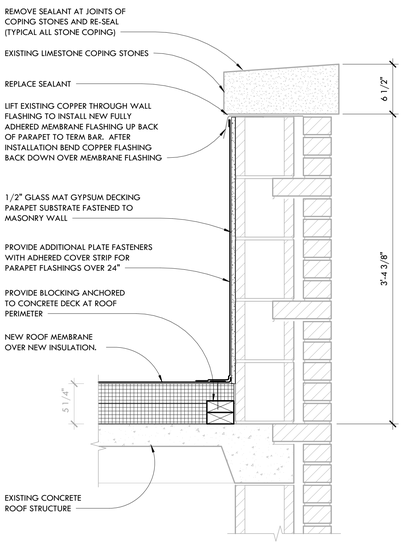
WEST MIDDLE SCHOOL ROOF REPLACEMENT
RPS DISTRICT 205 - PROJECT #2239 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL 61103

ISSUED FOR:	DATE	ISSUED FOR:	DATE
DRAWN BY:	Author	CHECKED BY:	Checker
APPROVED BY:	Approver		

DATE: 01/21/22
PROJECT NUMBER 31029-01
SHEET NUMBER A8.2



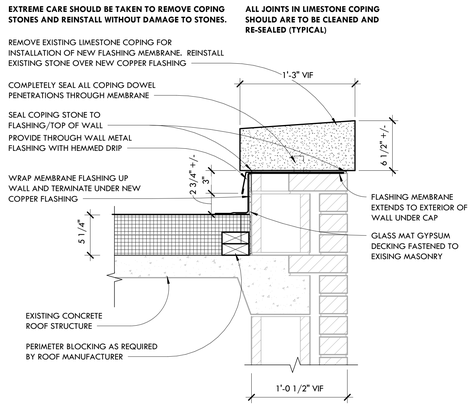
18 FALL PROTECTION TIE OFF DETAIL
SCALE: 1 1/2" = 1'-0"



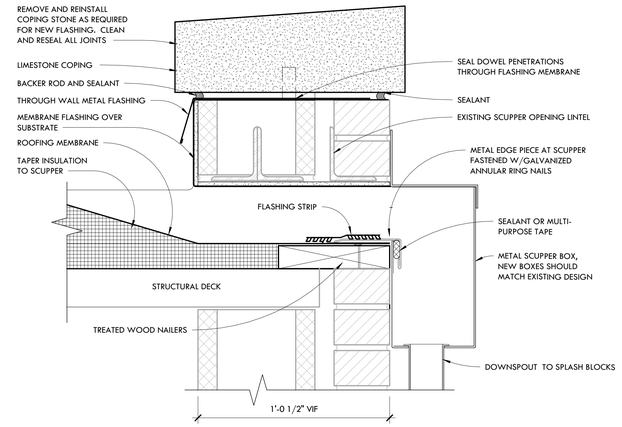
4 TYPICAL HIGH PARAPET FLASHING
SCALE: 1 1/2" = 1'-0"

EXTREME CARE SHOULD BE TAKEN TO REMOVE COPING STONES AND REINSTALL WITHOUT DAMAGE TO STONES.

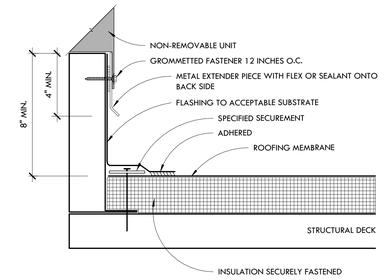
ALL JOINTS IN LIMESTONE COPING SHOULD ARE TO BE CLEANED AND RE-SEALED (TYPICAL)



1 TYPICAL LOW PARAPET FLASHING
SCALE: 1 1/2" = 1'-0"

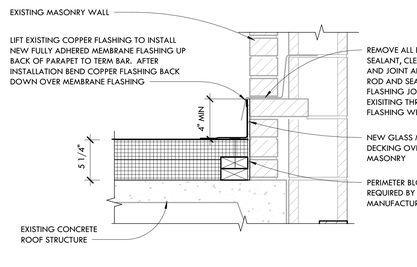


2 TYPICAL DETAIL AT SCUPPER BOX
SCALE: 3" = 1'-0"

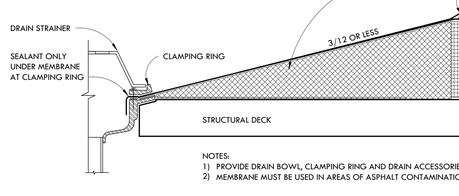


NOTE:
1) METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4 INCHES WIDE. FASTENED 12 INCHES O.C. WITH GROMMETTED FASTENER.

3 CURB FLASHING
SCALE: 3" = 1'-0"

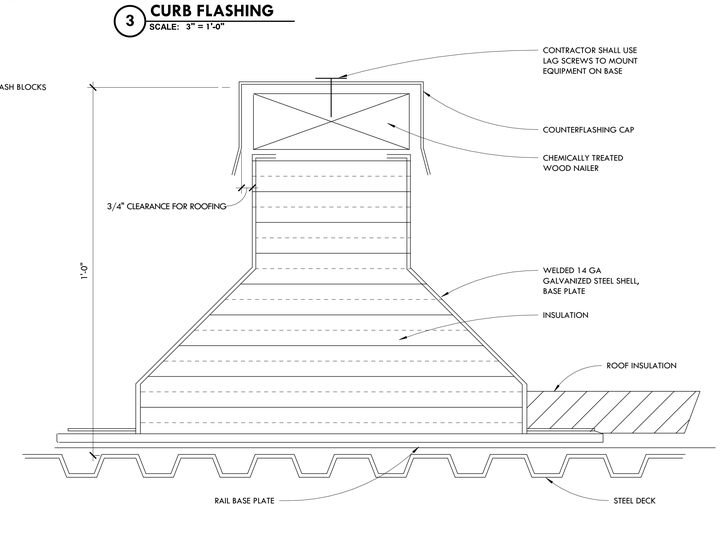


5 TYPICAL ROOF-WALL FLASHING DETAIL
SCALE: 1 1/2" = 1'-0"

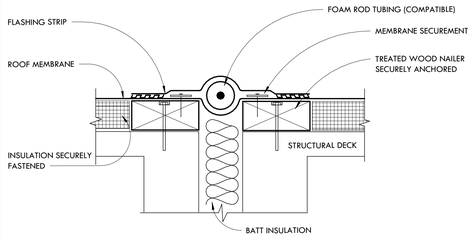


NOTES:
1) PROVIDE DRAIN BOWL, CLAMPING RING AND DRAIN ACCESSORIES.
2) MEMBRANE MUST BE USED IN AREAS OF ASPHALT CONTAMINATION.

6 TYPICAL ROOF DRAIN DETAIL
SCALE: 3" = 1'-0"

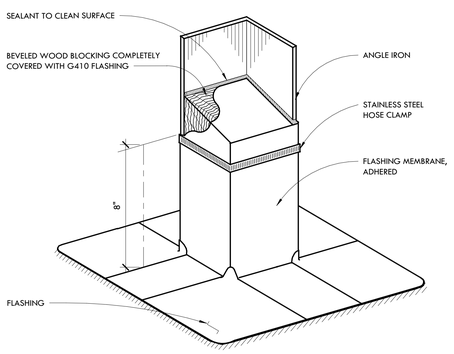


7 TYPICAL ROOF EQUIPMENT MOUNTING RAIL
SCALE: 6" = 1'-0"



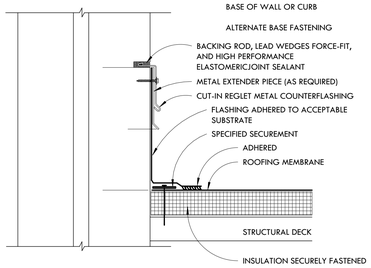
NOTES:
1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A FORCE OF 300 POUNDS PER LINEAL FOOT IN ANY DIRECTION.

8 EXPANSION JOINT WITH FOAM ROD
SCALE: 3" = 1'-0"



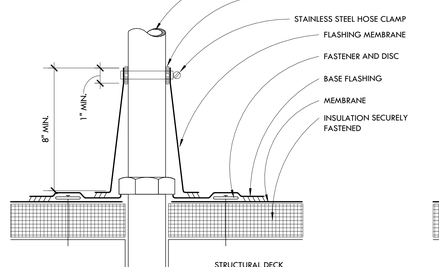
NOTES:
1) FASTENER AND DISC UNDER BASE FLASHING NOT SHOWN.

9 ANGLE IRON FLASHING
SCALE: 3" = 1'-0"

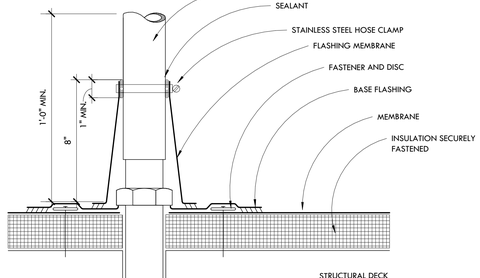


NOTES:
1) METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4 IN. WIDE.
2) METAL COUNTERFLASHING IS TO BE INSTALLED TO MEET LOCAL CODES AND REQUIREMENTS.

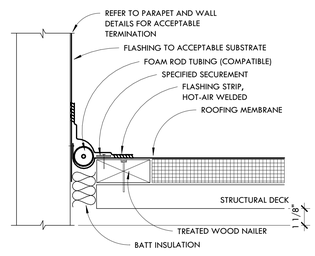
10 CUT IN REGLET
SCALE: 3" = 1'-0"



11 CONE FLASHING AT PENETRATION
SCALE: 3" = 1'-0"

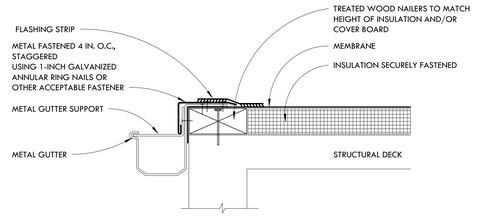


12 CONE FLASHING AT PENETRATION WITH PIPE EXTENSION
SCALE: 3" = 1'-0"



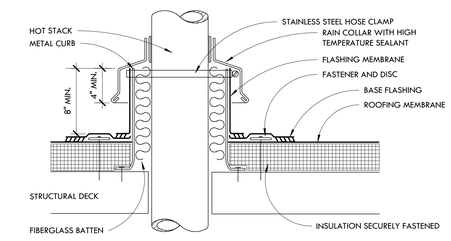
NOTES:
1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A FORCE OF 300 POUNDS PER LINEAL FOOT IN ANY DIRECTION.

13 EXPANSION JOINT AT WALL WITH FOAM ROD
SCALE: 3" = 1'-0"



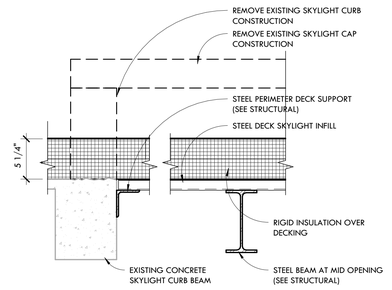
NOTES:
1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A MINIMUM FORCE OF 300 POUNDS PER LINEAR FOOT. FOLLOW FACTORY MUTUAL LOOS PREVENTION DATA SHEET 1-49 AND ENGINEERS SPECIFIED LOADING.
2) THE THICKNESS OF THE NAILER SHALL MATCH THE HEIGHT OF THE INSULATION OR SURFACE TO WHICH THE MEMBRANE IS TO BE APPLIED
3) POSITION THE MEMBRANE (NON-FELTED) OVER THE ROOF EDGE AND DOWN OUTSIDE FACE OF WALL, COVERING TREATED WOOD NAILER(S) COMPLETELY.

14 GUTTER EDGE
SCALE: 3" = 1'-0"

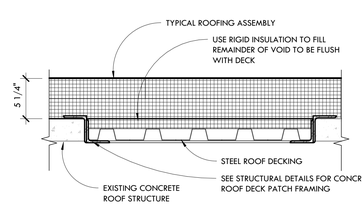


NOTES:
1) PVC MEMBRANE SHALL NOT BE IN CONTACT WITH SURFACES HAVING SUSTAINED TEMPERATURES ABOVE 160°F.

15 HEATED STACK FLASHING
SCALE: 3" = 1'-0"



16 TYPICAL ROOF PATCHING DETAIL AT SKYLIGHT
SCALE: 1 1/2" = 1'-0"



17 TYPICAL ROOF PATCHING DETAIL
SCALE: 1 1/2" = 1'-0"

ROOF DETAILS

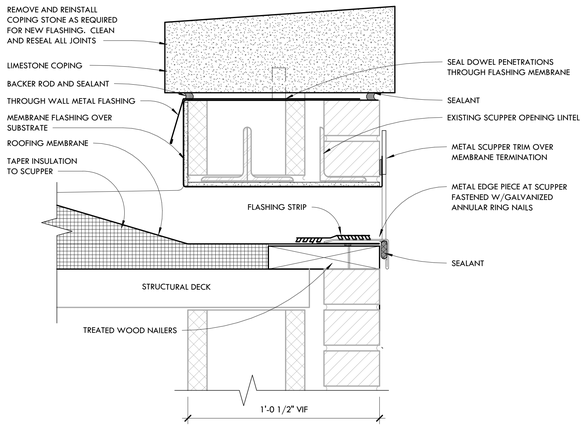
SCALE: AS NOTED

Larson & Darby Group
Architecture Engineering Interiors

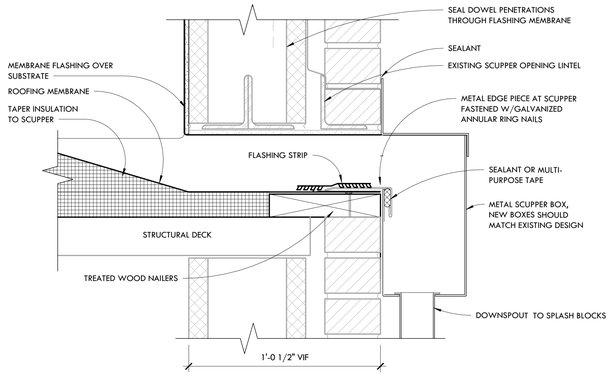
WEST MIDDLE SCHOOL ROOF REPLACEMENT
RPS DISTRICT 205 - PROJECT #2239 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL 61103

ISSUED FOR:	DATE	ISSUED FOR:	DATE
DRAWN BY:	Author	CHECKED BY:	Checker
APPROVED BY:	Approver		

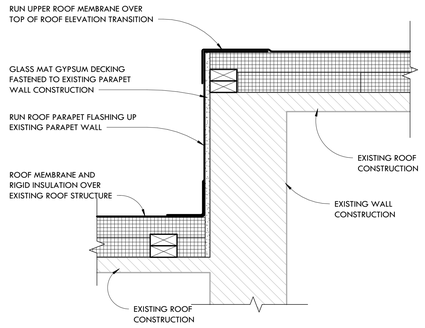
DATE: 01/21/22
PROJECT NUMBER 31029-01
SHEET NUMBER A8.3



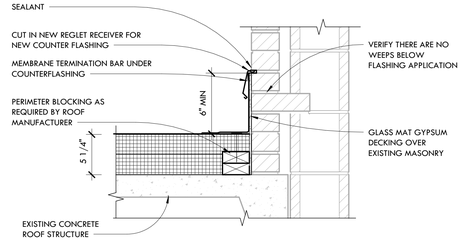
1 TYPICAL DETAIL AT BACK-UP SCUPPER DRAIN
SCALE: 3" = 1'-0"



2 TYPICAL DETAIL AT THROUGH WALL SCUPPER DRAIN
SCALE: 3" = 1'-0"



3 ROOF TRANSITION DETAIL
SCALE: 1 1/2" = 1'-0"



4 ROOF-WALL FLASHING DETAIL
SCALE: 1 1/2" = 1'-0"

TYPICAL DETAILS

SCALE: AS NOTED

Larson & Darby Group
Architecture Engineering Interiors

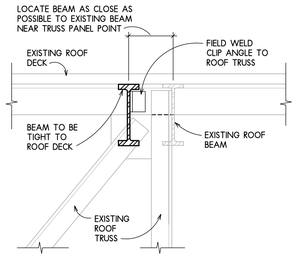
WEST MIDDLE SCHOOL ROOF REPLACEMENT
RPS DISTRICT 205 - PROJECT #2239 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL 61103

ISSUED FOR:	DATE

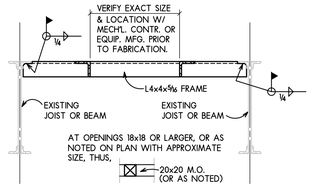
ISSUED FOR:	DATE

DRAWN BY:	CHECKED BY:	APPROVED BY:
Author	Checker	Approver

DATE:	01/21/22
PROJECT NUMBER	31029-01
SHEET NUMBER	A8.4



S1.1-1
1" = 1'-0"



TYPICAL ROOF OPENING IN AN EXISTING ROOF

NO SCALE

GENERAL NOTES

DRAWINGS

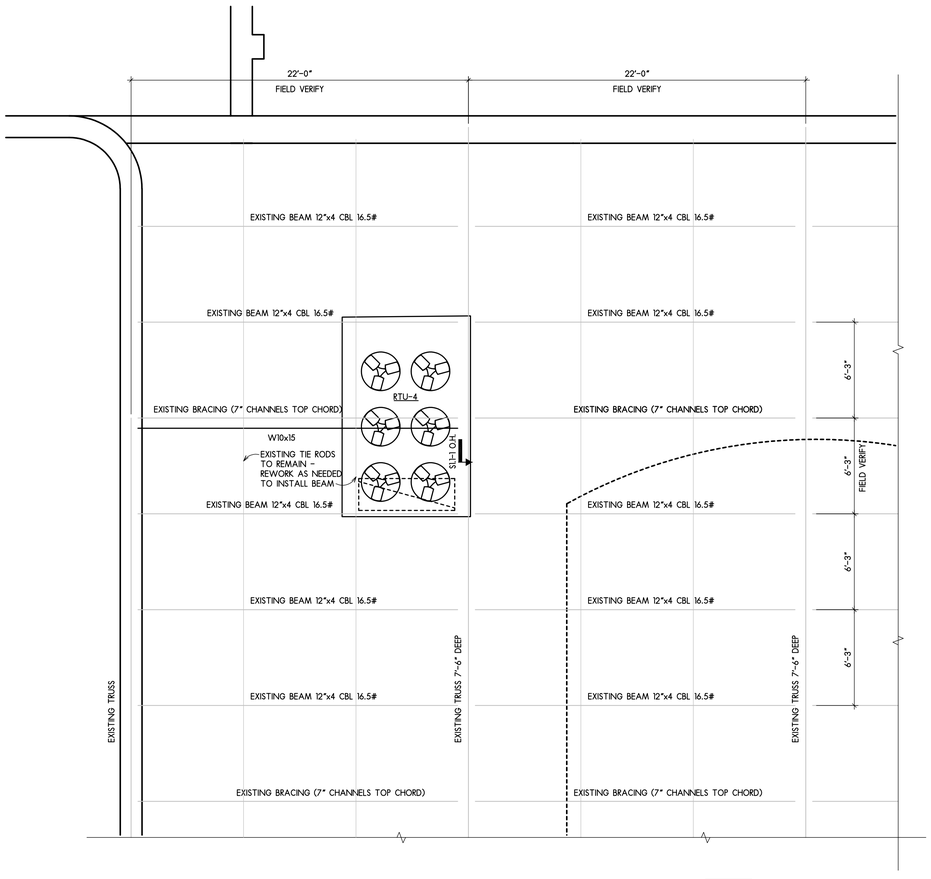
All details, sections and notes shown on the drawings are intended to be typical and shall apply to similar situations elsewhere.

STRUCTURAL STEEL

1. Structural wide flange steel shall be ASTM A992 and all other structural steel shall be ASTM A36. All material and workmanship shall conform to the requirements of the AISC Specifications adopted 1989.
2. Shop Connections: ASTM A325 HS bearing bolts, or welded E70XX.
3. Field Connections: ASTM A325 HS bolts bearing type, or welded E70XX and as indicated on the drawings.
4. Bolts shall be 3/4" diameter unless otherwise noted.

DIMENSIONS AT EXISTING BUILDING AREAS

Dimensions shown on plans and details are for bidding purposes only. They are results of information taken from existing drawings. All dimensions are to be verified and coordinated by the General Contractor during the construction phase.



ROOF FRAMING PLAN AREA A

SCALE: 1/8" = 1'-0"

North

ROOF FRAMING PLAN AREA C

SCALE: 1/8" = 1'-0"

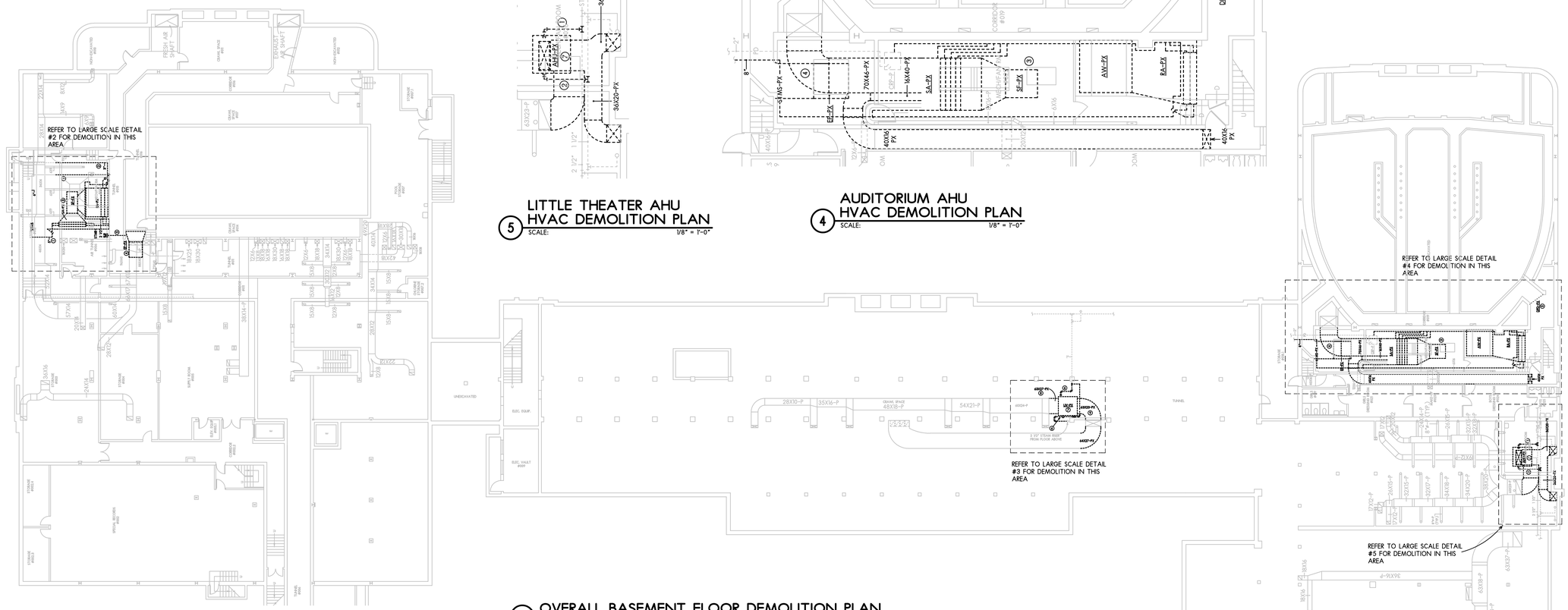
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	M.A.D.	CHECKED BY:	APPROVED BY:

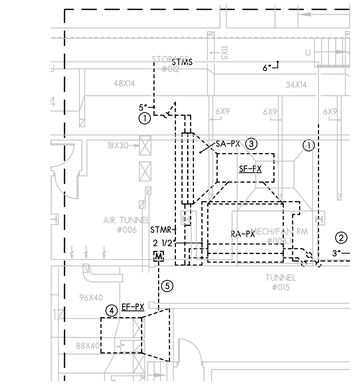
DATE: 01-21-2022
PROJECT NUMBER: 31029-01
SHEET NUMBER: S1.1



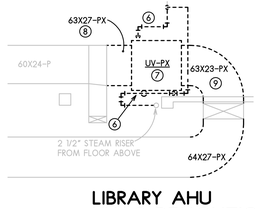
1 OVERALL BASEMENT FLOOR DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

5 LITTLE THEATER AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

4 AUDITORIUM AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2 POOL AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



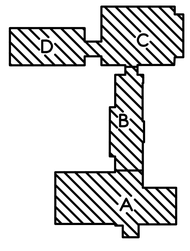
3 LIBRARY AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. REMOVAL AND ABATEMENT OF ASBESTOS AND EQUIPMENT OR MATERIAL CONTAINING ASBESTOS IS THE RESPONSIBILITY OF THE SCHOOL DISTRICT AND SHALL BE COMPLETED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND AN ENVIRONMENTAL SPECIALIST CONTRACTOR.
2. THIS CONTRACTOR AND HIS SUBS SHALL STOP WORK AND IMMEDIATELY REPORT TO THE DISTRICT ANY ASBESTOS MATERIAL THEY FIND DURING THERE DEMOLITION AND NEW CONSTRUCTION WORK.
3. CONTRACTOR SHALL NOT RESUME WORK UNTIL THE SITUATION IS CLEARED AND REMOVAL/TESTING OF ANY SUSPECTED ASBESTOS MATERIAL IS CONFIRMED BY THE DISTRICT.

HVAC DEMOLITION KEYED NOTES

1. REMOVE EXISTING STEAM SUPPLY AS SHOWN BACK TO MAIN AND CAP.
2. REMOVE EXISTING STEAM CONDENSATE AS SHOWN BACK TO MAIN AND CAP.
3. REMOVE EXISTING SUPPLY FAN ASSEMBLY IN ITS ENTIRETY. REMOVE FAN WHEEL, HOUSING, MOTOR, SUPPORTS, SHAFTS, PULLEYS, BELTS, ETC...
4. REMOVE EXISTING EXHAUST/RETURN FAN ASSEMBLY IN ITS ENTIRETY. REMOVE FAN WHEEL, HOUSING, MOTOR, SUPPORTS, SHAFTS, PULLEYS, BELTS, ETC...
5. REMOVE EXISTING MIXING DAMPER IN ITS ENTIRETY.
6. DISCONNECT STEAM SUPPLY/CONDENSATE TO AHU AND REMOVE PORTION OF PIPE AS SHOWN TO ALLOW FOR NEW INSTALLATION AS SHOWN ON NEW WORK PLAN.
7. REMOVE EXISTING AHU AS SHOWN IN ITS ENTIRETY. REMOVE CONTROL TUBING AND WIRING AND PREPARE TO INSTALL NEW UNIT AS SHOWN ON NEW WORK PLAN.
8. REMOVE PORTION OF EXISTING SUPPLY DUCT AS NEEDED TO ALLOW FOR NEW AHU INSTALLATION. SEE NEW WORK PLAN.
9. REMOVE PORTION OF OA/RA DUCT AS NEEDED TO ALLOW FOR NEW AHU INSTALLATION. SEE NEW WORK PLAN.



KEY PLAN
NO SCALE

HVAC BASEMENT DEMOLITION PLANS

SCALE: AS NOTED

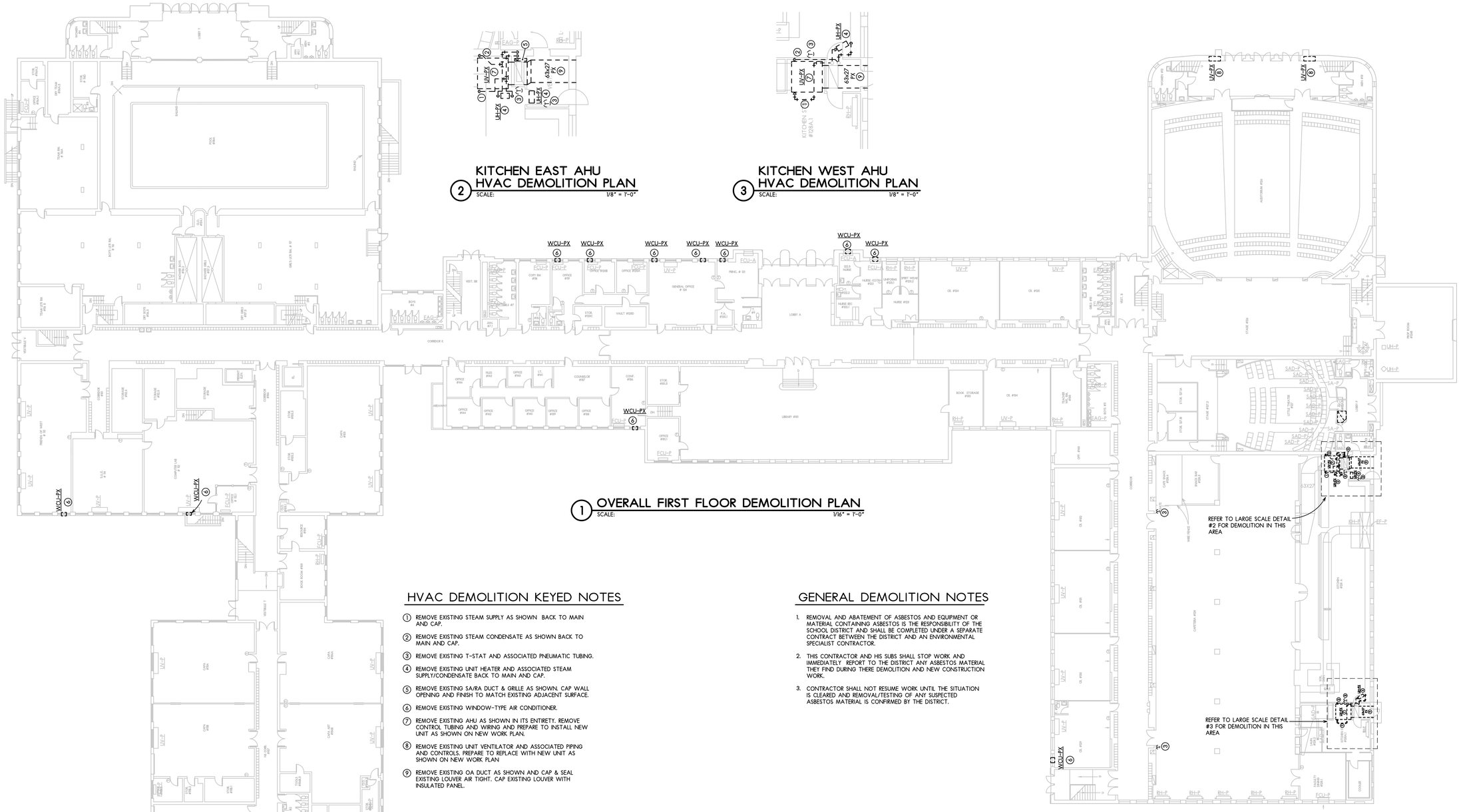
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

DATE: 01-21-2022	
PROJECT NUMBER	31029-01
SHEET NUMBER	MD1



2 KITCHEN EAST AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

3 KITCHEN WEST AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

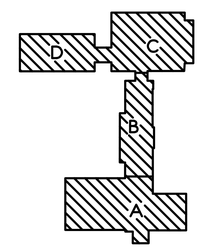
1 OVERALL FIRST FLOOR DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

HVAC DEMOLITION KEYED NOTES

1. REMOVE EXISTING STEAM SUPPLY AS SHOWN BACK TO MAIN AND CAP.
2. REMOVE EXISTING STEAM CONDENSATE AS SHOWN BACK TO MAIN AND CAP.
3. REMOVE EXISTING T-STAT AND ASSOCIATED PNEUMATIC TUBING.
4. REMOVE EXISTING UNIT HEATER AND ASSOCIATED STEAM SUPPLY/CONDENSATE BACK TO MAIN AND CAP.
5. REMOVE EXISTING SA/RA DUCT & GRILLE AS SHOWN. CAP WALL OPENING AND FINISH TO MATCH EXISTING ADJACENT SURFACE.
6. REMOVE EXISTING WINDOW-TYPE AIR CONDITIONER.
7. REMOVE EXISTING AHU AS SHOWN IN ITS ENTIRETY. REMOVE CONTROL TUBING AND WIRING AND PREPARE TO INSTALL NEW UNIT AS SHOWN ON NEW WORK PLAN.
8. REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED PIPING AND CONTROLS. PREPARE TO REPLACE WITH NEW UNIT AS SHOWN ON NEW WORK PLAN
9. REMOVE EXISTING OA DUCT AS SHOWN AND CAP & SEAL EXISTING LOUVER AIR TIGHT. CAP EXISTING LOUVER WITH INSULATED PANEL.

GENERAL DEMOLITION NOTES

1. REMOVAL AND ABATEMENT OF ASBESTOS AND EQUIPMENT OR MATERIAL CONTAINING ASBESTOS IS THE RESPONSIBILITY OF THE SCHOOL DISTRICT AND SHALL BE COMPLETED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND AN ENVIRONMENTAL SPECIALIST CONTRACTOR.
2. THIS CONTRACTOR AND HIS SUBS SHALL STOP WORK AND IMMEDIATELY REPORT TO THE DISTRICT ANY ASBESTOS MATERIAL THEY FIND DURING THERE DEMOLITION AND NEW CONSTRUCTION WORK.
3. CONTRACTOR SHALL NOT RESUME WORK UNTIL THE SITUATION IS CLEARED AND REMOVAL/TESTING OF ANY SUSPECTED ASBESTOS MATERIAL IS CONFIRMED BY THE DISTRICT.



KEY PLAN
NO SCALE

HVAC 1ST FLR. DEMOLITION PLANS
SCALE: AS NOTED

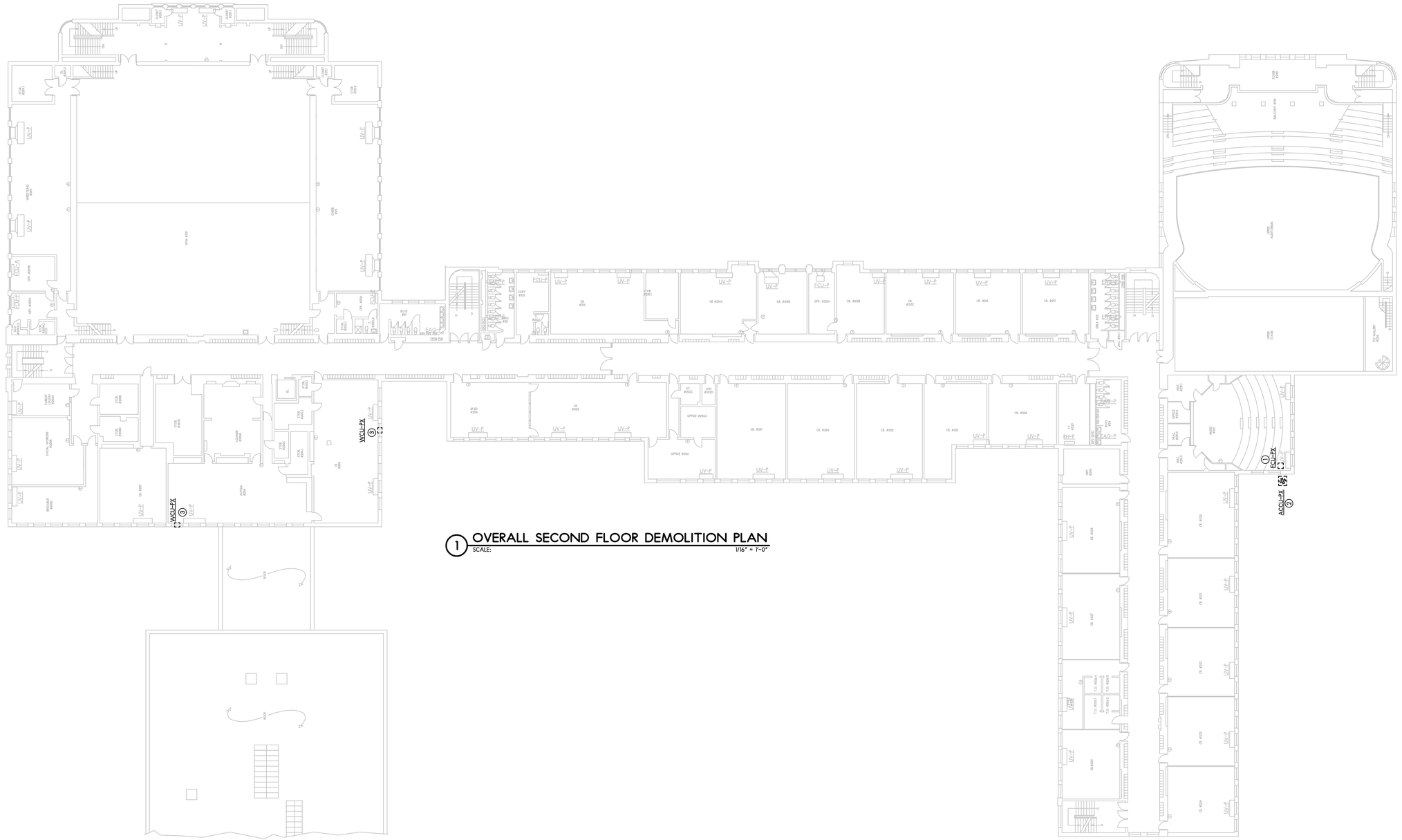
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
		CHECKED BY:	APPROVED BY: RAS
		DRAWN BY:	JJ

DATE: 01-21-2021	SHEET NUMBER
PROJECT NUMBER 31029-01	MD2



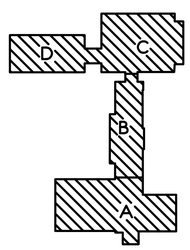
1 OVERALL SECOND FLOOR DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

HVAC DEMOLITION KEYED NOTES

1. REMOVE EXISTING FAN COIL UNIT AND ASSOCIATED COOLING COIL, SUPPLY/RETURN DUCTWORK, CONTROLS, ETC...
2. REMOVE EXISTING CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING.
3. REMOVE EXISTING WINDOW-TYPE AIR CONDITIONER.

GENERAL DEMOLITION NOTES

1. REMOVAL AND ABATEMENT OF ASBESTOS AND EQUIPMENT OR MATERIAL CONTAINING ASBESTOS IS THE RESPONSIBILITY OF THE SCHOOL DISTRICT AND SHALL BE COMPLETED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND AN ENVIRONMENTAL SPECIALIST CONTRACTOR.
2. THIS CONTRACTOR AND HIS SUBS SHALL STOP WORK AND IMMEDIATELY REPORT TO THE DISTRICT ANY ASBESTOS MATERIAL THEY FIND DURING THERE DEMOLITION AND NEW CONSTRUCTION WORK.
3. CONTRACTOR SHALL NOT RESUME WORK UNTIL THE SITUATION IS CLEARED AND REMOVAL/TESTING OF ANY SUSPECTED ASBESTOS MATERIAL IS CONFIRMED BY THE DISTRICT.



KEY PLAN
NO SCALE

HVAC 2ND FLR. DEMOLITION PLANS

SCALE: AS NOTED

North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

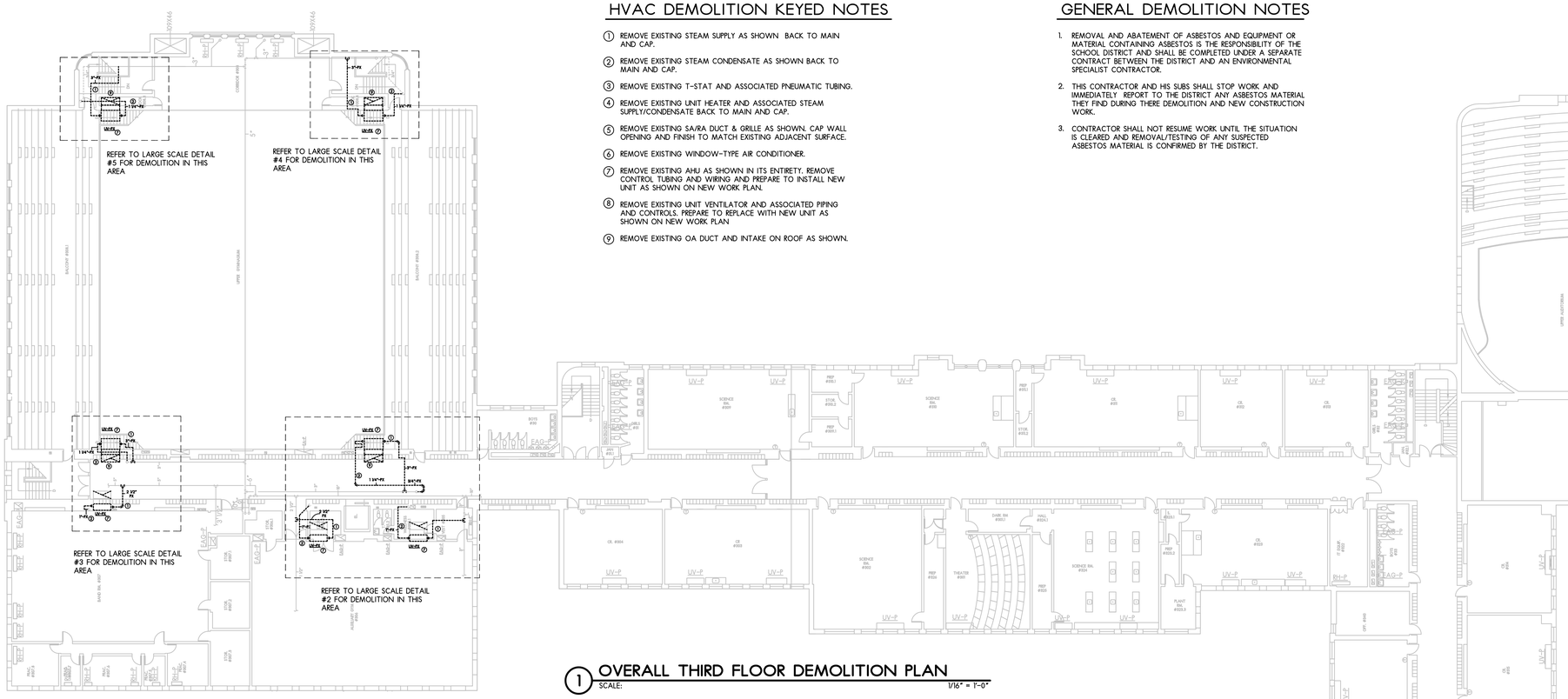
DATE: 01-21-2021
PROJECT NUMBER 31029-01
SHEET NUMBER MD3

HVAC DEMOLITION KEYED NOTES

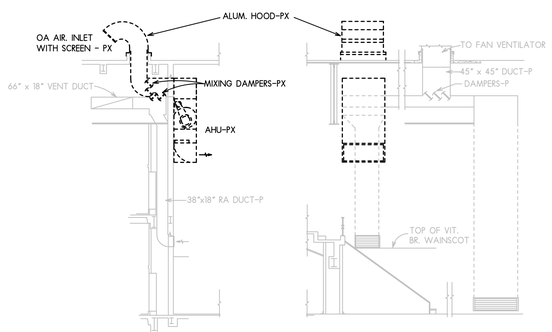
1. REMOVE EXISTING STEAM SUPPLY AS SHOWN BACK TO MAIN AND CAP.
2. REMOVE EXISTING STEAM CONDENSATE AS SHOWN BACK TO MAIN AND CAP.
3. REMOVE EXISTING T-STAT AND ASSOCIATED PNEUMATIC TUBING.
4. REMOVE EXISTING UNIT HEATER AND ASSOCIATED STEAM SUPPLY/CONDENSATE BACK TO MAIN AND CAP.
5. REMOVE EXISTING SA/RA DUCT & GRILLE AS SHOWN. CAP WALL OPENING AND FINISH TO MATCH EXISTING ADJACENT SURFACE.
6. REMOVE EXISTING WINDOW-TYPE AIR CONDITIONER.
7. REMOVE EXISTING AHU AS SHOWN IN ITS ENTIRETY. REMOVE CONTROL TUBING AND WIRING AND PREPARE TO INSTALL NEW UNIT AS SHOWN ON NEW WORK PLAN.
8. REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED PIPING AND CONTROLS. PREPARE TO REPLACE WITH NEW UNIT AS SHOWN ON NEW WORK PLAN
9. REMOVE EXISTING OA DUCT AND INTAKE ON ROOF AS SHOWN.

GENERAL DEMOLITION NOTES

1. REMOVAL AND ABATEMENT OF ASBESTOS AND EQUIPMENT OR MATERIAL CONTAINING ASBESTOS IS THE RESPONSIBILITY OF THE SCHOOL DISTRICT AND SHALL BE COMPLETED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND AN ENVIRONMENTAL SPECIALIST CONTRACTOR.
2. THIS CONTRACTOR AND HIS SUBS SHALL STOP WORK AND IMMEDIATELY REPORT TO THE DISTRICT ANY ASBESTOS MATERIAL THEY FIND DURING THERE DEMOLITION AND NEW CONSTRUCTION WORK.
3. CONTRACTOR SHALL NOT RESUME WORK UNTIL THE SITUATION IS CLEARED AND REMOVAL/TESTING OF ANY SUSPECTED ASBESTOS MATERIAL IS CONFIRMED BY THE DISTRICT.



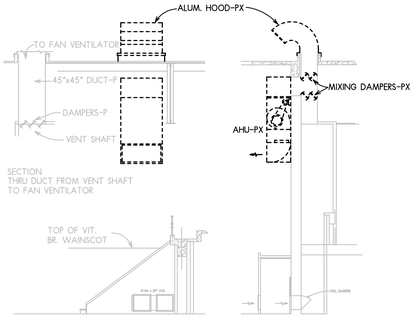
1 OVERALL THIRD FLOOR DEMOLITION PLAN
SCALE: 1/16" = 1'-0"



SECTION ELEVATION

NOTE:
UNIT VENTILATORS & VENTS AT NORTH-WEST CORNER OF GYM SIMILAR EXCEPT OPPOSITE HAND.

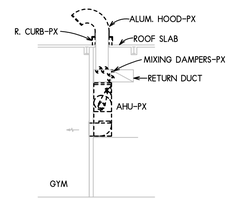
6 DETAILS OF UNIT VENTILATORS AND VENTS AT SOUTH WEST CORNER OF GYM
NO SCALE



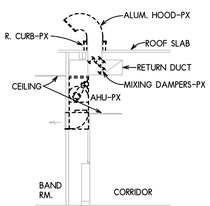
ELEVATION SECTION

NOTE:
UNIT VENTILATORS & VENTS AT NORTH-EAST CORNER OF GYM SIMILAR EXCEPT OPPOSITE HAND.

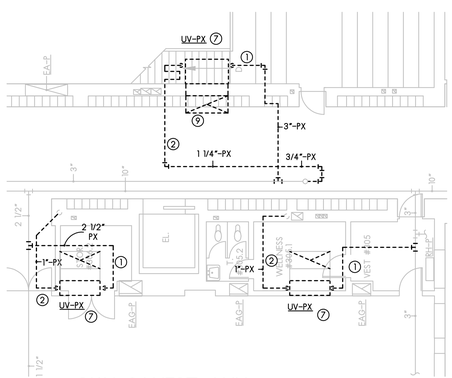
7 DETAILS OF UNIT VENTILATORS AND VENTS AT SOUTH EAST CORNER OF GYM
NO SCALE



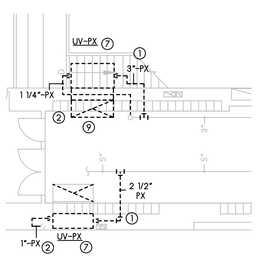
8 SECT. THRU. UNIT VENTILATORS IN AUXILIARY GYM.
NO SCALE



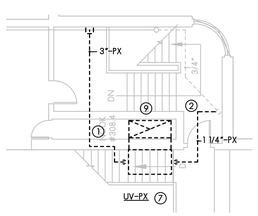
9 SECT. THRU. UNIT VENTILATORS IN BAND RM.
NO SCALE



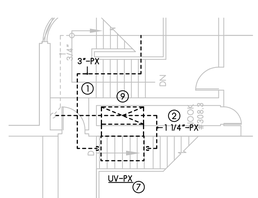
2 GYM S.WEST AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



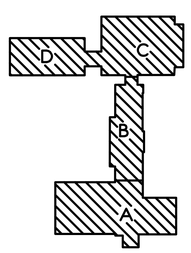
3 GYM N.WEST AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



4 GYM S.EAST AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



5 GYM N.EAST AHU HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC 3RD FLR. DEMOLITION PLANS

SCALE: AS NOTED

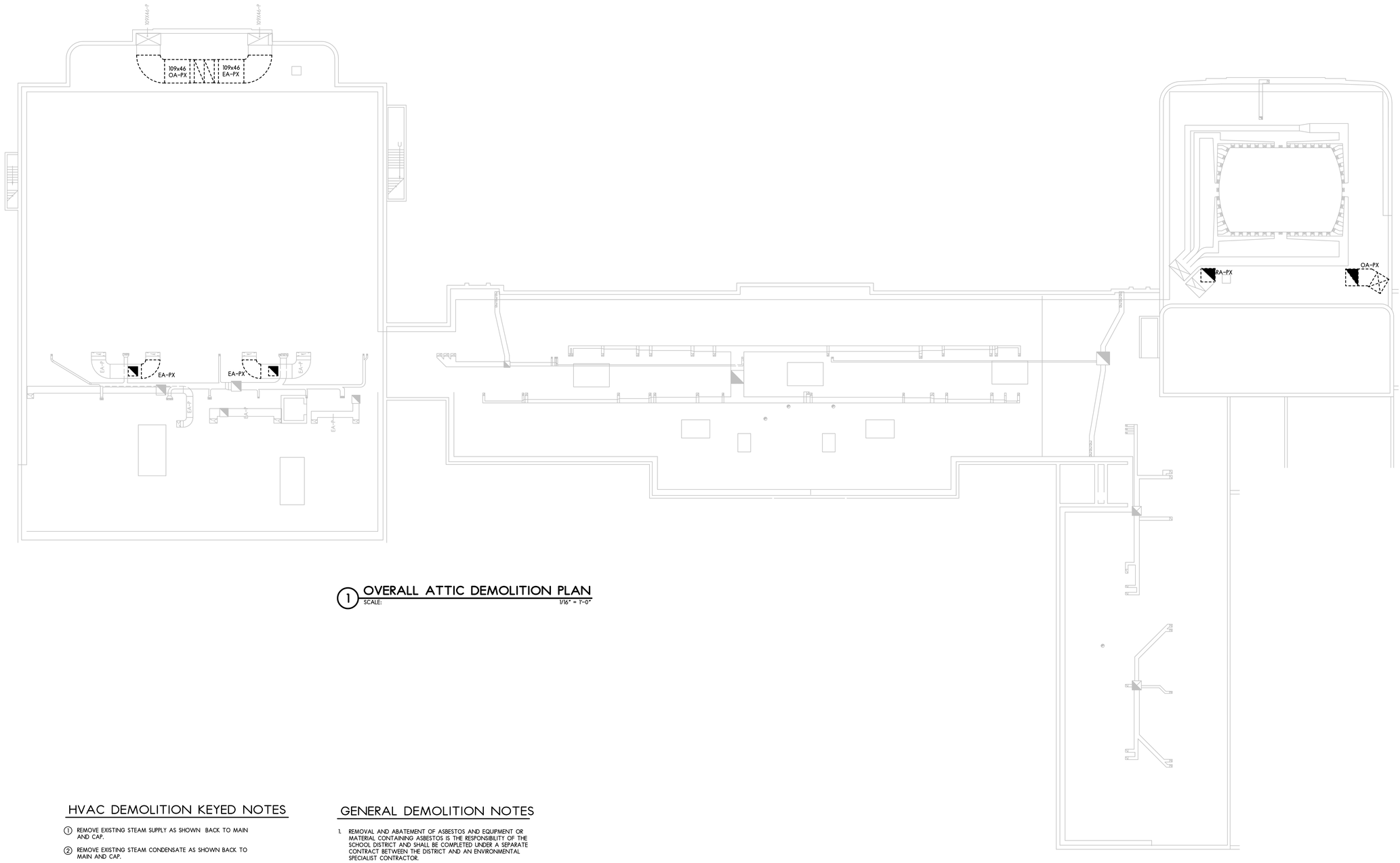
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT #205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR: BIDDING
ISSUED FOR: 01-21-22
DRAWN BY: JJ
CHECKED BY:
APPROVED BY: RAS

DATE: 01-21-2021
PROJECT NUMBER 31029-01
SHEET NUMBER MD4



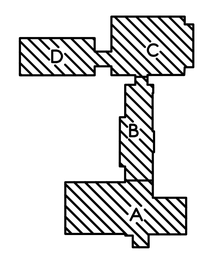
1 OVERALL ATTIC DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

HVAC DEMOLITION KEYED NOTES

1. REMOVE EXISTING STEAM SUPPLY AS SHOWN BACK TO MAIN AND CAP.
2. REMOVE EXISTING STEAM CONDENSATE AS SHOWN BACK TO MAIN AND CAP.
3. REMOVE EXISTING T-STAT AND ASSOCIATED PNEUMATIC TUBING.
4. REMOVE EXISTING UNIT HEATER AND ASSOCIATED STEAM SUPPLY/CONDENSATE BACK TO MAIN AND CAP.
5. REMOVE EXISTING SA/RA DUCT & GRILLE AS SHOWN. CAP WALL OPENING AND FINISH TO MATCH EXISTING ADJACENT SURFACE.
6. REMOVE EXISTING WINDOW-TYPE AIR CONDITIONER.
7. REMOVE EXISTING AHU AS SHOWN IN ITS ENTIRETY. REMOVE CONTROL TUBING AND WIRING AND PREPARE TO INSTALL NEW UNIT AS SHOWN ON NEW WORK PLAN.
8. REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED PIPING AND CONTROLS. PREPARE TO REPLACE WITH NEW UNIT AS SHOWN ON NEW WORK PLAN
9. REMOVE EXISTING OA DUCT AS SHOWN AND CAP & SEAL EXISTING LOUVER AIR TIGHT. CAP EXISTING LOUVER WITH INSULATED PANEL.

GENERAL DEMOLITION NOTES

1. REMOVAL AND ABATEMENT OF ASBESTOS AND EQUIPMENT OR MATERIAL CONTAINING ASBESTOS IS THE RESPONSIBILITY OF THE SCHOOL DISTRICT AND SHALL BE COMPLETED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND AN ENVIRONMENTAL SPECIALIST CONTRACTOR.
2. THIS CONTRACTOR AND HIS SUBS SHALL STOP WORK AND IMMEDIATELY REPORT TO THE DISTRICT ANY ASBESTOS MATERIAL THEY FIND DURING THERE DEMOLITION AND NEW CONSTRUCTION WORK.
3. CONTRACTOR SHALL NOT RESUME WORK UNTIL THE SITUATION IS CLEARED AND REMOVAL/TESTING OF ANY SUSPECTED ASBESTOS MATERIAL IS CONFIRMED BY THE DISTRICT.



KEY PLAN
NO SCALE

HVAC ATTIC DEMOLITION PLANS

SCALE: AS NOTED

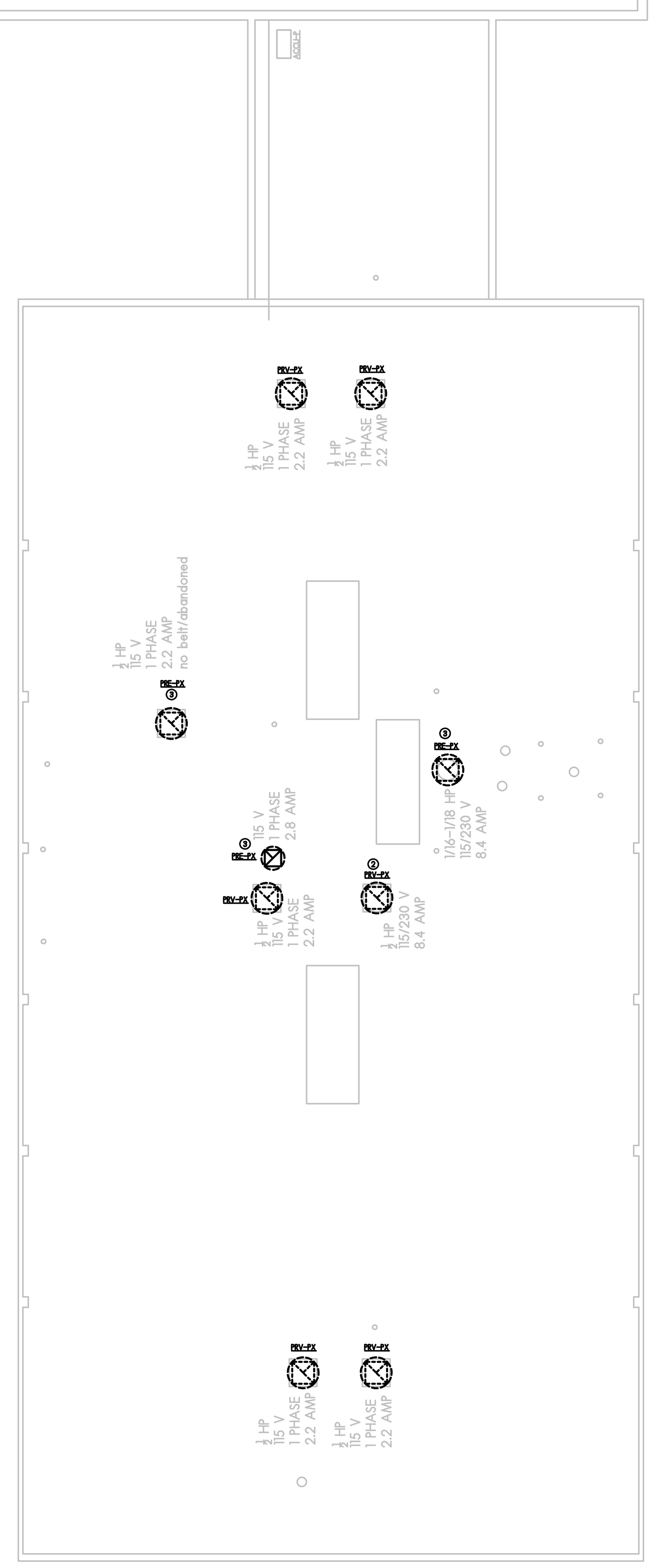
North

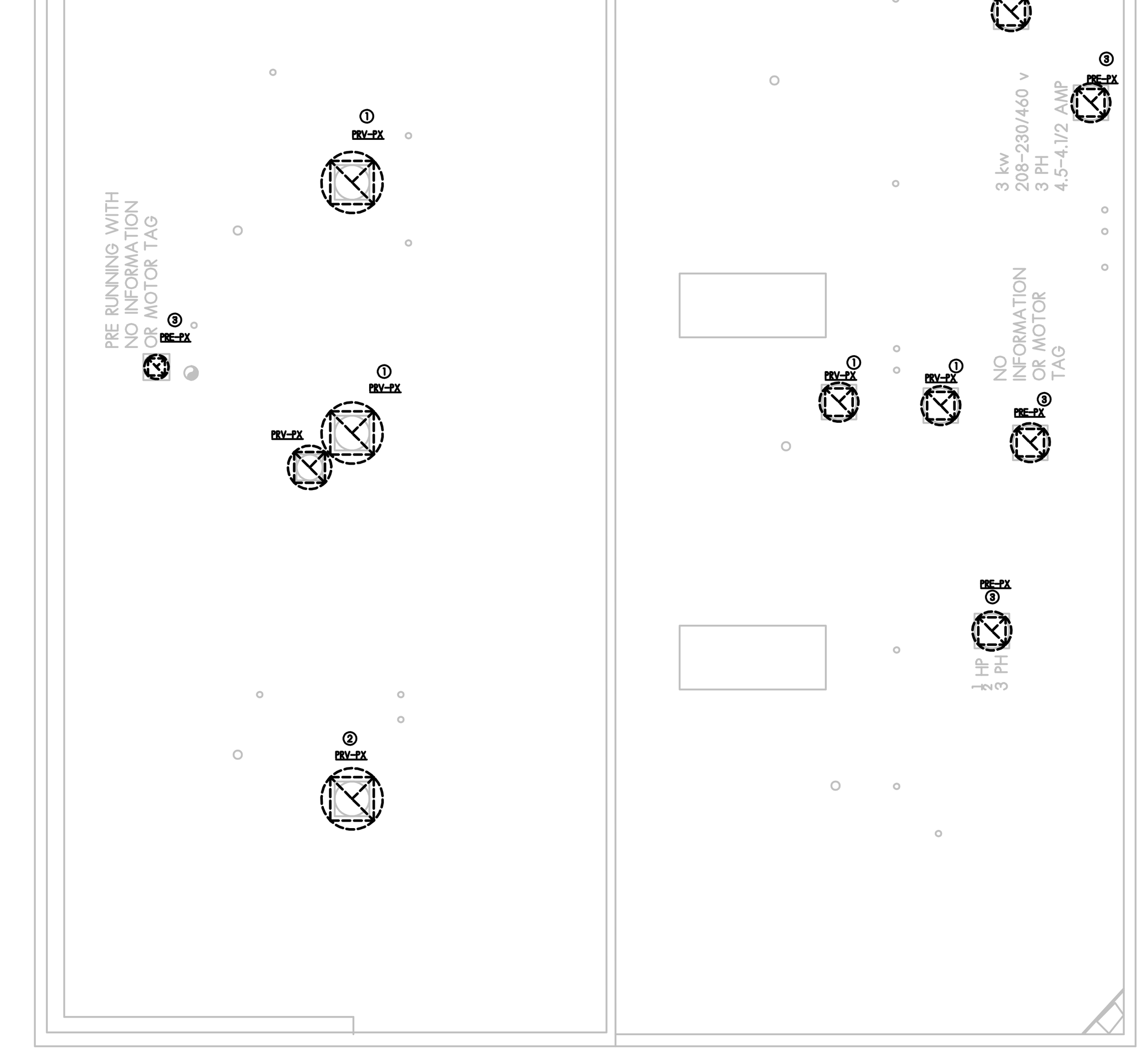
Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

DATE: 01-21-2022	
PROJECT NUMBER	31029-01
SHEET NUMBER	MD5





(1) OVERALL ROOF DEMOLITION PLAN

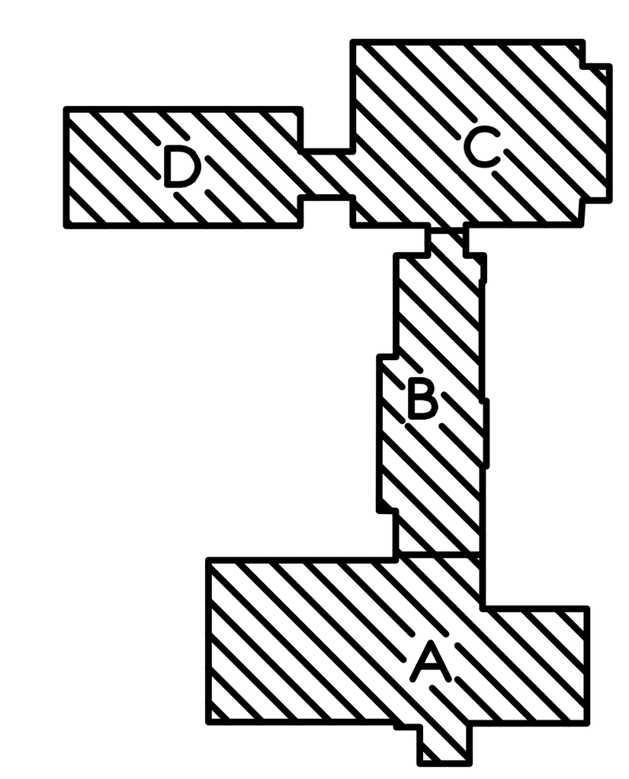
SCALE: 1/16" = 1'-0"

HVAC DEMOLITION KEYED NOTES

1. REMOVE EXISTING GRAVITY PRESSURE RELIEF VENT AND ROOF CURB COMPLETELY. PERMANENTLY CAP EXISTING ROOF OPENING.
2. REMOVE EXISTING GRAVITY PRESSURE RELIEF VENT AND CURB. PREPARE TO INSTALL NEW VENT AND CURB AS SHOWN ON NEW WORK PLAN.
3. REMOVE EXISTING EXHAUST FAN AND CURB. PREPARE TO REPLACE WITH NEW FAN AND CURB AS SHOWN ON NEW WORK PLAN.
4. REMOVE EXISTING OA INTAKE GOOSE NECK AND CURB COMPLETELY. CAP EXISTING THE ROOF OPENING.
5. REMOVE EXISTING ACCU UNIT AND ASSOCIATED REFRIGERANT PIPING BACK TO COOLING COIL IN ASSOCIATED AHU.
6. REMOVE EXISTING OA INTAKE HOOD AND CURB COMPLETELY.
7. REMOVE EXISTING EA RELIEF HOOD AND CURB COMPLETELY.
8. REMOVE EXISTING INTAKE AIR GOOSE NECK AND ROOF CURB COMPLETELY.
9. REMOVE EXISTING VENTILATION FAN AND ROOF CURB COMPLETELY. PERMANENTLY CAP EXISTING ROOF OPENING.
10. REMOVE EXISTING POOL UNIT AND ASSOCIATED ROOF CURB.

GENERAL DEMOLITION NOTES

1. REMOVAL AND ABATEMENT OF ASBESTOS AND EQUIPMENT OR MATERIAL CONTAINING ASBESTOS IS THE RESPONSIBILITY OF THE SCHOOL DISTRICT AND SHALL BE COMPLETED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND AN ENVIRONMENTAL SPECIALIST CONTRACTOR.
2. THIS CONTRACTOR AND HIS SUBS SHALL STOP WORK AND IMMEDIATELY REPORT TO THE DISTRICT ANY ASBESTOS MATERIAL THEY FIND DURING THERE DEMOLITION AND NEW CONSTRUCTION WORK.
3. CONTRACTOR SHALL NOT RESUME WORK UNTIL THE SITUATION IS CLEARED AND REMOVAL/TESTING OF ANY SUSPECTED ASBESTOS MATERIAL IS CONFIRMED BY THE DISTRICT.



KEY PLAN
NO SCALE

HVAC ROOF DEMOLITION PLANS

SCALE: AS NOTED

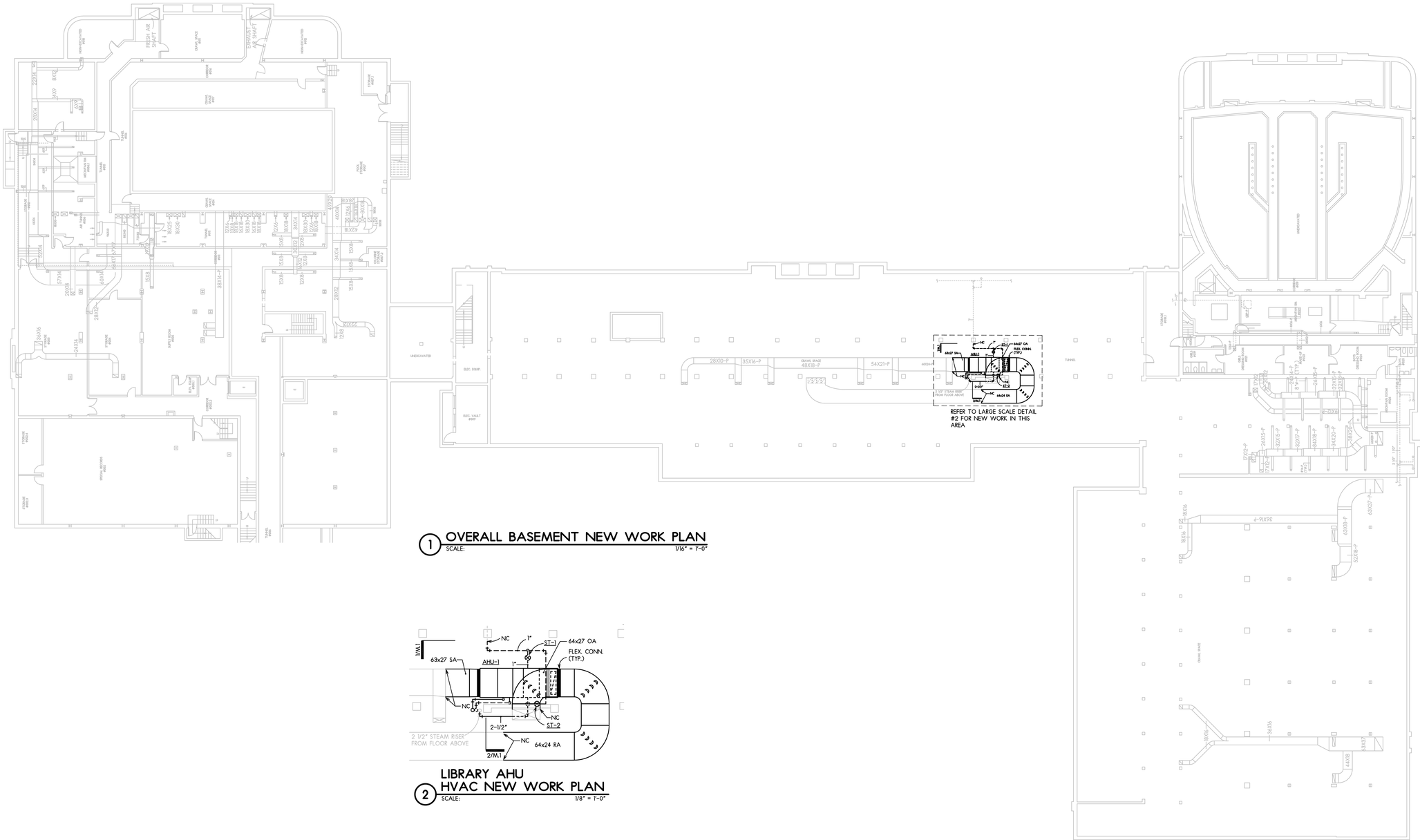
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

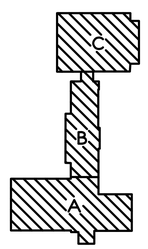
ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ		CHECKED BY:	APPROVED BY: RAS

DATE: 01-21-2021
PROJECT NUMBER
31029-01
SHEET NUMBER
MD6



1 OVERALL BASEMENT NEW WORK PLAN
SCALE: 1/16" = 1'-0"

LIBRARY AHU
2 HVAC NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC BASEMENT NEW WORK PLANS

SCALE: AS NOTED

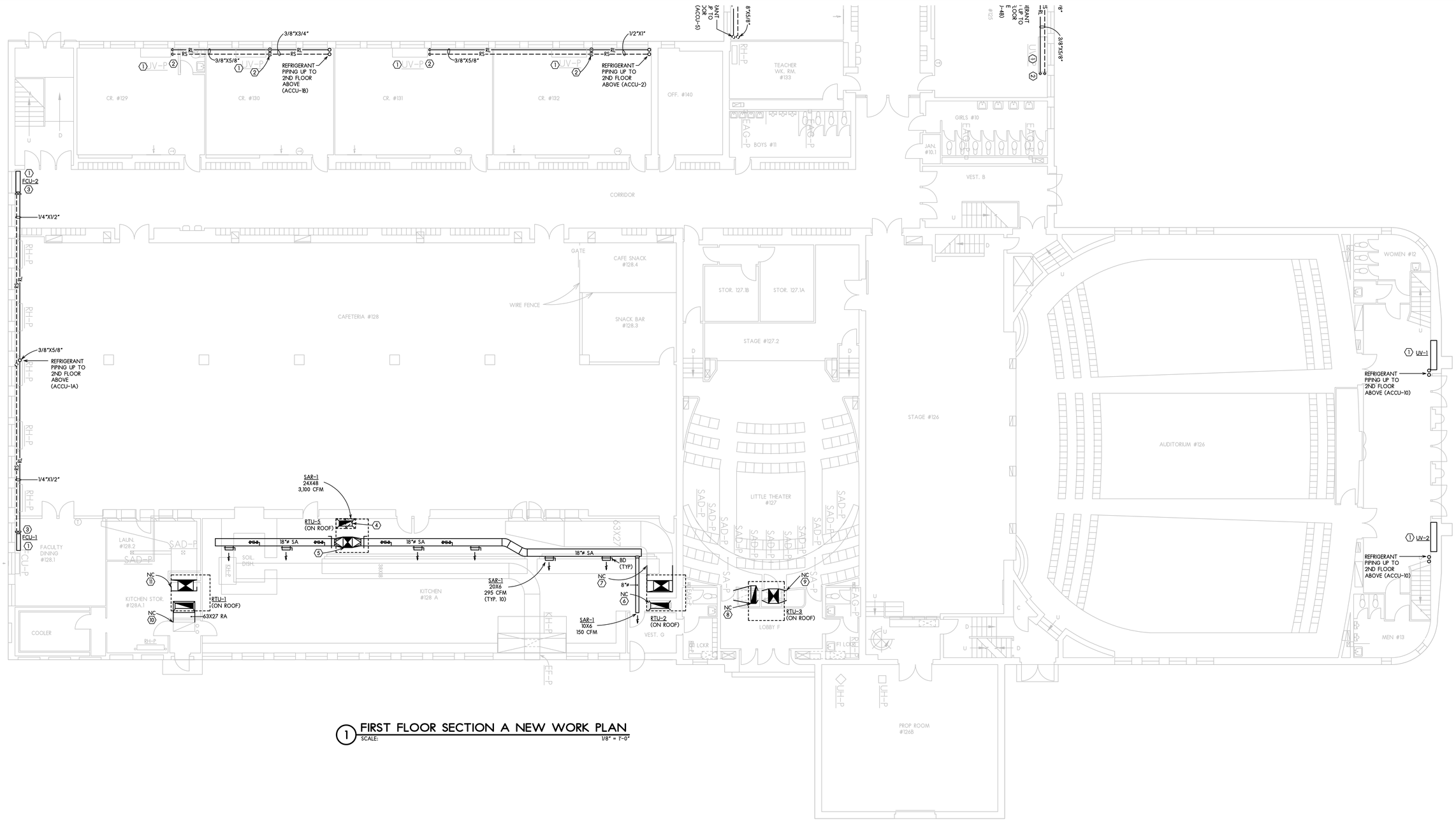
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22–22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

DATE: 01-21-2021
PROJECT NUMBER 31029-01
SHEET NUMBER M1.0



1 FIRST FLOOR SECTION A NEW WORK PLAN

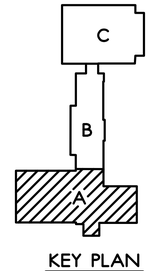
SCALE: 1/8" = 1'-0"

KEYED NOTES

1. PROVIDE & INSTALL NEW CONDENSATE DRAIN PIPING FROM EXISTING UNIT TO FLOOR BELOW. REFER TO DRAIN DETAIL FOR MORE INFO.
2. 3/8" X 5/8" REFRIGERANT PIPING TO EXISTING UNIT VENTILATOR. PROVIDE PIPE COVER AND PAINT TO MATCH EXISTING ADJACENT SURFACE.
3. 1/4" X 1/2" REFRIGERANT PIPING TO NEW FCU.
4. 48X24 RA DUCT FROM RETURN AIR GRILLE TO RTU-5 ON ROOF. PROVIDE TRANSITION TO RTU RA OPENING AS REQUIRED.
5. 24x24 SA DUCT UP TO RTU-5 ON ROOF. PROVIDE TRANSITION TO RTU SA OPENING AS REQUIRED.
6. 63X37 RA DUCT UP TO RTU-2 ON ROOF. PROVIDE TRANSITION TO RTU RA OPENING AS REQUIRED.
7. 62X28 SA DUCT UP TO RTU-2 ON ROOF. PROVIDE TRANSITION TO RTU SA OPENING AS REQUIRED.
8. 63X23 RA DUCT (FIELD VERIFY) UP TO RTU-3 ON ROOF. PROVIDE TRANSITION TO RTU RA OPENING AS REQUIRED.
9. 60X24 SA DUCT(FIELD VERIFY) UP TO RTU-3 ON ROOF. PROVIDE TRANSITION TO RTU SA OPENING AS REQUIRED.
10. 63X27 RA DUCT UP TO RTU-1 ON ROOF. PROVIDE TRANSITION TO RTU RA OPENING AS REQUIRED.
11. 62X28 SA DUCT UP TO RTU-1 ON ROOF. PROVIDE TRANSITION TO RTU SA OPENING AS REQUIRED.
12. PROVIDE & INSTALL NEW CONDENSATE DRAIN PIPING FROM EXISTING UNIT TO OUTDOOR. PROVIDE INSECT SCREEN OVER DRAIN PIPE OPENING. REFER TO DRAIN DETAIL FOR MORE INFO.

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL CLEAN ALL EXISTING DUCTWORK (SUPPLY / RETURN / EXHAUST) ASSOCIATED WITH THIS PROJECT.
2. MODIFY EXISTING DDC CONTROL SYSTEM AND PROVIDE ALL REQUIRED MATERIAL TO ACCOMMODATE NEW AIR-CONDITIONG SYSTEM ADDED TO THIS PROJECT.
3. CONTRACTOR SHALL PROVIDE & INSTALL NEW FULLY FUNCTIONAL VRF SYSTEM AS SHOWN AND DESCRIBED IN THIS PROJECT.
4. CONTRACTOR SHALL FIELD VERIFY AND SURVEY ALL EXISTING CONDITIONS AND SHALL ROUTE NEW REFRIGERATION PIPING ACCORDINGLY.
5. PROVIDE ARCHITECTURAL PIPE COVER FOR NEW EXPOSED REFRIGERANT PIPING INSTALLED UNDER THIS PROJECT.
6. ALL ROOFTOP EQUIPMENT SHALL BE INSTALLED ON ROOF CURBS OR EQUIPMENT RAILING/SUPPORT.



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

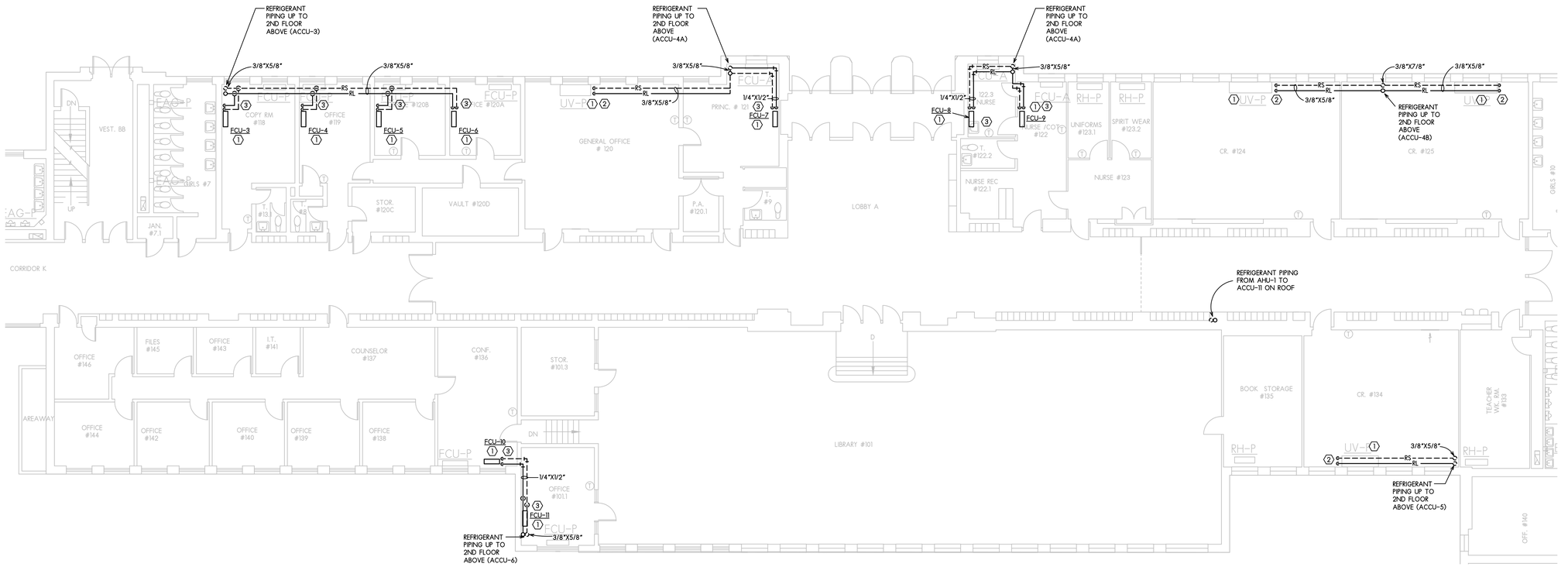
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	DRAWN BY:	CHECKED BY:	APPROVED BY:
01-21-22 ISSUED FOR: BIDDING	JJ		RAS

DATE:	PROJECT NUMBER	SHEET NUMBER
01-21-2022	31029-01	M2.1



1 FIRST FLOOR SECTION B NEW WORK PLAN

SCALE: 1/8" = 1'-0"

KEYED NOTES

1. PROVIDE & INSTALL NEW CONDENSATE DRAIN PIPING FROM EXISTING UNIT TO FLOOR BELOW. REFER TO DRAIN DETAIL FOR MORE INFO.
2. 3/8" X 5/8" REFRIGERANT PIPING TO EXISTING UNIT VENTILATOR. PROVIDE PIPE COVER AND PAINT TO MATCH EXISTING ADJACENT SURFACE.
3. 1/4" X 1/2" REFRIGERANT PIPING TO NEW FCU.
4. 48X24 RA DUCT FROM RETURN AIR GRILLE TO RTU-5 ON ROOF. PROVIDE TRANSITION TO RTU RA OPENING AS REQUIRED.
5. 24x24 SA DUCT UP TO RTU-5 ON ROOF. PROVIDE TRANSITION TO RTU SA OPENING AS REQUIRED.
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8. 63X23 RA DUCT (FIELD VERIFY) UP TO RTU-3 ON ROOF. PROVIDE TRANSITION TO RTU RA OPENING AS REQUIRED.
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12. PROVIDE & INSTALL NEW CONDENSATE DRAIN PIPING FROM EXISTING UNIT TO OUTDOOR. PROVIDE INSECT SCREEN OVER DRAIN PIPE OPENING. REFER TO DRAIN DETAIL FOR MORE INFO.

GENERAL CONSTRUCTION NOTES

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2. MODIFY EXISTING DDC CONTROL SYSTEM AND PROVIDE ALL REQUIRED MATERIAL TO ACCOMMODATE NEW AIR-CONDITIONG SYSTEM ADDED TO THIS PROJECT.
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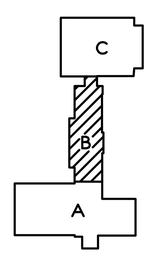


KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

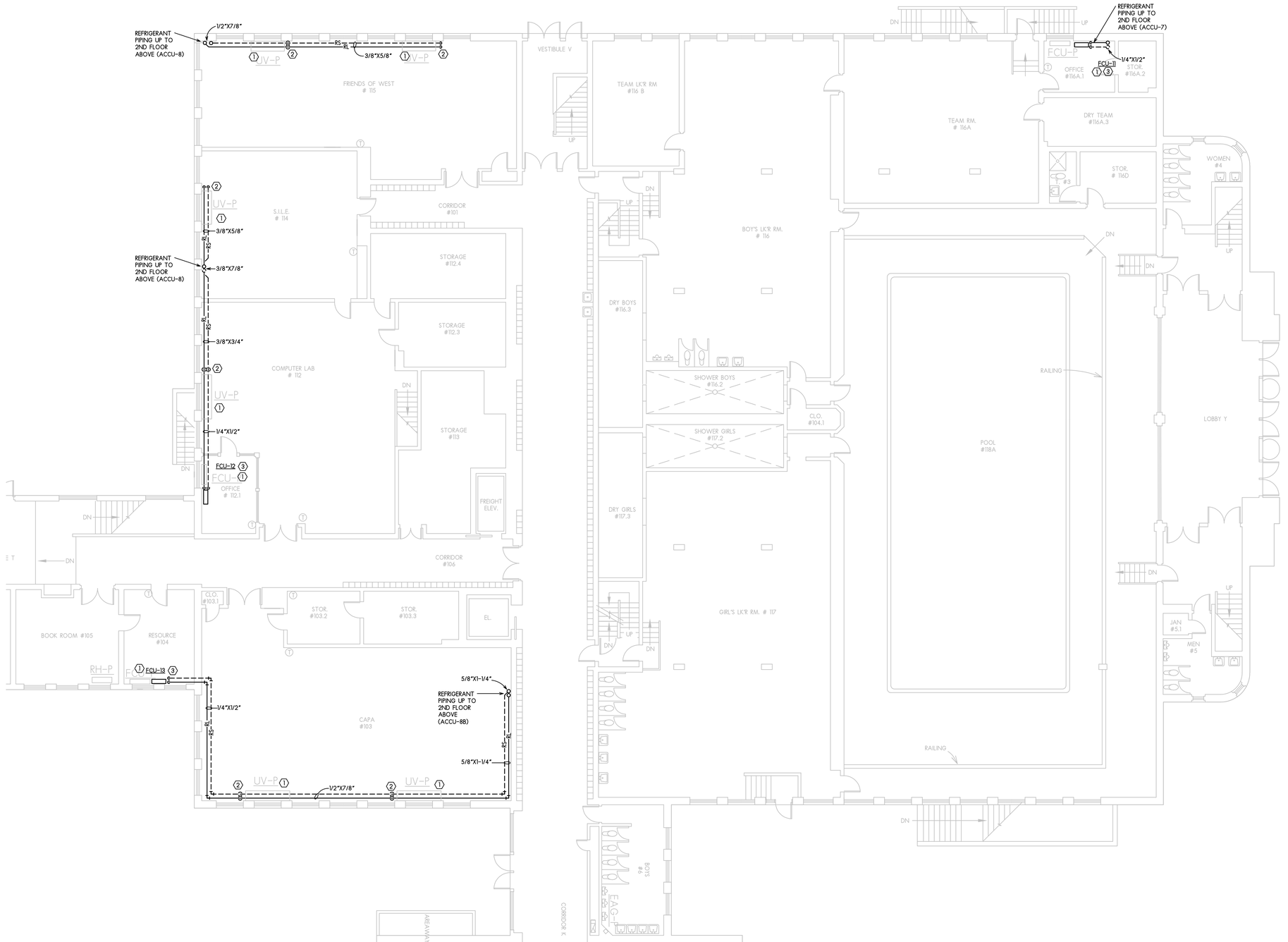
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
		CHECKED BY:	APPROVED BY: RAS
		DRAWN BY:	JJ

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M2.2



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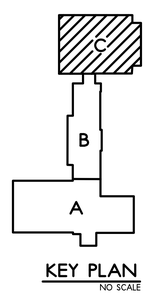
1 FIRST FLOOR SECTION C NEW WORK PLAN

SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

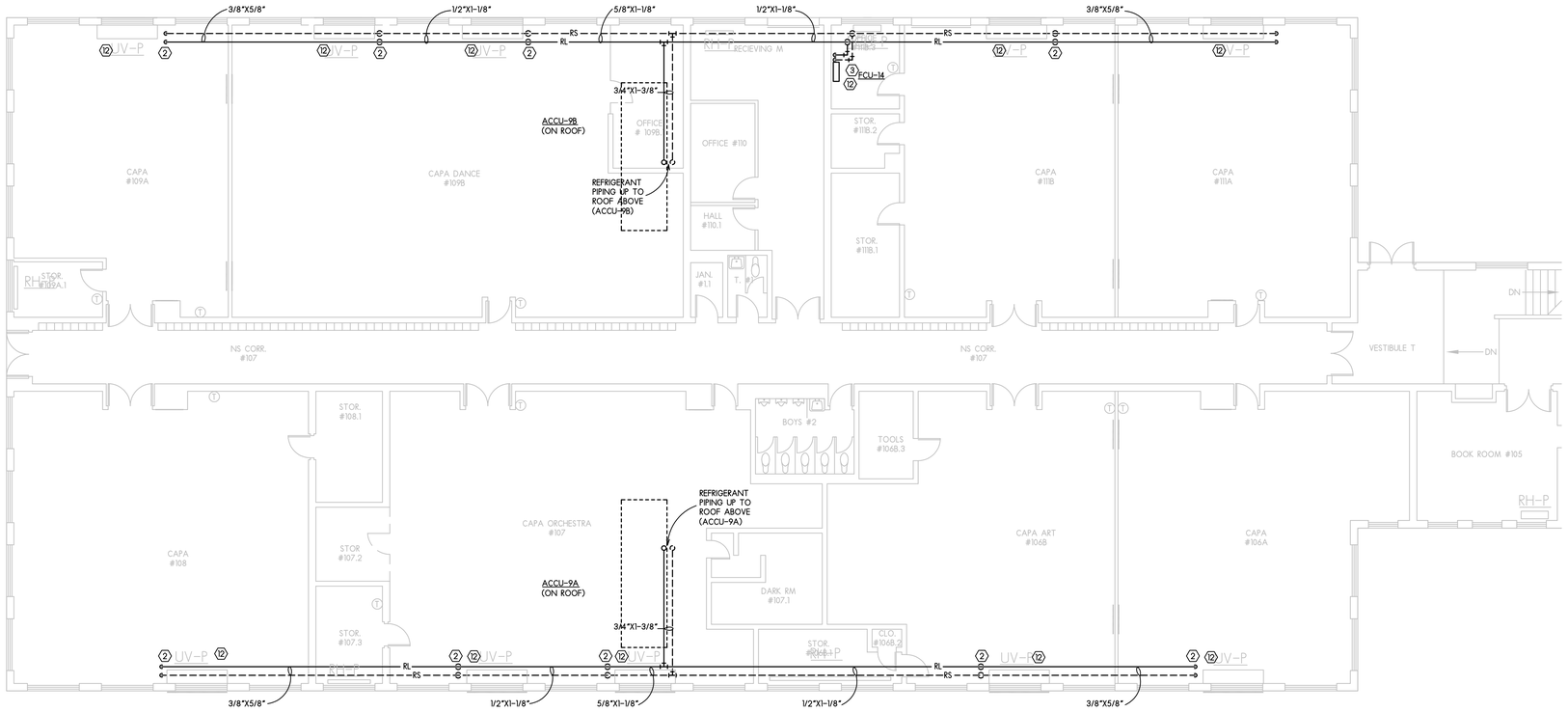
North

Larson & Darby Group
Architecture Engineering Interiors

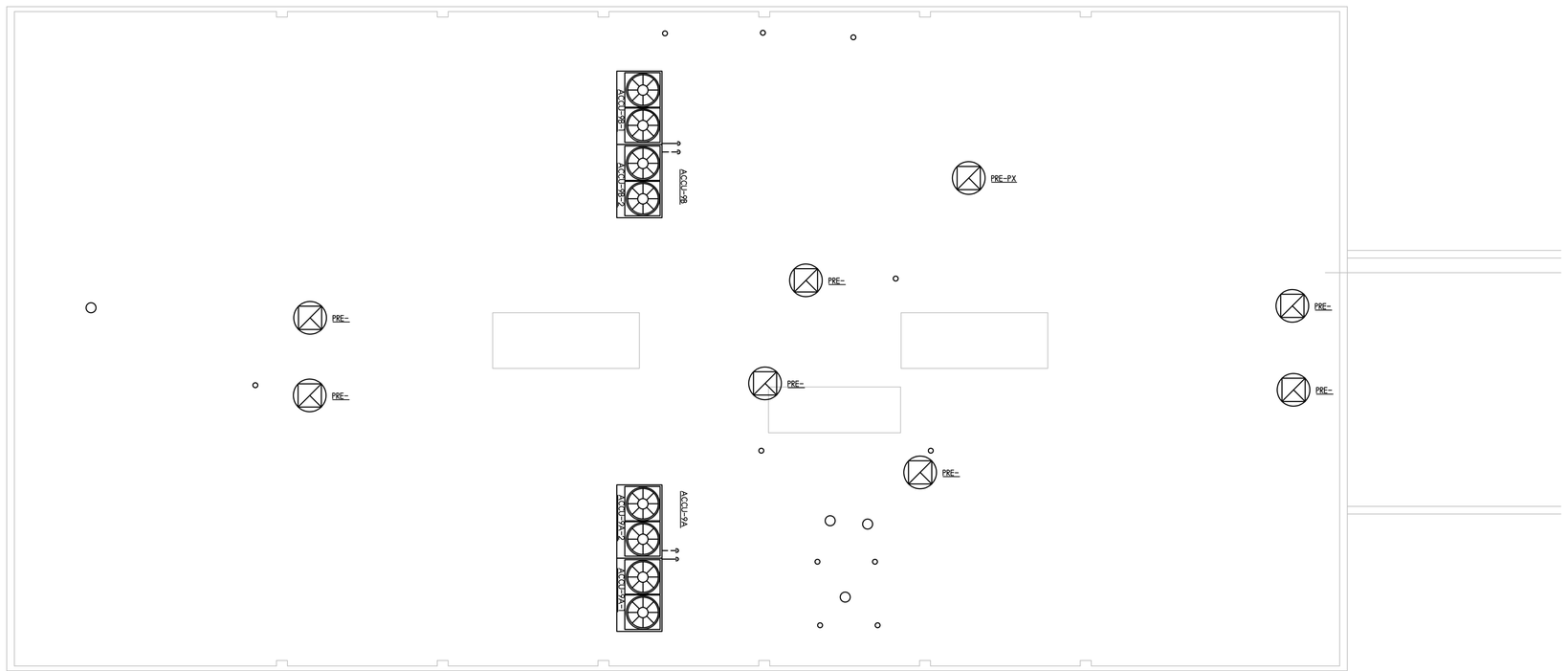
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	ISSUED FOR:	DRAWN BY:	CHECKED BY:	APPROVED BY:
01-21-22	BIDDING	JJ		RAS

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M2.3



1 FIRST FLOOR SECTION D NEW WORK PLAN
SCALE: 1/8" = 1'-0"



2 ROOF SECTIOIN D NEW WORK
SCALE: 1/8" = 1'-0"

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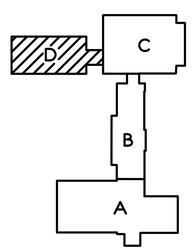


KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

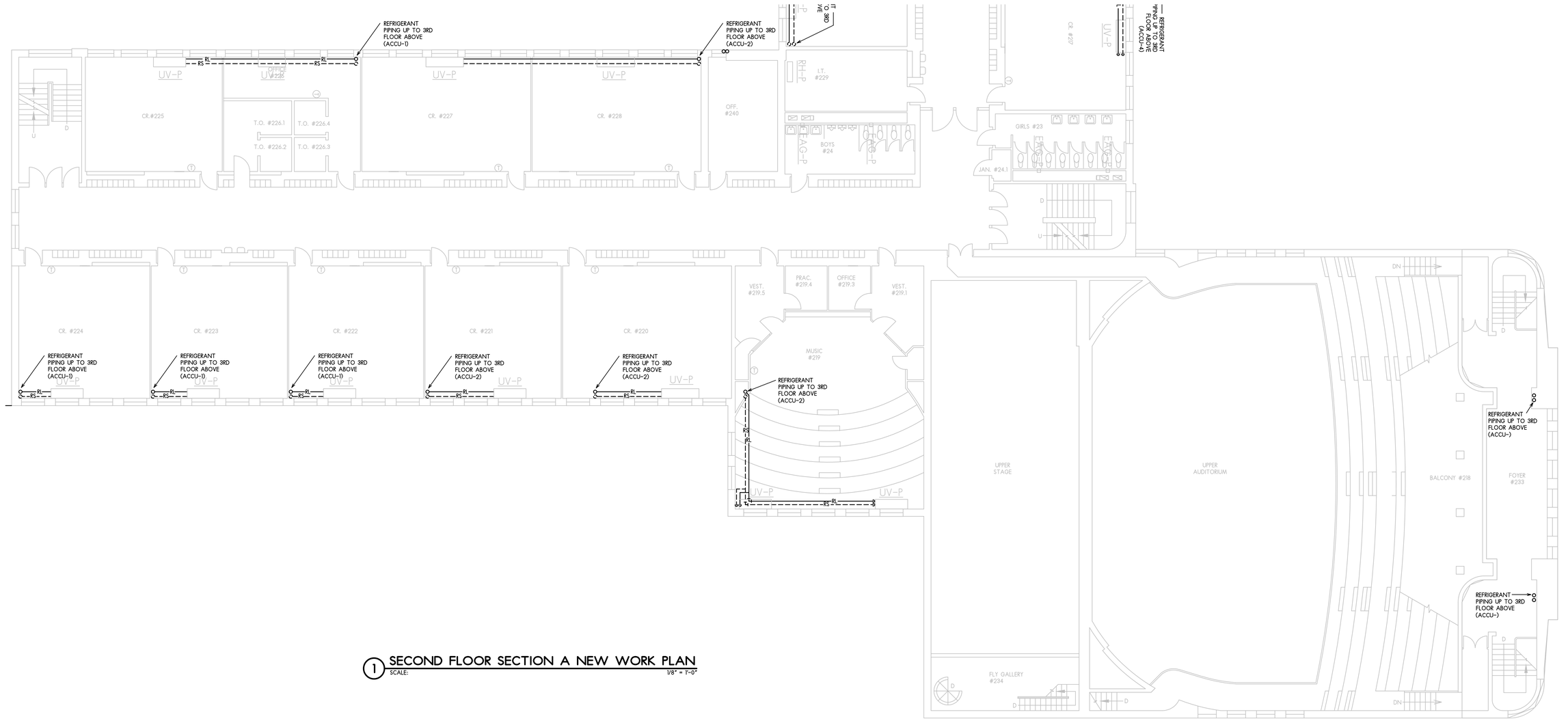
North

Larson & Darby Group
Architecture Engineering Interiors

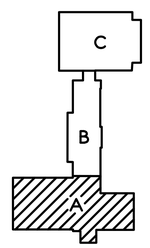
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	BIDDING
ISSUED FOR:	01-21-22
DRAWN BY:	JJ
CHECKED BY:	
APPROVED BY:	RAS

DATE:	01-21-2022
PROJECT NUMBER	31029-01
SHEET NUMBER	M2.4



1 SECOND FLOOR SECTION A NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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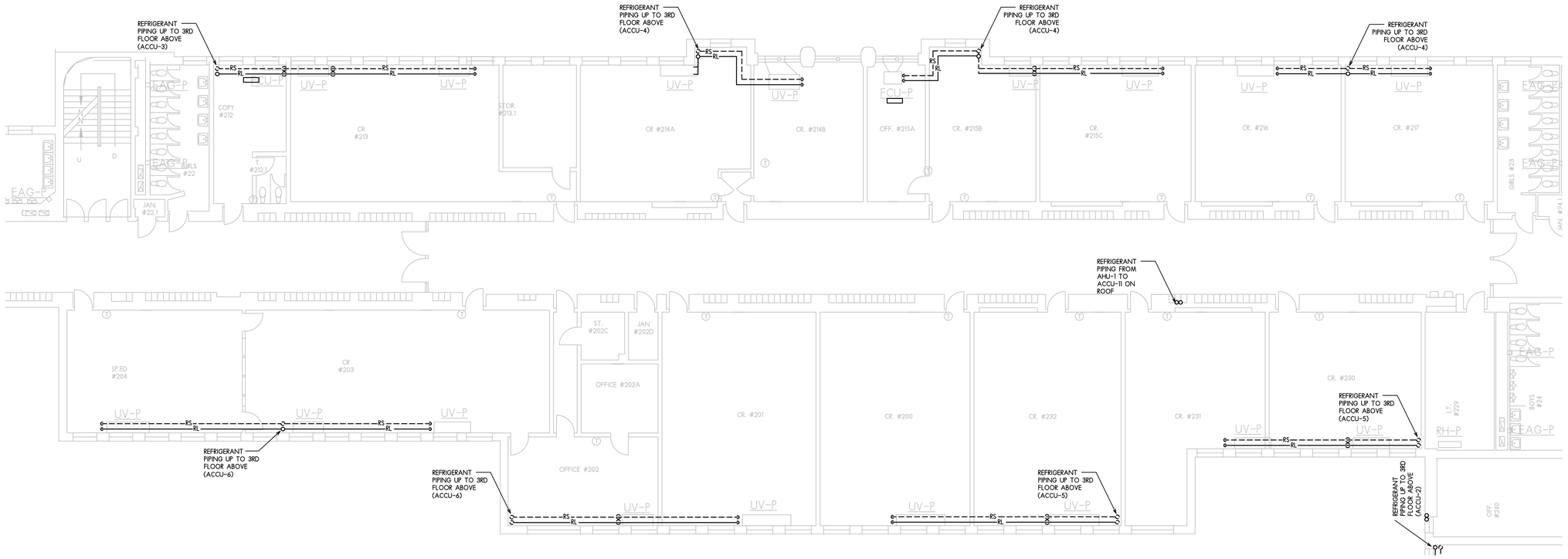
Architecture Engineering Interiors

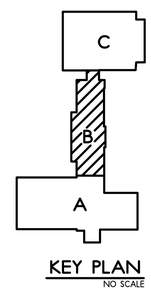
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M3.1



1 SECOND FLOOR SECTION B NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

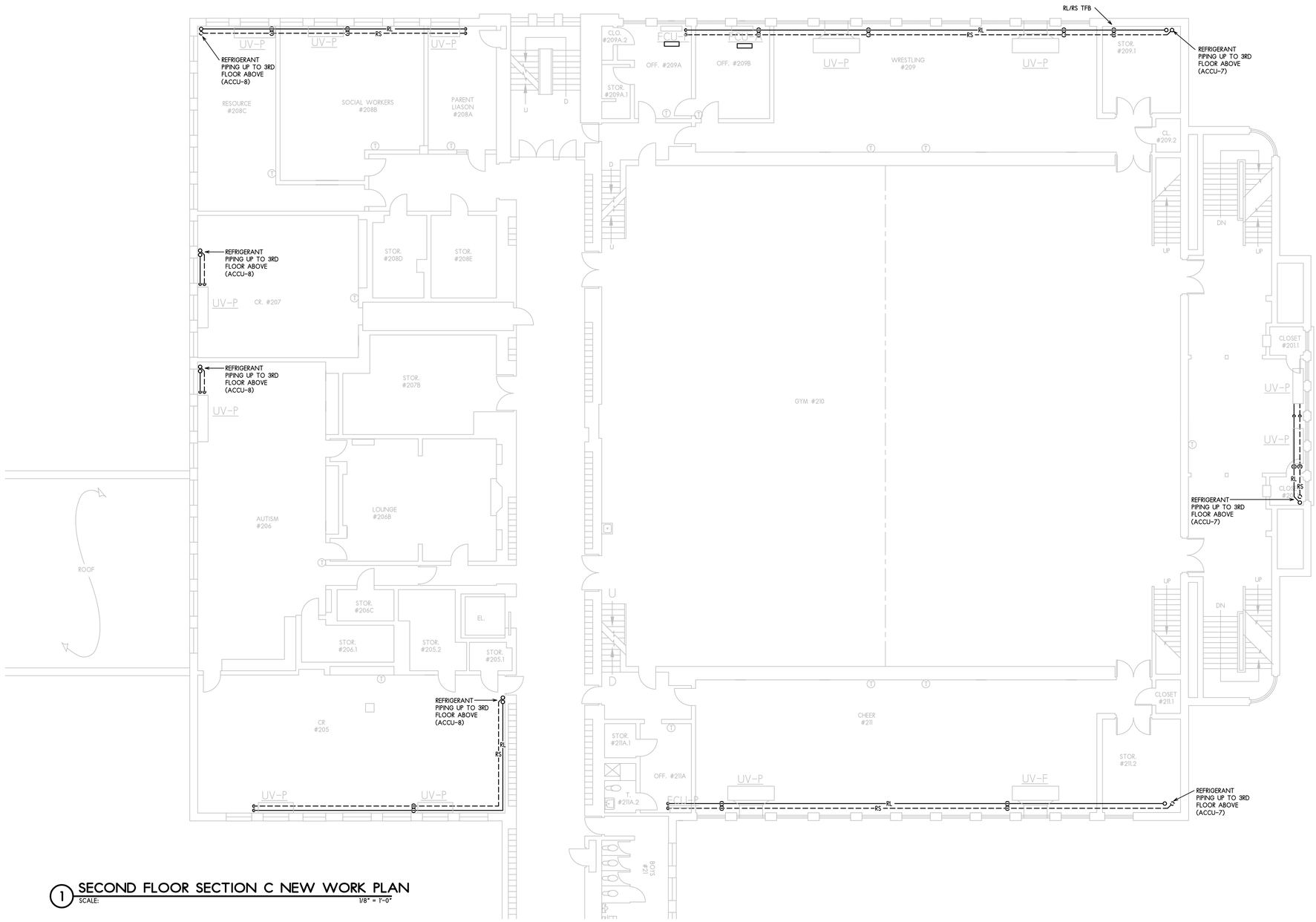
North

Larson & Darby Group
Architecture Engineering Interiors

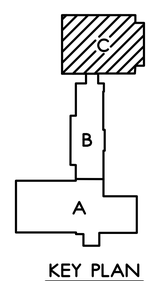
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M3.2



1 SECOND FLOOR SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

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North

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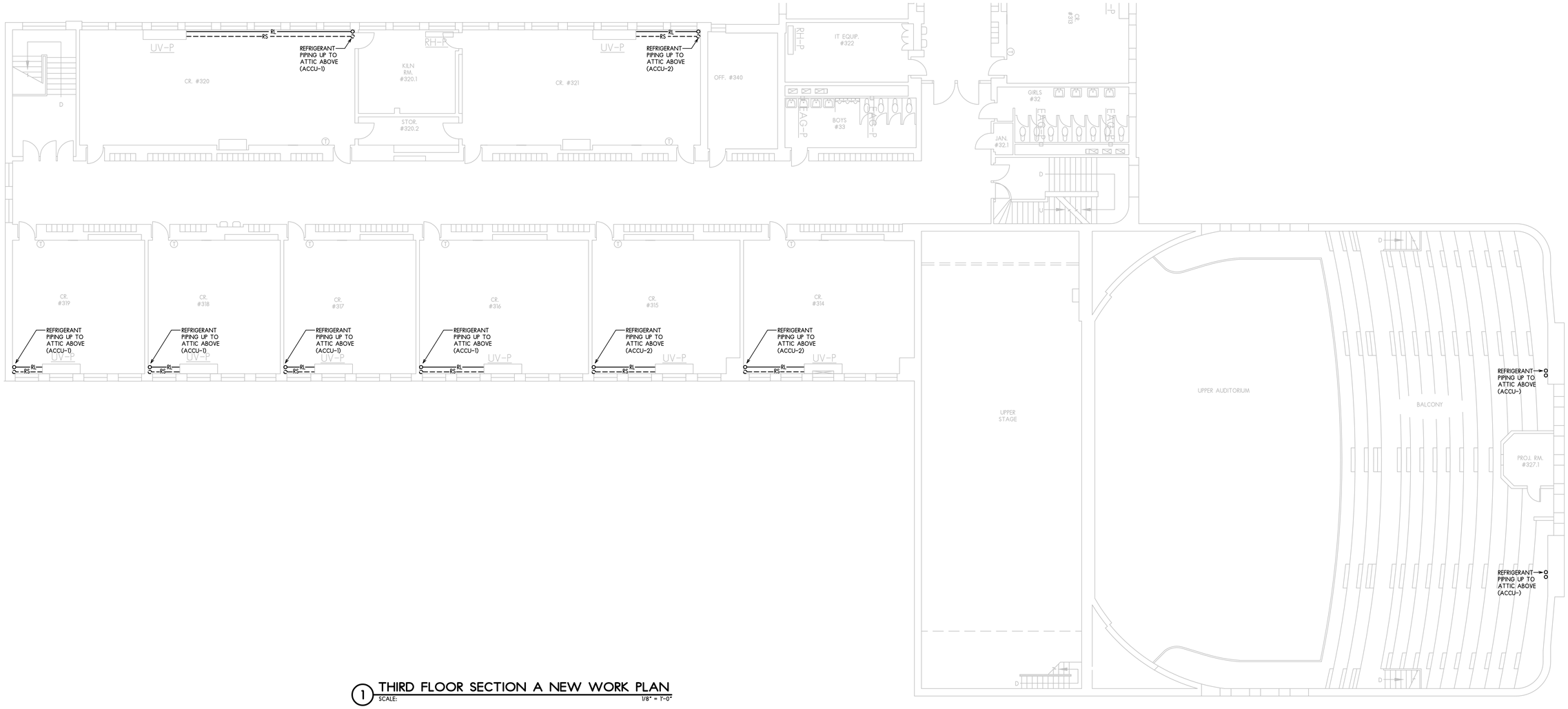
Architecture Engineering Interiors

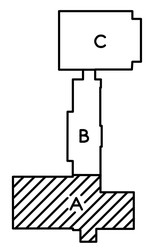
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M3.3



1 THIRD FLOOR SECTION A NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
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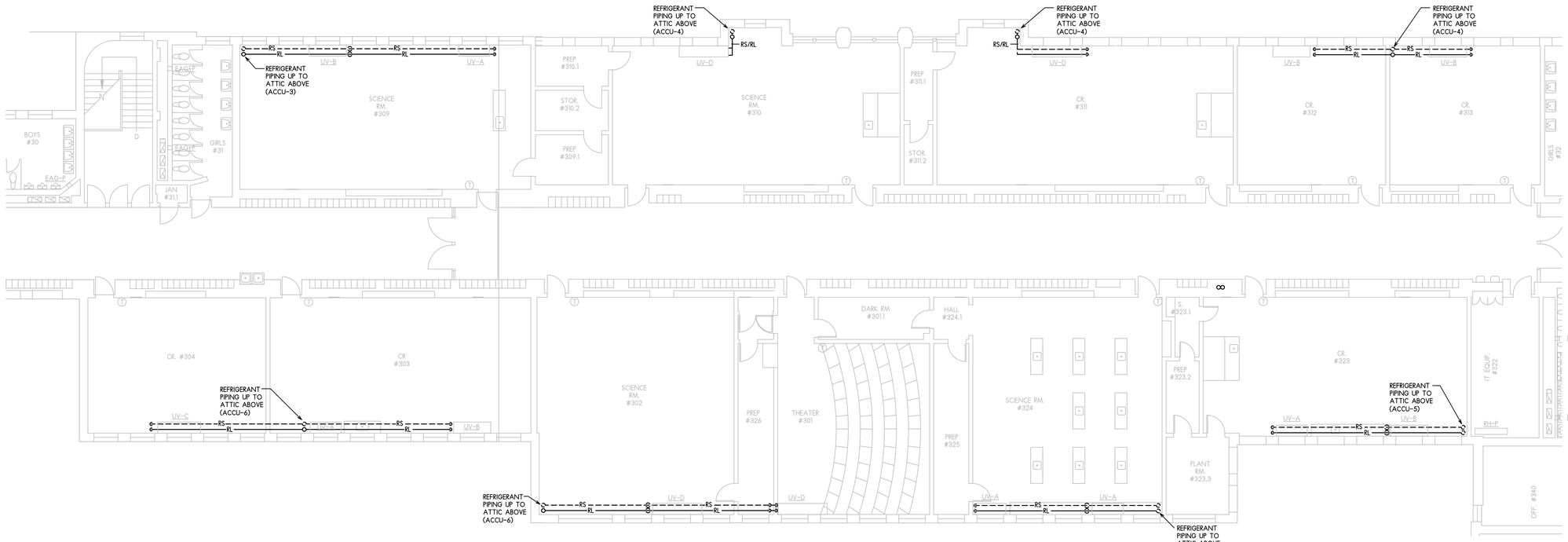
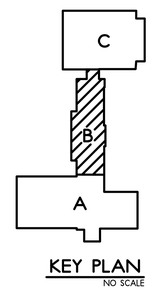
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M4.1



1 THIRD FLOOR SECTION B NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS

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North

Larson & Darby Group
Architecture Engineering Interiors

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1900 N ROCKTON AVE, ROCKFORD IL, 61103

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DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

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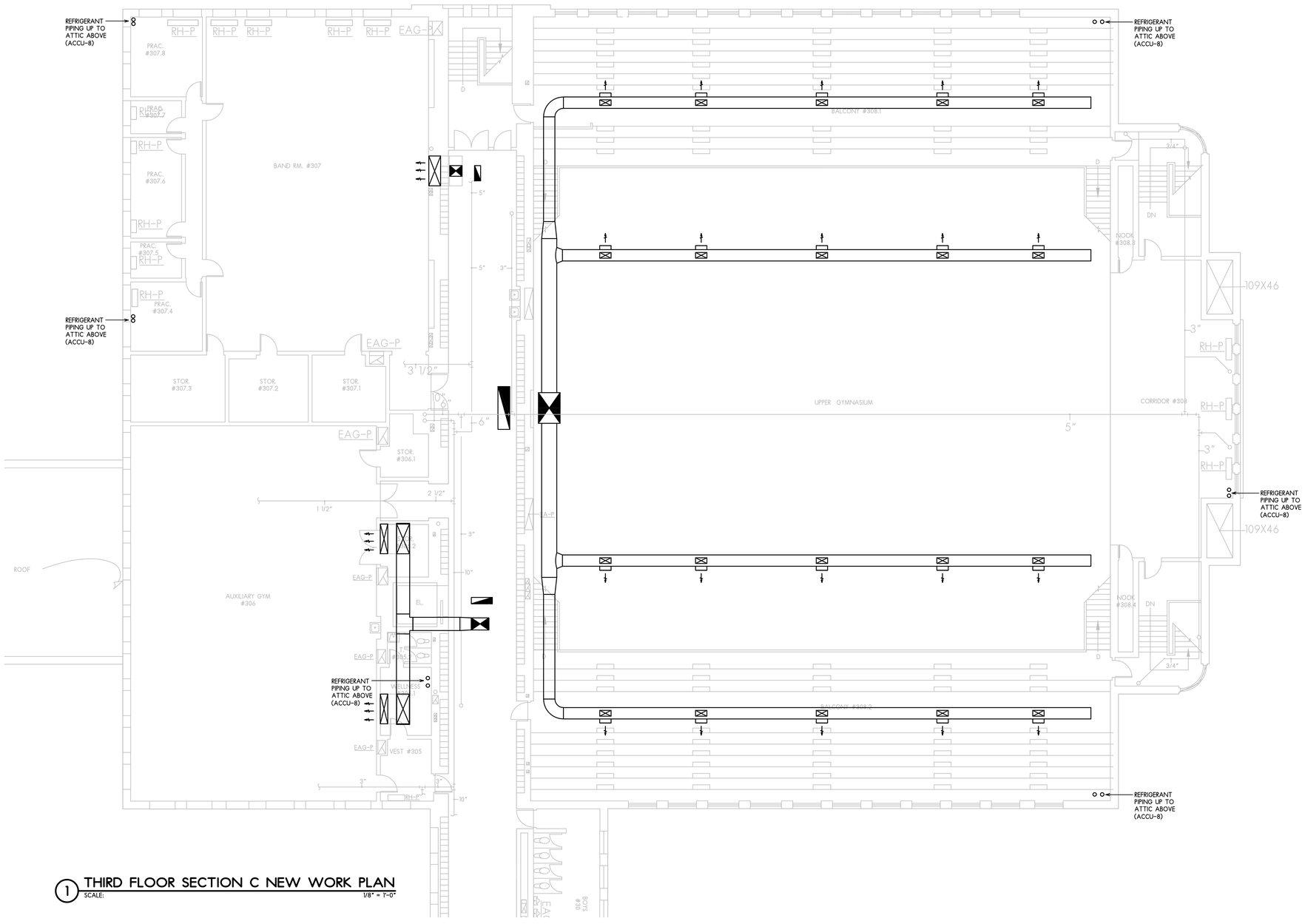
SHEET NUMBER M4.2



1 THIRD FLOOR SECTION C NEW WORK PLAN
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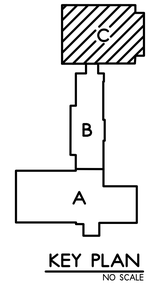

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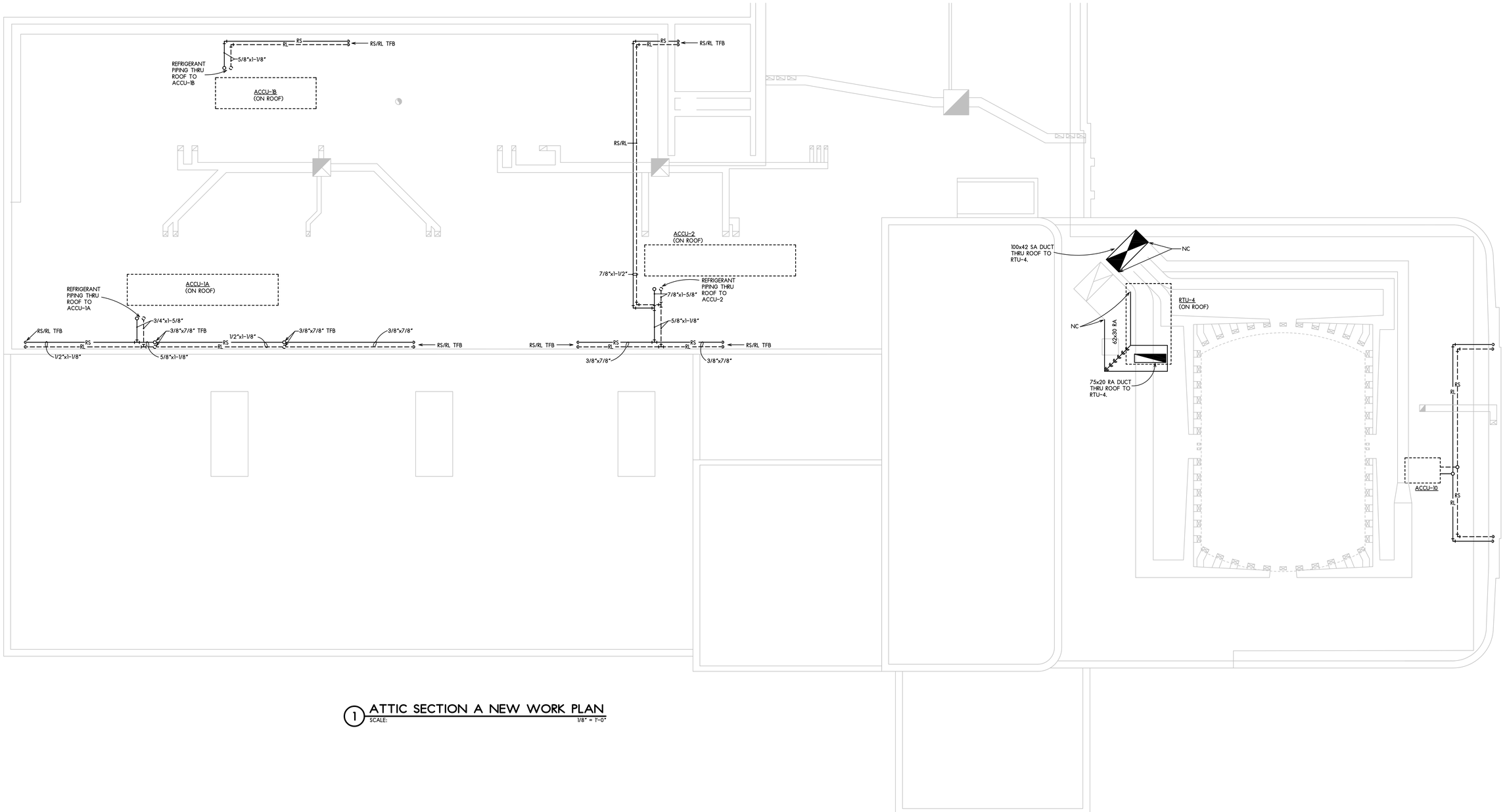
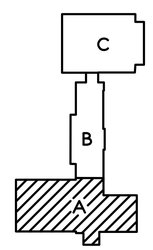
SHEET NUMBER M4.3



1 ATTIC SECTION A NEW WORK PLAN
SCALE: 1/8" = 1'-0"



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HVAC NEW WORK PLANS

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Architecture Engineering Interiors

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DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

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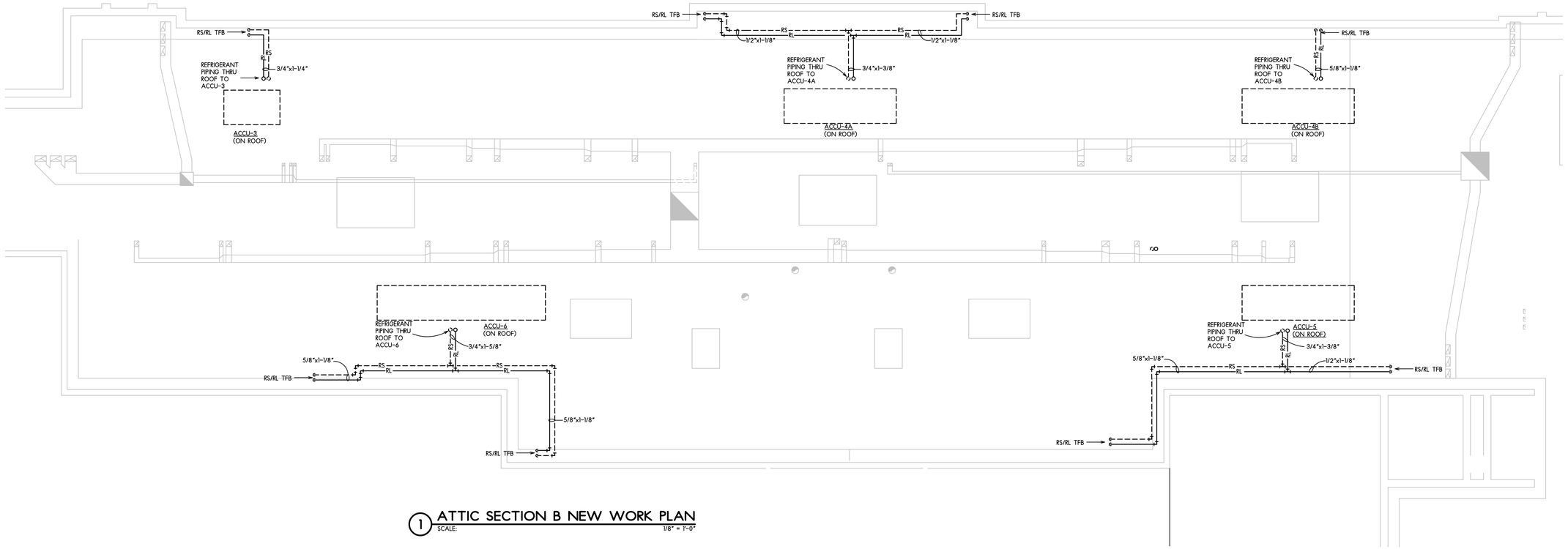
SHEET NUMBER M5.1



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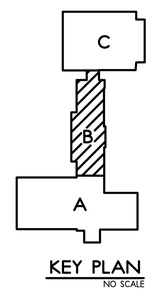
SCALE: 1/8" = 1'-0"



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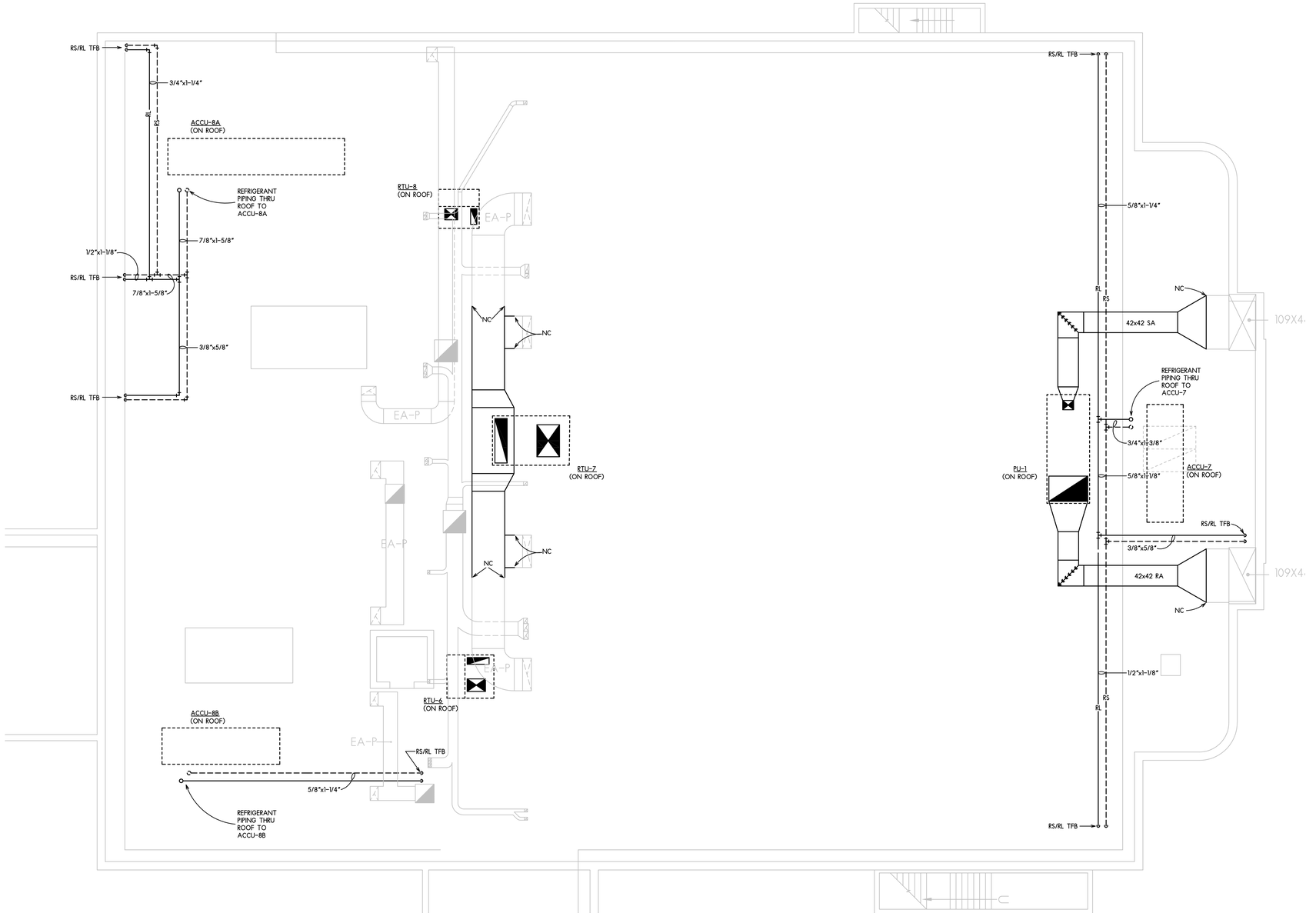
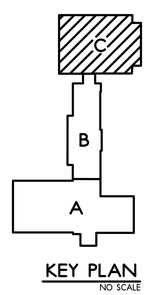
SHEET NUMBER M5.2



1 ATTIC SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

HVAC NEW WORK PLANS
SCALE: 1/8" = 1'-0"

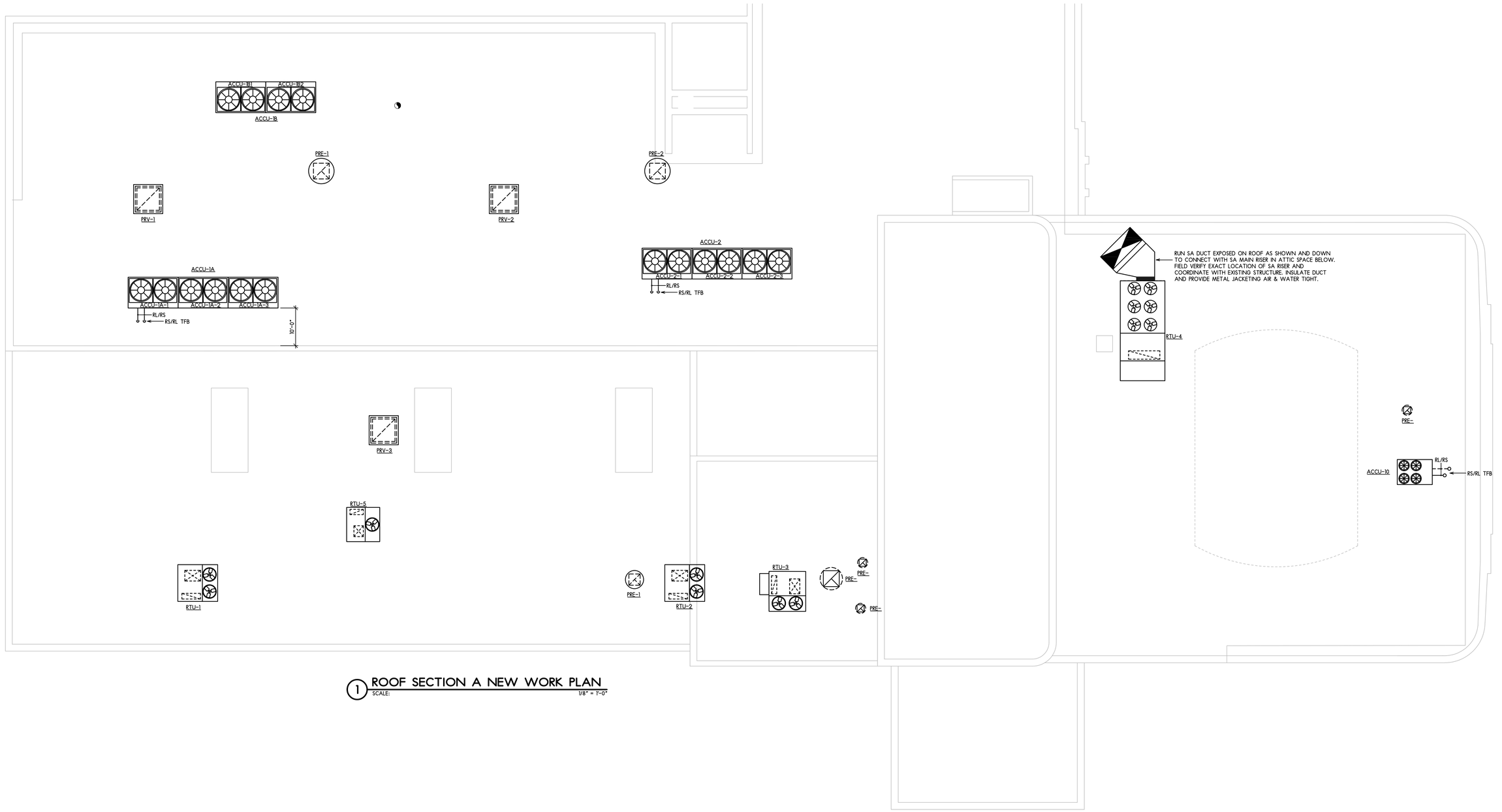
North

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M5.3



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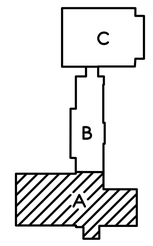
SCALE: 1/8" = 1'-0"



KEY PLAN
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HVAC NEW WORK PLANS

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1900 N ROCKTON AVE, ROCKFORD IL, 61103

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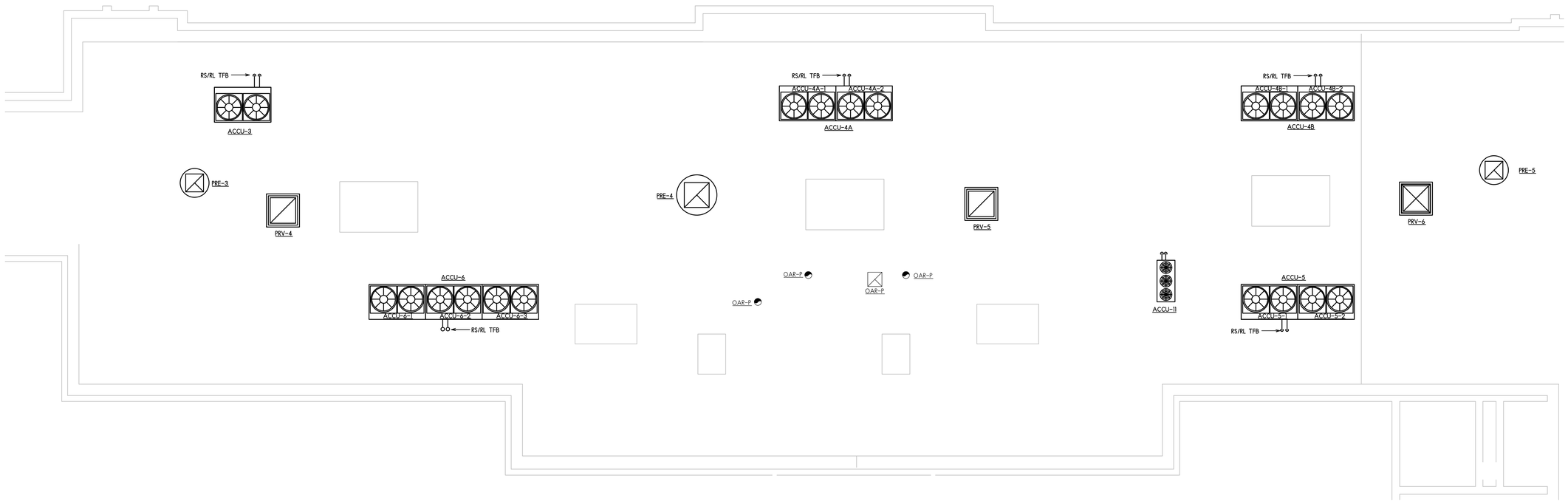
01-21-22	ISSUED FOR:
DRAWN BY: JJ	CHECKED BY:
	APPROVED BY: RAS

DATE:	01-21-2022
PROJECT NUMBER	31029-01
SHEET NUMBER	M6.1



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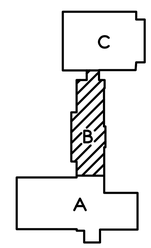
SCALE: 1/8" = 1'-0"



KEY PLAN
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HVAC NEW WORK PLANS

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DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

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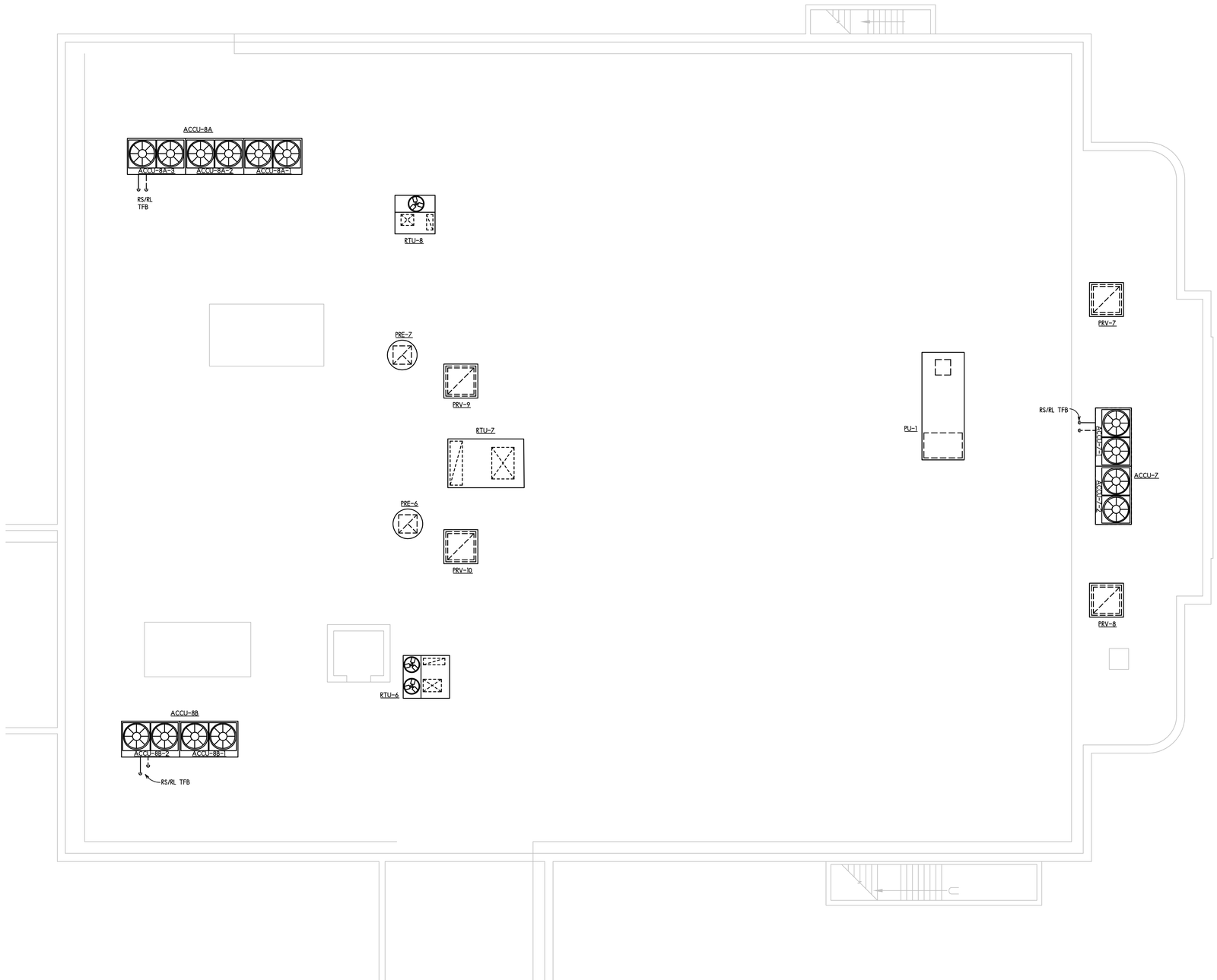
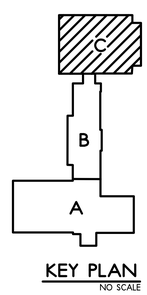
PROJECT NUMBER 31029-01
SHEET NUMBER M6.2



1 ROOF SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
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HVAC NEW WORK PLANS
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HVAC ABBREVIATIONS

AAV	AUTOMATIC AIR VENT	DR	DRAIN	GV	GATE VALVE	N.C.	NORMALLY CLOSED	SCFM	STANDARD CUBIC FEET PER MINUTE
ACCU	AIR COOLED CONDENSING UNIT	DWG	DRAWING	H	HUMIDIFIER	NK	NECK	SD	SMOKE DAMPER
AD	ACCESS DOOR	DX	DIRECT EXPANSION	HP	HORSE POWER	N.O.	NORMALLY OPEN	SEQ	SEQUENCE
AFC	ADJUSTABLE FLEXIBLE CONNECTION	EA	EXHAUST AIR DUCT	HPB	HIGH PRESSURE STEAM BOILER	NPT	NATIONAL PIPE THREAD	SF	SUPPLY AIR FAN
AFF	ABOVE FINISHED FLOOR	EAG	EXHAUST AIR GRILLE	HPR	HIGH PRESSURE STEAM RETURN	OA	OUTSIDE AIR	SG	SOFFIT GRILLE
AHU	AIR HANDLING UNIT	EAR	EXHAUST AIR REGISTER	HPS	HIGH PRESSURE STEAM SUPPLY	OAD	OUTSIDE AIR DAMPER	SP	STATIC PRESSURE
ALT	ALTERNATE	EAT	ENTERING AIR TEMPERATURE	HTG	HEATING	OAI	OUTSIDE AIR INTAKE	SPD	SPEED
APD	AIR PRESSURE DROP	EBB	ELECTRIC BASEBOARD	HTR	HEATER	OSHA	OCCUPATIONAL SAFETY & HEALTH ACT	SPEC	SPECIFICATION
ASC	ABOVE SUSPENDED CEILING	EC	ELECTRICAL CONTRACTOR	HVAC	HEATING, VENTILATION AND AIR CONDITIONING	PC	PLUMBING CONTRACTOR	SS	STAINLESS STEEL
AUX	AUXILIARY	EDR	EQUIVALENT DIRECT RADIATION			PD	PRESSURE DROP	STD	STANDARD
AV	ANGLE VALVE	ESP	EXTERNAL STATIC PRESSURE	HWB	HOT WATER BOILER	PH	PHASE	SUH	SUSPENDED UNIT HEATER
AV-T	AIR VALVE AT TOP	EWT	ENTERING WATER TEMPERATURE	HWP	HOT WATER PUMP	PHC	PREHEAT COIL	SUMM	SUMMER
BDD	BACKDRAFT DAMPER	EF	EXHAUST FAN	HWR	HOT WATER RETURN	PNEU	PNEUMATIC	SYS	SYSTEM
BFV	BUTTERFLY VALVE	ELEC	ELECTRIC OR ELECTRONIC	HWS	HOT WATER SUPPLY	POS	POSITIVE	TA	THROW AWAY
BOD	BOTTOM OF DUCT	ENCL	ENCLOSURE	HX	HEAT EXCHANGER	PRE	POWER ROOF EXHAUSTER (AIR)	TC	TEMPERATURE CONTROL
BTU	BRITISH THERMAL UNIT	ENGR	ENGINEER	HZ	HERTZ	PRESS	PRESSURE	TCC	TC CONTRACTOR
BTUH	BTU PER HOUR	EQUIP	EQUIPMENT	ID	INSIDE DIAMETER	PRI	POWER ROOF INTAKE (AIR)	TEMP	TEMPERATURE
BV	BALL VALVE	ET	EXPANSION TANK	IF	INLINE FAN	PRV	PRESSURE REDUCING VALVE	TFA	TO FLOOR ABOVE
CA	COMBUSTION AIR	EUH	ELECTRIC CABINET HEATER	IN	INCH	PS	PRESSURE SWITCH	TFB	TO FLOOR BELOW
CAD	COMBUSTION AIR DAMPER	EVAP	EVAPORATOR	IP	INLINE PUMP	PSD	PUMP SUCTION DIFFUSER	TG	TRANSFER GRILLE
CAV	CONSTANT AIR VOLUME	EXPV	EXPANSION VALVE	KW	KILOWATT	PSI	POUNDS PER SQUARE INCH	TO	TRANSFER OPENING
CEB	CONCRETE EQUIPMENT BASE	F	FAHRENHEIT	LAT	LEAVING AIR TEMPERATURE	PSIG	POUNDS PER SQUARE INCH (GAUGE)	T-STAT	THERMOSTAT
CFM	CUBIC FEET PER MINUTE	F & BP	FACE AND BYPASS	LB	POUND	PTAC	PACKAGE TERMINAL AC	TS	TRANSFER SLEEVE
CH	CHILLER	F & TT	FLOAT AND THERMOSTAT TRAP	LGTH	LENGTH	PWE	POWER WALL EXHAUSTER	TSP	TOTAL STATIC PRESSURE
CIRC	CIRCULATION	FBO	FURNISHED BY OTHERS	LPB	LOW PRESSURE BOILER	R	RISE	TYP	TYPICAL
CKV	CHECK VALVE	FC	FORWARD CURVE	LPR	LOW PRESSURE RETURN	RA	RETURN AIR	UAC	UNIT AIR CONDITIONER
CL	CLOSE, CLOSED	FCU	FAN COIL UNIT	LPS	LOW PRESSURE SUPPLY	RAD	RADIATION	UL	UNDERWRITERS LABORATORIES
CLG	COOLING	FD	FIRE DAMPER	LR	LONG RADIUS	RAG	RETURN AIR GRILLE	UN	UNION
COND	CONDENSER	FFA	FROM FLOOR ABOVE	MAN	MANUAL	RAI	ROOF AIR INTAKE	VAV	VARIABLE AIR VOLUME
CONV	CONVECTOR, CONVERTER	FFB	FROM FLOOR BELOW	MAU	MAKE-UP AIR UNIT	RAR	RETURN AIR REGISTER	VAVR	VARIABLE AIR VOLUME WITH REHEAT
CR	CONDENSER WATER RETURN	FLA	FULL LOAD AMPS	MAV	MAKE-UP AIR VENT	RECIRC	RECIRCULATION	VD	VOLUME DAMPER
CRP	CONDENSATE RETURN PUMP	FLG	FLANGE	MAX	MAXIMUM	REQD	REQUIRED	VEL	VELOCITY
CS	CONDENSER WATER SUPPLY	FPB	FAN POWERED BOX	MBH	1000 BTU/HOUR	RF	RETURN AIR FAN	VOL	VOLUME
CT	COOLING TOWER	FPM	FEET PER MINUTE	MCC	MOTOR CONTROL CENTER	RH	RELATIVE HUMIDITY	W/	WITH
CUH	CABINET UNIT HEATER	FT	FOOT	MECH	MECHANICAL	RHC	REHEAT COIL	W/O	WITHOUT
CUV	CLASSROOM UNIT VENTILATOR	FTC	FINNED TUBE CONVECTOR	MFR	MANUFACTURER	RL	REFRIGERANT LIQUID LINE	WB	WET BULB
CV	FLOW COEFFICIENT	FTG	FITTING	MIN	MINIMUM	RPM	REVOLUTIONS PER MINUTE	WC	WATER COLUMN
CWP	CHILLED WATER PUMP	GC	GENERAL CONTRACTOR	MOD	MOTOR OPERATED DAMPER	RS	REFRIGERANT SUCTION LINE	WG	WATER GAUGE
CWR	CHILLED WATER RETURN	GA	GAUGE	MTD	MOUNTED	RTU	ROOF TOP UNIT	WLS	WALL LOUVER AND SCREEN
CWS	CHILLED WATER SUPPLY	GAL	GALLON	MTG	MOUNTING	SA	SUPPLY AIR	WN	WINTER
Δ(DELTA)	DIFFERENTIAL, DIFFERENCE	GF	GAS FURNACE	MZ	MULTI-ZONE	SAD	SUPPLY AIR DIFFUSER	WPD	WATER PRESSURE DROP
D	DROP	GH	GRAVITY HOOD	NBS	NATIONAL BUREAU OF STANDARDS	SAG	SUPPLY AIR GRILLE	WTD	WATER TEMPERATURE DROP
DB	DRY BULB	GLV	GLOBE VALVE	NEG	NEGATIVE	SAR	SUPPLY AIR REGISTER	X-FMR	TRANSFORMER
DIA	DIAMETER	GPM	GALLONS PER MINUTE	NEMA	NATIONAL ELEC. MFR. ASSOC.	SAT	SOUND ATTENUATOR		
DPR	DAMPER	GN	GOOSENECK	NC	NEW CONNECTION				

LINTEL SCHEDULE

MARK	SIZE	MAXIMUM OPENING	SHAPE	WALL THICKNESS	REMARKS
L-1	L 3½ x 3 x ¼ L 3½ x 2½ x ¼	4'-0"	⌋L	6" or 8"	
L-2	WT4x9	6'-0"	⊥	6"	
L-3	WT4x10.5	8'-0"	⊥	6"	
L-4	(2) L 3½ x 3½ x ¼	6'-0"	⌋L	8"	
L-5	(2) L 5 x 3½ x 5/16	8'-0"	⌋L	8"	
L-6	C6x8.2 + 7½ x ¼ ℓ	10'-0"	⊏	8"	
L-7	C8x11.5 + 7½ x ¼ ℓ	12'-0"	⊏	8"	
L-8	C4x5.4 + 9½ x ¼ ℓ	4'-0"	⊏	10"	
L-9	C6x8.2 + 9½ x ¼ ℓ	8'-0"	⊏	10"	
L-10	C8x11.5 + 9½ x 5/16 ℓ	10'-0"	⊏	10"	
L-11	W8x15 + 9½ x 5/16 ℓ	12'-0"	⊥	10"	
L-12	C4x5.4 + 11 x ¼ ℓ	4'-0"	⊏	12"	
L-13	C6x8.2 + 11 x 5/16 ℓ	8'-0"	⊏	12"	
L-14	C8x11.5 + 11 x 5/16 ℓ	10'-0"	⊏	12"	
L-15	W8x15 + 11 x 5/16 ℓ	12'-0"	⊥	12"	
L-16	C4x5.4 + 13 x 5/16 ℓ	4'-0"	⊏	14"	
L-17	C8x11.5 + 13 x 5/16 ℓ	8'-0"	⊏	14"	
L-18	W8x15 + 13 x 5/16 ℓ	10'-0"	⊥	14"	
L-19	W8x21 + 13 x 5/16 ℓ	12'-0"	⊥	14"	
L-20	C4x5.4 + 15 x 5/16 ℓ	4'-0"	⊏	16"	
L-21	W8x15 + 15 x 5/16 ℓ	8'-0"	⊥	16"	
L-22	W8x21 + 15 x 5/16 ℓ	10'-0"	⊥	16"	
L-23	W10x26 + 15 x 5/16 ℓ	12'-0"	⊥	16"	

LINTEL SCHEDULE NOTES:
1. See Architectural, Mechanical, and Structural plans and details for openings requiring loose lintels.
2. For openings shown, but not indicated, which require lintels, furnish according to schedule.
3. Verify size and location of mechanical lintels with Mechanical Contractor prior to fabrication.
4. Length of lintels to be 1'-0" longer than openings under 6'-0" and 1'-4" longer for openings 6'-0" or longer.
5. Contractor, at his/her option, may use reinforced block lintels for 6" walls ((1) #4 at bottom for spans 4'-0" or less; (2) #4 at bottom for spans 6'-0" or less) and 8" walls ((2) #4 at bottom for spans 4'-0" or less; (2) #5 at bottom for spans 6'-0" or less).
6. Contractor to verify existing conditions prior to installing lintels. Care is to be taken when installing lintels so the existing structure is not damaged. Shore, brace, support as required to maintain structural quality of bearing walls. Provide solid brick bearing under all lintels for 5 courses minimum.
7. For openings shown, but not indicated, use 3-1/2" x 3-1/2" x 1/4" angle for each 4" thickness of wall for openings to 6'-0". Use 5" x 3-1/2" x 5/16" angle for each 4" thickness of wall for openings to 8'-0".

CONTROL SYMBOLS

ARROWS INDICATE THE UNIT BEING CONTROLLED

T — THERMOSTAT

DUCT AND EQUIPMENT SYMBOLS

EXHAUST, RETURN OR TRANSFER AIR REGISTER OR GRILLE (AIR FLOW DIRECTION BY ARROWS)

SUPPLY AIR REGISTER OR GRILLE (AIR FLOW DIRECTION BY ARROWS)

DG X CFM — (DG) DOOR GRILLE, (DCO) DOOR CUT-OFF } BY OTHERS

0"x0" – CFM LOUVER BY GC — WALL LOUVER & SCREEN (BOTTOM OF DUCT TO DRAIN TOWARD LOUVER)

HVAC PIPING LEGEND

----STMR---- STEAM RETURN

——STMS—— STEAM SUPPLY

DEMOLITION GENERAL NOTES

1. VERIFY EXACT SIZE AND LOCATION OF THE EXISTING UTILITIES BEFORE START OF DEMOLITION.
2. RELOCATE, REMOVE AND ADJUST ALL MECHANICAL AND ASSOCIATED ELECTRICAL ITEMS AS REQUIRED TO COORDINATE WITH NEW WORK.
3. ALL MECHANICAL ITEMS SHOWN ON DEMOLITION PLANS ARE EXISTING AND ARE SHOWN IN SCHEMATIC FORM ONLY.
4. IN AREAS WHERE EXISTING CONSTRUCTION IS REMOVED AND NO ADDITIONAL CONSTRUCTION IS INDICATED, PATCH ADJACENT CONSTRUCTION TO MATCH EXISTING.
5. REFER TO ARCHITECTURAL PLANS FOR COORDINATION OF ALL EQUIPMENT.
6. CONNECTIONS TO, AND SHUTDOWNS OF, THE EXISTING SYSTEMS SHALL BE COORDINATED WITH OWNER AS TO CREATE MINIMAL INTERFERENCE WITH OWNER'S OPERATION AND RESULTING DOWNTIME OF EXISTING SERVICES. CONTRACTORS SHALL SUBMIT TO OWNER FOR REVIEW AND APPROVAL OF THE PROPOSED PHASING PLAN FOR CONNECTING NEW TO EXISTING SERVICES.
7. CONTRACTOR SHALL COMPLY WITH GENERAL CONDITIONS AND PROTECTION PROVISIONS SPECIFIED.
8. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE BEGINNING WORK. CONTRACTOR SHALL PROTECT EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION. ANY EXISTING UTILITIES AND SERVICES DAMAGED SHALL BE REPAIRED AT NO EXPENSE TO OWNER. THE CONTRACTOR SHALL TEMPORARILY MOVE OR TAKE EQUIPMENT OUT OF SERVICE AS NECESSARY TO COMPLETE WORK. SUCH SERVICES SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.

DEMOLITION DEFINITIONS:

CERTAIN ABBREVIATIONS OF SYMBOLS, WHEN APPLIED TO PRESENT (OR EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE FOLLOWING MEANINGS:

NC	NEW CONNECTION TO PRESENT PIPING, DEVICE, MANHOLE, SEWER, DUCT, WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC. SAME AS NEW WORK. IF IN SEWER MANHOLE, PROVIDE FLOW CHANNEL IN BOTTOM.
VI.	VERIFY EXACT LOCATION IN FIELD. THIS NOTE APPLIES TO ALL PRESENT OR EXISTING UTILITIES AND CONSTRUCTION WHETHER CALLED FOR OR NOT.
P	TO REMAIN UNCHANGED. IF CHANGE CANNOT BE AVOIDED, CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE. VERIFY LOCATION.
PX	TO BE COMPLETELY REMOVED, INCLUDING UNNEEDED CONNECTIONS, PIPING, DUCTS, WIRING, BASES, ETC. OF EVERY KIND. OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC. TO EQUAL ORIGINAL CONDITION. REMOVED MATERIALS MUST NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ARCHITECT.
PXN-A-B ETC.	SAME AS "PXR", EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED SAME AS NEW WORK, IN NEW POSITION MARKED "PN" WITH SAME LETTER. IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ARCHITECT, AR NO INCREASE IN CONTRACT PRICE.
PN-A-B ETC.	COMPLETELY REINSTALL DEVICE, LINE OR DUCT, REMOVED AT "PXN" IN INDICATED NEW LOCATION, SAME AS NEW WORK.

NOTE:

DIMENSIONS AND DETAILS SHOWN ON PLANS AND DETAILS ARE FOR BIDDING PURPOSES ONLY. THEY ARE FROM RESULTS OF INFORMATION TAKEN FROM EXISTING DRAWINGS. ALL DIMENSIONS ARE TO BE VERIFIED AND COORDINATED BY THE CONTRACTOR DURING THE CONSTRUCTION PHASE. DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

GENERAL NOTES

1. DRAWINGS ARE GENERALLY DIAGRAMMATIC. EACH CONTRACTOR SHALL MAKE REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS SUCH AS OFF SETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND THE BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER. FOR PRESENT CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING TO AVOID CONFLICT. IT IS INTENDED THAT ALL EQUIPMENT, MATERIAL, DEVICES, ETC., SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.

   EACH CONTRACTOR SHALL CHECK DRAWINGS OF THE OTHER TRADES TO VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED IS CLEAR OF OBSTRUCTIONS. MAINTAIN MAXIMUM HEADROOM AND IF SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH THE INSTALLATION.

   FURNISH ALL TRADES ADVANCE INFORMATION ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS NEEDED FOR WORK, AND ALSO FURNISH INFORMATION AND SHOP DRAWINGS TO PERMIT TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.

   WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE SATISFACTORY ADJUSTMENTS.
2. HVAC CONTRACTOR TO REVIEW, PRIOR TO BIDDING, ALL DRAWINGS TO COORDINATE VARIOUS WORK AS CALLED FOR. CONTRACTOR SHALL CAREFULLY CHECK ALL DRAWINGS FOR ALL TRADES AND ANY LACK OF COORDINATION BETWEEN HIS WORK AND DRAWINGS FOR JOB CONDITIONS SHALL BE IMMEDIATELY REPORTED TO ARCHITECT.
3. CONTRACTOR SHALL COORDINATE ALL CEILING DIFFUSERS AND GRILLES WITH SUSPENDED CEILING AND LIGHT PATTERNS. OPENINGS SHALL BE IN CENTER OF TILES.
4. ALL SHEETMETAL DUCTWORK SHALL BE CONSTRUCTED TO THE LATEST SMACNA STANDARDS.
5. SHEETMETAL DUCT SIZES MAY BE ALTERED TO FIT JOB CONDITIONS, BUT NET FREE AREAS MUST BE MAINTAINED. INCREASE SHEETMETAL DUCT SIZE TO ALLOW FOR DUCT LINING WHERE USED. WRAP ALL DUCTWORK EXCEPT AS NOTED.
6. ALL DUCTWORK TO BE HELD TIGHT TO STRUCTURAL ROOF JOISTS, BEAMS, ETC., AS CLEARANCE IS MINIMAL. COORDINATE WITH OTHER CONTRACTORS TO AVOID CONFLICT.
7. OUTDOOR INTAKE SHEETMETAL DUCTWORK SHALL BE WATERTIGHT WITH SOLDERED SEAMS. PITCH DUCTWORK TO WALL LOUVER AND SCREEN TO DRAIN ALL MOISTURE TO BUILDING EXTERIOR. INTAKES TO BE WRAPPED WITH 2" INSULATION.
8. CONTRACTOR SHALL INCLUDE IN HIS WORK THE RELOCATION OF ALL CROSS BRACING, AS REQUIRED TO FIT DUCTS BETWEEN JOISTS. THIS WORK SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR WITH ARCHITECTURAL APPROVAL.
9. CONTRACTOR SHALL PROVIDE ALL DUCT DROPS AND OFFSETS TO AVOID INTERFERENCES WITH JOISTS, OTHER DUCTS, LIGHTS, PIPES, ETC.
10. ALL THERMOSTATS LOCATED TO MATCH ADJACENT LIGHT SWITCHES AND WITH PLASTIC OR CAST GUARDS AS SPECIFIED. ALL THERMOSTATS LOCATED ON EXTERIOR WALLS OR COLUMNS MUST BE MOUNTED ON THERMAL INSULATING BLOCKS.
11. CONTRACTOR SHALL PROVIDE COOLING COIL CONDENSATE DRAIN LINES FROM ALL FORCED AIR FURNACE UNITS/AIR HANDLING UNIT TO DRAIN.
12. PROVED MOTORIZED OUTDOOR AIR DAMPERS FOR EACH FORCED AIR FURNACE UNIT/AIR HANDLING UNIT. AS OAD CLOSES, RAD OPENS, ETC.
13. HEATING, VENTILATING, AIR CONDITIONING AND ELECTRICAL DESIGNS ARE BASED ON THE REQUIREMENTS FOR THE SPECIFIED EQUIPMENT MANUFACTURER. CONDUITS, DISCONNECTS, BREAKERS, FUSES AND WIRE SIZES ARE SELECTED ON THE BASIS OF SPECIFIED EQUIPMENT MANUFACTURER. INCREASED CURRENT REQUIREMENTS NECESSITATING LARGER WIRE, BREAKERS, FUSES, SWITCHES, ETC. TO ACCOMMODATE ANY ALTERNATE OR SUBSTITUTE MANUFACTURER'S EQUIPMENT OTHER THAN AS SHOWN ON DRAWINGS OR SCHEDULES SHALL BE PROVIDED WITHOUT INCREASE IN CONTRACT PRICE BY THE CONTRACTOR FURNISHING EQUIPMENT.
14. CONTRACTOR TO COORDINATE ALL UNIT IDENTIFICATION AND NUMBERING WITH OWNER AND TCC PRIOR TO ORDERING UNITS.

WEST MIDDLE SCHOOL UNIT VENTILATOR REPLACEMENT

THIS PROJECT HAS BEEN DESIGNED TO MEET ALL THE APPLICABLE CODES PERTAINING TO HEATING, VENTILATING AND AIR CONDITIONING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE SYSTEMS AS DESIGNED AND IN A MANNER THAT MEETS THE APPROPRIATE CODE REQUIREMENTS. IT SHALL BE THE OWNER'S RESPONSIBILITY TO OPERATE THE SYSTEMS IN A MANNER THAT ENSURES THE CODE REQUIREMENTS ARE MET.

RPS HVAC WIRING STANDARD

Metasys Wiring Standards for JCI SSNA
3-1-1999

JCI Wiring Standard

- 18 AWG wire
- Plenum
- Shield
- Color Coding
  - ⇒ N2 Bus — Blue
  - ⇒ Analog Input Cable — Yellow
  - ⇒ Analog Output Cable — Tan
  - ⇒ Binary Input Cable — Orange
  - ⇒ Binary Output Cable — Violet
  - ⇒ N1 Bus — Purple
  - ⇒ 24 VAC Cable — Gray
  - ⇒ Spare — White
  - ⇒ Ethernet -CAT 5 — Purple
  - ⇒ N2 E — Pink

All cable will be purchased from our preferred vendors.
Two approved sources have been contracted for the cable. The contacts at each supplier are:

Southwest Wire Betty McMurrough 5950 Office Boulevard NE Albuquerque, New Mexico 87109 Phone: (800) 334-2150 Fax: (505) 345-3862	Windy City Wire Darrin Marci 832 South Central Avenue Chicago, Illinois 60644 Phone: (800) 379-1191 Fax: (773) 379-1243

HVAC SYMBOLS, NOTES & ABBREVIATIONS

SCALE: NTS

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
CONSTRUCTION	03-10-21		
DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

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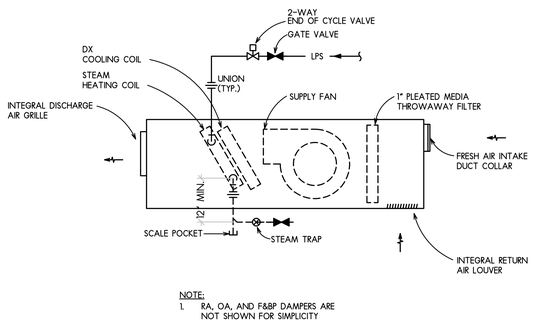
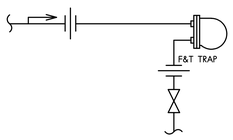
PROJECT NUMBER 31029-01
SHEET NUMBER M7.1



NOTE:
1. RA, OA, AND F&BP DAMPERS ARE NOT SHOWN FOR SIMPLICITY

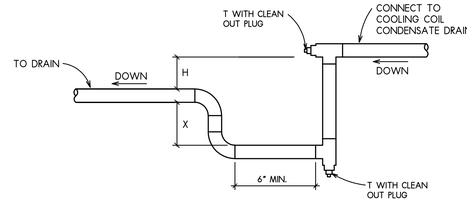
1 2 PIPE HORIZONTAL CLASSROOM UV DETAIL
NO SCALE



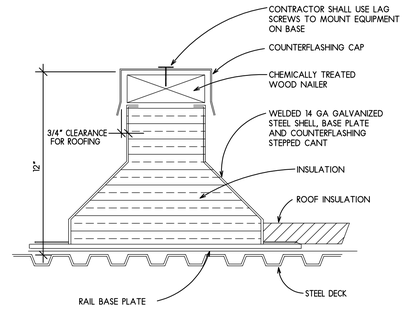
2 STEAM TRAP CONNECTION DETAIL
NTS

POSITIVE STATIC PRESSURE
H = AT LEAST 1 INCH
X = 1-1/2 x UNIT STATIC PRESSURE (IN WG.)

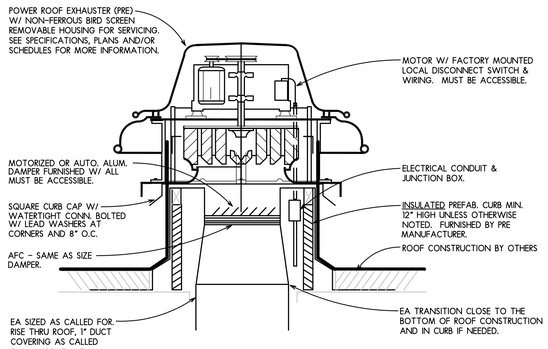
NEGATIVE STATIC PRESSURE
H = 1-1/2 x UNIT STATIC PRESSURE (IN WG.)
X = H + AT LEAST 1 INCH



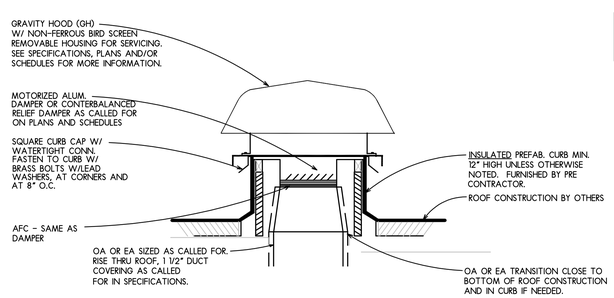
3 INDOOR CONDENSATE DRAIN TRAP
NTS



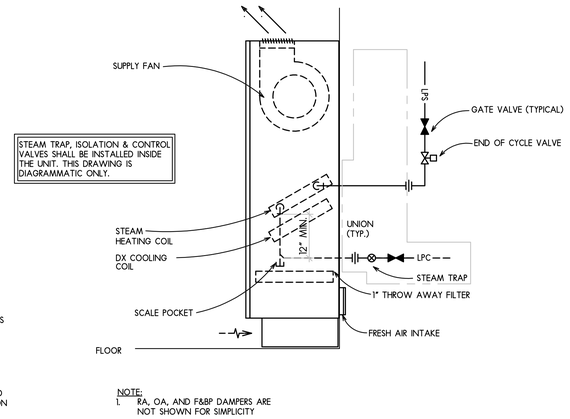
4 TYPICAL ROOF EQUIPMENT MOUNTING RAIL
NTS



5 POWER ROOF EXHAUSTER (PRE) DETAIL
NTS

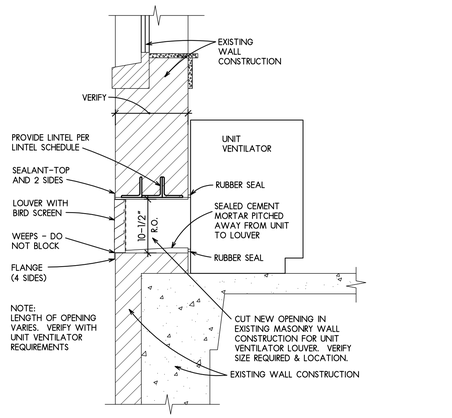


6 GRAVITY HOOD (GH) DETAIL
NTS

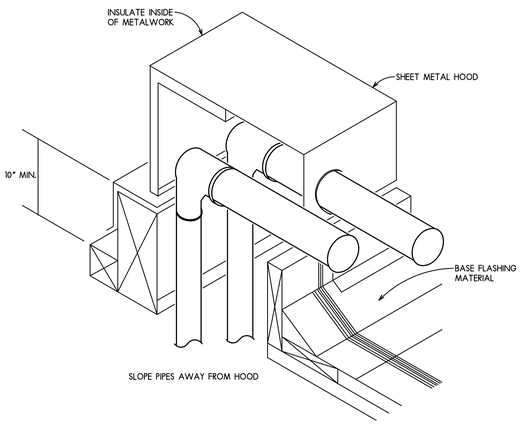


NOTE:
1. RA, OA, AND F&BP DAMPERS ARE NOT SHOWN FOR SIMPLICITY

7 VERTICAL CLASSROOM UNIT VENTILATOR DETAIL
NO SCALE

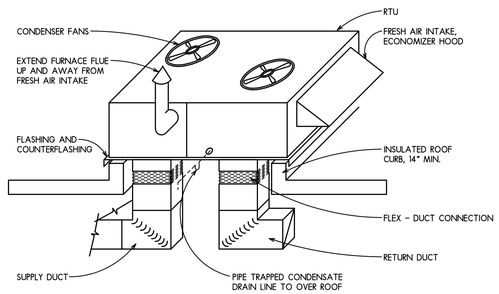


8 NEW LOUVER OPENING
SCALE: 1" = 1'-0"

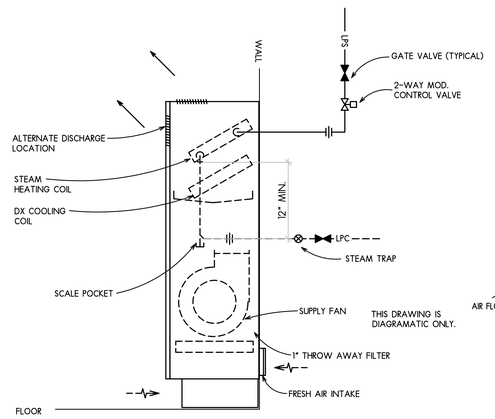


9 PIPING THRU ROOF DETAIL
NTS

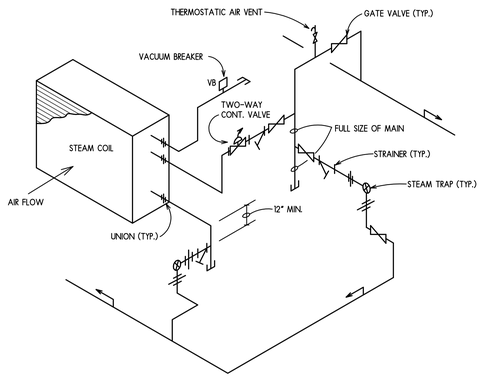
THIS DESIGN ELIMINATES PITCH POCKETS AND PROVIDES A SATISFACTORY METHOD FOR GROUPING PIPING THAT MUST COME THRU ROOF SURFACE.



10 ROOFTOP UNIT DETAIL
NTS



11 VERTICAL FAN COIL UNIT DETAIL
NO SCALE



- STEAM COIL PIPING DETAIL
NTS

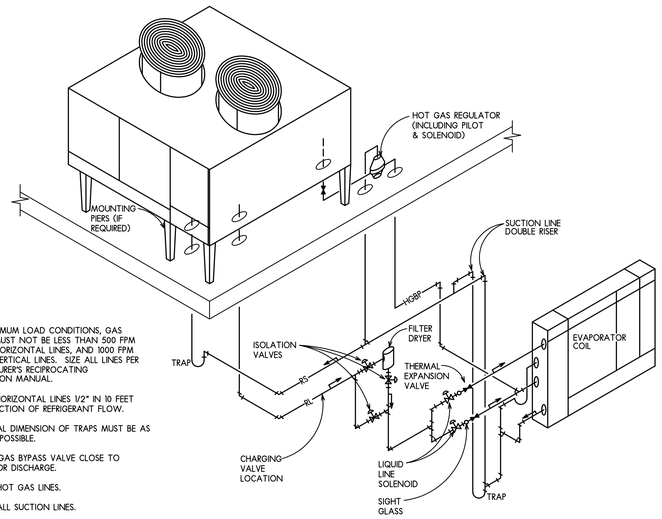
HVAC DETAILS
SCALE: NTS

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
		CHECKED BY:	APPROVED BY: RAS
		DRAWN BY:	JJ

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M7.2



NOTES:

1. UNDER MINIMUM LOAD CONDITIONS, GAS VELOCITY MUST NOT BE LESS THAN 500 FPM THROUGH HORIZONTAL LINES, AND 1000 FPM THROUGH VERTICAL LINES. SIZE ALL LINES PER MANUFACTURER'S RECIPROCATING REFRIGERATION MANUAL.
2. PITCH ALL HORIZONTAL LINES 1/2" IN 10 FEET IN THE DIRECTION OF REFRIGERANT FLOW.
3. HORIZONTAL DIMENSION OF TRAPS MUST BE AS SMALL AS POSSIBLE.
4. KEEP HOT GAS BYPASS VALVE CLOSE TO COMPRESSOR DISCHARGE.
5. INSULATE HOT GAS LINES.
6. INSULATE ALL SUCTION LINES.
7. SUGGESTED PIPING FOR SPLIT SYSTEM WITH REMOTE DIRECT EXPANSION COILS. (EVAPORATOR BELOW CONDENSING UNIT.)
8. WITH HOT GAS BYPASS.

1 REFRIGERANT PIPING DETAIL

NTS

HVAC DETAILS

SCALE: NTS

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ	CHECKED BY:	APPROVED BY: RAS	

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER M7.3

CLASSROOM UNIT VENTILATOR (UV) SCHEDULE

PLAN NO.			UV-1	UV-2
MANUFACTURER			DAIKIN	DAIKIN
MODEL			UAVS9S13	UAVS9S13
CONFIGURATION			VERTICAL FLOOR	VERTICAL FLOOR
QUANTITY			16	16
CFM			1230	1230
MIN. OA (CFM)			0	0
HEATING	AIR(TF)	EAT (°F)	–	–
		LAT (°F)	–	–
	STEAM	ROWS	1	1
		PRESSURE	5	5
		LBS/HR	75.2	75.2
		MBH	75.2	75.2
DX COOLING		TOTAL COOLING CAP. (MBH)	43.4	43.4
		SENSIBLE COOLING CAP. (MBH)	32.6	32.6
		EAT DB (°F)	80	80
		EAT WB (°F)	67	67
		LAT DB (°F)	55.6	55.6
		LAT WB (°F)	55.5	55.5
MOTOR		HP	.25	.25
		VOLTAGE/PH	120/1	120/1
		MCA/MOCP	3.9/15.0	3.9/15.0
NOTES:			1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7

NOTES:
1. PROVIDE WITH DISCHARGE GRILLE, FRONT RETURN AIR, FACE & BYPASS DAMPERS FOR ASHREA TYPE 2 CONTROL, STEAM COIL FOR TWO PIPE SYSTEM.
2. PROVIDE WITH DX COOLING COIL.
3. COORDINATE LEFT/RIGHT HAND PIPING CONNECTION WITH EXISTING CONDITIONS PRIOR TO ORDERING.
4. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. PROVIDE FACTORY INSTALLED TOGGLE TYPE DISCONNECT SWITCH.
6. PROVIDE SUB BASE AS REQUIRED TO MATCH EXISTING UNIT VENTILATOR HEIGHT. FIELD VERIFY DIMENSIONS IN FIELD PRIOR TO ORDERING.
7. PROVIDE VACUUM BREAKER ON STEAM HEATING COIL.

ROOFTOP UNIT (RTU) SCHEDULE

PLAN NO.		RTU-1	RTU-2	RTU-3	RTU-4	RTU-5	RTU-6	RTU-7	RTU-8
SERVICE		CAFETERIA	CAFETERIA	LITTLE THEATER	AUDITORIUM	KITCHEN	AUX. GYM	MAIN GYM	BAND ROOM
MANUFACTURER		AAON	AAON	AAON	AAON	AAON	AAON	AAON	AAON
MODEL		RN-015	RN-015	RN-013	RN-040	RN-007	RN-013	RN-040	RN-007
SUPPLY AIR CFM		6,000	6,000	5,000	17,000	3,100	4,300	15,000	3,500
MIN. O.A. CFM		1,950	1,950	1,000	4,650	430	1,000	5,400	660
HP/BHP		7.5/7.36	7.5/7.36	5.0/3.79	10.0/9.09 (X2)	3.0/1.94	3.0/2.62	10.0/7.75 (X2)	3.0/2.68
ESP (IN.W.C.)		1.50	1.50	1.50	1.50	1.25	1.25	1.50	1.25
GAS HEAT	EAT (°F)	43.3	43.3	53.2	47.4	58.0	51.4	41.2	54.9
	LAT (°F)	92.1	92.1	96.5	99.3	93.9	101.8	100.2	99.4
	HTG. MBH IN/OUT	390.0/315.9	390.0/315.9	292.5/234.0	1,200.0/960.0	150.0/120.0	292.5/234.0	1,200.0/960.0	210.0/168.0
	FUEL	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS
	STAGES	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING
DX COOLING	EDB (°F)	78.9	78.9	77.1	78.4	77.0	79.1	79.2	77.1
	EWB (°F)	69.1	69.1	69.1	68.0	63.6	69.0	68.3	64.1
	LDB (°F)	59.0	59.0	59.8	59.8	58.7	59.8	58.6	58.6
	LWB (°F)	58.5	58.5	59.1	58.9	56.2	58.0	57.9	56.9
	TOTAL COOLING (MBH)	179.9	179.9	148.8	432.3	66.1	147.8	440.6	65.6
	SENSIBLE COOLING (MBH)	105.8	105.8	81.4	286.3	60.2	87.8	284.6	61.3
	# OF STAGES	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING	MODULATING
	# OF CIRCUITS	2	2	2	2	1	2	2	1
VOLTS/PH		460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
MCA/MOCP		43.0/50.0	43.0/50.0	34.0/40.0	106.0/110.0	19.0/25.0	31.0/40.0	–	19.0/25.0
EER		10.9	10.9	11.5	10.0	12.0	11.5	–	12.0
FILTERS		THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY
WEIGHT (LBS)		1,912	1,912	1,812	5,802	1,140	1,800	–	1,156
NOTES		1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6,7,8,9,10,11	1,2,4,5,6,7,8,9,10,11,12	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6,7,8,9,10,11	1,2,4,5,6,7,8,9,10,11,12

NOTES: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
1. PROVIDE MANUFACTURER'S INSULATED PREFAB ROOF CURB.
2. PROVIDE WITH 2" PLEATED 30% PRE-FILTERS & 4" PLEATED 85% MERV 13 FINAL FILTERS.
3. PROVIDE WITH (1) VARIABLE CAPACITY COMPRESSOR & (1) ON/OFF COMPRESSOR.
4. PROVIDE WITH MODULATING HEAT.
5. PROVIDE FULL ECONOMIZER.
6. PROVIDE W/SUPPLY FAN, PREMIUM EFF. MOTOR & VFD.
7. PROVIDE FACTORY WIRED 115 V CONVENIENCE OUTLET.
8. PROVIDE W/VFD CONDENSER FAN & HEAD PRESSURE CONTROL.
9. PROVIDE W/FIELD INSTALLED DDC CONTROL BY OTHERS & ISOLATION RELAYS.
10. PROVIDE W/NON-FUSED DISCONNECT SWITCH.
11. PROVIDE W/HOT-GAS REHEAT & DEHUMIDIFICATION CONTROL.
12. PROVIDE WITH (1) VARIABLE CAPACITY COMPRESSOR.

AIR HANDLER UNIT (AHU) SCHEDULE

PLAN NO.		AHU-1
SERVICE		LIBRARY
MANUFACTURER		DAIKIN
MODEL		CAH013GDGM
SUPPLY FAN TYPE/BLADE		CENTRIFUGAL PLENUM / AIRFOIL
SUPPLY AIR CFM		6,000
O.A. CFM (MIN.-MAX.)		1,920
TSP (IN.W.C.)		5.21
ESP (IN.W.C.)		2.0
IFB STEAM COIL	EAT (°F)	43.7
	LAT (°F)	97.0
	MBH	345.6
	STEAM PRESSURE (PSIG)	5.0
	CONDENSATE LOAD (LB/HR)	356.1
	APD (FT. H2O)	0.44
	ROWS/FPI	2/11
DX COOLING	NO. OF COILS	1
	REFRIGERANT	R410A
	EDB (°F)	79.0
	EWB (°F)	67.7
	LDB (°F)	54.6
	LWB (°F)	53.5
	GROSS TOTAL COOLING (MBH)	263.4
	GROSS SENSIBLE COOLING (MBH)	160.4
	APD (IN H2O)	1.03
	ROWS/FPI	8/9
	COIL TYPE	INTERTWINED
FILTER	PRE-FILTER TYPE	PLEATED
	PRE-FILTER DEPTH / EFF	2" MERV 8
	FILTER TYPE	CARTRIDGE
	FILTER DEPTH / EFF	12" MERV 13
VOLTS/PH		208/3
HP/BHP		7.5 / 7.19
WEIGHT (LBS)		–
NOTES		1

NOTES: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
1. PROVIDE THE FOLLOWING SECTIONS IN THIS ORDER: MIXING/FILTER, IFB STEAM COIL, ACCESS, COOLING COIL, FAN.

POOL AIR HANDLER UNIT (PU) SCHEDULE

PLAN NO.		PU-1
SERVICE		POOL
MANUFACTURER		DESERT-AIRE
MODEL		SA35EE4CCX
SUPPLY FAN TYPE/BLADE		CENTRIFUGAL PLENUM / AIRFOIL
SUPPLY AIR CFM		15,100
EXHAUST AIR CFM		4,035
O.A. CFM		3,600
SUPPLY FAN TSP (IN.W.C.)		2.26
SUPPLY FAN ESP (IN.W.C.)		1.10
SUPPLY FAN HP/BHP		10.0/9.22
EXH. FAN TSP (IN.W.C.)		1.82
EXH. FAN ESP (IN.W.C.)		0.00
EXH. FAN HP/BHP		7.5 / 2.01
DX REFRIGERATION	REFRIGERANT	R410A
	COMPRESSOR TYPE	SCROLL
	NOMINAL TONS	35.0
	HOT GAS REHEAT	CONDENSER COIL
	HOT GAS BYPASS	INCLUDED
	COIL COATING	ELECTROFIN COATING
DEHUMIDIFICATION	EDB (°F)	84.0
	EWB (°F)	71.5
	LDB (°F)	54.6
	LWB (°F)	53.5
	GROSS TOTAL COOLING (MBH)	439.0
	GROSS SENSIBLE COOLING (MBH)	241.5
	MOISTURE REMOVAL (LBS/HR)	186.9
	TOTAL HEAT OF REJECTION (MBH)	555.0
	COIL TYPE	INTERTWINED
ELECTRICAL	VOLTS/PH	460/3
	MCA (AMP)	91
	MOCP (AMP)	110
FILTERS		1
WEIGHT (LBS)		7,400
NOTES		1

NOTES: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
1. PROVIDE THE FOLLOWING SECTIONS IN THIS ORDER: MIXING/FILTER, IFB STEAM COIL, ACCESS, COOLING COIL, FAN.

AIR COOLED CONDENSING UNIT (ACCU) SCHEDULE

PLAN NO.	ACCU-1A	ACCU-1B	ACCU-2	ACCU-3	ACCU-4A	ACCU-4B	ACCU-5	ACCU-6	ACCU-7	ACCU-8A	ACCU-8B	ACCU-9A	ACCU-9B	ACCU-10	ACCU-11
SERVICE	VRF	VRF	VRF	VRF	VRF	VRF	VRF	VRF	VRF	VRF	VRF	VRF	VRF	AHU-1	VRF
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	RXYQ-360	RXYQ-192	RXYQ-408	RXYQ-168	RXYQ-288	RXYQ-216	RXYQ-312	RXYQ-408	RXYQ-336	RXYQ-384	RXYQ-192	RXYQ-288	RXYQ-288	RCS-20F240D	RXYQ-360
TOTAL CLG. CAP. (MBH)	342.0	–	372.0	–	274.0	–	296.0	372.0	312.0	356.0	–	–	–	263.7	–
VOLTS/PH	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
COMP. FLA/LRA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
COND. FLA/LRA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MOCP	25.0/25.0/25.0	–	25.0/35.0/35.0	–	35.0/35.0	–	35.0/35.0	25.0/35.0/35.0	35.0/35.0	25.0/25.0/25.0	–	–	–	60.0	–
AMPACITY (MCA)	20.6/20.6/20.6	–	20.6/25.9/25.9	–	25.9/25.9	–	25.9/25.9	20.6/25.9/25.9	25.9/25.9	20.6/20.6/20.6	–	–	–	44.0	–
REFRIGERANT	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
WEIGHT (LBS)	1,668	–	1,971	–	1,418	–	1,418	1,971	1,418	1,818	–	–	–	952	–
NOTES	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3

NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. REFRIGERANT PIPING SIZES AS RECOMMENDED BY THE UNIT MANUFACTURER.
3. PROVIDE W/ ALL MOTOR STARTERS.

HVAC SCHEDULES

SCALE: NTS

Larson & Darby Group
Architecture Engineering Interiors

WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	BIDDING
ISSUED FOR:	01-21-22
DRAWN BY:	JJ
CHECKED BY:	
APPROVED BY:	RAS

DATE:	01-21-2022
PROJECT NUMBER	31029-01
SHEET NUMBER	M8.1

GENERAL NOTES

1. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL GENERAL NOTES WHICH WILL APPLY HERE.
2. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.
3. THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE AND BUILDING CONDITIONS WHICH MAY BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL. CONTRACTOR IS CAUTIONED THAT THE PROJECT IS A REMODELING JOB AND IT IS ASSUMED THAT HE HAS INCLUDED FUNDS IN HIS BID TO COVER UNFORESEEN ITEMS WHICH MUST BE MOVED, RELOCATED OR ADJUSTED TO FIT HIS WORK. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY EXTRA WORK CAUSED BY FAILURE TO VISIT, EXAMINE OR VERIFY.
4. ALL EXISTING EQUIPMENT IS TO REMAIN OPERATIONAL DURING CONSTRUCTION PERIOD. ALL TEMPORARY WIRING OR REROUTING OF CIRCUITRY TO ACHIEVE THIS IS BY THE ELECTRICAL CONTRACTOR. SHUTDOWN OF EXISTING SERVICES SHALL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE OWNER AND THEN ONLY FOR THAT DATE AND DURATION AGREED UPON. INCLUDE ALL PREMIUM TIME CHARGES IN THE BASE BID.
5. EXISTING CONDUIT IN SAME PLACE MAY BE REUSED WHERE POSSIBLE, PULL NEW WIRE AS REQUIRED. ALL UNUSED CONDUIT, WIRE, JUNCTION BOXES, ETC. WILL BE REMOVED. RELOCATED EXISTING CONDUIT SHALL NOT BE ALLOWED.
6. BOXES LOCATED ON OPPOSITE SIDES OF NON-FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALL SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU THE WALL" BOXES SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
7. ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECTED LOAD/HP WITH ALL OTHER TRADES PRIOR TO WIRING OF ALL OTHER TRADES' EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES AND FEEDER SIZE PER ELECTRICAL CODE AS REQUIRED.
8. PROVIDE SLEEVES/CONDUITS FOR LOW VOLTAGE CABLES WHEN THEY TRAVERSE ABOVE NON ACCESSIBLE CEILING SPACE. ALSO, PROVIDE SLEEVES THROUGH MASONARY WALLS FOR LOW VOLTAGE CABLES. VERIFY SLEEVE/CONDUIT SIZE REQUIREMENTS AND LOCATION WITH THE CONTRACTOR INSTALLING LOW VOLTAGE SYSTEM.
9. SOME DEVICES SHALL BE FLUSH MOUNTED (IN DRY WALLS AND EXISTING MASONRY WALLS CONSTRUCTION) AND SOME SHALL BE SURFACE MOUNTED (ON EXISTING MASONRY WALLS AND INSULATED PANELS). VERIFY REQUIREMENT BEFORE ORDERING ANY MATERIAL. COORDINATE WITH ARCHITECT/ENGINEER.
10. FOR THE AREA TO BE DEMOLISHED, THE DEMOLITION OF LIGHT FIXTURES, OUTLETS OR ANY OTHER ELECTRICAL EQUIPMENT/DEVICES SHALL BE PERFORMED AS REQUIRED. SEE ARCHITECTURAL DRAWINGS AND THE RESPECTIVE FLOOR PLANS IN ELECTRICAL DRAWINGS FOR DEMOLITION. ELECTRICAL CONTRACTOR SHALL REMOVE ALL ASSOCIATED RACEWAYS AND WIRING AS REQUIRED. ELECTRICAL CONTRACTOR SHALL DE-ENERGIZE AND DISCONNECT APPLICABLE WIRING TO FACILITATE SAFE DEMOLITION.
11. THE EXISTING EQUIPMENT IS SHOWN BASED UPON THE INFORMATION OBTAINED THROUGH BRIEF SURVEY OF THE FACILITY. CONTRACTOR IS TO SURVEY THE EXISTING FACILITY IN ORDER TO DETERMINE THE FULL EXTENT OF WORK AND BE COMPLETELY FAMILIAR WITH ALL THE EXISTING CONDITIONS INCLUDING PLUMBING, HVAC, ELECTRICAL, ETC. THE ARCHITECT/ENGINEER AND OWNER ASSUME NO RESPONSIBILITY IN RESPECT TO THE ACCURACY OF SUCH INFORMATION SHOWN ON THE DRAWINGS. CONTRACTOR SHALL MAKE ADEQUATE ALLOWANCE IN HIS BID FOR SOME DEVIATIONS TO SUCH INFORMATION.
12. WHERE EXISTING CONDITIONS PREVENT PROPER INSTALLATION OF PROPOSED WORK, REROUTE, EXTEND OR ALTER EXISTING WORK SO AS TO ACCOMMODATE PROPOSED WORK REQUIREMENTS.
13. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELS ARE FOR REFERENCE ONLY. USE NEXT AVAILABLE CIRCUITS AND PROVIDE APPROPRIATE SIZE BREAKERS.
14. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ELECTRICAL EQUIPMENT & DEVICES. THE ELECTRICAL DRAWINGS ARE FOR CONCEPT ONLY.
15. IN GENERAL, DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED, LIGHT SOLID LINES INDICATE ITEMS TO REMAIN AND DARK SOLID LINES INDICATE NEW ITEMS.
16. WHERE EXISTING WIRING DEVICE (SUCH AS RECEPTACLE, SWITCH, ETC.) IS INDICATED TO REMAIN, REUSE EXISTING JUNCTION BOX, RACEWAY, BUT PROVIDE NEW DEVICE AND ASSOCIATED COVERPLATE. RECONNECT THIS DEVICE TO NEW CIRCUIT AS INDICATED.
17. THE SYSTEMS PROVIDED BY THIS CONTRACTOR SHALL BE COMPLETELY OPERATIONAL REGARDLESS OF OMISSION OF MINOR ITEMS, SUCH AS CIRCUIT NUMBER FOR RELAY, A CIRCUIT NUMBER NEXT TO A LIGHTING FIXTURE, ETC.
18. ALL OUTDOOR DEVICES SUCH AS RECEPTACLES, DISCONNECTS, SPEAKERS, LIGHTING FIXTURES, JUNCTION BOXES, ETC. SHALL BE OUTDOOR TYPE.
19. WHERE A NEW WALL IS TO BE BUILT PERPENDICULAR TO EXISTING WALL AND IF THERE IS AN EXISTING RECEPTACLE ON THE EXISTING WALL, RELOCATE THIS RECEPTACLE AS REQUIRED , NEMA 3R.
20. IN CERTAIN CASES LARGER SIZE CABLES ARE SPECIFIED IN ORDER TO COMPENSATE FOR VOLTAGE DROP. PROVIDE OVERSIZE AND/OR MULTIPLE LUGS AT THE LINE AND LOAD SIDE OF EQUIPMENT TO INCORPORATE LARGER AND ADDITIONAL CABLES. IF REQUIRED, PROVIDE SPLICE BOXES AT EITHER END OF CABLE TO INTERCEPT CHANGE IN THE CABLES.
21. PROVIDE TYPED PANEL DIRECTORY INDICATING LOAD SERVED, INCLUDING INTO EXISTING PANELS THAT ARE MODIFIED.
22. UNO, ALL OVERCURRENT PROTECTION DEVICES 800 AMP AND LARGER SHALL BE 100% RATED.
23. AS REQUIRED EXTEND EXISTING RECEPTACLES WHERE EXISTING WALLS ARE FURRED OUT. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF THIS WORK.
24. DUE TO THE SMALL SCALE AND INTERFERENCE OF EXISTING EQUIPMENT, EACH AND EVERY ITEM IS NOT SHOWN. SHOWN INFORMATION IS INTENDED AS A GUIDE. CONTRACTOR SHALL VERIFY INFORMATION AND CONDITIONS IN THE FIELD.
25. RECONFIGURE LIGHTING FIXTURES AND OUTLETS IN MECHANICAL AND ELECTRICAL ROOMS TO BE COMPATIBLE WITH EQUIPMENT LAYOUT AS REQUIRED.
26. ALL RECEPTACLES LOCATED WITHIN 6' OF SOURCE OF WATER (SUCH AS SINK) AND ALL OUTDOOR RECEPTACLES SHALL BE GFI TYPE, WHETHER SPECIFICALLY INDICATED OR NOT.
27. IN ORDER TO FACILITATE THE REPLACEMENT OF EXISTING OR INSTALLATION OF NEW DUCTWORK AND/OR PIPING, REMOVE EXISTING LIGHTING FIXTURE AND/OR SMOKE /HEAT DETECTORS AS REQUIRED. THIS WORK IS NOT SHOWN ON DRAWINGS. ONCE THE INSTALLATION OF DUCTWORK, PIPING ETC IS COMPLETED, REINSTALL ELECTRICAL EQUIPMENT/DEVICES. PROVIDE ADEQUATE ALLOWANCE IN THE BID FOR THIS WORK.
28. PROVIDE EXPANSION FITTINGS FOR ALL ELECTRICAL RACEWAYS AT EVERY EXPANSION JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATION OF EXPANSION JOINTS.
29. COORDINATE THE INSTALLATION OF ELECTRICAL EQUIPMENT SUCH AS PANELS, SWITCHBOARD, MOTOR CONTROL CENTER, TRANSFORMER ETC. WITH OTHER TRADES SUCH THAT NO DUCTWORK, PIPING ETC. IS LOCATED ABOVE THEM.
30. ALL CABLES IN PLENUM CEILING SHALL BE PROVIDED IN CONDUITS.
31. ELECTRICAL CONTRACTOR SHALL VERIFY SIZE OF ALL EXISTING OPENINGS, DOORS, ETC., FOR REMOVING EQUIPMENT AND MATERIAL OUT OF BUILDING. ELECTRICAL CONTRACTOR SHALL PROVIDE ANY NEW OR ENLARGED OPENINGS IN EXISTING BUILDING CONSTRUCTION REQUIRED TO FACILITATE EXITING OF HIS EQUIPMENT/MATERIAL AND RESTORE SUCH OPENINGS TO THEIR ORIGINAL STATE AFTER COMPLETION.
32. VERIFY QUANTITY AND SIZE OF LUGS PROVIDED IN OTHER TRADE'S EQUIPMENT (FOR EXAMPLE, CHILLER, ELEVATOR, FIRE PUMP ETC.) BEFORE STARTING ANY WORK ASSOCIATED WITH SUCH EQUIPMENT. IF THEIR LUGS CANNOT ACCOMMODATE THE CABLES INDICATED IN ELECTRICAL DOCUMENT, PROVIDE LUG FITTINGS TO ACCOMMODATE CHANGE IN THE CABLES. PROVIDE SUCH FITTINGS IN A JUNCTION BOX AS CLOSE AS POSSIBLE TO THEIR EQUIPMENT. IF ALLOWED BY THE EQUIPMENT MANUFACTURER, SUCH FITTINGS MAY BE INSTALLED IN THEIR EQUIPMENT RATHER THAN IN A SEPARATE JUNCTION BOX.
33. MAIN SERVICE ENTRANCE EQUIPMENT SHALL HAVE LABEL FOR SERVICE ENTRANCE TYPE, AND SHALL BE GROUNDED PER ELECTRICAL CODE.
34. PROVIDE SEPARATE DEDICATED EQUIPMENT GROUNDING CONDUCTOR IN EACH FEEDER AND BRANCH CIRCUIT WIRING CIRCUIT.
35. PROVIDE FIRE SEALANTS FOR ALL PENETRATIONS THRU FIRE RATED FLOORS AND WALLS.
36. WHERE "VIF" IS INDICATED NEXT TO A DEVICE, CONTRACTOR SHALL VERIFY ITS REQUIREMENT IN FIELD. THIS INCLUDES VERIFICATION OF DEVICE TYPE, LOCATION, WIRING CONDUIT AND OVERCURRENT DEVICE. PROVIDE APPROPRIATE DEVICE, WIRING, CONDUIT, CIRCUIT BREAKER ETC. AS REQUIRED.
37. PROVIDE RED PLASTIC SIGN AT MAIN WATER SERVICE METER INDICATING "MAIN GROUND LOCATION."
38. AIC (AVAILABLE INTERRUPTING CAPACITY) RATING OF PANELS, SWITCHBOARDS, BUSWAY, MCC ETC. ARE SHOWN BASED UPON PRELIMINARY CALCULATIONS. THE FINAL RATING OF THE EQUIPMENT SHALL BE BASED UPON THE SHORT CIRCUIT COORDINATION STUDY. PROVIDE POWER DISTRIBUTION EQUIPMENT TO MEET THE RATING INDICATED IN THIS STUDY. THE STUDY SHALL BE BASED UPON THE ULTIMATE CAPABILITY OF THE MAIN SERVICE EQUIPMENT AND NOT THE INITIAL TRANSFORMER PROVIDED BY THE UTILITY COMPANY.
39. PROVIDE ARC-FLASH LABELS ON NEW EQUIPMENT IN ACCORDANCE WITH NEC.
40. WHERE EQUIPMENT DEVICES ARE INDICATED TO BE REMOVED, REMOVE ACCESSIBLE, UNUSABLE CONDUITS & WIRING. IF CONDUITS ARE NOT ACCESSIBLE THEY MAY BE ABANDONED. MAINTAIN CONTINUITY TO THE LOAD WHICH IS TO REMAIN.
41. WHERE EXISTING HVAC EQUIPMENT IS SHOWN TO BE REMOVED, REMOVE ITS ASSOCIATED STARTER, DISCONNECT SWITCH, CONDUIT WIRING BACK TO SOURCE ETC. FIELD VERIFY LOCATION OF STARTER, DISCONNECT, ETC.
42. ONLY OCCUPANCY/VACANCY SENSORS & REQUIRED SWITCHES ARE INDICATED. PROVIDE POWER PACKS (CONTROL RELAYS) AS REQUIRED. LOCATE SENSORS TO PROVIDE OPTIMUM COVERAGE OF THE DEVICE.
43. PROVIDE GROUND BUS BAR IN EACH PANEL WHETHER SPECIFICALLY INDICATED OR NOT.
44. ARMORED (BX) CABLES OR MC CABLES ARE NOT ALLOWED.
45. ALL BACKBOXES FOR DATA OUTLETS SHALL BE 2.75" DEEP UNLESS NOTED OTHERWISE.
46. ELECTRICAL DEVICES SUCH AS SPEAKERS, SMOKE/HEAT DETECTORS, OCCUPANCY SENSORS, DAY LIGHT SENSOR ETC. SHALL BE LOCATED IN AS CENTER AND AS UNIFORMLY IN ROOM AS POSSIBLE. THEY ARE NOT ALWAYS SHOWN IN CENTER OF A ROOM OR UNIFORMLY IN A ROOM TO AVOID CONFLICT WITH ROOM NUMBER TAGS.
47. LUGS FOR CIRCUIT BREAKERS AND SWITCHES SHALL BE RATED FOR TERMINATION OF 60 DEGREE C AND 75 DEGREE C RATED CONDUCTORS. THIS SHALL ALLOW USE OF CONDUCTORS BASED UPON AMPACITIES OF ONLY 75 DEGREE C.
48. OUTDOOR RECEPTACLES SHALL BE INSTALLED IN AN "IN USE" TYPE COVER. SUCH RECEPTACLES SHALL BE TYPE "WR" WEATHER-RESISTANT RECEPTACLES.
49. PROVIDE 1/4" ROD SUPPORTS FOR SUSPENDED LIGHT FIXTURES WHEN SUSPENSION HEIGHT EXCEEDS 12". ONLY CHAIN OR WIRE SUPPORT IS NOT ALLOWED.
50. ALL LOW VOLTAGE WIRING SHALL BE IN CONDUITS EXCEPT WIRING ABOVE ACCESSIBLE CEILING. WIRING ABOVE ACCESSIBLE CEILING SHALL BE EXPOSED UNLESS REQUIRED BY CODE TO BE IN CONDUITS. COORDINATE WITH LOW VOLTAGE SYSTEM VENDORS ROUTING OF THEIR CABLING AND PROVIDE CONDUITS/RACEWAYS AS REQUIRED.
51. PROVIDE CAT5E OR EQUIVALENT CABLING SYSTEM FOR OCCUPANCY SENSORS, VACANCY SWITCHES/SENSORS, POWER PACKS, DIMMER SWITCHES, DAY LIGHT SENSORS ETC. AS REQUIRED. COORDINATE WITH MFGR.
52. LIGHTING FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE CEILING SYSTEM BY AT LEAST TWO WIRES ON OPPOSITE CORNERS OF THE FIXTURES.
53. ALL WORK SHALL COMPLY WITH ALL LOCAL CODES.
54. UNLESS NOTES OTHERWISE, COLOR OF WIRING DEVICES (OUTLETS, SWITCHES AND COVER PLATES) SHALL BE WHITE. VERIFY FINAL COLOR WITH THE ARCHITECT/ENGINEER BY PROVIDING SUBMITTAL.

ELECTRICAL SYMBOLS

- LIGHTING FIXTURE. SIZE AND TYPE AS INDICATED ON SCHEDULE.
- EMERGENCY LIGHTING FIXTURE
- BATTERY PACK, EMERGENCY LIGHTING UNIT
- COMBINATION EXIT SIGN AND EMERGEMCY LIGHTING UNIT
- "XI" INDICATES FIXTURE. SHADED QUADRANTS INDICATES DIRECTION OF LIGHTED FACES. ARROWS INDICATE DIRECTION OF ARROWS.

LIGHTING FIXTURES:
"A" UPPER CASE LETTER INDICATES LIGHTING FIXTURE TYPE. REFER TO LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION AND MOUNTING.
"1" NUMBER INDICATES BRANCH CIRCUIT NUMBER(S)
"a" LOWER CASE LETTER INDICATES SWITCH CONTROL(S)

- 3W, $XXa — LIGHT SWITCH, SINGLE POLE UNLESS NOTED OTHERWISE:
  - "a" SWITCHLEG
  - "D" DIMMER SWITCH
  - "K" KEY OPERATED
  - "XX" CIRCUIT NUMBER
  - "LV" LOW VOLTAGE
  - "WP" WEATHERPROOF
  - "3W" THREE-WAY
  - "4W" FOUR-WAY
  - "VC" VACANCY SENSOR
  - "OC" OCCUPANCY SENSOR
- VC — VACANCY SENSOR
- DS — DAYLIGHT SENSOR
- TC — TIME CLOCK
- OC — OCCUPANCY SENSOR
- (2) — PLAN NOTE DESIGNATION
- SURFACE MOUNTED DISTRIBUTION PANELBOARD
- SURFACE MOUNTED NORMAL BRANCH CIRCUIT PANELBOARD
- RECESSED MOUNTED NORMAL BRANCH CIRCUIT PANELBOARD
- DUPLEX RECEPTACLE
- MAIN DISTRIBUTION PANEL – MDP, POWER DISTRIBUTION PANEL – PDP
- TRANSFORMER (AS NOTED)
- M — UTILITY METERING SOCKET
- CTS — CT CABINET
- 30 N C — COMB. DISCONNECT/MAGNETIC STARTER C–CONTROL XFMR
- HAND–OFF–AUTO CONTROLLER
- C — MOTOR CONNECTION POINT
- 1 — 3–PHASE HORSEPOWER/AMP MOTOR
- MOTOR OR EQUIPMENT
- 30 N — DISCONNECT SWITCH SIZE/FUSE SIZE
- GROUND ROD
- M — ELECTRONIC METER
- WEATHERHEAD
- 100 / 100 — CIRCUIT BREAKER FRAME SIZE/TRIP SIZE
- S — SMOKE DETECTOR
- RT — REMOTE TEST KEY STATION

GENERAL ELECTRICAL AND PROJECT NOTES

1. THE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION (2017) OF THE NEC AND ALL LOCAL CODES, INCLUDING THE 2017 OBC. COMPLY WITH THE AUTHORITIES HAVING JURISDICTION.
2. IDENTIFICATION TAGGING IS REQUIRED ON ALL PANELBOARDS, DISCONNECTS, STARTERS, CONTROL PANELS, AND MISC. ELECTRICAL DEVICES INSTALLED BY THE ELECTRICAL CONTRACTOR.
3. ALL CONDUCTORS SHALL BE COPPER (UNLESS OTHERWISE NOTED), RATED 600V, THHN/THWN/XHHW INSULATED, MINIMUM #12AWG WITH SEPARATE EQUIPMENT GROUNDING CONDUCTOR SIZED AS PER NEC 7250–122. STRANDED WIRE FOR #10 AND LARGER. CONDUCTORS IN WET LOCATIONS INCLUDING ALL UNDERGROUND INTERIOR AND EXTERIOR INSTALLATIONS SHALL HAVE INSULATION RATED FOR WET LOCATIONS. CONDUCTORS SIZED PER NEC REQUIREMENTS UNLESS OTHERWISE INDICATED. CONDUCTOR SIZING: EQUIPMENT RATED 100A OR LESS – CONDUCTORS SHALL BE SIZED USING THE 60C COLUMN OF NEC T310.15(B)(16). EQUIPMENT RATED OVER 100A – CONDUCTORS SHALL BE SIZED USING THE 75C COLUMN OF NEC T310.15(B)(16). CONDUCTORS SHALL BE SPLICED BY SPLICING DEVICES IDENTIFIED FOR THE PURPOSE. CONDUCTORS SHALL TERMINATE IN DEVICES THAT HAVE BEEN PROPERLY TIGHTENED IN ACCORDANCE WITH THE MANUFACTURERS TORQUE SPECIFICATIONS.
4. ALL CONDUCTORS SHALL BE INSTALLED IN METALLIC RACEWAYS, EXCEPT UNDER FLOOR AND UNDERGROUND CONDUCTORS MAY BE INSTALLED IN PVC, MINIMUM 3/4"C. (1/2"C MAYBE USED FOR SWITCH LEGS, FLEXIBLE CONDUIT, CONTROL WIRING AND RECEPTACLES WITH ONLY 3 CONDUCTORS. STANDARD FLEXIBLE METAL CONDUIT IN DRY LOCATIONS WHERE FLEXIBILITY IS REQUIRED. LIQUIDTIGHT FLEXIBLE METAL CONDUIT IN WET LOCATIONS WHERE FLEXIBILITY IS REQUIRED AND FOR ALL MOTOR CONNECTIONS. STANDARD METALLIC FITTINGS FOR RACEWAY USED. PROVIDE GALVANIZED STEEL HANGERS, CLAMPS, AND MALLEABLE IRON GALVANIZED CONDUIT STRAPS. TRAPEZE HANGERS WITH CONDUIT CLAMPS MAY BE USED WHERE MULTIPLE CONDUITS ARE RUN IN PARALLEL. RACEWAYS SIZED PER NEC REQUIREMENTS UNLESS OTHERWISE INDICATED. SEAL ALL OPENINGS IN WALLS AND FLOORS IN COMPLIANCE WITH REQUIRED FIRE RATINGS.
   COLOR CODE CONDUCTORS:
   120/240V, 1PH: BLACK, RED, WHITE
   120/208V, 3PH: BLACK, RED, BLUE, WHITE
   120/240V, 3PH: BLACK, ORANGE, BLUE, WHITE
   277/480V, 3PH: BROWN, ORANGE, YELLOW AND GRAY
   OR: BROWN, PURPLE, YELLOW AND GRAY

   EQUIPMENT GROUNDING CONDUCTOR – GREEN OR GREEN WITH YELLOW STRIPES. SYSTEM WITH MULTIPLE VOLTAGES SHALL INCORPORATE DIFFERENT COLORS PER VOLTAGE CLASS. GROUNDING ELECTRODE CONDUCTOR MAY BE INSULATED OR BARE STRANDED COPPER. RACEWAYS SHALL NOT BE INSTALLED WITH THE EQUIVALENT OF 3EA–90 DEGREE ELBOWS WITHOUT A JUNCTION BOX.
5. ALL BOXES SHALL BE METALLIC AND SIZED APPROPRIATELY FOR EQUIPMENT AND ALL CONDUCTORS TO COMPLY WITH THE NEC REQUIREMENTS. EXTERIOR BOXES SHALL BE CAST.
6. PERFORM ALL WORK IN A NEAT AND WORKMANLIKE MANNER. THE ELECTRICAL CONTRACTOR TO GIVE SPECIAL ATTENTION TO THE APPEARANCE OF ALL FACILITIES IN VIEW. IN GENERAL, INSTALL MATERIAL AND DEVICES PARALLEL AND PERPENDICULAR TO THE BUILDING LINES. INSTALL DEVICES AND PANELS SO AS TO LINE UP WITH ONE ANOTHER.
7. DRAWINGS INDICATE MINIMUM NEC REQUIREMENTS. IF THE CONTRACTOR CHOOSES TO EXCEED MINIMUMS FOR EASE OF CONSTRUCTION PURPOSES, HE SHALL INDICATE SUCH CHANGES ON RECORD SET OF DOCUMENTS FOR OWNERS' RECORD.
8. ANY AND ALL PENETRATIONS OF FIRE RATED AND NON–FIRE RATED ASSEMBLIES SHALL BE SEALED WITH THROUGH–PENETRATION FIRESTOP SYSTEMS COMPLYING WITH ASTM E814 OR UL 1479. ACCEPTABLE FIRE STOPPING SYSTEMS INCLUDE LATEX SEALANTS, SILICONE SEALANTS, INTUMESCENT PUTTY AND MORTAR.

ELECTRICAL ABBREVIATIONS

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AIC	AVAILABLE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
E	EXISTING TO REMAIN
EGC	EQUIPMENT GROUNDING CONDUCTOR
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EL	ELEVATOR
EM	EMERGENCY
EX	EXIT SIGN
EDH	ELECTRIC DUCT HEATER
ESUH	ELECTRIC SUSPENDED UNIT HEATER
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRICAL WATER HEATER
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPS
FVNR	FULL VOLTAGE NON REVERSING
GEC	GROUNDING ELECTRODE CONDUCTOR
GF	GROUND FAULT INTERRUPTER
GRD	GROUND
HP	HORSE POWER
JB	JUNCTION BOX
KW	KILOWATTS
KVA	KILO VOLT AMPS
LTG	LIGHTING
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MFG	MANUFACTURER
MIN	MINIMUM
MTD	MOUNTED
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NL	NIGHT LIGHT
PH	PHASE (#)
PNL	PANEL
PRE	POWER ROOF EXHAUST
PX	PRESENT TO BE REMOVED
RTU	ROOF TOP UNIT
SW	SWITCH
TCC	TEMPERATURE CONTROL CONTRACTOR
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
UH	UNIT HEATER
V	VOLTS
VAVR	VARIABLE AIR VOLUME WITH REHEAT
VIF	VERIFY IN FIELD
W	WIRE
WE	WITH EQUIPMENT
WP	WEATHER PROOF
XP	EXISTING TO BE REPLACED
XR	EXISTING TO BE RELOCATED
XN	EXISTING RELOCATED IN NEW LOCATION

ELECTRICAL SYMBOLS, NOTES & ABBREVIATIONS

SCALE: NONE

Larson & Darby Group
Architecture Engineering Interiors
LARSON & DARBY GROUP
architecture•engineering•interiors

PROGRESS PRINT
Not For Construction
Date: 01-21-2022

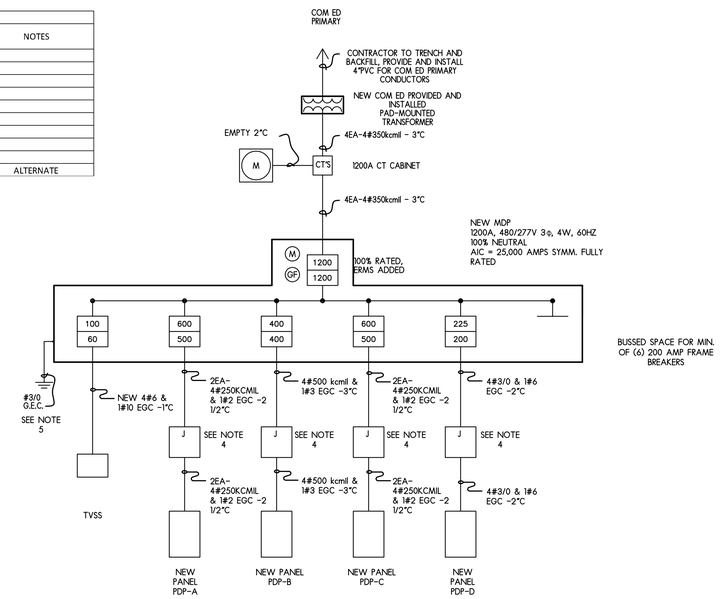
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22–22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: EP	CHECKED BY: AB	APPROVED BY:	

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E0.1

MOTOR AND EQUIPMENT SCHEDULE											
EQUIP. TAG	EQUIPMENT	LOAD						SOURCE OF POWER		PROTECTION	NOTES
		VOLTS	PHASE	H.P.	AMP	KVA	CONDUIT AND WIRE SIZE	PANEL	CCT. NO.	(AMPS)	
ACCU-1A1	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-A	14,16,18	25A-3P	
ACCU-1A2	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-A	19,21,23	25A-3P	
ACCU-1A3	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-A	20,22,24	25A-3P	
ACCU-1B1	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-A	25,27,29	25A-3P	
ACCU-1B2	AIR COOLED CONDENSING UNIT	460	3		12.3		3 #12 & 1 #12 EGC - 3/4"C	PDP-A	26,28,30	20A-3P	
ACCU-2-1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-A	25,27,29	35A-3P	
ACCU-2-2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-A	32,34,36	35A-3P	
ACCU-2-3	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-A	37,39,41	25A-3P	
ACCU-3	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	1,3,5	35A-3P	
ACCU-4A1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	2,4,6,	35A-3P	
ACCU-4A2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	7,9,11	35A-3P	
ACCU-4B1	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-B	8,10,12	25A-3P	
ACCU-4B2	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-B	13,15,17	25A-3P	
ACCU-5-1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	14,16,18	35A-3P	
ACCU-5-2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	19,21,23	35A-3P	
ACCU-6-1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	20,22,24	35A-3P	
ACCU-6-2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-B	25,27,29	35A-3P	
ACCU-6-3	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-B	26,28,30	25A-3P	
ACCU-7-1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-C	13,15.17	35A-3P	
ACCU-7-2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-C	14,16,18	35A-3P	
ACCU-8A1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-C	19,21,23	35A-3P	
ACCU-8A2	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-C	20,22,24	25A-3P	
ACCU-8A3	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-C	25,27,29	25A-3P	
ACCU-8B1	AIR COOLED CONDENSING UNIT	460	3		20.6		3 #10 & 1 #10 EGC -3/4"C	PDP-C	26,28,30	25A-3P	
ACCU-8B2	AIR COOLED CONDENSING UNIT	460	3		12.3		3 #12 & 1 #12 EGC - 1/2"C	PDP-C	31,33,35	20A-3P	
ACCU-9A1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-D	1,3,5	35A-3P	
ACCU-9A2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-D	2,4,6	35A-3P	
ACCU-9B1	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-D	7,9,11	35A-3P	
ACCU-9B2	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-D	8,10,12	35A-3P	
ACCU-10	AIR COOLED CONDENSING UNIT	460	3		25.9		3 #8 & 1 #10 EGC - 3/4"C	PDP-A	38,40,42	35A-3P	
ACCI-11	AIR COOLED CONDENSING UNIT	460	3		44		3 #6 & 1 #10 EGC - 3/4"C	PDP-B	31,33,35	60A-3P	

MOTOR AND EQUIPMENT SCHEDULE											
EQUIP. TAG	EQUIPMENT	LOAD						SOURCE OF POWER		PROTECTION	NOTES
		VOLTS	PHASE	H.P.	AMP	KVA	CONDUIT AND WIRE SIZE	PANEL	CCT. NO.	(AMPS)	
AHU-1	AIR HANDLING UNIT	208	3	7.5							
RTU-1	ROOF TOP UNIT	460	3		43		3 #6 & 1 #10 EGC - 1"c	PDP-A	1,3,5	50A-3P	
RTU-2	ROOF TOP UNIT	460	3		43		3 #6 & 1 #10 EGC - 1"c	PDP-A	2,4,6	50A-3P	
RTU-3	ROOF TOP UNIT	460	3		34		3 #8 & 1 #10 EGC - 3/4"C	PDP-A	7,9,11	40A-3P	
RTU-4	ROOF TOP UNIT	460	3		106		3 #2 & 1 #6 EGC - 1 1/4"C	PDP-A	8,10,12	110A-3P	
RTU-5	ROOF TOP UNIT	460	3		19		3 #10 & 1 #10 EGC - 3/4"C	PDP-A	13,15,17	25A-3P	
RTU-6	ROOF TOP UNIT	460	3		31		3 #8 & 1 #10 EGC - 3/4"C	PDP-C	1,3,5	40A-3P	
RTU-7	ROOF TOP UNIT	460	3		106		3 #2 & 1 #6 EGC - 1 1/4"C	PDP-C	2,4,6	110A-3P	
RTU-8	ROOF TOP UNIT	460	3		19		3 #10 & 1 #10 EGC - 3/4"C	PDP-C	7,9,11	25A-3P	
PU-1	POOL UNIT	460	3		107		3 #10 & 1 #6 EGC - 1 1/4"C	PDP-C	8,10,12	125A-3P	ALTERNATE



PARTIAL SINGLE LINE DIAGRAM

NO SCALE

NOTES:

1.) GROUND ALL ELECTRICAL EQUIPMENT PER N.E.C. ARTICLE 250.

2.) ALL CONDUCTOR SIZES SHOWN ARE COPPER THHN/THWN 75 DEG C.

3.) ALL CONDUIT SHALL BE EMT INTERIOR AND RGS EXTERIOR.

4.) PROVIDE AND INSTALL JUNCTION BOXES (SIZE AND QUANTITY) WITHIN NEW FEEDERS AS REQUIRED TO COMPLY WITH NEC 300.15 AND 314.16.

5.) BOND ALSO TO WATER SUPPLY PIPING. VERIFY ON SITE FOR OPTIMUM CONNECTION LOCATION. COORDINATE WITH THE ARCHITECT/ENGINEER.

SEE NOTES 5

PANEL NO. PDP-A (TWO-TUB)
600 AMP MAIN LUG RATING
480/277 VOLT, 3ϕ, 4W, 60HZ
N/A AMP MAIN AIC
18,000 AMP BRANCH AIC
TRIM: SURFACE
W/ GROUND BUS
W/ 100% SOLID NEUTRAL
W/ MAIN LUGS ONLY
NEMA 1 ENCLOSURE
DOOR-IN-DOOR TRIM
TYPE – NQOD * GFCI BREAKER ** W/ LOCK-ON

LOAD		WS	CB/P	C#		C#	CB/P	WS	LOAD	
35690	RTU-1	#6	50/3	1		2	50/3	#6	RTU-2	35690
				3		4				
				5		6				
28220	RTU-3	#8	40/3	7		8	110/3	#2	RTU-4	87980
				9		10				
				11		12				
15770	RTU-5	#10	25/3	13		14	25/3	#10	ACCU-1A1	17098
				15		16				
				17		18				
17098	ACCU-1A2	#10	25/3	19		20	25/3	#10	ACCU-1A3	17098
				21		22				
				23		24				
17098	ACCU-1B1	#10	25/3	25		26	20/3	#12	ACCU-1B2	10209
				27		28				
				29		30				
21497	ACCU-2-1	#8	35/3	31		32	35/3	#8	ACCU-2-2	21497
				33		34				
				35		36				
17098	ACCU-2-3	#10	25/3	37		38	35/3	#8	ACCU-10	21497
				39		40				
				41		42				
X	SPACE	---	--/--	43		44	--/--	---	SPACE	X
X	SPACE	---	--/--	45		46	--/--	---	SPACE	X
X	SPACE	---	--/--	47		48	--/--	---	SPACE	X
X	SPACE	---	--/--	49		50	--/--	---	SPACE	X
X	SPACE	---	--/--	51		52	--/--	---	SPACE	X
X	SPACE	---	--/--	53		54	--/--	---	SPACE	X
X	SPACE	---	--/--	55		56	--/--	---	SPACE	X
X	SPACE	---	--/--	57		58	--/--	---	SPACE	X
X	SPACE	---	--/--	59		60	--/--	---	SPACE	X
133897	SUB TOTAL								SUB TOTAL	211069

CONNECTED LOAD
EXISTING LOAD @ 125% =
LIGHTING @ 100% =
RECEPTACLES @ 100% TO 10KW +50% REMAIN =
MOTORS @ 80% =
HVAC 363540 @ 80% =
MISC. @ 80% =
TOTAL CONNECTED LOAD: 291

DEMAND LOAD
0.0 KVA
0.0 KVA
0.0 KVA
0.0 KVA
291.0 KVA
0.0 KVA
291 KVA = 350A @ 480/277V, 3PH, 4W

PANEL NO. PDP-B
400 AMP MAIN LUG RATING
480/277 VOLT, 3ϕ, 4W, 60HZ
N/A AMP MAIN AIC
18,000 AMP BRANCH AIC
TRIM: SURFACE
W/ GROUND BUS
W/ 100% SOLID NEUTRAL
W/ MAIN LUGS ONLY
NEMA 1 ENCLOSURE
DOOR-IN-DOOR TRIM
TYPE – NQOD * GFCI BREAKER ** W/ LOCK-ON

LOAD		WS	CB/P	C#		C#	CB/P	WS	LOAD	
21497	ACCU-3	#8	35/3	1		2	35/3	#8	ACCU-4A-1	21497
				3		4				
				5		6				
21497	ACCU-4A-2	#8	35/3	7		8	25/3	#10	ACCU-4B-1	17098
				9		10				
				11		12				
17098	ACCU-4B-2	#10	25/3	13		14	35/3	#8	ACCU-5-1	21497
				15		16				
				17		18				
21497	ACCU-5-2	#8	35/3	19		20	35/3	#8	ACCU-6-1	21497
				21		22				
				23		24				
21497	ACCU-6-2	#8	35/3	25		26	25/3	#10	ACCU-6-3	17098
				27		28				
				29		30				
36520	ACCU-11	#6	60/3	31		32	--/--	---	SPACE	X
				33		34	--/--	---	SPACE	X
				35		36	--/--	---	SPACE	X
X	SPACE	---	--/--	37		38	--/--	---	SPACE	X
X	SPACE	---	--/--	39		40	--/--	---	SPACE	X
X	SPACE	---	--/--	41		42	--/--	---	SPACE	X
139336	SUB TOTAL								SUB TOTAL	98687

CONNECTED LOAD
EXISTING LOAD @ 125% =
LIGHTING @ 100% =
RECEPTACLES @ 100% TO 10KW +50% REMAIN =
MOTORS @ 80% =
HVAC 238023 @ 80% =
MISC. @ 80% =
TOTAL CONNECTED LOAD: 191

DEMAND LOAD
0.0 KVA
0.0 KVA
0.0 KVA
0.0 KVA
191.0 KVA
0.0 KVA
191 KVA =230A @ 480/277V, 3PH, 4W

PANEL NO. PDP-C
600 AMP MAIN LUG RATING
480/277 VOLT, 3ϕ, 4W, 60HZ
N/A AMP MAIN AIC
18,000 AMP BRANCH AIC
TRIM: SURFACE
W/ GROUND BUS
W/ 100% SOLID NEUTRAL
W/ MAIN LUGS ONLY
NEMA 1 ENCLOSURE
DOOR-IN-DOOR TRIM
TYPE – NQOD * GFCI BREAKER ** W/ LOCK-ON

LOAD		WS	CB/P	C#		C#	CB/P	WS	LOAD	
25730	RTU-6	#8	40/3	1		2	110/3	#2	RTU-7	87980
				3		4				
				5		6				
15770	RTU-8	#10	25/3	7		8	125/3	#1	PU-1	88810
				9		10				
				11		12				
21497	ACCU-7-1	#8	35/3	13		14	35/3	#8	ACCU-7-2	21497
				15		16				
				17		18				
21497	ACCU-8A-1	#8	35/3	19		20	25/3	#10	ACCU-8A-2	17098
				21		22				
				23		24				
17098	ACCU-8A-3	#10	25/3	25		26	25/3	#10	ACCU-8B-1	17098
				27		28				
				29		30				
10209	ACCU-8B-2	#12	20/3	31		32	--/--	---	SPACE	X
				33		34	--/--	---	SPACE	X
				35		36	--/--	---	SPACE	X
X	SPACE	---	--/--	37		38	--/--	---	SPACE	X
X	SPACE	---	--/--	39		40	--/--	---	SPACE	X
X	SPACE	---	--/--	41		42	--/--	---	SPACE	X
111801	SUB TOTAL								SUB TOTAL	232483

CONNECTED LOAD
EXISTING LOAD @ 125% =
LIGHTING @ 100% =
RECEPTACLES @ 100% TO 10KW +50% REMAIN =
MOTORS @ 80% =
HVAC 344284 @ 80% =
MISC. @ 80% =
TOTAL CONNECTED LOAD: 275

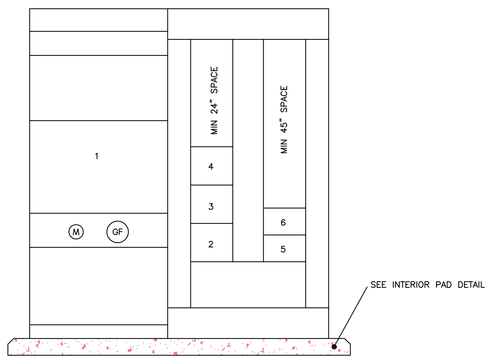
DEMAND LOAD
0.0 KVA
0.0 KVA
0.0 KVA
0.0 KVA
275.0 KVA
0.0 KVA
275 KVA = 332A @ 480/277V, 3PH, 4W

PANEL NO. PDP-D
200 AMP MAIN LUG RATING
480/277 VOLT, 3ϕ, 4W, 60HZ
N/A AMP MAIN AIC
18,000 AMP BRANCH AIC
TRIM: SURFACE
W/ GROUND BUS
W/ 100% SOLID NEUTRAL
W/ MAIN LUGS ONLY
NEMA 1 ENCLOSURE
DOOR-IN-DOOR TRIM
TYPE – NQOD * GFCI BREAKER ** W/ LOCK-ON

LOAD		WS	CB/P	C#		C#	CB/P	WS	LOAD	
21497	ACCU-9A-1	#8	35/3	1		2	35.3	#8	ACCU-9A-2	21497
				3		4				
				5		6				
21497	ACCU-9B-1	#8	35/3	7		8	35.3	#8	ACCU – 9B-2	21497
				9		10				
				11		12				
X	SPACE	---	--/--	13		14	--/--	---	SPACE	X
X	SPACE	---	--/--	15		16	--/--	---	SPACE	X
X	SPACE	---	--/--	17		18	--/--	---	SPACE	X
42994	SUB TOTAL								SUB TOTAL	42994

CONNECTED LOAD
EXISTING LOAD @ 125% =
LIGHTING @ 100% =
RECEPTACLES @ 100% TO 10KW +50% REMAIN =
MOTORS @ 80% =
HVAC 85988 @ 80% =
MISC. @ 80% =
TOTAL CONNECTED LOAD: 69.0

DEMAND LOAD
0.0 KVA
0.0 KVA
0.0 KVA
0.0 KVA
69.0 KVA
0.0 KVA
69.0 KVA = 83A @ 480/120V, 3PH, 4W



MDP ELEVATION/SCHEDULE

BRKR # SIZE/TRIP	LOAD DESCRIPTION SIZE	FRAME
1	MAIN	1200A/1200A
2	PDP-A	600A/500A
3	PDP-C	600A/600A
4	PDP-B	400A/400A
5	TVSS	100A/60A
6	PDP-D	225A/200A

MDP SHALL BE 1200A, 480/277V, 3PH, 4W RATED WITH INDICATED BREAKERS AND Isc RATING OF 25KA MINIMUM

ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES

SCALE: NTS

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Date: 04-01-2022
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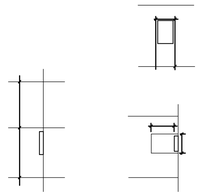
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR: BIDDING
ISSUED FOR: 01-21-22
DRAWN BY: EP
CHECKED BY: AB
APPROVED BY:

DATE: 01-21-2022
PROJECT NUMBER: 31029-01
SHEET NUMBER: E0.2



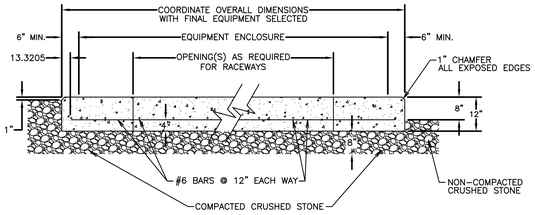
DIMENSIONS
A – 36" MIN(120/208V), 48" MIN(277/480V)
B – MIN 30" OR WIDTH OF THE EQUIPMENT
C – MIN 6'6" WORKING SPACE (OR TO HEIGHT OF THE EQUIPMENT)
D – 6'0" DEDICATED ELEC. SPACE UNLESS STRUCTURAL CEILING EXISTS.

NOTES:

1. CONTRACTOR SHALL INSURE ACCESS, ELECTRICAL WORKING SPACE & DEDICATED ELECTRICAL SPACE AROUND ELECTRICAL EQUIPMENT IN COMPLIANCE WITH NEC 110.26. INTERIOR INSTALLATIONS REQUIRE BOTH DEDICATED ELECTRICAL SPACE AND WORKING SPACE.
2. DEDICATED ELECTRICAL SPACE IS LIMITED TO ELECTRICAL EQUIPMENT WITHIN THAT SPACE ONLY, (I.E. NO DUCTS OR PIPING)
3. 6' DEDICATED ELECTRICAL SPACE ABOVE THE 6'6" WORKING SPACE CAN BE LOWER IF STRUCTURAL CEILING SPACE EXISTS.
4. WORKING SPACE IS REQ'D TO BE CLEAR AT ALL TIMES, NOT TO BE USED FOR STORAGE.
5. OTHER EQUIPMENT CAN'T BE INSTALLED THAT ENCROACHES UPON THE WORKING SPACE.

WORKING SPACE/CLEARANCE REQ'S

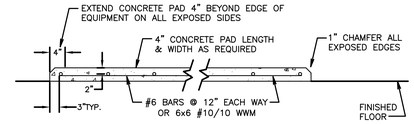
NO SCALE



COM ED PADMOUNTED TRANSFORMER PAD DETAIL

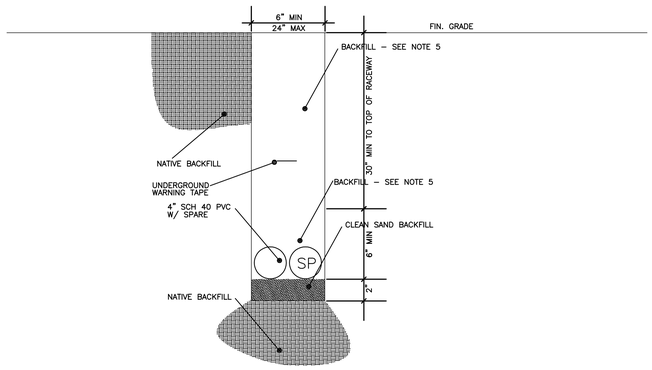
NO SCALE

NOTE: DETAIL SHOWN FOR BIDDING PURPOSES, HOWEVER THE FINAL CONCRETE PAD SHALL COMPLY COM ED STANDARD C5293. COORDINATE WITH COM ED AS REQUIRED.



TYPICAL INTERIOR EQUIPMENT PAD DETAIL

NO SCALE

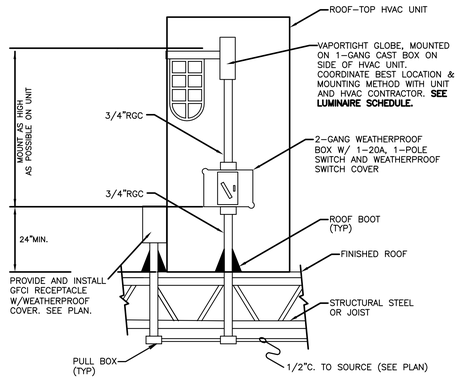


PRIMARY TRENCH DETAIL

NOT TO SCALE

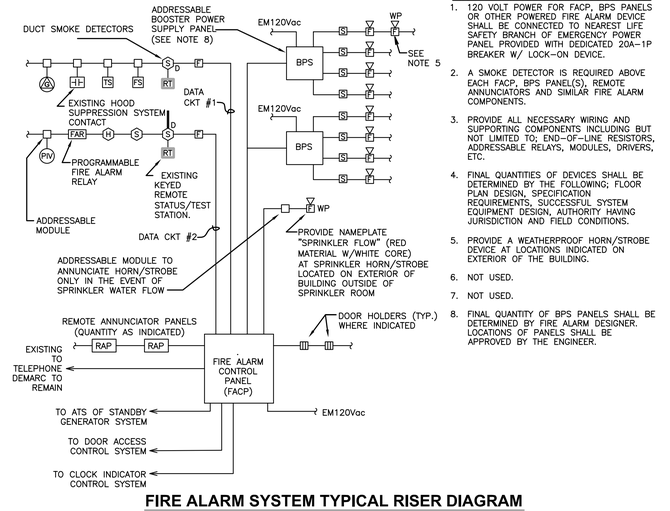
PRIMARY TRENCH NOTES

1. MIN. CLEARANCES BETWEEN PRIMARY AND OTHER UTILITIES:
   FUEL LINES – 4" UNLESS HIGH PRESSURE GAS THAN 10'
   WATER, SEWER, PHONE, CATV – 1'
2. REMOVE ANY STANDING WATER FROM TRENCH.
3. BOTTOM OF TRENCH SHALL BE SMOOTH, UNDISTURBED EARTH WITH CLEAN SAND BED.
4. PVC SHALL HAVE 36" MIN BENDING RADIUS AT TERMINALS.
5. BACKFILL WITH APPROVED MATERIALS TO 6" ABOVE RACEWAY; GRADED SAND, STONE DUST, LIMESTONE DUST, ROCKFREE EARTH OR TOPSOILS. REMAINDER OF TRENCH SHALL BE BACKFILLED WITH NATIVE SOILS AND SHALL NOT CONTAIN LARGE ROCKS (LARGER THAN 4"). AN ADDITIONAL 6" OF MOUNDED BACKFILL SHALL BE LEFT FOR SETTLING.
6. THIS DETAIL SHOWN FOR BIDDING PURPOSES. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE INSTALLATION WITH THE COMED STANDARDS AND REQUIREMENTS.



ROOFTOP LIGHT & SWITCH MOUNTING DETAIL

NO SCALE



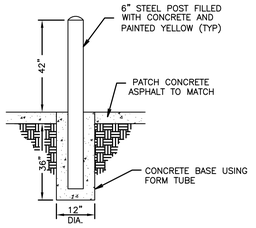
FIRE ALARM SYSTEM TYPICAL RISER DIAGRAM

NO SCALE

THIS DETAIL IS TYPICAL FOR FIRE ALARM SYSTEMS HOWEVER THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY WITH THE EXISTING FIRE ALARM SYSTEM ON SITE. THIS PROJECT WILL INCLUDE THE INSTALLATION OF THE DUCT SMOKE DETECTORS AS INDICATED. THE DUCT DETECTORS AND REMOTE TEST STATIONS WILL BE SUPPLIED BY THE MC AND WIRED BY THE EC. COORDINATE WITH THE MC.

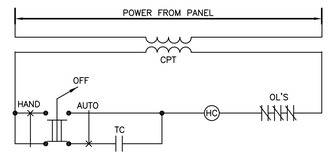
FIRE ALARM RISER DIAGRAM NOTES:

1. 120 VOLT POWER FOR FACP, BPS PANELS OR OTHER POWERED FIRE ALARM DEVICE SHALL BE CONNECTED TO NEAREST LIFE SAFETY BRANCH OF EMERGENCY POWER PANEL PROVIDED WITH DEDICATED 20A-1P BREAKER W/ LOCK-ON DEVICE.
2. A SMOKE DETECTOR IS REQUIRED ABOVE EACH FACP, BPS PANEL(S), REMOTE ANNUNCIATORS AND SIMILAR FIRE ALARM COMPONENTS.
3. PROVIDE ALL NECESSARY WIRING AND SUPPORTING COMPONENTS INCLUDING BUT NOT LIMITED TO; END-OF-LINE RESISTORS, ADDRESSABLE RELAYS, MODULES, DRIVERS, ETC.
4. FINAL QUANTITIES OF DEVICES SHALL BE DETERMINED BY THE FOLLOWING; FLOOR PLAN DESIGN, SPECIFICATION REQUIREMENTS, SUCCESSFUL SYSTEM EQUIPMENT DESIGN, AUTHORITY HAVING JURISDICTION AND FIELD CONDITIONS.
5. PROVIDE A WEATHERPROOF HORN/STROBE DEVICE AT LOCATIONS INDICATED ON EXTERIOR OF THE BUILDING.
6. NOT USED.
7. NOT USED.
8. FINAL QUANTITY OF BPS PANELS SHALL BE DETERMINED BY FIRE ALARM DESIGNER. LOCATIONS OF PANELS SHALL BE APPROVED BY THE ENGINEER.



STEEL PIPE BOLLARD

NO SCALE



HAND-OFF-AUTO CONTROL DIAGRAM

NO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS
BEFORE YOU DIG
CALL **1-800-892-0123** (TOLL FREE – 811)
ILLINOIS UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

ELECTRICAL DETAILS

SCALE: 1/8" = 1'-0"

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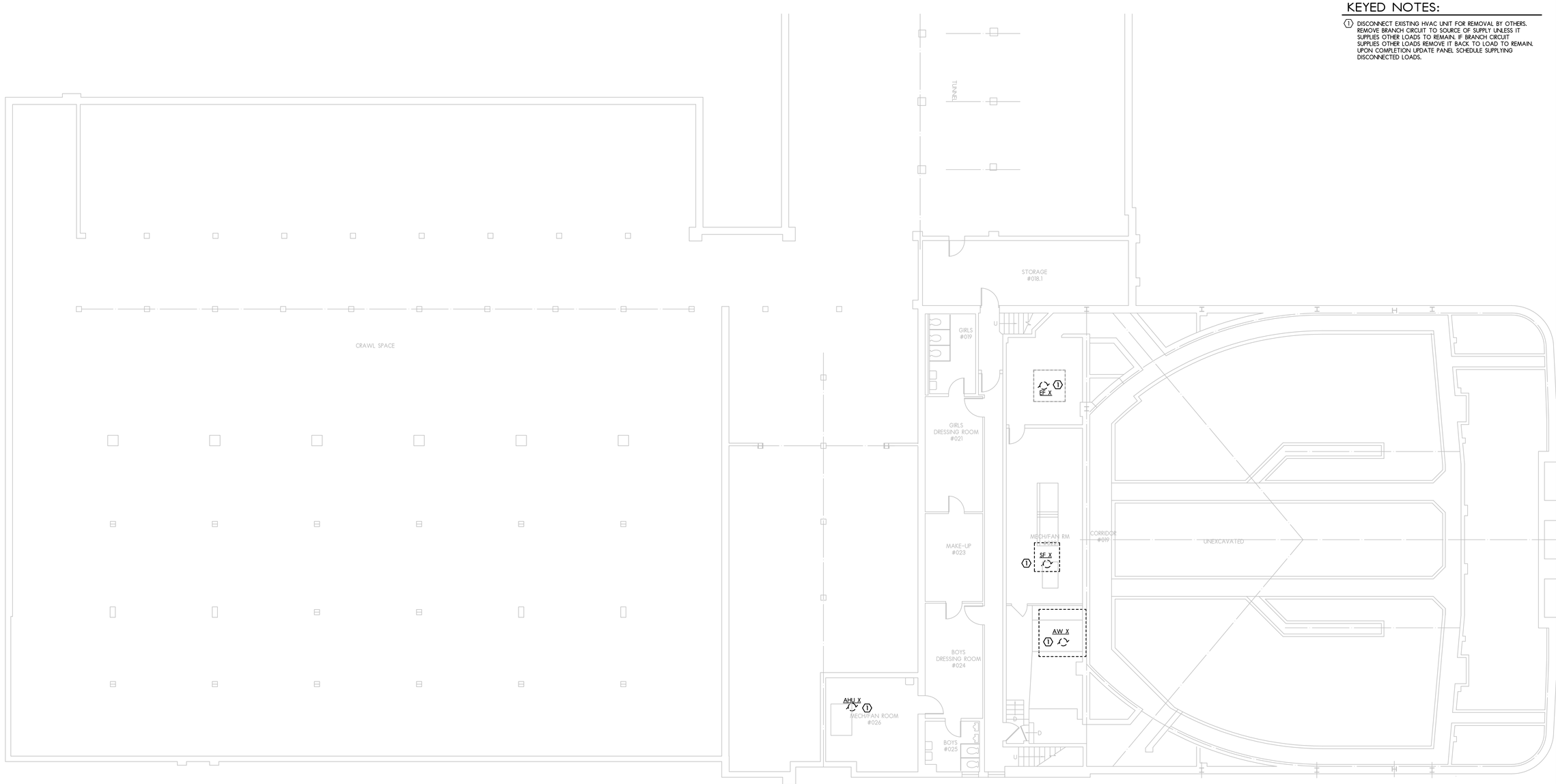
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: EP	CHECKED BY: AB	APPROVED BY:	

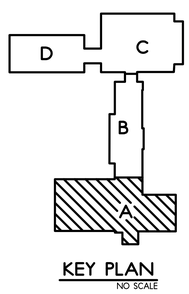
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E0.3

KEYED NOTES:

1. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.



1 BASEMENT SECTION A NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - BASEMENT DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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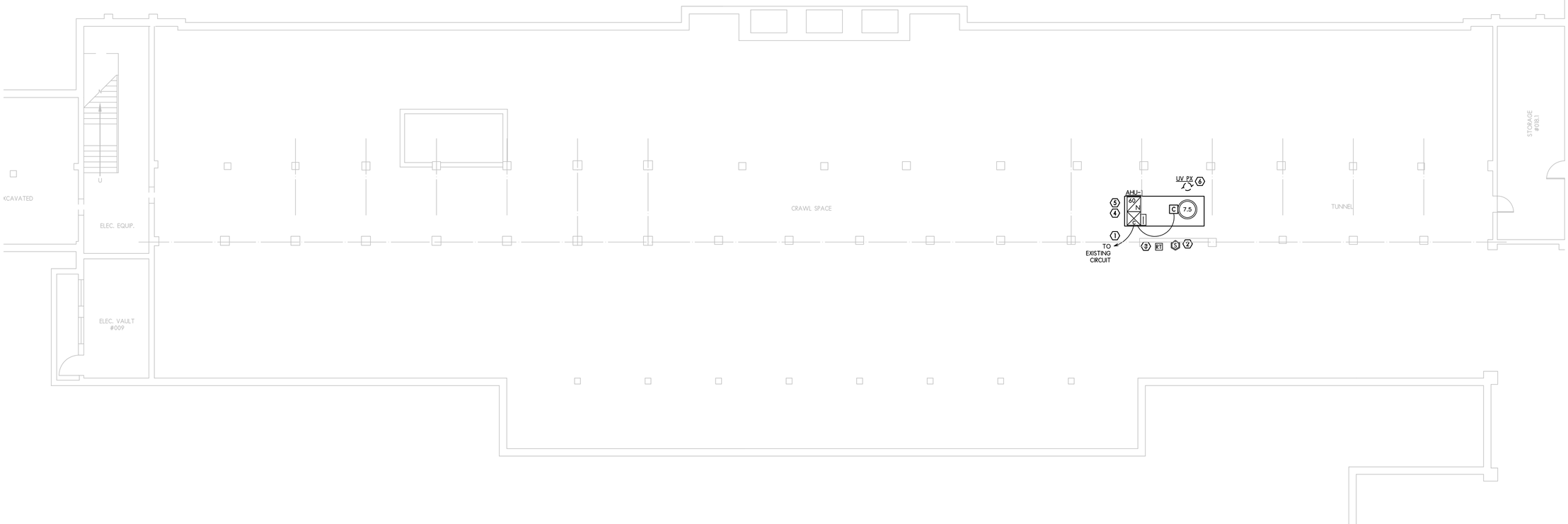
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
		DRAWN BY: JJ	CHECKED BY: APPROVED BY: RAS

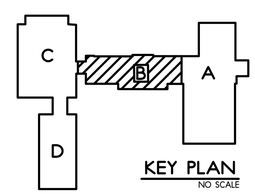
DATE: 01-19-2021
PROJECT NUMBER 31029-01
SHEET NUMBER E1.1

KEYED NOTES:

1. PROVIDE AND INSTALL A NEW BRANCH CIRCUIT FROM THE INDICATED PANEL TO THE UNIT. FIELD COORDINATE ROUTING OF BRANCH CIRCUIT AND CONCEAL AS MUCH AS POSSIBLE. ALL SURFACE RACEWAY SHALL BE COORDINATED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
2. THE EC SHALL PROVIDE THE DUCT SMOKE DETECTOR TO THE MC FOR INSTALLATION INTO THE RETURN. THE EC SHALL CIRCUIT THE DETECTOR TO THE F.A. PANEL LOCATED IN THE RECEIVING ROOM, (SEE SHEET E2.4 FOR LOACTION)COORDINATE WITH THE F.A. EQUIPMENT MANUFACTURER. THE TCC SHALL CIRCUIT THE DETECTOR FOR FAN SHUT DOWN. THE EC SHALL COORDINATE WITH THE MC AND THE TCC.
3. COORDINATE THE LOCATION OF THE REMOTE TEST STATION WITH THE ARCHITECT/ENGINEER ON SITE FOR OPTIMUM LOCATION. CONDUIT AS PER MFGR'S RECOMMENDATIONS.
4. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
5. FIELD LOCATE COMBINATION STARTER/DISCONNECT FOR OPTIMUM LOCATION WITH ARCHITECT/ENGINEER. SEE CONTROL DIAGRAM FOR OPERATIONAL INFORMATION.
6. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.



1 BASEMENT SECTION B NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - BASEMENT DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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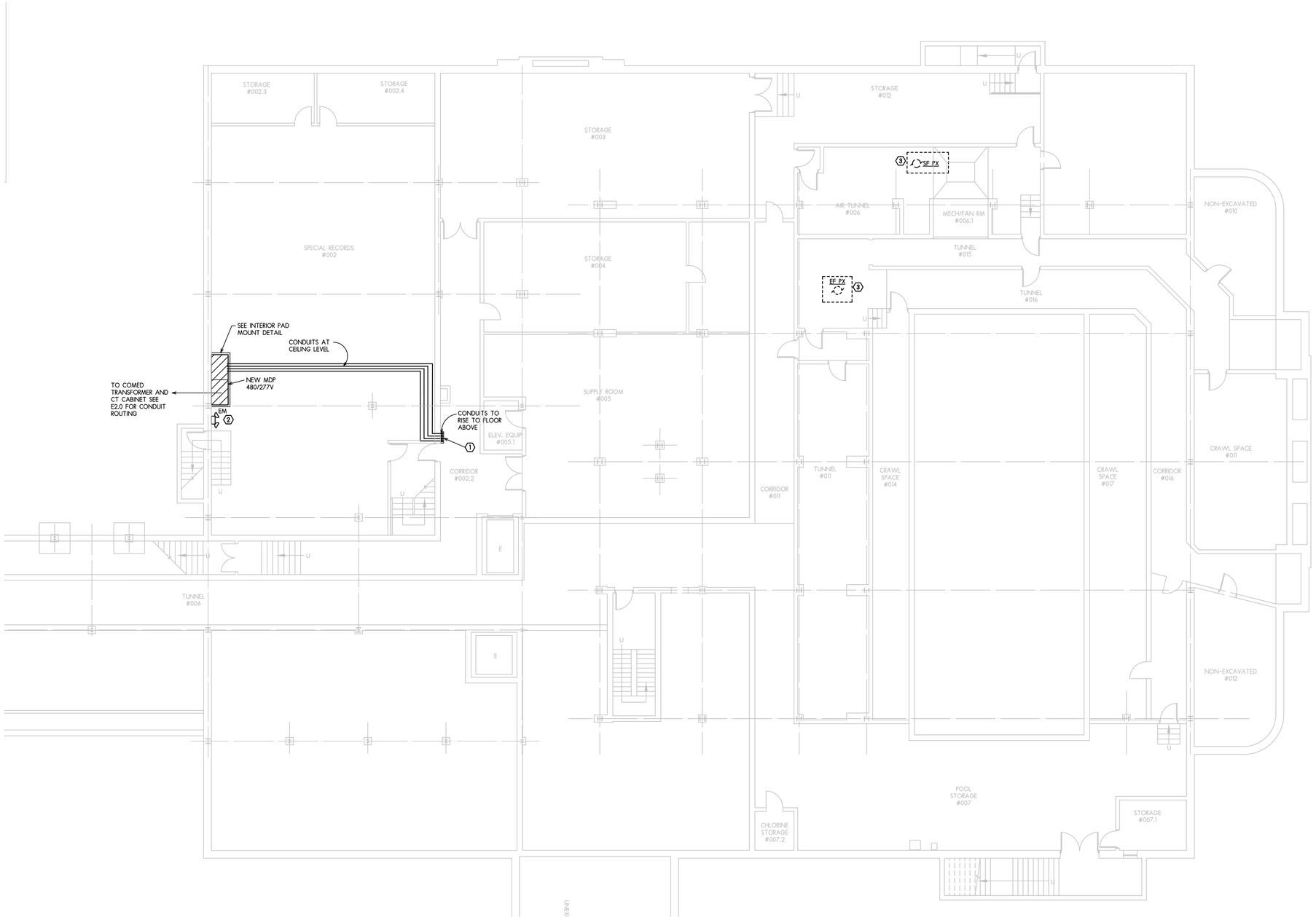
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

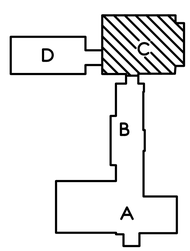
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E1.2

KEYED NOTES:

1. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
2. PROVIDE AND INSTALL NEW EM LIGHT. SEE LIGHT FIXTURE SCHEDULE. CIRCUIT TO ROOM LIGHTING CIRCUIT AND AHEAD OF ANY LOCAL SWITCHING. FIELD LOCATE WITH ARCHITECT/ENGINEER FOR OPTIMUM LOCATION.
3. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.



1 BASEMENT SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - BASEMENT DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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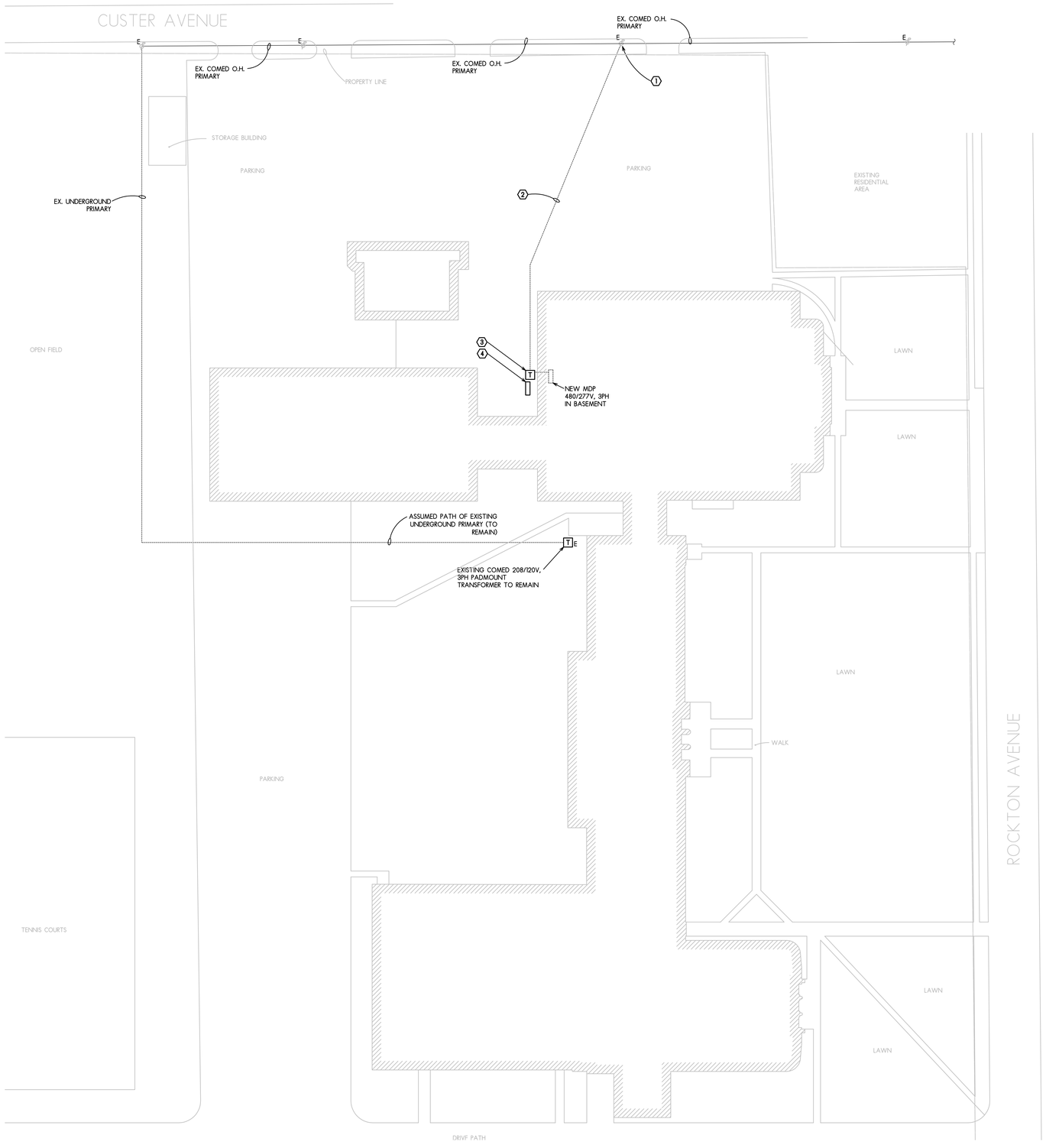
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	RAS
		APPROVED BY:	

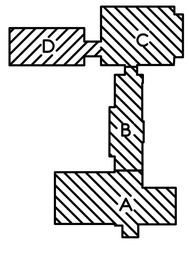
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E1.3

KEYED NOTES:

1. COMED TO CONVERT LINE POLE TO NEW PRIMARY DROP POLE AS REQUIRED.
2. THE ELECTRICAL CONTRACTOR SHALL TRENCH, BACKFILL & PROVIDE & INSTALL 4" PVC CONDUIT FOR COMED INSTALLED PRIMARY CONDUCTORS. SEE PRIMARY TRENCH DETAIL. REPAVE DISTURBED SURFACE TO MATCH ADJACENT MATERIALS.
3. THE EC SHALL PROVIDE & INSTALL PAD FOR COMED PAD MOUNTED TRNASFORMER SO AS TO COMPLY WITH COMED STANDARD C5285. SEE LARGE SCALE PLAN ON SHEET E2.2 & COMED PAD MOUNT TRANSFORMER PAD DETAIL FOR ADDITIONAL INFORMATION.
4. THE EC SHALL PROVIDE & INSTALL CT METERING CABINET & METER SOCKET SO AS TO COMPLY WITH COMEED STANDARDS AND REQUIREMENTS. SEE LARGE SCALE PLAN ON SHEET E2.2.



1 OVERALL PLAN
SCALE: 1/32" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - OVERALL SITE NEW WORK PLAN

SCALE: 1/32" = 1'-0"

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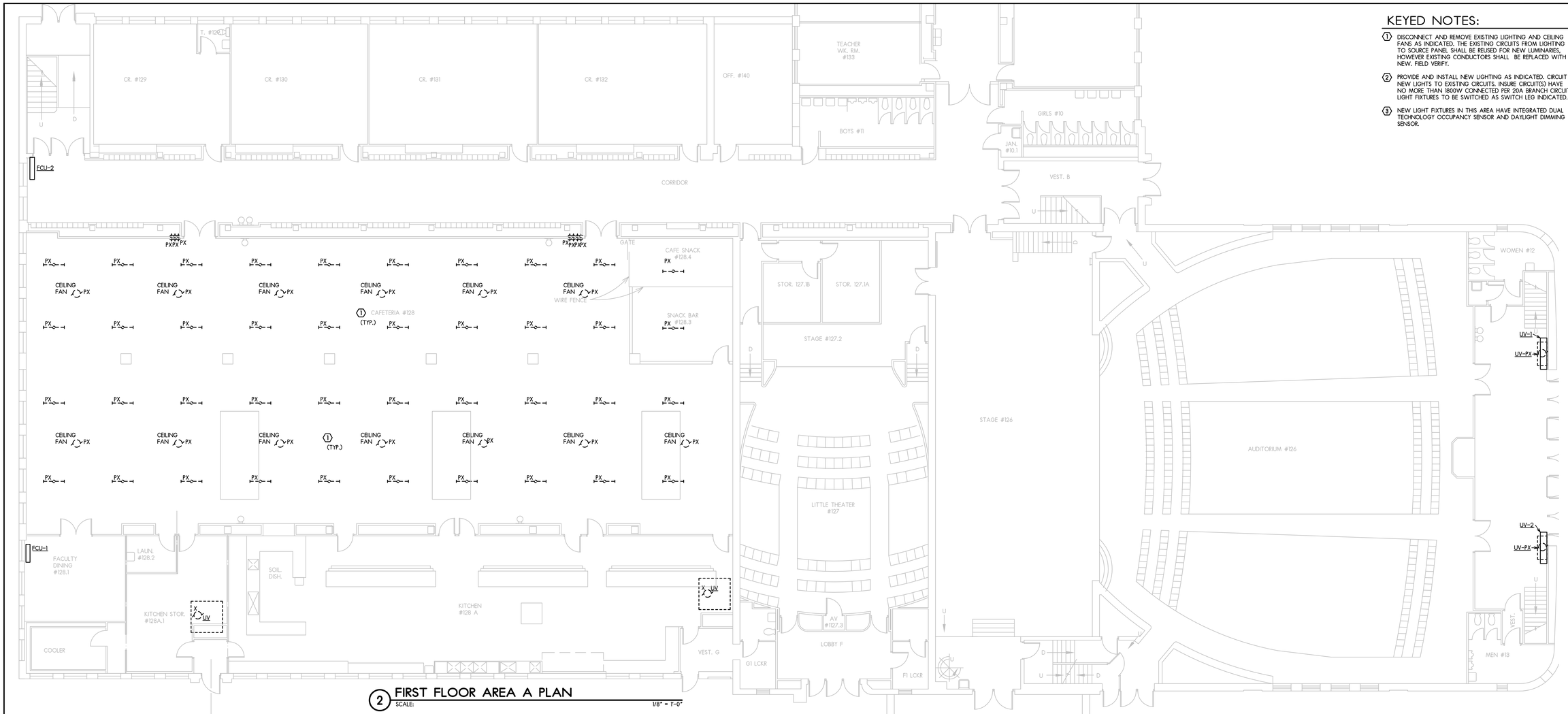
DRAWN BY:	JJ	CHECKED BY:	RAS
		APPROVED BY:	

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E2.0

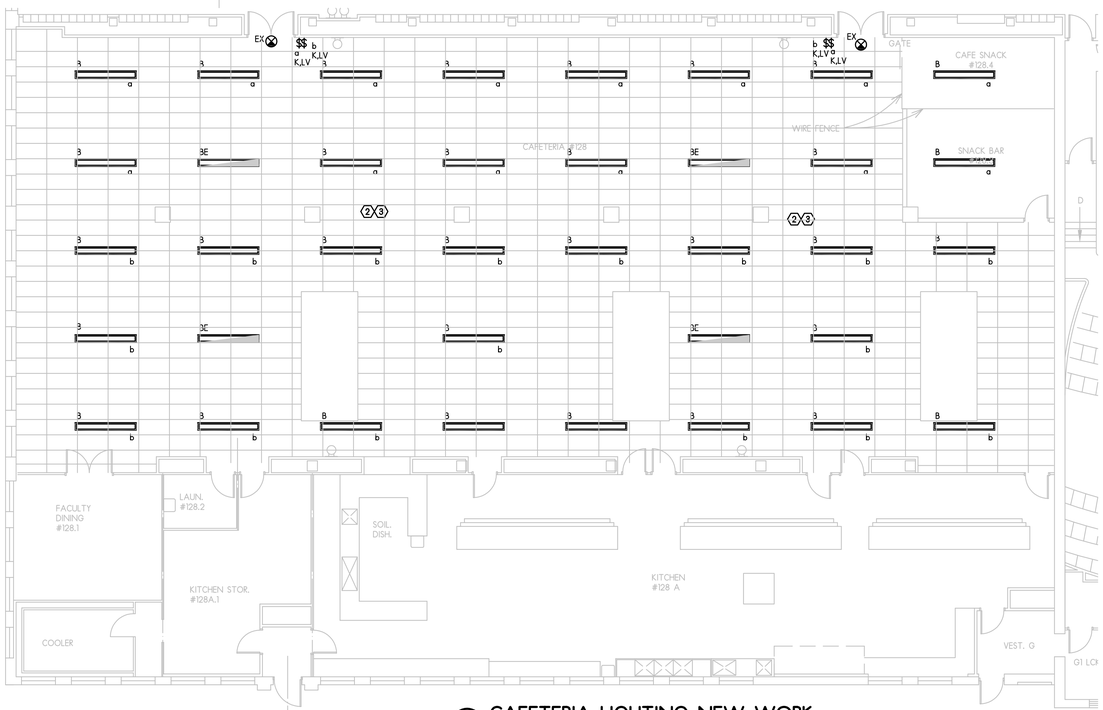
KEYED NOTES:

1. DISCONNECT AND REMOVE EXISTING LIGHTING AND CEILING FANS AS INDICATED. THE EXISTING CIRCUITS FROM LIGHTING TO SOURCE PANEL SHALL BE REUSED FOR NEW LUMINARIES, HOWEVER EXISTING CONDUCTORS SHALL BE REPLACED WITH NEW. FIELD VERIFY.
2. PROVIDE AND INSTALL NEW LIGHTING AS INDICATED. CIRCUIT NEW LIGHTS TO EXISTING CIRCUITS. INSURE CIRCUIT(S) HAVE NO MORE THAN 1800W CONNECTED PER 20A BRANCH CIRCUIT. LIGHT FIXTURES TO BE SWITCHED AS SWITCH LEG INDICATED.
3. NEW LIGHT FIXTURES IN THIS AREA HAVE INTEGRATED DUAL TECHNOLOGY OCCUPANCY SENSOR AND DAYLIGHT DIMMING SENSOR.



2 FIRST FLOOR AREA A PLAN

SCALE: 1/8" = 1'-0"



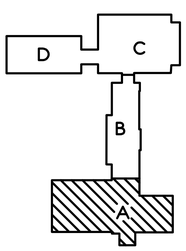
2 CAFETERIA LIGHTING NEW WORK

SCALE: 1/8" = 1'-0"

LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION	MOUNTING	VOLTAGE	INPUT WATTS	LAMP TYPE	MANUFACTURER	CATALOG NUMBER	NOTES
A	VAPOR TIGHT C-LITE	SURFACE	120	12W	LED	ECONOLIGHT	C VT B SMWL	2
B	8' DIRECT/INDIRECT LINEAR WITH FLAT END CAP	SUSPENDED	120	92	LED	PEERLESS LIGHTING	BRM9L LLP 8FT MSL8 80CRI 50K ID1500LMF 70/30 DARK NLIGHT 120V SCT APDT F2/24 C210	
BE	8' DIRECT/INDIRECT LINEAR WITH FLAT END CAP	SUSPENDED	120	92	LED	PEERLESS LIGHTING	BRM9L LLP 8FT MSL8 80CRI 50K ID1500LMF 70/30 DARK NLIGHT 120V SCT APDT F2/24 C211	1
EM	WALL MOUNTED EMERGENCY LIGHT WITH BATTERY	WALL MOUNTED	120	10.6	LED	LITHONIA LIGHTING	ELM6L UVOLT LTP SDRT	
EX/EM	EMERGENCY EXIT SIGN/ EMERGENCY LIGHT	UNV	120	4	LED	LITHONIA LIGHTING	LHQM-LED-R-HO-SD	

NOTES:
1. EMERGENCY GENERATOR IS PRESENT, NO BATTERY PACK IS NEEDED FOR EMERGENCY FIXTURE. EMERGENCY LIGHT FIXTURE SHALL BE CONNECTED TO EXISTING UN SWITCHED EMERGENCY CIRCUIT.
2. FIXTURE LOCATED ON ROOF. SEE SHEETS E5.1, E5.2 AND E5..3



KEY PLAN
NO SCALE

ELECTRICAL & LIGHTING
FIRST FLOOR DEMO & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

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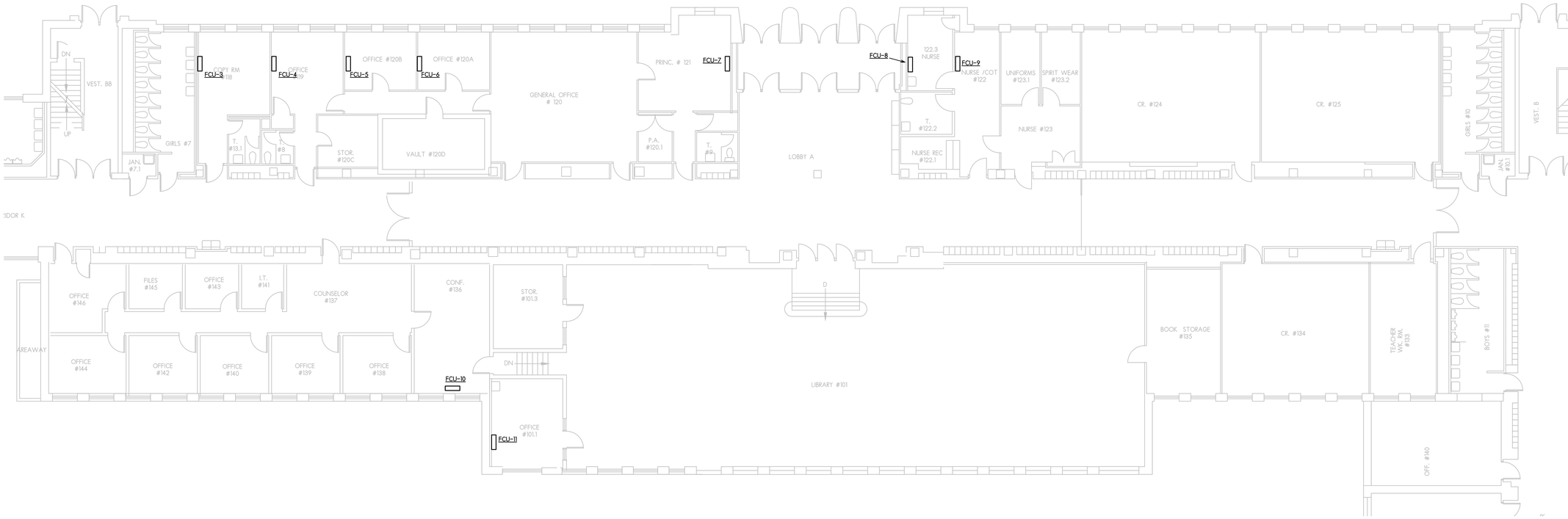
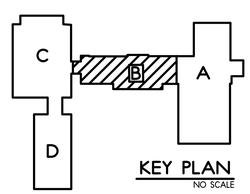
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR: 01-21-22 ISSUED FOR: BIDDING
DRAWN BY: JJ CHECKED BY: RAS APPROVED BY:

DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E2.1



1 FIRST FLOOR SECTION B NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL – FIRST FLOOR DEMO & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
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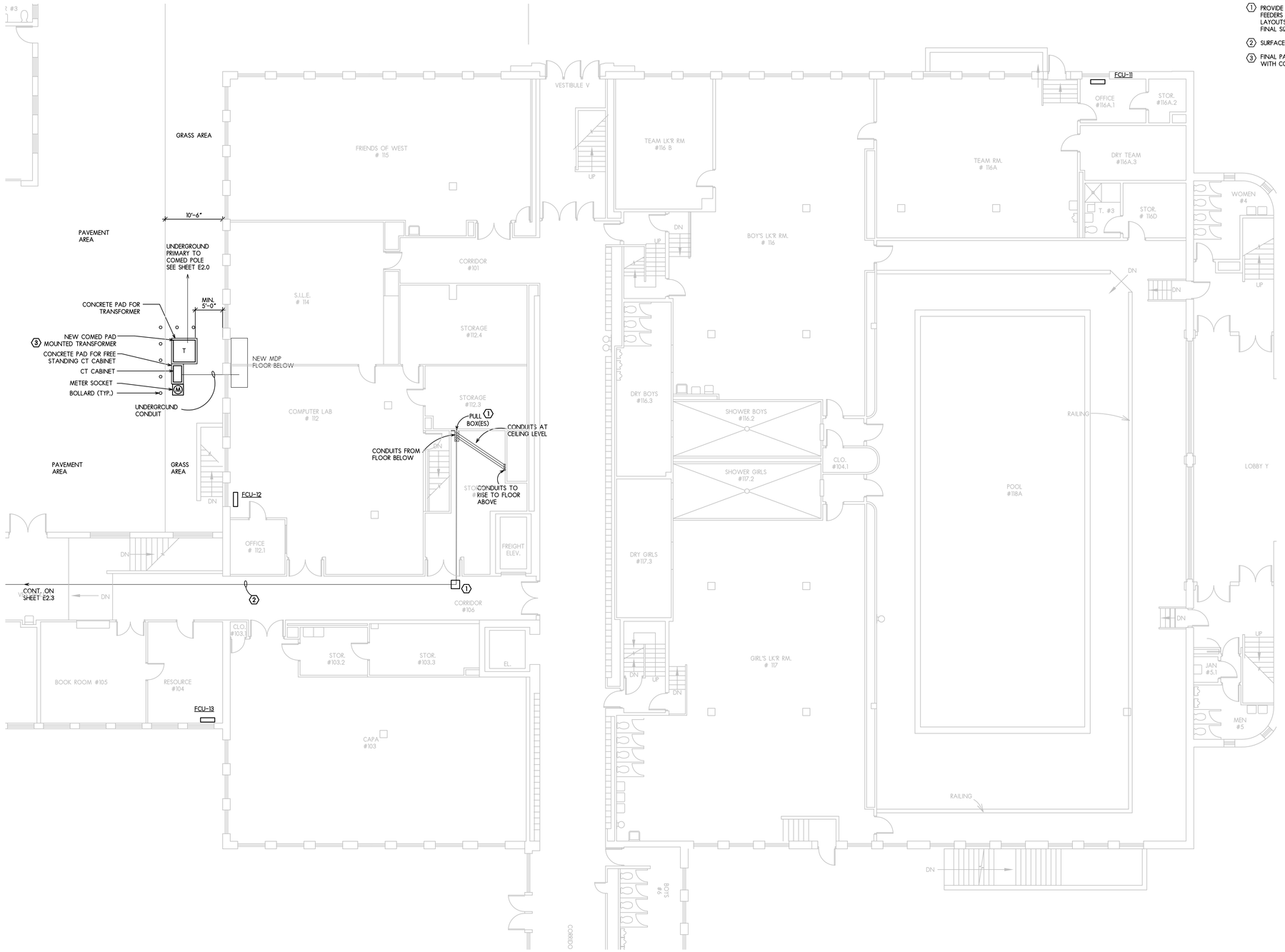
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
		DRAWN BY: JJ	CHECKED BY: RAS
			APPROVED BY:

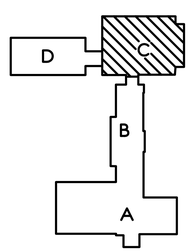
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E2.2

KEYED NOTES:

1. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
2. SURFACE MOUNTED RACEWAY AT CEILING LEVEL.
3. FINAL PADMOUNT TRANSFORMER LOCATION SHALL COMPLY WITH COMED STANDARDS INCLUDING C5285.



1 FIRST FLOOR SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL – FIRST FLOOR DEMO & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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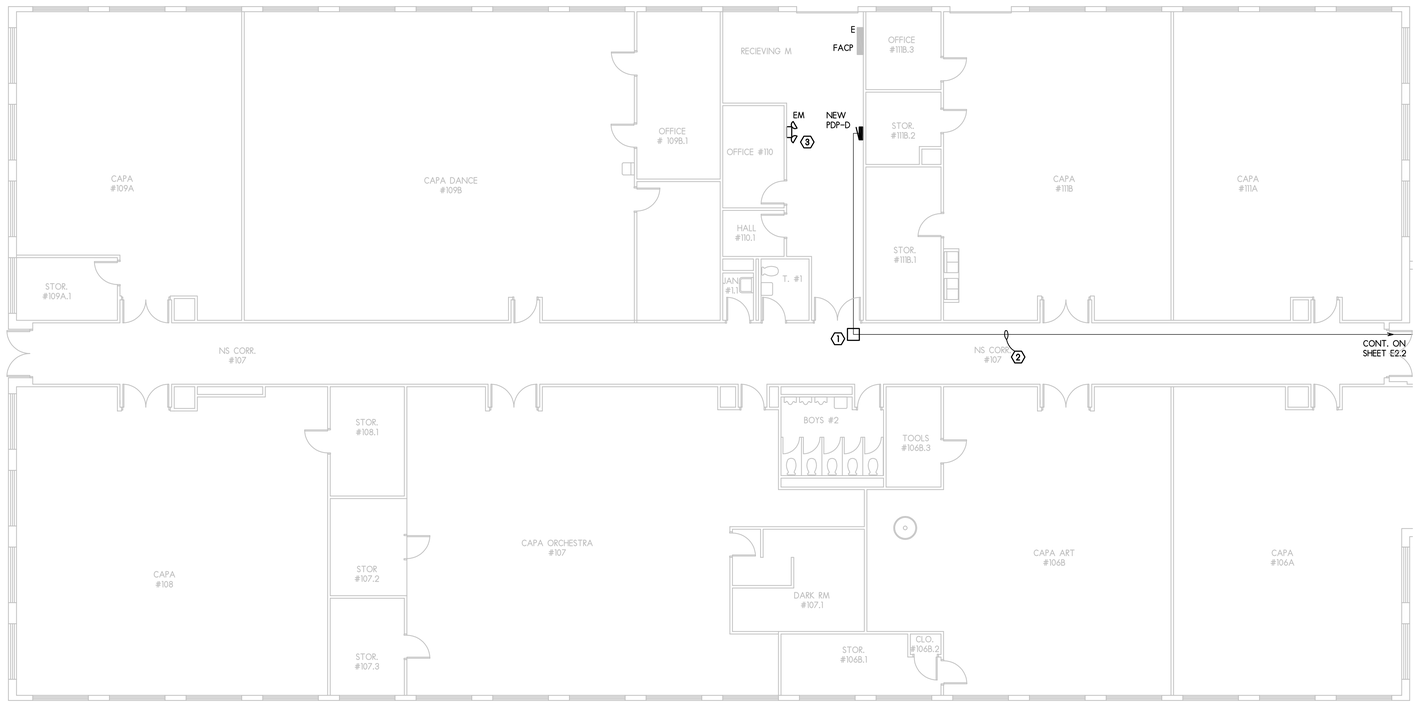
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT #205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	APPROVED BY: RAS

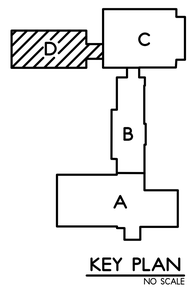
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E2.3

KEYED NOTES:

1. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
2. SURFACE MOUNTED RACEWAY AT CEILING LEVEL.
3. PROVIDE AND INSTALL NEW EM LIGHT. SEE LIGHT FIXTURE SCHEDULE. CIRCUIT TO ROOM LIGHTING CIRCUIT AND AHEAD OF ANY LOCAL SWITCHING. FIELD LOCATE WITH ARCHITECT/ENGINEER FOR OPTIMUM LOCATION.



1 FIRST FLOOR SECTION D NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL – FIRST FLOOR DEMO & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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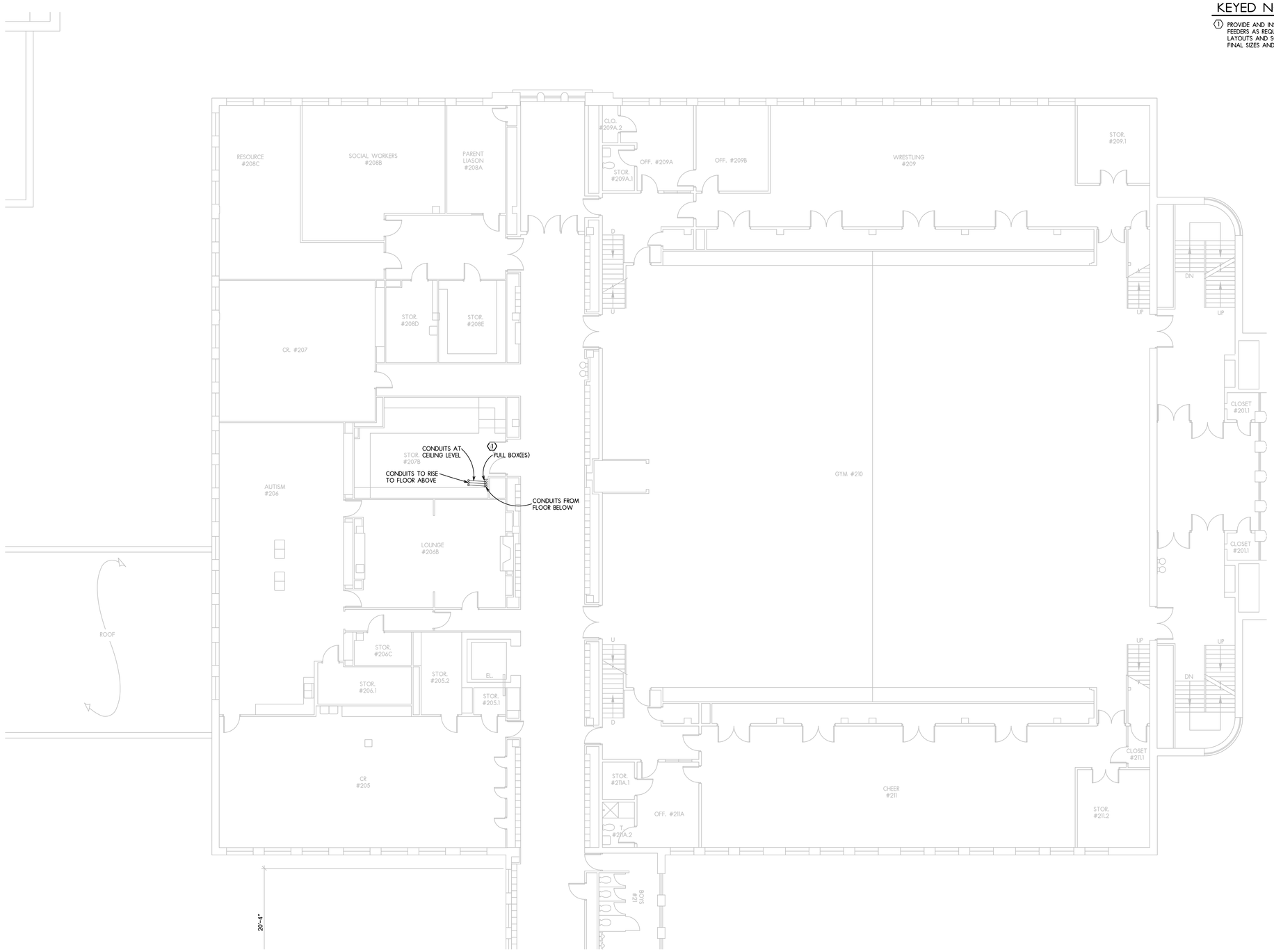
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY:	JJ	CHECKED BY:	RAS
		APPROVED BY:	

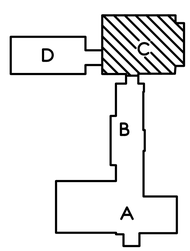
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E2.4

KEYED NOTES:

1. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.



1 SECOND FLOOR SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - SECOND FLOOR NEW WORK PLANS

SCALE: 1/8" = 1'-0"

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WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
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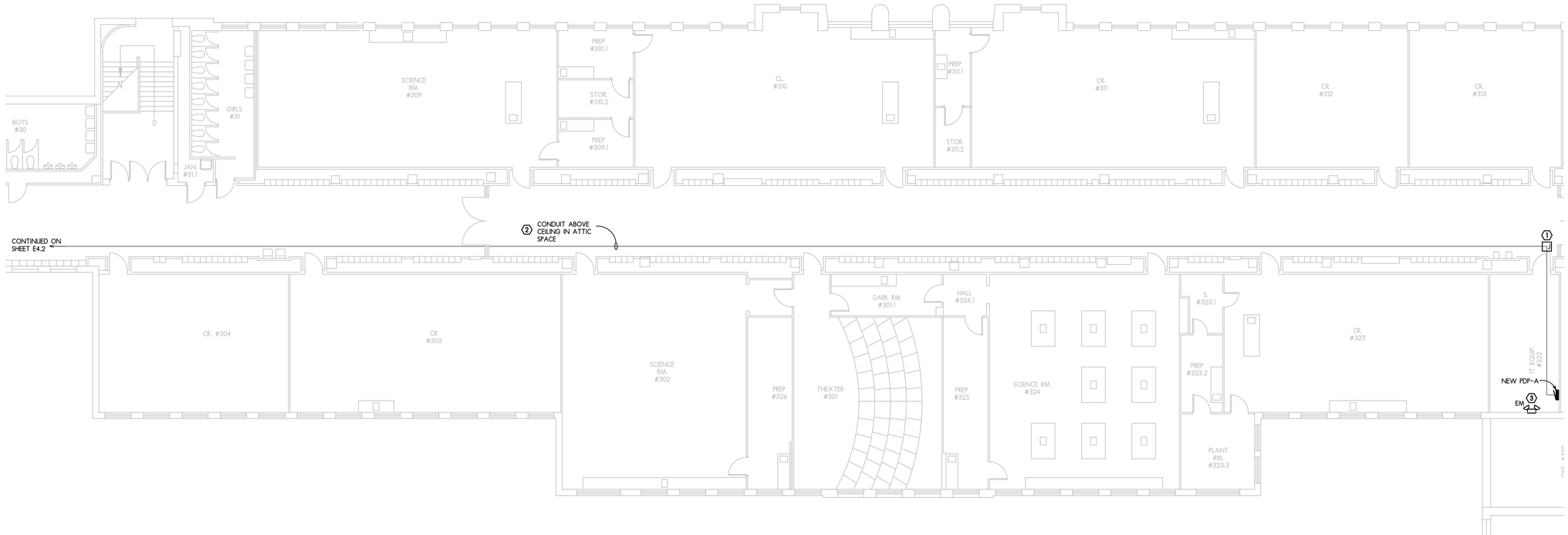
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: EP	CHECKED BY: AB	APPROVED BY:	

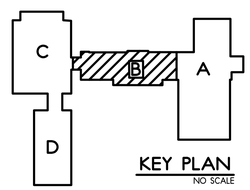
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E3.1

KEYED NOTES:

1. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
2. CONDUITS SHALL BE ROUTED ABOVE CEILING IN ATTIC SPACE.
3. PROVIDE AND INSTALL NEW EM LIGHT. SEE LIGHT FIXTURE SCHEDULE. CIRCUIT TO ROOM LIGHTING CIRCUIT AND AHEAD OF ANY LOCAL SWITCHING. FIELD LOCATE WITH ARCHITECT/ENGINEER FOR OPTIMUM LOCATION.



1 THIRD FLOOR SECTION B NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL – THIRD FLOOR NEW WORK PLANS

SCALE: 1/8" = 1'-0"

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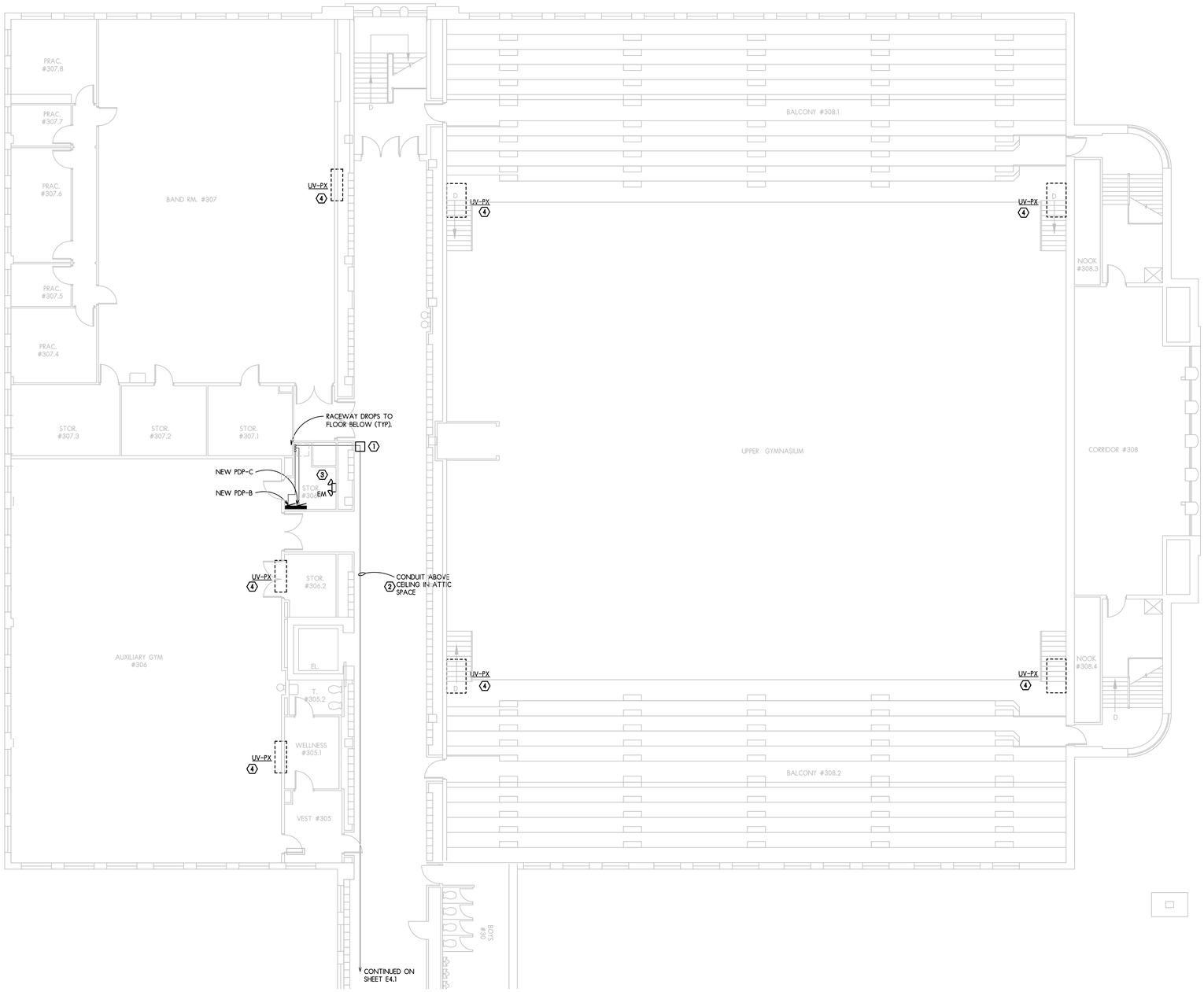
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	01-21-22	ISSUED FOR:	BIDDING
DRAWN BY: JJ	CHECKED BY: RAS	APPROVED BY:	

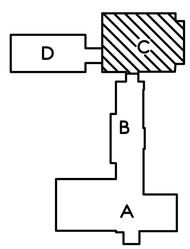
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E4.1

KEYED NOTES:

1. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
2. CONDUITS SHALL BE ROUTED ABOVE CEILING IN ATTIC SPACE.
3. PROVIDE AND INSTALL NEW EM LIGHT. SEE LIGHT FIXTURE SCHEDULE. CIRCUIT TO ROOM LIGHTING CIRCUIT AND AHEAD OF ANY LOCAL SWITCHING. FIELD LOCATE WITH ARCHITECT/ENGINEER FOR OPTIMUM LOCATION.
4. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT TO BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.



1 THIRD FLOOR SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - THIRD FLOOR DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

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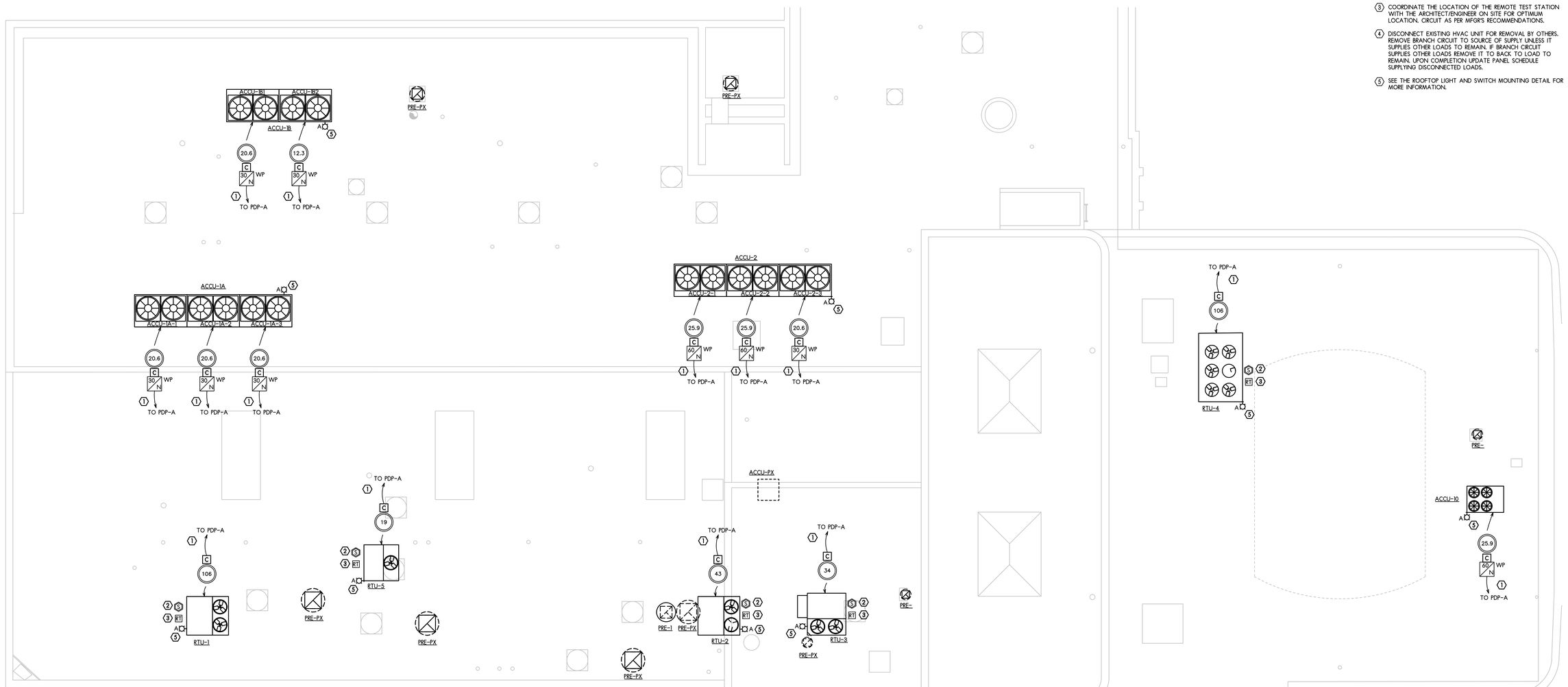
		CHECKED BY:	APPROVED BY:
DRAWN BY:	JJ		RAS

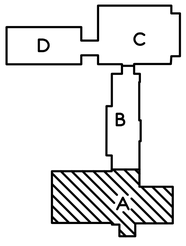
DATE: 01-21-2022
PROJECT NUMBER 31029-01
SHEET NUMBER E4.2

KEYED NOTES:

1. PROVIDE AND INSTALL A NEW BRANCH CIRCUIT FROM THE INDICATED PANEL TO THE UNIT. FIELD COORDINATE ROUTING OF BRANCH CIRCUIT AND CONCEAL AS MUCH AS POSSIBLE. ALL SURFACE RACEWAY SHALL BE COORDINATED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
2. THE INDICATED HVAC UNIT WILL BE PROVIDED WITH A RETURN SMOKE DETECTOR AND THE MC WILL PROVIDE THE REMOTE TEST STATION TO THE EC FOR INSTALLATION. ALL WIRING OF DETECTOR AND REMOTE TEST STATION WILL BE BY THE EC.
3. COORDINATE THE LOCATION OF THE REMOTE TEST STATION WITH THE ARCHITECT/ENGINEER ON SITE FOR OPTIMUM LOCATION. CIRCUIT AS PER MFGR'S RECOMMENDATIONS.
4. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT TO BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.
5. SEE THE ROOFTOP LIGHT AND SWITCH MOUNTING DETAIL FOR MORE INFORMATION.



1 ROOF SECTION A NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL – ROOF DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

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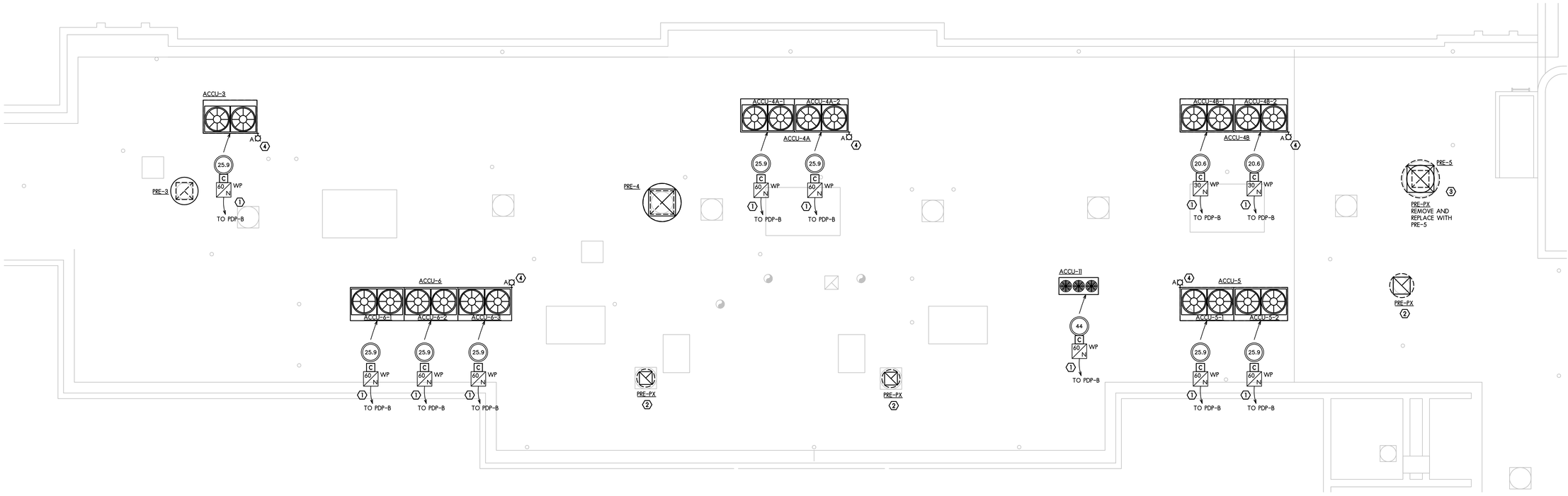
WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 – PROJECT #2242 – IFB #22-22
1900 N ROCKTON AVE, ROCKFORD IL, 61103

ISSUED FOR:	BIDDING
ISSUED FOR:	01-21-22
DRAWN BY:	EP
CHECKED BY:	
APPROVED BY:	AB

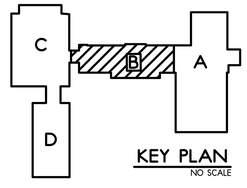
DATE:	01-19-2021
PROJECT NUMBER	31029-01
SHEET NUMBER	E5.1

KEYED NOTES:

1. PROVIDE AND INSTALL A NEW BRANCH CIRCUIT FROM THE INDICATED PANEL TO THE UNIT. FIELD COORDINATE ROUTING OF BRANCH CIRCUIT AND CONCEAL AS MUCH AS POSSIBLE. ALL SURFACE RACEWAY SHALL BE COORDINATED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
2. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT TO BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.
3. DISCONNECT EXISTING HVAC UNIT FOR REPLACEMENT BY OTHERS. UPON INSTALLATION COMPLETION OF REPLACEMENT UNIT RECONNECT AS EXISTING AS REQUIRED.
4. SEE THE ROOFTOP LIGHT AND SWITCH MOUNTING DETAIL FOR MORE INFORMATION.



1 ROOF SECTION B NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - ROOF DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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WEST MIDDLE SCHOOL HVAC SYSTEM UPGRADES
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1900 N ROCKTON AVE, ROCKFORD IL, 61103

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01-21-22	BIDDING		
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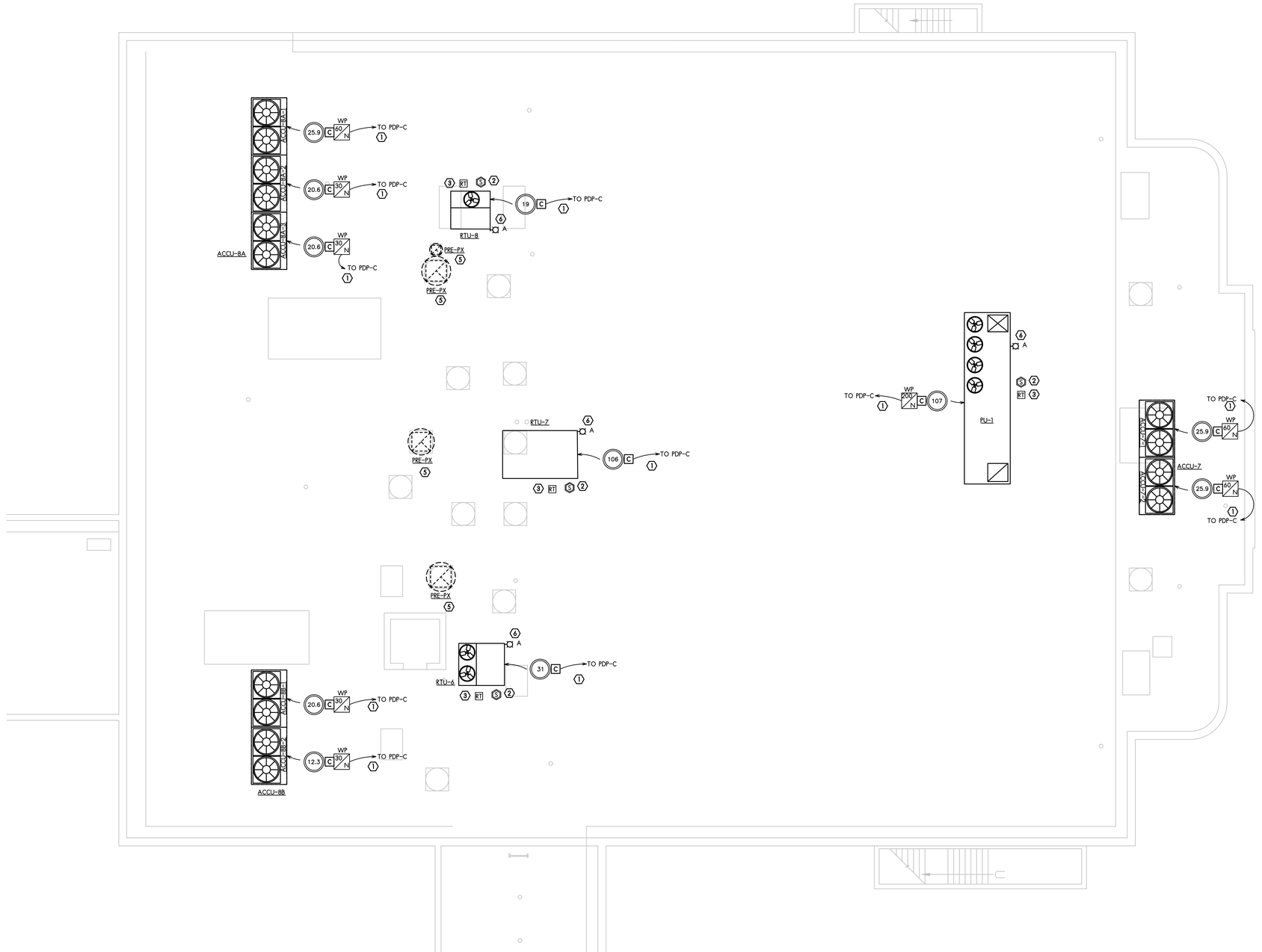
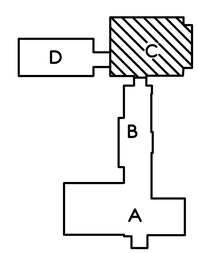
DATE: 01-19-2021
PROJECT NUMBER 31029-01
SHEET NUMBER E5.2

KEYED NOTES:

1. PROVIDE AND INSTALL A NEW BRANCH CIRCUIT FROM THE INDICATED PANEL TO THE UNIT. FIELD COORDINATE ROUTING OF BRANCH CIRCUIT AND CONCEAL AS MUCH AS POSSIBLE. ALL SURFACE RACEWAY SHALL BE COORDINATED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
2. THE EC SHALL PROVIDE THE DUCT SMOKE DETECTOR TO THE MC FOR INSTALLATION INTO THE RETURN. THE EC SHALL CIRCUIT THE DETECTOR TO THE F.A. PANEL LOCATED IN THE RECEIVING ROOM, (SEE SHEET E2.4 FOR LOACTION)COORDINATE WITH THE F.A. EQUIPMENT MANUFACTURER. THE TCC SHALL CIRCUIT THE DETECTOR FOR FAN SHUT DOWN. THE EC SHALL COORDINATE WITH THE MC AND THE TCC.
3. COORDINATE THE LOCATION OF THE REMOTE TEST STATION WITH THE ARCHITECT/ENGINEER ON SITE FOR OPTIMUM LOCATION. CONDUIT AS PER MFGR'S RECOMMENDATIONS.
4. PROVIDE AND INSTALL JUNCTION/PULL BOX(ES) IN NEW FEEDERS AS REQUIRED BASED UPON FINAL FEEDER ROUTING LAYOUTS AND SO AS TO COMPLY WITH NEC 300.15 & 314.16. FINAL SIZES AND QUANTITY SHALL BE FIELD DETERMINED.
5. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT TO BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.
6. SEE THE ROOFTOP LIGHT AND SWITCH MOUNTING DETAIL FOR MORE INFORMATION.



1 ROOF SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - ROOF DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

North

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PROJECT NUMBER 31029-01
SHEET NUMBER E5.3

KEYED NOTES:

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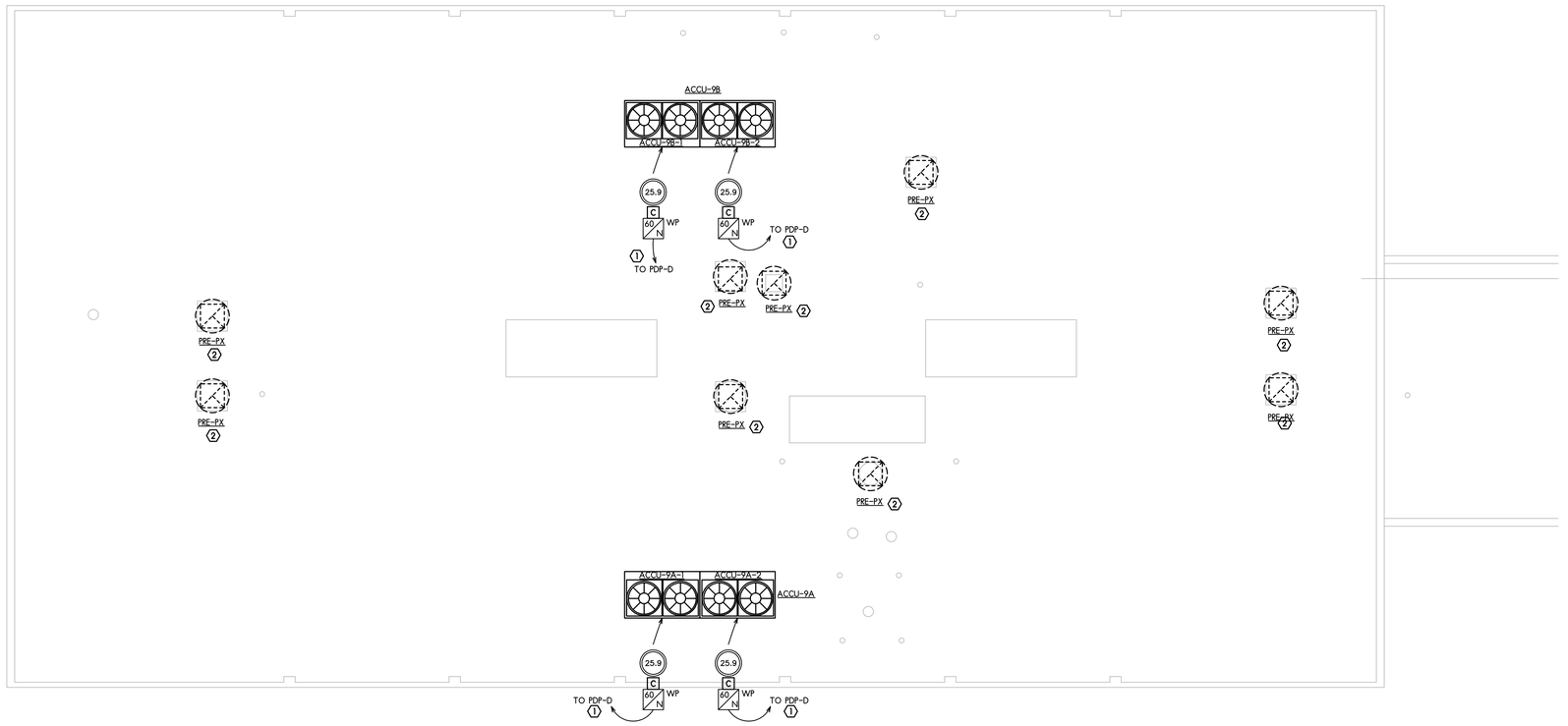
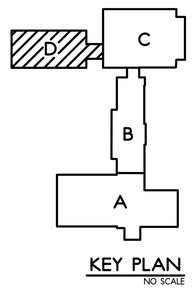
2. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY OTHERS. REMOVE BRANCH CIRCUIT TO SOURCE OF SUPPLY UNLESS IT SUPPLIES OTHER LOADS TO REMAIN. IF BRANCH CIRCUIT SUPPLIES OTHER LOADS REMOVE IT TO BACK TO LOAD TO REMAIN. UPON COMPLETION UPDATE PANEL SCHEDULE SUPPLYING DISCONNECTED LOADS.



1 ROOF SECTION C NEW WORK PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

ELECTRICAL - ROOF DEMOLITION & NEW WORK PLANS

SCALE: 1/8" = 1'-0"

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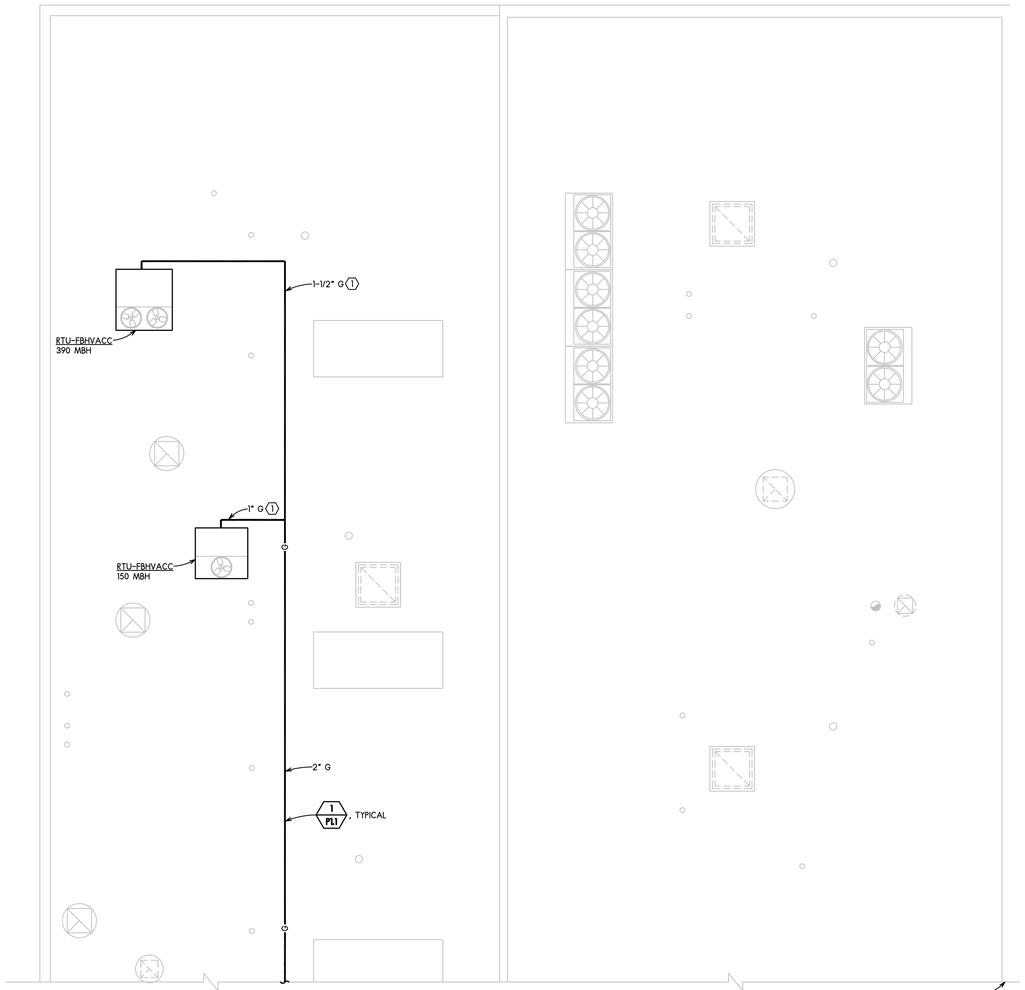
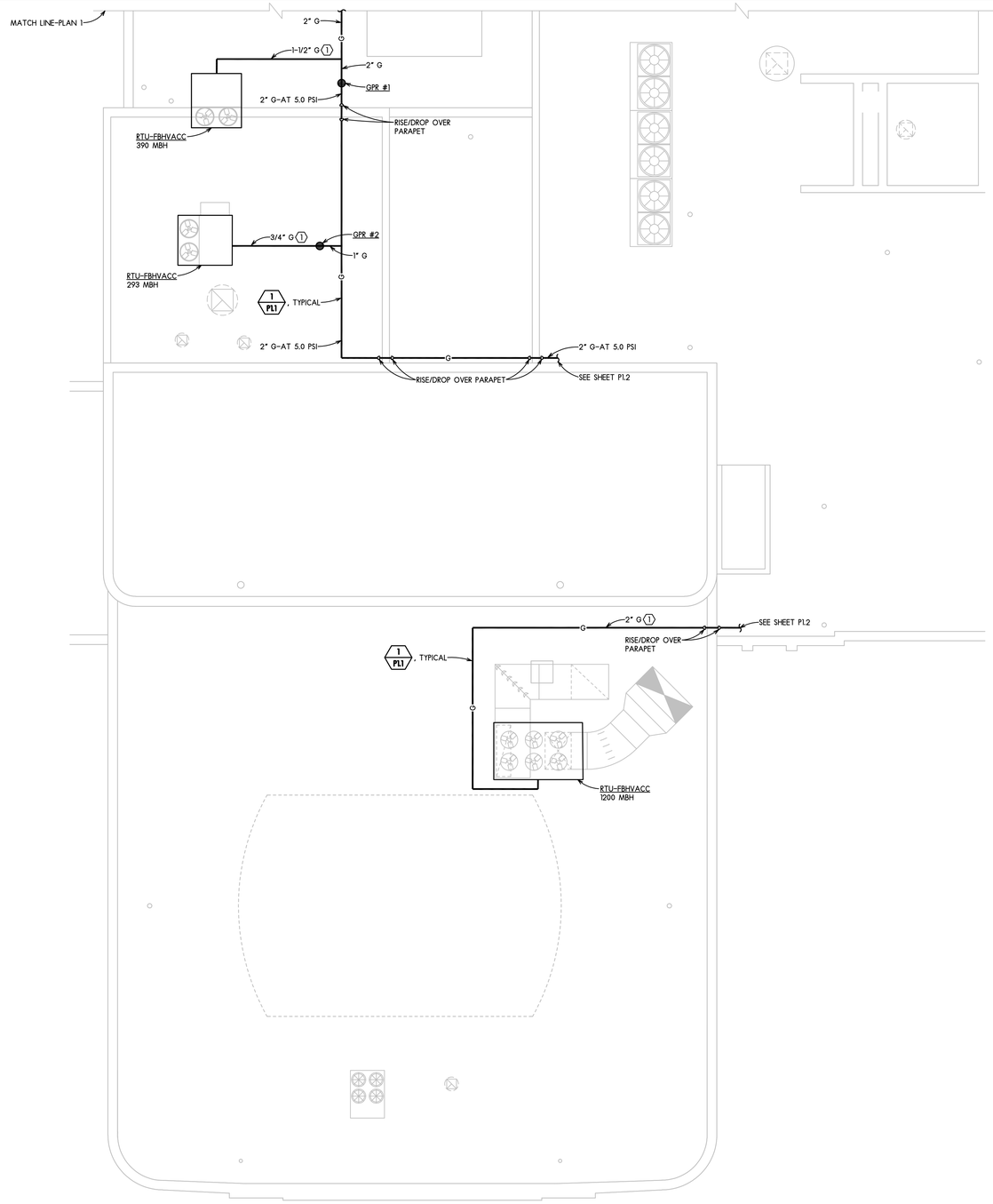


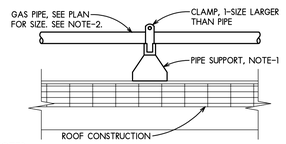
AREA 'A' PLUMBING ROOF FLOOR PLAN

1 SCALE: 1/8" = 1'-0"



AREA 'A' PLUMBING ROOF FLOOR PLAN

2 SCALE: 1/8" = 1'-0"



NOTES:

1. PIPE SUPPORT SHALL BE 100% RECYCLED RUBBER WITH 14 Ga. GALVANIZED, STEEL CHANNEL. MIFAB MODEL C410 OR EQUIVALENT. PIPING SHALL BE SUPPORTED AT MAXIMUM INTERVALS AS FOLLOWS: 1/2" - 6.0', 3/4" TO 1" - 8.0 FT., 1-1/4" OR LARGER - 10.0 FT.
2. ALL PIPING, CLAMPS AND OTHER METALLIC SURFACES TO BE PRIMED AND PAINTED WITH A CORROSION INHIBITOR TYPE PRIMER AND PAINT. PIPING SHALL BE PAINTED YELLOW. PAINT TYPE AND APPLICATION METHOD SHALL BE APPROVED BY LOCAL CODE OFFICIAL.

1 GAS PIPING ON ROOF DETAIL

NO SCALE

GAS PRESSURE REGULATOR (GPR) SCHEDULE

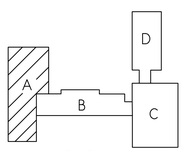
TAG	INPUT (MBH)	INLET PRESSURE	OUTLET PRESSURE	SIZE (INLETxOUTLET)
GPR #1	930	5.0 PSI	10" W.C.	2" x 2"
GPR #2	293	5.0 PSI	10" W.C.	1" x 3/4"
GPR #3	1200	5.0 PSI	10" W.C.	2" x 2"
GPR #4	293	5.0 PSI	10" W.C.	1" x 3/4"
GPR #5	1200	5.0 PSI	10" W.C.	2" x 1-1/4"
GPR #6	210	5.0 PSI	10" W.C.	1" x 3/4"

NOTES:

NOTE-1: GAS PRESSURE REGULATORS: SELF CONTAINED, SELF OPERATED, SPRING LOADED OR PRESSURE LOADED REGULATOR. UNIT TO HAVE AN INTERNAL RELIEF TO MINIMIZE OVER-PRESSURE AND SHALL ALLOW EXCESS PRESSURE TO BLEED OUT THROUGH THE SCREENED SPRING CASE VENT. REGULATOR SHALL HAVE VALVES BEFORE AND AFTER AND WITH UNION ON INLET SIDE. REGULATOR SHALL BE SUITABLE FOR NATURAL GAS AT 0.60 SPECIFIC GRAVITY. ACCEPTABLE MANUFACTURERS: DRESSER, EQUIMETER, FISHER OR ROCKWELL-NORDSTROM.

NOTES:

1. CONNECT TO GAS-FIRED EQUIPMENT WITH SHUT-OFF VALVE, UNION AND DIRT LEG. COORDINATE EXACT LOCATION IN FIELD.



KEY PLAN

PLUMBING AREA 'A' - ROOF FLOOR PLANS

SCALE: AS NOTED

North

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Architecture Engineering Interiors

WEST MIDDLE SCHOOL POOL HVAC SYSTEM UPGRADES
RPS DISTRICT 205 - PROJECT #2242 - IFB #22-22
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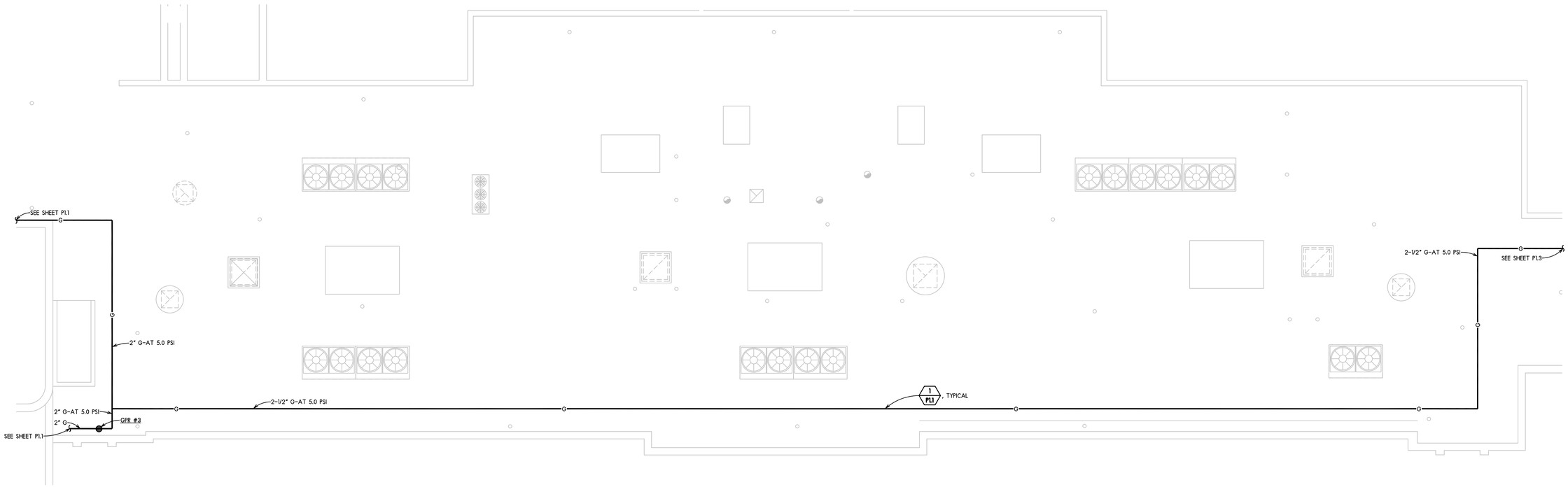


PLUMBING GENERAL NOTES:

1. DRAWINGS ARE GENERALLY DIAGRAMMATIC. EACH CONTRACTOR SHALL MAKE REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND THE BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
2. EACH CONTRACTOR SHALL CHECK DRAWINGS OF THE OTHER CONTRACTORS TO VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED IS CLEAR OF OBSTRUCTIONS. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION.
3. WHERE THERE IS EVIDENCE THAT THE WORK OF ONE CONTRACTOR WILL INTERFERE WITH THE WORK OF OTHER CONTRACTORS, EACH CONTRACTOR SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE SATISFACTORY ADJUSTMENTS.
4. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAINTED SAME AS NEW CONSTRUCTION.
5. THESE DRAWINGS ARE BASED UPON INFORMATION OBTAINED FROM THE ORIGINAL DRAWINGS AND BY VISUAL SURVEY WHERE POSSIBLE. THE CONTRACTOR SHALL CAREFULLY CONSIDER ALL INFORMATION PRESENTED ON THESE DRAWINGS AND SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS
6. CONTRACTOR IS ALLOWED TO MAKE MINOR CHANGES TO PIPING, ETC. FROM THAT SHOWN ON DRAWINGS AS REQUIRED TO AVOID FIELD CONFLICTS AT NO ADDITIONAL COST TO THE OWNER AND AS LONG AS THE RELOCATION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM.
7. THE PRESENT PLUMBING SYSTEMS OF ANY TYPE, INCLUDING UTILITY SERVICES, SHALL NOT BE INTERRUPTED EXCEPT AS DIRECTED BY THE OWNER ANDTHE UTILITY COMPANY. WHEN SUCH INTERRUPTIONS ARE ALLOWED, THE SYSTEM SHALL BE PUT BACK INTO OPERATION AS SOON AS POSSIBLE, BUT NO LATER THAN AT THE END OF THE NORMAL WORKING DAY, UNLESS SPECIFIC DIRECTION IS OTHERWISE GIVEN.
8. CONTRACTOR SHALL VERIFY ALL PRESENT CONDITIONS INCLUDING, BUT NOT LIMITED TO, PIPE SIZES, LOCATIONS, INVERTS, TEMPERATURES, ELEVATIONS, PRESSURES, ETC. PRIOR TO START OF CONSTRUCTION AND MAKE MODIFICATIONS FOR WORK SHOWN AS REQUIRED TO ACCOMMODATE PRESENT OR NEW CONSTRUCTION. ALL AT NO INCREASE IN CONTRACT PRICE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK.
10. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS INDICATING THE LOCATION OF ALL PLUMBING SYSTEMS NOTED HEREIN.
11. CONTRACTOR SHALL INSTALL HIS WORK IN ACCORDANCE WITH ALL LAWS, RULES, REGULATIONS, CODES, ETC. PER ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.
12. CONTRACTOR SHALL WARRANTY HIS SYSTEMS FOR A PERIOD OF ONE (1) YEAR.
13. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT ITEMS.
14. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTIONS, ETC. AS REQUIRED FOR HIS WORK.
15. CONTRACTOR SHALL TEST ALL SYSTEMS PER APPLICABLE CODE.
16. ALL GAS PIPING FITTINGS FOR SYSTEMS OPERATING AT A PRESSURE OF 1.0 PSI AND GREATER SHALL BE WELDED.
17. ALL GAS PIPING FITTINGS FOR PIPING LARGER THAN 2" SHALL BE WELDED.
18. ALL GAS PIPING INSTALLED ON THE ROOFTOP SHALL BE PAINTED YELLOW.
19. CERTAIN PREFIXES OR LINE SYMBOLS, WHEN APPLIED TO PRESENT LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS.

    NC: NEW CONNECTION TO EXISTING EQUIPMENT OR MATERIAL.

    P: PRESENT, TO REMAIN UNCHANGED.

    PX: PRESENT, TO BE COMPLETELY REMOVED INCLUDING UNNEEDED CONNECTIONS, PIPING, DUCTWORK, CONTROL WIRING, THERMOSTATS, BASES, ETC. OF EVERY KIND. PIPING SHALL BE REMOVED SUCH THAT NO DEAD-ENDS ARE LEFT ON THE WATER SYSTEMS. UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW WORK. OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC. TO EQUAL ORIGINAL CONDITION. REMOVED MATERIALS SHALL NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ARCHITECT/ENGINEER.

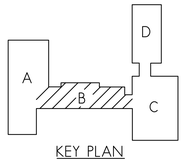
    VL: VERIFY EXACT LOCATION IN FIELD. THIS NOTE APPLIES TO ALL PRESENT OR EXISTING UTILITIES AND CONSTRUCTION WHETHER CALLED FOR OR NOT.

PLUMBING ABBREVIATIONS

MARK	DESCRIPTION	MARK	DESCRIPTION
FBHVACC	FURNISHED BY HVAC CONTRACTOR	P	PRESENT
FFB	FROM FLOOR BELOW	PL	PLUG VALVE
G	GAS	RTU	ROOF-TOP UNIT
GPR	GAS PRESSURE REGULATOR	UG	UNDERGROUND
NC	NEW CONNECTION	VL	VERIFY LOCATION

PLUMBING SYMBOLS

ABBREVIATION	SYMBOL	DESCRIPTION
G	G	GAS PIPE
		RISE TO OR FROM FLOOR ABOVE - TEE
		RISE TO OR FROM FLOOR ABOVE - ELBOW
		RISE OR DROP - ELBOW
NC	NC	NEW CONNECTION
PL		PLUG VALVE
PL-P		PLUG VALVE - PRESENT
GPR		GAS PRESSURE REGULATOR



KEY PLAN

PLUMBING
AREA 'B' - ROOF FLOOR PLAN

SCALE: 1/8" = 1'-0"

North

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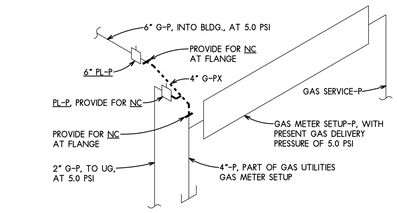
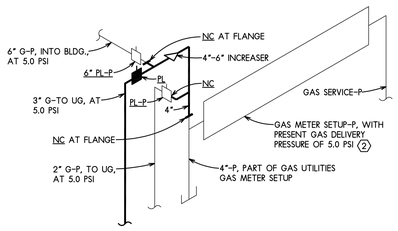
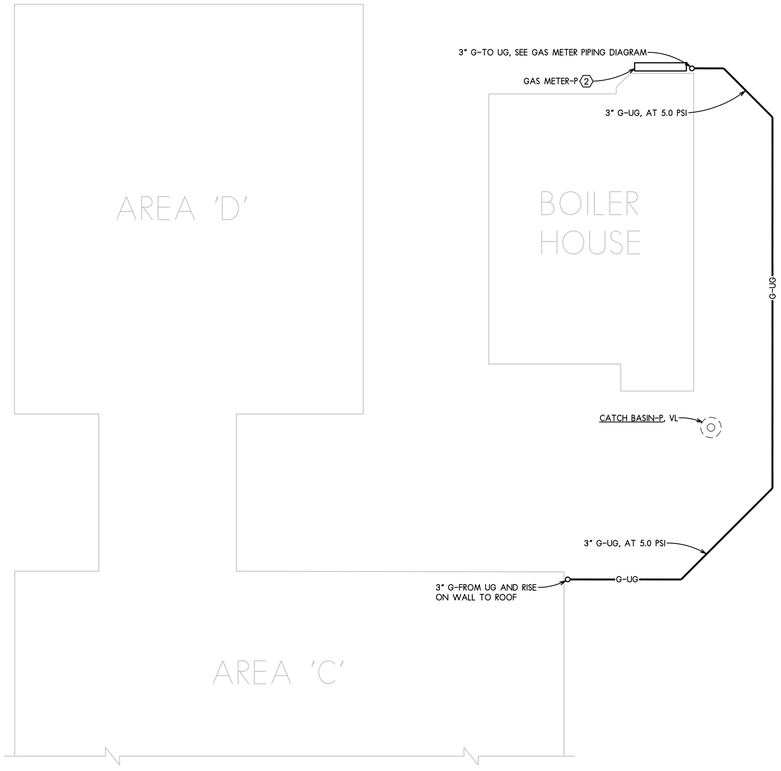


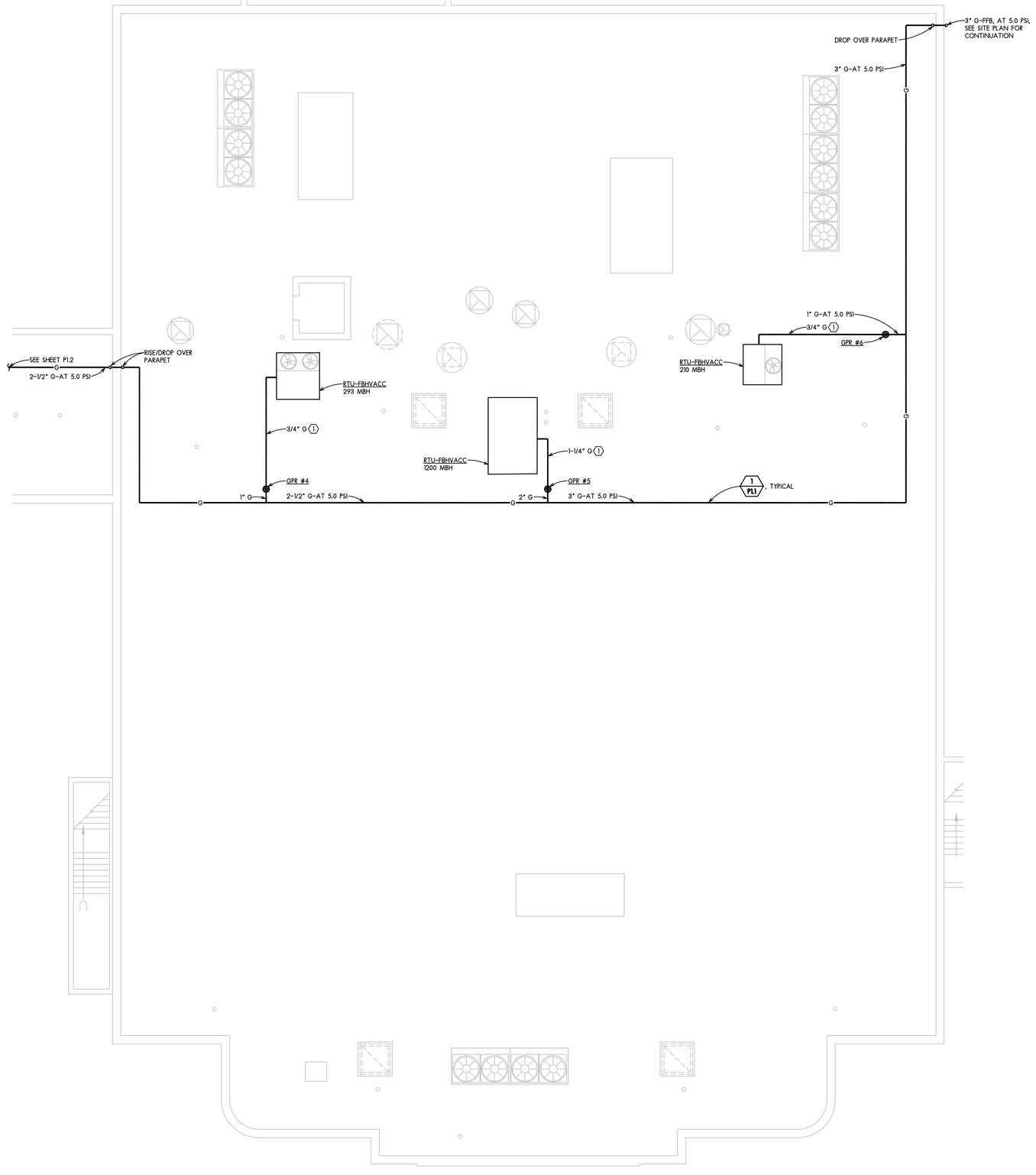
1 DEMOLITION GAS METER PIPING DIAGRAM
NO SCALE



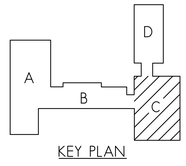
2 GAS METER PIPING DIAGRAM
NO SCALE



1 PLUMBING SITE PLAN
SCALE: 1/16" = 1'-0"



2 PLUMBING AREA 'C' - ROOF FLOOR PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN

NOTES:

1. CONNECT TO GAS-FIRED EQUIPMENT WITH SHUT-OFF VALVE, UNION AND DIRT LEG. COORDINATE EXACT LOCATION IN FIELD.
2. CONTRACTOR SHALL COORINATE WITH GAS UTILITY AND PROVIDE ALL NECESSARY FORMS REQUIRED TO PROVIDE FOR ADDITIONAL GAS LOAD OF 4126 MBH. PRESESNT GAS SYSTEM OPERATING PRESSURE IS 5.0 PSI AND SHALL REMAIN THE SAME.

PLUMBING AREA 'C' - ROOF FLOOR PLAN AND SITE PLAN

SCALE: AS NOTED

North

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