

NORTH STRATFIELD ELEMENTARY SCHOOL 190 PUTTING GREEN RD,

BL PROJECT No.: 2300053

Architecture Engineering Environmental Land Surveying
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PREPARED FOR:
CONSULTANTS:

Issues / Revisions					
No.	Date	Description			
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Seals:					
95%					
	CONSTRUCTION				
	DOCUMENTS				

G000

heet No.

COVER

ABBREVATIONS:	
ABBREVATIONS:	AMERICAN ASSOCIATION OF STATE HIGHWAY
AASHTO	TRANSPORTATION OFFICIALS
A.B.	ANCHOR BOLT OR ANCHOR ROD
A.A.S.	ADHESIVE ANCHORING INSTITUTE
ACI	AMERICAN CONCRETE INSTITUTE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFPA	AMERICAN FOREST AND PAPER ASSOCIATION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT.	ALTERNATE
ALUM	ALUMINUM
ANCH.	ANCHOR OR ANCHORAGE
ARCH.	ARCHITECTURAL OR ARCHITECT
ASD	ALLOWABLE STRESS DESIGN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B, BOTT.	BOTTOM
B/, B.O.	BOTTOM OF
BLDG.	BUILDING
BM.	BEAM
B.O.F.	BOTTOM OF FOOTING
B.O.S.	BOTTOM OF STEEL
BRG.	BEARING
B/S	BOTH SIDES
CF CFMF C.G. C.I.P. C.J. CLR. CMU C.O. COL. CONC. CONC. CONST. CONST. JT. CONST	COLD-FORMED COLD-FORMED METAL FRAMING CENTER OF GRAVITY CAST IN PLACE CONTROL JOINT CLEAR CONCRETE MASONRY UNIT CLEAN OUT COLUMN CONCRETE CONNECTION CONSTRUCTION CONSTRUCTION CONSTRUCTION JOINT CONSTRUCTION JOINT CONTINUOUS CONCRETE REINFORCING STEEL INSTITUTE CENTER COORDINATE WITH ARCHITECTURAL DRAWINGS
D-B DEPR. DET. DIA. DIM. DIR. DN D.O. D.O.T. DWG. DWL.	DESIGN BUILD DEPRESSION DEPARTMENT DETAIL DIAMETER DIMENSION DIRECTION DOWN DITTO (SAME AS ABOVE) DEPARTMENT OF TRANSPORTATION DRAWING DOWEL(S)
EL., ELEV. ELEC. EMBED. ENGR. E.O.D. E.O.S. EQ. E.W. EX., EXIST. EXP.	EACH FACE ELEVATION ELECTRICAL EMBEDMENT ENGINEER EDGE OF DECK EDGE OF STEEL EQUAL
F.D.	FLOOR DRAIN
F.F.	FAR FACE
FND.	FOUNDATION
FIN.	FINISH
FL.	FLOOR
FLG.	FLANGE
F.M.	FACTORY MUTUAL
F.S.	FAR SIDE
FT.	FEET OR FOOT
FTG.	FOOTING
F.O.W.	FACE OF WALL
GA.	GAUGE
G.B.	GRADE BEAM
GALV.	GALVANIZED
G.C.	GENERAL CONTRACTOR
GEN., GENL	GENERAL
GR.	GRADE
HDR.	HEADER
Hor., Horiz.	HORIZONTAL
H.P.	HIGH POINT
H.S.	HIGH STENGTH
HSS	HOLLOW STRUCTURAL SECTION
HT.	HEIGHT
ICC	INTERNATIONCODE COUNCIL
I.D.	INSIDE DIAMETER
I.F.	INSIDE FACE
IN.	INCH OR INCHES
INCL.	INCLUDING
INFO	INFORMATION
INT.	INTERIOR
INV.	INVERT
JST.	JOIST
JT.	JOINT

SYMBOL LEGEND				
	SLOPED FOOTING. SEE SLOPED FOOTING DETAILS.			
K.B.	KNEE BRACE (SEE PLAN FOR SIZE)			
	STRUCTURAL STEEL BRACE FRAME. SEE BRACE FRAME ELEVATIONS.			
R.F.	STEEL FRAME IN ROOF OPENING. SEE DETAILS.			
F-1	TYPE OF FLOOR OR ROOF DECK AND DIRECTION OF SPAN.			
777777	DEPRESSION IN FLOOR SLAB			
	BEAM TO BEAM MOMENT SPLICE. SEE DETAILS.			
x=X/X"	UPWARD CAMBER TO WHICH BEAMS ARE TO BE FABRICATED.			
XXk	UN-FACTORED BEAM REACTION IN KIPS TO BE USED TO DESIGN CONNECTIONS (AISC ASD CRITERIA; 10 KIP MINIMUM REACTION).			
[+/-X'-X"]	ELEVATION OF STEEL BEAM ABOVE OR BELOW REFERENCED DATUM.			
W16	BEAM AT LEVEL BELOW			
⊢►	BEAM-TO-COLUMN MOMENT CONNECTION. SEE DETAILS.			
Px	PIER OR PILASTER TYPE. SEE DETAILS.			
Fx	FOOTING TYPE. SEE SCHEDULE FOR FOOTING SIZE AND REINFORCING.			
(XX'-X")	BOTTOM OF FOOTING ELEVATION			
Т-Х	PREFABRICATED COLD-FORMED STEEL TRUSS. SEE TRUSS ELEVATIONS.			
TG-X	PREFABRICATED COLD-FORMED STEEL TRUSS GIRDER. SEE TRUSS ELEVATIONS			
C.J	CONCRETE SLAB CONTROL JOINT.			
(XX)	QUANTITY OF 3/4" DIA. x 4" LONG U.O.N. WELDED-HEADED STUD SHEAR CONNECTIONS TO BE EVENLY SPACED.			

KIP (1000 LBS.) **KIPS PER LINEAR FOOT KIPS PER SQUARE FOOT** KIPS PER SQUARE INCH ANGLE BRACE (ALSO SEE SYMBOLS) LONG LEG HORIZONTAL LONG LEG VERTICAL LOCATION LOW POINT LIGHT WEIGHT

KLF

KSF

KSI

L.B.

LLH

LLV

LOC.

L.W.

MAS.

MATL.

MAX.

MECH.

M/E/P

MEZZ.

MID-PT

MID.

MIN.

MM

М.О.

MTL

N.F.

NFPA

N.I.C.

NO.

N.S.

N.T.S.

N.W.

0.C

O.D

0.F

0.H.

O/H

OPNG.

OPP.

P.A.F.

PART.

PCA

PCI

P/C

PEN.

PSF

PSL

PTD.

PVC

R/C R.C.P.

R.D.

REF.

REINF

REQ'D

RET.

RF

RFT.

R.O.

SDI

SECT.

SHTG.

S.O.G.

SPA.

STD.

STIFF.

T/, T.O.

T&B

TEMP.

THK.

THRD.

THRU

T.O.C. T.O.S.

T.O.W.

TS

TSF

TYP.

U.O.N.

VERT.

V.I.F.

W.O.

W.P.

W.W.F.

STL.

SQ.

S.S.

SIM.

RTU

PLF, #/FT

PREFAB.

L.P.

MASONRY MATERIAL MAXIMUM MECHANICAL MECHANICAL/ELECTRICAL/PLUMBING MEZZANINE MIDDLE MIDPOINT MINIMUM MILLIMETER MASONRY OPENING

METAL

NEAR FACE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NUMBER NEAR SIDE NOT TO SCALE

NORMAL WEIGHT ON CENTER OUTSIDE DIAMETER OUTSIDE FACE **OPPOSITE HAND** OVERHANG

OPENING OPPOSITE POWER-ACTUATED FASTENER PARTIAL

PLATE PORTLAND CEMENT ASSOCIATION PRE-STRESSED CONCRETE INSTITUTE PRECAST CONCRETE PENETRATION

POUNDS PER SQUARE FOOT PREFABRICATED POUNDS PER SQUARE FOOT POINDS PER SQUARE INCH PARALLEL STRAND LUMBER

POINT PRESERVATIVE TREATED PAINTED POLYVINYL CHLORIDE RADIUS REINFORCED CONCRETE REINFORCED CONCRETE PIPE ROOF DRAIN REFERENCE REINFORCING REQUIRED

RETURN ROOF FRAME RAFTER ROUGH OPENING ROOF TOP UNIT

STEEL DECK INSTITUTE SECTION STEP FOOTING SHEATHING SIMII AR STEEL JOIST INSTITUTE SLOPING BEAM OR GIRDER

SLAB ON GRADE SPACES SQUARE STAINLESS STEEL STANDARD STEEL

STIFFENER TOP OF TOP AND BOTTOM TEMPORARY THICK OR THICKNESS THREADED THROUGH

TOP OF CONCRETE TOP OF STEEL TOP OF WALL TUBE STEEL TONS PER SQUARE FOOT TYPICAL

UNDERWRITER'S LABORATORIES UNLESS OTHERWISE NOTED VERTICAL VERIFY IN FIELD

WITH WINDOW OPENING WORKING POINT WELDED WIRE FABRIC



GENERAL NOTES:

ROOF LOADS:

WIND LOADS:

SEISMIC DESIGN CRITERIA:

SITE CLASS = "D"

Sds = 0.234 Sd1 = 0.087 SEISMIC DESIGN CATEGORY = "B"

WITH STATE AMENDMENTS.

PROCEED WITH THE AFFECTED WORK.

DETAILS SHOWN FOR SIMILAR CONDITIONS.

STRUCTURAL COMPONENTS ARE STABLE AND COMPLETED.

BOLTS, UNLESS SHOWN OTHERWISE.

DIMENSIONS. DETAILS, SIZES, AND GRADES OF STEEL MEMBERS AND CONNECTIONS, TYPE AND NUMBER OF

STEEL ROOF AND FLOOR DECK NOTES:

EXCEED 24" O.C. MAX.

DIRECTION.

PROVIDE FIELD TOUCH UP OF ALL WELDS IN DECK.

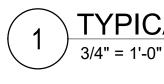
ANGLE FRAME SEE CHART FOR SIZE 9/16" DIA. HOLES @ 12"OC FOR CURB ATTACHMENT

CUT ROOF DECK IN HATCHED AREAS TO INSTALL ANGLE CLIPS.

<u>SPAN</u>		ANGLE SIZ	
UP TO 4'-0"		L 4 X 4 X 5	
4'-0" TO 6'-6"		L 4 X 4 X 3	
6'-6" TO 8'-0"		L 5 X 5 X 5/	
NOTES:			
1.	SEE ARC	CHITECTURA	

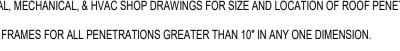
PROVIDE SUPPORT FRAMES FOR ALL PENETRATIONS GREATER THAN 10" IN ANY ONE DIMENSION

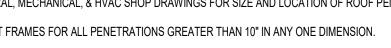
WHEREVER POSSIBLE LOCATE SUPPORT POINTS OF FRAMES OVER TOP CHORD PANEL POINTS. DETAIL IS FOR PENETRATIONS ONLY. ANGLES SHOWN DO NOT SUPPORT ROOF TOP MECHANICAL. EQUIPMENT.

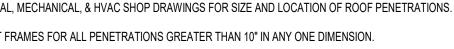


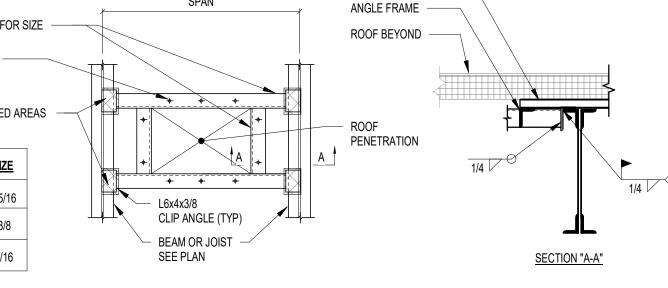
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TYPICAL ROOF SUPPORT AT DUCT PENETRATION









ROOF DECK -SEE PLAN

WHEN ROOF TOP MECHANICAL EQUPIMENT CURBS RUN PARALLEL TO THE DECK SPAN PROVIDE A FILLER MATERAL IN THE DECK SO THE CURB HAS FULL BEARING. PRESSURE TREATED, BEVELED TO FIT, DIMENSIONAL LUMBER SPANNING FROM STEEL FRAMING TO STEEL FRAMING. FASTEN CURB THROUGH FILLER MATERAL, THROUGH DECK, THROUGH STEEL FRAMING BELOW.

ALL ACCESSORIES TO THE STEEL DECK, INCLUDING EDGE ANGLES, POUR STOPS, COLUMN CLOSURES, END CLOSURES, COVER PLATES AND GIRDER FILLERS, SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE. STEEL ANGLE FRAMING SHALL BE PROVIDED FOR ALL OPENINGS IN ROOF DECK GREATER THAN 12" IN EITHER

SUPPORTS AT THE UNIT ENDS AND AT INTERMEDIATE SUPPORTS AS RECOMMENDED BY THE STEEL DECK

STEEL ROOF DECK SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS, AND SHALL BE FASTENED TO THE MANUFACTURER. MINIMUM ATTACHMENT REQUIREMENTS SHALL BE 5/8" DIA. PUDDLE WELDS IN 36/4 PATTERN AT EVERY SUPPORT AND 12" o.c. AT DECK PERIMETER WITH SIDELAPS OF (2) #10 TEK SCREWS PER SPAN NOT TO

NEAREST STRUCTURAL SUPPORT AND BE FASTENED ACCORDING TO THE MINIMUM REQUIREMENTS BELOW.

PROFILE OF THE EXISTING DECK IF POSSIBLE. PATCHES FOR EXISTING ROOF DECK SHALL EXTEND TO THE

WHERE REMOVAL OF EXISTING ROOF TOP MECHANICAL EQUPIMENT RESULTS IN DECK PATCHING, MATCH THE

STEEL ROOF DECK, UNLESS SPECIFIED OTHERWISE, SHALL BE 11/2" DEEP, 20 GAGE MINIMUM, TYPE "B" BY VULCRAFT OR APPROVED EQUAL. STEEL ROOF DECK SHALL BE GALVANIZED G90.

STEEL ROOF DECK SHALL CONFORM TO AISI SPECIFICATION FOR THE DESIGN OF LIGHT GAGE, COLD-FORMED STRUCTURAL STEEL MEMBERS AND THE STEEL DECK INSTITUTE'S DESIGN REQUIREMENTS.

INSPECT STEEL ERECTION FOR ORIENTATION AND PLUMBNESS. ALL STEEL CONNECTIONS SHALL BE DESIGNED BY THE STEEL FABRICATOR TO RESIST, AS A MINIMUM, THE REACTIONS SHOWN THUS XXk ON THESE DRAWINGS. REACTIONS NOT SHOWN SHALL BE DESIGNED TO RESIST 10 KIPS MINIMUM, SERVICE LOADS.

ALL STRUCTURAL STEEL ERECTION AND SHORING SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY RETAINED BY THE OWNER FOR THE FOLLOWING ITEMS: DECK WELDS TO SUPPORT STRUCTURE, SHEAR CONNECTORS, AND METAL DECK SIDE LAPS.

APPROVAL OF THE STRUCTURAL ENGINEER IS OBTAINED. VISUALLY INSPECT ALL CONNECTIONS, INCLUDING, BUT NOT LIMITED TO, BOLTS, WELDS, METAL

WELDS AND BOLTS, SHALL BE SUBMITTED FOR APPROVAL PRIOR TO THE FABRICATION OF THE STEEL COMPONENTS. THE STRUCTURAL STEEL SUBCONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING, VERIFICATION AND COORDINATION OF DIMENSIONS AND DETAILS WITH THE STRUCTURAL AND OTHER PORTIONS OF THE CONTRACT DRAWINGS. THE STEEL SUBCONTRACTOR SHALL NOT REPRODUCE ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR UTILIZATION AS SHOP DRAWINGS, UNLESS

STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED. FIELD FLAME CUTTING OF ANY STRUCTURAL MEMBERS IS NOT PERMITTED. ALL STEEL SHALL BE FABRICATED, ERECTED, AND TESTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" STRUCTURAL STEEL SHOP DRAWINGS, PREPARED BY THE STEEL SUBCONTRACTORS, SHOWING COMPLETE

ALL BOLTS, NUTS, AND WASHERS SHALL BE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS APPROVED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS. ANY STRUCUTRAL STEEL THAT DOES NOT RECEIVE SPRAY-APPLIED FIREPROOFING SHALL BE SHOP PRIMED (ONE COAT OF 2 MIL. DRY FILM, MIN.). SHOP PRIMER TO BE FABRICATOR'S STANDARD COLOR. ALL

ALL BOLTED CONNECTIONS SHALL BE BEARING TYPE, UTILIZING 3/4" DIA. ASTM A325-N TENSION CONTROL

ALL FIELD WELDS SHALL BE INSPECTED BY A CERTIFIED WELDING INSPECTOR.

AWS D1.1, LATEST EDITION. ALL WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS REQUIREMENTS.

ALL WELDS SHALL USE E70XX ELECTRODES AND CONFORM TO THE "STRUCTURAL WELDING CODE (STEEL)"

ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36.

INSPECTION REPORTS HAVE BEEN RECEIVED AND APPROVED BY THE ENGINEER.

ALL PLATE SHALL CONFORM TO ASTM A36.

THE STEEL FABRICATOR SHALL BE AISC CERTIFIED.

ALL MISCELLANEOUS STRUCTURAL STEEL SHALL CONFORM TO ASTM A36. ALL HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE B.

THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A992, EXCEPT AS MODIFIED BELOW:

STEEL SHALL CONFORM TO THE "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS", LASTEST EDITION, OF

STRUCTURAL STEEL NOTES:

ALL SPECIAL INSPECTION REPORTS PERFORMED IN ACCORDANCE WITH THE STATEMENT OF SPECIAL INSPECTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW IN A TIMELY MANNER. THE FINAL REPORT OF SPECIAL INSPECTIONS SHALL NOT BE ISSUED UNTIL ALL SPECIAL

TOPGRAPHICAL FACTOR, Kzt = 1.0 Ss = 0.219 S1 = 0.055 SEISMIC IMPORTANCE FACTOR, le = 1.25 SECTION 05 1200 -STRUCTURAL STEEL

SECTION INCLUDES

SUBMITTALS

MATERIALS

FABRICATION

Α.

PART 2 PRODUCTS

3.

PART 3 EXECUTION

FINISH

Α.

Β.

ERECTION

TOUCH-UP PAINTING

FIELD QUALITY CONTROL

TOLERANCES

END OF SECTION

Shop Drawings:

DELIVERY, STORAGE AND HANDLING

QUALITY ASSURANCE

REFERENCE STANDARDS

Structural steel framing members.

AISC (MAN) - Steel Construction Manual; 360-16

AISC S303 - Code of Standard Practice for Steel Buildings and Bridges; 2016.

ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.

ASTM F436 - Standard Specification for Hardened Steel Washers: 2011.

AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.

AISC S348 - Specification for Structural Joints Using ASTM A325 or A490 Bolts; 2014.

ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts; 2007a (Reapproved 2014).

AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.

Manufacturer's Mill Certificate: Certify that products meet or exceed specified requirements.

Fabricate structural steel members in accordance with AISC "Steel Construction Manual."

design of this work and licensed in the State in which the Project is located.

slabs. Store bolts and welding rods in original containers with labels intact.

matching compatible ASTM A563 or ASTM A563M nuts and ASTM F436 washers.

Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

Unfinished Bolts and Nuts: ASTM A 307, Grade A, regular low-carbon steel bolts and nuts.

Protect items from corrosion affecting structural strength and use.

Steel Angles, Plates, and Channels: ASTM A36/A36M.

minimize field handling of materials.

Connections: Weld or bolt shop connections as indicated.

Steel W Shapes: ASTM A992/A992M.

indicated on final shop drawings.

to facilitate verification inspection

welding work.

Surface Preparation:

strength bolted.

Shop Galvanizing:

ASTM A992/A992M - Standard Specification for Structural Steel Shapes; 2011 (Reapproved 2015).

ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2020.

ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2021.

ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength; 2014.

Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.

Design connections not detailed on the drawings under direct supervision of a Professional Structural Engineer experienced in

Store structural steel members at project site above ground on platforms or skids. Do not place in contact with earth or concrete

High-Strength Structural Bolts, Nuts, and Washers: ASTM A325 or ASTM A325M, Type 1, medium carbon, galvanized, with

Shop fabricate to greatest extent possible. Fabricate items of structural steel in accordance with AISC Specifications and as

finish surfaces of members exposed in final structure free of markings, burrs, and other defects.

Bolt field connections, except where welded connections or other connections are indicated.

Assemble and weld built-up sections by methods which will produce true alignment of axis without warp.

bearing plates. Remove burrs resulting from drilling operations.

wear clean gloves when handling blast cleaned steel.

Galvanize after fabrication to ASTM A123/A123M requirements.

alignment until completion of erection and installation of permanent bracing.

Do not field cut or alter structural members without approval of Engineer.

AWS D1.1 and ASTM E164, at 100% of full penetration welds.

Re-inspection shall be required for all non-conforming conditions.

Level and plumb individual members of structure within specified AISC tolerances.

Joints Using ASTM A325 or A490 Bolts", testing 100 percent of bolts at each connection.

CONCENTRATED

PROVIDE (2)-L2x2x1/4 FROM

CONCENTRATED LOAD POINT TO PANEL

★ INDICATES WHEN CONCENTRATED LOADS OCCUR AT A DISTANCE MORE THAN 4" FROM A PANEL

POINT PROVIDE AN ANGLE STRUT FROM POINT OF SUPPORT TO JOIST PANEL POINT.

2. CONCENTRATED LOADS FROM PIPES/CONDUITS LESS THAN 4" DIAMETER JOISTS DO NOT REQUIRE

POINT ON OPPOSITE SIDE OF JOIST

BAR JOIST

NOTES:

REINFORCING.

the shop coat and paint using identical primer.

Shop Galvanizing Schedule: Galvanize all exposed to weather structural steel, except:

Contact surfaces of welded connections and areas within 2" of field welds except as noted.

Erect structural steel in compliance with AISC "Code of Standard Practice for Steel Buildings and Bridges"

assembly. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

to Engineer. Finish gas-cut sections equal to a sheared appearance when permitted.

Level and plumb individual members of structure within specified AISC tolerances.

Splice members only where indicated and accepted on shop drawings.

Properly mark and match-mark materials for field assembly. Fabricate for delivery sequence which will expedite and

Holes for Other Work: Provide holes required for securing other work to structural steel framing, as shown on final shop drawings.

Where finishing is required, complete assembly, including welding of units, before start of finishing operations. Provide

Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within the previous 12 months.

Indicate cambers and loads. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

PART 1 GENERAL

ULTIMATE DESIGN WIND SPEED (3-SECOND GUST) = 130 MPH (APPENDIX P) IMPORTANCE FACTOR, Iw = 1.0 EXPOSURE = "B"

SNOW LOADS INCREASED FOR DRIFT, SLIDING, ETC. WHERE APPLICABLE. RISK CATEGORY III

THERMAL FACTOR, Ct = 1.0 IMPORTANCE FACTOR, Is = 1.1 CALCULATED FLAT ROOF SNOW LOAD. Pf = 23.1 PSF DESIGN SNOW LOAD, Pf = 30.0 PSF (PER CT MINIMUM)

LIVE LOAD = 20 PSF (MIN.) GROUND SNOW LOAD, Pg = 30 PSF (APPENDIX P) EXPOSURE FACTOR, Ce = 1.0

DESIGNED IN ACCORDANCE WITH THE 2022 CONNECTICUT STATE STATE BUILDING CODE, 2021 IBC.

IF ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THESE DRAWINGS AND/OR CONDITIONS

TYPICAL DETAILS AND NOTES SHOWN HEREIN SHALL APPLY UNLESS SPECIFICALLY SHOWN OR

IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE

GUYS OR TIE-DOWNS. THESE TEMPORARY SUPPORTS SHALL REMAIN IN PLACE UNTIL ALL

SHORING, BRACING AND FORMWORK, ETC., AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. THIS INCLUDES PROVIDING TEMPORARY BRACING, SHORING,

PROTECTION FOR THE PUBLIC, AND AS REQUIRED BY THE BUILDING INSPECTOR.

NOTED OTHERWISE. CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO

WORK AREAS SHALL BE MARKED, FENCED, AND OTHERWISE SECURED SO AS TO PROVIDE PROPER

SPECIFIED. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT

SECTION 05 3100 STEEL DECKING PART 1 GENERAL

SECTION INCLUDES 1. A. Roof deck.

- REFERENCE STANDARDS ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.
- AWS D1.1/D1.1M Structural Welding Code Steel 2020. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel 2018.
- SDI (DM) Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks 2007.
- SUBMITTALS A. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and
- accessories. Welding Procedure Specifications. QUALITY ASSURANCE

Welder Qualifications: Welding processes and welding operators gualified in accordance with AWS D1.1/D1.1M and AWS D1.3/D1.3M and dated no more than 12 months before start of scheduled welding work.

PART 2 PRODUCTS

3.

1.	MANUFACTURERS		
	Α.	Steel Deck:	

- Verco Decking, Inc Vulcraft
- New Millennium Building Systems STEEL DECK
- Roof Deck: Non-composite type, fluted steel sheet: Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS), with G90/Z275 galvanized coating. Grade 80ksi
- Span Design: Triple. Minimum Base Metal Thickness: 20 gauge
- Nominal Height: 1¹/₂ inch. FABRICATED DECK ACCESSORIES
- Sheet Metal Deck Accessories: Metal closure strips, wet concrete stops, and cover plates, 10 gage, 0.1382-inchthick sheet steel; of profile and size as indicated; finished same as deck.

PART 3 EXECUTION

1. INSTALLATION

Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up primer.

END OF SECTION

Provide high-strength threaded fasteners for principal bolted connections, except where unfinished bolts are indicated. Provide unfinished threaded fasteners for only bolted connections of secondary framing members to primary members (including purlins, girts, and other framing members taking only nominal stresses) and for temporary bracing to facilitate High-Strength Bolted Construction: Install high-strength threaded fasteners in accordance with AISC "Specifications for Structural Joints using ASTM A325 or A490 Bolts". Bolts shall be installed with hardened washers under the element turned in tightening bolts

Welded Construction: Comply with AWS Code for procedures, appearance and quality of welds, and methods used in correcting

Cut, drill, or punch holes perpendicular to metal surfaces. Do not flame cut holes or enlarge holes by burning. Drill holes in

Clean all surfaces after fabrication and immediately prior to shop painting in accord with SSPC-SP2, Hand Tool Cleaning, SSPC- SP3, Power Tool Cleaning, or SSPC-SP6, Commercial Blast Cleaning at manufacturer's option. Blast clean only when relative humidity is below 85% and when surface temperature of steel is a minimum of 5 degrees F. above the dew point. Remove all traces of blast residue and dust. Do not contaminate the surfaces. Require workmen to

Shop prime structural steel members. Do not prime surfaces that will be fireproofed, field welded, in contact with concrete, or high

Allow for erection loads, and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true Set structural frames accurately to lines and elevations indicated. Align and adjust various members forming part of complete frame

or structure before permanently fastening. Clean bearing surfaces and other surfaces which will be in permanent contact before

Do not enlarge unfair holes in members by burning or by use of drift pins. Ream holes that must be enlarged to admit Gas Cutting: Do not use gas cutting torches in field for correcting fabrication errors in structural framing unless acceptable

After erection, clean and remove rust, dirt and other foreign matter from exposed surfaces of field connections, unpainted areas

adjacent to field connections, and damaged areas in shop primer. Touch-up paint with primer to the same standards as required for

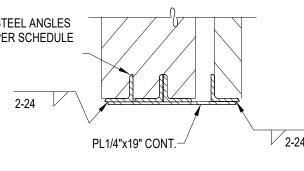
An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.

High-Strength Bolts: Provide testing and verification of field-bolted connections in accordance with AISC "Specification for Structural

Welded Connections: Visually inspect all field-welded connections. Perform Ultrasonic Testing of field welds, in accordance with

STEELLINTEL SCH

IEDULE		STEEL ANGLES PER SCHEDULE
NRY	BEARING EACH END	
}"	4"	2-24
V	6"	PL1/4"x19" CO



MASONRY OPENING	PER 4" OF MASONRY	BEARINO EACH EN
3'-4" OR LESS	L3-1/2"x3-1/2"x3/8"	4"

		_ /(0)11
3'-4" OR LESS	L3-1/2"x3-1/2"x3/8"	4"
OVER 3'-4" THRU 6'-8"	L6"x3-1/2"x3/8" LLV	6"
NOTES:		

1.	LONG LEG VERTICAL FOR ALL ANGLES.
2.	EXTERIOR LINTELS TO BE GALVANIZED.
3.	ALL DOUBLE ANGLES OVER 5'-0" SHALL BE WELDED TOGETHER AT QUARTER POINTS OF SPAN.
4.	FILL MASONRY SOLID WITH CONCRETE TWO COURSES BELOW BEARING x 1'-4" LONG EACH END.
5.	PROVIDE ONE ANGLE FOR EVERY 4" OF MASONRY THICKNESS (UNLESS OTHERWISE NOTED).

CKNESS (UNLESS OTHERWISE NOTED).

6. VERTICAL LEG OF ANGLE TO BE PLACED AGAINST BACK FACE ANGLES

TYPICAL STEEL LINTEL

3/4" = 1'-0"

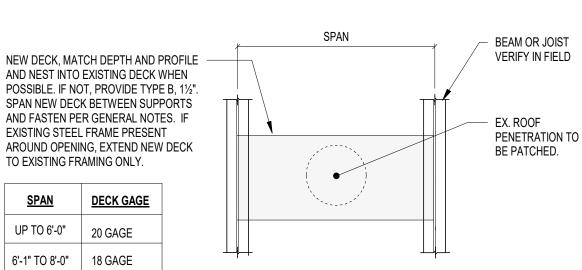
<u>SPAN</u>

NOTES:

/ 3/4" = 1'-0"

ROOF PATCHES.

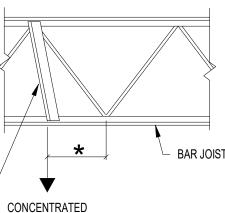
EXISTING STEEL FRAME PRESENT



SEE ARCHITECTURAL, MECHANICAL, & HVAC SHOP DRAWINGS FOR SIZE AND LOCATION OF

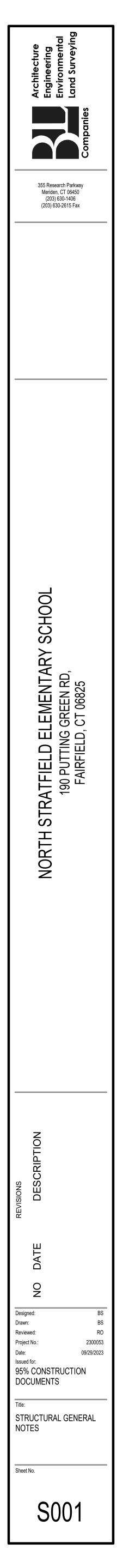
IF EXISTING HOLE IS LESS THAN 10" X 10" OR 10" ROUND, PROVIDE A 16 GAGE 18" X 18" PLATE, FASTEN AROUND PERIMETER WITH #10 TEK SCREWS, AT 6" O.C. AND AT CORNERS.

TYPICAL ROOF PATCH AT UNUSED PENETRATIONS

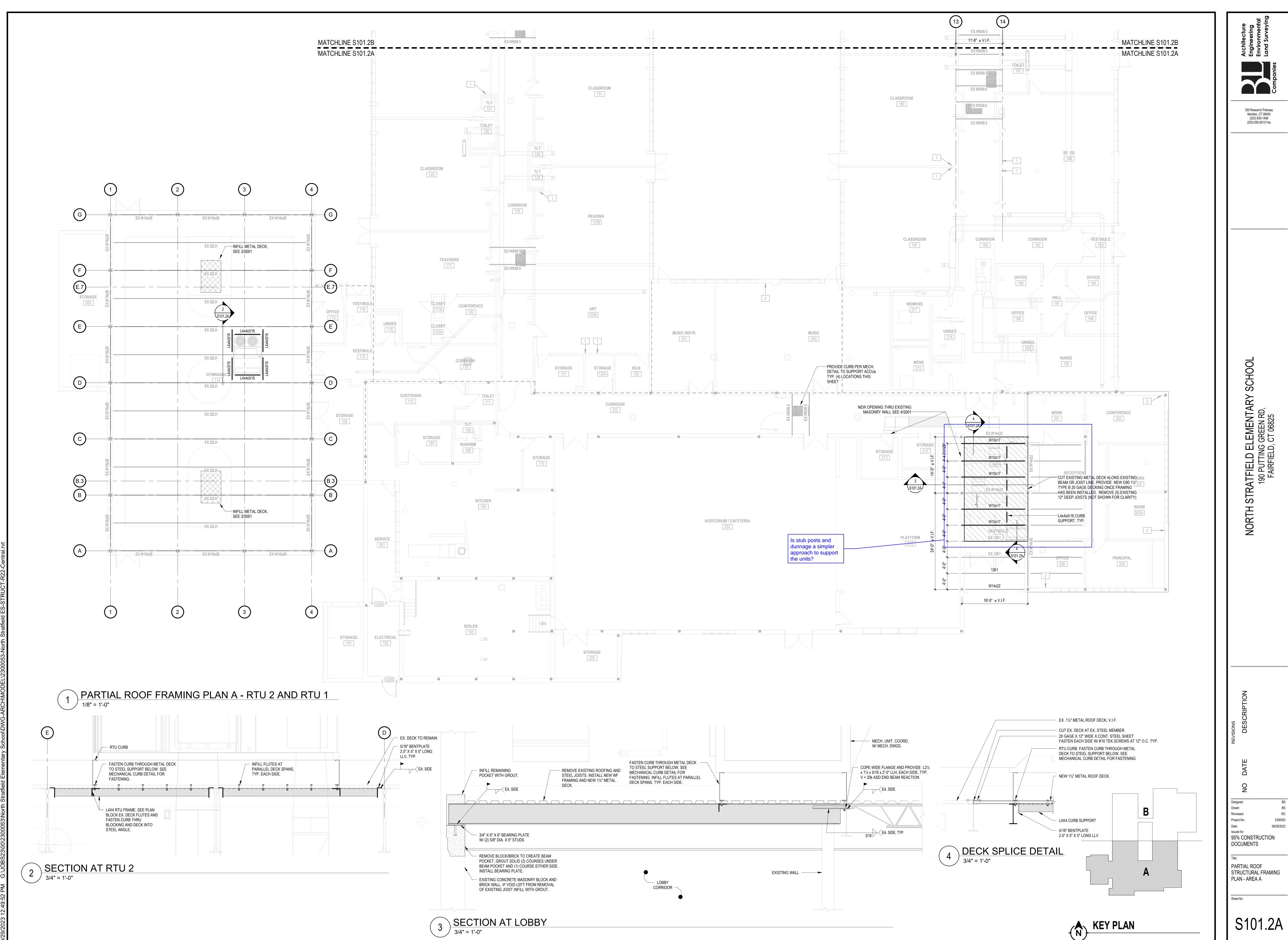


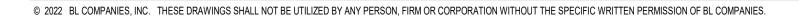
2 TYPICAL JOIST REINFORCING

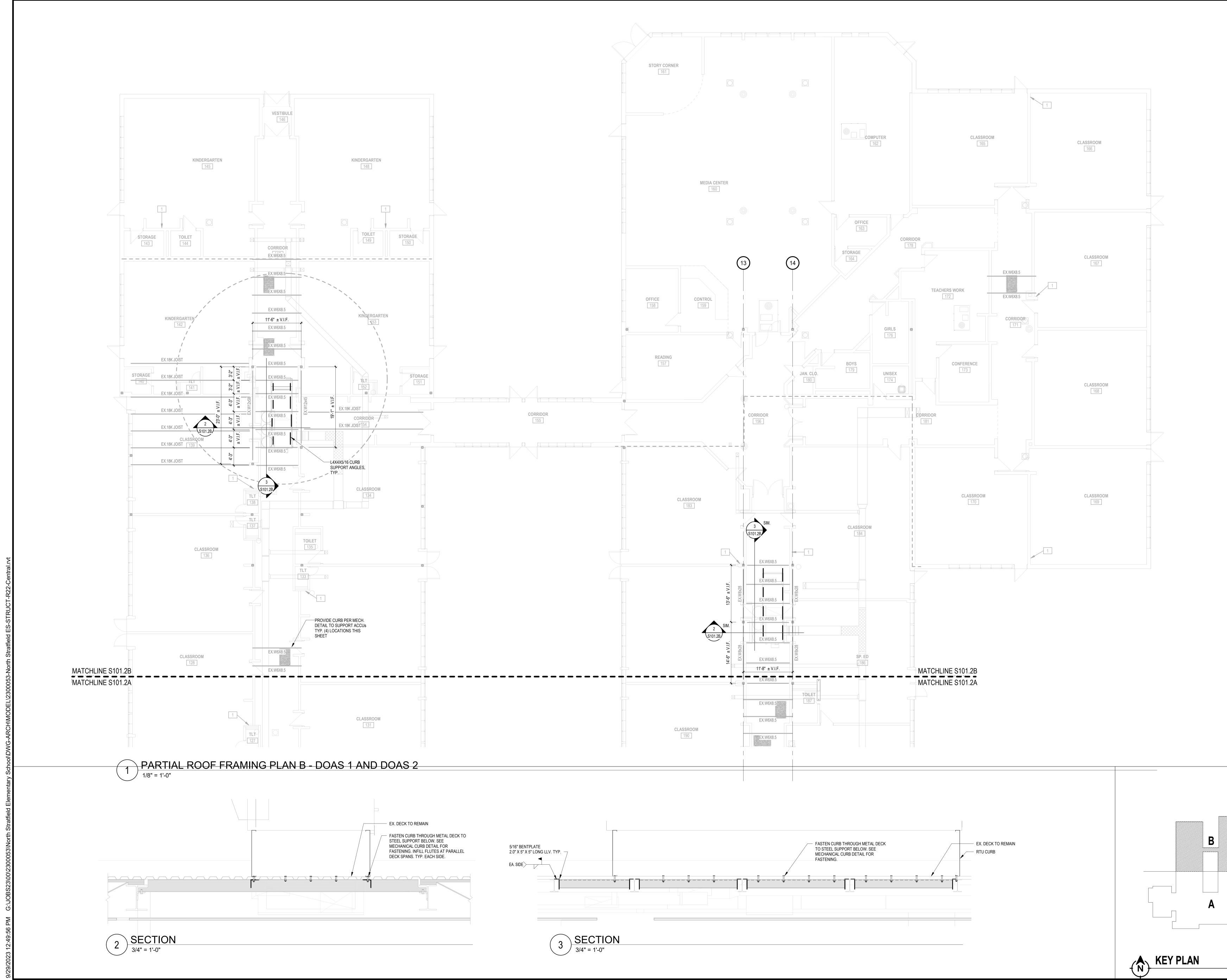
LOAD



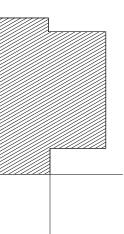








355 Research Parkway Meriden, CT 06450 (203) 630-1406 (203) 630-2615 Fax Ō SCHO(RATFIELD ELEMENTARY 190 PUTTING GREEN RD, FAIRFIELD, CT 06825 Ŕ ----S NORTH Designed: Drawn: BS Reviewed: RO Project No .: 2300053 09/29/2023 Date: Issued for: 95% CONSTRUCTION DOCUMENTS PARTIAL ROOF STRUCTURAL FRAMING PLAN - AREA B Sheet No. S101.2B



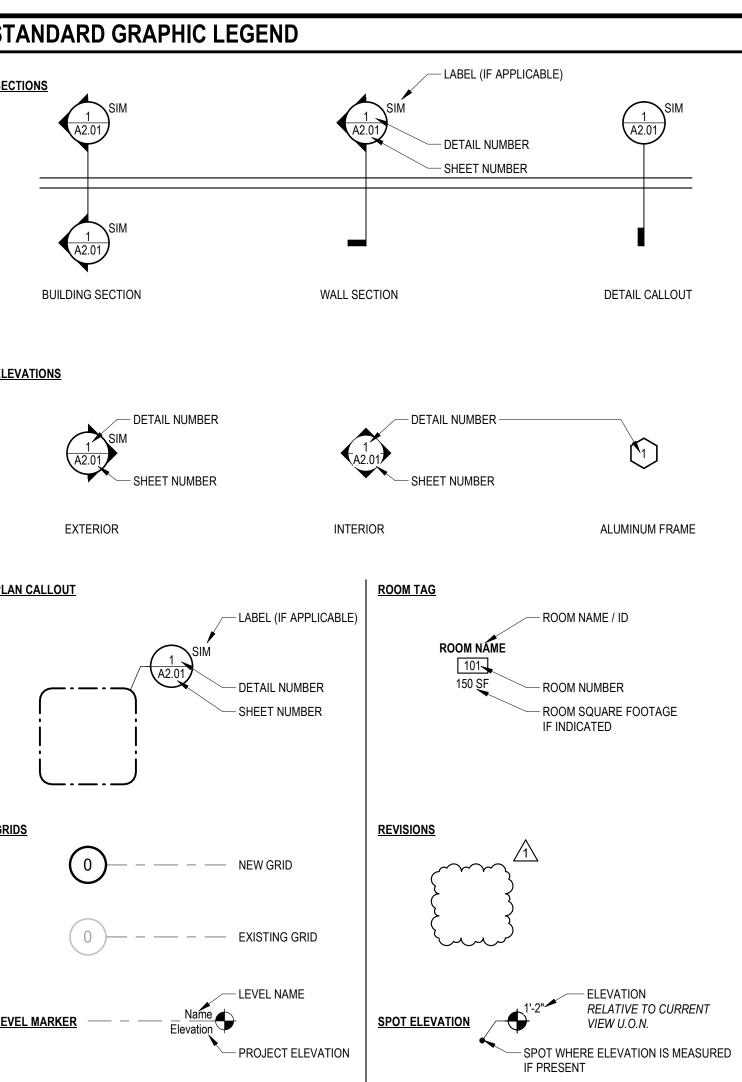
LINTEL SCHEDULE - EXISTING CONSTRUCTION

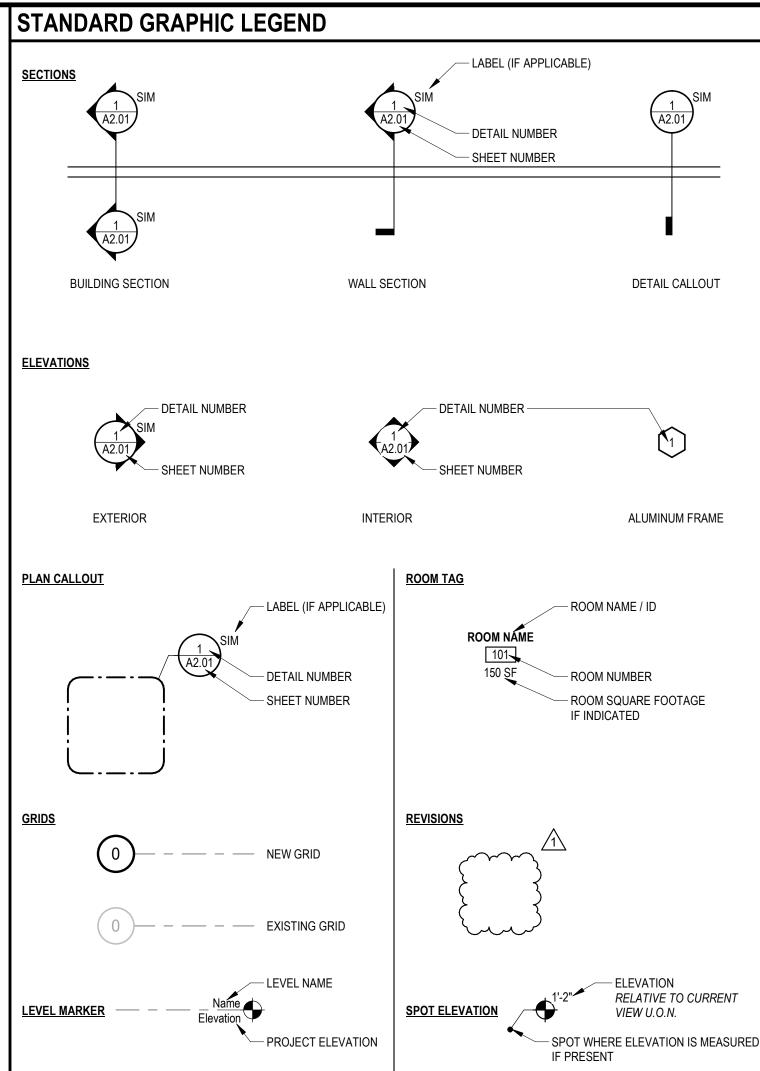
1. PROVIDE LINTELS, WHETHER INDICATED OR NOT OVER ALL NEW OPENINGS, OR EXISTING OPENINGS THAT HAVE BEEN MODIFIED, IN EXISTING MASONRY WALLS AS REQUIRED BY STRUCTURAL, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. 2. COMBINE VARIOUS WYTHES OF MASONRY AS REQUIRED TO SUIT PROJECT.

ALL CONDITIONS MAY NOT OCCUR.
 ALL LINTELS ARE TO HAVE 8" MINIMUM BEARING AT EACH END.

 5. ALL EXTERIOR LINTELS ARE TO BE GALVANIZED.
 6. ALL EXTERIOR ANGLES TO BE LOCATED 1/2" BACK FROM FACE OF FINISHED WALL. 7. SEE STRUCTURAL DRAWINGS FOR ALL OPENINGS OVER 8'-4"

MASONRY OPENING	4" MASONRY	6" MASONRY	8" MASONRY	10" MASONRY	12" MASONRY
АННИНИ ИННИНИЦИ ИННИНИЦИ ИННИНИЦИ ИННИНИЦИ И					
UP TO 5'-0"	1L - 3 1/2" X 3 1/2" X 5/16"	WT 7 X 11	2L - 4" X 3 1/2" X 5/16"	2L - 4" X 4" X 5/16"	2L- 5" X 5" X 5/16"
5'-0" TO 6'-0"	1L - 6" X 3 1/2" X 5/16"	WT 7 X 11	2L - 5" X 3 1/2" X 5/16"	2L - 4" X 4" X 3/8"	2L- 5" X 5" X 3/8"
6'-0" TO 7'-4"	1L - 6" X 3 1/2" X 5/16"	WT 7 X 11	2L - 5" X 3 1/2" X 5/16"	2L - 4" X 4" X 3/8"	2L- 5" X 5" X 3/8"
7'-4" TO 8'-4"	1L - 6" X 3 1/2" X 3/8"	WT 7 X 11	2L - 6" X 3 1/2" X 5/16"	2L - 4" X 4" X 3/8"	2L- 5" X 5" X 3/8"





AST	ER ABBREV
A.F.F. AWP AC ADDN A/C A.H.U. ALT ALUM. AB ANCH & L ANOD. APPR. ASB. ASPH. ASSY ASST @ AVN AUTO.	AIR CONDITIONING AIR HANDLING UNIT ALTERNATE ALUMINUM ANCHOR BOLTS ANCHOR, ANCHORAGE AND ANGLE ANODIZED APPROVED ARCHITECT, ARCHITECT ASBESTOS ASPHALT ASSEMBLY
BM BRG BET. BEV. BIT. BLK BD BOTT. B.O. B.F. B.E.J. BLDG. B.U.R.	BOARD BOTTOM BOTTOM OF BRACE FRAME BRICK EXPANSION JOIN
COL. CONC. CONF. CONT.	CAPACITY CEILING CEILING HEIGHT CEMENT CENTER CENTERLINE CERAMIC PROJECTION CERAMIC TILE CHALKBOARD CHANNEL CLOSET COLD FORMED METAL F COLUMN CONCRETE CONFERENCE CONFERENCE CONTINUOUS CONTRACTOR CONTROL/CONSTRUCTI
DMPFG DEG. DEMO. DET. DIA. DIM. DIST. DR DBL. DN D.S. DWG D.F.	

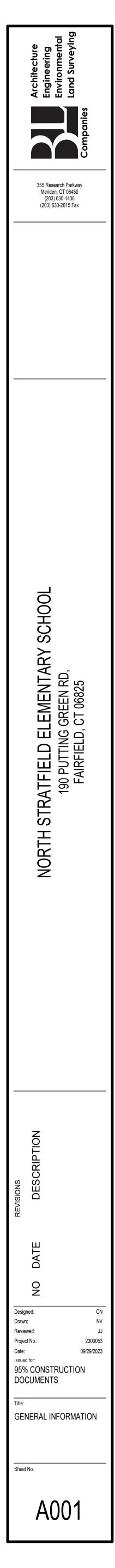
DIST.	DISTANCE
DR	DOOR
DBL.	DOUBLE
DN	DOWN
D.S.	DOWNSPOUT
DWG	DRAWING
D.F.	DRINKING FOUNTAIN
EA.	EACH
EWC	ELECTRIC WATER COOL
ELEC.	ELECTRIC, ELECTRICAL
ELEV.	ELEVATION
	ELEVATOR
EMERG.	EMERGENCY
EQ.	EQUAL
	EQUIPMENT
E.P.D.M.	ETHYLENE PROPYLENE MONOMER
E.F.	EXHAUST FAN
EXIST.	EXISTING
EFB	EXISTING FIRE BLANKET
EFE	EXISTING FIRE EXSTING
E.R.D.	EXISTING ROOF DRAIN
E.T.R.	EXISTING TO REMAIN
EVS	EXISTING VENT STACK
EXP.	EXPANSION
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
E.I.	EXTERIOR INSULATION
FT	FEET, FOOT
F.R.G.P.	FIBER REINFORCED GYP PANEL
F.S.	FINISH SYSTEM

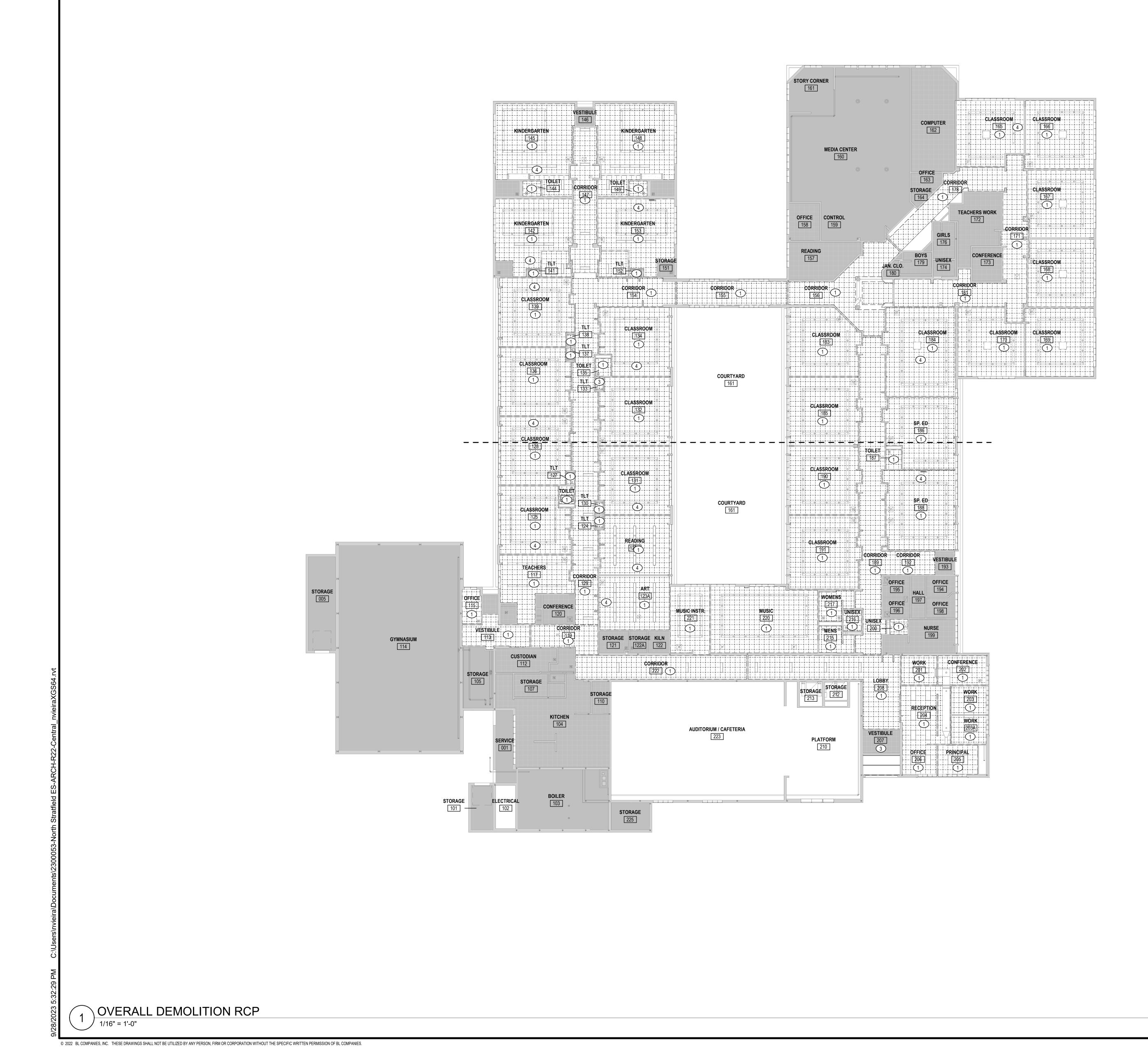
EVIATION LIST

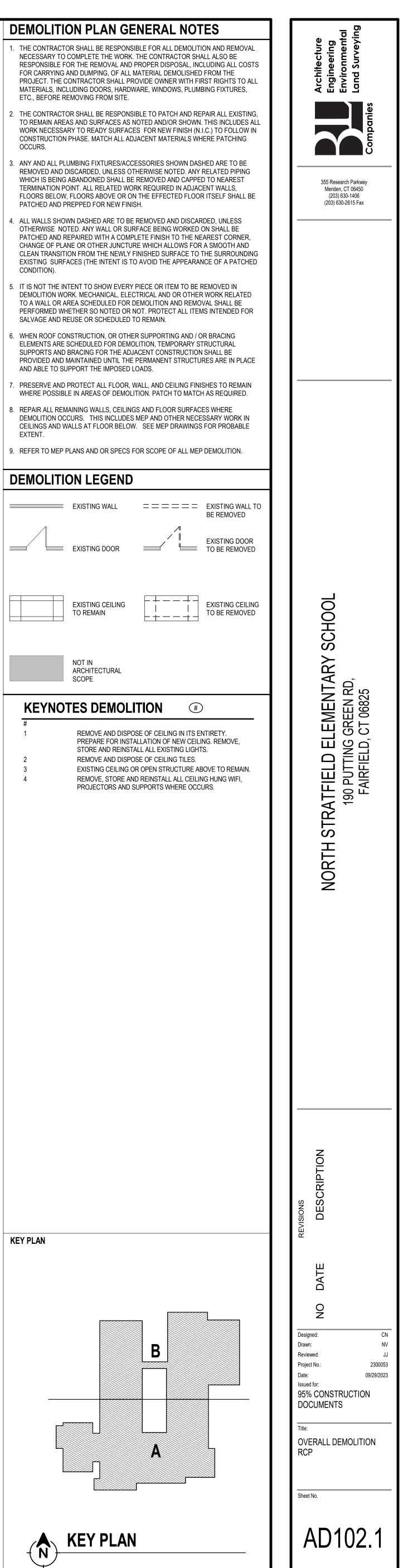
A.F.F.	ABOVE FINISH FLOOR	FIXT.	FIXTURE	S.J.	SEISMIC JOINT
A.F.F. AWP	ACOUSTIC WALL PANEL	FLASH.	FLASHING	S.J. SHT	SHEET
AC	ACOUSTIC, ACOUSTICAL	FLR	FLOOR	SIM.	SIMILAR
ACT	ACOUSTICAL TILE	F.D.	FLOOR DRAIN	S.H.	SMOKE HATCH
ADDN	ADDITION	FLR. FIN.	FLOOR FINISH	SD	SOAP DISPENSER
A/C	AIR CONDITIONING	FTG	FOOTING	S.T.C.	SOUND TRANSMISSION CLASS
A.H.U.	AIR HANDLING UNIT	FDN	FOUNDATION	SPEC.	SPECIFICATIONS
ALT	ALTERNATE	FURN.	FURNISH, FURNISHED	S.B.	SPLASH BLOCK
ALUM.	ALUMINUM	FURR.	FURRED, FURRING	SQ.	SQUARE
AB	ANCHOR BOLTS		- ,	S.F.	SQUARE FEET (FOOT)
ANCH	ANCHOR, ANCHORAGE	GALV.	GALVANIZED	S.S.	STAINLESS STEEL
&	AND	GA.	GAUGE	STD	STANDARD
L	ANGLE	G.B.	GRAB BAR	STL	STEEL
ANOD.	ANODIZED	GYP. BD.	GYPSUM WALLBOARD	STOR.	STORAGE
APPR.	APPROVED	0		STRUCT.	STRUCTURAL
ARCH.	ARCHITECT, ARCHITECTURAL	H.C.	HANDICAPPED	SGFT	STRUCTURAL GLAZED FACING
ASB.	ASBESTOS	H.R.	HANDRAIL		TILE
ASPH.	ASPHALT	HGT	HEIGHT	S.STL.	STRUCTURAL STEEL
ASSY	ASSEMBLY	H.P.	HIGH POINT	SUSP.	SUSPEND, SUSPENSION
ASST	ASSISTANT	H.M.	HOLLOW METAL	SGB	SWING UP GRAB BAR
@	AT	HORIZ.	HORIZONTAL		
AVN	AT VARIANCE WITH	H.B.	HOSE BIBB	TBD	TACKBOARD
AUTO.	AUTOMATIC			THRU	THROUGH
		IN. OR "	INCH OR INCHES	TPD	TOILET PAPER DISPENSER
BM	BEAM	INCL.	INCLUDE, INCLUDING	T. & G.	TONGUE AND GROOVE
BRG	BEARING	INFO.	INFORMATION	T.O.	TOP OF
BET.	BETWEEN	I.D.	INSIDE DIAMETER	Τ.	TREAD
BEV.	BEVEL,BEVELED	INSUL.	INSULATION	TYP.	TYPICAL
BIT.	BITUMINOUS	INT.	INTERIOR		
BLK	BLOCK			UCR	UNDER COUNTER
BLKG	BLOCKING	K.P.	KICK PLATE		REFRIGERATOR
BD	BOARD			UL	UNDERWRITERS' LABORATORIES
BOTT.	BOTTOM	LAB.	LABORATORY	нн	
B.O.	BOTTOM OF	LAV.	LAVATORY	U.H.	
B.F.	BRACE FRAME	L.C.C.	LEAD COATED COPPER	U.V.	
B.E.J.	BRICK EXPANSION JOINT	LTG.	LIGHTING	U.O.N.	UNLESS OTHERWISE NOTED
BLDG.	BUILDING	L.P.	LOW POINT	VTO	
B.U.R.	BUILT-UP-ROOFING			VTS	VENT STACK
		MACH.	MACHINE	VTR	VENT THROUGH ROOF
CAB.	CABINET	MAINT.	MAINTENANCE	VERT.	VERTICAL
C.U.H.	CABINET UNIT HEATER	MFR	MANUFACTURER	VEST.	
CAP.	CAPACITY	MBD	MARKER BOARD	VCT	VINYL COMPOSITION TILE
CLG	CEILING	MAS.	MASONRY	14/11	
CLG. HT.	CEILING HEIGHT	M.O.	MASONRY OPENING	W.H.	
CEM.	CEMENT	MATL	MATERIAL	WPK	WALL PACK
CTR	CENTER	MAX.	MAXIMUM	WP	
45	CENTERLINE	MECH.	MECHANICAL	W.W.F.	WELDED WIRE FABRIC
CPB	CERAMIC PROJECTION BOARD	MTL.	METAL	W.BD.	WHITE BOARD
CER. T.	CERAMIC TILE	MEZZ.	MEZZANINE	W/ WD	WITH WOOD
C.BD	CHALKBOARD	MIN.	MINIMUM	VVD	WOOD
С	CHANNEL	M.W.F.	MIRROR WITH FRAME	700	
CL.	CLOSET	MISC.	MISCELLANEOUS	Z.C.C.	ZINC COATED COPPER
C.F.M.F.	COLD FORMED METAL FRAME				
COL.	COLUMN	Ν	NORTH		
CONC.	CONCRETE	N.I.C.	NOT IN CONTRACT		
CONF.	CONFERENCE	N.T.S.	NOT TO SCALE		
CONT.	CONTINUOUS	NO. OR #	NUMBER		
CONTR.	CONTRACTOR				
C.J.	CONTROL/CONSTRUCTION JOINT	OFF.	OFFICE		
CORR.	CORRIDOR	OAI	OK AS IS		
CNL	COULD NOT LOCATE	0.C.	ON CENTER		
CRS.	COURSE, COURSES	0.H.	OPPOSITE HAND		
D.H.	DOUBLE HUNG	0.D.	OUTSIDE DIAMETER		
		0.R.D. /	OVERFLOW ROOF DRAIN		
DMPFG	DAMPPROOFING	0.T.D.			
DEG.	DEGREE				
DEMO.	DEMOLITION	PTD	PAINTED		
DEPT.	DEPARTMENT	PR			
DET.	DETAIL	PTD	PAPER TOWEL DISPENSER		
DIA.	DIAMETER	PASS.	PASSAGE		
DIM.	DIMENSION	PERP.	PERPENDICULAR		
DIST.	DISTANCE	PLAS.			
DR	DOOR	PL. LAM.			
DBL.	DOUBLE	PL. PLBG			
DN	DOWN	PLBG PLYWD	Plumbing Plywood		
D.S.	DOWNSPOUT	PLYWD PVC	POLYVINYL CHLORIDE		
DWG		PVC P/C	PRECAST		
D.F.	DRINKING FOUNTAIN	P/C P.E.J.	PRECAST PRECAST EXPANSION JOINT		
F۵	FΔCH	PREFAB.	PREFABRICATED		
EA. EWC	EACH ELECTRIC WATER COOLER	PREFAD. P.T.	PRESSURE TREATED		
EVVC ELEC.	ELECTRIC WATER COOLER ELECTRIC, ELECTRICAL				
ELEC. ELEV.	ELECTRIC, ELECTRICAL ELEVATION	QTY	QUANTITY		
ELEV. EL.	ELEVATION	Q.T.	QUARRY TILE		
EL. EMERG.	EMERGENCY		·		
EMERG. EQ.	EQUAL	R.P.	RADIANT PANEL		
EQ. EQUIP.	EQUIPMENT	RAD.	RADIUS		
E.P.D.M.	ETHYLENE PROPYLENE DIENE	R.W.C.	RAIN WATER CONDUCTOR		
U.IVI.	MONOMER	R.W.L.	RAIN WATER LEADER		
E.F.	EXHAUST FAN	RECV.	RECEIVING		
EXIST.	EXISTING	REFR.	REFRIGERATOR		
EFB	EXISTING FIRE BLANKET	REINF.	REINFORCE		
EFE	EXISTING FIRE EXSTINGUISHER	R.A.	RELIEVING ANGLE		
E.R.D.	EXISTING ROOF DRAIN	REQ'D	REQUIRED		
E.T.R.	EXISTING TO REMAIN	REV.	REVISED, REVISION		
EVS	EXISTING VENT STACK	R.	RISER		
EXP.	EXPANSION	RAH	ROOF ACCESS HATCH/SCUTTLE		
E.J.	EXPANSION JOINT	R.D.	ROOF DRAIN		
EXT.	EXTERIOR	R.F.	ROOF FAN		
E.I.	EXTERIOR INSULATION	R.T.U.	ROOF TOP UNIT		
	-	RM	ROOM		
FT	FEET, FOOT	RAFL	RUBBERIZED ASPHALT FABRIC		
F.R.G.P.	FIBER REINFORCED GYPSUM		LAMINATE		
	PANEL				
F.S.	FINISH SYSTEM	SND	SANITARY NAPKIN DISPENSER		
FIN.	FINISH, FINISHED	SNR	SANITARY NAPKIN RECEPTICAL		
FB	FIRE BLANKET	SCHED.	SCHEDULE		
F.E.	FIRE EXTINGUISHER	SC	SCUPPER		
F.T.R.	FIRE RETARDANT TREATED	SECT.	SECTION		
FPRFG.	FIREPROOFING				
I FRFG.					

	ER SHEET NAME
GENERAL	
G000	COVER
A001	GENERAL INFORMATION
STRUCTURAL	
S001	STRUCTURAL GENERAL NOTES
S101.2A	PARTIAL ROOF STRUCTURAL FRAMING PLAN - AREA A
S101.2B	PARTIAL ROOF STRUCTURAL FRAMING PLAN - AREA B
ARCHITECTURAL	
AD102.1	OVERALL DEMOLITION RCP
A101.3	OVERALL ROOF PLAN & ELECTRICAL ROOM
A102.1	OVERALL RCP & DETAILS
A301	ROOF DETAILS
IRE PROTECTION	
FP001	FIRE PROTECTION NOTES, DESIGN CRITERIA, LEGENDS, & ABBREVIATIO
FP101.1A	PARTIAL FIRST FLOOR FIRE PROTECTION PLAN - AREA A
FP101.1B	PARTIAL FIRST FLOOR FIRE PROTECTION PLAN - AREA B
MECHANICAL	
M001	MECHANICAL NOTES, SYMBOL LEGEND, & ABBREVIATIONS
M002	MECHANICAL VENTILATION CALCULATIONS & ENERGY COMPLIANCE
MD101.1A	PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - PART A
MD101.1B	PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - PART B
MD101.2A MD101.2B	PARTIAL ROOF MECHANICAL DEMOLITION PLAN - PART A
M101.1A	PARTIAL ROOF MECHANICAL DEMOLITION PLAN - PART B PARTIAL FIRST FLOOR MECHANICAL DUCTWORK PLAN - AREA A
M101.1A M101.1B	PARTIAL FIRST FLOOR MECHANICAL DUCTWORK PLAN - AREA A PARTIAL FIRST FLOOR MECHANICAL DUCTWORK PLAN - AREA B
M101.1B	PARTIAL PIRST FLOOR MECHANICAL DUCTWORK PLAN - AREA B
M101.2A M101.2B	PARTIAL ROOF MECHANICAL DUCTWORK PLAN - AREA A
M102.1A	PARTIAL FIRST FLOOR MECHANICAL PIPING/CONTROLS PLAN - AREA A
M102.18	PARTIAL FIRST FLOOR MECHANICAL PIPING/CONTROLS PLAN - AREA B
M102.12	OVERALL ROOF MECHANICAL PIPING PLAN
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M503	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M602	MECHANICAL SCHEDULES
M701	MECHANICAL CONTROLS
M702	MECHANICAL CONTROLS
M801	MECHANICAL VRF PIPING DIAGRAM
M802	MECHANICAL VRF PIPING DIAGRAM
ELECTRICAL	
E001	ELECTRICAL NOTES, SYMBOLS LEGENDS, ABBREVIATIONS
ED101.1	OVERALL FIRST FLOOR DEMOLITION ELECTRICAL PLAN
ED101.1A	PARTIAL FIRST FLOOR ELECTRICAL DEMOLTION PLAN - AREA A
ED101.1B	PARTIAL FIRST FLOOR ELECTRICAL DEMOLTION PLAN - AREA B
ED101.2	OVERALL ROOF ELECTRICAL DEMOLTION PLAN
ED101.2A	PARTIAL ROOF ELECTRICAL DEMOLTION PLAN - AREA A
ED101.2B	PARTIAL ROOF ELECTRICAL DEMOLTION PLAN - AREA B
E101.1	OVERALL FIRST FLOOR ELECTRICAL PLAN
E101.1A	PARTIAL FIRST FLOOR ELECTRICAL PLAN - AREA A
E101.1B	PARTIAL FIRST FLOOR ELECTRICAL PLAN - AREA B
E101.2	OVERALL ROOF ELECTRICAL PLAN
E101.2A	PARTIAL ROOF ELECTRICAL PLAN - AREA A
E101.2B	PARTIAL ROOF ELECTRICAL PLAN - AREA B
E401	ELECTRICAL DETAILS
E501	ELECTRICAL SCHEDULES
E502	ELECTRICAL PANELBOARD SCHEDULES
E601	ELECTRICAL RISER DIAGRAM

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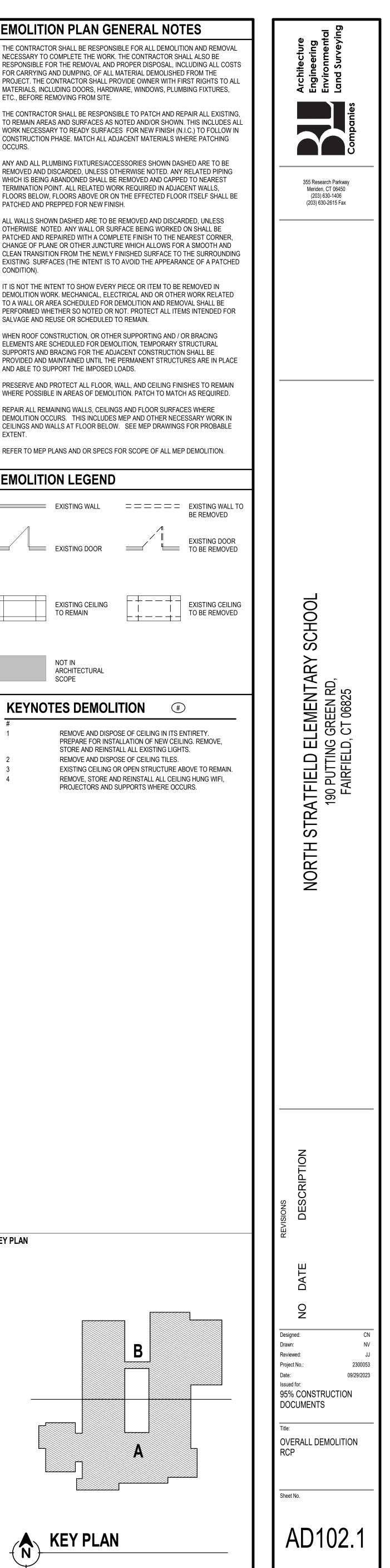


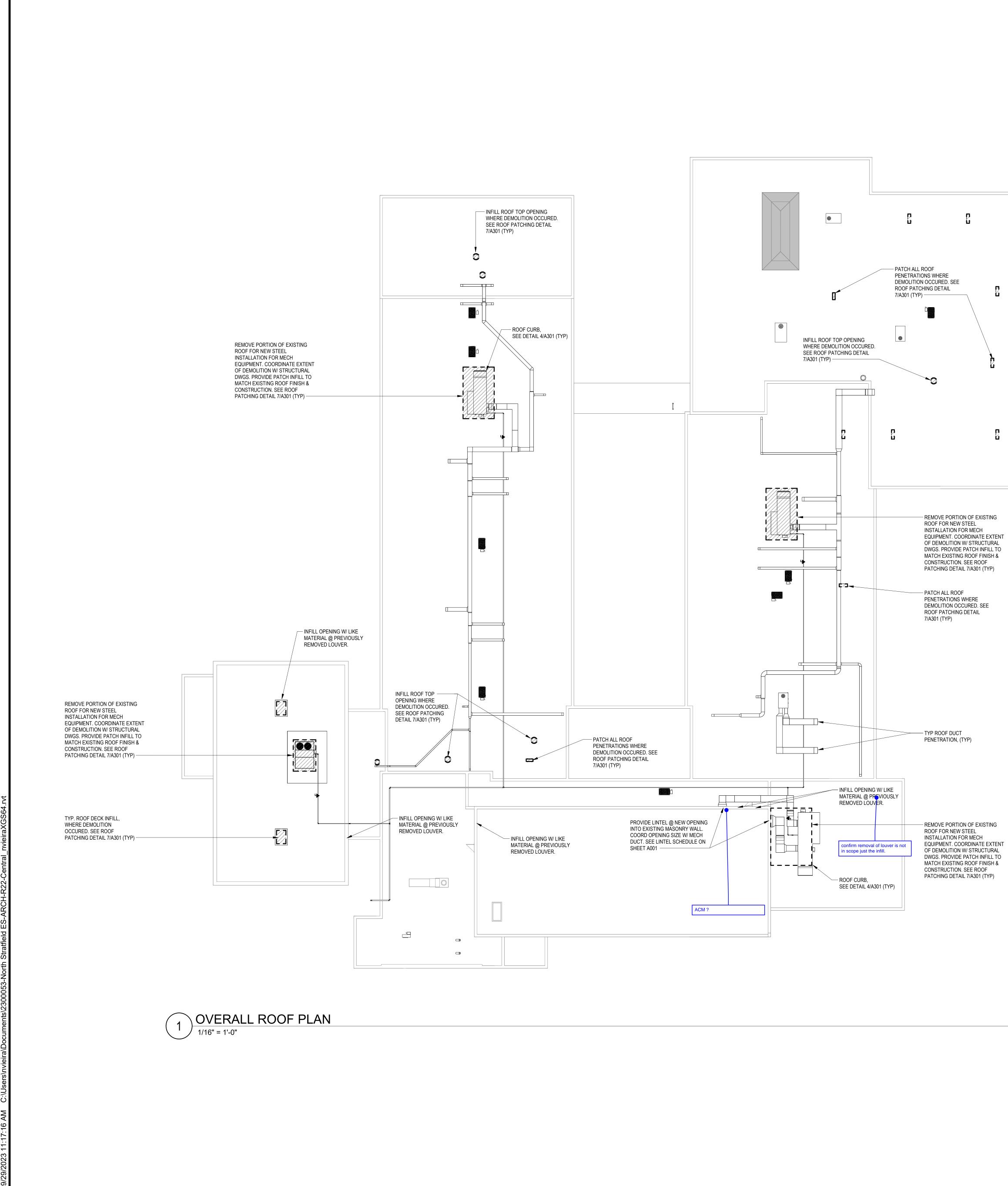






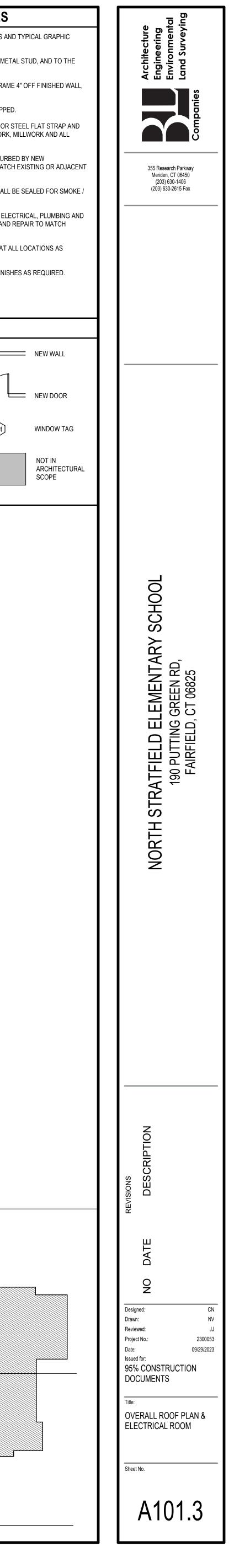
REMOVE AND DISPOSE OF CEILING
PREPARE FOR INSTALLATION OF N
STORE AND REINSTALL ALL EXISTI
REMOVE AND DISPOSE OF CEILING
EXISTING CEILING OR OPEN STRUC
REMOVE, STORE AND REINSTALL A
PROJECTORS AND SUPPORTS WH

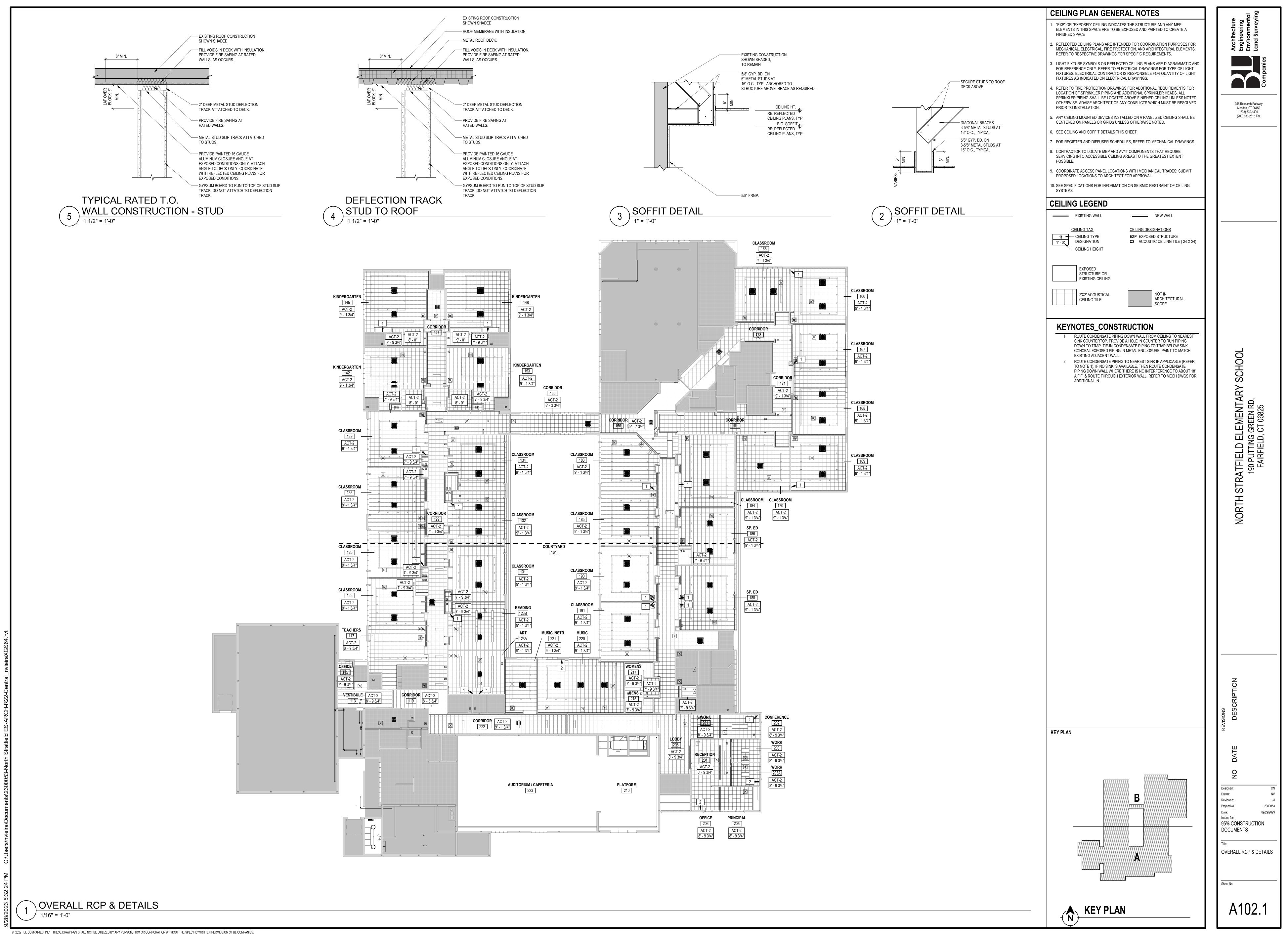




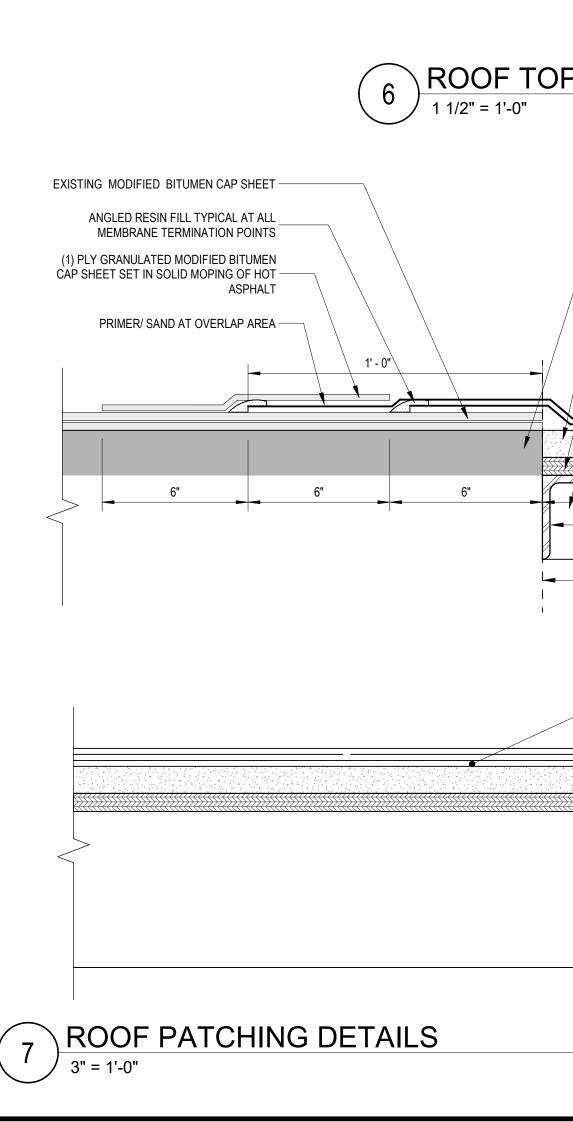
V.I.F. EXISTING WALL CONSTRUCTION, V.I.F. ADJ. WALL TIES @ 16" O.C. VERT. & 32" O.C. HORIZ. HORIZ. JOINT REINFORCING @ 16" O.C. VERT. 4" MASONRY AIR / VAPOR BARRIER RUBBERIZED ASHPALT FABRIC LAMINATE, (R.A.F.L.), FLASHING TO LAP DAMPPROOFING AND DRIP EDDE, TYP. CAVITY DRAINAGE MATERIAL FULL WIDTH OF CAVITY, TYP. WEEP HOLES @ 24" O.C. (2) PER HEAD MIN. GALV. STEEL LINTEL 4"CMU INFILL	
SEALANT FULL PERIMETER BOTH SIDES METAL DRIP EDGE H.M.F., GROUT FILL ENTIRE FRAME, (TYP.) HEAD @ CAVITY WALL - CMU	
T 1/2" = 1'-0" REMOVE EXISTING DOOR AND HARDWARE FOR REUSE. PATCH AND REPAIR FRAME AS NECESSARY FOR NEW DOOR CONFIGURATION. PROVIDE A NEW STORAGEROOM LOCKSET WITH PANIC BAR.	KEY PLAN
CUT OPENING IN EXISTING WALL FOR NEW DOOR. PROVIDE 3'x7' HM DOOR AND FRAME WITH WEATHER SEALS, THRESHOLD, PANIC BAR ONLY AND CLOSER. 2 ELECTRICAL ROOM 102 1/8" = 1'-0"	B
ELECTRICAL ROOM DOOR HARDWAREQTY.DESCRIPTIONNUMBERFINISHMFG.3HINGE (HEAVY WEIGHT)T4A3386 NRPUS32DMK1RIM EXIT DEVICE8800 SERIESUS32DSA1PERMANENT KEYED COREBY OTHERS626OT1SURFACE CLOSER (STOP)CPS7500689NO1ARMOR PLATEK1050 (-F) 34" H X 2" LDW CSKUS32DRO1THRESHOLD273X3AFGPE1RAIN GUARD346CPE1GASKETING (HEAD)2893AVPE2GASKETING (JAMBS)2903AVPE1DOOR BOTTOM216BDCFGPE	
	KEY PLAN

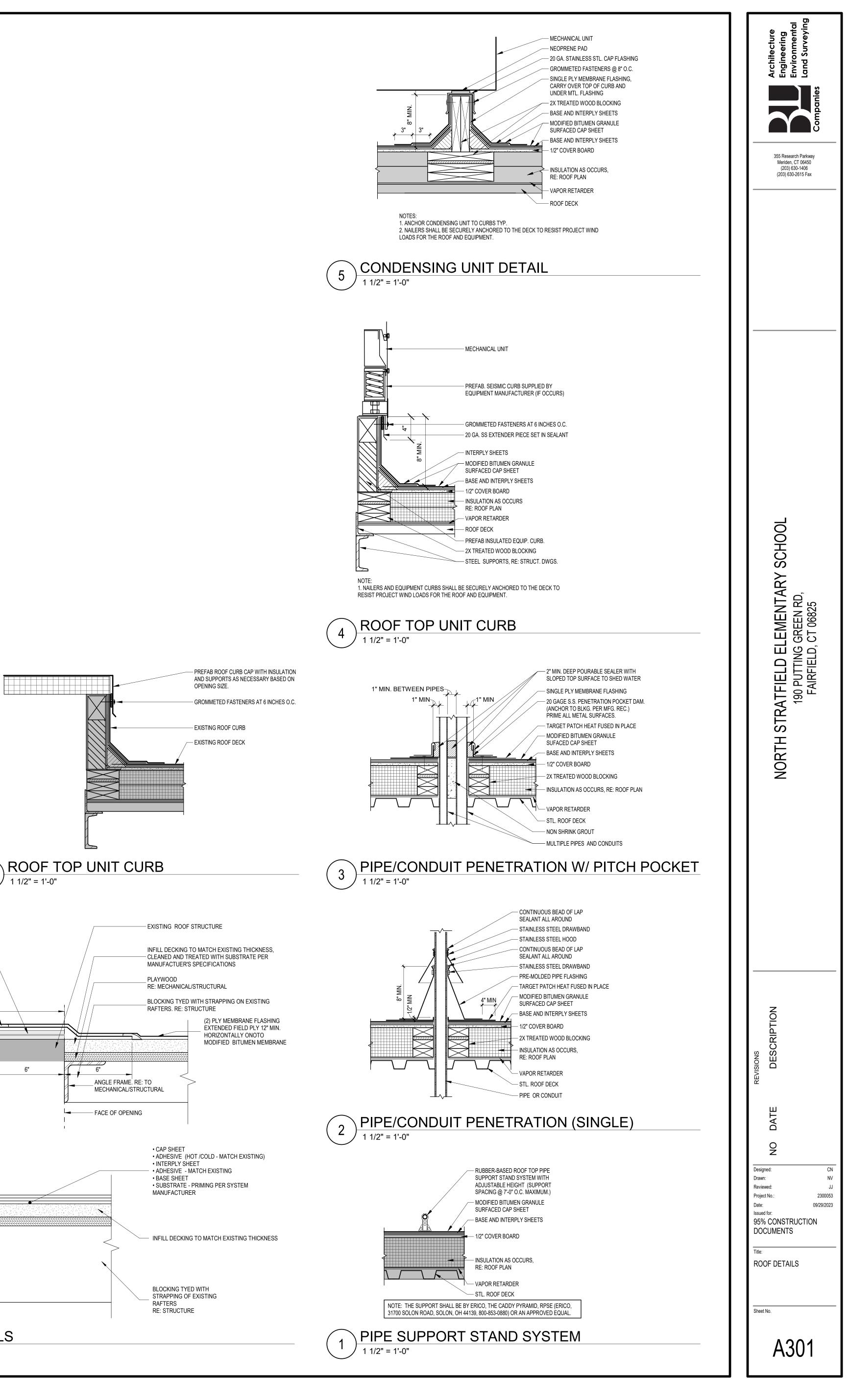
ROOF PLA	N GENERAL	NOTES
REFER TO DRAWING LEGEND	A001 FOR TYPICAL ABB	BREVIATIONS A
	e to face of masonr Jumn, unless noted (
	E LOCATED WITH HINGI TION), UNLESS OTHERW	
ALL EXTERIOR DOOF	RS SHALL BE FULLY WE	ATHER STRIPP
BACKING PLATE AT A	RDANT TREATED WOOD ALL TOILET ACCESSORI TED EQUIPMENT AND D	ES, CASEWOR
	MAIN ITEMS ADJACENT E TO BE PATCHED / REP N.	
ALL PENETRATIONS FIRE RATINGS AS RE	IN EXISTING WALLS OR EQUIRED	FLOORS SHAL
	INGS REQUIRED FOR M	
PATCH AND LEVEL E REQUIRED.	XISTING FLOOR / CONC	RETE SLAB AT
PREPARE ALL EXIST	ING SURFACES TO REC	IEVE NEW FINI
ROOF LEG	END	
	EXISTING WALL	
	EXISTING DOOR	
(101A)	DOOR TAG	(1t)
A 1t	PARTITION TAG	



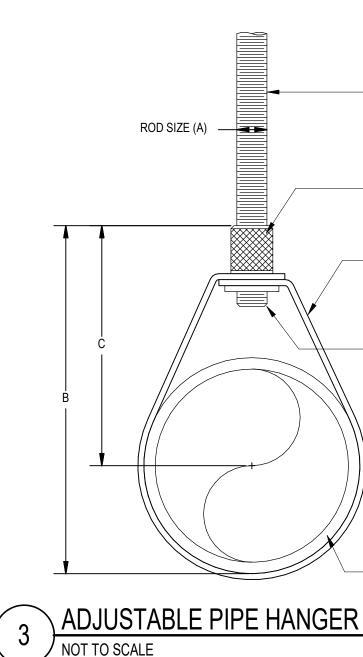


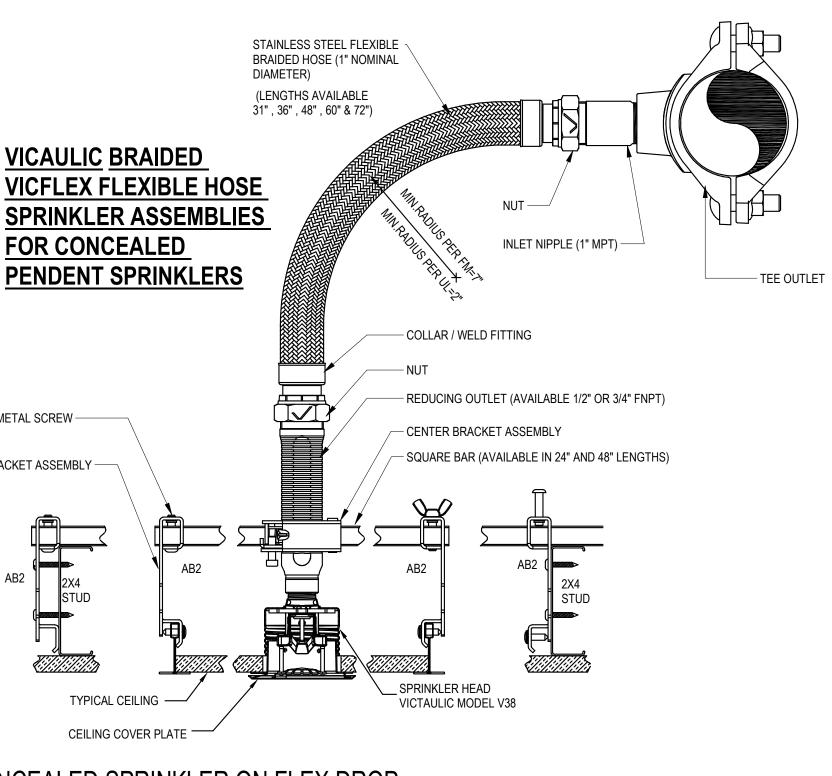


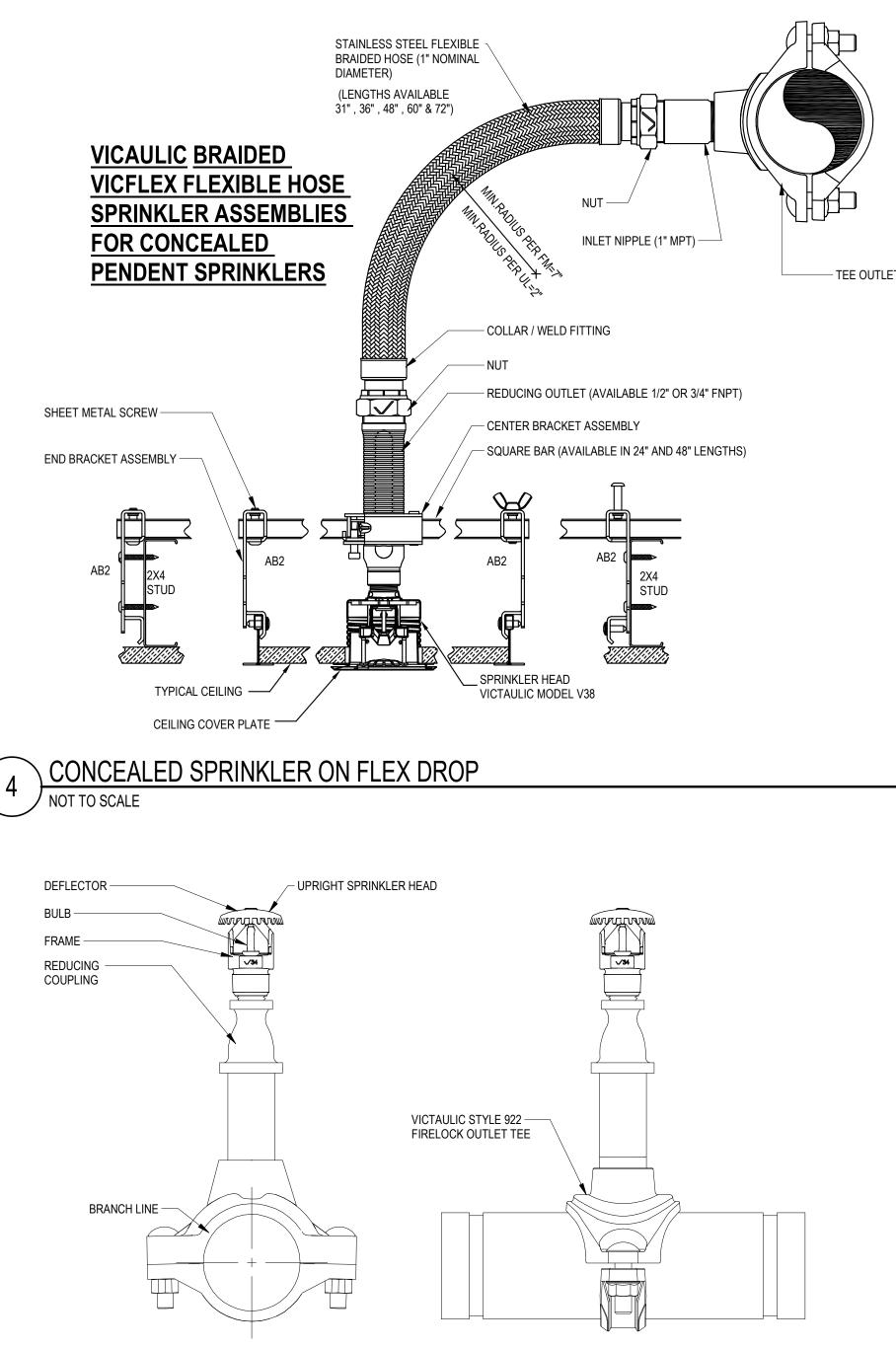


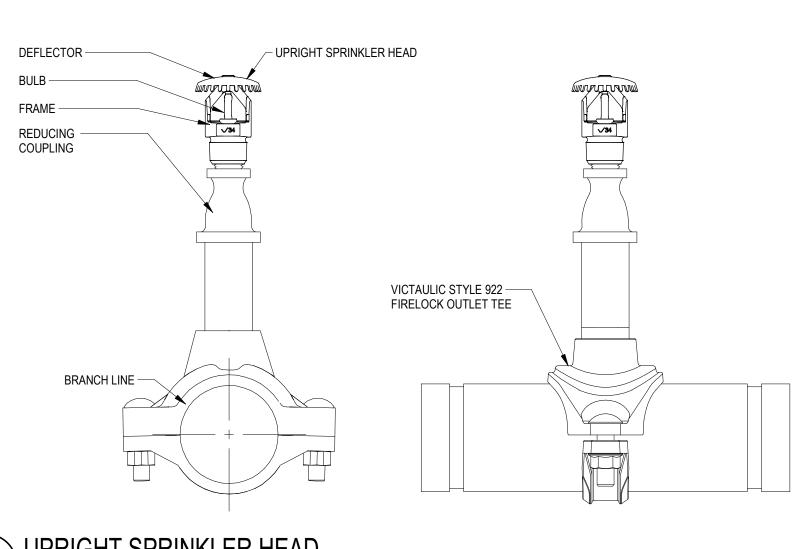


						S	PRINKLE	R DESIGI		Α							
		HAZARD DESC	CRIPTION						CEILIN	G SYSTEM							
AREA INDICATORS	AREA DESCRIPTION	1	HAZARD CLASSIFICATION	AREA CEILING HEIGHT (FT)	MAX STORAGE HEIGHT (FT)	SYSTEM TYPE	SYSTEM #	DENSITY (GPM/ SQ.FT.)	REMOTE AREA (SQ.FT.)	SPRINKLER TYPE	MINIMUM OPERATING PRESSURE (PSI)	DESIGN AREA (NO OF SPRK.)	SPRK. SPACING (SQ.FT.)	MAX SYSTEM AREA (SQ.FT.)	HOSE STREAM ALLOWANCE (GPM)*	DURATION (MINUTES)*	NOTES
	GENERAL OFFICE RESTROOMS, STAIR CLASSROOM	WELLS,	LIGHT HAZARD	SEE ARCH PLANS		WET	VARIES	0.10	1,500	QR CONCEALED PENDANT, UPRIGHT, K≥5.6, ORD. TEMP.	7		225 MAX	52,000	100	120	REFERENCE: NFPA 13 AND SPRINKLER LISTING.
(OH1)	MECHANICAL ROO JANITIORS CLOS ELECTRICAL ROO STORAGE ROO	ETS, DMS,	ORDINARY HAZARD (GROUP 1)	SEE ARCH PLANS	_	WET	VARIES	0.15	1,500	QR, CONCEALED PENDANT, UPRIGHT, K≥5.6, ORD. TEMP.	7	-	130 MAX	52,000	250	120	REFERENCE: NFPA 13 AND SPRINKLER LISTING.
I OTES: * REFERENCE NFPA1	13 § 11.2.3.1.2 (2016	ED).															
					SPRINKI	ER DES	IGN LEGE	ND							FIRE PRO	TECTION	ABBREVIATIONS
SPRINKLER STYLE	SYMBOL	TYPE	FINISH	TEMP	K-FACTOR	NPT	MFG	MODEL#	SPRINKLER RESPON	SE	SPRINKLER LO	OCATIONS / REMARK	s	AFF	ABOVE FINISHED		GV GATE VALVE
CONCEALED PENDANT	•	WET	WHITE	155°F	5.6	1/2"	VICTAULIC	V5606	QUICK RESPONSE	OFFICE	E AREAS, RESTROOM	S, CORRIDOR, CLASS	ROOMS	CLDI CONN	CEMENT LINED DU		GAL GALLONS GALV GALVANIZED GPM GALLONS PER MIN
UPRIGHT	0	WET	BRASS	155°F	5.6	1/2"	VICTAULIC	V2704	QUICK RESPONSE	MECHA	ANICAL ROOMS, JANIT	IORS CLOSETS, ELEC	CTRICAL ROOM	DCVA D D	DOUBLE CHECK V DEMO DRY PIPE SYSTEM		GPM GALLONS PER MIN MAX MAXIMUM MIN MINIMUM









UPRIGHT SPRINKLER HEAD NOT TO SCALE

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ALL-THREAD ROD PIPE SIZE A B C 11/2 3/8 3 1/8 2 5/8 3/4 3/8 3 1/8 2 1/2 1 3/8 3 3/8 2 5/8 3/4 3/8 3 3/8 2 5/8 11/2 3/8 3 3/8 2 5/8 11/2 3/8 3 3/8 2 5/8 11/4 3/8 3 3/4 2 7/8 11/2 3/8 3 7/8 2 7/8 11/2 3/8 3 7/8 2 7/8 11/2 3/8 5 5/8 4 1/8 11/2 3/8 5 5/8 4 1/8 12 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4 ALL SIZES ARE IN INCHES						
SWIVEL NUT 3/4 3/8 3 1/8 2 1/2 ADJUSTABLE BAND 1 3/8 3 3/8 2 5/8 1 3/8 3 3/4 2 7/8 1 3/8 3 3/4 2 7/8 1 3/8 3 7/8 2 7/8 1 1/2 3/8 3 7/8 2 7/8 2 3/8 4 1/2 3 2 3/8 5 5/8 4 1/8 2 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4		— ALL-THREAD ROD		A	В	С
SWIVEL NUT 1 3/8 3 3/8 2 5/8 ADJUSTABLE BAND 1 1/4 3/8 3 3/4 2 7/8 ANDER 1 1/2 3/8 3 7/8 2 7/8 AT LEAST ONE FULL 1 1/2 3/8 3 7/8 2 7/8 2 3/8 4 1/2 3 2 3/8 5 5/8 4 1/8 3 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4			1/2	3/8	3 1/8	2 5/8
ADJUSTABLE BAND HANGER 1 3/8 3 3/8 2 5/8 1 1/4 3/8 3 3/4 2 7/8 AT LEAST ONE FULL THREAD OF ROD MUST BE EXPOSED 2 3/8 4 1/2 3 3 3/8 5 5/8 4 1/8 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4			3/4	3/8	3 1/8	2 1/2
ADJUSTABLE BAND HANGER 1 1/2 3/8 3 7/8 2 7/8 2 3/8 4 1/2 3 AT LEAST ONE FULL THREAD OF ROD MUST BE EXPOSED 2 1/2 3/8 5 5/8 4 1/8 3 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4		SWITCHNOT	1	3/8	3 3/8	2 5/8
HANGER 1 1/2 3/8 3 7/8 2 7/8 AT LEAST ONE FULL THREAD OF ROD MUST BE EXPOSED 2 1/2 3/8 5 5/8 4 1/8 3 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4			1 1/4	3/8	3 3/4	2 7/8
AT LEAST ONE FULL THREAD OF ROD MUST BE EXPOSED 2 1/2 3/8 5 5/8 4 1/8 3 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4			1 1/2	3/8	3 7/8	2 7/8
THREAD OF ROD MUST BE EXPOSED 3 3/8 57/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4	K		2	3/8	4 1/2	3
BE EXPOSED 3 3/8 5 7/8 4 4 3/8 7 3/8 5 5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4	\mathcal{H}^{-}		2 1/2	3/8	5 5/8	4 1/8
5 1/2 9 1/8 6 1/4 6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4			3	3/8	5 7/8	4
6 1/2 10 1/8 6 3/4 8 1/2 13 1/8 8 3/4		\backslash	4	3/8	7 3/8	5
8 1/2 13 1/8 8 3/4 ALL SIZES ARE IN INCHES			5	1/2	9 1/8	6 1/4
ALL SIZES ARE IN INCHES			6	1/2	10 1/8	6 3/4
ALL SIZES ARE IN INCHES			8	1/2	13 1/8	8 3/4
		- SPRINKLER PIPE	ALL SIZES	ARE IN INC	HES	J

DIA DIAMETE DRAIN DR EXISTING ETR EXISTING FACU FIRE ALARN FCA FLOOR CC FDC FIRE DEPA FIRE DEPA FDV FIRE HOSE FHV FLOOR FIRE PRO FLOW SWI FS FEET FSP FIRE STAN



	FIRE PROTECTION C
1.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE ADOPTED BUILDING C DEPARTMENT, THE INSURANCE UNDERWRITER AND ALL LOCAL CODES AND ORDINA
2.	BEFORE STARTING WORK OF THIS SECTION, VISIT SITE AND EXAMINE EXISTING CON WORK DONE UNDER OTHER SECTIONS OR CONTRACTS OR BY OWNER. REPORT CO CONTRACTOR TO ARCHITECT. DO NOT PROCEED WITH WORK UNTIL DEFECTS HAVE WORK SHALL BE CONSTRUED AS COMPLETE ACCEPTANCE OF EXISTING CONDITION
3.	AFTER VISIT TO SITE, CONTRACTOR SHALL STUDY BUILDING ARCHITECTURAL, STRU PREPARE "SPRINKLER WORKING DRAWINGS" IN CONFORMANCE WITH NFPA, THE OV OF NFPA.
4.	FULLY COORDINATE WITH OTHER TRADES AT NO ADDITIONAL COST TO THE OWNER AND EQUIPMENT AND COORDINATION ISSUES, NECESSARY TO ACCOMMODATE THE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO COORDINATE WITH ALL O WILL BE APPROVED DUE TO LACK OF COORDINATION.
5.	INSTALL EQUIPMENT AND MATERIALS TO PRESENT A NEAT APPEARANCE. RUN PIPIN SPRINKLER PIPING AS TIGHT AS POSSIBLE TO THE EXISTING STRUCTURE TO MAINTA
6.	INSTALL ALL PIPING TO AVOID ARCHITECTURAL FRAMING, STRUCTURAL MEMBERS, A BUILDING STRUCTURE TO AVOID CONFLICTS AND MAINTAIN THE HIGHEST POSSIBLE CONTRACT DRAWINGS PRIOR TO PLACING SLEEVES IN FLOORS OR WALLS. ALL HOL SLEEVES INSTALLED.
7.	INSTALL ALL PIPING TO BEST SUIT FIELD CONDITIONS AND COORDINATE WITH THE IN SHALL NOT BE SCALED TO DETERMINE EXACT LOCATIONS OF PIPING. CONTRACTOR ENGINEER PRIOR TO STARTING WORK.
8.	COORDINATE SPRINKLER FLOOR ZONES/SYSTEMS WITH FIRE ALARM ZONES.
9.	BEFORE SELECTING MATERIAL AND EQUIPMENT, AND PROCEEDING WITH WORK, INS INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT AND CLEARANCE
10.	REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATINGS OF WALLS AND SLABS. AN STOPPED BY APPROVED MEANS AND THE ASSEMBLY SHALL BE RESTORED TO ITS R
11.	SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND HEIGHTS.
12.	CONTRACTOR TO COORDINATE WITH STRUCTURAL ENGINEER FOR ALLOWABLE BEA
13.	CONTRACTOR SHALL AVOID RUNNING MAJOR SPRINKLER MAINS AND LARGE PIPING COORDINATE SPRINKLER BRANCHLINES AND HEADS WITH ALL EQUIPMENT IN THOSE
14.	WATER DAMAGE CANNOT BE TOLERATED. TAKE ANY NECESSARY MEASURES TO KE THE WORK, WHETHER INTENTIONAL OR NOT, AT NO COST TO AND TO THE SATISFAC
15.	PRIOR TO THE OPERATION (OPEN OR CLOSE) OF ANY VALVE CONTROLLING WATER APPROVAL OBTAINED FROM, THE GENERAL CONTRACTOR.
SAFE(1.	BUARDING CONSTRUCTION NEITHER THE ARCHITECT NOR ENGINEER SHALL BE RESPONSIBLE FOR PROVIDING / EMPLOYEES, OR ANY INDIVIDUAL RESPONSIBLE TO THEM FOR THE WORK. THIS RES

	F	IRE PROTECTION SHEET LIST
REV	SHEET NUMBER	SHEET NAME
	FP001	FIRE PROTECTION NOTES, DESIGN CRITERIA, LEGENDS, &
	FP101.1A	PARTIAL FIRST FLOOR FIRE PROTECTION PLAN - AREA A
	FP101.1B	PARTIAL FIRST FLOOR FIRE PROTECTION PLAN - AREA B

INISHED FLOOR	GV	GATE VALVE
LINED DUCTILE IRON	GAL	GALLONS
TION	GALV	GALVANIZED
CHECK VALVE ASSEMBLY	GPM	GALLONS PER MINUTE
	MAX	MAXIMUM
ESYSTEM	MIN	MINIMUM
R	Ν	NEW
	NTS	NOT TO SCALE
3	PD	PUMP DISCHARGE
G TO REMAIN	PSI	POUNDS PER SQUARE INCH
RM CONTROL UNIT	PRV	PRESSURE REDUCING VALVE
CONTROL ASSEMBLY	R	RELOCATE
PARTMENT CONNECTION	RV	RELIEF VALVE
PARTMENT VALVE	SQFT	SQUARE FEET
SE VALVE	SP	SPRINKLER
	STP	STANDPIPE
DTECTION PIPING	TS	TAMPER SWITCH
VITCH	UP	(PENETRATES FLOOR SLAB)
	VIF	VERIFY IN FIELD
NDPIPE	WS	AUTOMATIC WET SYSTEM
	ZCA	ZONE CONTROL ASSEMBLY

FIRE PROTECTION PIPING SYSTEMS LEGEND

 SP	SPRINKLER SYSTEM MAIN
	CONNECT NEW PIPING TO EXISTING PIPING

COORDINATION NOTES

CODE AND REFERENCE STANDARD, NFPA, THE LOCAL FIRE PREVENTION NANCES.

DNDITIONS UNDER WHICH WORK MUST BE PERFORMED INCLUDING PREPARATORY CONDITIONS THAT MIGHT AFFECT WORK ADVERSELY IN WRITING THROUGH VE BEEN CORRECTED AND CONDITIONS ARE SATISFACTORY. COMMENCEMENT OF ONS AND PREPARATORY WORK.

RUCTURAL, MECHANICAL, REFLECTED CEILING AND ELECTRICAL PLANS AND OWNER'S INSURANCE UNDERWRITER AND THE UNDERWRITER'S INTERPRETATION

ER, MAKE ALL REASONABLE CHANGES AND ADDITIONS TO LOCATION OF MATERIALS HE STRUCTURAL AND ARCHITECTURAL CONDITIONS AND THE SYSTEMS. IT SHALL BE L OTHER TRADES AND PARTIES TO AVOID CONFLICTS. NO ADDITIONAL CHARGES

ING PARALLEL WITH OR PERPENDICULAR TO BUILDING PLANES. RUN ALL ITAIN THE GREATEST CLEAR HEIGHT.

6, AND OTHER OBSTRUCTIONS. COORDINATE ALL SPRINKLER PIPING WITH THE E CLEAR HEIGHT. COORDINATE PIPING LOCATIONS WITH ALL APPLICABLE DLES IN WALLS AND FLOORS SHALL BE CORE DRILLED OR HAVE METALLIC PIPE

E INSTALLATION WORK OF OTHER TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND OR IS TO REPORT CONDITIONS REQUIRING CHANGES FROM PLANS TO THE

INSPECT AREAS WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO CFS ALL PENETRATIONS IN FIRE RESISTIVE RATED ASSEMBLIES SHALL BE FIRE REQUIRED FIRE RESISTANCE RATING.

BEAM PENETRATION LOCATIONS, SIZES, AND DETAILS (IF APPLICABLE). NG IN ELECTRICAL UTILITY SPACES AND MAIN ELECTRIC SERVICE ROOM.

OSE SPACES. KEEP THE PREMISES DRY AT ALL TIMES. REPAIR WATER DAMAGE RESULTING FROM ACTION OF THE OWNER. R TO THE DOMESTIC OR FIRE SYSTEMS, NOTIFICATION SHALL BE GIVEN TO, AND

G A SAFE WORKING PLACE FOR THE CONTRACTOR, SUBCONTRACTORS, OR THEIR ESPONSIBILITY RESTS WITH THE CONTRACTOR

ECTION SHEET LIST

SHEET NAME DTES, DESIGN CRITERIA, LEGENDS, & ABBREVIATIONS R FIRE PROTECTION PLAN - AREA A

2.	ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH CURRENT STATE APPLICABLE CODES, ORDINANCES, THE REGULATORY AGENCIES HAV THE SPECIFICATIONS. THE SPECIFICATIONS MAY EXCEED THE REQUIREMENTS OF THE CODE, IN WHICH CASE, THE SPECIFICATION MUST BE FO
3.	THE INTENT OF THESE DOCUMENTS IS FOR THE MEP TRADES TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. T PROTECTION SHALL BE COMPLETE IN ALL RESPECTS; OPERATIONAL, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTIC BENEFICIAL USE BY THE OWNER.
4.	THE TRADES SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS BEFORE SUBMITTING A BID. INFORMATION IS PROVIDED ON THE VARIOUS SCHEDULES, SPECIFICATIONS AND ALL OF THE VARIOUS DOCUMENTS IN THE BIDDING PACKAGE. THE CONTRACT DOCUMENTS ARE COMPLIMENT TOTAL PROJECT DESIGN AND INFORMATION SOURCE FOR CONSTRUCTION PURPOSES.
5.	THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. COOR EQUIPMENT WITH OTHER TRADES BEFORE AND DURING CONSTRUCTION. ANY MODIFICATION TO THE EQUIPMENT LAYOUT, REQUIRED FOR INST PERFORMED UNDER THE CONTRACT AGREEMENT, AT NO ADDITIONAL COST.
6.	SUBMIT COORDINATED WORKING SHOP DRAWINGS SHOWING SPRINKLER SYSTEM AS REQUIRED BY THE SPECIFICATIONS FOR APPROVAL BEFO WORK. SUBMIT HYDRAULIC CALCULATIONS, CATALOG CUTS OF EQUIPMENT AND PIPING MATERIAL TO BE USED ON THIS PROJECT.
7.	THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES. THE DRAWINGS ARE DIAGRAMMA GENERAL ARRANGEMENT OF EQUIPMENT AND PIPING. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EQUIPMENT AND PIPING ALL THE TRADES BEFORE COMMENCING WORK.
8.	ALL EQUIPMENT SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS, WHEN EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING (GYF EQUIVALENT), OR BEHIND A WALL, AN APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. IF AN ACCESS DOOR IS REQUIRED, IT SHALL BE OF A F FOR THE WALL/CEILING IN WHICH IT IS TO BE INSTALLED. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF ACCESS PANELS FOR ALL VALV REQUIRING ACCESS, WITH THE ARCHITECT, PRIOR TO INSTALLATION OF SUCH DEVICES OR OTHER APPURTENANCES.
9.	WHERE A CONFLICT OCCURS BETWEEN THE DOCUMENTS, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. CARRY AS PART OF T QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
10.	THIS CONTRACT SHALL INCLUDE ALL THE NECESSARY PIPING, FITTINGS, TRANSITIONS ETC. AS REQUIRED TO INSTALL PIPING AND EQUIPMENT, A CONFLICTS WITH OTHER TRADES AND THE BUILDING STRUCTURE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, O HE MAKES AS A RESULT OF HIS FAILURE TO COORDINATE WITH OTHER TRADES OR BECOME FULLY FAMILIAR WITH THE PROJECT DOCUMENTS O
11.	CONTRACTORS SHALL PROVIDE SLEEVES AND SEALS FOR PIPES PENETRATING EXTERIOR WALLS, ROOFS OR FLOOR SLABS. THESE SLEEVES AND SHALL BE PROTECTED WITH A UL. ASSEMBLY APPROPRIATE FOR THE TYPE OF CONSTRUCTION BEING PENETRATED.
12.	DO NOT INSTALL ANY PIPING OVER ELECTRICAL PANELS, TRANSFORMERS, SPECIAL EQUIPMENT, OR THROUGH ROOMS THAT DO NOT ASSOCIAT THE RESPECTIVE ROOMS. COORDINATE THE LOCATION OF ELECTRICAL EQUIPMENT IN THE FIELD AND ADJUST AS NECESSARY.
13.	NO MECHANICAL SYSTEM COMPONENTS MAY BE SUPPORTED FROM STRUCTURAL BRACED FRAMES.
14.	PIPING SUPPORTED FROM STRUCTURE ABOVE SHALL BE HELD TIGHT TO BOTTOM OF BEAMS, WHEN RUNNING PERPENDICULAR TO BEAMS. PIPI TO BEAMS, SHALL BE RUN TIGHT TO FLOOR SLAB; INCLUDE ALL NECESSARY FITTINGS AND TRANSITIONS.
15.	IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW INDIVIDUAL BRANCH PIPING TO EACH SPRINKLER HEAD, ONLY THE MAIN SPRINKLER OR STAI IS USUALLY INDICATED. THE ENTIRE FIRE SUPPRESSION SYSTEM SHALL BE FULLY OPERATIONAL AND READY FOR BENEFICIAL USE BEFORE THE COMPLETE.
16.	REFER TO THE LATEST ARCHITECTURAL PLANS FOR CEILING CONSTRUCTION, ELEVATIONS, SECTIONS, DETAILS, LOCATIONS OF SOFFITS, CEILING SKYLIGHT, ETC. PROVIDE ADDITIONAL PIPING AND SPRINKLER HEADS AS THE CONDITION WARRANTS.
17.	WHERE SPRINKLER HEADS ARE SHOWN ON CONTRACT DOCUMENTS, THEY ARE INDICATED FOR GENERAL COORDINATION PURPOSES ONLY AND CONTRACTOR FROM FULL COMPLIANCE WITH APPLICABLE CODES AND GOOD INSTALLATION PRACTICE. THE CONTRACTOR SHALL FURNISH AND SPRINKLERS AS NECESSARY DUE TO OBSTRUCTION FOR A COMPLETE SPRINKLER SYSTEM PER NFPA #13.
18.	SPRINKLER HEADS LOCATIONS SHALL BE COORDINATED WITH THE LATEST ARCHITECTURAL REFLECTED CEILING PLANS, LIGHT FIXTURES, DIFFU SMOKE DETECTORS, MECHANICAL AND ELECTRICAL EQUIPMENT. INSTALL SPRINKLER HEADS BENEATH DUCTS AND CEILING MOUNTED EQUIPME WIDE. FULL SPRINKLER COVERAGE REMAINS THE RESPONSIBILITY OF THE INSTALLING PROFESSIONAL.
19.	SPRINKLER HEADS SHALL NOT BE INSTALLED DIRECTLY FROM THE BOTTOM OF HORIZONTAL SPRINKLER MAINS OR BRANCH LINES. ALL CONNER HEADS SHALL BE MADE FROM THE TOP OR SIDES OF THE MAIN OR BRANCH LINES.
20.	PROVIDE LISTED GUARDS WHERE SPRINKLER HEADS ARE SUBJECT TO DAMAGE OR INJURY. (GYMNASIUM, STAGE, MECHANICAL ROOMS, STORA ROOMS, ETC.) OR ARE LOCATED BELOW 7'-6" ABOVE FINISHED FLOOR.
21.	INSTALL ALL PIPING WITH PROVISION FOR COMPLETE DRAINAGE. WET-PIPE SPRINKLER SYSTEM MAY BE INSTALLED LEVEL AND NOT SLOPED.
22.	COORDINATE LOCATIONS OF FIRE PROTECTION CONTROL VALVES, INSPECTOR TEST DRAINS VALVES WITH THE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. INSTALL INSPECTOR TEST VALVES AT 7'-0" ABOVE FINISHED FLOOR OR AS DIRECTED BY THE AHJ.
23.	ALL EQUIPMENT MAIN DRAINS AND INSPECTOR TEST DRAINS SHALL BE PIPED TO THE EXTERIOR OF THE BUILDING. PROVIDE CONCRETE SPLASI DRAIN LOCATION TO AVOID SOIL EROSION OR OTHER DAMAGE.
24. 25.	COORDINATE ALL FIRE PROTECTION EQUIPMENT REQUIRING POWER AND/OR CONNECTION TO THE FIRE ALARM SYSTEM WITH THE ELECTRICAL SEISMICALLY SUPPORT THE EQUIPMENT AS REQUIRED BY CODE, THE AUTHORITY HAVING JURISDICTION, AND/OR AS SPECIFIED. SUBMIT ENGIN DETAILS PER THE SPECIFICATIONS. THE CONTRACTOR'S SEISMIC ENGINEER SHALL REVIEW THE INSTALLATION THE INSTALLATION AND PROVID FOR THE RECORD.
26.	BEFORE SUBMITTING BID, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BECOME FULLY FAMILIAR WITH THE EXISTING CONDITIONS AND TH OTHER TRADES UNDER WHICH HIS WORK WILL BE ACCOMPLISHED. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, O HE MADE AS A RESULT OF FAILURE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
27.	THE CONTRACTOR SHALL COORDINATE AND SCHEDULE (PREMIUM HOURS IF NECESSARY) DAILY INTERRUPTIONS OR SHUTDOWNS OF THE EXIS ADVANCE WITH OWNERS DESIGNATED REPRESENTATIVE. THIS SHALL INCLUDE SERVICES INTERRUPTIONS AND CONNECTIONS, MECHANICAL AN DISRUPTIONS EFFECTING OTHER TRADES. INCLUDE ALL WORK REQUIRED TO ALLOW PHASED CONSTRUCTION WHERE NECESSARY.
28.	WHERE A REQUIRED FIRE PROTECTION SYSTEM IS OUT OF SERVICE FOR MORE THAN 4 HOURS IN A 24-HOUR PERIOD, THE FIRE DEPARTMENT AN NOTIFIED IMMEDIATELY AND, WHERE REQUIRED BY THE AHJ, THE BUILDING SHALL BE EITHER EVACUATED OR AN APPROVED FIRE WATCH SHALL ALL OCCUPANTS LEFT UNPROTECTED BY THE SHUTDOWN UNTIL THE FIRE PROTECTION SYSTEM HAS BEEN RETURNED TO SERVICE. WHERE UT SHALL BE PROVIDED WITH NOT LESS THAN ONE APPROVED MEANS FOR NOTIFICATION OF THE FIRE DEPARTMENT AND THEIR ONLY DUTY SHALL CONSTANT PATROLS OF THE PROTECTED PREMISES AND KEEP WATCH FOR FIRES
29.	DEMOLITION DRAWINGS ARE STRICTLY DIAGRAMMATIC AND SHOW GENERAL ARRANGEMENT OF EXISTING MECHANICAL AND ELECTRICAL EQUIP NOT THE INTENT OF THESE DRAWINGS TO SHOW ALL EQUIPMENT, PIPING OR CONDUIT TO BE REMOVED. EQUIPMENT NOT BEING REUSED SHALI INCLUDING ALL ASSOCIATED HANGERS, SUPPORTS, PIPES, CONDUITS, WIRES, AND CONTROLS BACK TO THE POINT OF ORIGIN.
30.	REFER TO THE ARCHITECTURAL DEMOLITION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. THE FULL IS DEMOLITION AND RECONSTRUCTION SCOPE OF WORK SHALL BE DETERMINED BY THE ENTIRE SET OF BID DOCUMENTS.
31.	THE CONTRACTORS SHALL COORDINATE THE DEMOLITION SCOPE OF WORK WITH THE GENERAL CONTRACTOR'S OR CONSTRUCTION MANAGEF PRIOR TO COMMENCEMENT OF WORK. CARE MUST BE TAKEN SO AS NOT TO DESTROY, REMOVE OR DEMOLISH ANY EQUIPMENT, APPURTENANG INTENDED TO REMAIN. PROVIDE TEMPORARY SERVICES AND SYSTEM MODIFICATIONS AS NECESSARY.
32.	THE LOCATION OF EXISTING FIRE SUPPRESSION SYSTEM SHOWN ON FLOOR PLANS, IS BASED ON THE BEST AVAILABLE INFORMATION. THE CON VERIFY PRIOR TO COMMENCEMENT OF CONSTRUCTION, EXACT QUANTITY AND LOCATION(S) OF EXISTING EQUIPMENT, PIPING, SPRINKLER HEAD AND ADJUST AS NECESSARY.
33.	ALL EQUIPMENT, SPRINKLERS AND ASSOCIATED PIPING INDICATED TO BE REMOVED OR RELOCATED, SHALL BE DISCONNECTED AND REMOVED, AND OTHER COMPONENTS, UP TO NEAREST EXISTING ACTIVE MAIN OR BRANCH LINE AND CAPPED AS CLOSE TO THE ACTIVE LINE AS POSSIBLE. PIPING, OR CONDUIT SHALL BE ABANDONED IN PLACE, UNLESS SPECIFICALLY NOTED.
34.	THE CONTRACTOR SHALL VERIFY WHICH SYSTEMS MUST REMAIN ACTIVE TO SERVE ADJACENT SPACES DURING CONSTRUCTION. SHOULD THE ENCOUNTER, DURING DEMOLITION OF EXISTING WALLS OR CHASES, ANY PIPING OR CONDUIT WHICH MUST REMAIN ACTIVE, HE SHALL IMMEDIAT THE ENGINEER, GENERAL CONTRACTOR OR CONSTRUCTION MANAGER.
35.	EXISTING REVAMPED SPRINKLER PIPING SYSTEM, MUST BE CONFIRMED BY HYDRAULIC CALCULATIONS, FOR WHICH APPROVAL MUST BE GAINED COMMENCING INSTALLATION OF WORK.
36.	WHERE EXISTING PIPING, SPRINKLERS OR EQUIPMENT INDICATED TO REMAIN, BUT ARE IN CONFLICT WITH NEW EQUIPMENT INSTALLATION, SHA REROUTED AS NECESSARY TO ACCOMMODATE THE NEW INSTALLATION.
37.	ALL SALVAGEABLE MATERIALS OR EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER AT THE END OF EACH DAY. ITEMS REM REUSED OR DISCLAIMED BY THE OWNER SHALL BECOME PROPERTY OF THE TRADE CONTRACTOR AND SHALL BE TRANSPORTED FROM THE SIT REMOVED ITEMS WILL NOT BE PERMITTED.
38.	PROPERLY DISPOSE OF ALL DEMOLISHED EQUIPMENT IN COMPLIANCE WITH CODES AND REGULATIONS; THIS APPLIES TO HAZARDOUS MATERIA CONTAMINATED ITEMS TO BE DEMOLISHED.
39.	NOTE: THE EXISTING BUILDING IS PROTECTED BY A SPRINKLER SYSTEM. THE FIRE PROTECTION CONTRACTOR SHALL OBTAIN EXISTING SPRINKL THE OWNER, TO HELP DETERMINE THE NEW SCOPE OF WORK.
40.	EXISTING SPRINKLER HEADS SHALL BE EXTENDED TO NEW CEILING ELEVATIONS WHERE REQUIRED.
41.	EXISTING SPRINKLER HEADS ARE PERMITTED TO BE REINSTALLED WHEN THE SPRINKLER BEING REMOVED FROM THE SYSTEM REMAINS ATTAC FITTING OR WELDED OUTLET, PROVIDED CARE IS TAKEN TO ENSURE THE SPRINKLER IS NOT DAMAGED. FLEXIBLE HOSE CONNECTIONS ARE CO
42.	SPRINKLER HEADS THAT ARE REMOVED FROM THEIR ORIGINAL FITTING OR WELDED OUTLET SHALL BE REPLACED WITH NEW HEADS PER NFPA
43.	NEW SPRINKLER INSTALLATION REQUIRES CONNECTION TO EXISTING SPRINKLER SYSTEM. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION SPRINKLER MAINS AND BRANCH PIPING AFTER CEILINGS HAVE BEEN REMOVED IN DEMOLITION. ALL MAIN AND BRANCH PIPING FOR RECONNECT WHERE POSSIBLE. PIPING CONTAINING "MIC" SHALL BE REPLACED.
44. 45.	NEW SPRINKLER HEADS ARE TO BE THE SAME STANDARD OR QUALITY AS EXISTING AND AS REQUIRED UNDER NFPA 13, OR THE AUTHORITY HAV SPRINKLER HEAD TEMPERATURE RATINGS SHALL BE IN ACCORDANCE WITH NFPA 13 OR OTHER GOVERNING CODE.
46.	NEW SPRINKLER MAIN & CROSSMAIN PIPING SHALL BE SCH-10 WITH ROLL GROOVED FITTINGS (OR EQUAL).
47.	NEW SPRINKLER BRANCHLINE PIPING SHALL BE SCH-10 WITH ROLL GROOVED FITTINGS OR EQUAL FOR SIZES 1-1/4" - 2", AND SCH-40 WITH CLASS FITTINGS FOR SIZES 1" - 1-1/4".
48.	RETAIN ALL PIPE CUTOUT DISKS. ATTACH DISKS TO CORRESPONDING PIPE JOINT FOR INSPECTION. AFTER INSPECTION REMOVE AND DISPOSE (CONCEAL PIPING IN FINISHED AREAS. INSTALL WORK SO AS TO REQUIRE A MINIMUM AMOUNT OF FURRING.

FIRE PROTECTION GENERAL NOTES AND SCOPE OF WORK

DRAWING CONTENTS ARE ARRANGED BY TOPIC AND CATEGORY AND ARE NOT INTENDED TO AWARD DIVISION OF WORK.

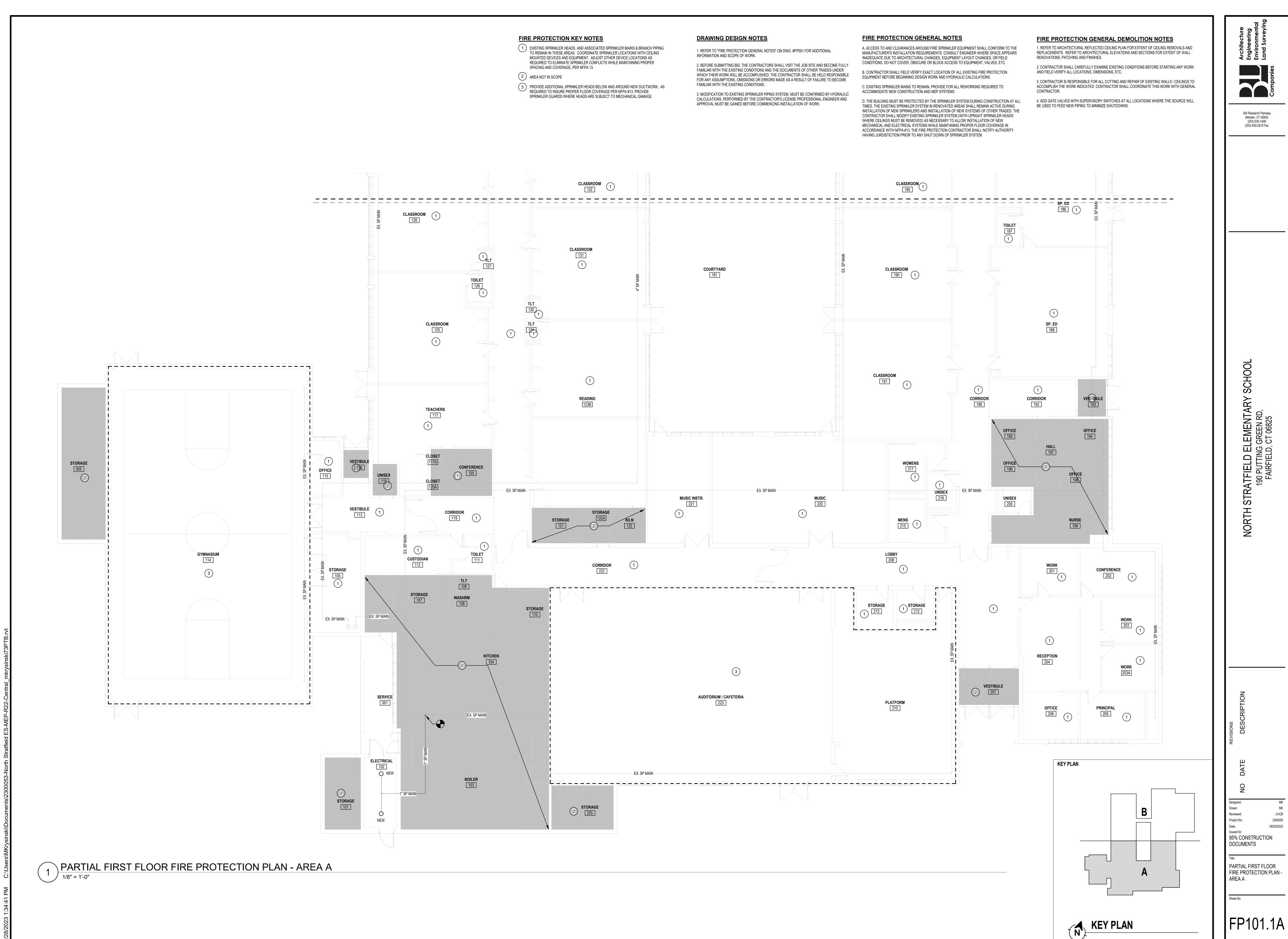
APPLICABLE CODES

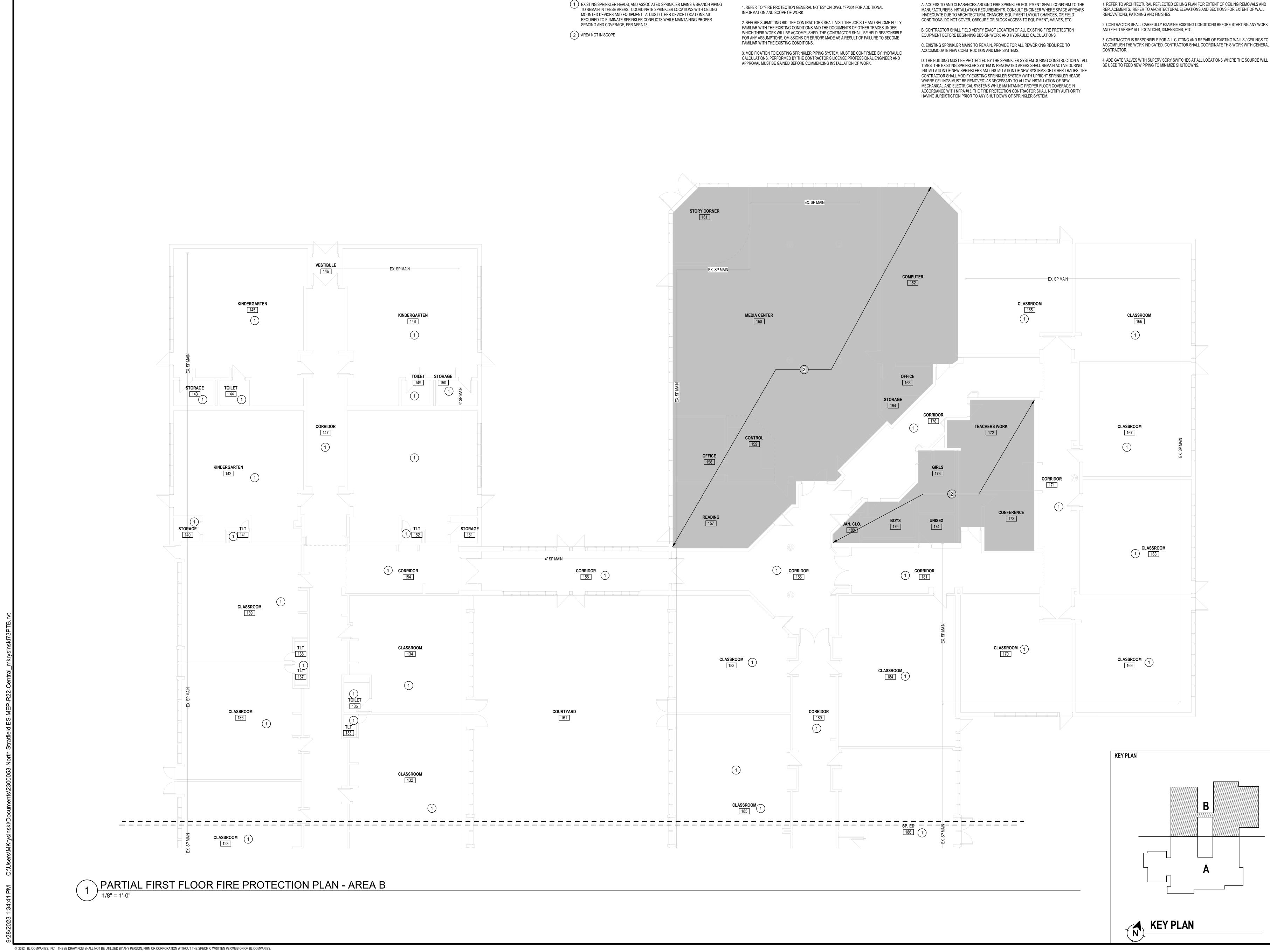
1. THE ENTIRE SYSTEM DESIGN, LAYOUT, AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING ADOPTED CONNETICUT BUILDING CODES. A. 2022 CONNECTICUT STATE BUILDING CODE B. 2021 INTERNATIONAL BUILDING CODE W/ 2022 CT STATE AMENDMENTS D. 2022 CONNECTICUT STATE FIRE SAFETY CODE

E. 2022 CONNECTICUT STATE FIRE PREVENTION CODE F. 2021 INTERNATIONAL FIRE CODE W/ 2022 CT STATE AMENDMENTS

G. 2016 EDITIONS OF NFPA 13 AND NFPA 24







FIRE PROTECTION KEY NOTES

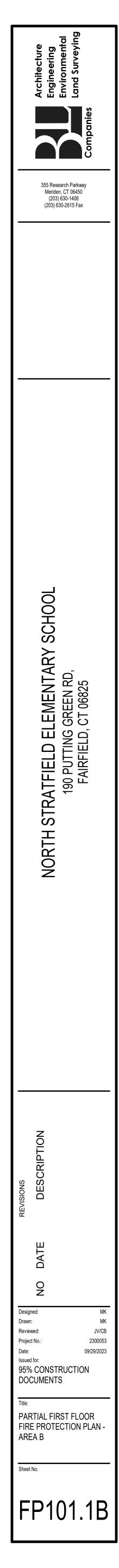
DRAWING DESIGN NOTES

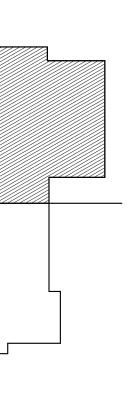
FIRE PROTECTION GENERAL NOTES

FIRE PROTECTION GENERAL DEMOLITION NOTES 1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXTENT OF CEILING REMOVALS AND REPLACEMENTS. REFER TO ARCHITECTURAL ELEVATIONS AND SECTIONS FOR EXTENT OF WALL

2. CONTRACTOR SHALL CAREFULLY EXAMINE EXISTING CONDITIONS BEFORE STARTING ANY WORK

3. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND REPAIR OF EXISTING WALLS / CEILINGS TO ACCOMPLISH THE WORK INDICATED. CONTRACTOR SHALL COORDINATE THIS WORK WITH GENERAL





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	18.	SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSA CONDITIONS AND RESULTS MUST BE DETERMINED BY CONDITIONS AND SHALL HAVE THE APPROVAL OF THE

- 19. ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING, DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. ALL STEEL SHALL BE GALVANIZED WITH (2) COATS OF A RUST PROHIBITIVE PRIMER.
- 20. WHERE ANY MECHANICAL COMPONENTS REQUIRING MAINTENANCE OR ADJUSTMENT, (I.E. VOLUME & CONTROL DAMPERS, VALVES, PIPING SPECIALTIES, FIRE, SMOKE & COMBINATION FIRE/SMOKE DAMPERS, MECHANICAL EQUIPMENT, ETC.), ARE LOCATED IN INACCESSIBLE AREAS, FURNISH APPROPRIATELY SIZED ACCESS DOORS OR PANELS AND TURN OVER TO THE GENERAL CONTRACTOR (GC) FOR INSTALLATION. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GC FOR THE PROPER LOCATIONS.

MECHANICAL GENERAL NOTES

- ORM ALL LABOR REQUIRED 21. ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., SHALL SYSTEMS AS INDICATED ON CODE.
- WORK ARE DIAGRAMMATIC L ARRANGEMENT ONLY.
- AND FOLLOWING OWNERS OMPLETION OF PROJECT.
- NANCES IN ACCORDANCE RACT DOCUMENTS, AND
- AND ARE INTENDED TO SHOW DO NOT INDICATE WHICH OFFSETS ARE NOT COORDINATE THE WORK, OID CONFLICT WITH OTHER CTRICAL SERVICES AND OUT ADDITIONAL COST TO RED, THE MC SHALL SUBMIT HE ENGINEER OF RECORD
- CFM SHALL BE PROVIDED D IN THE SUPPLY & RETURN ION OF THE STATE'S S MOUNTED EXPOSED TO UNTED IN AN APPROVED SMOKE DETECTORS SHALL D BY DIV. 23. PROVIDE AN MOTOR STARTERS AND OWN OF FANS UPON
- RE SMOKE DETECTORS ARE Γ, MEANS SHALL BE ENTRAL FIRE ALARM SYSTEM. L EQUIPMENT TO PREVENT
- ORK WITH ELECTRICAL NT DRAWINGS.
- SIDE OF PIPES, DUCTS, IOUT ACCESS ROUTES IN
- IANICAL EQUIPMENT,
- IEASURING DEVICES IN F PIPE OR DUCT UP- AND TURER FOR GOOD
- L BE A MEMBER OF THE ATIONAL ENVIRONMENTAL ND BALANCING SHALL BE DARDS.
- EQUIPMENT ARE REQUIRED, ANUFACTURERS' CERTIFIED
- ID PIPING TRANSITIONS FURNISHED EQUIPMENT. G DIMENSIONS BEFORE
- ITH THE NATIONAL ELECTRIC WITH DUCTWORK OR PIPING,
- BEAM OPENING SIZE AND E PRIOR TO FABRICATION OF F BEAMS.
- METAL, FIRE PROTECTION, ICAL CONTRACTOR'S S AND THE ASSOCIATED NG TO WHICH CONTRACTOR CONTRACT OR WHICH PARTICULAR ITEM OF THE
- THE ATTENTION OF THE L BE FINAL. INGS OR CALLED FOR IN THE Y DIMENSIONS ARE
- SARY TO SECURE THE BEST THE PROJECT SITE E ENGINEER BEFORE BEING

22. SEISMICALLY RESTRAIN ALL MECHANICAL EQUIPMENT, PIPING AND DUCT AS REQUIRED BY CODE. 23. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING AND DUCT SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.

BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M OR APPROVED EQUAL.

- 24. UNLESS OTHERWISE NOTED, ELEVATIONS AS SHOWN ON THE DRAWINGS FOR PIPING ARE TO THE CENTERLINE OF ALL PRESSURE PIPING AND TO THE INVERT OF ALL GRAVITY PIPING. ELEVATIONS AS SHOWN ON THE DRAWINGS FOR DUCTWORK ARE TO BE THE "BOTTOM-OF-DUCT" (BOD).
- 25. OTHERWISE NOTED, ALL PIPING AND DUCTS ARE OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB WITH SPACE FOR INSULATION IF REQUIRED. 26. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
- 27. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- 28. UNLESS OTHERWISE NOTED, THE LOCATION OF LIGHTING AND SPRINKLER HEADS TAKES PRECEDENCE OVER THE LOCATIONS OF REGISTER, GRILLES & DIFFUSERS (RGDs). ALSO, CONTRACTOR SHALL COORDINATE WITH OWNER SUPPLIED AND/OR INSTALLED EQUIPMENT. COORDINATION DRAWINGS MUST BE SUBMITTED BEFORE ANY MECHANICAL, PLUMBING, FIRE PROTECTION EQUIPMENT IS INSTALLED, IF NOT, THE MECHANICAL CONTRACTOR WILL BE REQUIRED TO REMOVE/RELOCATE AT THEIR EXPENSE.
- 29. PROVIDE CABLE OPERATED VOLUME DAMPERS AT ALL LOCATIONS WHERE THE DAMPER IS IN AN INACCESSIBLE LOCATION AND ACCESS DOORS CANNOT BE PROVIDED. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF THE OPERATORS TO ALLOW FOR CONVENIENT OPERATION.
- 30, ROOM TEMPERATURE, HUMIDITY & CARBON DIOXIDE SENSORS SHALL BE MOUNTED TO THE WALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATIONS INSTRUCTIONS. THE SENSORS SHALL BE MOUNTED AT A HEIGHT THAT SATISFIES THE LATEST ANSI 117.1 REQUIREMENTS. COORDINATE SENSOR LOCATIONS W/ LIGHT SWITCHES AND OTHER DEVICES THAT ARE BY OTHER SECTIONS/DIVISIONS. IN AREAS THAT ARE SUBJECT TO PHYSICAL ABUSE (I.E. GYMNASIUM, ETC.), PROVIDE A PROTECTIVE ENCLOSURE THAT WILL NOT AFFECT THE DEVICES PERFORMANCE.
- 31. WHERE AUTOMATIC TEMPERATURE CONTROLS DEVICES ARE TO BE MOUNTED TO CONCRETE OR MASONRY WALLS, THEY SHALL BE SURFACE MOUNTED. RUN THE WIRING IN METALLIC CONDUIT, CONCEALED IN THE BLOCK WALLS. WHERE CONDUIT RUNS CANNOT BE CONCEALED, SURFACE MOUNT AND PAINT THE CONDUIT TO MATCH THE SURFACE IT IS INSTALLED ON. COORDINATE COLOR WITH ARCHITECTS.
- 32. PROVIDE A FLEXIBLE DUCT SECTION OR FLEXIBLE PIPING EXPANSION LOOPS, AT ALL LOCATIONS WHERE DUCTWORK AND PIPING CROSS BUILDING EXPANSION/SEISMIC JOINTS. THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL LOCATIONS ON ARCH. DRAWINGS. SUPPORT DUCT AND PIPING ON BOTH SIDES OF THE JOINT. ALLOW FOR A MIN. OF 2" OF MOVEMENT IN ANY DIRECTION.
- 33. PROVIDE GALV., SCH. 40 PIPE SLEEVES AT ALL WALL AND FLOOR PENETRATIONS. SLEEVES TO BE WATERPROOF AT ALL BELOW GRADE OR SLAB-ON-GRADE PENETRATIONS. REFER TO M500 SERIES DETAILS AND DIV. 23 & 07 SPECIFICATIONS.
- 34. FIRE SEAL AROUND ALL DUCT AND PIPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. COORDINATE WITH ARCH. DWGS. FOR ASSEMBLY TYPES AND LOCATIONS. PROVIDE ALL NECESSARY MATERAILS/COMPONENTS AND INSTALL IN STRICT ACCORDANCE WITH U.L. REQUIREMENTS BASED ON THE ASSEMBLIES COMPOSITION. REFER TO DIV. 23 SPECIFICATIONS AND DIV. 07 SPEC. FOR ADDITIONAL INFORMATION.
- 35. HANGERS FOR PIPES, DUCTS, CONDUITS, PANELS, TRANSFORMERS, MECHANICAL AND PLUMBING EQUIPMENT, ETC... ARE INTENDED TO BE SUPPORTED BY MISC. GALV. STEEL ANGELS OR CHANNELS OR SIMILAR DEVICES MEETING MSS STANDARDS AND SECURELY ATTACHED TO BUILDING STRUCTURAL STEEL COMPONENTS. IT IS NOT INTENDED FOR HANGERS TO BE PRIMARILY SUPPORTED FROM THE FLOOR SLAB. WHERE UNAVOIDABLE, REFER TO DIV. 05, STEEL DECKING, FOR REQUIREMENTS PERTAINING TO HANGERS SUPPORTED BY THE FLOOR DECK. DO NOT INSTALL ANY HANGERS DIRECTLY TO THE ROOF DECK. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS. ALL CONNECTIONS SHALL BE COORDINATED WITH GENERAL CONTRACTOR. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED.
- 36. FOR CEILING TYPE DIFFUSERS SHOWN IN AREAS WITHOUT CEILINGS, DO NOT USE FLEXIBLE BRANCH DUCTWORK AT ALL. RIDIGLY MOUNT THE DIFFUSER TO THE BRANCH DUCT WITH AMPLE STRAIGHT RUN AS INDICATED IN THE DETAIL. INSTALL ALL DIFFUSERS, LEVEL, WITH THE FACE PARALLEL TO THE FLOOR AT A HEIGHT THAT WILL ALLOW FOR MAX. HEADROOM. ALL DIFFUSERS WITHIN THE SAME SPACE SHALL BE MOUNTED AT THE SAME ELEVATION. MC TO COORDINATE FINAL DIFFUSER ELEVATION WITH ARCHITECT. TYPICAL.
- 37. PROVIDE CONDENSATE PUMPS (CPs) AT ALL HVAC EQUIPMENT USED FOR COOLING. MOUNT THE CPs TO THEIR RESPECTIVE EQUIPMENT WHERE FEASIBLE OR IN CLOSE PROXIMITY USING GALV. STEEL CHANNEL SYSTEM SECURED TO THE BUILDING STRUCTURE. THE UNIT'S CONDENSATE DISCHARGE (CD) SHALL BE PITCHED DOWNWARD, AND RUN AS SHORT AS POSSIBLE, WITHOUT ANY OBSTRUCTIONS OR LOW POINTS, TO THE CP INLET.
- 38. A WEATHERPROOF DUPLEX, 120V., GFCI CONVENIENCE OUTLETS SHALL BE PROVIDED AT ALL EQUIPMENT LOCATED OUTDOORS. WHERE APPLICABLE, THE OUTLETS SHALL BE FACTORY MOUNTED AND WIRED BY THE UNIT'S MANUFACTURER. RECEPTACLE USE SHALL BE INDEPENDENT OF UNIT OPERATION AND SHALL BE ACTIVE, EVEN IF UNIT IS DISABLED. WHERE THIS IS NOT FEASIBLE, COORDINATE WITH DIV. 26. TO PROVIDE A RECEPTACLE WITH A DEDICATED CIRCUIT, MOUNTED TO OR NEAR THE UNIT.

	AMPS, AMPERE	_
0	AIR CONDITIONER	
SC SV	ABOVE COUNTER ABOVE	
;	ALTERNATING CURRENT	
)J ïF	ADJACENT ABOVE FINISH FLOOR	
G	ABOVE FINISH GRADE	
IU 1B	AIR HANDLING UNIT AMBIENT	
IX	AUXILIARY, AUXILIARIES	
/ DG	AUDIO VISUAL BUILDING	
IS	BUILDING MANAGEMENT SYSTEM	
U		
UH T	BRITISH THERMAL UNIT PER HOUR CATALOGUE	
)	CONDENSATE DRAIN	_
· ·H	CIRCULATION FAN CUBID FEET PER HOUR	
M	CUBIC FEET PER MINUTE	_
IWR IWS	CHILLED WATER RETURN CHILLED WATER SUPPLY	
	CAST IRON	_
CT .G	CIRCUIT CEILING	
)	CLEAN OUT, CARBON MONOXIDE	_
)2)L	CARBON DIOXIDE COLUMN	
DMM	COMMUNICATION	
DNC	CONCRETE	
DNST	CONSTRUCTION	
)NT		_
DP RAC	COEFFICIENT OF PERFORMANCE COMPUTER ROOM AIR CONDITIONING UNIT	
J /O	CONDENSING UNIT COLD WATER VALVED OPENING	
V	COLD WATER	
VR VS	CONDENSER WATER RETURN CONDENSER WATER SUPPLY	
	DEPTH	
3 CV	DRY BULB DEMAND CONTROLLED VENTILATION	
MARC	TELECOMMUNICATION DEMARCATION BOARD	-
۹ FF	DIAMETER DIFFUSER	
1	DOWN	_
DAS TL	DEDICATED OUTSIDE AIR SYSTEM DETAIL	
Ľ	DETAIL	
VG	DRAWING EXHAUST AIR	
λ λΤ	ENTERING AIR TEMPERATURE	
;)H	ELECTRICAL CONTRACTOR ELECTRIC DUCT HEATER	
R	ELECTRIC DOCT HEATER ENERGY EFFICIENCY RATIO	
50	ELEVATION	
EC EV	ELECTRICAL	
1ER	EMERGENCY	_
QUIP R	EQUIPMENT EXISTING TO BE REMOVED	
RV	ENERGY RECOVERY VENTILATOR	_
R	EXTERNAL STATIC PRESSURE EXISTING TO REMAIN	
IH	ELECTRIC UNIT HEATER	-
VТ (Н	ENTERING WATER TEMPEARTURE EXHAUST	
IST, EXG	EXISTING	
(P	EXPANSION DEGREES FAHRENHEIT	
Ą	FROM ABOVE	
3	FROM BELOW FREE AREA	
:U	FAN COIL UNIT	
)	FIRE DAMPER FAN POWERED VAV TERMINAL UNIT	_
'B 'M	FEET PER MINUTE	
	FEET	_
۸	GROUND GAUGE	
AL	GALLONS	_
ALV C	GALVANIZED GENERAL CONTRACTOR	
EN	GENERATOR	-
ΎΗ M	GALLONS PER HOUR GALLONS PER MINUTE	
	HEIGHT, HYDROGEN	_
) DRIZ	HEAD HORIZONTAL	
)	HORSEPOWER	_
G IM	HEATING HUMIDITY	_
JM /AC	HUMIDITY HEATING, VENTILATION & AIR CONDITIONING	
VR		_
VS F	HOT WATER SUPPLY INDIVIDUAL DISTRIBUTION FRAME - DATA	
	INCHES	_
WC /A	INCHES WATER COLUMN KILOVOLT AMPERES	
V	KILOWATT - HOUR	_
VH		

KILOWATT - HOUR

ME	CHANICAL ABBREVIATIONS

	MECHANICAL ABBREVIATIONS
1	LENGTH
L LAT	LENGTH LEAVING AIR TEMPERATURE
LAT	LATENT (BTU)
LB LIN FT	POUNDS (WEIGHT) LINEAR FOOT
LINFI	LIGHTING
LWT	LEAVING WATER TEMPERATURE
mA MAX	MILI AMPS MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNIT PER HOUR
MC	MECHANICAL CONTRACTOR
MCB MCC	
MDF	MOTOR CONTROL CENTER MAIN DISTRIBUTION FRAME - DATA
MECH	MECHANICAL
MH	METHANE
MIN MISC	MINIMUM MISCELLANEOUS
MTD	MOUNTED
MTG	MOUNTING
MTL MTR	METAL MOTOR
MTRZD	MOTOR
#	NUMBER
NA	
NC NEC	NORMALLY CLOSED NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC NO	NOT IN CONTRACT NORMALLY OPEN
NO2	NITROGEN DIOXIDE
OA	OUTSIDE AIR
OBD OC	OPPOSED BLADE DAMPER ON CENTER
000	ON CENTER
OD	OUTSIDE DIAMETER
OED	OPEN-ENDED DUCT
OZ PD	OUNCE PRESSURE DROP
PE	PHOTO-ELECTRIC
PERF	PERFORATED
PF PH	POWER FACTOR PHASE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG PVC	POUNDS PER SQUARE INCH - GAUGE POLYVINYL CHLORIDE
PWR	POWER
RA	RETURN AIR
RCP REA	REFLECTED CEILING PLAN RELIEF AIR
REC	RECEPTACLE
REF	REFERENCE
REFR REQ	REFRIGERATOR REQUIRED
RH	RELATIVE HUMIDITY
RLA	RUNNING LOAD AMPS
RM RPM	
RQ	REVOLUTIONS PER MINUTE REQUIREMENT
RT	RAINTIGHT
RTU	ROOFTOP UNIT
SA SEER	SUPPLY AIR SEASONAL ENERGY EFFICIENCY RATIO
SEF	SMOKE EXHAUST FAN
SENS	SENSIBLE (BTU)
SHT SHT MTL	
SHI MIL SP	SHEET METAL STATIC PRESSURE
SPECS	SPECIFICATIONS
SPEF	SMOKE PURGE EXHAUST FAN
SPKR SQ	SPEAKER SQUARE
SQFT, SF	SQUARE FEET
STD	STANDARD
SURF SW	SURFACE SWITCH
SWBD	SWITCH SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
T-STAT TC	THERMOSTAT TIMECLOCK
TELE	TELEPHONE
TOT	TOTAL (BTU)
TYP UF	TYPICAL UNDERFLOOR
UON	UNDERFLOOR UNLESS OTHERWISE NOTED
V	VOLT
VA	VALVE
VAC VAV	VACUUM VARIABLE AIR VOLUME
VERT	VERTICAL
VT	VENT
VTL	
VV W	VARIABLE VOLUME TERMINAL UNIT WATTS
W	WIDTH
WB	WET BULB
WH	WATER HEATER
WMS	WIRE MESH SCREEN

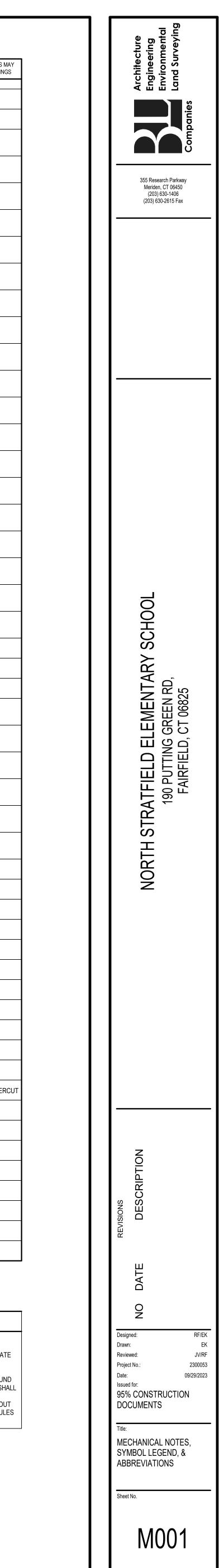
MECHANICAL DRAWING LIST
SHEET TITLE
MECHANICAL NOTES, SYMBOL LEGEND, & ABBREVIATIONS
MECHANICAL VENTILATION CALCULATIONS & ENERGY COMPLIANCE
PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - PART A
PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - PART B
PARTIAL ROOF MECHANICAL DEMOLITION PLAN - PART A
PARTIAL ROOF MECHANICAL DEMOLITION PLAN - PART B
PARTIAL FIRST FLOOR MECHANICAL DUCTWORK PLAN - AREA A
PARTIAL FIRST FLOOR MECHANICAL DUCTWORK PLAN - AREA B
PARTIAL ROOF MECHANICAL DUCTWORK PLAN - AREA A
PARTIAL ROOF MECHANICAL DUCTWORK PLAN - AREA B
PARTIAL FIRST FLOOR MECHANICAL PIPING/CONTROLS PLAN - AREA A
PARTIAL FIRST FLOOR MECHANICAL PIPING/CONTROLS PLAN - AREA B
OVERALL ROOF MECHANICAL PIPING PLAN
MECHANICAL DETAILS
MECHANICAL DETAILS
MECHANICAL DETAILS
MECHANICAL SCHEDULES
MECHANICAL SCHEDULES
MECHANICAL CONTROLS
MECHANICAL CONTROLS
MECHANICAL VRF PIPING DIAGRAM
MECHANICAL VRF PIPING DIAGRAM

	SYMBOL LEGEND *NOT ALL SYMBOLS APPEAR ON DRAWIN
SYMBOL	DESCRIPTION 90° ELBOW DOWN
	90° ELBOW UP
	ROUND RADIUS ELBOW
	45° ELBOW
	90° ELBOW DOWN
	90° ELBOW UP
	RECTANGULAR RADIUS ELBOW
	RECTANGULAR ELBOW WITH TURNING VANES
	BRANCH TAKE-OFF WITH ANGLED TAP & VOLUME DAMPER
	REDUCER, ECCENTRIC
	REDUCER, CONCENTRIC
	INTERNAL ACOUSTICALLY LINED DUCTWORK
	INSULATED DUCTWORK
	SUPPLY DUCT
	RETURN DUCT
	EXHAUST DUCT
Ø	ROUND DUCT
	FLEXIBLE DUCT CONNECTION
	EXISTING DUCT TO REMAIN
	EXISTING DUCT TO BE REMOVED
	NEW DUCT
\square	SUPPLY AIR DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
	MANUAL VOLUME DAMPER
	MOTERIZED DAMPER
	BACKDRAFT DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	COMBINATION FIRE-SMOKE DAMPER
	SPACE COMBINATION NITROGEN DIOXIDE AND CARBON MONOXIDE SENSOR
FCP	FAN CONTROL PANEL
	COMBINATION TEMPERATURE AND RELATIVE HUMIDITY SENSOR
	DUCT SMOKE DETECTOR
(00)	SPACE OR DUCT CARBON DIOXIDE SENSOR SPACE CARBON MONOXIDE SENSOR
H	SPACE HYDROGEN SENSOR
Ţ	SPACE OR DUCT TEMPERATURE THERMOSTAT
RH	SPACE OR DUCT RELATIVE HUMIDITY SENSOR
(N02)	SPACE NITROGEN DIOXIDE SENSOR
0cc 1/2" ────	SPACE OCCUPANCY SENSOR UNDERCUT DOOR - NUMBER DENOTES DOOR UNDER
	RETURN / EXHAUST AIRFLOW DIRECTION
	SUPPLY AIRFLOW DIRECTION
•	WATER FLOW DIRECTION
→ <u></u>	PIPING GUIDE
· · · × · · ·	PIPING ANCHOR
	DISCONNECTION POINT CONNECTION POINT
#	KEYNOTE
<u> </u>	I

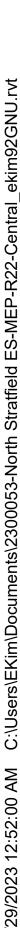
ACOUSTICS REQUIREMENTS

FOR DETAILS.

THIS PROJECT HAS BEEN EVALUATED BY AN ACOUSTICAL CONSULTANT. ALL DUCTWORK LENGTHS, FITTINGS AND LINING IS TO BE INSTALLED AS INDICATED IN ORDER TO ACHIEVE TARGET NOISE CRITERIA REQUIREMENTS. SCHEDULES INDICATE SOUND DATA FOR MECHANICAL EQUIPMENT, ANY MECHANICAL EQUIPMENT SUBSTITUTIONS MUST HAVE SOUND DATA EQUAL OR BELOW TO BASIS OF DESIGN EQUIPMENT IN ALL OCTAVE BANDS. IT IS ALLOWABLE FOR MODIFICATIONS TO SOUND ATTENUATORS IN ORDER TO ACHIEVE EQUIVALENT SOUND DATA. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY EQUIPMENT SUBSTITUTIONS AND PROVIDING SOUND DATA. NO MECHANICAL EQUIPMENT WILL BE APPROVED WITHOUT ASSOCIATED SOUND ATTENUATOR SUBMITTALS. REFER TO MECHANICAL SCHEDULES

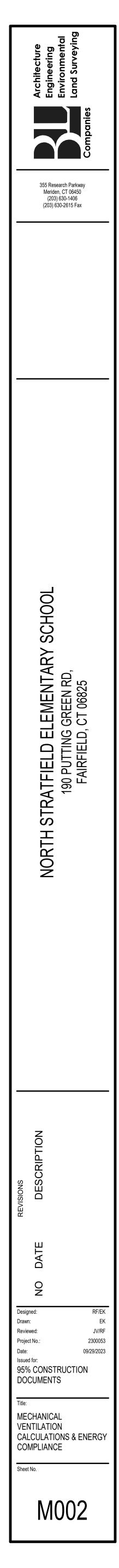


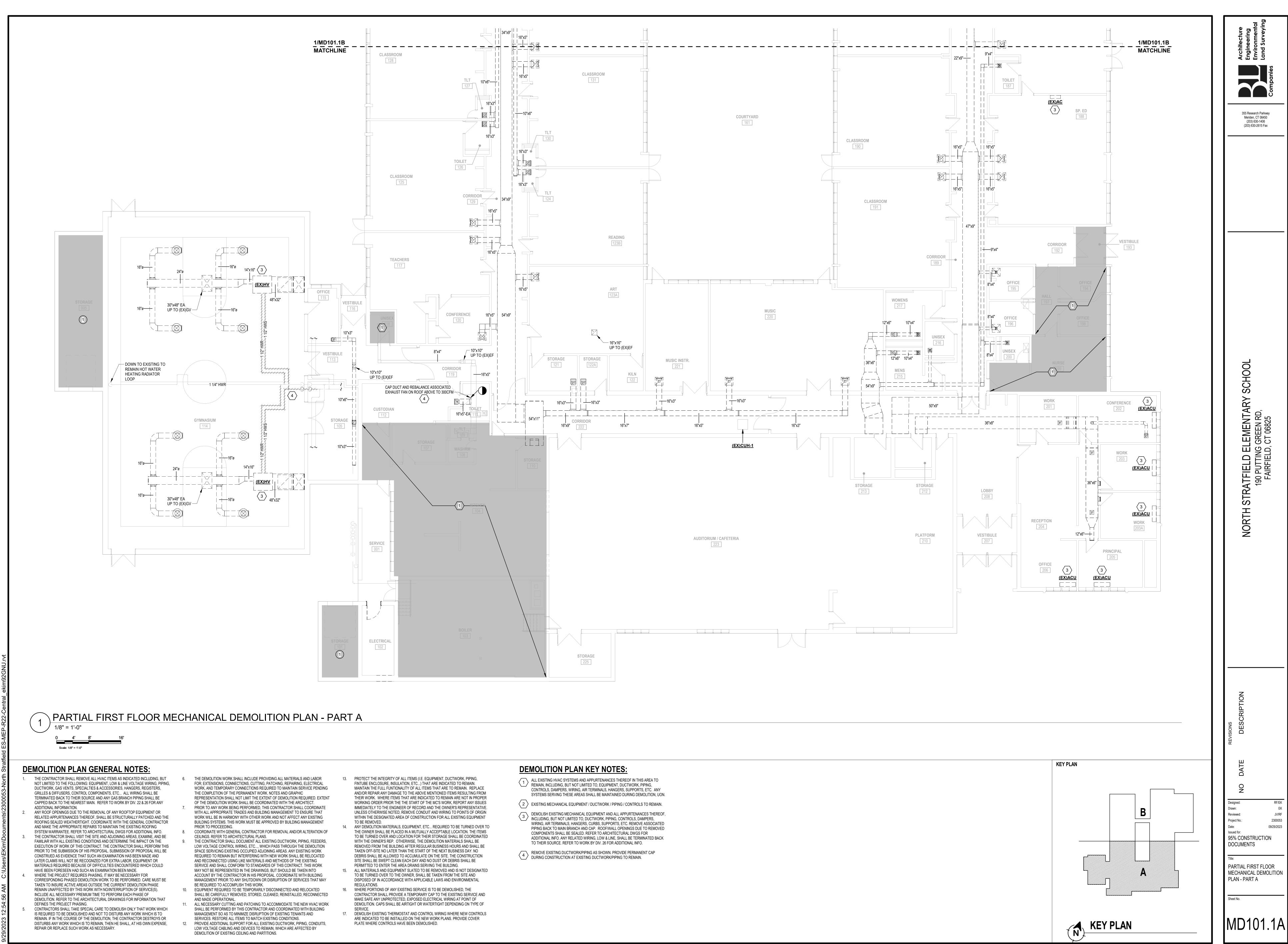
		ASHRAE Star	ndard 6	2.1-2004	-2010						
			By BL								
Ventilation Parameters											
							Std 170	— Co	ooling —	— He	eating —
System Zone Room	Occupancy Category	Rp cfm / p	Pz People	Ra cfm/ft²	Az ft²	Vbz cfm	Min OA ach	Ez	Voz cfm	Ez	Voz cfm
Alternative 1											0.111
222 CORRIDOR	Corridors	0.00	0.00	0.06	664	40		1.00	40	1.00	40
221 MUSIC INSTR	Music/theater/ dance	10.00	14.91	0.06	426	175		1.00	175	1.00	40 175
204 RECEPTION	Office space	5.00	2.30	0.06	460	39		1.00	39	1.00	39
206 OFFICE	Office space	5.00	0.83	0.06	166	14		1.00	14	1.00	14
205 PRINCIPAL	Office space	5.00	0.94	0.06	188	16		1.00	16	1.00	16
203 WORK	Office space	5.00	1.65	0.06	329	28		1.00	28	1.00	28
202 CONFERENCE	Conference/ meeting	5.00	11.46	0.06	229	71		1.00	71	1.00	71
201 WORK	Office space	5.00	0.84	0.06	168	14		1.00	14	1.00	14
208 LOBBY	Corridors	0.00	0.00	0.06	890	53		1.00	53	1.00	53
220 MUSIC	Music/theater/ dance	10.00	39.94	0.06	1,141	468		1.00	468	1.00	468
VRF-1		8.76	72.86	0.06	4,662	918			918		918
114 GYMNASIUM	Gym, stadium (play area		28.55	0.18	4,078	1,305		1.00	1,305	1.00	1,305
RTU-GYM 223 AUDITORIUM / CAFETERIA	Auditorium seating area	20.00 5.00	28.55 336.78	0.18 0.06	4,078 3,368	1,305 1,886		1.00	1,305 1,886	4.00	1,305
223 AUDITORIUM / CAFETERIA 210 PLATFORM	Stages, studios	10.00	85.50	0.06	1,221	928		1.00	928	1.00 1.00	1,886
RTU-Cafetorium	Stages, Studios	6.01	422.28	0.06	4,589	928 2,814		1.00	928 2,814	1.00	928 2,814
185 CLASSROOM	Classrooms (ages 5-8)	10.00	19.44	0.00	4,509	2,014		1.00	2,014	1.00	2,814
186 SP ED	Classrooms (ages 5-8)	10.00	18.75	0.12	750	200		1.00	277	1.00	200
156 CORRIDOR	Corridors	0.00	0.00	0.06	803	48		1.00	48	1.00	48
184 CLASSROOM	Classrooms (ages 5-8)	10.00	25.12	0.12	1,005	372		1.00	372	1.00	372
183 CLASSROOM	Classrooms (ages 5-8)	10.00	18.31	0.12	732	271		1.00	271	1.00	271
VRF-4		10.00	81.62	0.11	4,067	1,256			1,256		1,256
129 CORRIDOR	Corridors	0.00	0.00	0.06	1,451	87		1.00	87	1.00	87
119 CORRIDOR	Corridors	0.00	0.00	0.06	162	10		1.00	10	1.00	10
117 TEACHERS	Office space	5.00	2.80	0.06	559	48		1.00	48	1.00	48
123A ART	Art classroom	10.00	12.42	0.18	621	236		1.00	236	1.00	236
125 CLASSROOM	Classrooms (ages 5-8)	10.00	18.30	0.12	732	271		1.00	271	1.00	271
131 CLASSROOM	Classrooms (ages 5-8)	10.00	19.15	0.12	766	283		1.00	283	1.00	283
113 CORRIDOR 115 OFFICE	Corridors Office space	0.00 5.00	0.00 0.53	0.06 0.06	268 106	16 9		1.00 1.00	16 9	1.00 1.00	16
115 OFFICE 112 CUSTODIAN	Office space	5.00	1.14	0.06	228	9 19		1.00	9 19	1.00	9
	Onice space	5.00	1.14	0.00	220	19		1.00	19	1.00	19

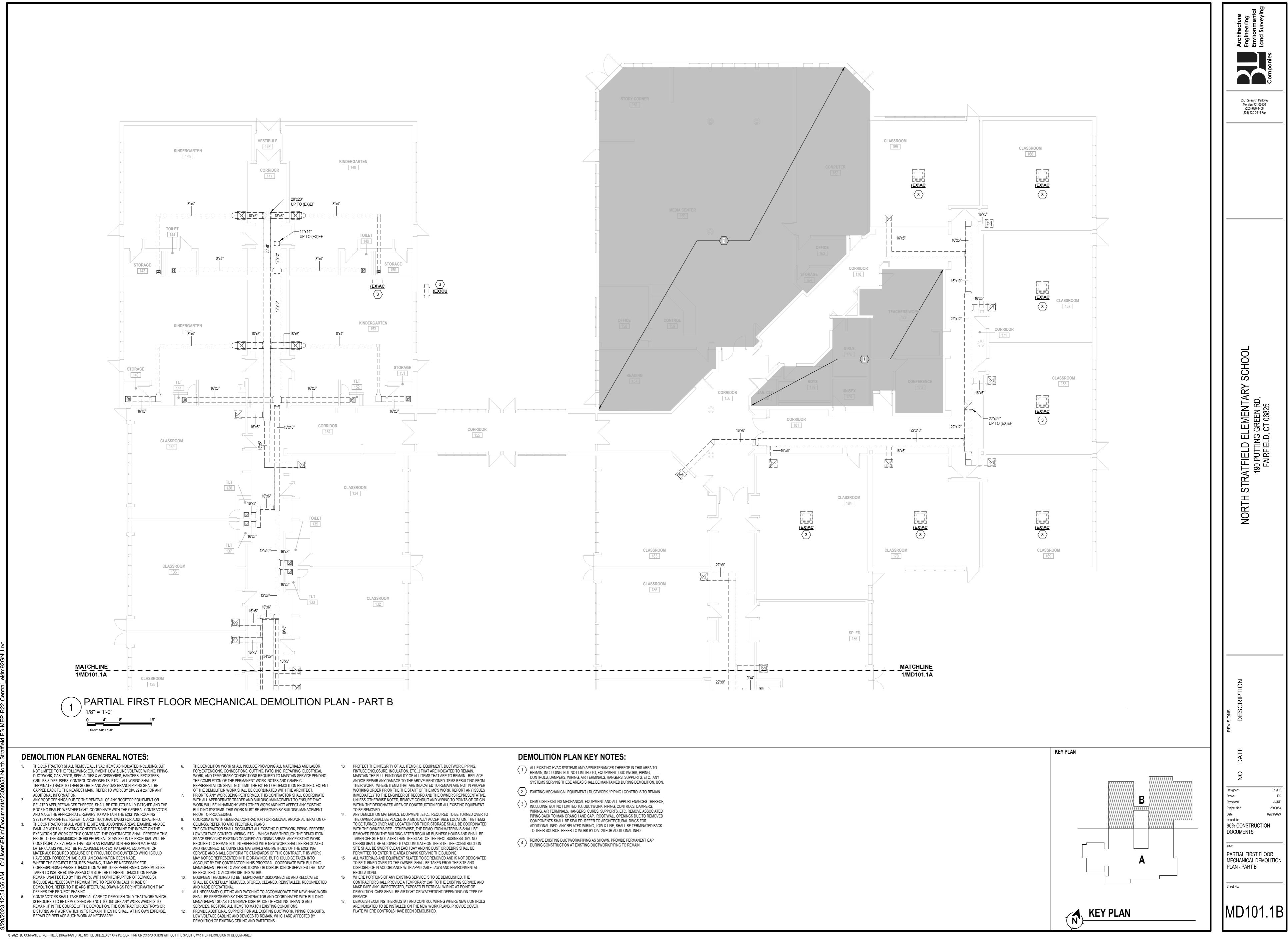


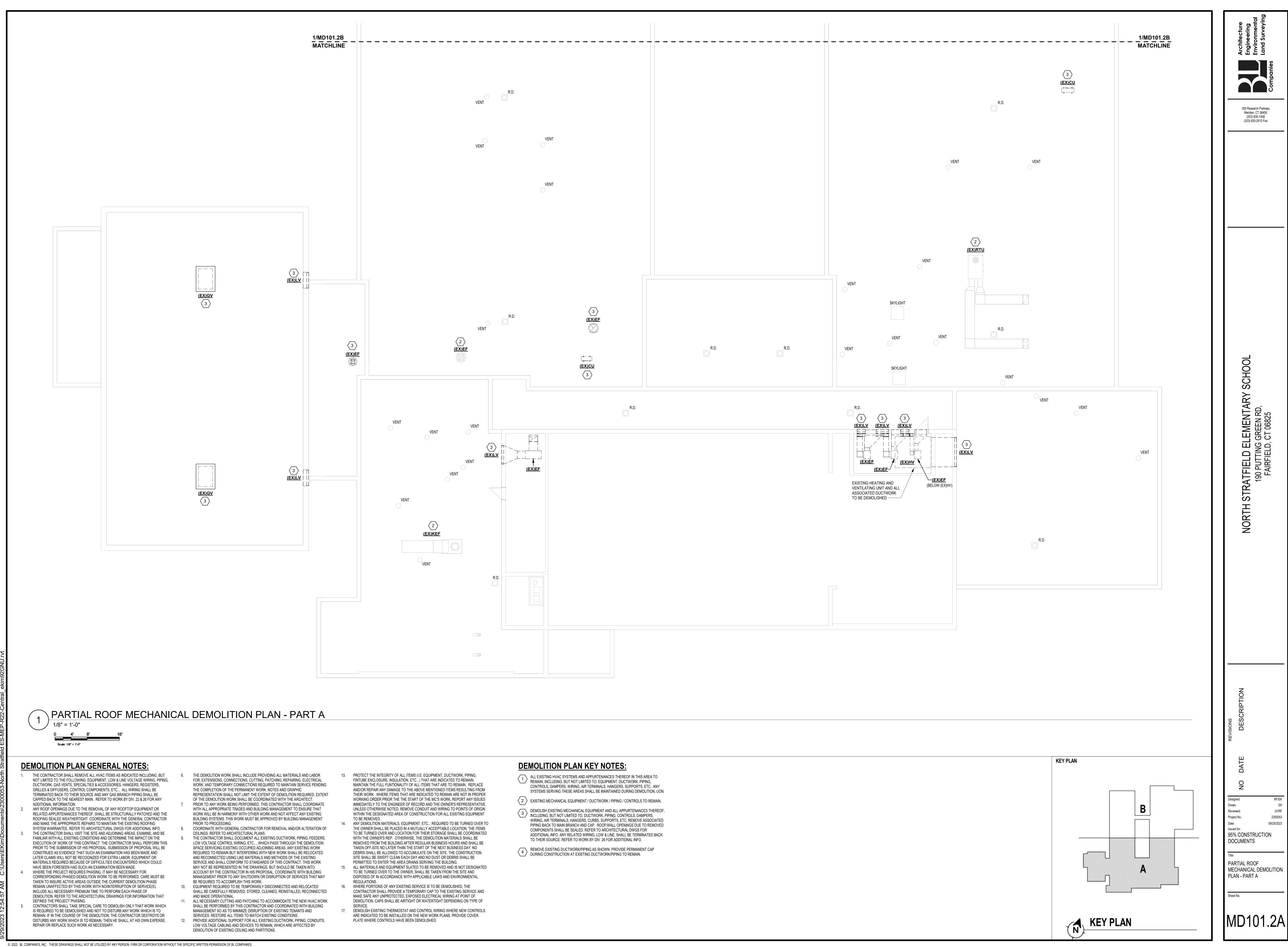
	AS	HRAE Stai	ndard 6	2.1-2004	-2010						
			By BL								
Ventilation Parameters											
							Std 170	— Co	oling —	— He	ating —
	Occupancy	Rp	Pz	Ra	Az	Vbz	Min OA	Ez	Voz	Ez	Voz
System Zone Room	Category	cfm / p	People	cfm/ft ²	ft²	cfm	ach		cfm		cfm
Alternative 1											
123B READING	Classrooms (ages 5-8)	10.00	16.60	0.12	664	246		1.00	246	1.00	246
VRF-2	,	9.69	70.93	0.10	5,557	1,225			1,225		1,225
168 CLASSROOM	Classrooms (ages 5-8)	10.00	18.22	0.12	729	270		1.00	270	1.00	270
167 CLASSROOM	Classrooms (ages 5-8)	10.00	18.22	0.12	729	270		1.00	270	1.00	270
166 CLASSROOM	Classrooms (ages 5-8)	10.00	19.08	0.12	763	282		1.00	282	1.00	282
165 CLASSROOM	Classrooms (ages 5-8)	10.00	17.31	0.12	692	256		1.00	256	1.00	256
169 CLASSROOM	Classrooms (ages 5-8)	10.00	19.08	0.12	763	282		1.00	282	1.00	282
170 CLASSROOM	Classrooms (ages 5-8)	10.00	17.41	0.12	696	258		1.00	258	1.00	258
181 CORRIDOR	Corridors	0.00	0.00	0.06	487	29		1.00	29	1.00	29
171 CORRIDOR	Corridors	0.00	0.00	0.06	586	35		1.00	35	1.00	35
178 CORRIDOR	Corridors	0.00	0.00	0.06	564	34		1.00	34	1.00	34
/RF-5		10.00	109.33	0.10	6,011	1,716			1,716		1,716
190 CLASSROOM	Classrooms (ages 5-8)	10.00	19.44	0.12	777	288		1.00	288	1.00	288
188 SP ED	Classrooms (ages 5-8)	10.00	22.52	0.12	901	333		1.00	333	1.00	333
191 CLASSROOM	Classrooms (ages 5-8)	10.00	20.87	0.12	835	309		1.00	309	1.00	309
189 CORRIDOR	Corridors	0.00	0.00	0.06	1,248	75		1.00	75	1.00	75
192 CORRIDOR	Corridors	0.00	0.00	0.06	202	12		1.00	12	1.00	12
/RF-3		10.00	62.83	0.10	3,964	1,017			1,017		1,017
132 CLASSROOM	Classrooms (ages 5-8)	10.00	19.15	0.12	766	283		1.00	283	1.00	283
136 CLASSROOM	Classrooms (ages 5-8)	10.00	19.15	0.12	766	283		1.00	283	1.00	283
134 CLASSROOM	Classrooms (ages 5-8)	10.00	18.48	0.12	739	273		1.00	273	1.00	273
128 CLASSROOM	Classrooms (ages 5-8)	10.00	19.15	0.12	766	283		1.00	283	1.00	283
VRF-6	ol (50)	10.00	75.93	0.12	3,037	1,124		4.00	1,124		1,124
153 KINDERGARTEN 139 CLASSROOM	Classrooms (ages 5-8)	10.00 10.00	22.38 19.72	0.12 0.12	895 789	331 292		1.00 1.00	331	1.00	331
154 CORRIDOR	Classrooms (ages 5-8) Corridors	0.00	0.00	0.12	352	292		1.00	292 21	1.00 1.00	292
155 CORRIDOR	Corridors	0.00	0.00	0.06	428	21		1.00	21	1.00	21
/RF-7	Condors	10.00	42.10	0.00	2,464	670		1.00	670	1.00	26 670
142 KINDERGARTEN	Classrooms (ages 5-8)	10.00	22.27	0.10	2,404	330		1.00	330	1.00	
148 KINDERGARTEN	Classrooms (ages 5-8)	10.00	25.78	0.12	1,031	330		1.00	330	1.00	330 382
145 KINDERGARTEN	Classrooms (ages 5-8)	10.00	25.78	0.12	1,031	382		1.00	382	1.00	382

		ASHRAE Sta	ndard 62 By BL	2.1-2004	-2010						
			,								
Ventilation Parameters											
							Std 170		oling —	— He	eating
	Occupancy Category	Rp cfm / p	Pz People	Ra cfm/ft²	Az ft²	Vbz cfm	Min OA ach	Ez	Voz cfm	Ez	V
System Zone Room Alternative 1	Category	01117p	reopie	Cillint	n	Cilli	ach		Cim		
147 CORRIDOR	Corridors	0.00	0.00	0.06	584	35		1.00	35	1.00	
VRF-8		10.00	73.83	0.11	3,538	1,128			1,128		1,1

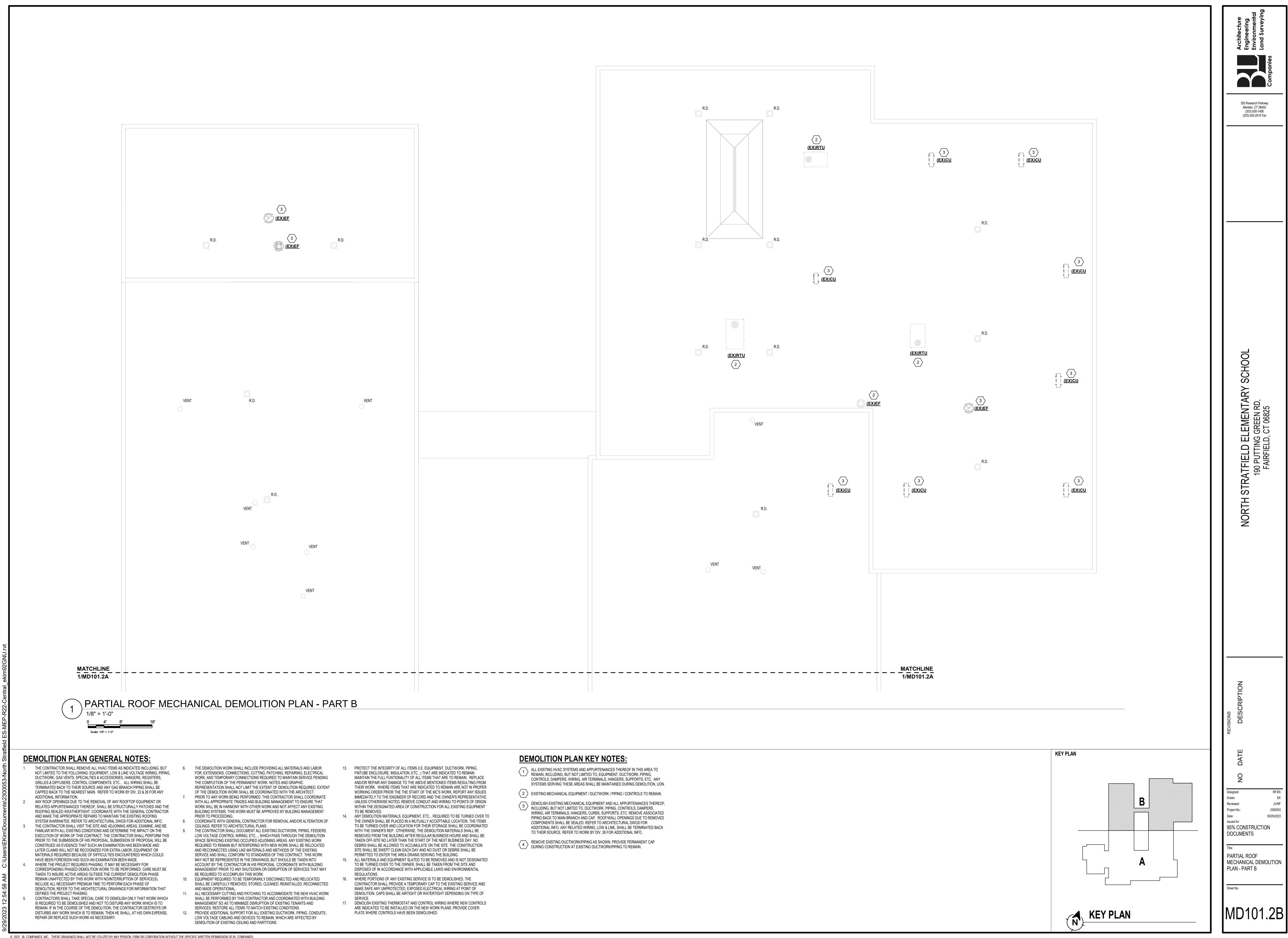


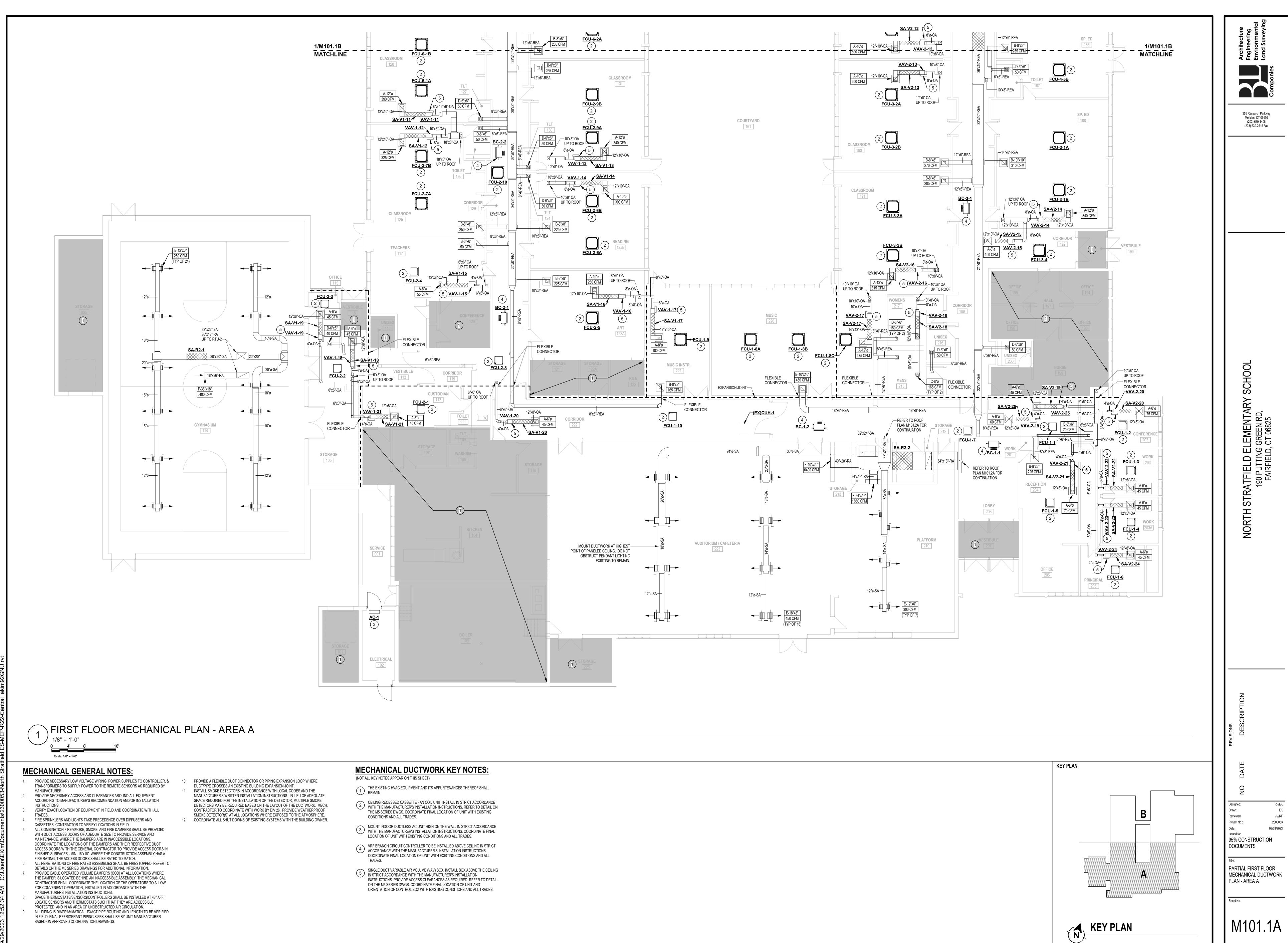


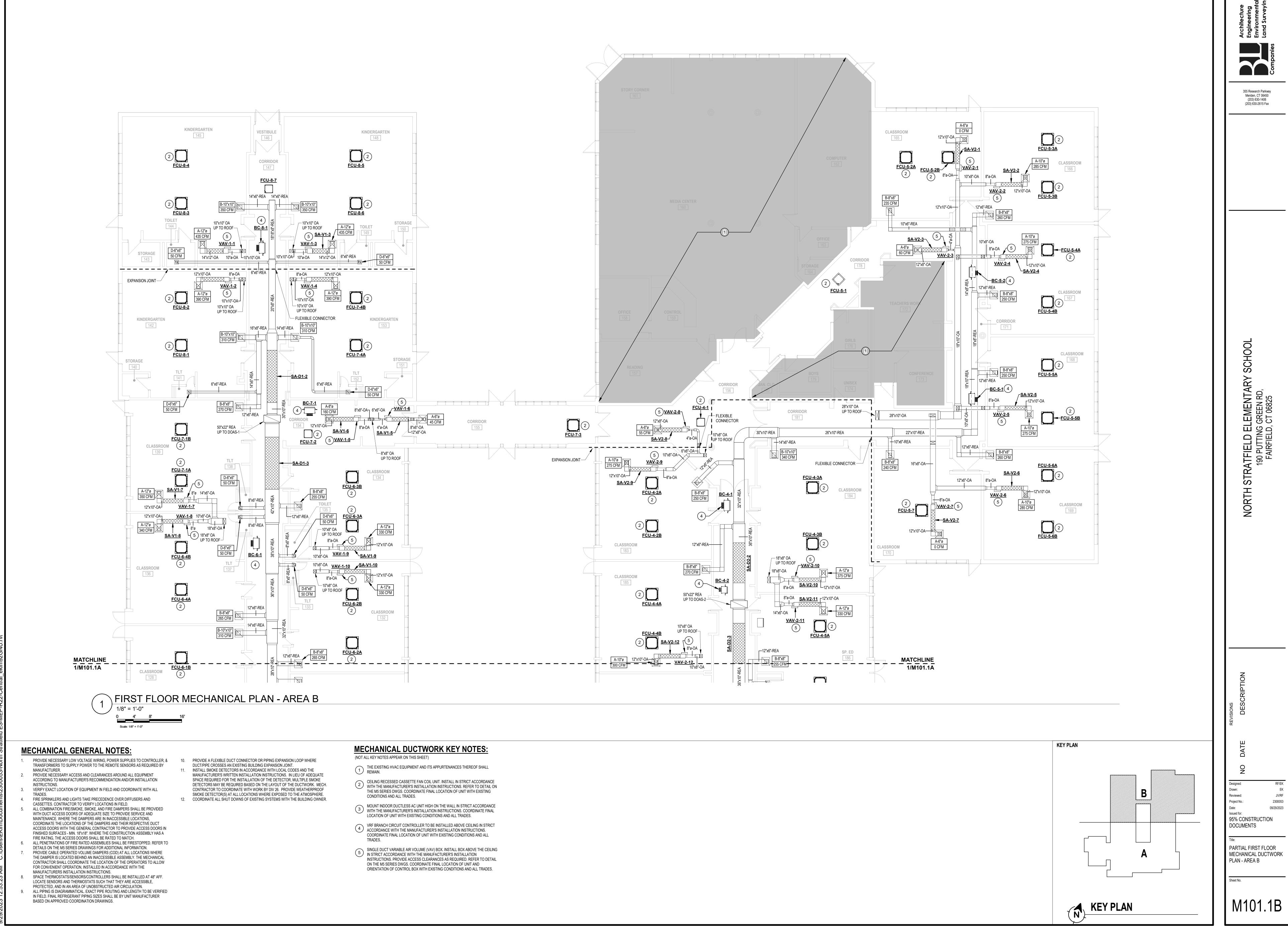




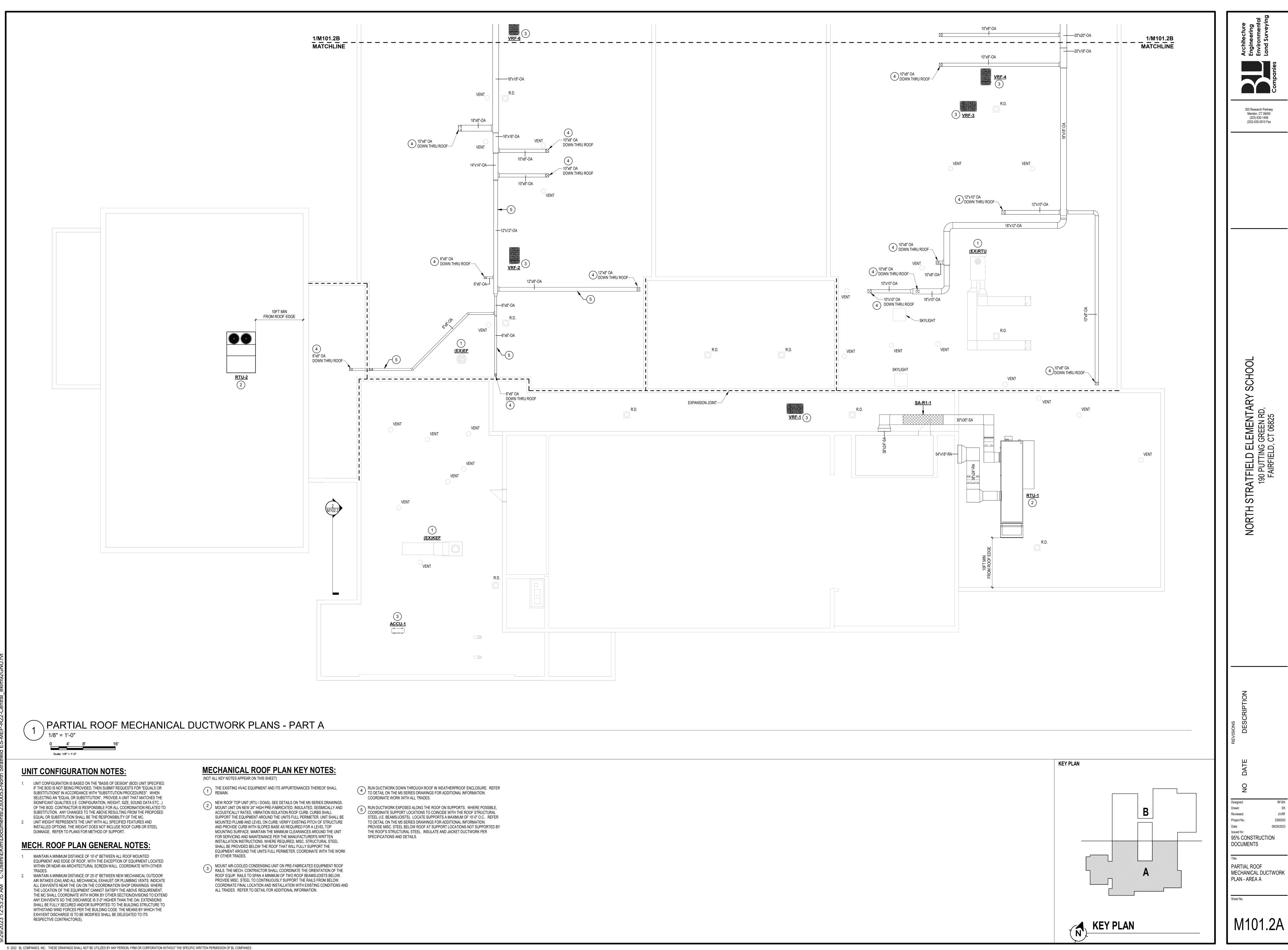
355 Research Parkway Meriden, CT 06450 (203) 630-1406 (203) 630-2615 Fax С С OL JV/RF 2300053 09/29/2023 95% CONSTRUCTION

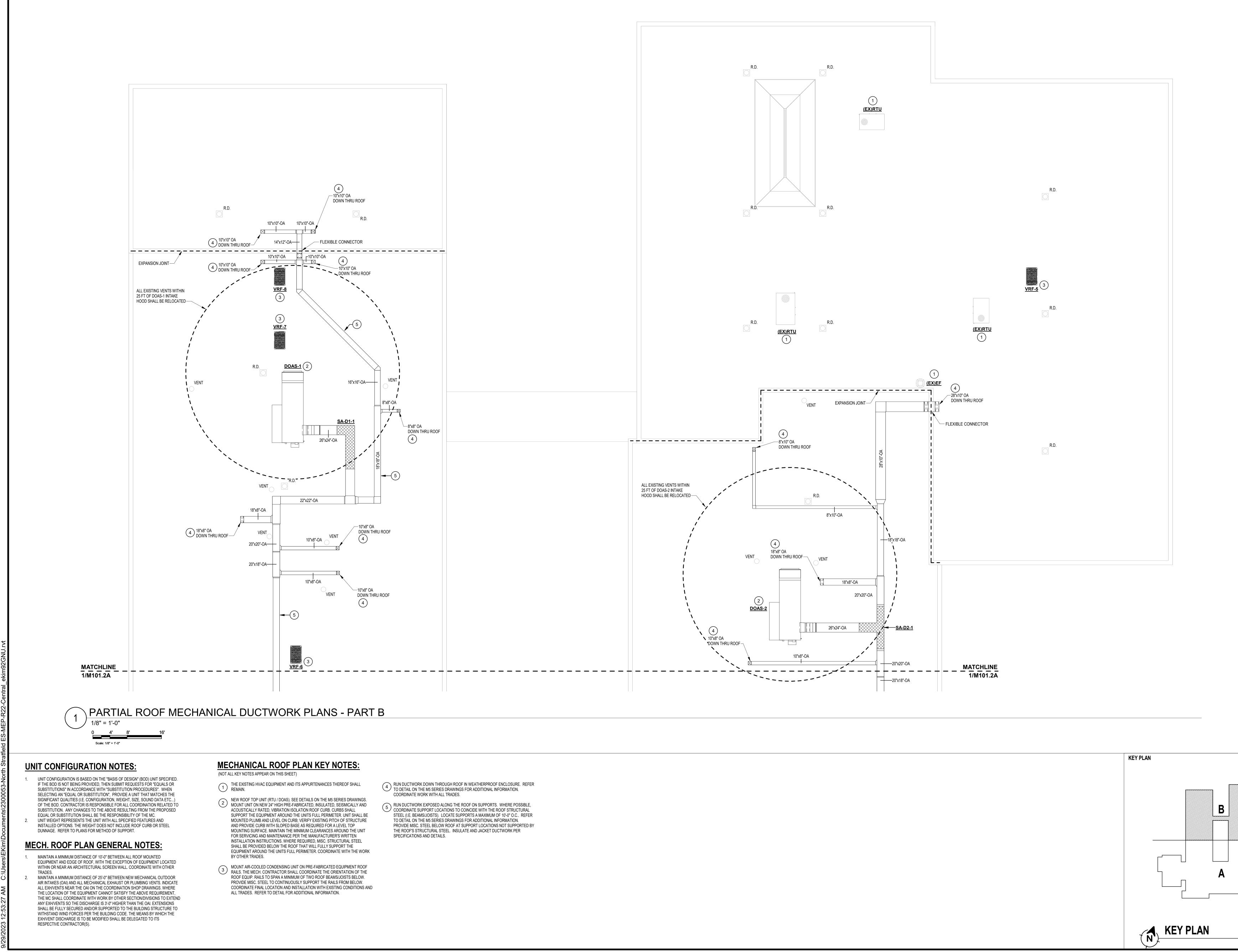


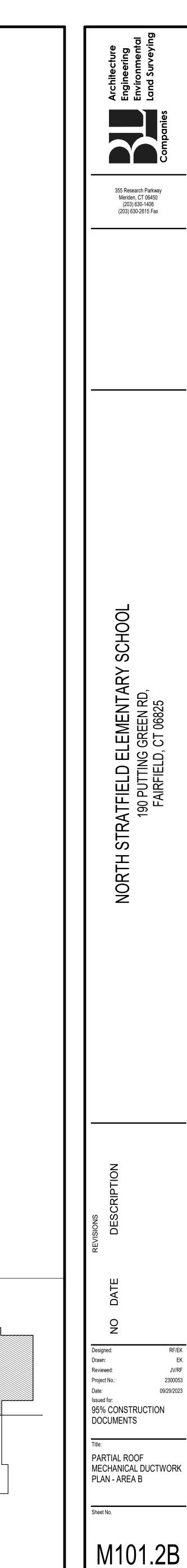


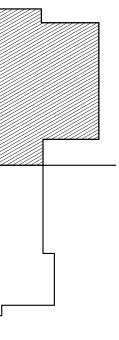


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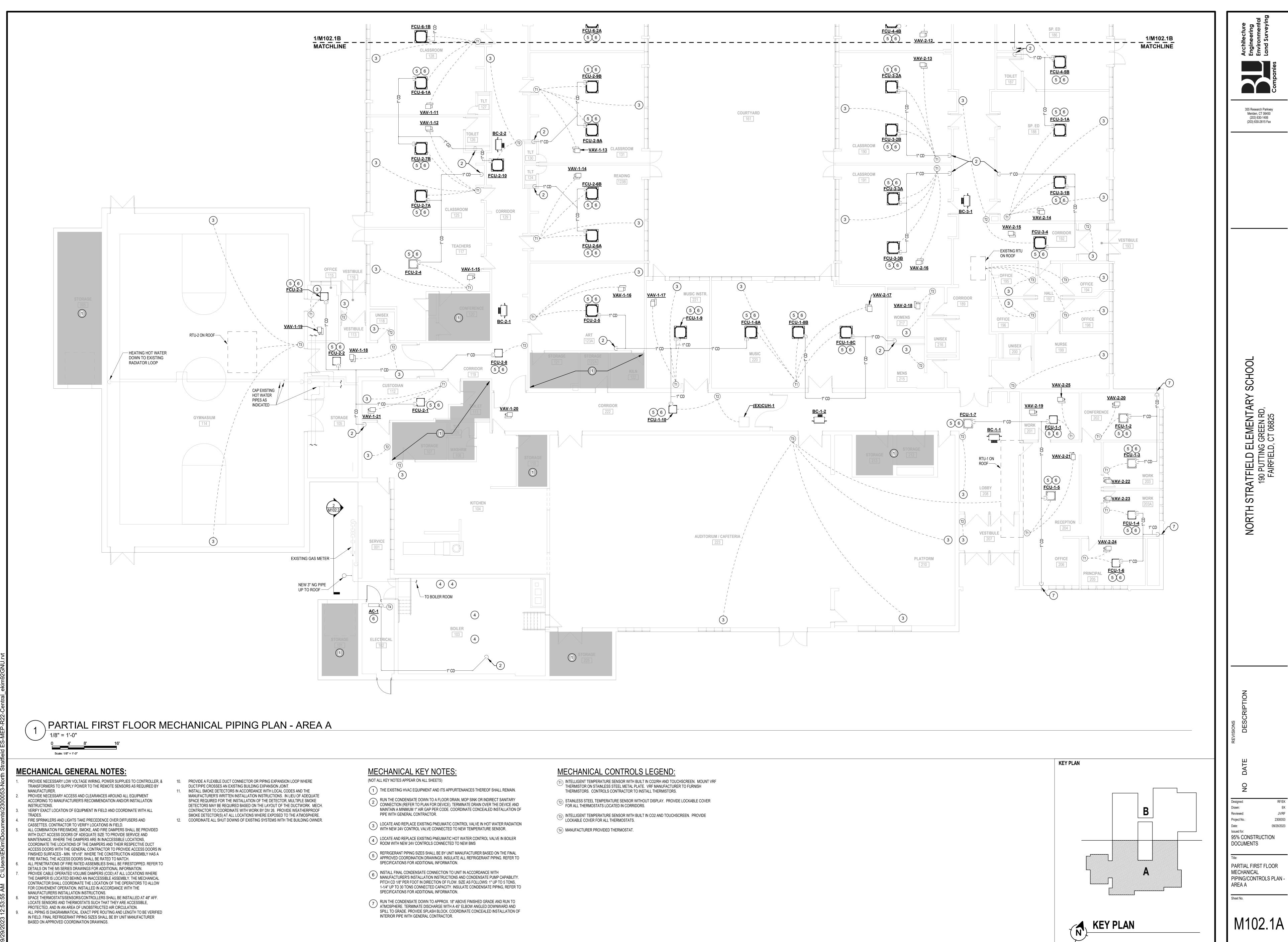


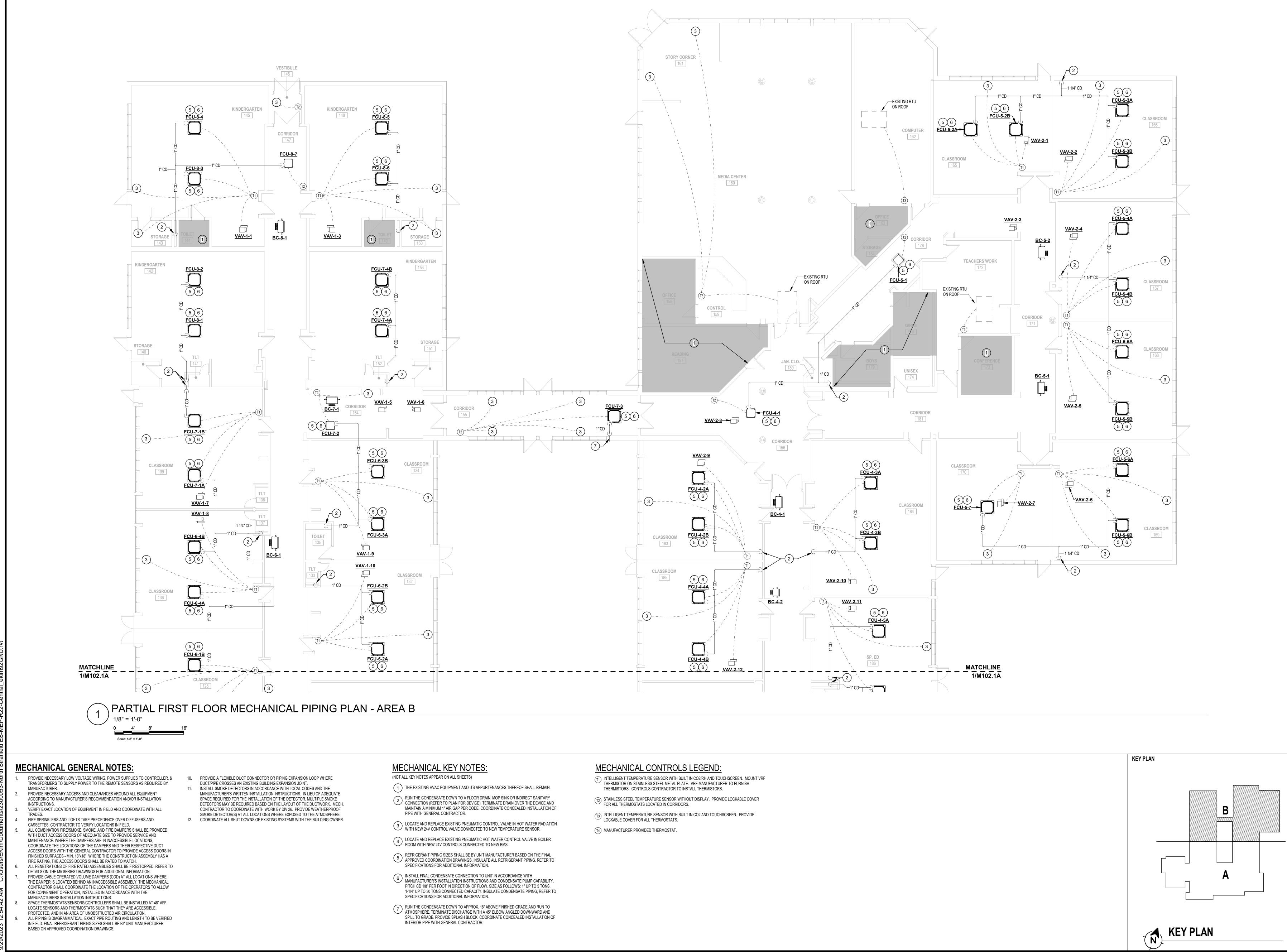




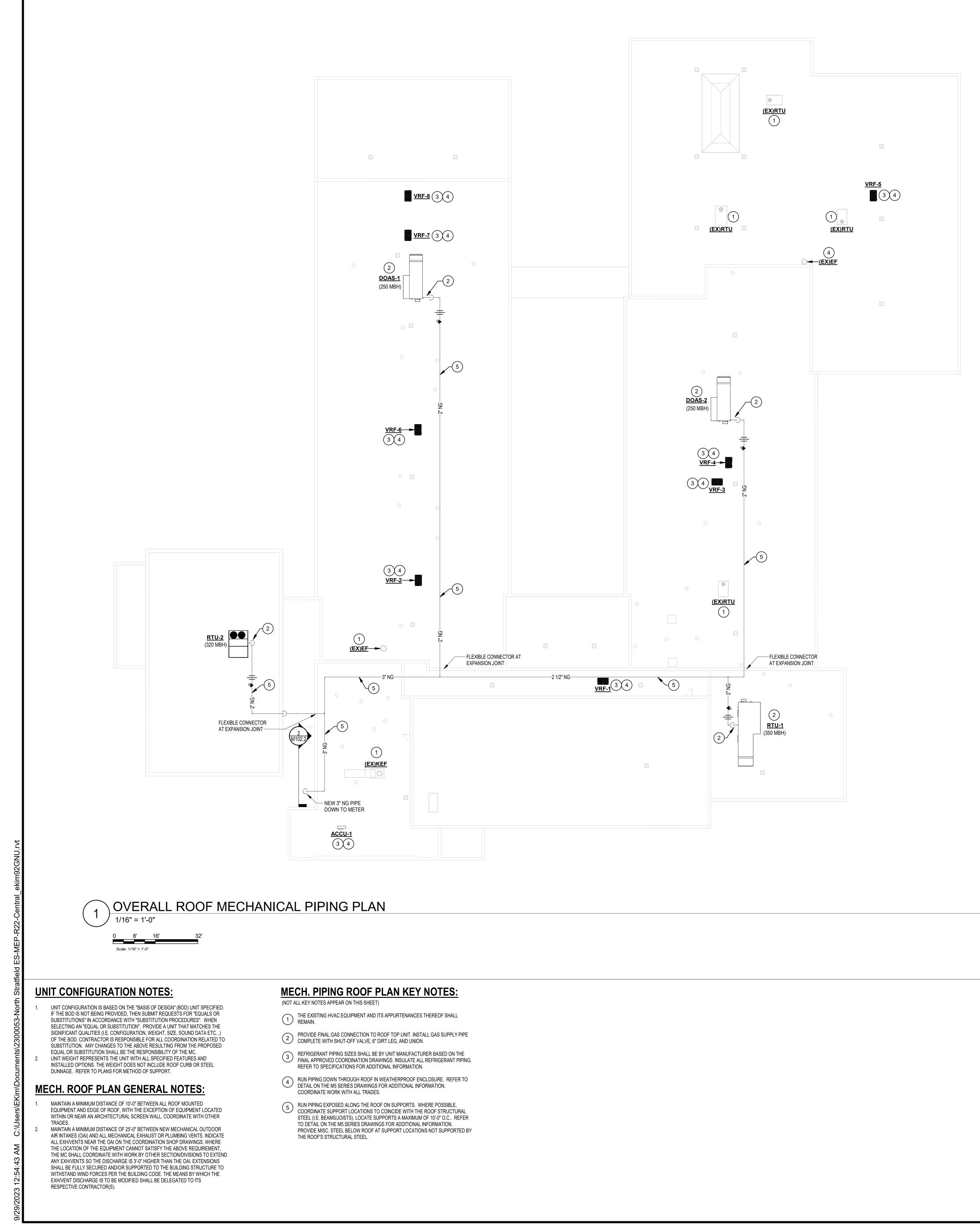




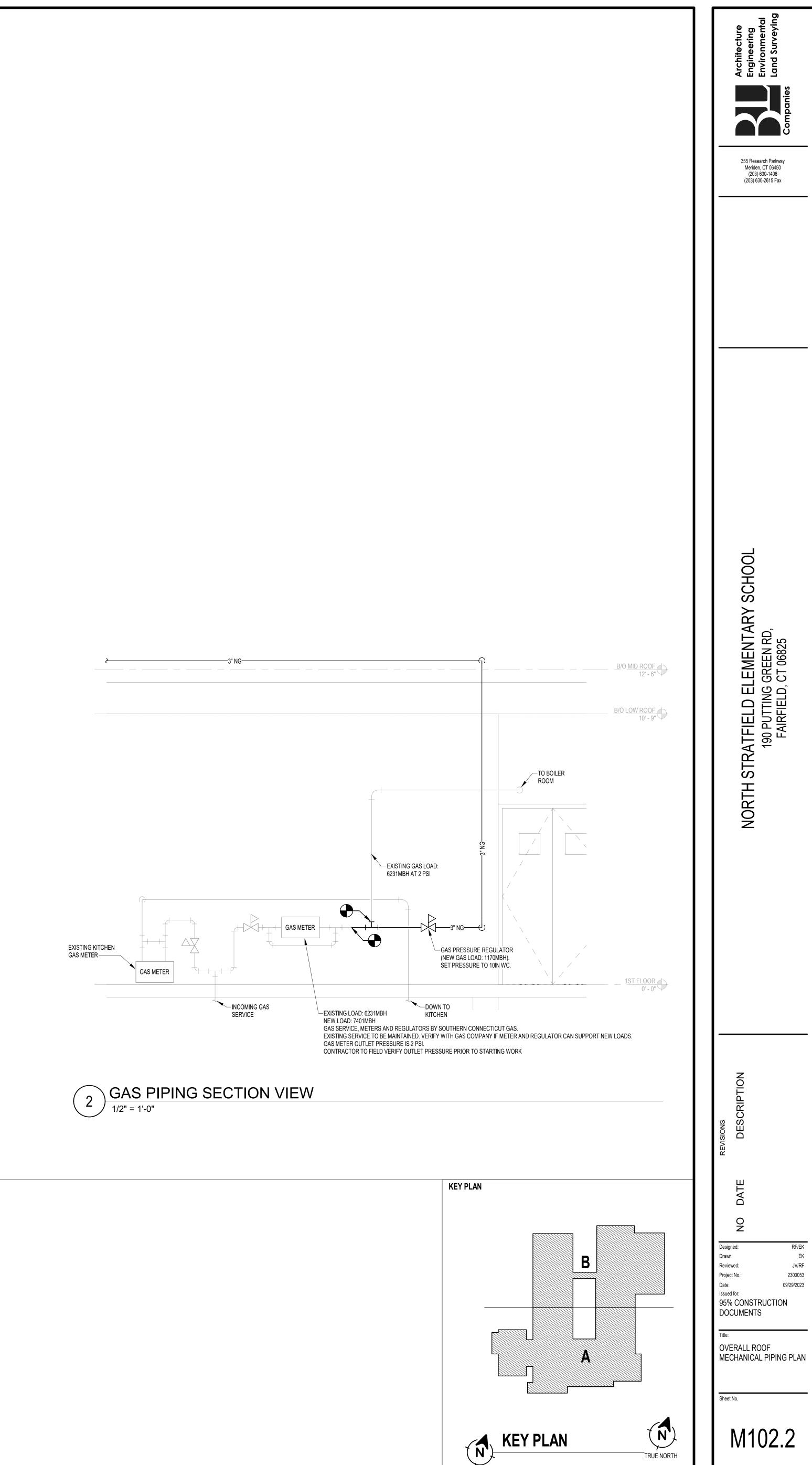


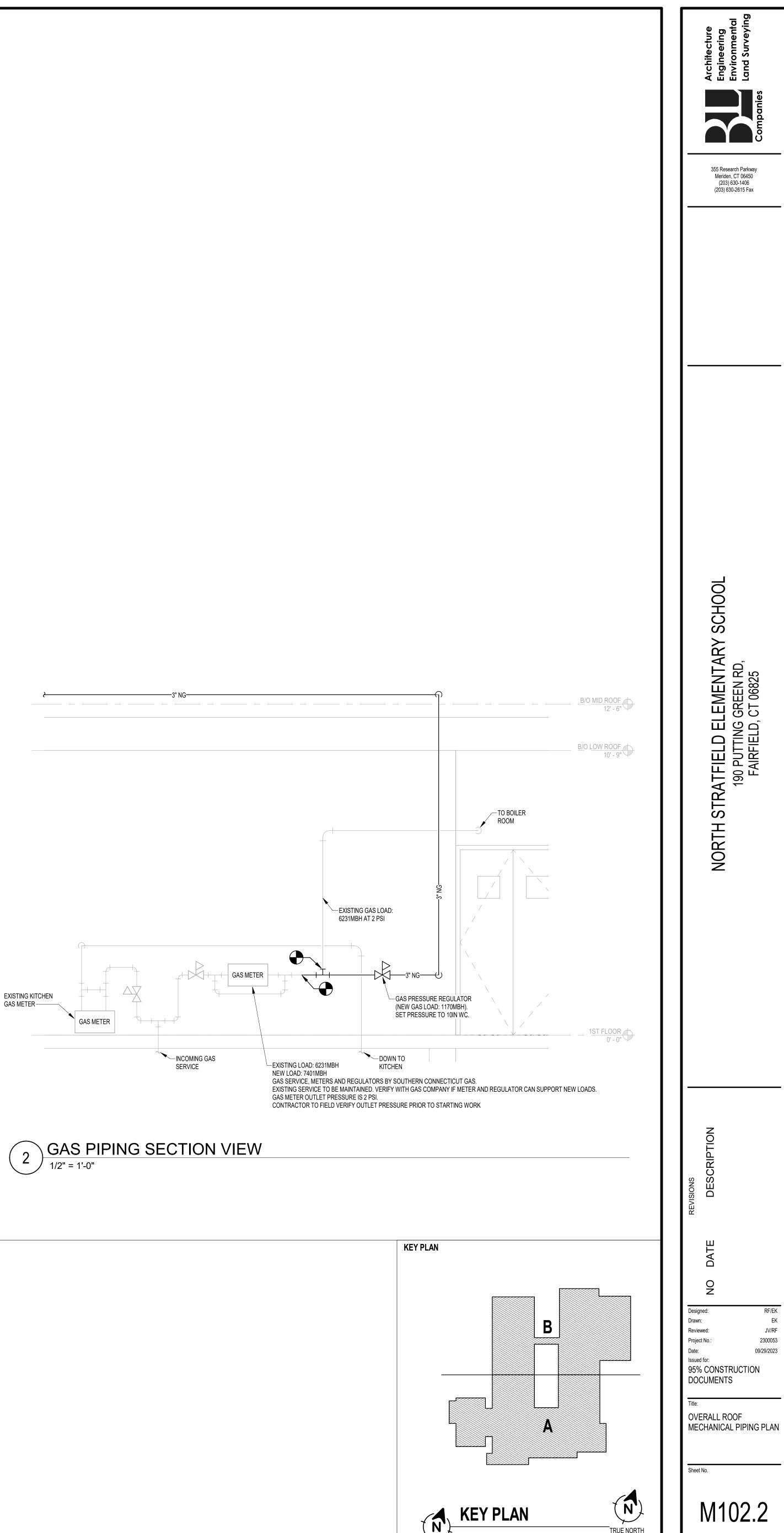




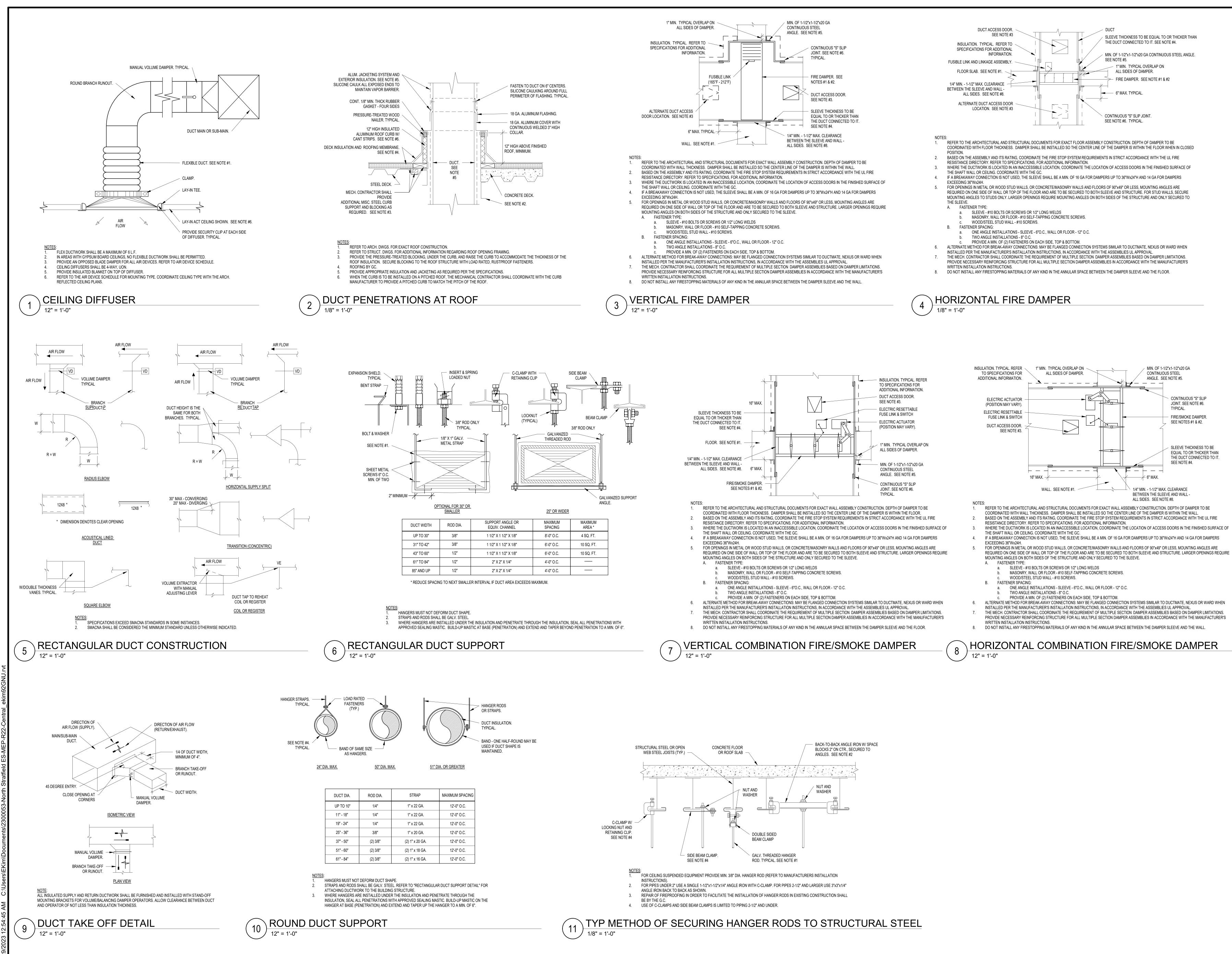


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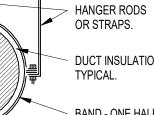




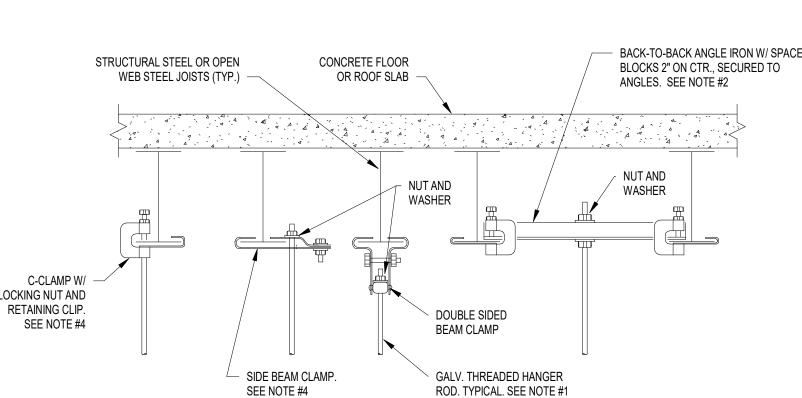




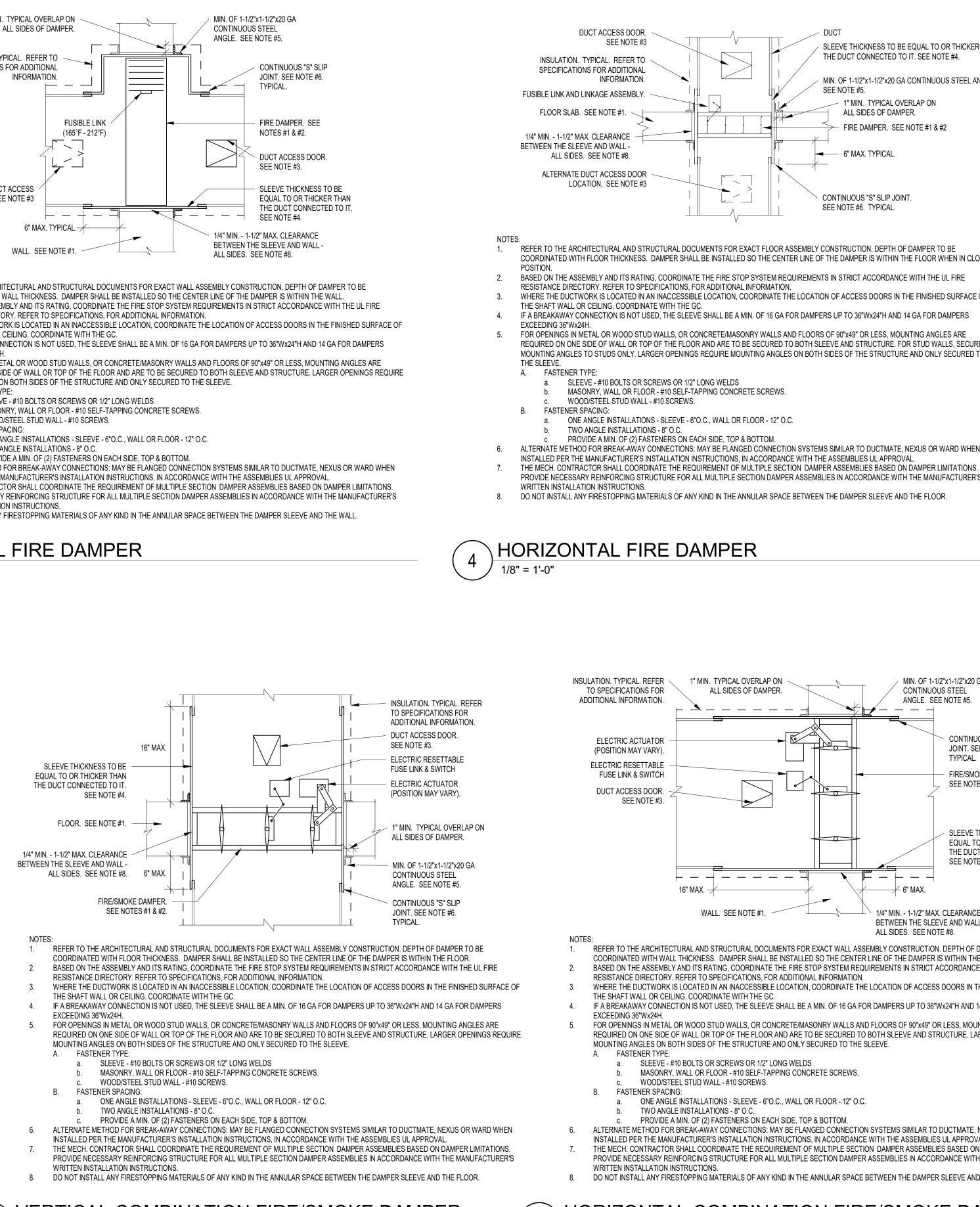
rod dia.	STRAP	MAXIMUM SPACING
1/4"	1" x 22 GA.	12'-0" O.C.
1/4"	1" x 22 GA.	12'-0" O.C.
1/4"	1" x 22 GA.	12'-0" O.C.
3/8"	1" x 20 GA.	12'-0" O.C.
(2) 3/8"	(2) 1" x 20 GA.	12'-0" O.C.
(2) 3/8"	(2) 1" x 18 GA.	12'-0" O.C.
(2) 3/8"	(2) 1" x 16 GA.	12'-0" O.C.
	•	



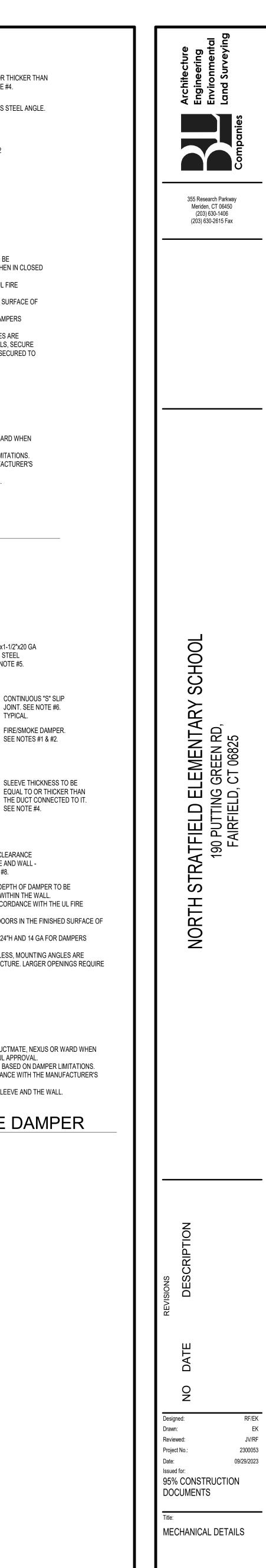




			20 OK MIDER	
DUCT WIDTH	ROD DIA.	SUPPORT ANGLE OR EQUIV. CHANNEL	MAXIMUM SPACING	MAXIMUM AREA *
UP TO 30"	3/8"	1 1/2" X 1 1/2" X 1/8"	8'-0" O.C.	4 SQ. FT.
31" TO 42"	3/8"	1 1/2" X 1 1/2" X 1/8"	6'-0" O.C.	10 SQ. FT.
43" TO 60"	1/2"	1 1/2" X 1 1/2" X 1/8"	6'-0" O.C.	10 SQ. FT.
61" TO 84"	1/2"	2" X 2" X 1/4"	4'-0" O.C.	
85" AND UP	1/2"	2" X 2" X 1/4"	4'-0" O.C.	



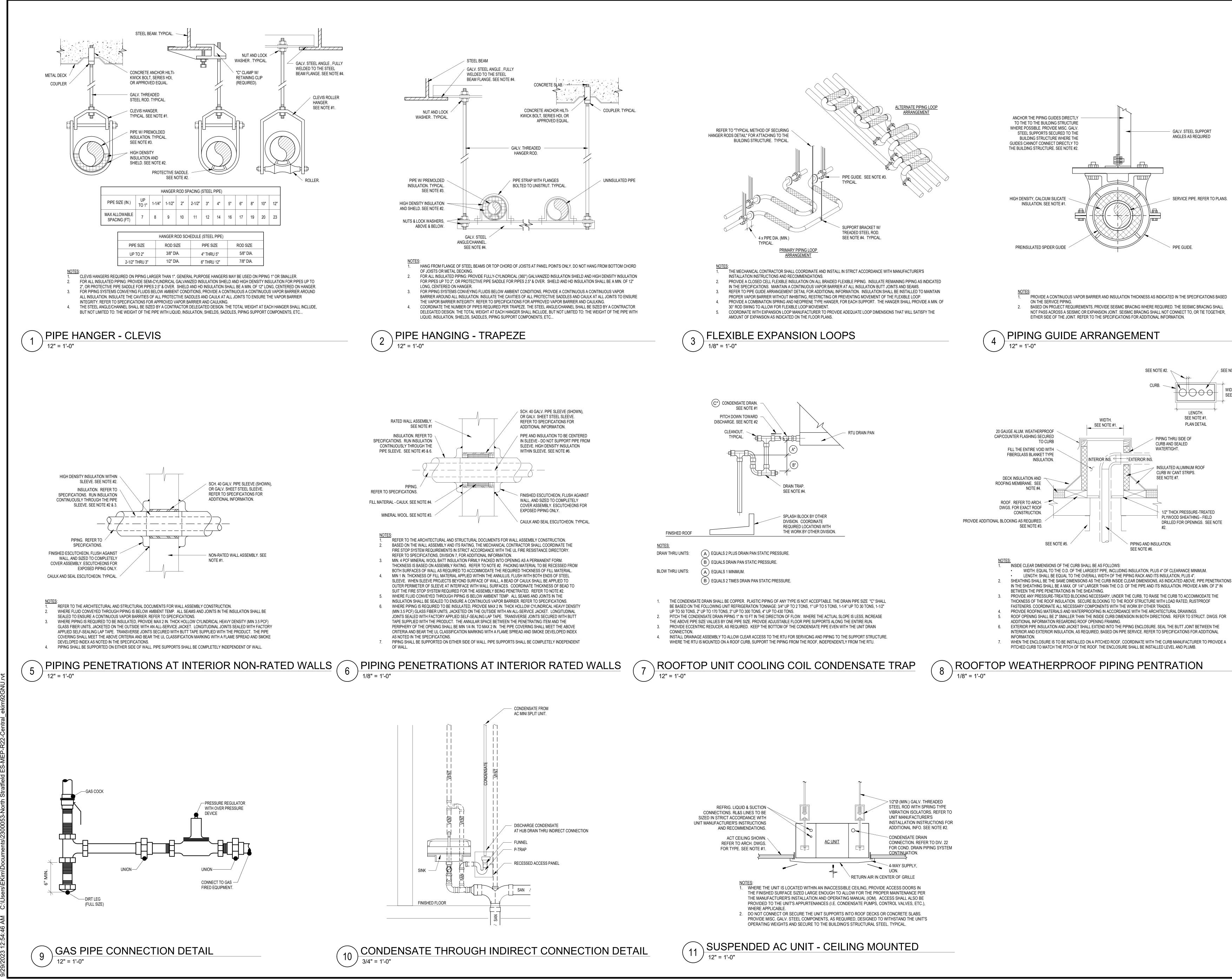
HORIZONTAL COMBINATION FIRE/SMOKE DAMPER



Sheet No.

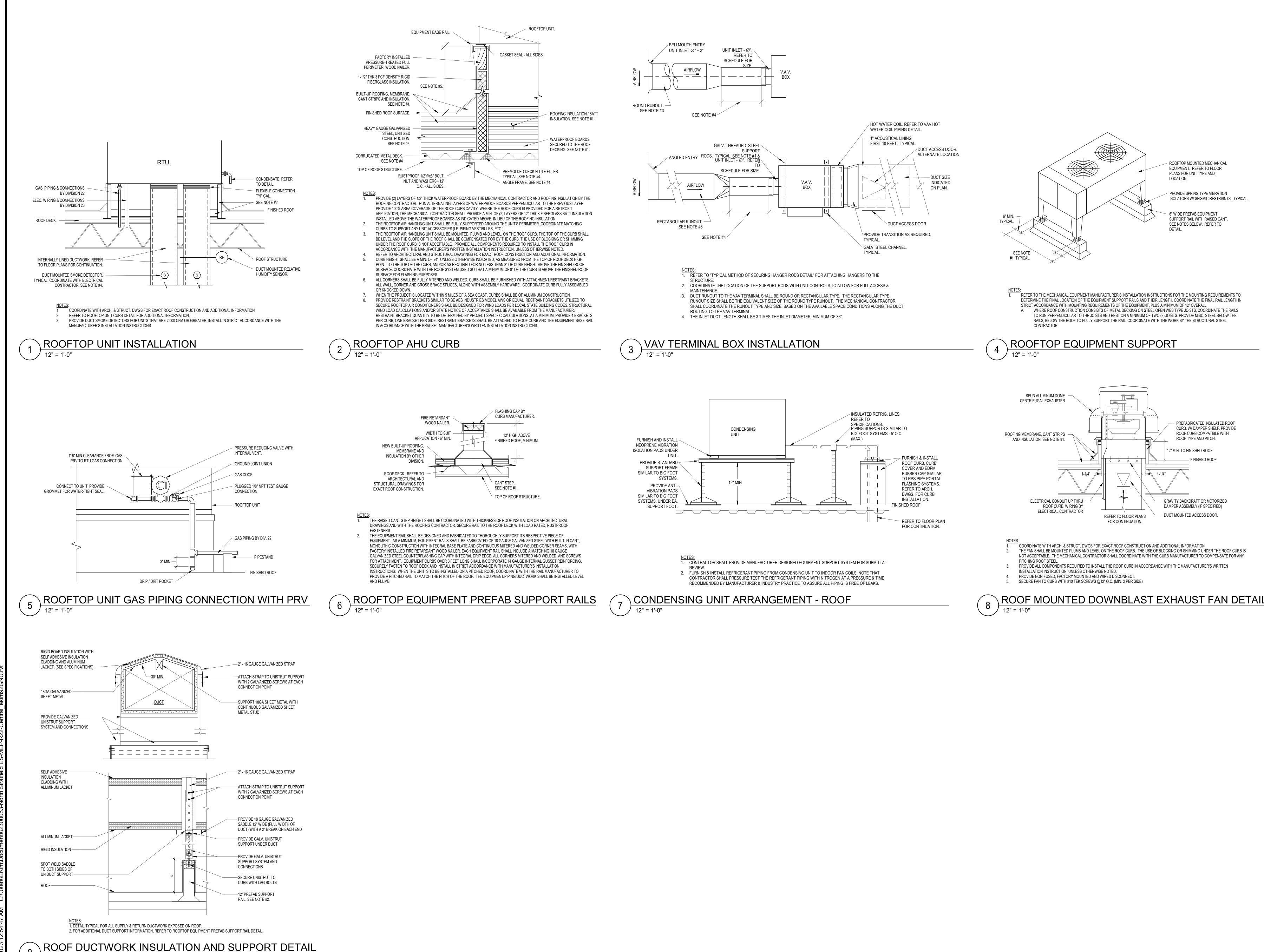
M50

SLEEVE THICKNESS TO BE



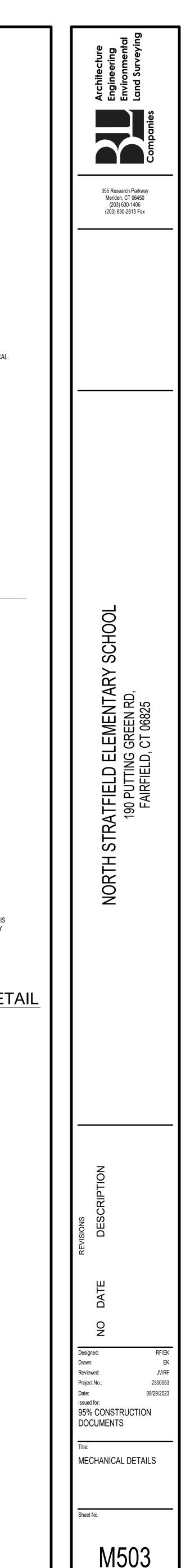
	<text><text></text></text>
 OTE #2. DTH. ENOTE #1.	NORTH STRATFIELD ELEMENTARY SCHOOL 190 PUTTING GREEN RD, FAIRFIELD, CT 06825
	NOLIZOSI BY BY BY BY BY BY BY BY BY BY

M502



9

12" = 1'-0"



ROOF TOP UNITS	
ARK MANUFACTURER MODEL AREA SERVED CONFIGURATION REFRIG. TYPE NOMINAL TYPE OUTSIDE TONS OUTSIDE TONS OUTSIDE TO SUPPLY FAN SUPPLY FA	LING COMPRESSORS INPUT OUTPUT DB DB TYPE TURNDOWN (IN WC) IEER VOLTS PHASE MCA MOP 63 125 250 500 1K 2K 4K 8K (LBS)
Marcine	MIDH (MDH) (°F) (°F) (°F) (°F) (MIN./MAX.) Image: MIN./MAX. Image: MIN.
U-1 TRANE OAND540 CAFETORIUM HORIZONTAL R-410A 30 4100 8250 9175 2.5 4.48 15 9.08 4442 1 1.94 3 1.95 449.9 281.6 76.1/65.0 47.7/47.3 MODULATING 1 U-2 TRANE YZJ180 GYMNASIUM VERTICAL R-410A 15 1325 5400 6000 1.6 1.952 3 3.632 0 0 0 0 176.78 129.98 77.93/66.19 56.70/56.06 MODULATING 1	3 350 283.5 64.4 92.9 NATURAL GAS 10:1 7.5/14 11.1 EER 208 3 222.1 250 57.5 82.3 85.7 87.3 87.5 83.6 75.2 93 8566 1,2,3,4,5,9,11, 1 2 320 259.2 56.98 96.51 NATURAL GAS 2 STAGE 4.5/14 12.6 EER/ 24.5 IEER 208 3 84.0 125 96 89 92 92 87 83 77 2367 1,2,3,4,6,7,8,9,1
REMARKS: 1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. 1. INSTALL ALL SHIPPED LOOSE ITEMS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. 1. INSTALL ALL SHIPPED LOOSE ITEMS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. 1. INSTALL ALL SHIPPED LOOSE ITEMS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. 1. PROVIDE WITH INTEGRATED, DUAL ENTHALPY LOW LEAKAGE ECONOMIZER WITH BAROMETRIC RELIEF. 3. PROVIDE UNITS WITH 24 INCH ROOF CURBS. COORDINATE THE PITCH REQUIRED FOR THE ROOF CURB.	
 4. PROVIDE FACTORY, MOUNTED & WIRED, BACNET PROTOCOL CONTROLS W/ INTERFACE FOR FULL MONITORING & CONTROL BY THE CENTRAL BMS. 5. SYSTEM SHALL OPERATE AS A MULTI- ZONE, VARIABLE AIR VOLUME UNIT. 6. SYSTEM SHALL OPERATE AS A SINGLE ZONE, VARIABLE AIR VOLUME UNIT. 7. PROVIDE UNITS WITH A MINIMUM SHORT CIRCUIT CURRENT RATING (SCCR) OF 65 KAIC. 7. PROVIDE UNITS WITH FACTORY INSTALLED SUPPLY AND RETURN AIR SMOKE DETECTORS. 	
 PROVIDE UNITS WITH TOTAL ENTHALPY ENERGY RECOVERY WHEEL. REFER TO "HEAT RECOVERY DEVICES" SCHEDULE BELOW FOR PERFORMANCE REQUIREMENTS. PROVIDE UNITS WITH POWER EXHAUST. PROVIDE UNITS WITH POWER EXHAUST. PROVIDE HIGH EFFICIENCY UNITS WITH FULLY MODULATING COMPRESSORS. PROVIDE WITH STAINLESS STEEL DRAIN PAN. 	
 PROVIDE MODULATING GAS HEAT FURNACE WITH STAINLESS STEEL HEAT EXCHANGER. PROVIDE 2-STAGE GAS HEAT FURNACE WITH STAINLESS STEEL HEAT EXCHANGER. PROVIDE 2-STAGE GAS HEAT FURNACE WITH STAINLESS STEEL HEAT EXCHANGER. PROVIDE WITH DEMAND CONTROL VENTILATION, INCLUDING DUCT MOUNTED CO2 SENSORS. 	
HEAT RECOVERY DEVICES	
SOCIATED UNIT TYPE VENTILATION RELIEF SUMMER WINTER OFM SUMMER WINTER APD CFM SUMMER WINTER RECOVERY MBH RECOVERY MBH UNIT FA-DB	
Constraint Carbon Car	
RTU-1 ERC-5856C 4100 88.3 73.2 77.6 66.1 10.8 10.8 57.6 50.1 0.72 4100 75.0 64.0 85.5 71.3 70.0 58.0 24.0 23.9 0.72 45.88/104.84 208.28/301.28	
INDOOR AIR-CONDITIONING UNITS DESIGN COOLING DESIGN HEATING HEATING ELEC DATA	
RK ASSOCIATED UNIT MANUFACTURER MODEL AREA SERVED ARRANGEMENT REFRIG. AIRFLOW (@ COOLING COOLING HEATING	ICA MOP (LBS) REMARKS
	0.65 15 36.6 1,2,3,4
PROVIDE BACNET CONNECTION FOR INTERFACE TO THE BAS AND 7-DAY WIRED PROGRAMMABLE THERMOSTAT. PROVIDE WITH MINI CONDENSATE PUMP SIMILAR TO BLUE DIAMOND OR EQUAL. SELECTIONS SCHEDULED ARE BASIS OF DESIGN. APPROVED EQUAL PRODUCTS BY DAIKIN OR SAMSUNG, PROVIDED THEY MEET OR EXCEED THE BASIS OF DESIGN PERFORMANCE AND SPECIFICATIONS.	
OUTDOOR AIR-COOLED CONDENSING UNITS	
RK ASSOCIATED UNIT MANUFACTURER MODEL REFRIG. TYPE DESIGN TYPE DESIGN TYPE DESIGN TYPE DESIGN TYPE DESIGN TYPE DESIGN TYPE DESIGN COOLING DUTDOOR (BTUH) COOLING (BTUH) COOLING (BTUH) DESIGN HEATING OUTDOOR TEMP, (DR F) DESIGN HEATING (BTUH) DESIGN (BTUH) DESIGN (BTUH) DESIGN HEATING (BTUH) DESIGN (BTUH) DESIG	
CU-1 AC-1 LG LS243HLV3 R410A 95 22,000 13/22 6 23,700 9.5 208 1 19.0 30 13.4	
Image: Note of the i	
Image: Control of the control of th	SOUND ATTENUATORS
Line TEMP. (DB F) (LEN / SLEIN) (LEN / SLein) <th< td=""><td>MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K SA-D1-1 DOAS-1 VIBRO-ACOUSTICS 1 RNM-MV-F9 <</td></th<>	MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K SA-D1-1 DOAS-1 VIBRO-ACOUSTICS 1 RNM-MV-F9 <
Image: Control of the control of th	MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K REMARKS SA-D1-1 DOAS-1 VIBRO-ACOUSTICS 1 RNM-MV-F9
Image: Control of the control of th	MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K REMARK SAD1-1 DOAS-1 VIBRO-ACOUSTICS 1 RNM-MV-F9
Image: Note of the intermediation of the intermediatint of the intermediatin of the intermediation of the int	MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K SAD1-1 D0As1 VIBRO-ACOUSTICS 1 RNM-MV-F9
Image: Note of the second se	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
Image: Note of the second se	MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 1K 2K 4K 8K SAD1-1 DOAS-1 VIBRO-ACOUSTICS 1 RNM-MV-F9
Image: Note:	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
I TEMP. (DB.F) (UPU II) (ULR / SULE/) TEMP. (DB.F) (UPU II) (URL / SULE/) (MARK UNIT MANUFACTURER QTY MODEL SIZE (W*XH*XL") CFM PD (IN WG) ISERTION LOSS REMARK SAD11 DOAS1 VIBROACOUSTICS 1 RNMMVF9
I Col I TEMP. (DB F) (U101)	MARK UNIT MANUFACTURER QTY MODEL SIZE (W"xH"xL") CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K SAD14 DOAS-1 VIBRO-COUSTICS 1 RNM-M/P9
I Act Iso Iso <thiso< th=""> <thiso< th=""> <thiso< th=""></thiso<></thiso<></thiso<>	MARK UNIT MANUFACTURER QTY MODEL SIZE (W-M+xL*) CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K SAD1-1 D08-1 VIBROACCUSTOS 1 RNMAVF9 63 125 250 500 1K 2K 4K 8K SAD1-1 D08-1 VIBROACCUSTOS 1 RNMAVF9 63 125 250 500 1K 2K 4K 8K SAD1-1 D08-1 VIBROACCUSTOS 1 RNMAVF9 64
Image: Note of the second product of the se	MARK UNIT MANUFACTURER OTY MODEL SIZE (W*XH*LU*) CFM PD (NWG) 63 125 250 10 1 RMARK \$\$4014 D0851 VIBR0ACOUSTIGS 1 RNMM/F9
Image: Normal base of the second base of the se	MARK UNIT MANUFACTURER QT MODEL SIZE (W'AH'%L') CFM PD (IN WG) 63 125 250 500 1K 2K 4K 8K SAD12 D0351 VIRDADDISTES 1 INMAMP3
I AC: LD LBMANZ HU RE LO LB LD LB LD LB LB <th< td=""><td>MARK UNIT MANUFACTURER QT MODEL SIZE (W[*]AH[*]AL[*]) CFM PD (N WG) 63 125 250 500 1K 2K 4K 8K Skp12 D0831 VIBOACOUSING 1 PRMAMAP9 </td></th<>	MARK UNIT MANUFACTURER QT MODEL SIZE (W [*] AH [*] AL [*]) CFM PD (N WG) 63 125 250 500 1K 2K 4K 8K Skp12 D0831 VIBOACOUSING 1 PRMAMAP9
Image: Normal biology	MARK UNIT MANUFACTURER QT MODEL SIZE (WMATSL) CFM PD (N WG) INSERTION LOSS REMARK 54014 D0843 VIR0ACOUSTCS 1 RIMANYFI
	MARK UNIT MANUFACTURER OTV MODEL SIZE (WATML) CFM PD (IN WG) 63 125 250 500 1K 2K 4K BK REMARK 8x011 D0A51 VIBOACOUSTCS 1 RNMM/29
	MARK UNIT MANUFACTURER OTY MODEL SIZE (W-MTML) CFM PD (NWG) ISERTICN LOSS NEMARK REMARK 85.011 D0451 VIREACDUSTICS 1 Remark 10 63 125 250 500 1K 2K 4K BK BK 90 1K 2K 4K BK BK BK 1K 90 1K
	MARK UNIT MANUFACTURER OTY MODEL SIZE (WMHTML) CFM PD (NWG) CENTROLLOSS INSERTION LOSS REMARK 84:01 00451 VIREACOURTES 1 Reavers 63 125 250 500 1K 2K 4K 8K 8K 8K 988 63 126 100 10 <
	MARK UNIT MANUFACTURER OTV MODEL SUE (WX+FL) CFM PD (IN W6) 63 125 250 500 1K 2K 4K 8K 3b211 05481 'V96A2018165 1 RMM+79
	MARK UNT MANUFACTURER OTY MODEL SZE (MATHAL) OFM PD (N WG) INSERTION LOSS NO MARK REMARK 48.010 OSC MIRAMINISTIC I MIRAMINISTIC
	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
	MARK UNIT MARUFACTURER OTY MODEL SYEE (W1xF1xL) CFM PD (IN WG) INSERTION LOSS IX AK AK BARK 50.51 W050-000TG3 F W030459 F F 20 500 IX AK AK BK F
	MARK UNIT MARLIFACTURER OT MODEL SVE (WATAU) CFM PD (N WG) TOUSENTUNE SUSTEMENTS PRMARK 54:0 052:4 98590000000 1 1000000000000000000000000000000000000
	MARK INIT MANUFACTURER OT MCDEL SYST CPM PD (N WG) CENTIONLOSS Image: Control of the

MARK

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C D E F

SPECIFICATIONS.

MANUFACTURER

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REMARKS: 1. SEE DIFFUSER CONNECTION DETAIL. 2. TYPE #3, FULL FACE, (GRID MOUNTING). 3. TYPE #3, PANEL MOUNTED. (GRID MOUNTING). 4. PROVIDE MOLDED INSULATION BLANKET (R-6) FOR THE CEILING DIFFUSER.

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MODEL

omni-aa

350FL

TMS-AA

350FL

301FL

350FL

PROVIDE MOLDED INSULATION BLANKET (K-0) FOR THE CEILING DIFFUSER.
 TYPE #3, PANEL MOUNTED, PROVIDE #TRM MOUNTING FRAME FOR SURFACE MOUNTING.
 TYPE #1, WHERE APPLICABLE - CONCEALED FASTENERS, (SURFACE MOUNTING).
 SELECTIONS SCHEDULED ARE BASIS OF DESIGN. APPROVED EQUAL PRODUCTS BY KREUGER, NAILOR, METALAIRE OR PRICE, PROVIDED THEY MEET OR EXCEED THE BASIS OF DESIGN PERFORMANCE AND SPECIFICATIONS

SERVICE

SUPPLY

SUPPLY

SUPPLY

RETURN

RELIEF/RETURN/EXHAUST ALUMINUM

RELIEF/RETURN/EXHAUST ALUMINUM

AIR DEVICES

MATERIAL MOUNTING TYPE

ALUMINUM

ALUMINIUM

ALUMINUM

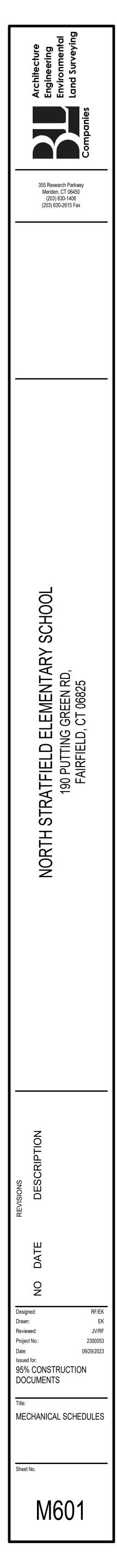
ALUMINUM

R DEVICES						
MOUNTING TYPE	MAX NC	COLOR	SI	ZE	DAMPER	REMARKS
	LEVEL	COLOR	FACE	NECK		
LAY IN	20	WHITE	24X24	SEE TAG	YES	1,2,4,7
LAY IN	20	WHITE	24X24	SEE TAG	YES	1,2,7
LAY IN	20	WHITE	12x12	SEE TAG	YES	1,3,4,7
LAY IN	20	WHITE	12x12	SEE TAG	YES	1,3,7
SURFACE	20	WHITE	-	SEE TAG	YES	N/A
SURFACE	20	WHITE	-	SEE TAG	YES	N/A

MARK A-10"Ø

STRAIGHT SILENCER ELBOW SILENCER SELECTIONS SCHEDULED ARE BASIS OF DESIGN. APPROVED EQUAL PRODUCTS BY MCGILL AIRFLOW OR RUSKIN, PROVIDED THEY MEET OR EXCEED THE BASIS OF DESIGN PERFORMANCE AND SPECIFICATIONS.

20,21,22
20,21,22
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AIR FLOW _____ 150

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Mark	ASSOCIATED UNIT	MANUFACTURER	MODEL	AREA SERVED	ARRANGEMENT	REFRIG. TYPE	NOMINAL TONS	SUPPLY (CFM)	DX COOLII DESIGN OUTDOOR TEMP. (DB F)	NG DATA CAPACITY (BTUH)	DX HEATIN DESIGN OUTDOOR TEMP. (DB F)	NG DATA CAPACITY (BTUH)	VOLTS	ELEC PHASE	DATA MCA	MOP	WEIGHT (LBS)	REMARKS
FCU-1-1	VRF-1	LG	ARNU073TRD4	WORK 201	CEILING CASSETTE - 4 WAY	R410A	0.63	212	75	7,146	70	8,500	208	1	0.25	15	29	1,2,3,4,5,6,7,8,9,10
CU-1-2	VRF-1	LG	ARNU183TQD4	CONFERENC 202	CEILING CASSETTE - 4 WAY	R410A	1.5	353	75	17,867	70	21,500	208	1	0.25	15	35	1,2,3,4,5,6,7,8,9,1
CU-1-3 CU-1-4	VRF-1 VRF-1	LG LG	ARNU153TQD4 ARNU123TRD4	WORK 203 WORK 203A	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	1.25	328 247	75 75	14,646 11,640	70	17,100 13,600	208 208	1	0.25 0.25	15 15	35 32	1,2,3,4,5,6,7,8,9,1
CU-1-4	VRF-1 VRF-1	LG	ARNU123TRD4	RECEPTION 204	CEILING CASSETTE - 4 WAT	R410A	1.5	353	75	17,867	70	21,500	208	1	0.25	15	35	1,2,3,4,5,6,7,8,9,1
CU-1-6	VRF-1	LG	ARNU093TRD4	PRINCIPAL 205	CEILING CASSETTE - 4 WAY	R410A	0.75	251	75	9,058	70	10,900	208	1	0.25	15	32	1,2,3,4,5,6,7,8,9,1
CU-1-7	VRF-1	LG	ARNU183TQD4	LOBBY 208	CEILING CASSETTE - 4 WAY	R410A	1.5	353	75	17,867	70	21,500	208	1	0.25	15	35	1,2,3,4,5,6,7,8,9,
CU-1-8A CU-1-8B	VRF-1 VRF-1	LG LG	ARNU183TAA4 ARNU183TAA4	MUSIC 220 MUSIC 220	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	1.5 1.5	735 735	75 75	17,867 17,867	70	21,500 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, ² 1,2,3,4,5,6,7,8,9, ²
CU-1-8C	VRF-1	LG	ARNU183TAA4	MUSIC 220	CEILING CASSETTE - 4 WAT	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-1-9	VRF-1	LG	ARNU283TAA4	MUSIC INSTR. 221	CEILING CASSETTE - 4 WAY	R410A	2.33	599	75	26,524	70	31,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-1-10	VRF-1	LG	ARNU123TRD4	CORRIDOR 222	CEILING CASSETTE - 4 WAY	R410A	1	247	75	11,640	70	13,600	208	1	0.25	15	32	1,2,3,4,5,6,7,8,9,
CU-2-1	VRF-2 VRF-2	LG	ARNU073TRD4 ARNU073TRD4	CUSTODIAN 112 VESTIBULE 113	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	0.63	212 212	75 75	7,146 7,146	70	8,500 8,500	208 208	1	0.25 0.25	15 15	29 29	1,2,3,4,5,6,7,8,9, ² 1,2,3,4,5,6,7,8,9, ²
CU-2-2	VRF-2 VRF-2	LG LG	ARNU073TRD4	OFFICE 115	CEILING CASSETTE - 4 WAT	R410A	0.63	212	75	7,146	70	8,500	208	1	0.25	15	29	1,2,3,4,5,6,7,8,9,
CU-2-4	VRF-2	LG	ARNU183TQD4	TEACHER 117	CEILING CASSETTE - 4 WAY	R410A	1.5	353	75	17,867	70	21,500	208	1	0.25	15	35	1,2,3,4,5,6,7,8,9,
CU-2-5	VRF-2	LG	ARNU243TAA4	ART 123A	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-2-6A	VRF-2	LG	ARNU183TAA4	READING 123B	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-2-6B CU-2-7A	VRF-2 VRF-2	LG LG	ARNU243TAA4 ARNU183TAA4	READING 123B CLASSROOM 125	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2 1.5	600 735	75 75	22,798 17,867	70	27,300 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-2-7A CU-2-7B	VRF-2 VRF-2	LG	ARNU243TAA4	CLASSROOM 125	CEILING CASSETTE - 4 WAT	R410A R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
-CU-2-8	VRF-2	LG	ARNU073TRD4	CORRIDOR 129	CEILING CASSETTE - 4 WAY	R410A	0.63	212	75	7,146	70	8,500	208	1	0.25	15	29	1,2,3,4,5,6,7,8,9,
CU-2-9A	VRF-2	LG	ARNU183TAA4	CLASSROOM 131	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-2-9B CU-2-10	VRF-2 VRF-2	LG LG	ARNU243TAA4 ARNU283TAA4	CLASSROOM 131 CORRIDOR 129	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2 2.33	600 599	75 75	22,798 26,524	70 70	27,300 31,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-3-1A	VRF-3	LG	ARNU243TAA4	SP. ED 188	CEILING CASSETTE - 4 WAT	R410A	2.33	600	75	20,324	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-3-1B	VRF-3	LG	ARNU243TAA4	SP. ED 188	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-3-2A	VRF-3	LG	ARNU243TAA4	CLASSROOM 190	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-3-2B	VRF-3	LG	ARNU183TAA4	CLASSROOM 190	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-3-3A CU-3-3B	VRF-3 VRF-3	LG LG	ARNU243TAA4 ARNU183TAA4	CLASSROOM 191 CLASSROOM 191	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2	600 735	75 75	22,798 17,867	70 70	27,300 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-3-4	VRF-3	LG	ARNU283TAA4	CORRIDOR 192	CEILING CASSETTE - 4 WAY	R410A	2.33	599	75	26,524	70	31,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
-CU-4-1	VRF-4	LG	ARNU093TRD4	CORRIDOR 156	CEILING CASSETTE - 4 WAY	R410A	0.75	251	75	9,058	70	10,900	208	1	0.25	15	32	1,2,3,4,5,6,7,8,9,
CU-4-2A	VRF-4	LG	ARNU243TAA4	CLASSROOM 183	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-4-2B CU-4-3A	VRF-4 VRF-4	LG LG	ARNU183TAA4 ARNU153TAA4	CLASSROOM 183 CLASSROOM 184	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	1.5 1.25	735 735	75 75	17,867 17,867	70	21,500 17,100	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-4-3B	VRF-4	LG	ARNU153TAA4	CLASSROOM 184	CEILING CASSETTE - 4 WAY	R410A	1.25	735	75	17,867	70	17,100	200	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-4-4A	VRF-4	LG	ARNU243TAA4	CLASSROOM 185	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-4-4B	VRF-4	LG	ARNU183TAA4	CLASSROOM 185	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-4-5A CU-4-5B	VRF-4 VRF-4	LG LG	ARNU183TAA4 ARNU183TAA4	SP. ED 186 SP. ED 186	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	1.5 1.5	735 735	75 75	17,867 17,867	70	21,500 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
	VRF-5	LG	ARNU183TQD4	CORRIDOR 178	CEILING CASSETTE - 4 WAY	R410A	1.5	353	75	17,867	70	21,500	200	1	0.25	15	35	1,2,3,4,5,6,7,8,9,
CU-5-2A	VRF-5	LG	ARNU153TAA4	CLASSROOM 165	CEILING CASSETTE - 4 WAY	R410A	1.25	735	75	17,867	70	17,100	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-5-2B	VRF-5	LG	ARNU153TAA4	CLASSROOM 165	CEILING CASSETTE - 4 WAY	R410A	1.25	735	75	17,867	70	17,100	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-5-3A CU-5-3B	VRF-5 VRF-5	LG LG	ARNU243TAA4 ARNU153TAA4	CLASSROOM 166 CLASSROOM 166	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2 1.25	600 735	75 75	22,798 17,867	70 70	27,300 17,100	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, ² 1,2,3,4,5,6,7,8,9, ²
CU-5-4A	VRF-5	LG	ARNU153TAA4	CLASSROOM 100 CLASSROOM 167	CEILING CASSETTE - 4 WAY	R410A	1.25	735	75	17,867	70	17,100	200	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-5-4B	VRF-5	LG	ARNU153TAA4	CLASSROOM 167	CEILING CASSETTE - 4 WAY	R410A	1.25	735	75	17,867	70	17,100	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-5-5A	VRF-5	LG	ARNU153TAA4	CLASSROOM 168	CEILING CASSETTE - 4 WAY	R410A	1.25	735	75	17,867	70	17,100	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-5-5B CU-5-6A	VRF-5 VRF-5	LG LG	ARNU153TAA4 ARNU153TAA4	CLASSROOM 168 CLASSROOM 169	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	1.25 1.25	735 735	75 75	17,867 17,867	70	17,100 17,100	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-5-6B	VRF-5	LG	ARNU153TAA4 ARNU153TAA4	CLASSROOM 109 CLASSROOM 169	CEILING CASSETTE - 4 WAT	R410A R410A	1.25	735	75	17,867	70	17,100	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-5-7	VRF-5	LG	ARNU183TAA4	CLASSROOM 170	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-6-1A	VRF-6	LG	ARNU183TAA4	CLASSROOM 128	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-6-1B CU-6-2A	VRF-6 VRF-6	LG LG	ARNU243TAA4 ARNU183TAA4	CLASSROOM 128 CLASSROOM 132	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2 1.5	600 735	75 75	22,798 17,867	70 70	27,300 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-6-2A	VRF-6	LG	ARNU163TAA4 ARNU243TAA4	CLASSROOM 132	CEILING CASSETTE - 4 WAY	R410A R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-6-3A	VRF-6	LG	ARNU183TAA4	CLASSROOM 134	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-6-3B	VRF-6	LG	ARNU243TAA4	CLASSROOM 134	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-6-4A CU-6-4B	VRF-6 VRF-6	LG LG	ARNU183TAA4 ARNU243TAA4	CLASSROOM 136 CLASSROOM 136	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	1.5	735 600	75 75	17,867 22,798	70 70	21,500 27,300	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-7-1A	VRF-0 VRF-7	LG	ARNU243TAA4 ARNU183TAA4	CLASSROOM 130 CLASSROOM 139	CEILING CASSETTE - 4 WAY	R410A R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-7-1B	VRF-7	LG	ARNU243TAA4	CLASSROOM 139	CEILING CASSETTE - 4 WAY	R410A	2	600	75	22,798	70	27,300	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-7-2	VRF-7	LG	ARNU093TRD4	CORRIDOR 154	CEILING CASSETTE - 4 WAY	R410A	0.75	251	75	9,058	70	10,900	208	1	0.25	15	32	1,2,3,4,5,6,7,8,9,
CU-7-3 CU-7-4A	VRF-7 VRF-7	LG LG	ARNU283TAA4 ARNU183TAA4	CORRIDOR 155 KINDERGARTEN 153	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2.33 1.5	599 735	75 75	26,524 17,867	70 70	31,500 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
CU-7-4A	VRF-7 VRF-7	LG	ARNU183TAA4 ARNU183TAA4	KINDERGARTEN 153	CEILING CASSETTE - 4 WAY	R410A R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5 59.5	1,2,3,4,5,6,7,8,9,
CU-8-1	VRF-8	LG	ARNU183TAA4	KINDERGARTEN 142	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-8-2	VRF-8	LG	ARNU183TAA4	KINDERGARTEN 142	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-8-3	VRF-8	LG	ARNU183TAA4	KINDERGARTEN 145	CEILING CASSETTE - 4 WAY	R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-8-4	VRF-8 VRF-8	LG LG	ARNU243TAA4 ARNU183TAA4	KINDERGARTEN 145 KINDERGARTEN 148	CEILING CASSETTE - 4 WAY CEILING CASSETTE - 4 WAY	R410A R410A	2 1.5	600 735	75 75	22,798 17,867	70 70	27,300 21,500	208 208	1	2.09 2.09	15 15	59.5 59.5	1,2,3,4,5,6,7,8,9, 1,2,3,4,5,6,7,8,9,
-CU-8-5 -CU-8-6	VRF-8	LG	ARNU183TAA4 ARNU183TAA4	KINDERGARTEN 148	CEILING CASSETTE - 4 WAT	R410A R410A	1.5	735	75	17,867	70	21,500	208	1	2.09	15	59.5	1,2,3,4,5,6,7,8,9,
CU-8-7	VRF-8	LG	ARNU123TRD4	CORRIDOR 147	CEILING CASSETTE - 4 WAY	R410A	1 4	247	75	11,640	70	13,600	208	1	0.25	15	32	1,2,3,4,5,6,7,8,9,

1. THE TOTAL RUNS OF REFRIGERANT PIPING ARE BASED ON THE SPECIFIED EQUIPMENT AS 4. PROVIDE W/ INTERFACE TO THE BMS FOR FULL MONITORING & CONTROL. MANUFACTURED BY LG. CONTRACTOR SHALL VERIFY WITH MANUFACTURER FOR ACCEPTABLE 5. COORDINATE COIL SIDE CONNECTION WITH DRAWINGS, ENSURE THAT COIL CONNECTION AND TOTAL RUN LENGTH. INSTALLATION OF EQUIPMENT & REFRIGERANT PIPING WILL BE BASED ON MANUFACTURERS APPLICATION DATA AND SHALL NOT COMPROMISE WARRANTY PERIOD. PROVIDE REFRIGERANT SIDE ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER. 6. PROVIDE CONDENSATE PUMPS FOR ALL INDOOR UNITS. CONDENSATE PUMP SHALL BE INTER-PROVIDE AN INTELLIGENT COMMUNICATIONS AND MONITORING CONTROL SYSTEM 2

INDEPENDENT OF THE MAIN BUILDING BMS THAT INCORPORATES 7-DAY PROGRAMMABLE 7. PROVIDE 2 EXTRA FILTERS AND PROVIDE FLEXIBLE DUCT CONNECTOR AT SUPPLY AND RETURN CONTROLLER WITH AUTO CHANGEOVER, LEAD/LAG FUNCTION, UNIT TO UNIT COMMUNICATION, AND A WALL MOUNTED GRAPHICAL DISPLAY CONTROL PANEL.

FILTER RACK ACCESS ARE ON SIDE OF UNIT THAT IS SERVICEABLE PER MANUFACTURER'S REQUIRED CLEARANCES.

LOCKED TO UNIT, IF CONDENSATE PUMP FAILS UNIT SHALL SHUT-DOWN.

CONNECTIONS OF EACH DUCTED STYLE UNIT. 8. CORRECTED CAPACITIES SHALL BE BASED ON "FULL DEMAND". SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES. 9.

					VR	F OUTDO	OR COND	ENSING	UNITS						
					SYSTEM	DX COOL	ING DATA	DX HEATI	ING DATA		ELE	C DATA			
MARK	MANUFACTURER	MODEL	REFRIGERAN T TYPE	# OF MODULES	EFFICIENCY (IEER / SEER)	DESIGN OUTDOOR TEMP. (F)	COOLING CAPACITY (BTUH)	DESIGN OUTDOOR TEMP. (F)	CAPACITY (BTUH)	VOLTS	PHASE	MCA (A)	MOP	WEIGHT (LBS)	REMARKS
VRF-1	LG	ARUM216BTE5	R410A	1	24.8	86.9	195,708	9	239,444	208	3	60	80	666	1,2,3,4,5,6,7,8
VRF-2	LG	ARUM216BTE5	R410A	1	24.8	86.9	204,261	9	243,420	208	3	60	80	666	1,2,3,4,5,6,7,8
VRF-3	LG	ARUM168BTE5	R410A	1	25.4	86.9	155,759	9	186,244	208	3	54	70	639	1,2,3,4,5,6,7,8
VRF-4	LG	ARUM168BTE5	R410A	1	25.4	86.9	155,711	9	186,244	208	3	54	70	639	1,2,3,4,5,6,7,8
VRF-5	LG	ARUM192BTE5	R410A	1	25.9	86.9	177,541	9	214,329	208	3	58	80	659	1,2,3,4,5,6,7,8
VRF-6	LG	ARUM168BTE5	R410A	1	25.4	86.9	154,388	9	186,244	208	3	54	70	639	1,2,3,4,5,6,7,8
VRF-7	LG	ARUM121BTE5	R410A	1	29.6	86.9	111,899	9	133,044	208	3	31	40	507	1,2,3,4,5,6,7,8
VRF-8	LG	ARUM121BTE5	R410A	1	29.6	86.9	116,117	9	136,000	208	3	31	40	507	1,2,3,4,5,6,7,8

 REMARKS:

 1.
 EACH MODULE IS WIRED INDEPENDENTLY. ELECTRICAL DATA IS TYPICAL FOR EACH MODULE.

 2.
 NOMINAL COOLING & HEATING CAPACITIES ARE FOR EACH MODULE.

 4.
 INSTALL UNIT WITH REQUIRED CLEARANCES FOR MAINTENANCE ACCESS IN ACCORDANCE

 WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

 TWINNING, JOINT & LOW AMBIENT KITS SHALL BE FACTORY PROVIDED. ALL FACTORY PROVIDED 5. PROVIDE ADDITIONAL FIELD REFRIGERANT CHARGE TO FACTORY CHARGE, THIS MUST BE COMPONENTS SHALL BE FIELD INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT. PROVIDE WITH HAIL GUARDS.

PROVIDE W/ INTERFACE TO THE BMS FOR FULL MONITORING & CONTROL. SELECTIONS SCHEDULED ARE BASIS OF DESIGN. APPROVED EQUAL PRODUCTS BY DAIKIN OR SAMSUNG, PROVIDED THEY MEET OR EXCEED THE BASIS OF DESIGN PERFORMANCE AND

SPECIFICATIONS.

				No. OF		ELEC DATA		WEIGHT
MARK	ASSOCIATED UNIT	MANUFACTURER	MODEL	PORTS	VOLTS	PHASE	RLA	(LBS)
BC-1-1	ACCU-1	LG	PRHR083A	8	208	1	0.09	68
BC-1-2	ACCU-1	LG	PRHR063A	6	208	1	0.09	68
BC-2-1	ACCU-2	LG	PRHR083A	8	208	1	0.09	68
BC-2-2	ACCU-2	LG	PRHR063A	6	208	1	0.09	68
BC-3-1	ACCU-3	LG	PRHR083A	8	208	1	0.09	68
BC-4-1	ACCU-4	LG	PRHR083A	8	208	1	0.09	68
BC-4-2	ACCU-4	LG	PRHR043A	4	208	1	0.06	40
BC-5-1	ACCU-5	LG	PRHR063A	6	208	1	0.09	68
BC-5-2	ACCU-5	LG	PRHR063A	6	208	1	0.09	68
BC-6-1	ACCU-6	LG	PRHR083A	8	208	1	0.09	68
BC-7-1	ACCU-7	LG	PRHR083A	8	208	1	0.09	68
BC-8-1	ACCU-8	LG	PRHR083A	8	208	1	0.09	68

1. PROVIDE BRANCH JOINT SETS, JOINT KITS & REDUCER SETS, AS REQUIRED, IN ACCORDANCE 4. PROVIDE BALL VALVES, FULL PORT, RATED FOR 700PSIG WORKING PRESSURE, AND R410A. WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE INTERNAL CONDENSATE PUMP. RUN CONDENSATE DISCHARGE TO NEAREST 5. INDIRECT WASTE. 3. INSTALL UNIT WITH REQUIRED CLEARANCES FOR MAINTENANCE ACCESS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

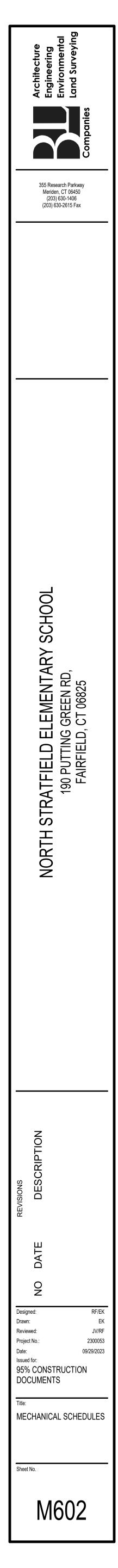
VALVES SHALL BE SIMILAR TO DIAMONDBACK BALL VALVES "BV-SERIES". SELECTIONS SCHEDULED ARE BASIS OF DESIGN. APPROVED EQUAL PRODUCTS BY DAIKIN OR SAMSUNG, PROVIDED THEY MEET OR EXCEED THE BASIS OF DESIGN PERFORMANCE AND SPECIFICATIONS.

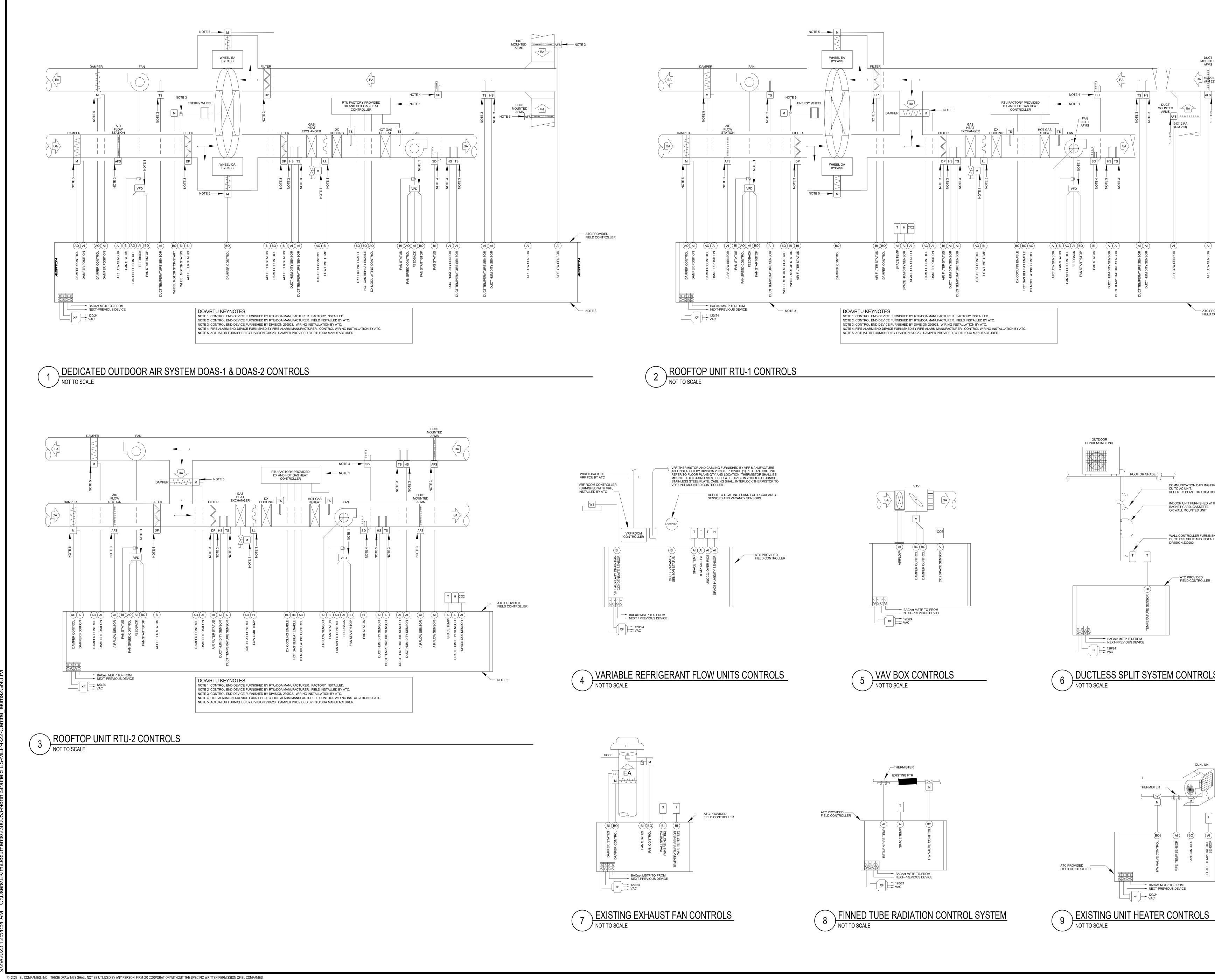
10. PROVIDE ALL WIRING, LINE & LOW VOLTAGE, BETWEEN UNITS AS REQUIRED PER MANUFACUTER"S INSTALLATION INSTRUCTIONS.

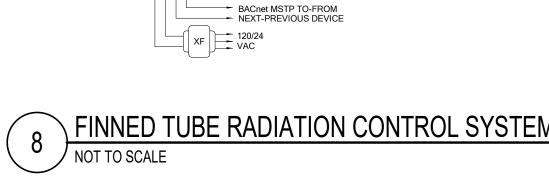
11. SELECTIONS SCHEDULED ARE BASIS OF DESIGN. APPROVED EQUAL PRODUCTS BY DAIKIN OR SAMSUNG, PROVIDED THEY MEET OR EXCEED THE BASIS OF DESIGN PERFORMANCE AND

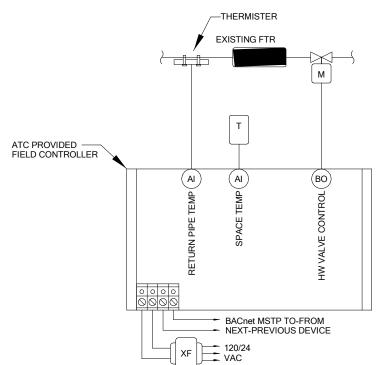
SPECIFICATIONS.

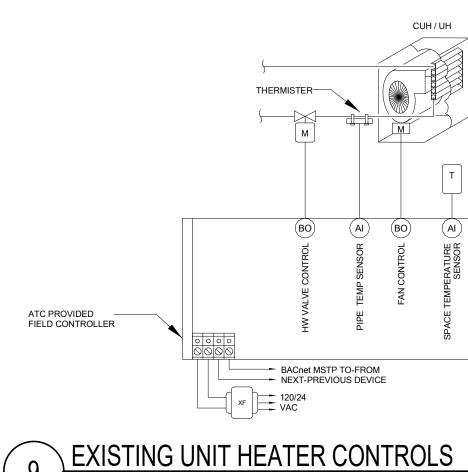
REMARKS
1,2,3,4,5
1,2,3,4,5
1,2,3,4,5
1,2,3,4,5
1,2,3,4,5
1,2,3,4,5
1,2,3,4,5
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1,2,3,4,5



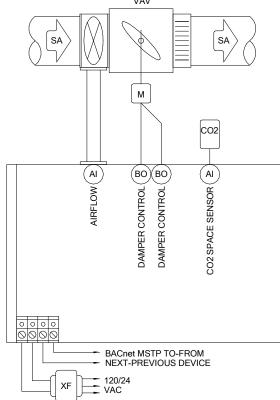


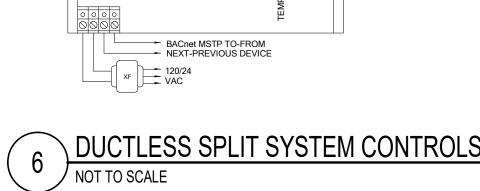


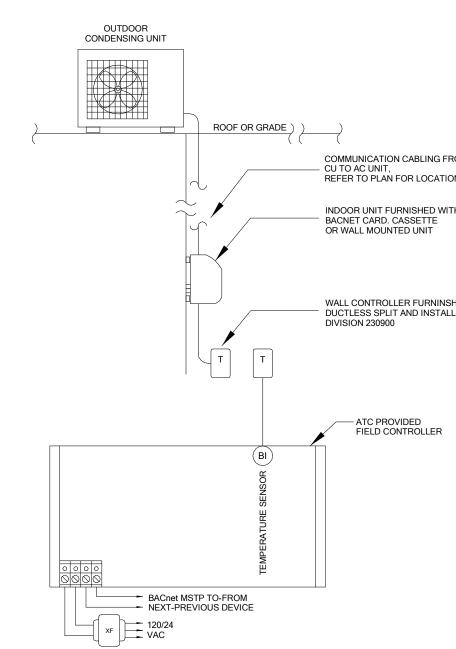






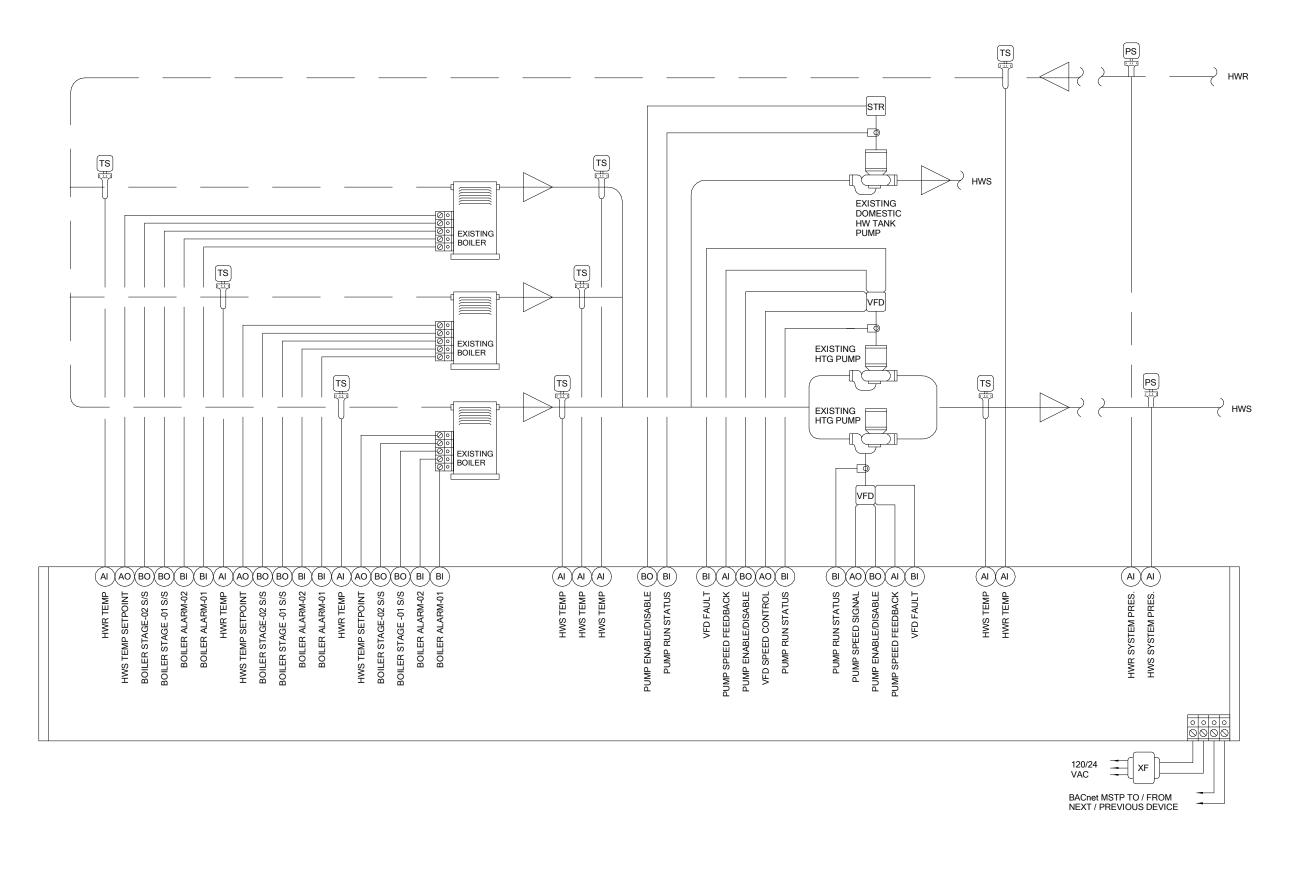






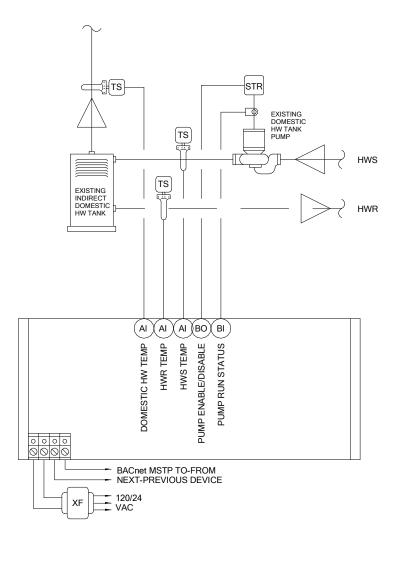
20 RA 223)	Architecture Engineering (503) 9
PROVIDED D CONTROLLER	Too
FROM TIONS VITH NSHED WITH ALLED BY	NORTH STRATFIELD ELEMENTARY SCHOOL
LS	REVISIONS DESCRIPTION
	L L L L Designed: Drawn: Reviewed: Project No.: Date: Issued for: 95% CONSTR DOCUMENTS Title: MECHANICAL
	M7



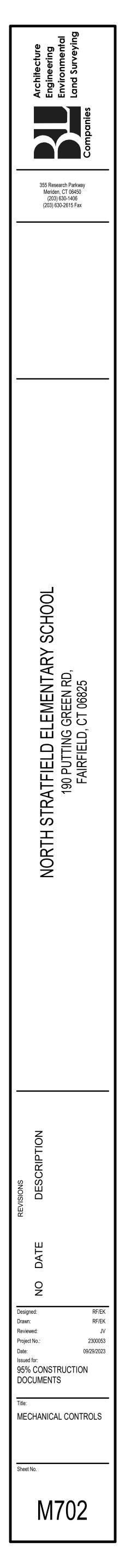


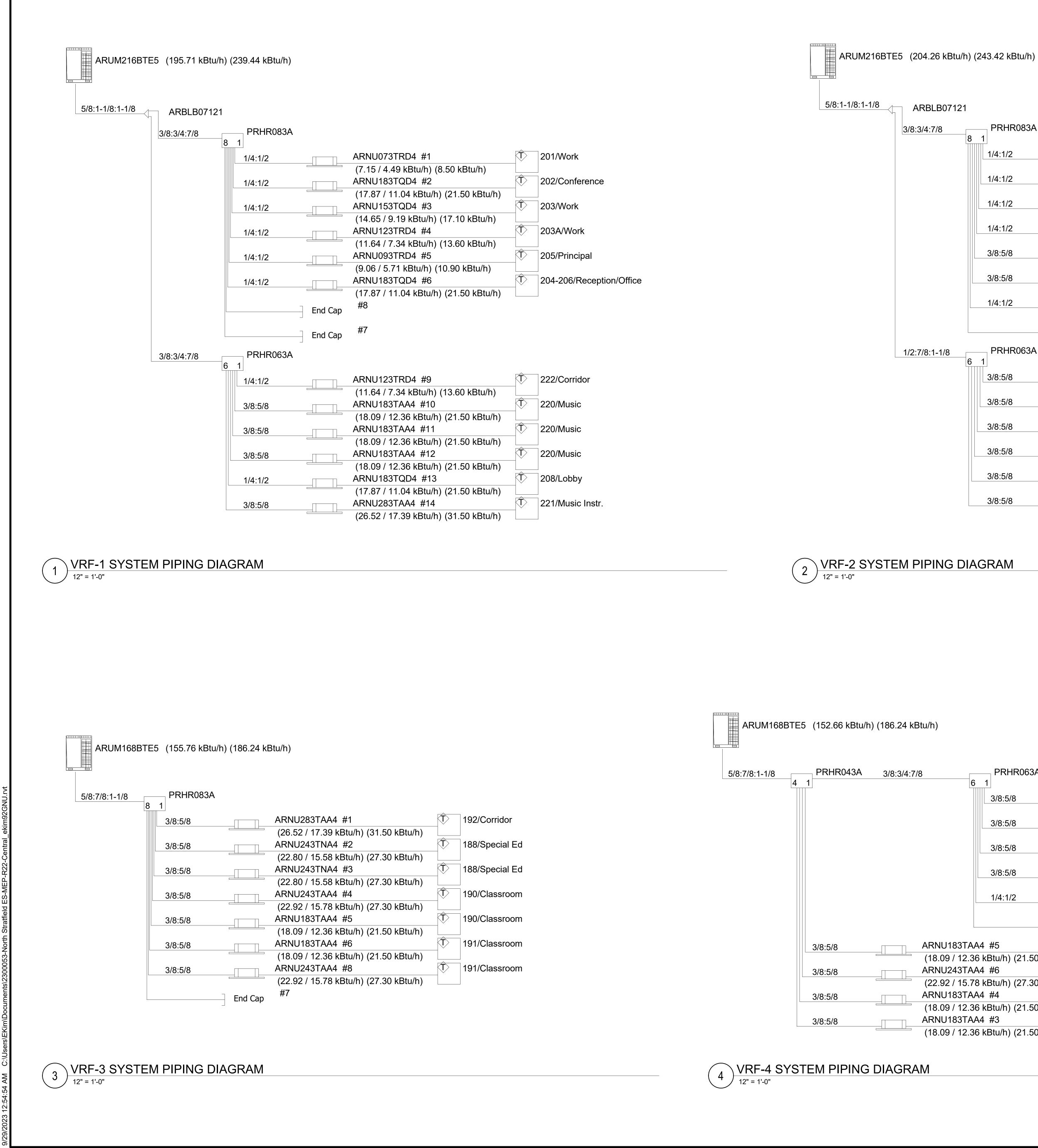
1 EXISTING BOILER PLANT CONTROL SYSTEM







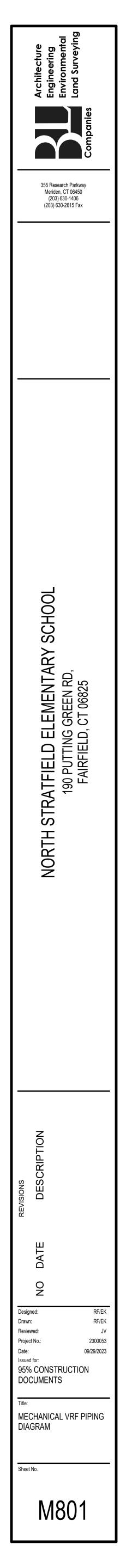


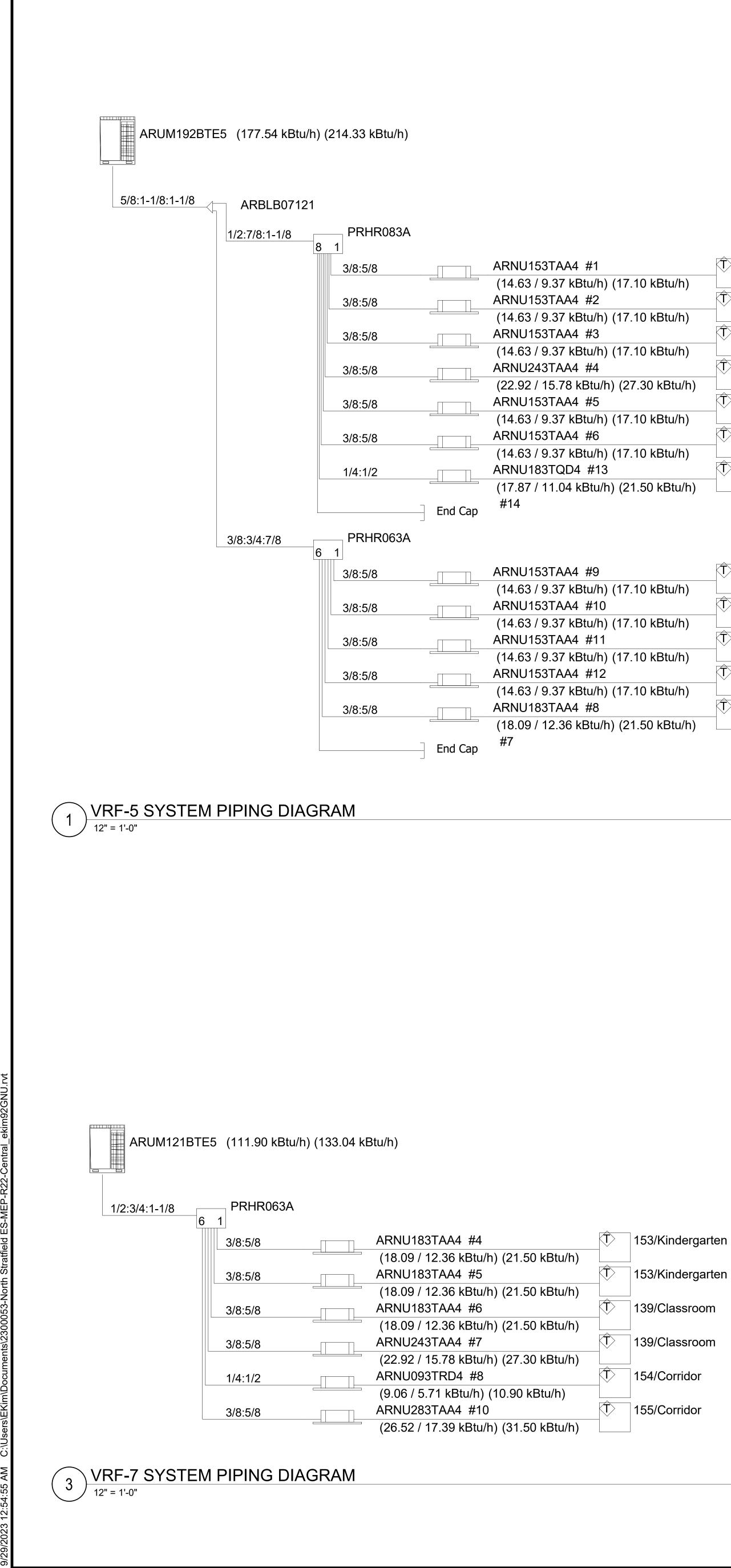


PRHR063A

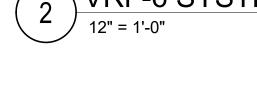
PRHR083A			
8 1	ARNU073TRD4 #15	T	113/Corridor
	(7.15 / 4.49 kBtu/h) (8.50 kBtu/h)		
1/4:1/2	ARNU073TRD4 #16		115/Office
	(7.15 / 4.49 kBtu/h) (8.50 kBtu/h)		
1/4:1/2	ARNU183TQD4 #17		117/Teachers
	(17.87 / 11.04 kBtu/h) (21.50 kBtu/h)		
1/4:1/2	ARNU073TRD4 #18		119/Corridor
	(7.15 / 4.49 kBtu/h) (8.50 kBtu/h)		
3/8:5/8	ARNU183TAA4 #19		125/Classroom
	(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
3/8:5/8	ARNU243TAA4 #20		125/Classroom
	(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
1/4:1/2	ARNU073TRD4 #21		112/Custodian
	(7.15 / 4.49 kBtu/h) (8.50 kBtu/h)		
	a #22		
End	Can + 22		
End	Cap #22		
End	Cap #22		
	Cap #22		
PRHR063A	Cap #22 ARNU243TAA4 #9		123A/Art
PRHR063A	Сар		123A/Art
PRHR063A	ARNU243TAA4 #9		123A/Art 123B/Reading
PRHR063A	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
PRHR063A	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10		
PRHR063A 6 1 3/8:5/8 3/8:5/8	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		123B/Reading
PRHR063A 6 1 3/8:5/8 3/8:5/8	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU183TAA4 #11		123B/Reading
PRHR063A 6 1 3/8:5/8 3/8:5/8 3/8:5/8	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU183TAA4 #11 (18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		123B/Reading 123B/Reading
PRHR063A 6 1 3/8:5/8 3/8:5/8 3/8:5/8	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU183TAA4 #11 (18.09 / 12.36 kBtu/h) (21.50 kBtu/h) ARNU183TAA4 #12		123B/Reading 123B/Reading
PRHR063A 6 1 3/8:5/8 3/8:5/8 3/8:5/8 3/8:5/8	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU183TAA4 #11 (18.09 / 12.36 kBtu/h) (21.50 kBtu/h) ARNU183TAA4 #12 (18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		123B/Reading 123B/Reading 131/Classroom
PRHR063A 6 1 3/8:5/8 3/8:5/8 3/8:5/8 3/8:5/8	Cap ARNU243TAA4 #9 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU243TAA4 #10 (22.92 / 15.78 kBtu/h) (27.30 kBtu/h) ARNU183TAA4 #11 (18.09 / 12.36 kBtu/h) (21.50 kBtu/h) ARNU183TAA4 #12 (18.09 / 12.36 kBtu/h) (21.50 kBtu/h) ARNU243TAA4 #13		123B/Reading 123B/Reading 131/Classroom

6 1			
3/8:5/8	ARNU153TAA4 #7	T	184/Classroom
	(14.63 / 9.37 kBtu/h) (17.10 kBtu/h)		
3/8:5/8	ARNU153TAA4 #8	T	184/Classroom
	(14.63 / 9.37 kBtu/h) (17.10 kBtu/h)		
3/8:5/8	ARNU243TAA4 #15	T	183/Classroom
	(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
3/8:5/8	ARNU183TAA4 #16	T	183/Classroom
	(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
1/4:1/2	ARNU093TRD4 #17		156/Corridor
	(9.06 / 5.71 kBtu/h) (10.90 kBtu/h)		
End (Cap #1		
33TAA4 #5	T 185/Classroom		
12.36 kBtu/h) (21.50 kBtu/h)			
I3TAA4 #6	T 185/Classroom		
15.78 kBtu/h) (27.30 kBtu/h)			
33TAA4 #4	T 186/Special Ed		
12.36 kBtu/h) (21.50 kBtu/h)			
33TAA4 #3	T 186/Special Ed		
12.36 kBtu/h) (21.50 kBtu/h)			

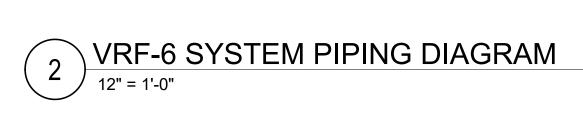




153/Kindergarten 139/Classroom



1/2:3/4:1-1/8



5/8:7/8:1-1/8 PRHR083A

165/Classroom $\langle \mathbf{T} \rangle$ 165/Classroom 166/Classroom 166/Classroom $\langle T \rangle$ 167/Classroom 167/Classroom T 171/Corridor

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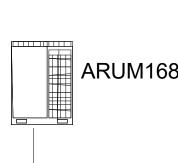
169/Classroom

169/Classroom

168/Classroom

T 168/Classroom

170/Classroom



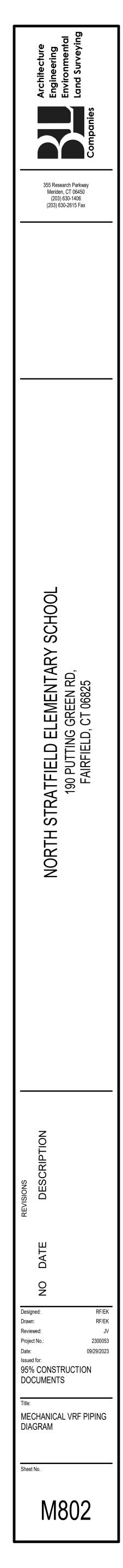


PRHR083A				
8 1			Â	
3/8:5/8		ARNU183TAA4 #4	T	142/Kindergarten
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
3/8:5/8		ARNU183TAA4 #5	T	142/Kindergarten
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
3/8:5/8		ARNU243TAA4 #11	T	145/Kindergarten
		(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
3/8:5/8		ARNU183TAA4 #3	T	145/Kindergarten
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
3/8:5/8		ARNU183TAA4 #6	T	148/Kindergarten
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
3/8:5/8		ARNU183TAA4 #14	T	148/Kindergarten
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
1/4:1/2		ARNU123TRD4 #1	T	147/Corridor
		(11.64 / 7.34 kBtu/h) (13.60 kBtu/h)		
	End Cap	#2		

ARUM121BTE5 (116.12 kBtu/h) (136.00 kBtu/h)

5	3 1			
	3/8:5/8	ARNU243TAA4 #9	Ť	128/Classroom
		(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
	3/8:5/8	ARNU183TAA4 #10	T	128/Classroom
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
	3/8:5/8	ARNU183TAA4 #11	T	132/Classroom
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
	3/8:5/8	ARNU243TAA4 #12	T	132/Classroom
		(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
	3/8:5/8	ARNU243TAA4 #13	T	134/Classroom
		(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		
	3/8:5/8	ARNU183TAA4 #14		134/Classroom
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
	3/8:5/8	ARNU183TAA4 #1		136/Classroom
		(18.09 / 12.36 kBtu/h) (21.50 kBtu/h)		
	3/8:5/8	ARNU243TAA4 #2		136/Classroom
		(22.92 / 15.78 kBtu/h) (27.30 kBtu/h)		

ARUM168BTE5 (154.39 kBtu/h) (186.24 kBtu/h)



MBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ŧ	DUPLEX RECEPTACLE. (18" A.F.F. UNLESS NOTED OTHERWISE).	MD	MOTORIZED DAMPER, PROVIDED BY DIV. 15, WIRED BY DIV. 16
ŧ	QUAD RECEPTACLE. (18" A.F.F. UNLESS NOTED OTHERWISE).	S _T	THERMAL OVERLOAD SWITCH. (240V OR 120V AS REQUIRED0.
	DUPLEX RECEPTACLE EQUIPPED WITH INTEGRAL GROUND FAULT INTERRUPTER. (18" A.F.F. UNLESS NOTED OTHERWISE).	S _M	MOTOR RATED SWITCH.
⊖ _{wp}	WEATHER PROOF DUPLEX RECEPTACLE. (18" A.F.F. UNLESS NOTED OTHERWISE).	TS	SPRING WOUND TIMER SWITCH
	DUPLEX RECEPTACLE. (10" ABOVE COUNTER UNLESS NOTED OTHERWISE).	FCP FC	FAN CONTROL PANEL/ FAN CONTROLLER (COORDINATE EXACT REQUIREMENTS WITH MACHANICAL DRAWINGS).
⊖ <u>−</u> mw	DUPLEX RECEPTACLE. (CENTERED BEHIND MICROWAVE, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT DEVICE MOUNTING LOCATIONS).	T	TRANSFORMER.
	DUPLEX RECEPTACLE. (REFRIGERATOR MOUNT AT 42" UNLESS NOTED OTHERWISE).	17777	SURFACE MOUNTED PANEL BOARD
⊖	DUPLEX RECEPTACLE. (VENDING MACHINE , MOUNT AT 42" UNLESSNOTED OTHERWISE, COORDINATE EXACT RECEPTACLE CONFIGURATION WITHSUPPLIED VENDING EQUIPMENT). PROVIDE GFCI TYPE CIRCUIT BREAKER.	TZZZZ	RECESSED MOUNTED PANEL BOARD
⊖ _{wc}	DUPLEX RECEPTACLE. (WATER COOLER GFI RECEPTACLE).		CONTROLLED BRANCH CIRCUIT WIRING.
) =	208 VOLT, 2 POLE, RECEPTACLE AMP RATING AS SHOWN ON PLAN. (18" A.F.F. UNLESS NOTED OTHERWISE)	E- \	EMERGENCY CONTROLLED BRANCH CIRCUIT, WIRING INSTALLED PER NEC 700.
۲	208 VOLT, 3 POLE, RECEPTACLE AMP RATING AS SHOWN ON PLAN. (18" A.F.F. UNLESS NOTED OTHERWISE)		BRANCH CIRCUIT WIRING.
 	DUPLEX RECEPTACLE. (FLOOR MOUNTED).	E	EMERGENCY BRANCH CIRCUIT, WIRING INSTALLED PER NEC 700.
\bigoplus	QUAD RECEPTACLE. (FLOOR MOUNTED).		HOME RUN.
	208 VOLT, 2 POLE, RECEPTACLE AMP RATING AS SHOWN ON PLAN. (FLOOR MOUNTED)	⋖ —Е——	EMERGENCY BRANCH CIRCUIT HOME RUN, WIRING INSTALLED PER NEC 700.
	208 VOLT, 3 POLE, RECEPTACLE AMP RATING AS SHOWN ON PLAN. (FLOOR MOUNTED)		WALL/ CEILING MOUNTED SELF CONTAINED DOUBLE HEAD EMERGENCY LIGHT UNIT
	QUAD RECEPTACLE AND DATA FLOOR BOX. (COORDINATE DATA REQUIREMENTS WITH TELECOMMUNICATION DRAWINGS).	(J) _{CLG}	JUNCTION BOX IN CEILING.
	SURFACE RACEWAY.		CO DETECTOR.
JJ	JUNCTION BOX		
J	JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT		
	ELECTRICAL CONNECTION POINT		
	HEAVY DUTY DISCONNECT SWITCH (NON-FUSED)		
	WEATHER PROOF HEAVY DUTY FUSED DISCONNECT SWITCH		
\boxtimes	MAGNETIC MOTOR STARTER		
M	MOTOR		

ELECTRICAL DRAWING LIST1 SHEET NUMBER SHEET NAME ECTRICAL NOTES, SYMBOLS LEGENDS, ABBREVIATIONS VERALL FIRST FLOOR DEMOLITION ELECTRICAL PLAN VERALL ROOF ELECTRICAL DEMOLTION PLAN PARTIAL FIRST FLOOR ELECTRICAL DEMOLTION PLAN - AREA A 101.1A PARTIAL FIRST FLOOR ELECTRICAL DEMOLTION PLAN - AREA B PARTIAL ROOF ELECTRICAL DEMOLTION PLAN - AREA A PARTIAL ROOF ELECTRICAL DEMOLTION PLAN - AREA B VERALL FIRST FLOOR ELECTRICAL PLAN PARTIAL FIRST FLOOR ELECTRICAL PLAN - AREA A PARTIAL FIRST FLOOR ELECTRICAL PLAN - AREA B OVERALL ROOF ELECTRICAL PLAN PARTIAL ROOF ELECTRICAL PLAN - AREA A PARTIAL ROOF ELECTRICAL PLAN - AREA B

ELECTRICAL DETAILS

LECTRICAL RISER DIAGRAM LECTRICAL SCHEDULES

LECTRICAL PANELBOARD SCHEDULES

A OR AMP BKBD BOS C OR COND CB, C/B DISC. SW ETR, E GFI, GFCI G, GND HOA HVAC NOTE:

ELECTRICAL G	ENERAL NOTES
 ALL LECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH AND SHALL CONFORM IN ALL ASPECTS TO THE NATIONAL ELECTRICAL CODE (NFFA CODES & LOCAL BUILDING CODES). ALL PERMITS, LICENSES AND CERTIFICATES COVERING THE COMPLETE INSTALLATION OF THE ELECTRICAL WORK SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR ALL CORE-BORING, BACKFILLING AND RESURFACING REQUIRED FOR THE ELECTRICAL WORK SHALL BE PROVIDED BY THE GENERAL CONTRACTOR (G.C.). ALL CONTRACTOR (G.C.). ALL CONTRACTOR (G.C.). ALL CUTTING PATCHING AND REFINISHING OF WALLS, FLOORS & CEILINGS REQUIRED FOR THE ELECTRICAL WORK SHALL BE PROVIDED FOR YT THE GENERAL CONTRACTOR. THESE DRAWINGS ARE DIAGRAMMATIC ONLY: EXACT LOCATIONS OF ALL CONDUIT, ETC. MUST BE FIELD DETERMINED AND RUN TO AVOID DESTRUCTIONS AND MECHANICAL EQUIPMENT. UNLESS OTHERWISE NOTED, MINIMUM WIRE SZE SHALL BE #12 AWG, THWN OR THIN COPPER, MINIMUM CONDUIT SIZE SHALL BE 34°C. UNLESS OTHERWISE SPECIFIED 20A, 120V BRANCH CIRCUIT WIRING SHALL BE 2412, 412G. ALL WIRING SHALL BE CONCEALED AND RUN IN WALLS OR ABOVE CEILINGS. WIRE MOLDING AND EXPOSED CONDUIT IS NOT PERMITTED IN AREAS OTHER THAN THE OPEN WAREHOUSE. WORK NOT INCLUDED IN CONTRACT ('N.LC.'): ANY WIRING OR EQUIPMENT NOT TO BE FURNISHED BY CONTRACTOR SHALL BE INDICATED ON PLANS AS NLLC. SITE VISITATION - PRIOR TO SUBMITTING A BID FOR HIS WORK, TAND DETERMINE HOW THEY WILL AFFECT THE INSTALLATION OF ELECTRICAL WORK. NO ADDITIONAL PAYMENT IN EXCESS OF THE CONTRACTOR SHALL UISIT THE SITE TO INSPECT THE NATURE PROVIDED TO EXISTING CONDITIONS AND EQUIPMENT, AND DETERMINE HOW THEY WILL AFFECT THE INSTALLATION OF ELECTRICAL WORK. NO ADDITIONAL PAYMENT IN EXCESS OF THE CONTRACTOR. METAL CLAD CABLE, "NC CABLE' IS ACCEPTABLE ON THIS PROJECT AND MAY BE USED AS APPROVED BY NEC SPEC SECTION 28 05 19 SECTION 2.4, WHERE RUN CONDENLE AND EQUIPMENT, AND DETERMINE HOW THEY WILL AFFECT THE INSTALLAL CLAD CABLING	 WHERE NOTED ON DRAWINGS OR WHERE CONTRACTOR ELECTS TO GROUP CIRCUITS PER ONE NEUTRAL THEY SHALL SIZE NEUTRAL AS FOLLOWS: a HID NEUTRAL PER THREE CIRCUITS b RO NEUTRAL PER THREE CIRCUITS PROVIDE INSULATED GROUNDING CONDUCTOR IN ALL CONDUITS AND CABLE ASSEMBLIES AS NECESSARY TO COMPLY WITH NEC 20. BRANCH CIRCUITS SHOWN WITH TWO GROUND CONDUCTORS SHALL HAVE ONE EQUIPMENT GROUND CONDUCTOR (GREEN) ANI ONE ROLATED GROUN CONDUCTOR (INGEN WYELLOW STRIPE) INSTALLED IN RACEWAY. ALL EMPTY CONDUITS FOR FUTURE WORK SHALL BE PROVIDED WITH A PULL WIRE. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND DETALS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED TO THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH ARCHITECT PRIOR TO ROUGH-IN. CONTRACTOR SHALL COORDINATE INSTALLATION OF ELECTRICAL WORK ABOVE THE CEILING TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR INSTALLATION OF PLUMBING AND MECHANICAL INSTALLATION, CONDUIT RUNS TO BE THROUGH OR ABOVE TRUSSES WHERE POSSIBL. ELECTRICAL CONTRACTOR TO COORDINATE EXACT PLACEMENT OF ALL DEVICES SHOWN ON THE ELECTRICAL CONSTRUCTION DOCUMENTS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS PRIOR TO FINAL PLACEMENT. ALL WIRE IN CEILING MUST BE PLENUM RATED. NO TELEPHONE WIRE SHALL BE RUN EXPOSED ON BASEBOARDS OR WALLS. WIRING FOR LOW VOLTAGE SYSTEMS SHALL BE RUN CONCEALED WITHIN WALLS AND ABOVE CEILINGS. PANEL DIRECTORIES SHALL BE RUN EXPOSED ON BASEBOARDS OR WALLS. WIRING FOR LOW VOLTAGE SYSTEMS SHALL BE RUN EXCORPACIENE WITHIN WALLS AND ABOVE CEILINGS. PANEL DIRECTORIES SHALL BE COMPLETELY FILLED IN AT COMPLETE WITHOUT THIS LETTER. ANGING FOR LIGHT FIXTURES IS TO BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL BUILDING CODES AND SEING CREQUPRENETS. ANT TH
PROPER WIRE SIZING AND OVERCURRENT PROTECTION AND SHALL NOTIFY ENGINEER OF DISCREPANCIES.	
18. CONTRACTOR SHALL SEAL ALL ELECTRICAL PENETRATIONS THRU FIRE RATED PARTITIONS WITH FIRE RATED MATERIAL EQUAL TO DOW CORNING SILICONE RTV FOAM AS A MINIMUM. MATERIAL SELECTION SHALL BE BASED ON RATING OF PARTITION PENETRATED. REFER TO SPEC SECTION 26 05 30.	
19. ALL SUPPLEMENTARY STEEL REQUIRED FOR ELECTRICAL WORK SHALL BE PROVIDED BY THE CONTRACTOR.	
 A. VOLTAGE DROP: THE CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST SPECIFIED FEEDER AND BRANCH CIRCUIT REQUIREN 1. FEEDERS SHALL BE SIZED FOR 2% VOLTAGE DROP, AND BRANCH CIRCUITS SHALL BE SIZED FOR 3% VOLTAGE DROP. 2. THE CONTRACTOR SHALL UTILIZE THE AS-BUILT LENGTHS FOR THE FEEDERS AND BRANCH CIRCUITS WHEN CALCULATION. 	

 THE FEEDER AMPERES SHALL BE BASED ON THE FULL LOAD AMPERES OF THE UTILIZATION EQUIPMENT SERVED.
 THE FEEDER AMPERES FOR PANELBOARDS SHALL BE BASED ON 80% OF THE TRIP SETTING FOR THAT PANELBOARD. 5. WIRING FOR LIGHTING AND RECEPTACLE BRANCH CIRCUITS SHALL BE SIZED IN ACCORDANCE WITH ELECTRICAL GENERAL NOTE 16 ON E0.01. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INCREASING THE SIZE OF THE FEEDER AND/OR BRANCH CIRCUIT WIRING, AND ASSOCIATED CONDUIT AS REQUIRED TO MEET THE ABOVE VOLTAGE DROP REQUIREMENTS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE TO INCREASE THE SIZE OF THE EQUIPMENT GROUND CONDUCTOR, FOR FEEDERS AND/OR BRANCH CIRCUITS INCREASED IN SIZE DUE TO VOLTAGE DROP (AND/OR OTHER ADJUSTMENT REASONS), IN ACCORDANCE WITH NEC 250.122(B). 8. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING FOR THE FEEDERS INCREASED IN SIZE DUE TO VOLTAGE DROP FOR REVIEW AND APPROVAL. THE SHOP DRAWING SHALL INDICATE THE FEEDER AMPERES, THE FEEDER SIZE, THE CONDUIT SIZE, AND THE CALCULATED PERCENT VOLTAGE DROP.

B. LOAD BALANCING: AFTER SUBSTANTIAL COMPLETION, BUT NOT MORE THAN 60 DAYS AFTER FINAL ACCEPTANCE, MEASURE LOAD BALANCING AND MAKE CIRCUIT CHANGES. PRIOR TO MAKING CIRCUIT CHANGES TO ACHIEVE LOAD BALANCING, INFORM ARCHITECT OF EFFECT ON PHASE COLOR CODING. 1. MEASURE LOADS DURING PERIOD OF NORMAL FACILITY OPERATIONS.

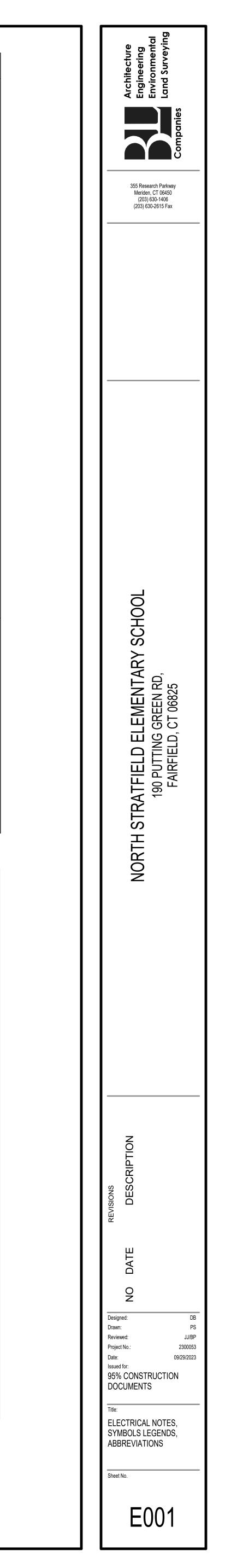
2. PERFORM CIRCUIT CHANGES TO ACHIEVE LOAD BALANCING OUTSIDE NORMAL FACILITY OPERATION SCHEDULE OR AT TIMES DIRECTED BY THE ARCHITECT. AVOID DISRUPTING SERVICES SUCH AS FAXMACHINES AND ON-LINE DATA PROCESSING, COMPUTING, TRANSMITTING, AND RECEIVING EQUIPMENT.

3. AFTER CHANGING CIRCUITS TO ACHIEVE LOAD BALANCING, RECHECK LOADS DURING NORMAL FACILITY OPERATIONS. RECORD LOAD READINGS BEFORE AND AFTER CHANGING CIRCUITS TO ACHIEVE LOAD BALANCING.

4. TOLERANCE: MAXIMUM DIFFERENCE BETWEEN PHASE LOADS, WITHIN A PANELBOARD, SHALL NOT EXCEED 20 PERCENT.

ELECTRICAL ABBREVIATIONS

A OR AMP	AMPERES	IG	ISOLATED GROUND	REF	REFRIGERATOR
AAC	ABOVE ACCESSIBLE CEILING	IMC	INTERMEDIATE METALLIC CONDUIT	RGS	RIGID GALVANIZED STEEL
AC	ALTERNATING CURRENT			RMC	RIGID METALLIC CONDUIT
ACT	ABOVE COUNTER TOP	JB	JUNCTION BOX	RTU	ROOFTOP UNIT
AFF	ABOVE FINISHED FLOOR				
AFG	ABOVE FINISHED GRADE	KCMIL	1000 CIRCULAR MILS	SW	SWITCH
AHJ	AUTHORITY HAVING JURISDICTION	KV	KILOVOLTS (1000 VOLTS)	SWBD	SWITCHBOARD
AHU	AIR HANDLING UNIT.	KVA	KILOVOLT AMPERES (1000 VOLT-AMPERES)		
AIC	INTERRUPTING CAPACITY(RMS SYMMETRICAL AMPERES)	KW	KILOWATTS (1000 WATTS)	TC	TIME CLOCK
ATS	AUTOMATIC TRANSFER SWITCH			TEL	TELEPHONE
		LCP	LIGHTING CONTROL PANEL	TL	TWIST LOCK
BFG	BELOW FINISHED GRADE	LRA	LOCKED ROTOR AMPS	TYP	TYPICAL
BKBD	BACKBOARD			TV	TELEVISION
BOS	BOTTOM OF SHAFT	MCA	MINIMUM CIRCUIT AMPS	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
		MCB	MAIN CIRCUIT BREAKER		
C OR COND	CONDUIT	MCC	MOTOR CONTROL CENTER	UF	UNDERFLOOR
C/T	CURRENT TRANSFORMER	MCM	THOUSAND CIRCULAR MILS	UG	UNDERGROUND
CTR	COUNTER	MD	MOTORIZED DAMPER	UL	UNDERWRITERS LABORATORIES
CB, C/B	CIRCUIT BREAKER	MDP	MAIN DISTRIBUTION PANEL	UP	UP
CFA	CALL FOR ASSISTANCE	MFR, MFTR	MANUFACTURER	UTP	UNSHIELDED TWISTED PAIR
CLG	CEILING	MH	MECHANICALLY HELD		
CPT	CURRENT POTENTIAL TRANS.	MIC	MICROPHONE	V	VOLTS
CU	CONDENSING UNIT	MLO	MAIN LUGS ONLY	VP	VAPORPROOF
DC	DIRECT CURRENT	МО	MOTOR OPERATED	VSD	VARIABLE SPEED DRIVE
DISC. SW	DISCONNECT SWITCH	MTD	MOUNTED	VFD	VARIABLE FREQUENCY DRIVE
DN	DOWN	MUA, MAU	MAKE-UP AIR UNIT	VM	VENDING MACHINE
		MW	MICROWAVE		
EO	ELECTRICALLY OPERATED			W/	WITH
EDH	ELECTRIC DUCT HEATER	NC	NORMALLY CLOSED	WC	WATER COOLER
EF	EXHAUST FAN	NEC	NATIONAL ELECTRIC CODE	WP	WEATHERPROOF
EM	EMERGENCY	NF	NOT FUSED	XFMR, TXFMR	TRANSFORMER
EP	ELECTRIC PNEUMATIC SWITCH	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	, ,	
ETR, E	EXISTING TO REMAIN	NIC	NOT IN CONTRACT		
EUH	ELECTRIC UNIT HEATER	NL	NIGHT LIGHT		
EWC	ELECTRIC WATER COOLER				
EWH	ELECTRIC WALL HEATER	NO	NORMALLY OPEN		
		NTS	NOT TO SCALE		
FA	FIRE ALARM				
FACP	FIRE ALARM CONTROL PANEL	OC	OCCUPANCY SENSOR		
FCU	FAN COIL UNIT.				
FLA	FULL LOAD AMPS	P	POLE		
, .		PB	PULL BOX		
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER	PC	PULL CHAIN		ELECTRICAL EQUIPMENT ABBREVIATION
G, GND	GROUND	PE	PNEUMATIC ELECTRIC SWITCH	EX	EXISTING TO REMAIN.
2, 2, 10		PM	PROJECT MANAGER	RE	REMOVE EXISTING.
НОА	HANDS-OFF AUTOMATIC SWITCH	PH	PHASE	RL	RELOCATE EXISTING.
HP	HORSEPOWER	P/T	POTENTIAL TRANSFORMER	NL NL	NEW LOCATION OF EXISTING RELOCATED.
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	PVC	POLYVINYL CHLORIDE	NR	NEW TO REPLACE EXISTING.
HD	HAND DRYER	PWU	PURCHASED WITH UNIT	RR	REMOVE AND REPLACE ON NEW SURFACE.





2. ELECTRICAL CONTRACTOR SHALL REMOVE/ RELOCATE DEVICES AS NOTED ON

- 3. PRIOR TO BIDDING, ELECTRICAL CONTRACTOR SHALL FIELD VERIFY SCOPE OF DEMOLITION WORK WITH BUILDING OWNER, PROVIDE LABOR AND EQUIPMENT TO COMPLETE WORK AS REQUIRED AND INSPECT PROJECT SITE TO DETERMINE CONDITIONS UNDER WHICH DEMOLITION IS TO BE ACCOMPLISHED ALONG WITH KIND AND AMOUNT OF MATERIALS BEING REMOVED. INCLUDE COST OF WORK REQUIRED TO ACCOMMODATE ALL EXISTING CONDITIONS IN THE BID PROPOSAL.
- 4. REMOVE ALL ELECTRICAL DEVIES AS NOTED.
- 5. ALL SALVAGEABLE EQUIPMENT REMOVED SHALL BECOME PROPERTY OF OWNER AND SHALL BE STORED ON SITE AS DIRECTED. ALL NON-SALVAGEABLE MATERIALS SHALL BE REMOVED IN ITS ENTIRETY FROM SITE AND DISPOSED OF BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE LAWS.
- OTHERWISE. 10. COORDINATE POWER SHUTDOWN REQUIREMENTS WITH OWNER A MINIMUM OF 7 DAYS IN ADVANCE OF PLANNED SHUTDOWN. DO NOT PROCEED WITH SHUTDOWN WITHOUT WRITTEN AUTHORIZATION TO PROCEED.

8. FURNISH AND INSTALL KNOCKOUT COVERS OR PLUGS ON ALL EXISTING PANELS,

9. EXTEND/REROUTE WIRING AND CONDUIT, AS REQUIRED, TO ALL ELECTRICAL

DEVICES RELOCATED DURING DEMOLITION UNLESS SPECIFICALLY NOTED

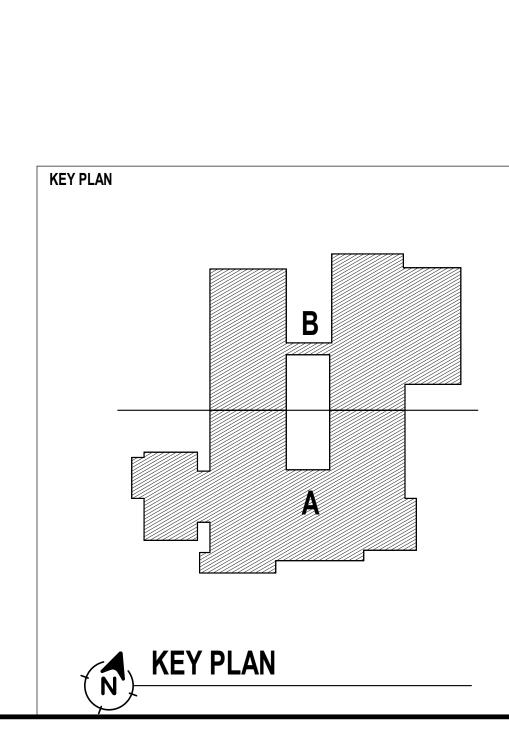
OF EXISTING RACEWAYS.

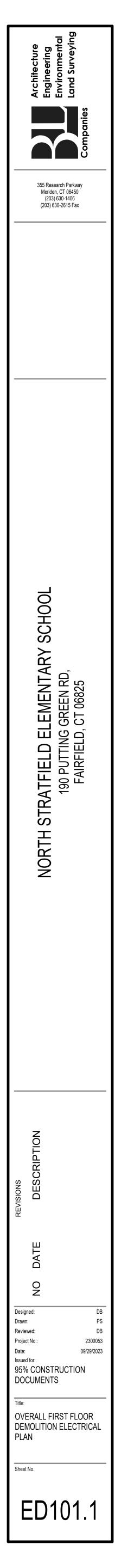
EQUIPMENT, AND OUTLET BOX OPENINGS CREATED BY REMOVAL OR RELOCATION

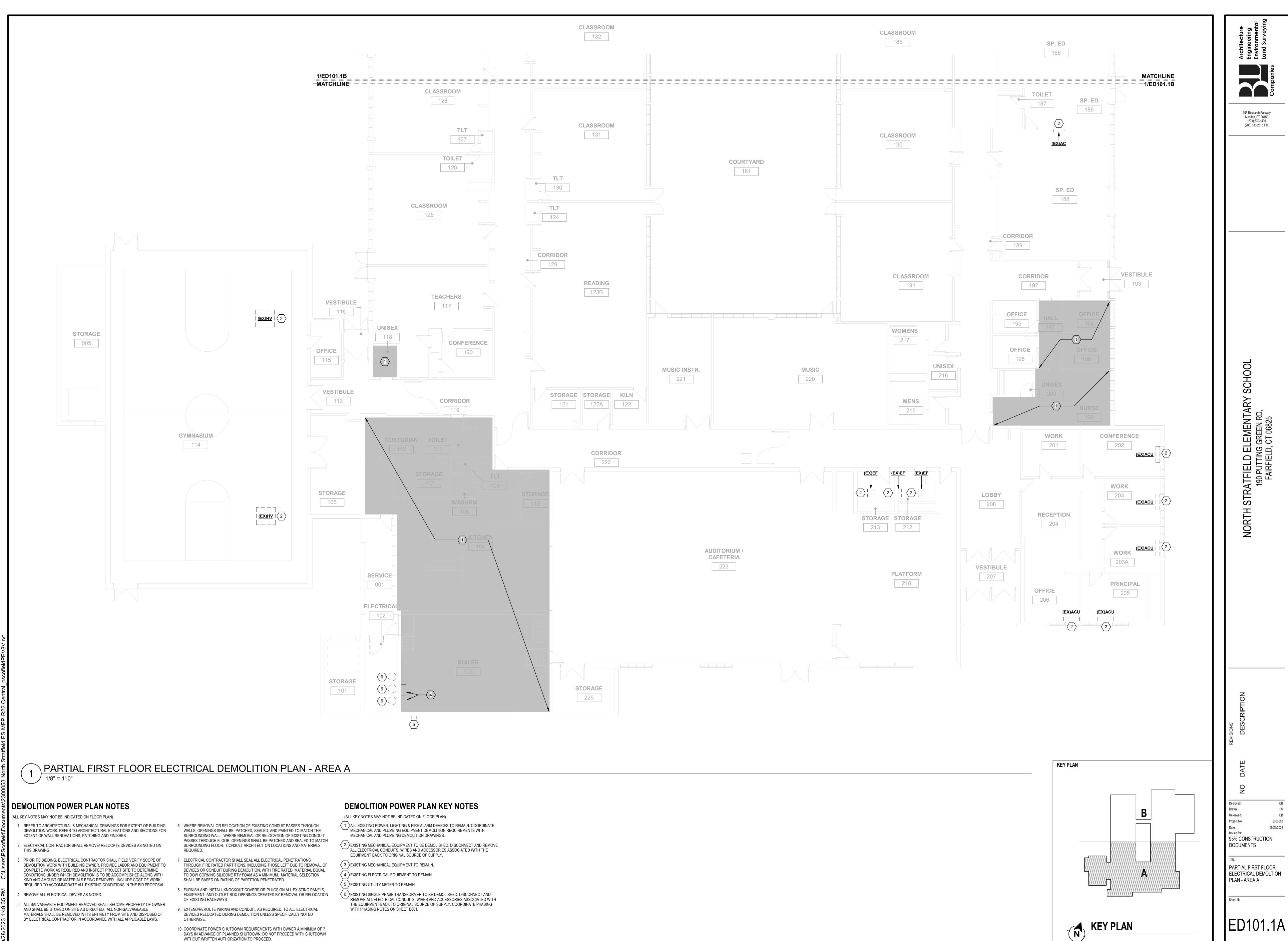
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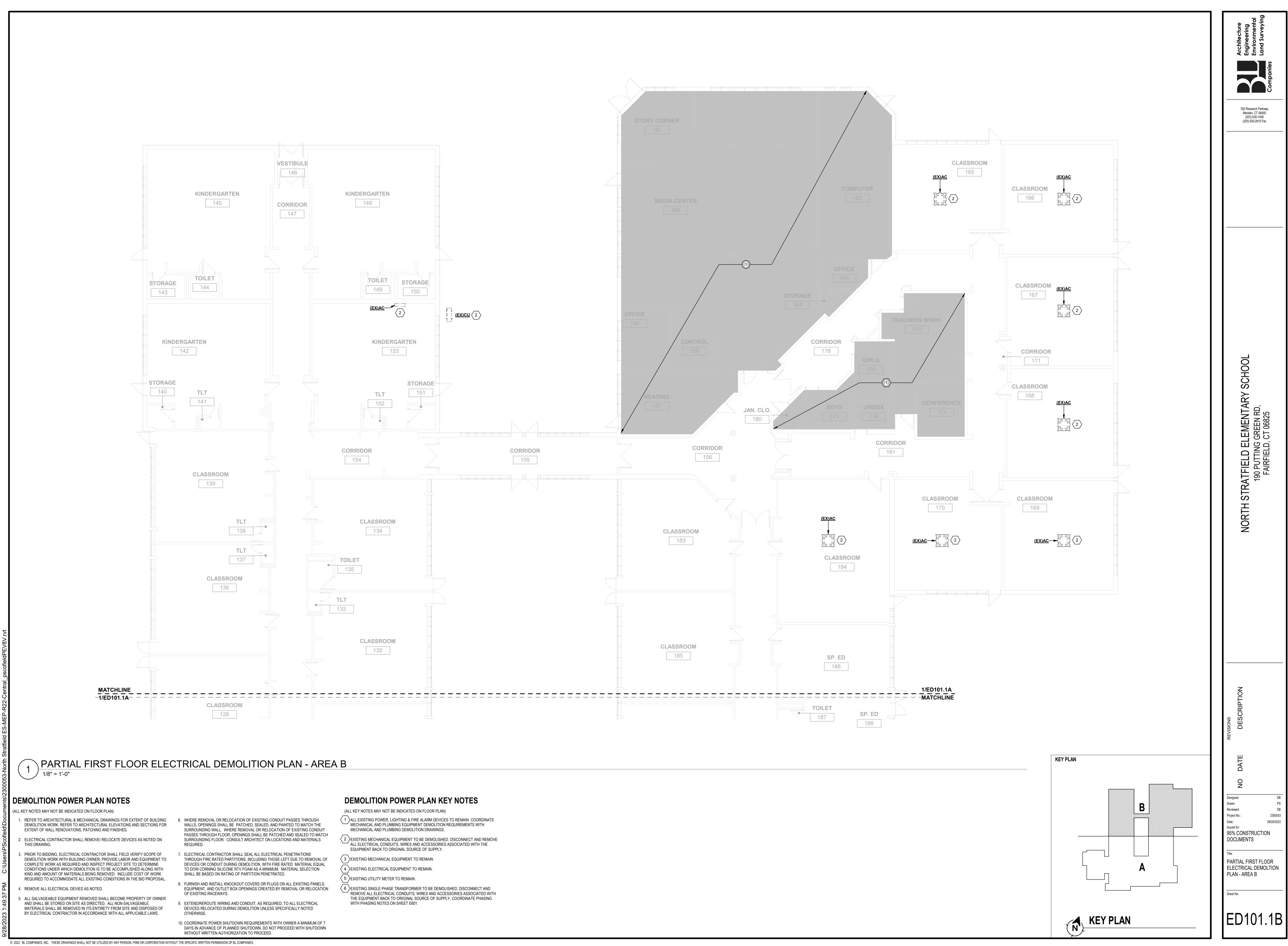
(5) EXISTING UTILITY METER TO REMAIN.

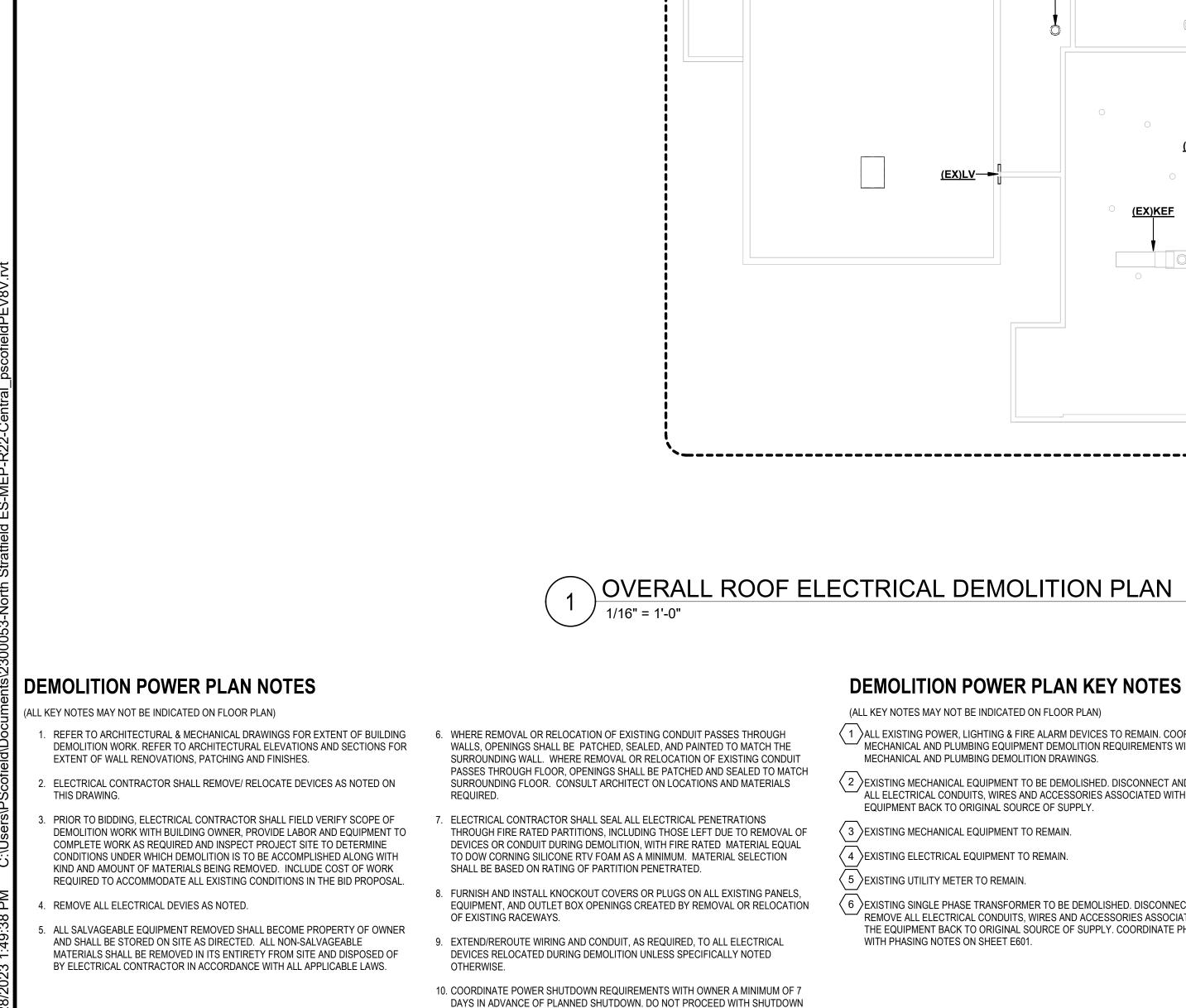
 $\langle 6 \rangle$ EXISTING SINGLE PHASE TRANSFORMER TO BE DEMOLISHED. DISCONNECT AND REMOVE ALL ELECTRICAL CONDUITS, WIRES AND ACCESSORIES ASSOCIATED WITH THE EQUIPMENT BACK TO ORIGINAL SOURCE OF SUPPLY. COORDINATE PHASING WITH PHASING NOTES ON SHEET E601.



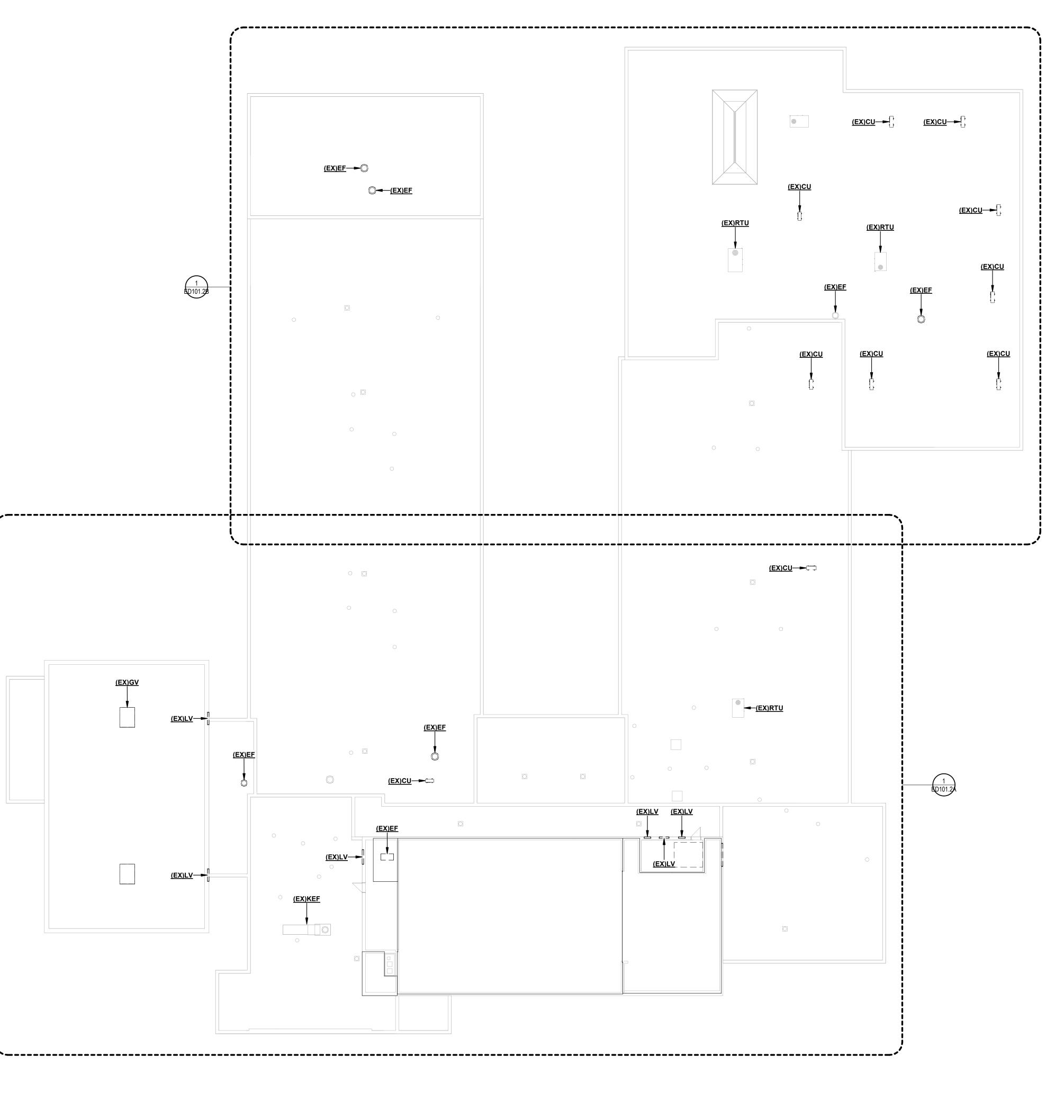








WITHOUT WRITTEN AUTHORIZATION TO PROCEED.



DEMOLITION POWER PLAN KEY NOTES

(ALL KEY NOTES MAY NOT BE INDICATED ON FLOOR PLAN) (1) ALL EXISTING POWER, LIGHTING & FIRE ALARM DEVICES TO REMAIN. COORDINATE MECHANICAL AND PLUMBING EQUIPMENT DEMOLITION REQUIREMENTS WITH MECHANICAL AND PLUMBING DEMOLITION DRAWINGS.

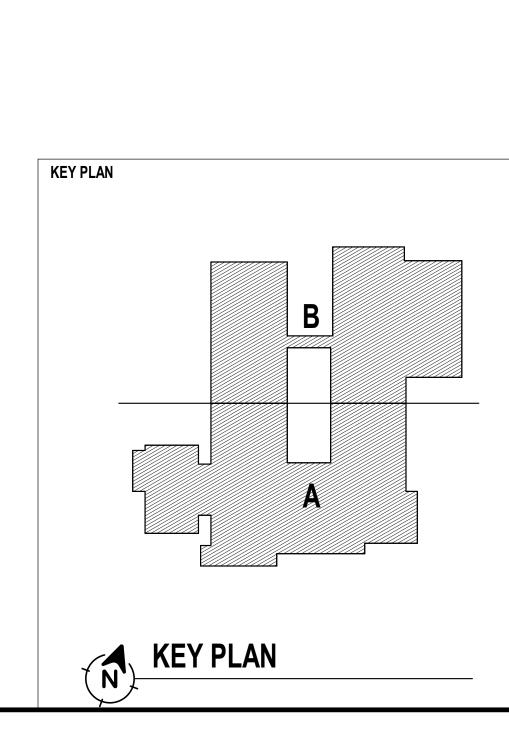
 $\langle 2 \rangle$ EXISTING MECHANICAL EQUIPMENT TO BE DEMOLISHED. DISCONNECT AND REMOVE ALL ELECTRICAL CONDUITS, WIRES AND ACCESSORIES ASSOCIATED WITH THE EQUIPMENT BACK TO ORIGINAL SOURCE OF SUPPLY.

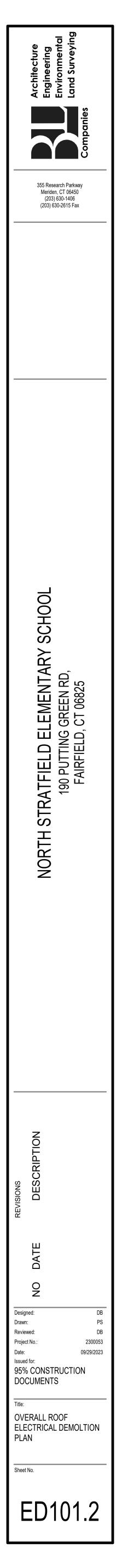
 $\langle 3 \rangle$ EXISTING MECHANICAL EQUIPMENT TO REMAIN.

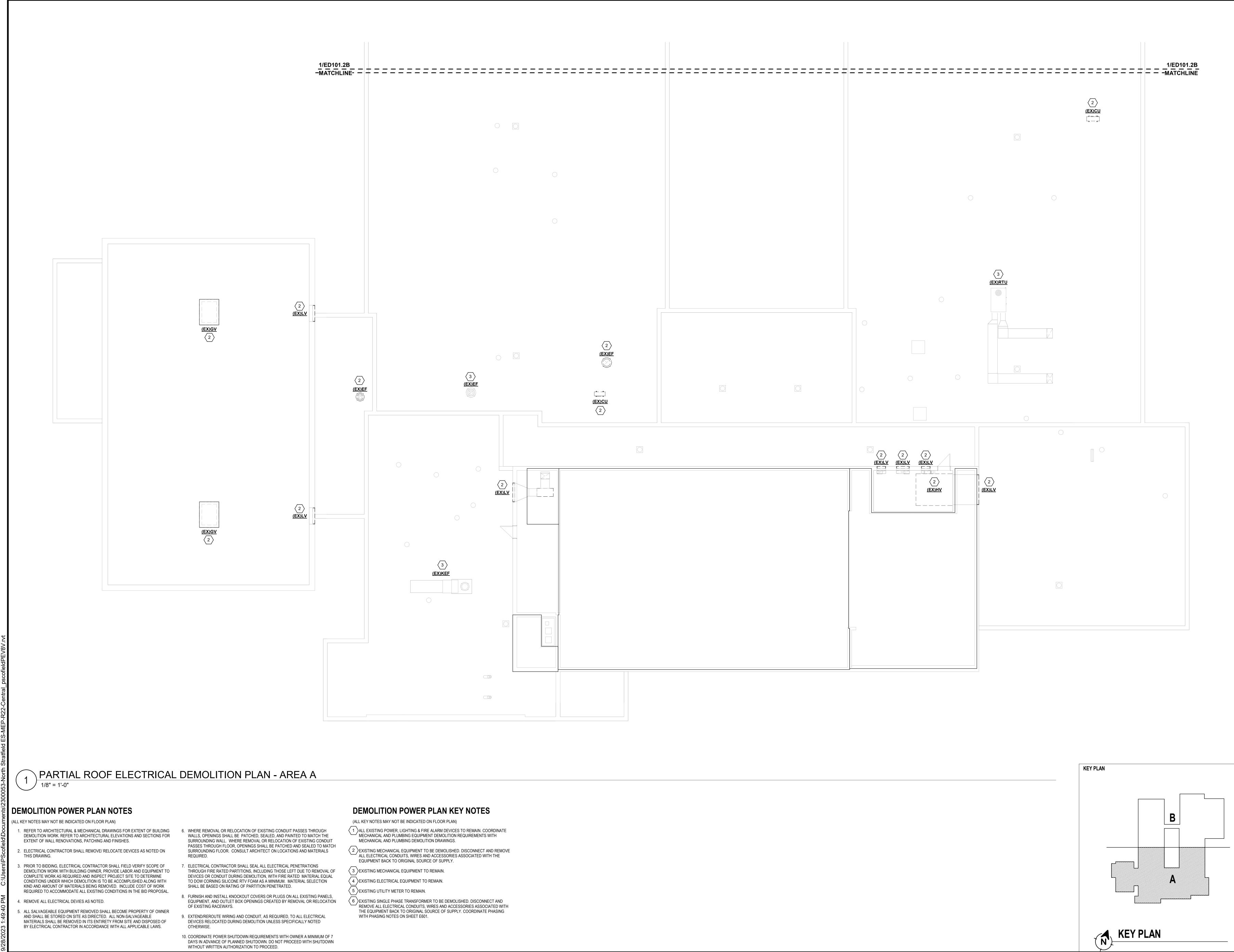
 $\langle 4 \rangle$ EXISTING ELECTRICAL EQUIPMENT TO REMAIN.

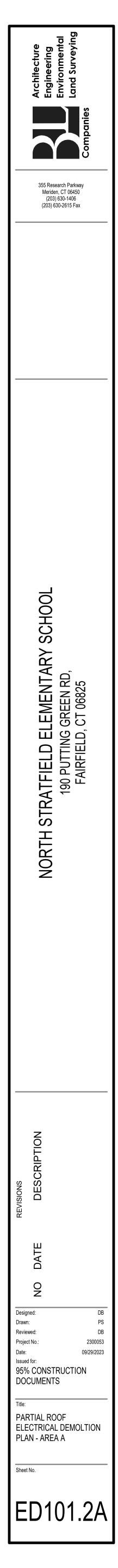
(5) EXISTING UTILITY METER TO REMAIN.

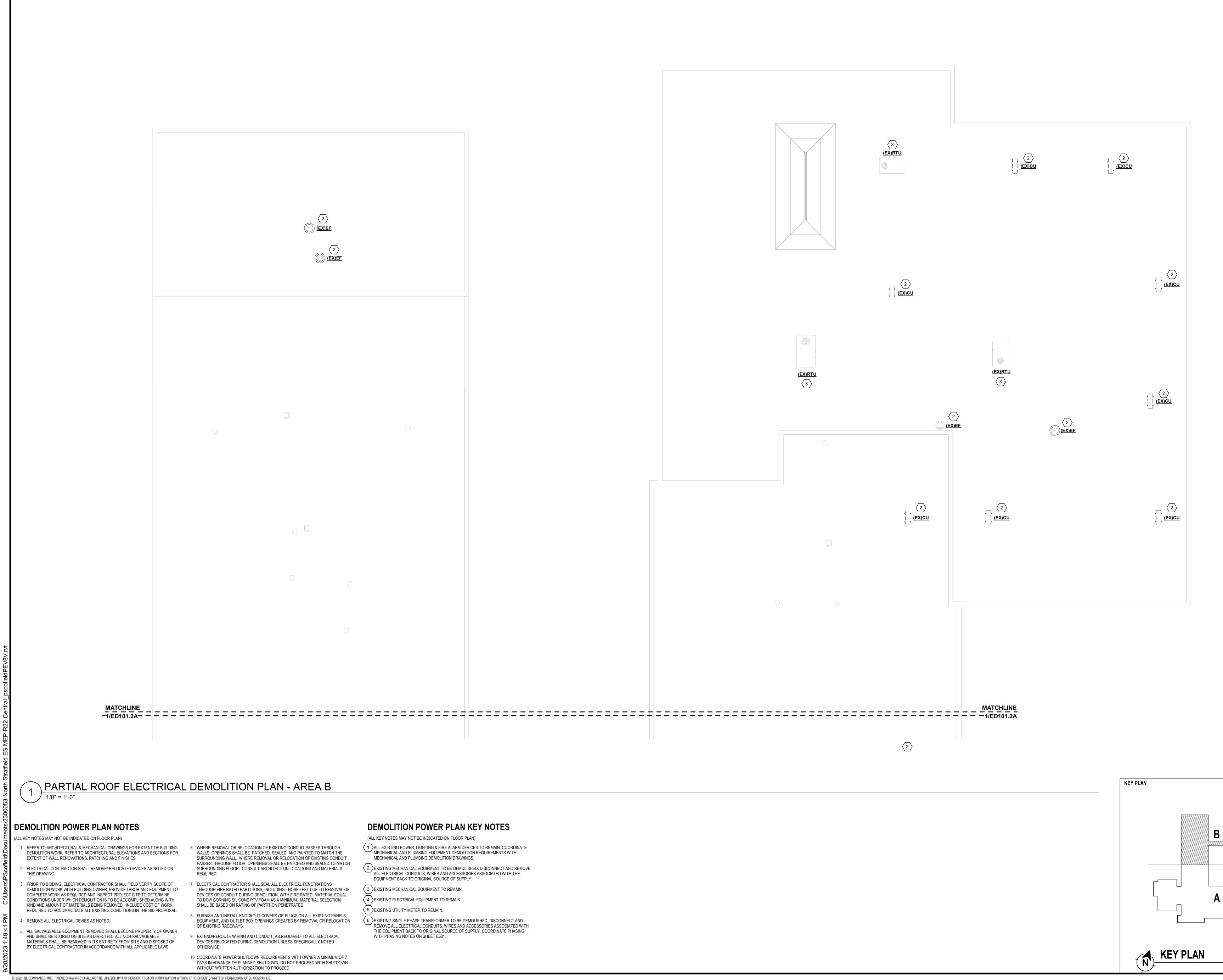
 $\langle 6 \rangle$ EXISTING SINGLE PHASE TRANSFORMER TO BE DEMOLISHED. DISCONNECT AND REMOVE ALL ELECTRICAL CONDUITS, WIRES AND ACCESSORIES ASSOCIATED WITH THE EQUIPMENT BACK TO ORIGINAL SOURCE OF SUPPLY. COORDINATE PHASING WITH PHASING NOTES ON SHEET E601.

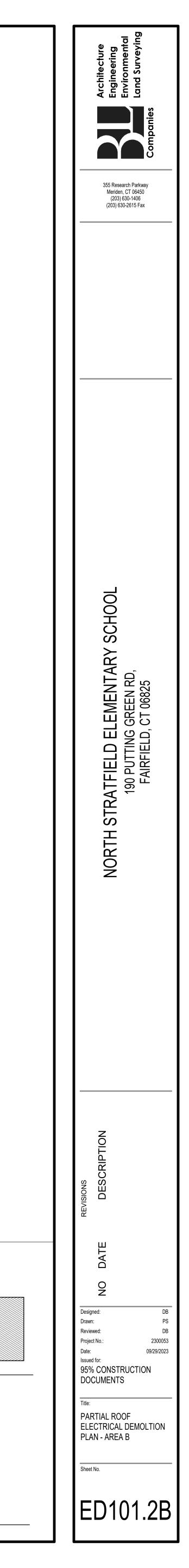


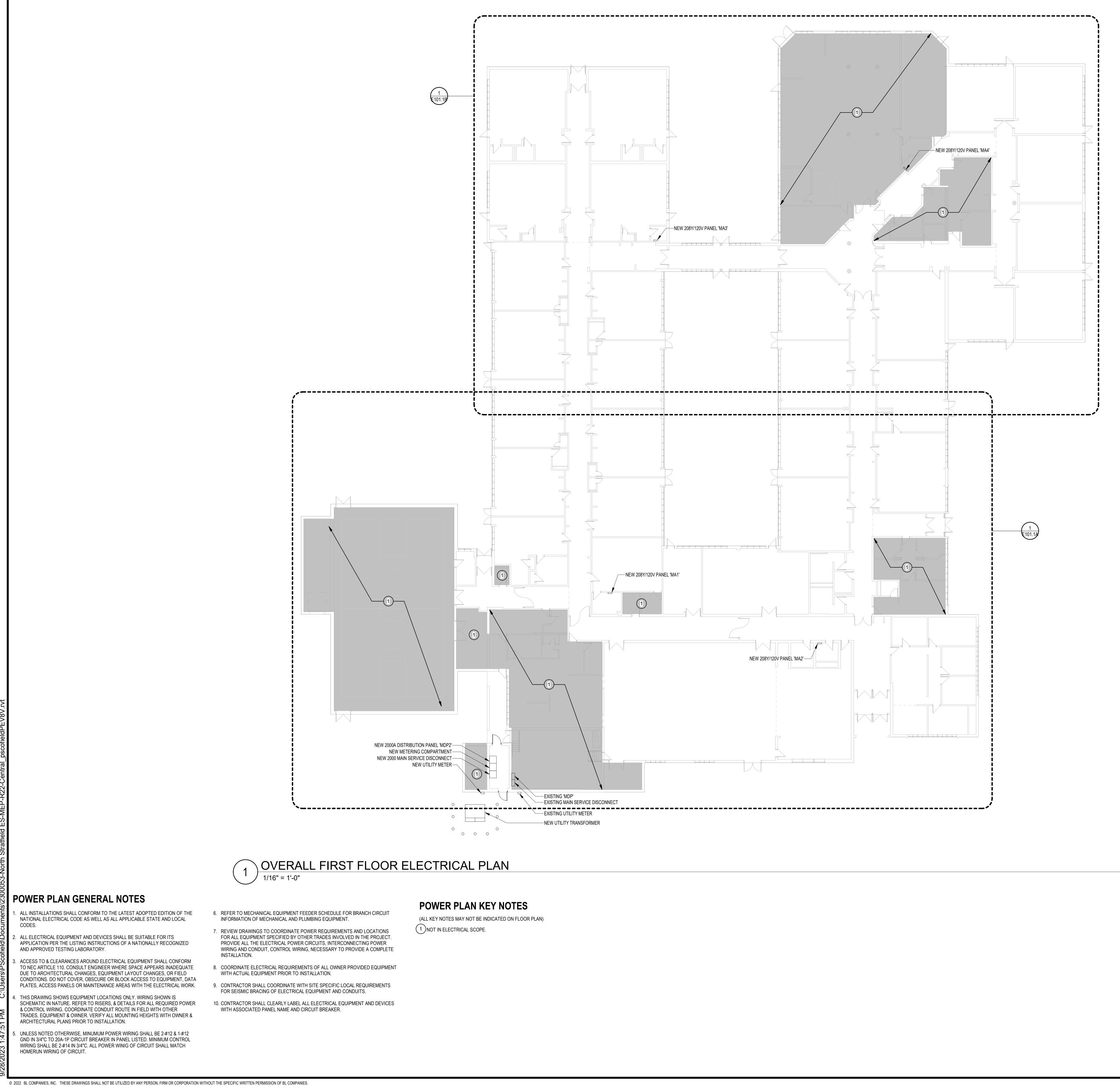


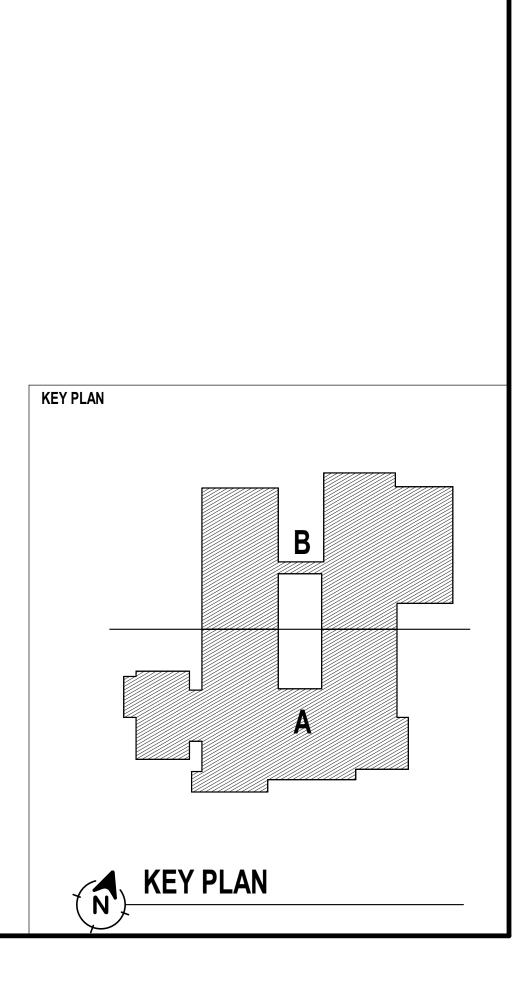


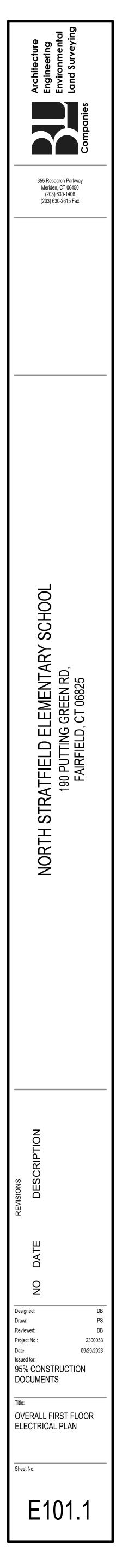


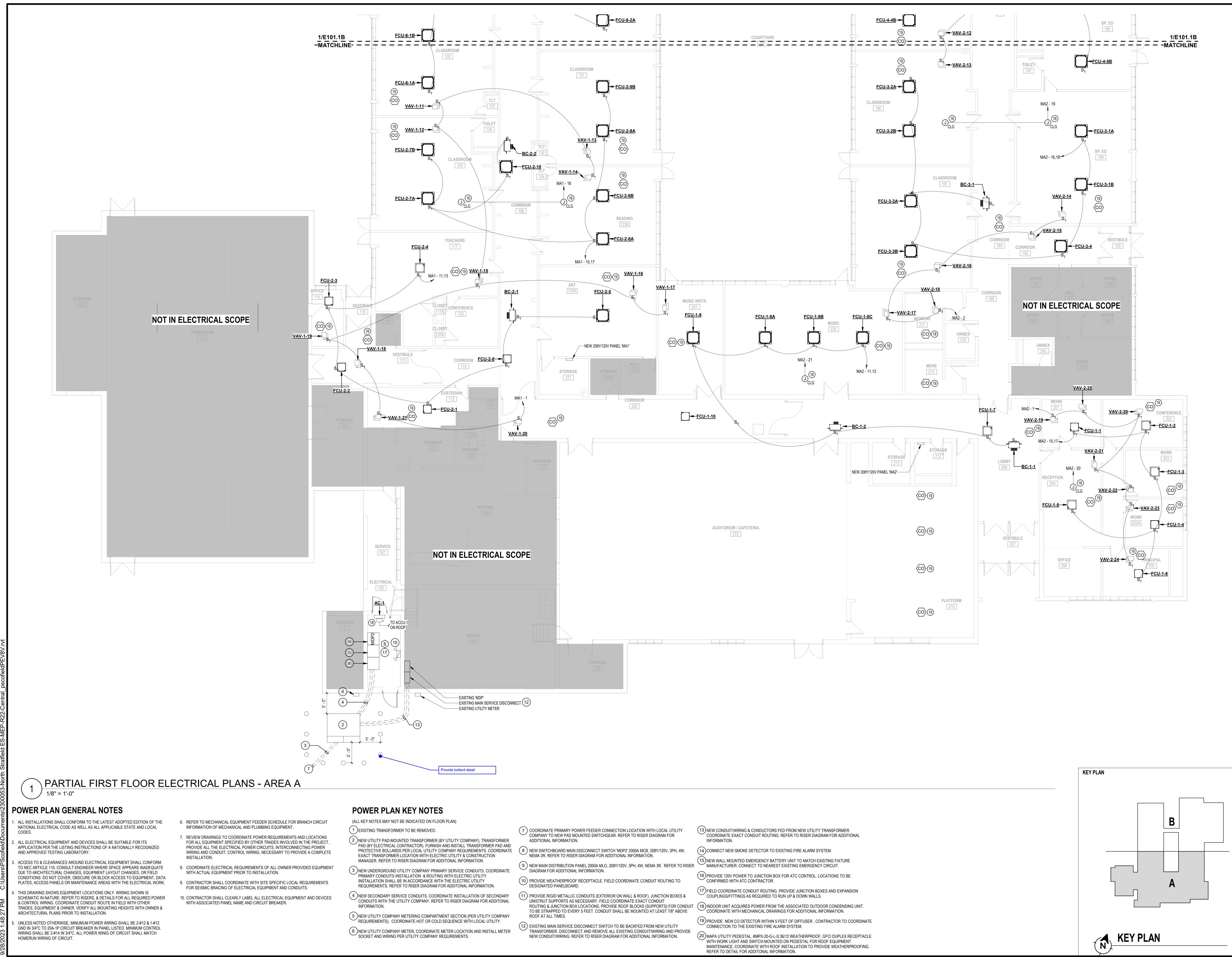




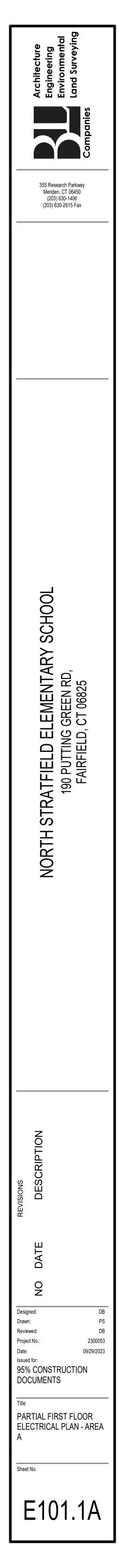


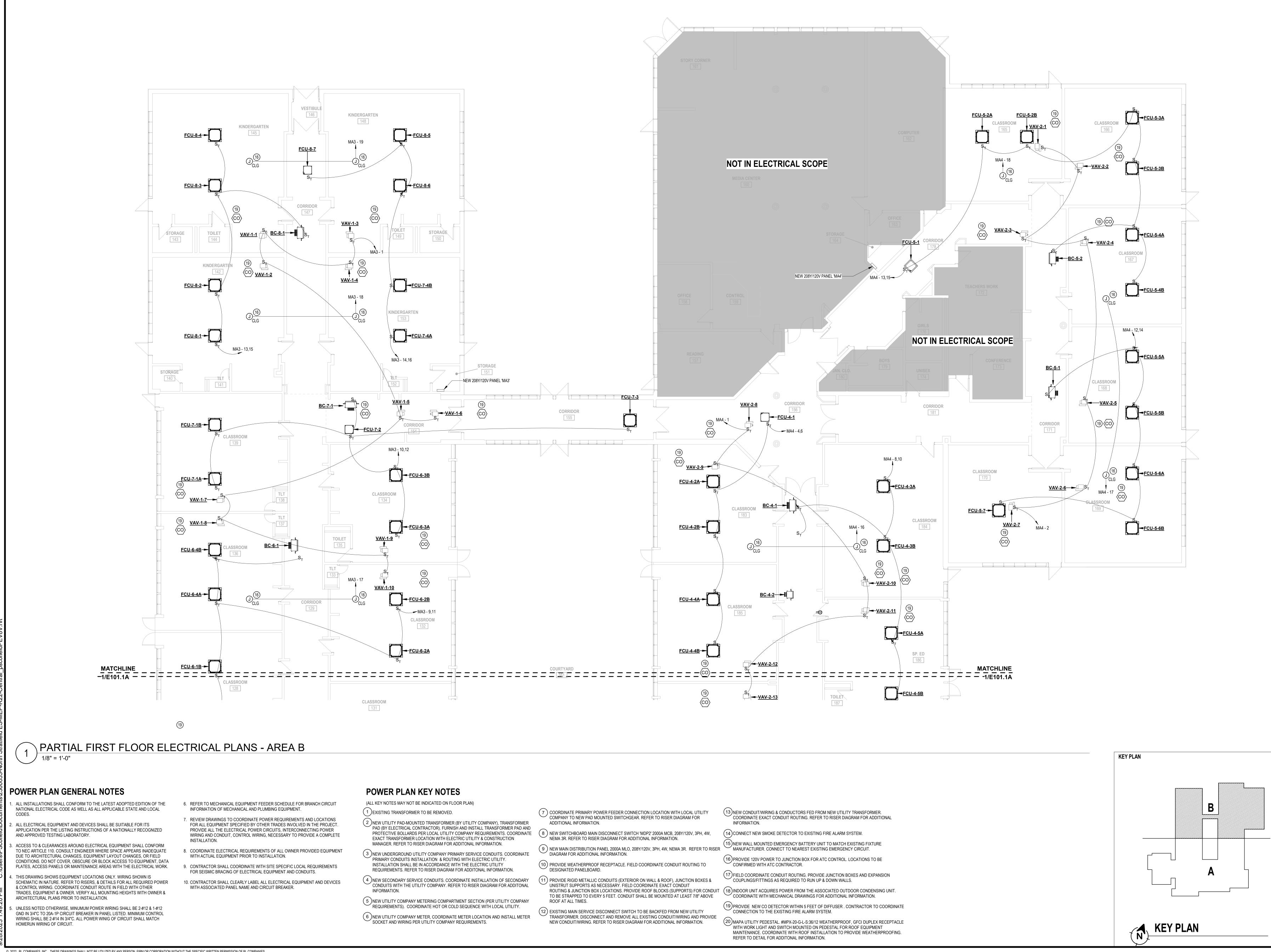


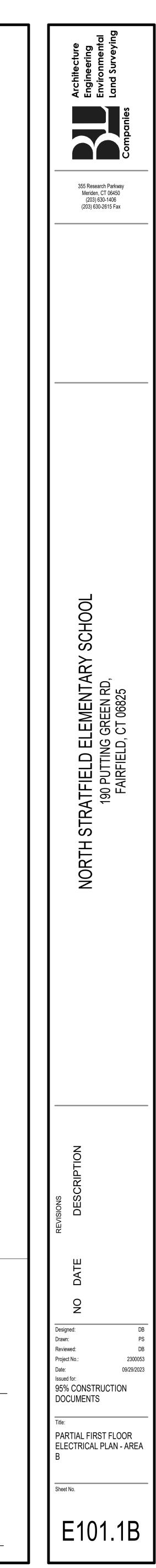


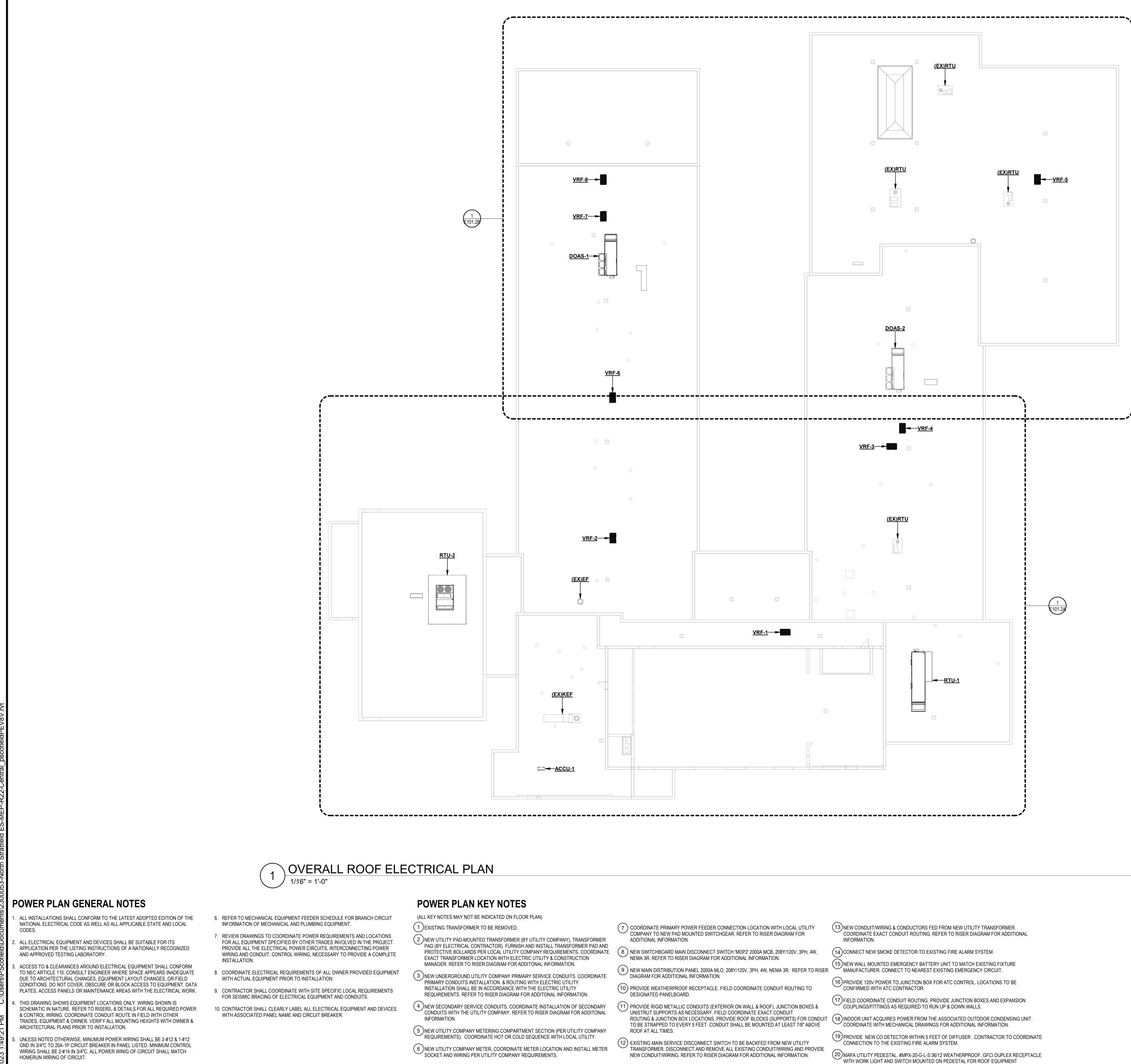




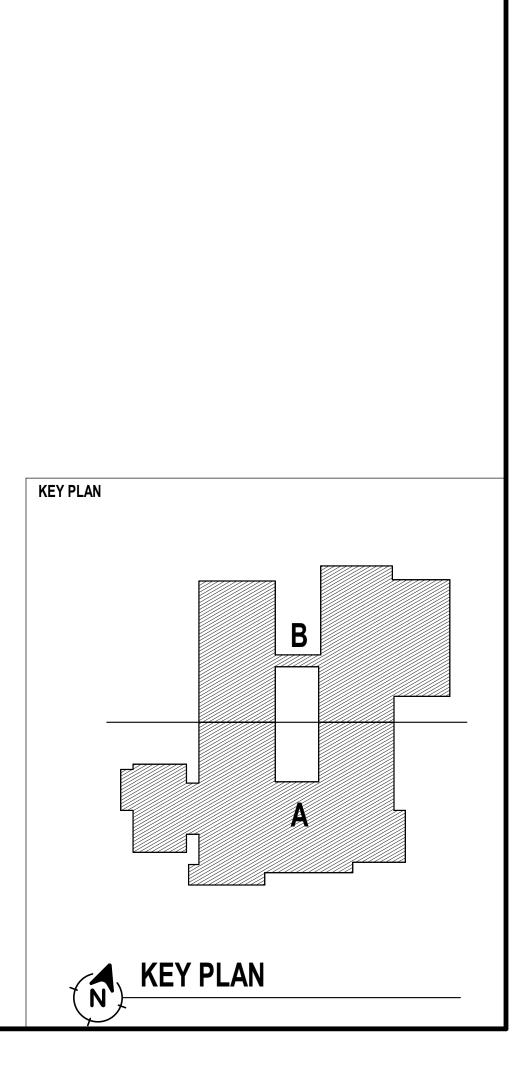


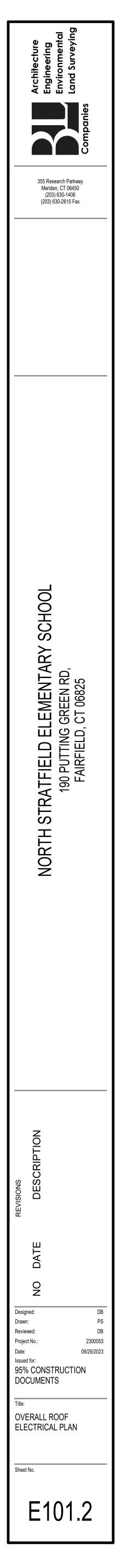


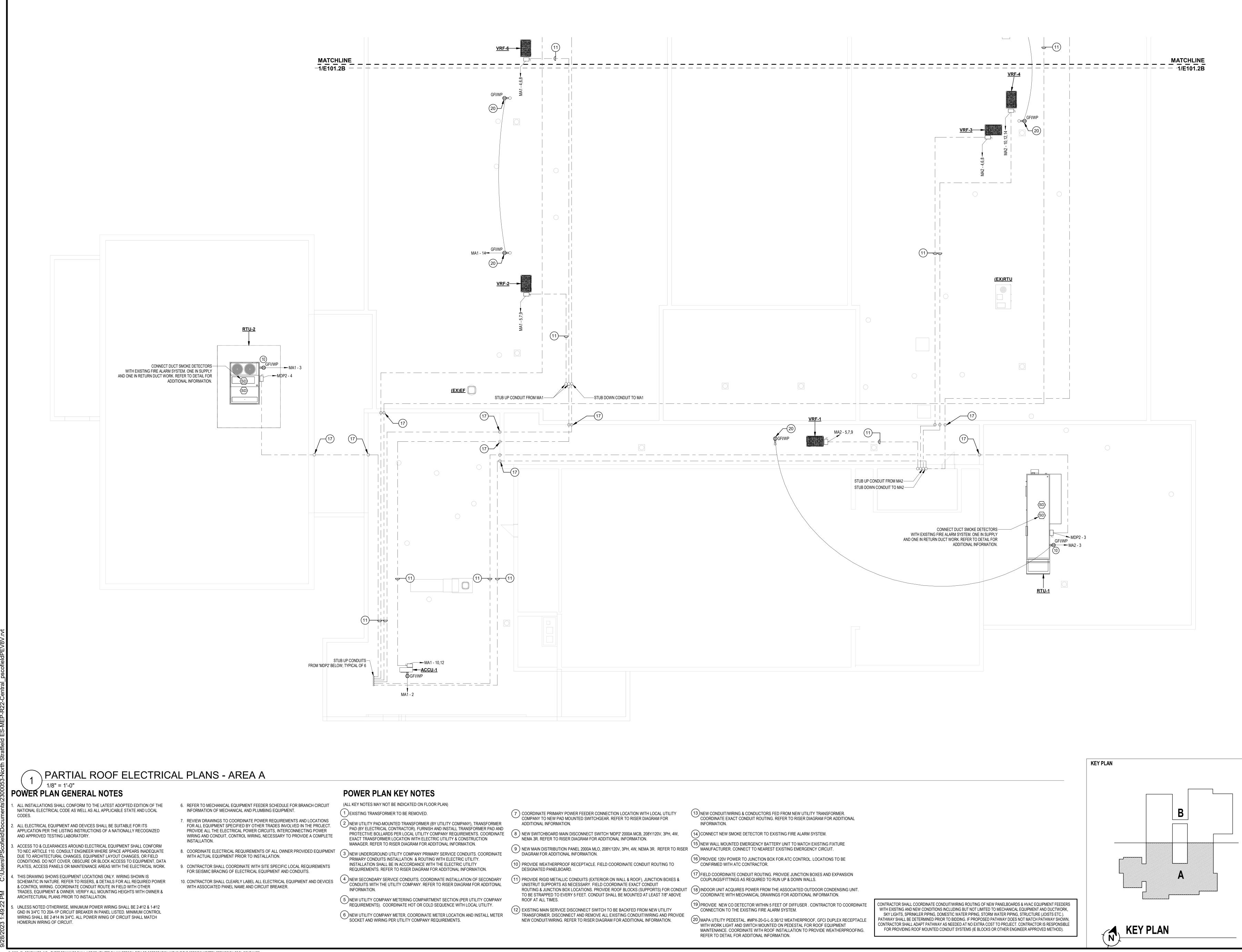




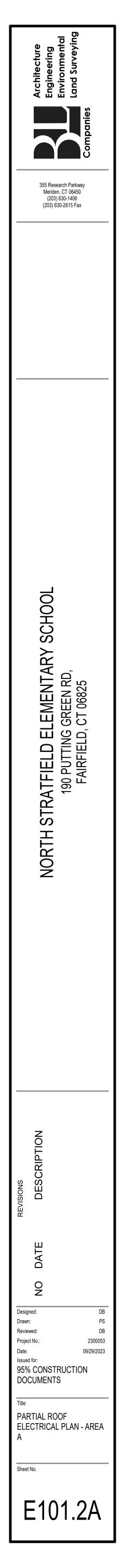
MAINTENANCE. COORDINATE WITH ROOF INSTALLATION TO PROVIDE WEATHERPROOFING. REFER TO DETAIL FOR ADDITONAL INFORMATION.

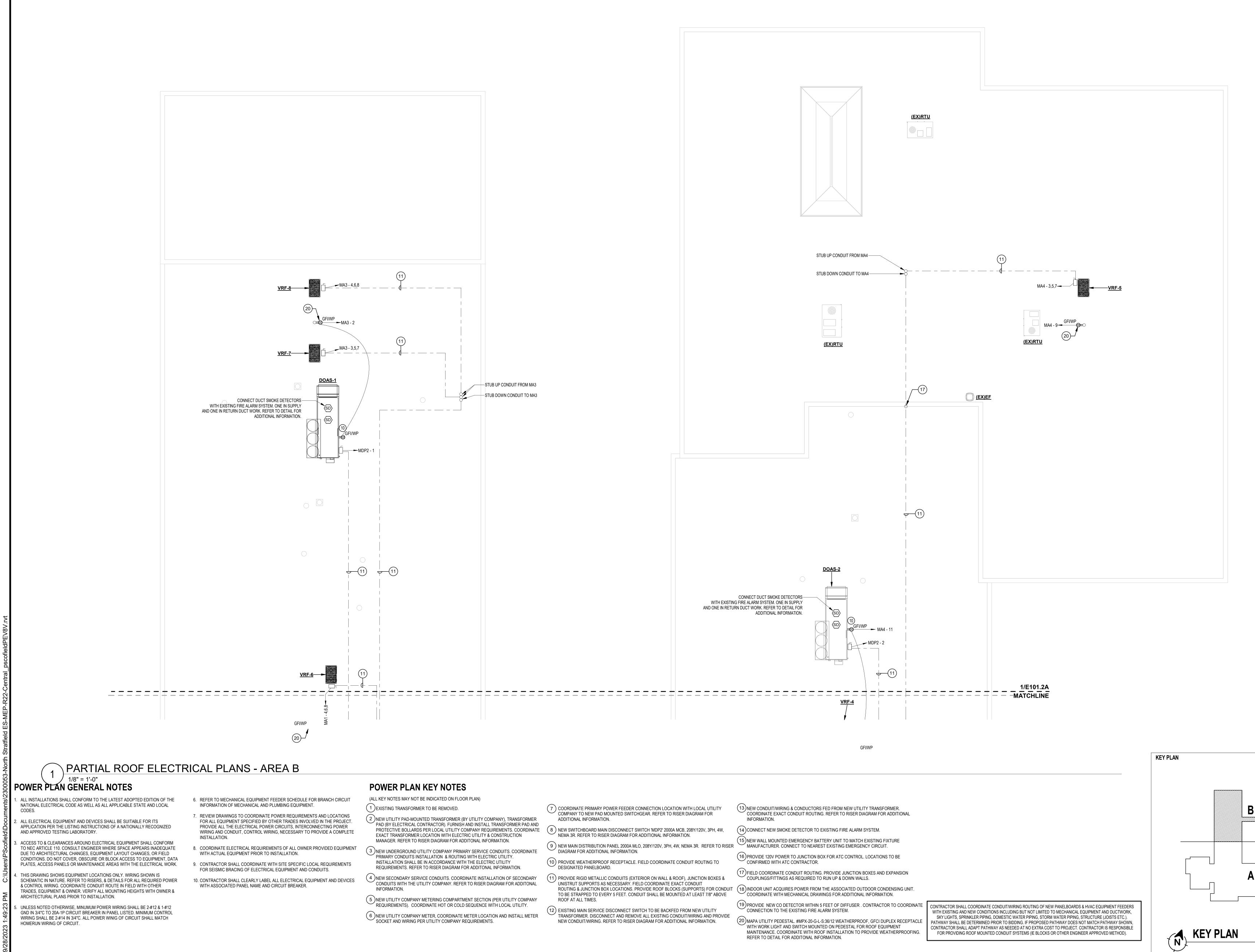




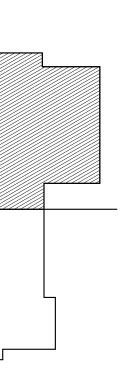


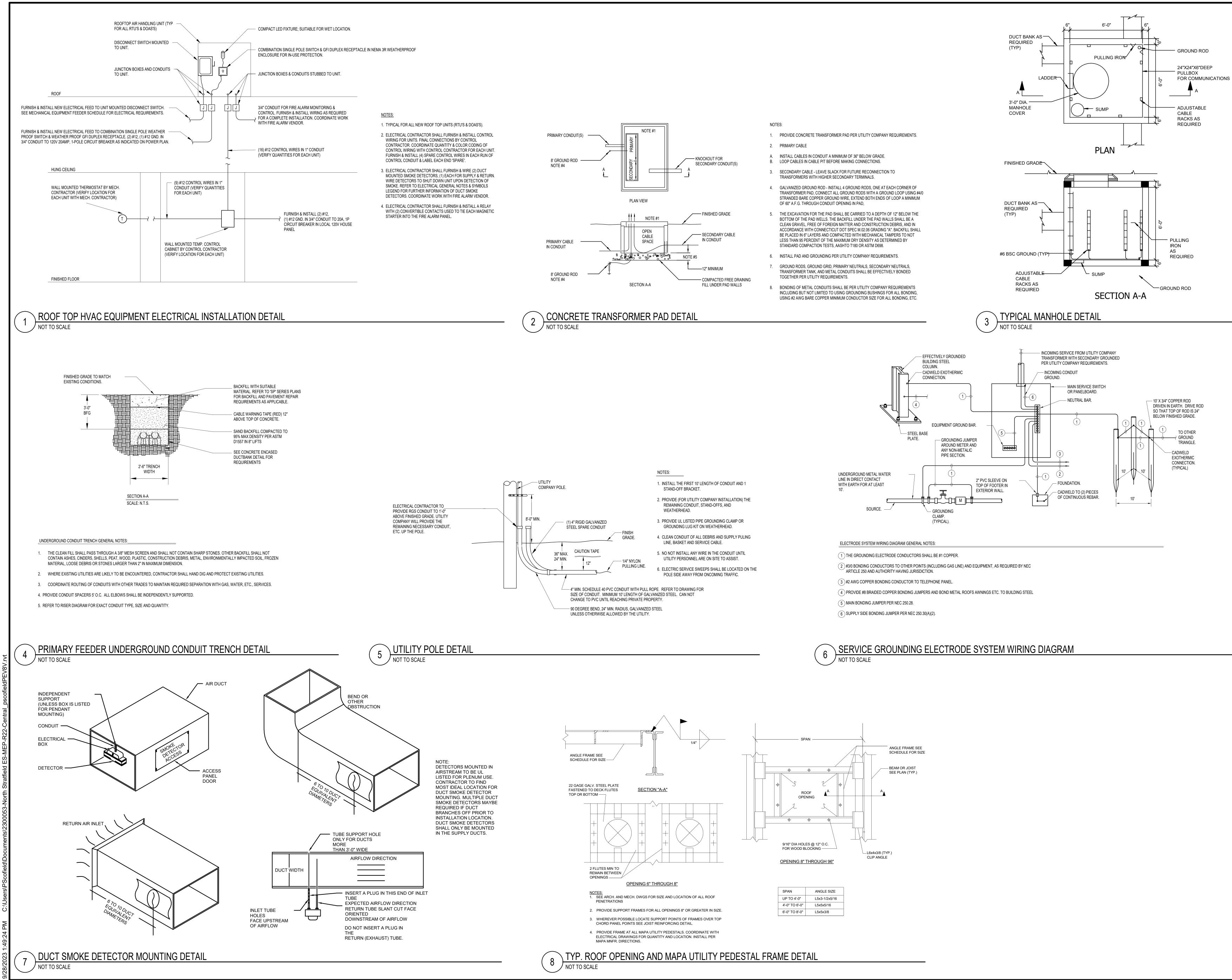


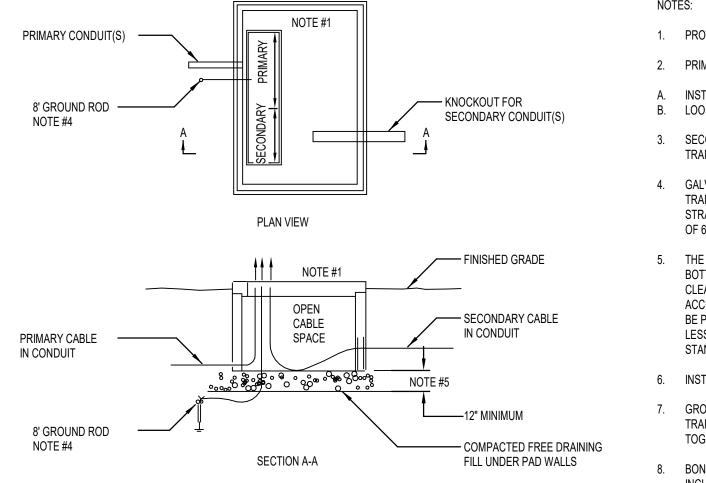




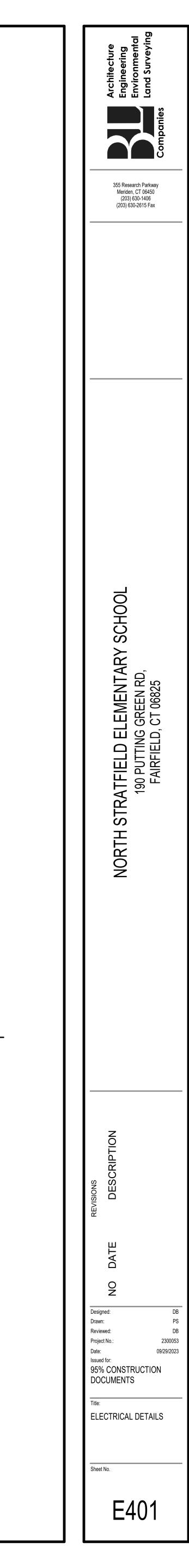












EQUIPMENT	VOLTAGE	POLES	AMPS	KW	MECHANICAL FEEDER SC DISCONNECT SW.	FUSE
AC-1 ACCU-1	208 V 208 V	2 2	0.65 A 19.60 A	135 W 3952 W	30A/2P/240V/NEMA 1 30A/2P/240V/NEMA 3R 20A/2D/240V/NEMA 1 OVERLOAD SWITCH	NON-FUSED NON-FUSED
BC-1-1 BC-1-2	208 V 208 V	2	0.09 A 0.09 A	19 W 19 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
BC-2-1 BC-2-2	208 V 208 V	2	0.09 A 0.09 A	19 W 19 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
BC-3-1 BC-4-1	208 V 208 V	2 2	0.09 A 0.09 A	19 W 19 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
BC-4-2 BC-5-1	208 V 208 V	2	0.06 A 0.09 A	12 W 19 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
BC-5-2 BC-6-1	208 V 208 V	2	0.09 A 0.09 A	19 W 19 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
BC-7-1 BC-8-1	208 V 208 V	2	0.09 A 0.09 A	19 W 19 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
DOAS-1	208 V	3	158.60 A	57 W	200A/3P/240V/NEMA 3R	THERMAL
DOAS-2 FCU-1-1	208 V 208 V	3	166.00 A 0.25 A	60 W 52 W	200A/3P/240V/NEMA 3R 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-1-2 FCU-1-3	208 V 208 V	2	0.25 A 0.25 A	52 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-1-4 FCU-1-5	208 V 208 V	2	0.25 A 0.25 A	52 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-1-6 FCU-1-7	208 V 208 V	2	0.25 A 0.25 A	52 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-1-8A	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-1-8B FCU-1-8C	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-1-9 FCU-1-10	208 V 208 V	2	2.09 A 0.25 A	435 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-1 FCU-2-2	208 V 208 V	2	0.25 A 0.25 A	52 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-3 FCU-2-4	208 V 208 V	2	0.25 A 0.25 A	52 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-5	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-6A FCU-2-6B	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-7A FCU-2-7B	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-8 FCU-2-9A	208 V	2	0.25 A 2.09 A	52 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-9B	208 V 208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-2-10 FCU-3-1A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-3-1B FCU-3-2A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-3-2B	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-3-3A FCU-3-3B	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-3-4 FCU-4-1	208 V 208 V	2	2.09 A 0.25 A	435 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-4-2A FCU-4-2B	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-4-3A	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-4-3B FCU-4-4A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-4-4B FCU-4-5A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-4-5B FCU-5-1	208 V 208 V	2	2.09 A 0.25 A	435 W 52 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-5-2A	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-5-2B FCU-5-3A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-5-3B FCU-5-4A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-5-4B FCU-5-5A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-5-5A FCU-5-5B FCU-5-6A	208 V	2	2.09 A	435 W 435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-5-6B	208 V 208 V	2	2.09 A 2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-5-7 FCU-6-1A	208 V 208 V	2 2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-6-1B FCU-6-2A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-6-2B FCU-6-3A	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-6-3B	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-6-4A FCU-6-4B	208 V 208 V	2 2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-7-1A FCU-7-1B	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-7-2 FCU-7-3	208 V 208 V	2	0.25 A 2.09 A	52 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-7-4A	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-7-4B FCU-8-1	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-8-2 FCU-8-3	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
FCU-8-4 FCU-8-5	208 V 208 V	2	2.09 A 2.09 A	435 W 435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-8-6	208 V	2	2.09 A	435 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH	THERMAL
FCU-8-7 RTU-1	208 V 208 V	2 3	0.25 A 222.10 A	52 W 79956 W	30A/2P/240V/NEMA 1 OVERLOAD SWITCH 400A/3P/240V/NEMA 3R	THERMAL NON-FUSED
RTU-2 VAV-1-1	208 V 120 V	3 1	84.00 A 1.00 A	30 W 120 W	200A/3P/240V/NEMA 3R 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	NON-FUSED THERMAL
VAV-1-2 VAV-1-2 VAV-1-3	120 V 120 V 120 V	1	1.00 A 1.00 A 1.00 A	120 W 120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-1-4	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-1-5 VAV-1-6	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-1-7 VAV-1-8	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-1-9 VAV-1-10	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-1-11 VAV-1-12	120 V 120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-1-13	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-1-14 VAV-1-15	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-1-16 VAV-1-17	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-1-18 VAV-1-19	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-1-20	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-1-21 VAV-2-1	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-2 VAV-2-3	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-3 VAV-2-4 VAV-2-5	120 V 120 V 120 V	1	1.00 A 1.00 A 1.00 A	120 W 120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-6	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-7 VAV-2-8	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-9 VAV-2-10	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-11	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-12 VAV-2-13	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-14 VAV-2-15	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-16 VAV-2-17	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-18	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-19 VAV-2-20	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-21 VAV-2-22	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL THERMAL
VAV-2-23 VAV-2-24	120 V 120 V	1	1.00 A 1.00 A	120 W 120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH 30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VAV-2-25	120 V	1	1.00 A	120 W	30A/1P/120V/NEMA 1 OVERLOAD SWITCH	THERMAL
VRF-1 VRF-2	208 V 208 V	3	60.00 A 60.00 A	21600 W 21600 W	100A/3P/240V/NEMA 3R 100A/3P/240V/NEMA 3R	NON-FUSED NON-FUSED
VRF-3 VRF-4	208 V 208 V	3	54.00 A 54.00 A	19440 W 19440 W	100A/3P/240V/NEMA 3R 100A/3P/240V/NEMA 3R	NON-FUSED NON-FUSED
VRF-5 VRF-6	208 V 208 V	3	58.00 A 54.00 A	20880 W 19440 W	100A/3P/240V/NEMA 3R 100A/3P/240V/NEMA 3R	NON-FUSED NON-FUSED
	208 V 208 V	3	31.00 A	11160 W	60A/3P/240V/NEMA 3R	NON-FUSED
VRF-7 VRF-8	208 V	3	31.00 A	11160 W	60A/3P/240V/NEMA 3R	NON-FUSED

FEEDER (2) #12 AWG & (1) #12 AWG GND IN 3/4°C (2) #12 AWG & (1) #12 AWG GND	REMARKS D D A B B B B B B B B B B B B
(2) #12 AWG & (1) #12 AWG GND IN 34°C (2) #12 AWG & (1) #12 AWG GND IN	
(2) #12 AWG & (1) #12 AWG GND IN 314°C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 314°C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 314°C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 314°C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4*C (2) #12 AWG & (1) #12 AWG GND IN 2/1*C (2) #12 AWG & (1) #12 AWG GND IN 3/4*C (2) #12 AWG & (1)	
(3)#40 AWG & (1)#4 AWG GND IN 2*C (2)#12 AWG & (1)#12 AWG GND IN 34*C (2)#12 AWG &	
(2) #12 AWG & (1) #12 AWG GND IN 314°C (2) #12 AWG & (1)	A
(2) #12 AWG & (1) #12 AWG GND IN 3/4°C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4°C (2) #12 AWG & (1)	
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(2) #12 AWG & (1) #12 AWG GND IN 3/4°C (2) #12 AWG & (1)	
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(2) #12 AWG & (1) #12 AWG GND IN 3/4°C (2) #12 AWG & (1)	
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(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
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(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
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(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
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(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1)	
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	
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 (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C 	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AVVG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #42 AWG & (1) #42 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(2) #12 AWG & (1) #12 AWG GND IN 3/4"C (2) #12 AWG & (1) #12 AWG GND IN 3/4"C	A,C A,C
(3) #3 AWG & (1) #8 AWG GND IN 1-1/4"C (3) #3 AWG & (1) #8 AWG GND IN 1-1/4"C (2) #4 AWG & (1) #8 AWG GND IN 1-1/4"C	
(3) #4 AWG & (1) #8 AWG GND IN 1"C (3) #4 AWG & (1) #8 AWG GND IN 1"C (3) #2 AWG & (1) #8 AWG GND IN 1 1/4"C	
(3) #3 AWG & (1) #8 AWG GND IN 1-1/4"C (3) #4 AWG & (1) #8 AWG GND IN 1"C (3) #8 AWG & (1) #10 AWG GND IN 2/4"C	
(3) #8 AWG & (1) #10 AWG GND IN 3/4"C (3) #8 AWG & (1) #10 AWG GND IN 3/4"C	

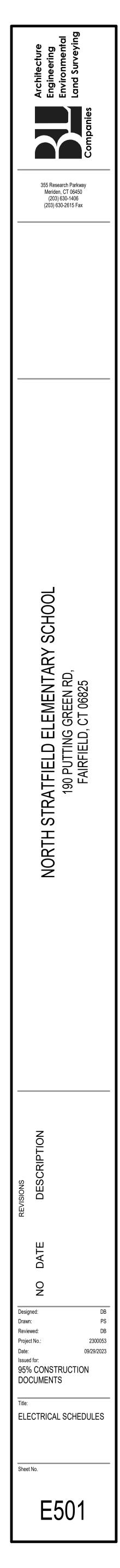
NOTES	
1.	ALL EQUIPMENT FEEDERS SHALL BE FURNISHED AND INSTALLED FROM CIRCUIT BREAKER TO FINAL TERMINATION ON EQUIPMENT FOR A COMP
2.	ALL CIRCUIT BREAKERS SERVING MECHANICAL EQUIPMENT SHALL BE HACR RATED OF SIZE AS INDICATED BY DIVISION 26.
3.	ALL EQUIPMENT FEEDER TERMINATIONS TO DISCONNECT SWITCHES AND MOTORS SHALL BE RUN IN MAXIMUM 4' LIQUID-TIGHT FLEXIBLE STEEL
4.	ALL STARTERS SHALL BE FURNISHED AND INSTALLED ADJACENT TO ELECTRICAL PANEL SERVING MECHANICAL EQUIPMENT BY DIVISION 26, UN
5.	ALL MECHANICAL EQUIPMENT SHALL HAVE A NEW PERMANENT LABEL, INDICATING ELECTRICAL PANEL & C/B NUMBERS FEEDING IT, SECURED T
3.	VERIFY EXACT LOCATIONS OF MECHANICAL EQUIPMENT IN FIELD WITH MECHAINCAL CONTRACTOR.
7.	THE SHOWN EQUIPMENT CONDUCTORS ARE SIZED TAKEN IN CONSIDERATION THE VOLTAGE DROP. THE ELECTRICAL CONTRACTOR SHALL VEF
3.	REFER TO FLOOR PLAN FOR HOMERUN POWER INFORMATION.
9.	PWU = PURCHASED WITH UNIT.
10.	TPS = THERMALLY-PROTECTED SWITCH.
11.	PROVIDE THE CORRECT OVERCURRENT PROTECTION PER THE NAMEPLATE INFORMATION FOR EACH PIECE OF EQUIPMENT.
12.	PROVIDE 20A, 120V GFI DUPLEX RECEPTACLE AT EACH ROOFTOP PIECE OF EQUIPMENT. PROVIDE HOMERUN FROM NEAREST 208Y/120V PANEL.
REMAF	RKS:
۹.	DISCONNECT SWITCH, STARTERS, RELAYS, CONTROL WIRING PROVIDED BY MECH. CONTRACTOR. WIRING TO DISCONNECT SWITCH & EQUIPME
З.	STARTERS, RELAYS, CONTROL WIRING PROVIDED BY MECH. CONTRACTOR. DISCONNECT SWITCH & WIRING TO DISCONNECT SWITCH & EQUIPM
С.	MULTIPLE VAV UNITS ARE TO BE GANGED TOGETHER ON (1) HOMERUN. SEE PLAN DRAWINGS FOR FURTHER INFORMATION.
D.	INDOOR UNIT ACQUIRES ITS POWER FROM THE ASSOCIATED OUTDOOR CONDENSING UNIT.

MPLETE INSTALLATION AS INDICATED BY DIVISION 26.

TEEL CONDUITS.), UNLESS NOTED OTHERWISE. CONTROL WIRING FOR STARTERS SHALL BE BY DIVISION 23. ED TO UNIT MOUNTED DISCONNECT SWITCH BY DIVISION 26.

ERIFY THE WIRE SIZE ACCORDING WITH FIELD CONDITIONS.

PMENT TERMINALS PROVIDED BY ELECTRICAL CONTRACTOR. JIPMENT TERMINALS PROVIDED BY ELECTRICAL CONTRACTOR.



	Switchboard: MI)P2								
	Location: Stof Supply From: Utilit Mounting: Pad Enclosure: Nem/	Y MOUNTED	Pł	/OLTS: 120/208 IASES: 3 MIRES: 4	3V			A.I.C. RATING MAINS TYPE IAINS RATING MCB RATING	E: COPPE B: 2000 A	
скт	CIRCUI	T DESCRIPTION		POLES	FRAME SIZE		RATING	LOAD	REMAR	KS
1	DOAS-1			3	400 A	20	0 A	57 kVA		
2	DOAS-2			3	400 A	20	0 A	60 kVA		
3	RTU-1			3	400 A	25	0 A 0	64 kVA		
4	RTU-2			3	200 A	12	5 A	30 kVA		
5	PANEL MA1			3	600 A	60	0 A (88 kVA		
6	PANEL MA2			3	600 A	60	0 A (105 kVA		
7	SPARE			3	250 A	20	0 A	0 kVA		
8	SPARE			3	250 A	10	0 A (0 kVA		
9	SPARE			3	250 A	10	0 A (0 kVA		
10	SPACE			3		-	-			
11	SPACE			3		-	-			
12	SPACE			3		-	-			
					Тс	otal Coni Tota	n. Load: I Amps:	405 kVA 1123 A		
	ASSIFICATION	CONNECTED LOAD	DEMA	ND FACTOR	ESTIMATED	LOAD			PANEL	TOTALS
IVAC		403 kVA	1	100.00%	403 kVA					
RECEPTAC	CLES	2 kVA		100.00%	2 kVA		тотя	L CONNECTE	ED LOAD:	405 kVA
							TOTAL	ESTIMATED I	DEMAND:	405 kVA
								TOTAL CON		
							TOTAL	ESTIMATED I	DEMAND:	1123 A

NOTES:

NOTES:

1. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.

	PANEL: MA1 Location: Art 123A SUPPLY FROM: MDP2 MOUNTING: SURFACE ENCLOSURE: TYPE 1						OLTAGI PHASE: WIRE:	S: 3	208V			A.I.C. RATING: 22 KAIO MAINS TYPE: COPPE BUS RATING: 600 A MCB RATING: 600 A	
скт	CIRCUIT DESCRIPTION	TRIP	POLES		A		В		С	POLES	TRIP	CIRCUIT D	ESCRIPTION
1	VAV UNITS	20 A	1	0.11	0.18					1	20 A	REC - ROOFTOP EQUIP	MENT
3	REC - ROOFTOP EQUIPMENT	20 A	1			0.18	6.48						
5								7.21	6.48	3	70 A	VRF-6	
7	VRF-2	80 A	3	7.21	6.48								
9						7.21	1.98						
11								1.58	1.98	2	25 A	ACCU-1/AC-1	
13	FAN COIL UNITS	20 A	2	1.58	0.18					1	20 A	RECEPTACLES	
15						1.59	1.00			1	20 A	ATC CONTROLS	
17	FAN COIL UNITS	20 A	2					1.59	0.00	1	20 A	SPARE	
19	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	
21	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	
23	SPARE	20 A	1					0.00		1		SPACE	
25	SPACE		1							1		SPACE	
27	SPACE		1							1		SPACE	
29	SPACE		1							1		SPACE	
31	SPACE		1							1		SPACE	
33	SPACE		1							1		SPACE	
35	SPACE		1							1		SPACE	
37	SPACE		1		10.94								
39	SPACE		1				12.20			3	225 A	MA3	
41	SPACE		1						12.16				
		тоти	AL LOAD:	27	kVA	31	kVA	31	kVA				
	PANELBOARD GRAND TOTALS:	τοτ	AL AMPS:	22	22 A	26	0 A	26	3 A				
LOAI	D CLASSIFICATION	CONNE	ECTED LC	DAD	DEMA	AND FA	CTOR	ESTI	MATED	DEMAND		PANEL	TOTALS
HVAC	C	6	87 kVA			100.00%	, D		87 k\	/A			
RECE	EPTACLES		1 kVA			100.00%	, D	1	1 kV	Ά	тот	TAL CONNECTED LOAD:	88 kVA
								1			тот	AL EST. DEMAND LOAD:	88 kVA
								+				TAL CONNECTED AMPS:	
												AL EST. DEMAND AMPS:	245 A
								 					
_													

1. CIRCUIT BREAKERS FEEDING F.A. DEVICES SHALL BE RED WITH LOCK-ON DEVICE 4. MATCH BREAKER AND WIRE SIZE TO SPD 2. PROVIDE CLASS A GFI CIRCUIT BREAKER 5. PROVIDE HANDLE TIE BETWEEN 3-P AND 1-P CUBICLE BREAKERS FOR MULTIWIRE BRANCH... 3. PROVIDE SHUNT-TRIP BREAKER

	PANEL: MA3												
	LOCATION: CORRIDOR 154 SUPPLY FROM: MA1 MOUNTING: SURFACE ENCLOSURE: TYPE 1						OLTAGI PHASES WIRES	S: 3	208V			A.I.C. RATING: 10 KAIO MAINS TYPE: COPPE BUS RATING: 250 A MCB RATING: 225 A	
скт	CIRCUIT DESCRIPTION	TRIP	POLES		A		В		С	POLES	TRIP	CIRCUIT D	ESCRIPTI
1	VAV UNITS	15 A	1	0.10	0.36					1	20 A	REC - ROOFTOP EQUIP	MENT
3						3.72	3.72						
5	VRF-7	40 A	3					3.72	3.72	3	40 A	VRF-8	
7				3.72	3.72								
9	FAN COIL UNITS	20.4	2			1.36	1.36			2	20.4		
11	FAN COIL UNITS	20 A	2					1.36	1.36	2	20 A	FAN COIL UNITS	
13	FAN COIL UNITS	20 A	2	0.91	1.13					2	20 A	FAN COIL UNITS	
15	FAN COL UNITS	20 A	2			0.91	1.13				20 A		
17	ATC CONTROLS	20 A	1					1.00	1.00	1	20 A	ATC CONTROLS	
19	ATC CONTROLS	20 A	1	1.00	0.00					1	20 A	SPARE	
21	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	
23	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	
25	SPARE	20 A	1	0.00						1		SPACE	
27	SPACE		1							1		SPACE	
29	SPACE		1							1		SPACE	
31	SPACE		1							1		SPACE	
33	SPACE		1							1		SPACE	
35	SPACE		1							1		SPACE	
37	SPACE		1							1		SPACE	
39	SPACE		1							1		SPACE	
41	SPACE		1							1		SPACE	
		ΤΟΤΑ	L LOAD:	11	kVA	12	kVA	12	kVA			•	
	PANELBOARD GRAND TOTALS:	ΤΟΤΑ	L AMPS:	9	1 A	10	3 A	10	3 A	1			
										J			
	CLASSIFICATION	CONNE		DAD	DEMA	AND FA	CTOR	ESTI	MATED	DEMAND		PANEL	TOTALS
HVAC		3	35 kVA			100.00%	, 0		35 k\	VA			
RECE	PTACLES		0 kVA			100.00%	, 0		0 kV	/A	тот	TAL CONNECTED LOAD:	35 kVA
							-					AL EST. DEMAND LOAD:	
												TAL CONNECTED AMPS:	
<u> </u>												AL EST. DEMAND AMPS:	98 A
NOTE								-			-		
	RCUIT BREAKERS FEEDING F.A. DEVICES SHALL B	E RED W	ITH LOCK	-ON D	EVICE								
1	OVIDE CLASS A GFI CIRCUIT BREAKER OVIDE SHUNT-TRIP BREAKER					5. PR	OVIDE	HANUL			ა-r and	1-P CUBICLE BREAKERS	FUR MUL

				PANEL: MA2 Location: Lobby 208 Supply from: MDP2 Mounting: Surface Enclosure: Type 1						OLTAGE PHASES WIRES	3 : 3	208V			A.I.C. RATING: 22 KAIC MAINS TYPE: COPPE BUS RATING: 600 A MCB RATING: 600 A	
TION	скт	ск	т	CIRCUIT DESCRIPTION	TRIP	POLES		A	E	3	(;	POLES	TRIP	CIRCUIT D	ESCRIPTION
	2	1		/AV UNITS	15 A	1	0.07	0.05					1	15 A	VAV UNITS	
	4	3	F	REC - ROOFTOP EQUIPMENT	20 A	1			0.36	6.48						
	6	5									7.21	6.48	3	70 A	VRF-3	
	8	7	<u>\</u>	/RF-1	80 A	3	7.21	6.48								
	10	9							7.21	6.48						
	12	11		AN COIL UNITS	20 A	2					1.37	6.48	3	80 A	VRF-4	
	14	13	3		20 A	2	1.37	6.48								
	16	15	5	AN COIL UNITS	20 A	2			1.35	1.59			2	20 A	FAN COIL UNITS	
	18	17	7	AN COLE UNITS	20 A	2					1.35	1.59	2	20 A	TAN COLE UNITS	
	20	19) <i>A</i>	ATC CONTROLS	20 A	1	1.00	0.50					1	20 A	ATC CONTROLS	
	22	21	I	ATC CONTROLS	20 A	1			0.50	0.00			1	20 A	SPARE	
	24	23	3 3	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	
	26	25	5 5	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	
	28	27	7 5	SPARE	20 A	1			0.00				1		SPACE	
	30	29) 5	SPACE		1							1		SPACE	
	32	31	1 5	SPACE		1							1		SPACE	
	34	33	3 5	SPACE		1							1		SPACE	
	36	35	5 5	SPACE		1							1		SPACE	
	38	37	7 5	SPACE		1		10.73								
	40	39) 5	SPACE		1				11.77			3	225 A	MA4	
	42	41	1 5	SPACE		1						11.08				
					тоти	AL LOAD:	34	kVA	36	κVA	36	κVA			1	
				PANELBOARD GRAND TOTALS:		AL AMPS:	28	2 A	30	A C	298	3 A				
			-													
6		LO	AD	CLASSIFICATION	CONNE	ECTED LC	DAD	DEMA	ND FAC	CTOR	ESTI	MATED	DEMAND		PANEL	TOTALS
		HV	AC		1	04 kVA		1	100.00%	I		104 k	VA			
		RE	CEF	PTACLES		1 kVA		1	100.00%)		1 kV	Ά	тот	TAL CONNECTED LOAD:	105 kVA
														тот	AL EST. DEMAND LOAD:	105 kVA
														тот	TAL CONNECTED AMPS:	292 A
														тоти	AL EST. DEMAND AMPS:	292 A

NOTES: 1. CIRCUIT BREAKERS FEEDING F.A. DEVICES SHALL BE RED WITH LOCK-ON DEVICE 4. MATCH BREAKER AND WIRE SIZE TO SPD 2. PROVIDE CLASS A GFI CIRCUIT BREAKER 5. PROVIDE HANDLE TIE BETWEEN 3-P AND 1-P CUBICLE BREAKERS FOR MULTI 3. PROVIDE SHUNT-TRIP BREAKER

A.I.C. RATING: 10 KAIC MAINS TYPE: COPPER BUS RATING: 250 A MCB RATING: 225 A

NC	скт
	2
	4
	6
	8
	10
	12
	14
	16
	18
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	28
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	32
	34
	36
	38
	40
	42

СКТ

7

1 VAV UNITS

3 5 VRF-5

19 SPARE

21 SPARE

23 SPARE

25 SPACE

27 SPACE

29 SPACE

31 SPACE

33 SPACE 35 SPACE

37 SPACE

39 SPACE 41 SPACE

PANEL: MA4 LOCATION: MEDIA CENTER 160

SUPPLY FROM: MA2 MOUNTING: SURFACE ENCLOSURE: TYPE 1

VOLTAGE: 120/208V PHASES: 3 WIRES: 4

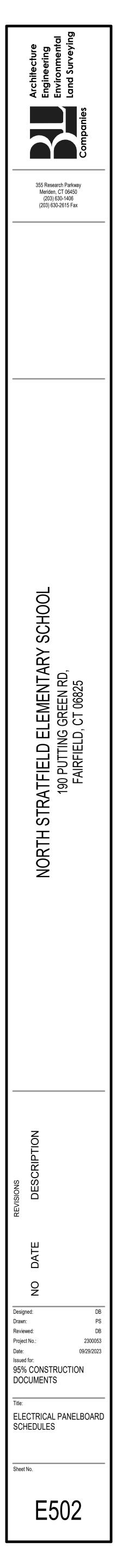
CIRCUIT DESCRIPTION TRIP POLES В POLES TRIP CIRCUIT DESCRIPTION С Α 15 A 1 0.06 0.07 1 20 A VAV UNITS 20 A FAN COIL UNITS 80 A 3 6.96 0.92 20 A FAN COIL UNITS 9 RECEPTACLES 20 A 1 0.18 0.92 0.36 1.14 11 REC - ROOFTOP EQUIPMENT 20 A 1 20 A FAN COIL UNITS 131517ATC CONTROLS 1.59 1.14 20 A 2 1 20 A ATC CONTROLS 1.59 1.00 1.00 0.50 1 20 A ATC CONTROLS 20 A 1 20 A 1 0.00 0.00 1 20 A SPARE 20 A 1 0.00 0.00 1 20 A SPARE 20 A 1 0.00 0.00 1 20 A SPARE -- SPACE -- 1 --1 -- 1 -- SPACE -- SPACE 1 ---- 1 1 -- SPACE -- | -- | | -- SPACE 1 -----1 -- 1 1 -- SPACE -- SPACE 1 1 ---- - - 1 -- SPACE -- 1 -- SPACE 1 -- 1 -- --

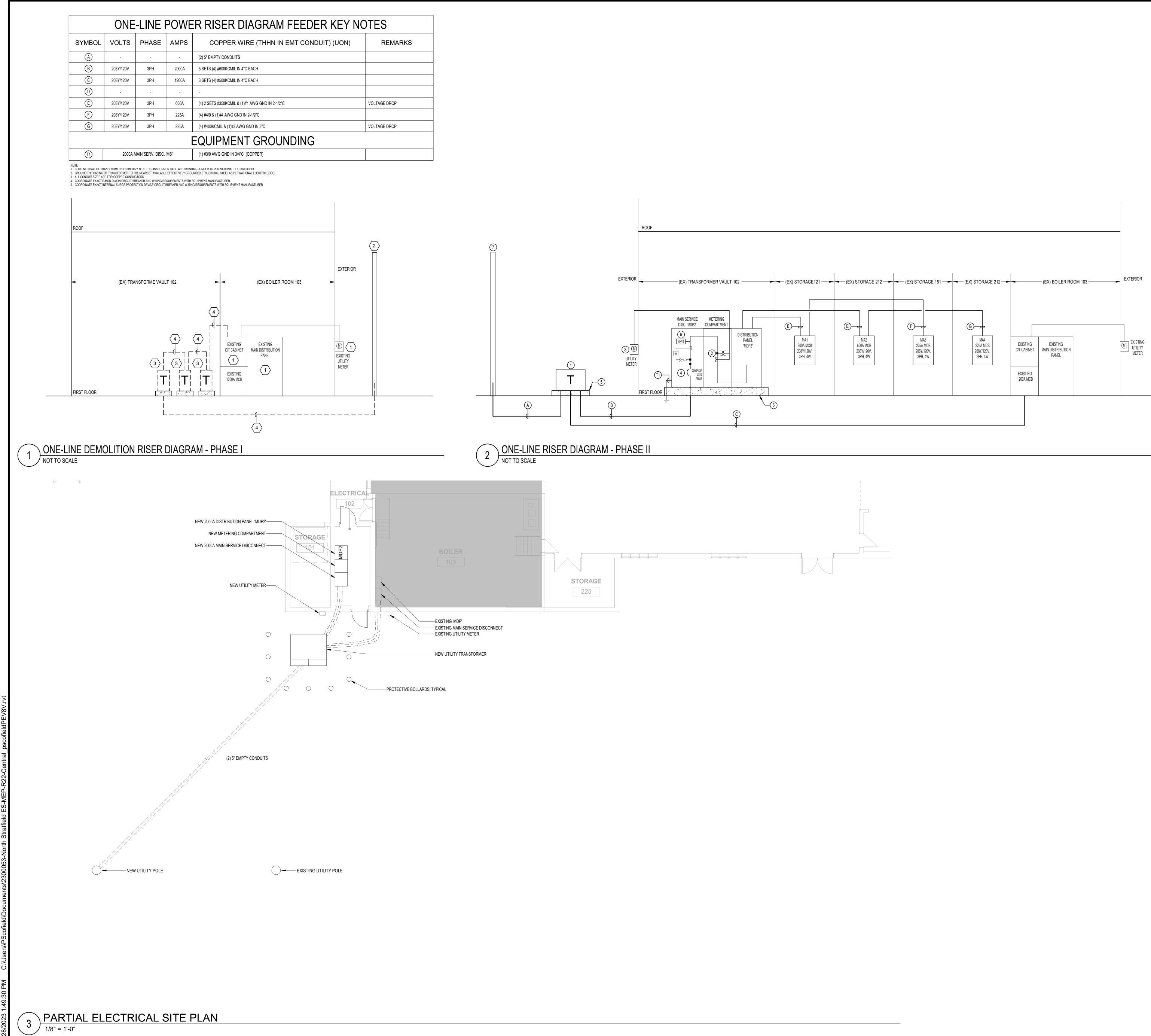
TOTAL LOAD: 11 kVA 12 kVA 11 kVA PANELBOARD GRAND TOTALS: TOTAL AMPS: 89 A 93 A 99 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL	TOTALS
HVAC	33 kVA	100.00%	33 kVA		
RECEPTACLES	1 kVA	100.00%	1 kVA	TOTAL CONNECTED LOAD:	34 kVA
				TOTAL EST. DEMAND LOAD:	34 kVA
				TOTAL CONNECTED AMPS:	93 A
				TOTAL EST. DEMAND AMPS:	93 A
NOTES: 1. CIRCUIT BREAKERS FEEDING F.A. DEV	/ICES SHALL BE RED WITH LOCK-ON	DEVICE 4. MATCH BF	REAKER AND WIRE SIZE	TO SPD	

AND WIRE SIZE TO SPD 2. PROVIDE CLASS A GFI CIRCUIT BREAKER 5. PROVIDE HANDLE TIE BETWEEN 3-P AND 1-P CUBICLE BREAKERS FOR MULTI 3. PROVIDE SHUNT-TRIP BREAKER

	СКТ
	2
	2 4
	6
	8 10
	12
	14 16
	18
	20
	22 24
	26
	28 30
	30
	34
	36 38
	38 40
	42
WIRE BRANC	H
WIRE BRANC	H
	скт
	СКП 2 4
	СКП 2 4 6
	СКП 2 4
	СКТ 2 4 6 8 10 12
	СКП 2 4 6 8 10 12 14
	СКТ 2 4 6 8 10 12
	СКП 2 4 6 8 10 12 14 16 18 20
	CK1 2 4 6 8 10 12 14 16 18 20 22
	СКП 2 4 6 8 10 12 14 16 18 20
	CK 1 2 4 6 8 10 12 14 16 18 20 22 24 26 28
	CKI 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
	CK1 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
	CKI 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
	CK1 2 4 6 8 10 12 14 16 18 20 24 20 24 30 32 34 36 38
	CK1 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36





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RISER DIAGRAM GENERAL NOTES

- 1. ALL INSTALLATIONS SHALL CONFORM TO THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AS WELL AS ALL APPLICABLE STATE AND LOCAL CODES.
- 2. ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE SUITABLE FOR ITS APPLICATION PER THE LISTING INSTRUCTIONS OF A NATIONALLY RECOGNIZED AND APPROVED TESTING LABORATORY.
- 3. ALUMINUM CONDUCTORS MAY BE SUBSTITUTED FOR COPPER FEEDERS 100A AND LARGER. ALUMINUM CONDUCTORS SHALL NOT BE USED WHERE EXPRESSLY FORBIDDEN BY THE LOCAL ELECTRICAL INSPECTIONS DEPARTMENT, UTILITY COMPANY OR THE AHJ.
- 4. WHERE FEEDERS ARE ADJUSTED FOR VOLTAGE DROP. COORDINATE LANDING LUGS TO ACCOMMODATE LARGER WIRE SIZE. IT SHALL BE ACCEPTABLE TO PROVIDE JUNCTION BOX WITH TERMINAL BLOCKS AHEAD OF OVERCURRENT DEVICE TO TRANSITION WIRE SIZES.
- 5. REFER TO DETAILS FOR SERVICE GROUNDING & BONDING.
- 6. ALL FLOOR-MOUNTED EQUIPMENT SHALL BE INSTALLED ON A 3" CONCRETE HOUSEKEEPING PAD, UNLESS OTHERWISE NOTED.
- 7. ALL CIRCUIT BREAKERS GREATER THAN 250A SHALL BE PROVIDED WITH LSI ADJUSTABLE TRIP SETTINGS.
- 8. CONTRACTOR SHALL PROVIDE A SHORT CIRCUIT-STUDY, SELECTIVE COORDINATION STUDY, ARC FLASH ANALYSIS, AND ARC FLASH LABELS FOR EACH ELECTRICAL SERVICE AND INFRASTRUCTURE BY A LICENSED ENGINEER. ADJUST TRIP AND GROUND FAULT SETTINGS ON CIRCUIT BREAKERS & MODIFY SHORT CIRCUIT RATINGS OF ELECTRICAL EQUIPMENT PER THE RESULTS. ALL OTHER LOADS SHALL BE COORDINATED TO 0.1 SECONDS.
- 9. PROVIDE A PERMANENT PLAQUE AT EACH SERVICE DISCONNECT LOCATION DENOTING ALL OTHER SERVICES SUPPLYING THE BUILDING, LOCATION, AND THE AREA SERVED BY EACH PER THE REQUIREMENTS OF NEC 225.37 AND 230.2(E).
- 10. PROVIDE A PERMANENT PLAQUE AT SERVICE ENTRACE SWITCHBOARD PER THE REQUIREMENTS OF NEC 700.7(B) INDICATING THE FOLLOWING: "WARNING: SHOCK HAZARD EXISTS IF THE GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE
- ALTERNATE SOURCE IS ENERGIZED" 11. PROVIDE ARC ENERGY REDUCING MAINTENANCE SWITCH FOR ANY BREAKER FROM 1200A OR HIGHER PER NEC ARTICLE 240.87. BREAKERS SHALL BE EQUIPPED WITH AN ADJUSTABLE INSTANTANEOUS TRIP SETTING. SIGNAGE AT EACH BREAKER SHALL BE PROVIDED INDICATING THE FOLLOWING: "REDUCE THE INSTANTANEOUS TRIP SETTING OF THIS BREAKER PRIOR TO
- THE INSTANTANEOUS TRIP SETTING BACK TO NORMAL WHEN COMPLETE". 12. REFER TO SWITCHBOARD AND PANELBOARD SCHEDULES FOR ADDITIONAL
- INFORMATION. 13. FEEDER CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2 PERCENT AT 80% DESIGN LOAD. BRANCH CIRCUIT CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3 PERCENT AT DESIGN LOAD.

RISER DIAGRAM KEY NOTES

- 1) NEW UTILITY PAD-MOUNTED TRANSFORMER (BY UTILITY COMPANY). TRANSFORMER PAD (BY ELECTRICAL CONTRACTOR), FURNISH AND INSTALL TRANSFORMER PAD AND PROTECTIVE BOLLARDS PER LÓCAL UTILITY COMPANY REQUIREMENTS. COORDINATE EXACT TRANSFORMER LOCATION WITH ELECTRIC UTILITY & CONSTRUCTION MANAGER.
- (2) NEW UTILITY COMPANY METERING COMPARTMENT SECTION (PER UTILITY COMPANY) REQUIREMENTS). COORDINATE COLD SEQUENCE WITH LOCAL UTILITY.
- (3) NEW UTILITY COMPANY METER, COORDINATE METER LOCATION AND INSTALL METER SOCKET AND WIRING PER UTILITY COMPANY REQUIREMENTS.
- (4) NEW SWITCHBOARD MAIN DISCONNECT SWITCH 'MDP2' 2000A MCB, 208Y/120V, 3PH, 4W. PROVIDE WITH LSIG TYPE MAIN CIRCUIT BREAKER WOTH ARCH FLASH REDUCTION MAINTENANCE SWITCH.
- (5) FURNISH & INSTALL CONCRETE HOUSE KEEPING PAD FOR ELECTRICAL EQUIPMENT (6) FURNISH & INSTALL INTERNAL SURGE PROTECTION DEVICE (SPD). 240KA SURGE
- CURRENT RATING, INTEGRAL DISCONNECT, SURGE COUNTER, ALARM DRY CONTACTS. (7) UTILITY COMPANY PRIMARY SERVICE POLE. ELECTRICAL CONTRACTOR SHALL
- PROVIDE RISER CONDUITS & CONDUCTORS ON THE POLE. UTILITY COMPANY SHALL PROVIDE POLE, PRIMARY METERING & MAKE ALL CONNECTIONS.

DEMOLITION RISER DIAGRAM KEY NOTES

- $\langle 1 \rangle$ EXISTING EQUIPMENT TO REMAIN.
- (2) EXISTING UTILITY POLE TO REMAIN.
- (3) EXISTING SINGLE PHASE TRANSFORMER TO BE REMOVED. 4 EXISTING CONDUIT/WIRING & CONDUCTORS TO BE REMOVED.

PHASING NOTES:

- (SHALL BE COORDINATED WITH OWNER AND CM PRIOR TO BIDDING)
- 1. CONTRACTOR SHALL FULLY INSTALL CONDUITS AND FEEDERS FROM NEW TRANSFORMER LOCATION TO EXISTING MDP SWITCHBOARD.
- 2. CONTRACTOR SHALL STUB CONDUITS AND CONDUCTORS FROM NEW TRANSFORMER LOCATION INTO EXISTING TRANSFORMER VAULT/ROOM.
- 3. TRANSFORMER CAN BE INSTALLED AT THIS POINT, BUT NOT ENERGIZED BY UTILITY COMPANY.
- 4. DO NOT CONNECT SECONDARIES TO NEW SERVICE BOARD MDP2, THIS WILL HAPPEN AFTER OLD SERVICE IS ALREADY BACKFED DURING A SEPARATE BUILDING SHUTDOWN.
- 5. NEW FEEDERS TO EXISTING SERVICE BOARD SHALL BE TRENCHED THROUGH PARKING LOT AND PREPARED FOR CUT OVER FROM OLD TRANSFORMER TO NEW TRANSFORMER. COORDINATE TRENCHING LOCATIONS WITH EXISTING UNDERGROUND SERVICES.
- 6. COORDINATE NEW FEEDER WITH MDP DISCONNECT ENCLOSURE FOR NEW ENTRY POINT WITH CONDUIT AND CONDUCTORS. PROVIDE EXTRA ENCLOSURE NEXT TO EXISTING EQUIPMENT AS REQUIRED TO PREPARE FOR A CUT OVER WITH MINIMAL DOWN TIME. COORDINATE WITH EQUIPMENT MANUFACTURERS FOR LOCATIONS AVAILABLE TO TERMINATE TO. DO NOT CUT INTO EXISTING EQUIPMENT WITHOUT PRIOR APPROVAL FROM EQUIPMENT MANUFACTURERS.
- 7. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY TO PLAN FOR CUT OVER FROM "OLD" SERVICE TO "NEW" SERVICE. THIS SHALL HAPPEN ON A WEEKEND OR A DATE PLANNED WITH OWNER TO MINIMIZE DOWN TIME DURING SCHOOL OPERATIONS.
- 8. CONTRACTOR SHALL COORDINATE SHUT DOWN OF BUILDING WITH OWNER AND PROVIDE FIRE WATCH AND SECURITY AT FACILITY, AS NECESSARY, TO ENSURE BUILDING IS SAFE FOR THE ENTIRETY OF THE OUTAGE.
- 9. ELECTRICAL COMPANY SHALL DE-ENERGIZE EXISTING TRANSFORMER INSIDE BUILDING. 10. CONTRACTOR SHALL FINISH ALL CONNECTIONS NEEDED TO EXISTING MDP
- SERVICE BOARD. CONTRACTOR SHALL COORDINATE POWER AND LIGHTING REQUIREMENTS WHILE THE SERVICE IS DOWN TO THE BUILDING. 11. ELECTRICAL COMPANY SHALL ENERGIZE NEW TRANSFORMER PROVIDING POWER
- TO BUILDING THROUGH NEW TRANSFORMER AND EXISTING SWITCHBOARD MDP. 12. CONTRACTOR SHALL FINISH ALL CONNECTIONS NEEDED TO NEW MDP2 SERVICE
- BOARD (WITH CONNECTIONS UNCONNECTED INSIDE THE TRANSFORMER. 13. CONTRACTOR SHALL AGAIN COORDINATE WITH UTILITY COMPANY TO PLAN CONNECT NEW SWITCHBOARD TO THE NEW TRANSFORMER. THIS SHALL HAPPEN
- ON A WEEKEND OR A DATE PLANNED WITH OWNER TO MINIMIZE DOWN TIME DURING SCHOOL OPERATIONS. 14. CONTRACTOR SHALL COORDINATE SHUT DOWN OF BUILDING WITH OWNER AND
- PROVIDE FIRE WATCH AND SECURITY AT FACILITY, AS NECESSARY, TO ENSURE BUILDING IS SAFE FOR THE ENTIRETY OF THE OUTAGE. 15. ELECTRICAL COMPANY SHALL DE-ENERGIZE NEW TRANSFORMER.
- 16. CONTRACTOR SHALL FINISH ALL CONNECTIONS NEEDED TO NEW MDP2 SERVICE BOARD. CONTRACTOR SHALL COORDINATE POWER AND LIGHTING REQUIREMENTS WHILE THE SERVICE IS DOWN TO THE BUILDING.
- 17. ELECTRICAL COMPANY SHALL ENERGIZE TRANSFORMER PROVIDING POWER TO NEW SERVICE SWITCHBOARD MDP2.

