ROOFTOP UNIT REPLACEMENT at QUIDNESSETT ELEMENTARY SCHOOL

166 Mark Drive, North Kingstown, Rhode Island 02852





North Kingstown Public School Department 100 Romano Vineyard Way, Suite 120, North Kingstown, RI

Bid Number 2022-09

CONSTRUCTION DOCUMENTS

OCTOBER 15, 2021

Edward Rowse ■ 400 Massasoit Ave (401) 331-9200 **■** Suite 300, 2nd Floor Fax (401) 331-9270 East Providence, RI 02914

PARE CORPORATION

STRUCTURAL AND CIVIL ENGINNERS Lincoln, Rhode Island

BUILDING ENGINEERING RESOURCES, INC.

PLUMBING, MECHANICAL, ELECTRICAL, & FIRE PROTECTION ENGINEERS Warwick, Rhode Island

KEOUGH CONSTRUCTION MANAGEMENT

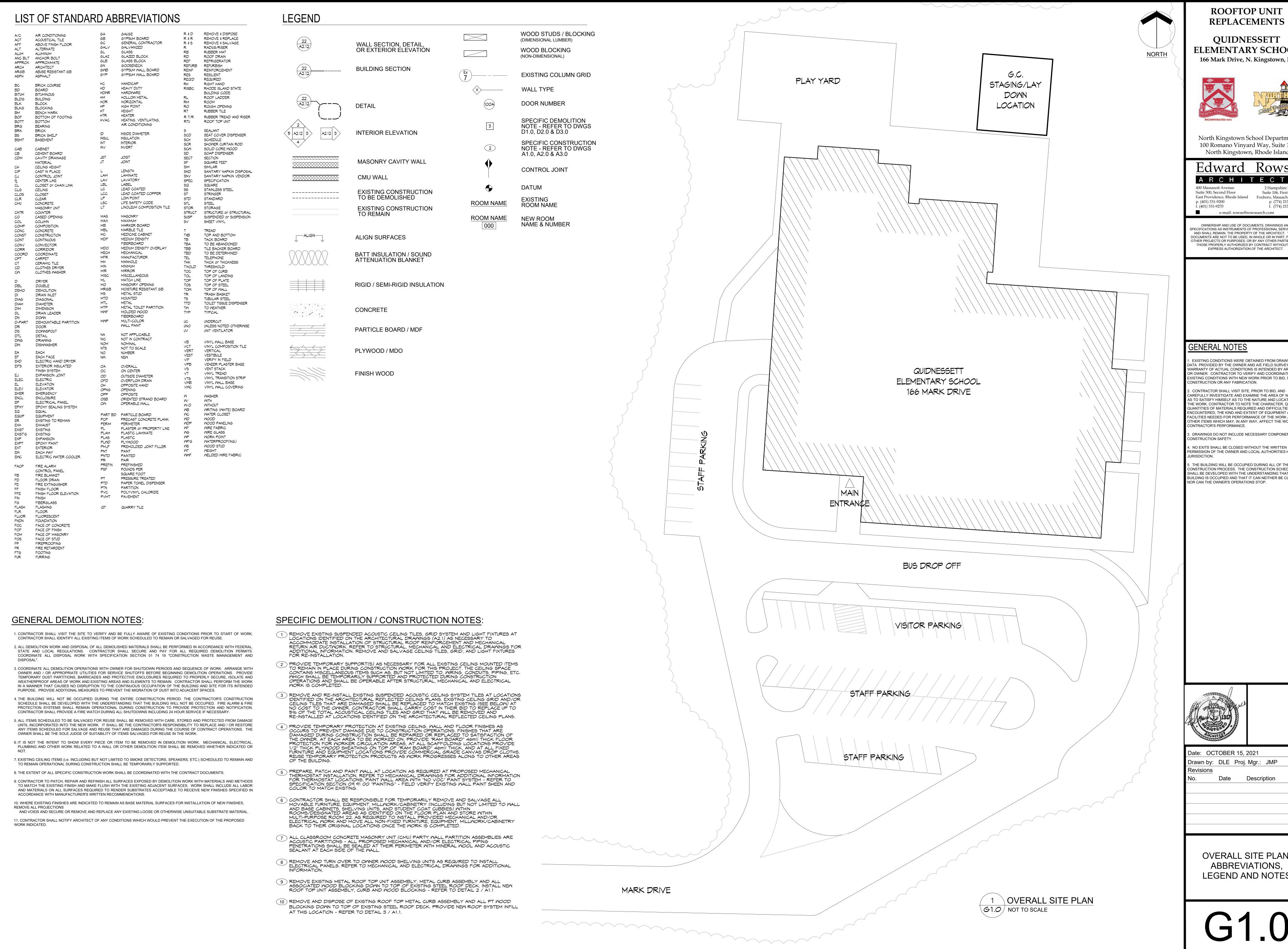
OWNERS PROJECT MANAGER East Providence, Rhode Island

CONSULTING ENGINEERING SERVICES

COMMISSIONING AGENTS Middletown, Conneticut

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QUIDNESSETT **ELEMENTARY SCHOOL** 166 Mark Drive, N. Kingstown, RI





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ARCHITECTS 400 Massasoit Avenue 2 Hampshire Street Suite 300, Second Floor Suite 106, First Floor East Providence, Rhode Island Foxboro, Massachusetts p. (401) 331-9200 p. (774) 215-0290 f. (401) 331-9270 f. (774) 215-0497 e-mail: rowse@rowsearch.com

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Date: OCTOBER 15, 2021 Drawn by: DLE Proj. Mgr.: JMP

Date Description

OVERALL SITE PLAN, ABBREVIATIONS, LEGEND AND NOTES

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A. GENERAL STRUCTURAL REQUIREMENTS

- 1. ALL METHODS OF CONSTRUCTION, DETAILS, NOTES, ETC., INDICATED ON THE DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
- 2. CONSTRUCTION SHALL BE MADE FROM APPROVED SHOP DRAWINGS ONLY.
- ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
- 4. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT AND THE RHODE ISLAND STATE BUILDING CODE.
- THE LATEST EDITION OF THE FOLLOWING LISTED CODES SHALL APPLY. IN CASE OF CONFLICT, THE MORE RIGID REQUIREMENTS AND CODES SHALL GOVERN.
 - * RHODE ISLAND STATE BUILDING CODE (STATE CODE): INTERNATIONAL BUILDING CODE, 2019 EDITION AND ITS APPLICABLE REFERENCED STANDARDS.
 - * AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS AND ITS CODE OF STANDARD PRACTICE (AISC)
- THE DESIGN LOADS ARE RESISTED BY THE COMPLETED STRUCTURE ACTING AS A UNIT. THE CONTRACTOR SHALL DESIGN AND PROVIDE ANY AND ALL TEMPORARY BRACING, SHORING, OR ADDITIONAL REINFORCEMENT NECESSARY TO RESIST LOADS IMPOSED ON ANY PORTION OF THE STRUCTURE THROUGHOUT ALL STAGES OF CONSTRUCTION. THE SHORING SHALL BE DESIGNED TO RESIST ALL DEAD LOADS AND ANY APPLICABLE CONSTRUCTION LOADS.
- ALL SHORING DESIGNS AND PLANS SHALL BE STAMPED BY A RHODE ISLAND REGISTERED PROFESSIONAL ENGINEER.
- 8. NOTES AND TYPICAL DETAILS APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN PROVIDE DETAILS OF SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- 9. PLANS SHALL NOT BE SCALED FOR DIMENSIONS.
- 10. ARCHITECTURAL AND MEP DRAWINGS MUST BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS DURING ALL PHASES OF CONSTRUCTION.

B. DESIGN LOADS

l.	GENERAL: BUILDING RISK CATEGORY III FROST DEPTH 3'-4"
2.	ROOF LIVE LOADS (SNOW): IMPORTANCE FACTOR 1.1 GROUND SNOW LOAD (Pg) 30 psf FLAT ROOF SNOW LOAD (Pf) 30 psf EXPOSURE FACTOR (Ce) 1.0 THERMAL FACTOR (Ct) 1.0
3.	WIND LOADS: IMPORTANCE FACTOR ULTIMATE WIND DESIGN SPEED (Vult) NOMINAL DESIGN WIND SPEED (Vasd) EXPOSURE CATEGORY ENCLOSED BUILDING (Gcpi) 1.0 147 mph C C ENCLOSED BUILDING (Gcpi)

4. EARTHQUAKE LOADS: IMPORTANCE FACTOR MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss, SI) . . 0.167, 0.059 SITE CLASS DESIGN SPECTRAL RESPONSE COEFFICIENTS (Sds., Sdl) . 0.178, 0.094 SEISMIC DESIGN CATEGORY DESIGN PROCEDURE EQUIVALENT LATERAL FORCE PROCEDURE LATERAL FORCE RESISTING SYSTEMS . STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE

C. STEEL DECKS

- 1. ALL STEEL DECKING SHALL CONFORM TO THE STEEL DECK INSTITUTE (SDI) APPLICABLE SPECIFICATIONS AND REQUIREMENTS. INSTALLATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS IN ACCORDANCE WITH SDI SPECIFICATIONS. PROVIDE SHEET METAL POUR STOPS WITH 16 GAUGE MINIMUM THICKNESS (SEE TYPICAL DETAILS).
- STEEL DECK SHALL TYPICALLY BE STORED OFF THE GROUND AT THE JOB SITE, AND BE PROTECTED FROM THE ELEMENTS WITH A WATERPROOF COVERING WHERE REQUIRED.
- 3. DECK SHEETS SHALL BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWING (INCLUDING FASTENING SCHEDULE) SUPPLIED BY THE DECK MANUFACTURER AND IN CONFORMANCE WITH THE MANUFACTURER'S STANDARDS. UNLESS NOTED OTHERWISE, END LAPS SHALL OCCUR OVER SUPPORTS, AND SHALL NOT BE LESS THAN 2" MINIMUM.
- 4. ALL STEEL TO BE USED FOR DECKING SHALL BE GALVANIZED.
- 5. DECK GAUGE, DEPTH, AND TYPE SHALL BE AS INDICATED ON THE DRAWINGS.
- 6. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 7. DECK SPANS ARE DESIGNED TO MINIMIZE SHORING REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ACCOMPLISHING ANY SHORING REQUIRED TO RESIST CONSTRUCTION LOADS ON THE STEEL DECKS.
- 8. ROOF DECK WAS SELECTED ASSUMING TRIPLE SPAN CONDITION.
- 9. PROVIDE 20 GA., GALV. STEEL PLATES AT ALL RIDGES, VALLEYS AND LOCATIONS WHERE DECK CHANGES DIRECTION FOR CONTINUOUS EVEN SURFACE.
- 10. USE WELD WASHERS WHERE RECOMMENDED BY THE DECK MANUFACTURER.
- 11. USE FM-APPROVED STEEL ROOF DECK. FASTENING PATTERN TO CONFORM TO FM-APPROVAL GUIDE FOR CLASS I-90 AND AS INDICATED BELOW (TYPICAL UNLESS NOTED OTHERWISE):

1 1/2" ROOF DECK (AND COMPOSITE DECK INSTALLED ON ROOF): SUPPORTS: 5/8" PUDDLE WELD, 36/7 PATTERN SIDE LAPS: #10 TEK SCREWS @ 6" O.C. (MAX.)

D. STRUCTURAL STEEL

- 1. DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC SPECIFICATION FOR BUILDINGS.
- 2. NEW STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

A) STRUCTURAL STEEL	A572 OR A992 GR. 50	Fy=50 K
B) TYPICAL PLATES AND ANGLES	ASTM A36	Fy=36 K
C) GIRDER RETROFIT COVER PLATE	ASTM A529 GR. 50	Fy=50 K
D) STRUCTURAL TUBING	ASTM A500, GR. B	Fy=46 K
E) HIGH STRENGTH BOLTS	ASTM F3125 (GR. A325 TYPE I)	Fy=92 K
F) CAST-IN-PLACE ANCHOR RODS	F1554 (GRADE 36)	Fy=36 K
G) HEADED STUDS	A108 GR. 50	Fy=50 K
H) DRILL & EPOXY ANCHOR RODS	A449	Fy=92 k

- 3. SHAPES NOTED "GALV." ON DRAWINGS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
- 4. ALL STRUCTURAL STEEL CONNECTIONS NOT SPECIFICALLY DETAILED ON THE PLANS SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRENGTH DESIGN (ASD)". DESIGN FOR ALL CONNECTIONS SHALL BE STAMPED BY A RI PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION. CONNECTIONS SHALL BE DESIGNED TO DEVELOP (1/2) OF MEMBER'S TOTAL UNIFORM LOAD CAPACITY, TYPICAL UNLESS NOTED OTHERWISE.
- 5. ALL BOLTED CONNECTIONS SHALL USE 3/4" DIA., A-325-N TYPE I BOLTS, UNLESS NOTED OTHERWISE.
- 6. ALL NEW STRUCTURAL STEEL SHALL BE GIVEN ONE COAT OF AN APPROVED SHOP PRIMER APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS NOTED OTHERWISE (SEE NOTE 8 BELOW). DO NOT PAINT TOP FLANGES OF BEAMS THAT RECEIVE SHEAR STUDS. SHOP PAINTING OF STRUCTURAL STEEL SHALL CONFORM TO SSPC-SP2 (INTERIOR SURFACES) OR SSPC-SP6 (EXTERIOR SURFACES).
- 7. AFTER ERECTION IS COMPLETE, TOUCH-UP ALL SHOP PRIMED COATS DAMAGED DURING TRANSPORT AND ERECTION, AND PRIME ALL FIELD WELDS USING THE SAME PAINT USED FOR SHOP PRIMING.
- 8. ANY STRUCTURAL STEEL TO RECEIVE SPRAY-ON FIREPROOFING SHALL BE FABRICATED WITHOUT ANY PRIMER OR PAINT COATINGS. COORDINATE WITH THE ARCHITECT REGARDING ADDITIONAL INFORMATION RELATED TO FIREPROOFING.
- 9. ALL EXPOSED STRUCTURAL STEEL AND CONNECTORS SHALL BE PRIMED AND PAINTED WITH AN APPROVED PAINT SYSTEM.
- 10. HIGH STRENGTH BOLTS SHALL BE TORQUED TO 70% OF THE MINIMUM TENSILE STRENGTH OF THE BOLT IN CONFORMANCE WITH AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A-325-N TYPE I BOLTS. PROVIDE ONE HARDENED WASHER UNDER THE ELEMENT TURNED IN TIGHTENING.
- 11. WELDS SHALL BE MADE ONLY BY OPERATORS CERTIFIED BY THE STANDARD QUALIFICATION PROCEDURE OF THE AMERICAN WELDING SOCIETY.
- 12. WELDING: IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 CODE FOR WELDING IN BUILDING CONSTRUCTION. USE E70 SERIES ELECTRODES UNLESS NOTED OTHERWISE.
- 13. FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED.
- 14. FURNISH AND INSTALL ONE WASHER AND ONE HEAVY HEX NUT WITH ASTM F1554 ANCHOR BOLTS UNLESS OTHERWISE INDICATED.
- 15. PROVIDE FITTED WELDED 3/8" WEB STIFFENER PLATES ON EACH SIDE OF ALL BEAMS SEATED ON WALLS UNLESS NOTED
- 16. FIELD CUTTING OR MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED
- FROM THE ENGINEER.
- 17. SURFACES OF GALVANIZED MEMBERS TO BE WELDED SHALL BE GROUND TO BARE METAL PRIOR TO WELDING, AND TOUCHED UP AFTER WELDING.
- 18. MINIMUM FILLET WELD (LEG) SIZE SHALL BE 3/16", UNLESS NOTED OTHERWISE.
- 19. SHEARED ENDS OF GALVANIZED PRETENSIONED TWIST-OFF SPLINE BOLTS SHALL BE TOUCHED UP WITH A ZINC RICH PRIMER IN ACCORDANCE WITH ASTM A780 AFTER INSTALLATION.

HOLLOW STRUCTURAL SHAPE

INSIDE FACE

BBREVI	<u>ATIONS</u>			
DD'L RCH OF FMF IP LR. OL ONC. MU J ONST. JT. ONT. IA WL'S WG A. F. W Q EE ND GG AL ONIZ.	ADDITIONAL ARCHITECT BOTTOM OF FOOTING COLD FORMED METAL FRAMING CAST-IN-PLACE CLEAR COLUMN CONCRETE CONCRETE MASONRY UNIT CONTROL JOINT CENTER LINE CONSTRUCTION JOINT CONTINUOUS DIAMETER DOWELS DRAWING EACH EACH FACE EACH WAY ELEVATION EQUAL FINISH FLOOR ELEVATION FOUNDATION FOOTING GAUGE GALVANIZED HORIZONTAL	LONG. L.W. MAX. M.C. MECH MIN. MTL NF NTS O.C. R. & D REINF. SJ TOC TOF TOW TSL TST TYP. U.N.O. V.I.F. WWF W/ W.P.	REINFORCING SAWN JOINT TOP OF CONCRETE TOP OF FOOTING TOP OF WALL TOP OF SLAB TOP OF STEEL TYPICAL UNLESS NOTED OTHERWISE	
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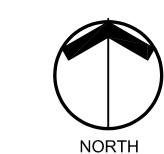
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Date: OCTOBER 15, 2021 Orawn by: MS Proj. Mgr.: MR

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STRUCTURAL NOTES



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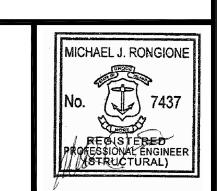
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Revisions

Deta

MATCHLINE

NOT TO SCALE

KEY PLAN

Date Description

STRUCTURAL ROOF FRAMING PLAN

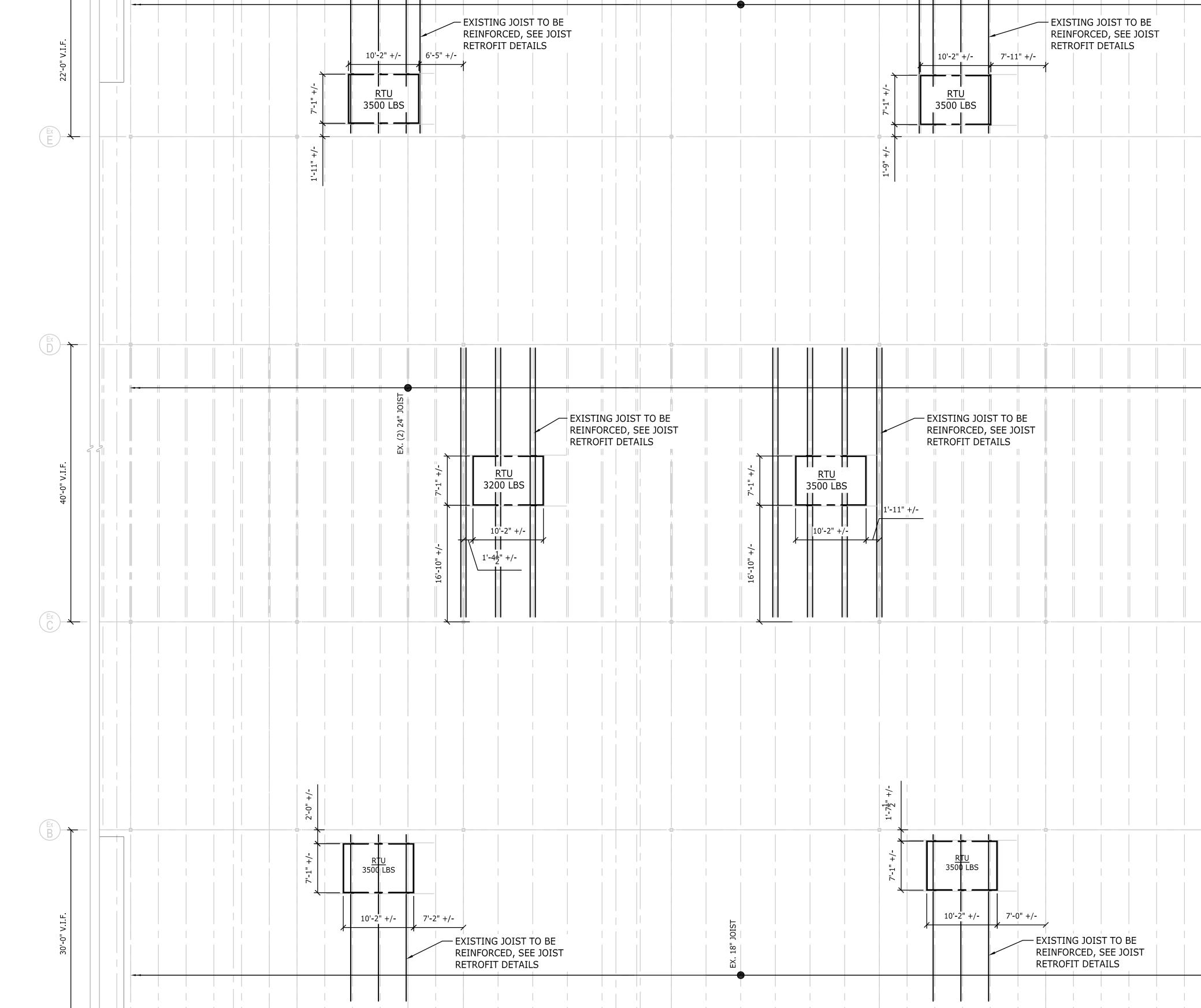
S2.00

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NOTES:

1. REFER TO EXISTING JOIST ELEVATIONS FOR LIMITS OF CHORD RETROFIT ON DRAWING S3.00

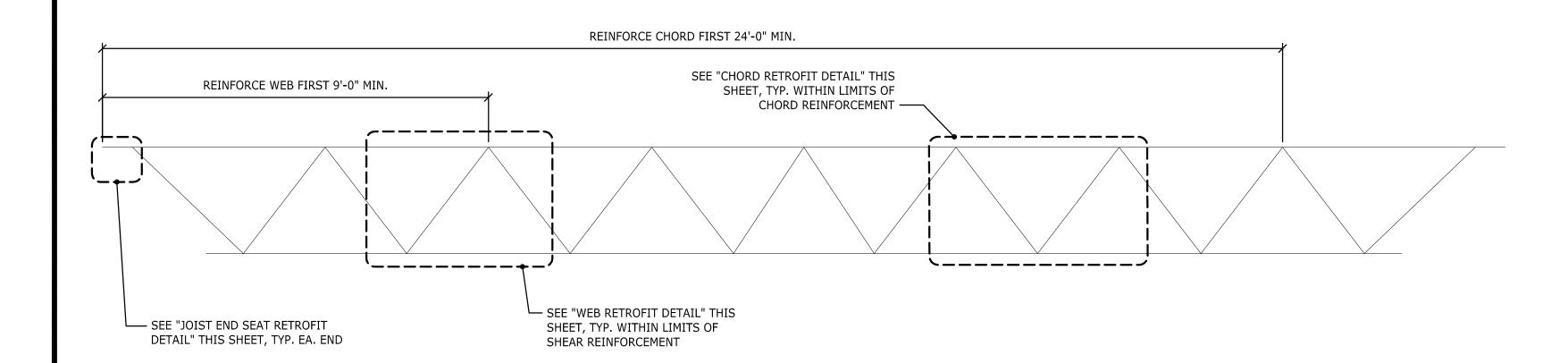
2. ROD REINFORCING SHALL HAVE A MINIMUM YIELD STRENGTH (Fy) OF 50 ksi.



ROOF FRAMING PLAN

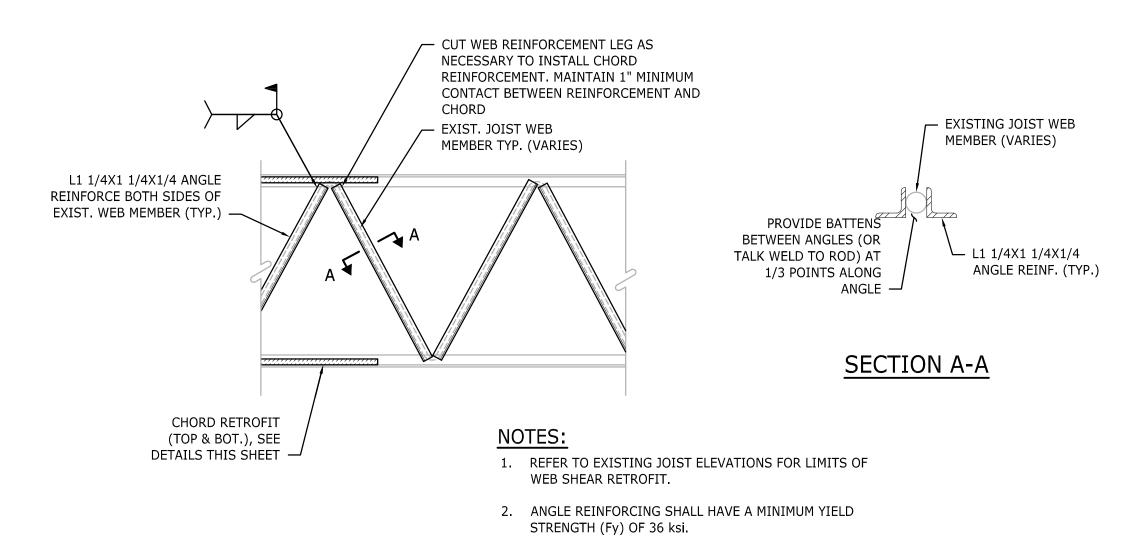
SCALE: ⅓"=1'-0"

ALL MEMBERS SHALL BE TEMPORARILY SHORED PRIOR TO RETROFITTING. RETROFITS SHALL BE INSTALLED BEFORE NEW UNITS ARE INSTALLED.



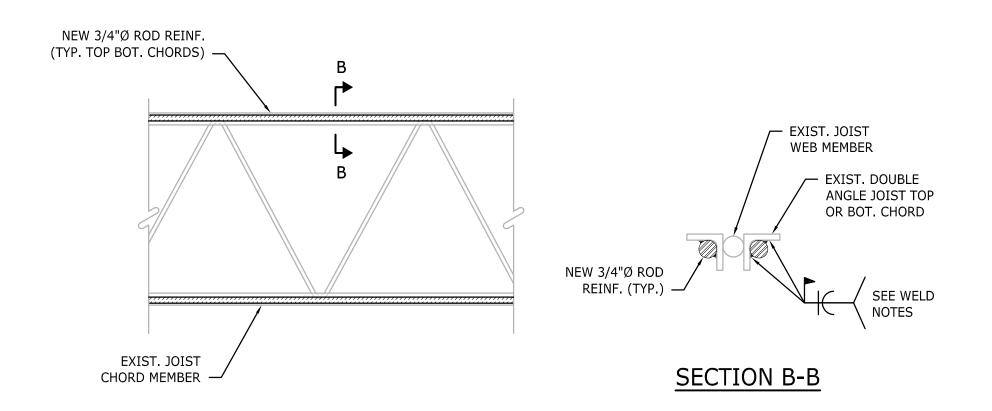
EXISTING 18" JOIST ELEVATION

NOT TO SCALE



WEB RETROFIT DETAILS

NOT TO SCALE



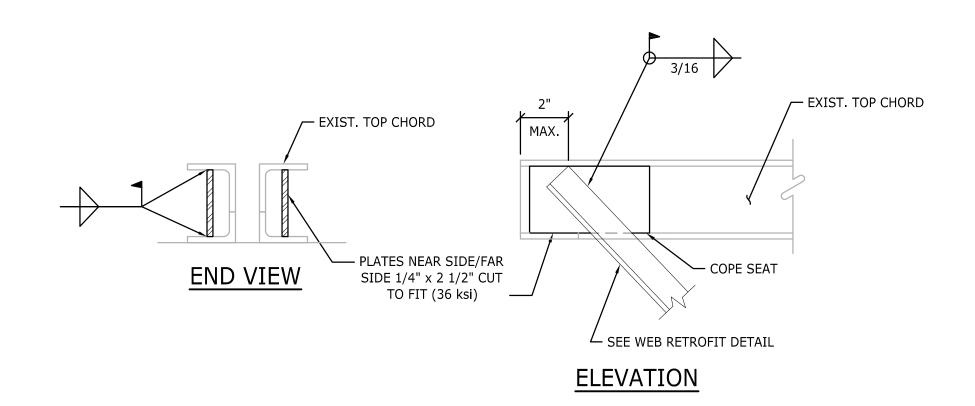
WELD NOTES:

- 1. 2" MINIMUM WELD AT ALL PANEL POINTS (TOP & BOTTOM).
- 2. STITCH WELD 2" @ MIDPOINT BETWEEN PANEL POINTS (TOP CHORD ONLY).
- 3. 6" LG., CONT. @ EA. END OF ROD.

NOTE

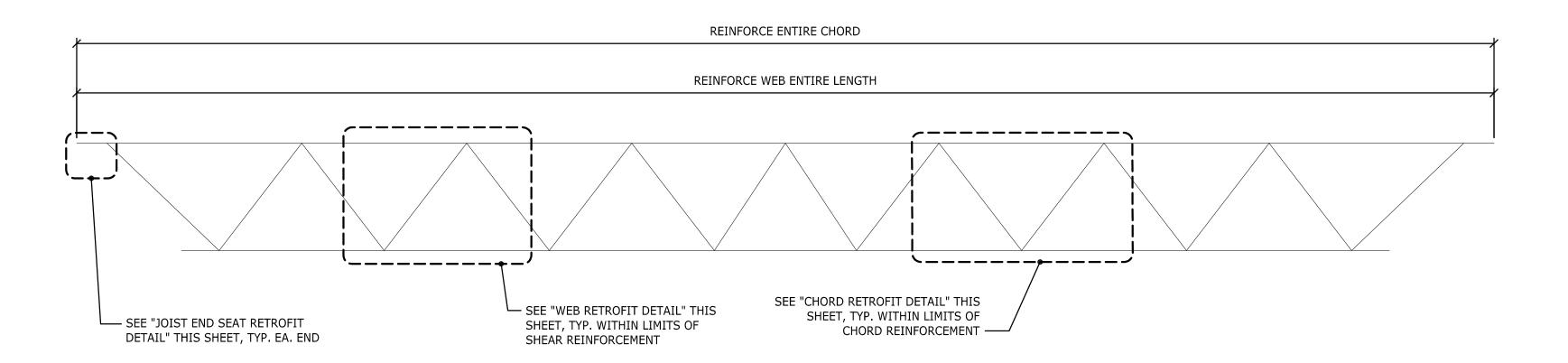
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CHORD RETROFIT DETAILS NOT TO SCALE



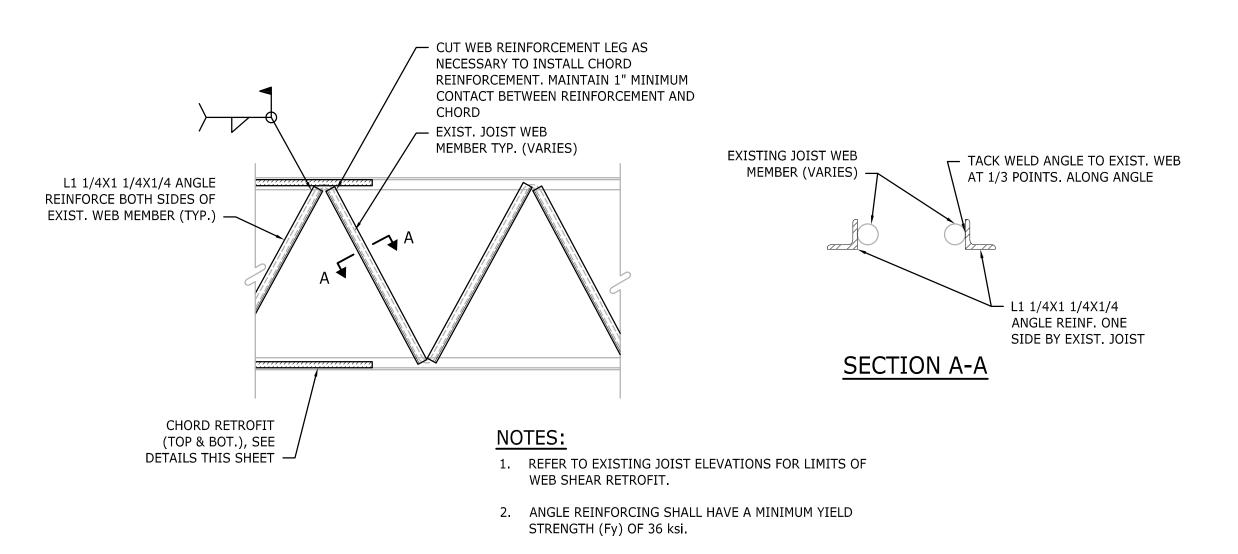
JOIST END SEAT RETROFIT DETAIL

NOT TO SCALE



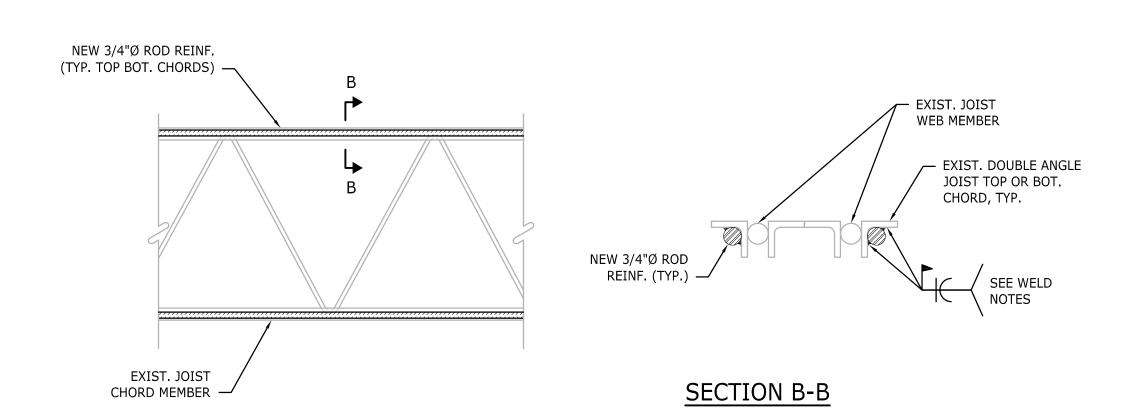
EXISTING 24" JOIST ELEVATION

NOT TO SCALE



WEB RETROFIT DETAILS

NOT TO SCALE



WELD NOTES:

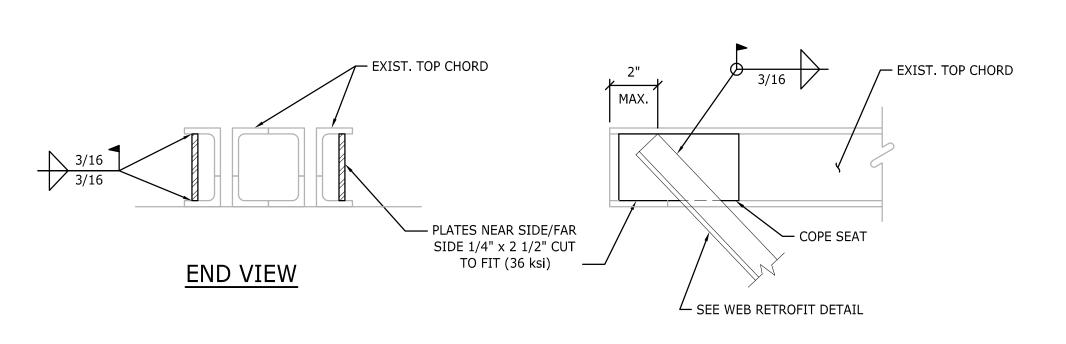
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CHORD RETROFIT DETAILS

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ELEVATION

JOIST END SEAT RETROFIT DETAIL

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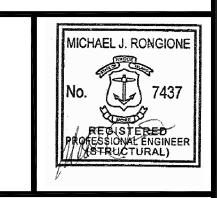
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Date: OCTOBER 15, 2021

Drawn by: MS Proj. Mgr.: MR

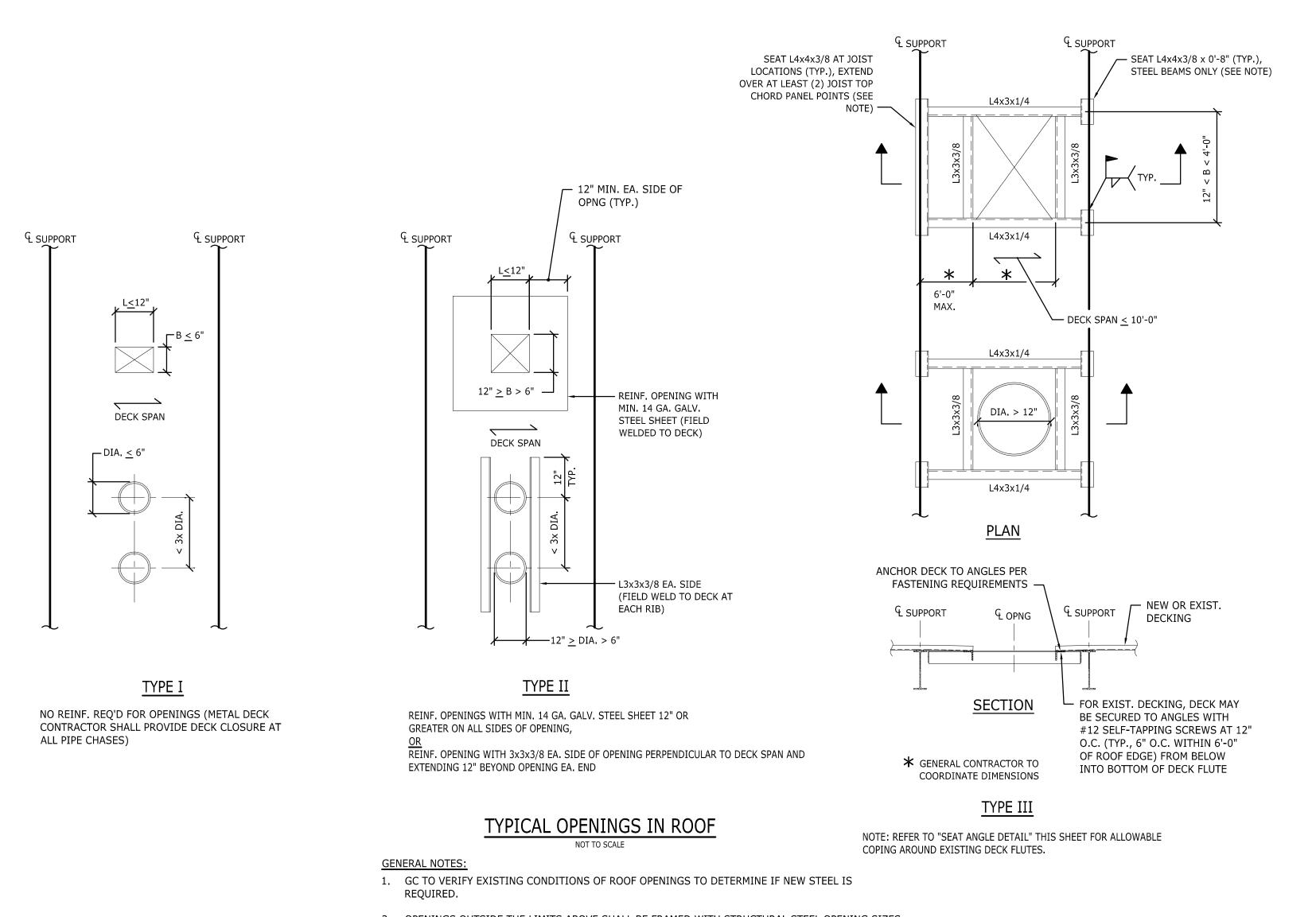
Revisions

Date Description

STRUCTURAL JOIST RETROFIT DETAILS

S3.00

⁵ of 16

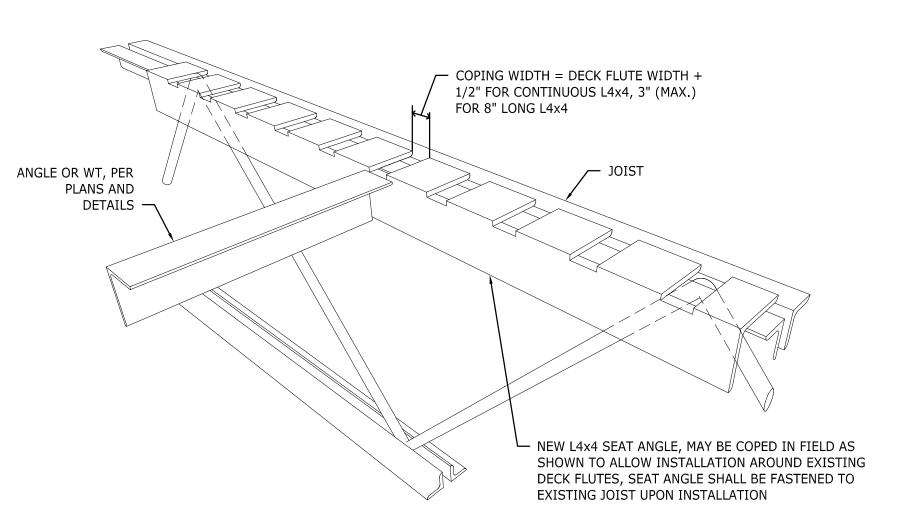


- 2. OPENINGS OUTSIDE THE LIMITS ABOVE SHALL BE FRAMED WITH STRUCTURAL STEEL OPENING SIZES AND LOCATIONS TO BE SUBMITTED TO STRUCTURAL ENGINEER.
- 3. PROVIDE SOLID P.T. BLOCKING WITHIN ROOF DECK RIBS UNDER ALL CURBS FOR ROOFTOP EQUIPMENT, SKYLIGHTS, HATCHES, ETC.

ANGLE PER
PLANS AND
DETAILS

NEW L4x4 SEAT ANGLE, MAY BE COPED IN FIELD AS SHOWN TO
ALLOW INSTALLATION AROUND EXISTING DECK FLUTES, SEAT ANGLE
SHALL BE FASTENED TO BEAM OR JOIST UPON INSTALLATION





SEAT ANGLE AT JOIST DETAIL

NOT TO SCALE

ROOFTOP UNIT REPLACEMENTS

QUIDNESSETT
ELEMENTARY SCHOOL
166 Mark Drive, N. Kingstown, RI





North Kingstown School Department 100 Romano Vinyard Way, Suite 120 North Kingstown, Rhode Island

Edward	Rowse
A R C H I	TECTS
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Suite 300, Second Floor	Suite 106, First Floor
East Providence, Rhode Island	Foxboro, Massachusetts
p. (401) 331-9200	p. (774) 215-0290
f. (401) 331-9270	f. (774) 215-0497
e-mail: rowse@rov	vsearch.com

OWNERSHIP AND USE OF DOCUMENTS, DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE, AND SHALL REMAIN, THE PROPERTY OF THE ARCHITECT. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES THAN THOSE PROPERLY AUTHORIZED BY CONTRACT WITHOUT THE EXPRESS AUTHORIZATION OF THE ARCHITECT.

GENERAL NOTES

1. EXISTING CONDITIONS WERE OBTAINED FROM DRAWINGS AND DATA PROVIDED BY THE OWNER AND A/E FIELD SURVEY. NO WARRANTY OF ACTUAL CONDITIONS IS INTENDED BY ARCHITECT OR OWNER. CONTRACTOR TO VERIFY AND COORDINATE ALL EXISTING CONDITIONS WITH NEW WORK PRIOR TO BID, START OF CONSTRUCTION OR ANY FABRICATION.

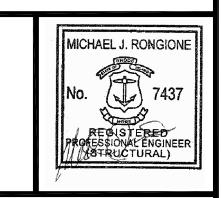
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3. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

4. NO EXITS SHALL BE CLOSED WITHOUT THE WRITTEN PERMISSION OF THE OWNER AND LOCAL AUTHORITIES HAVING JURISDICTION.

5. THE BUILDING WILL BE OCCUPIED DURING ALL OF THE CONSTRUCTION PROCESS. THE CONSTRUCTION SCHEDULE SHALL BE DEVELOPED WITH THE UNDERSTANDING THAT THE BUILDING IS OCCUPIED AND THAT IT CAN NEITHER BE CLOSED NOR CAN THE OWNER'S OPERATIONS STOP.



Date: OCTOBER 15, 2021

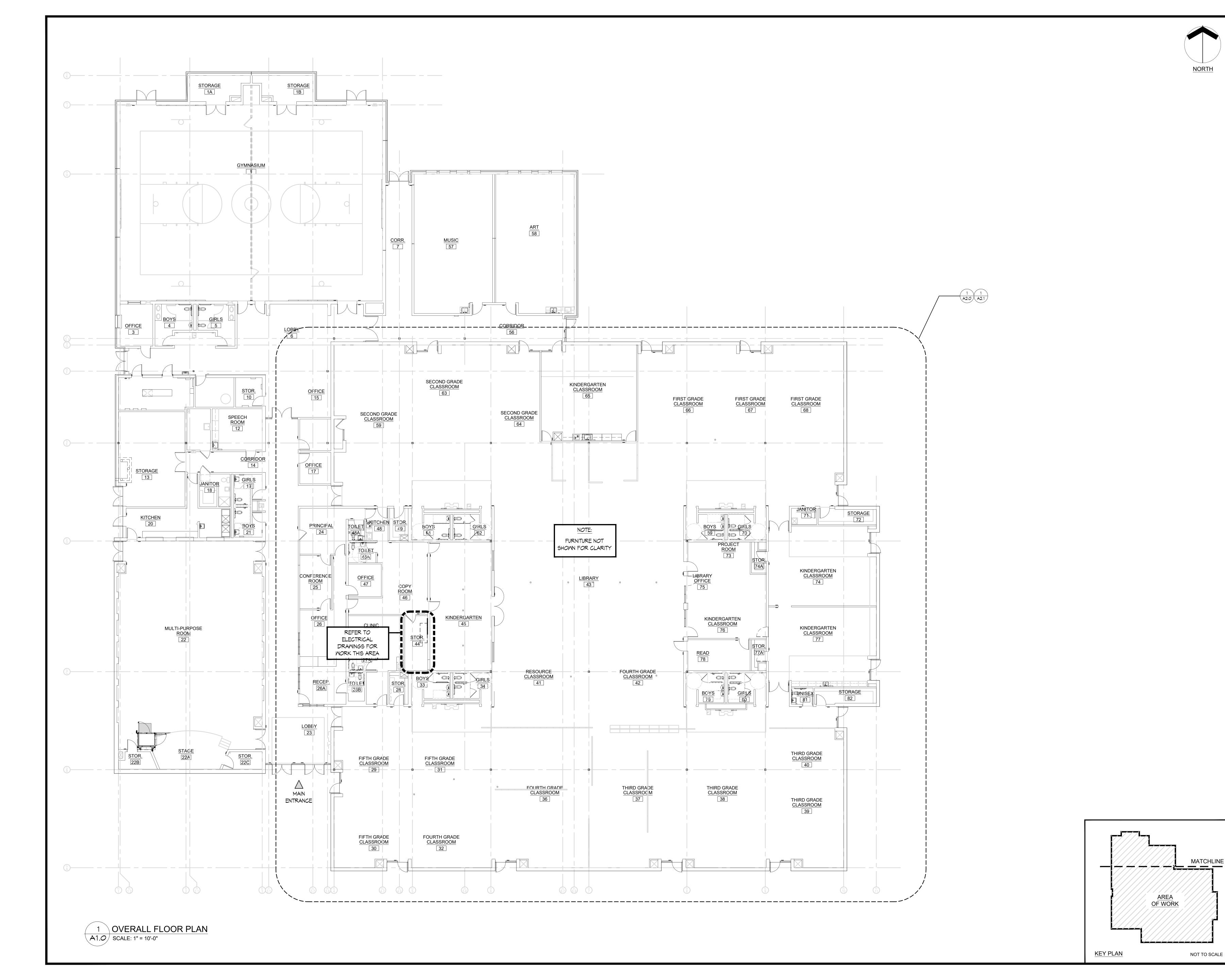
Drawn by: MS Proj. Mgr.: MR

Revisions
No. Date Description

STRUCTURAL SECTIONS AND DETAILS

S4.00

⁶ of 16



ROOFTOP UNIT REPLACEMENTS

QUIDNESSETT
ELEMENTARY SCHOOL
166 Mark Drive, N. Kingstown, RI





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dward Rowse

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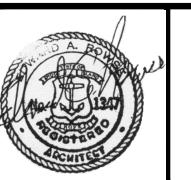
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Drawn by: DLE Proj. Mgr.: JMP

Revisions

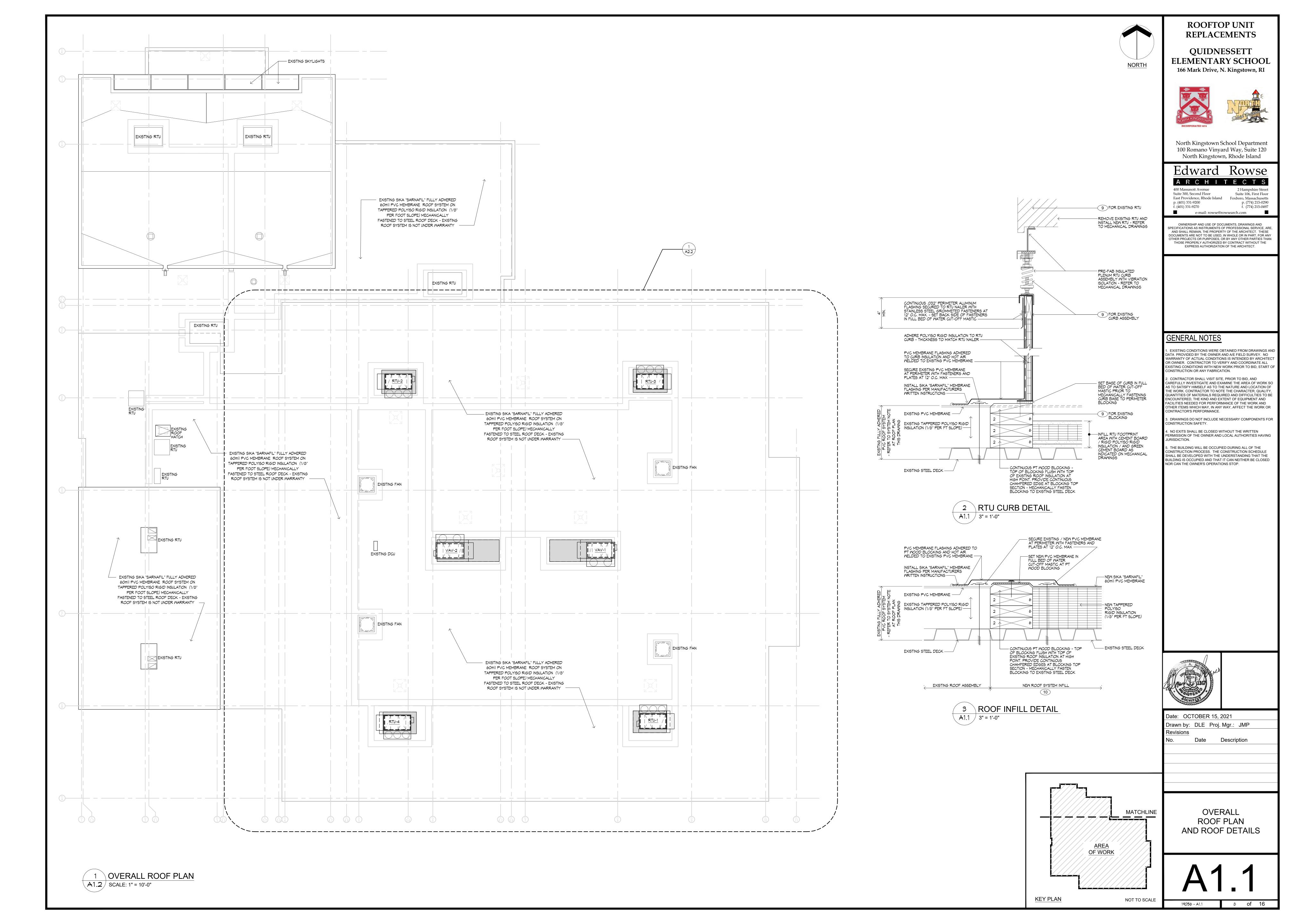
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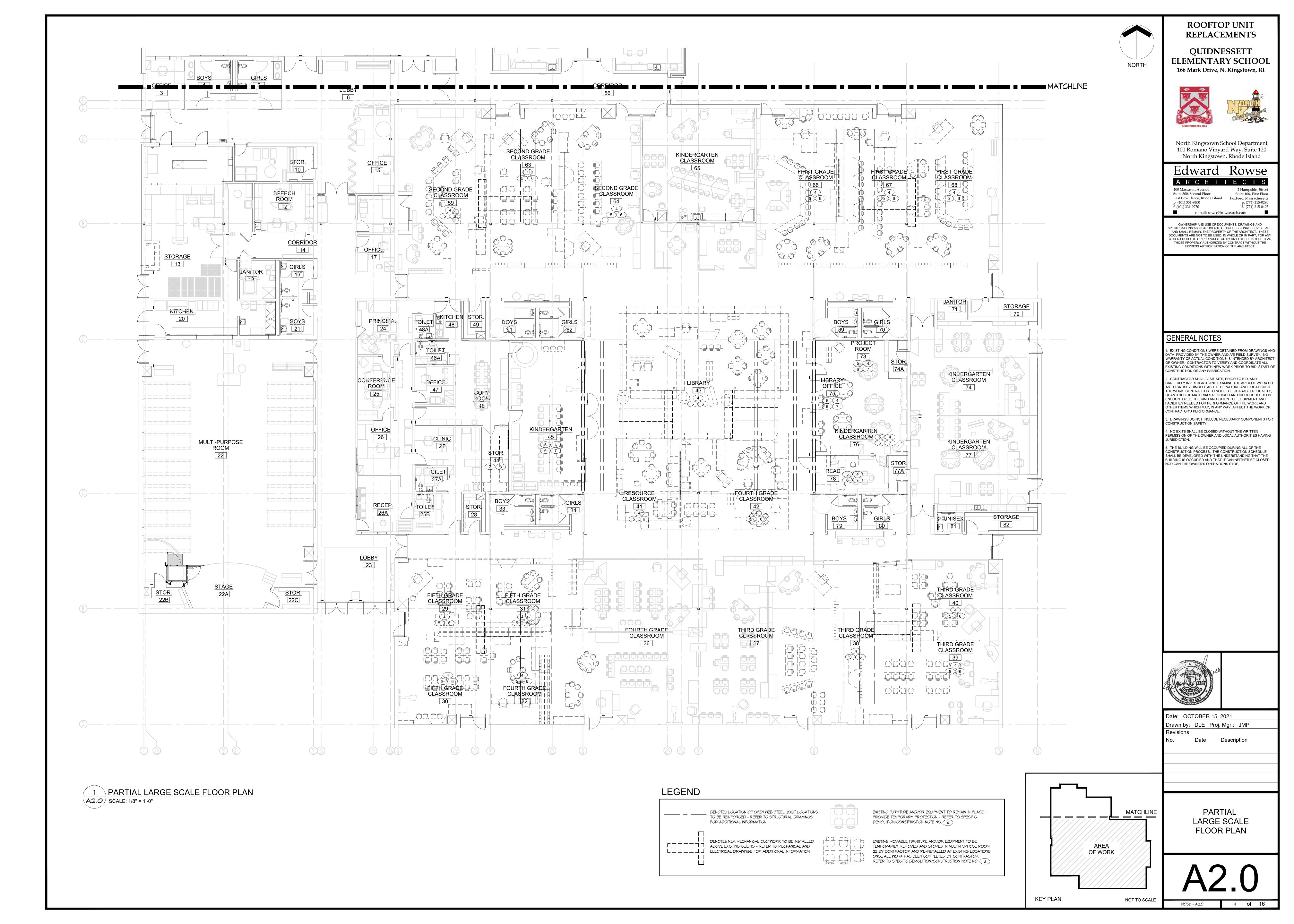
19056 - A1.0

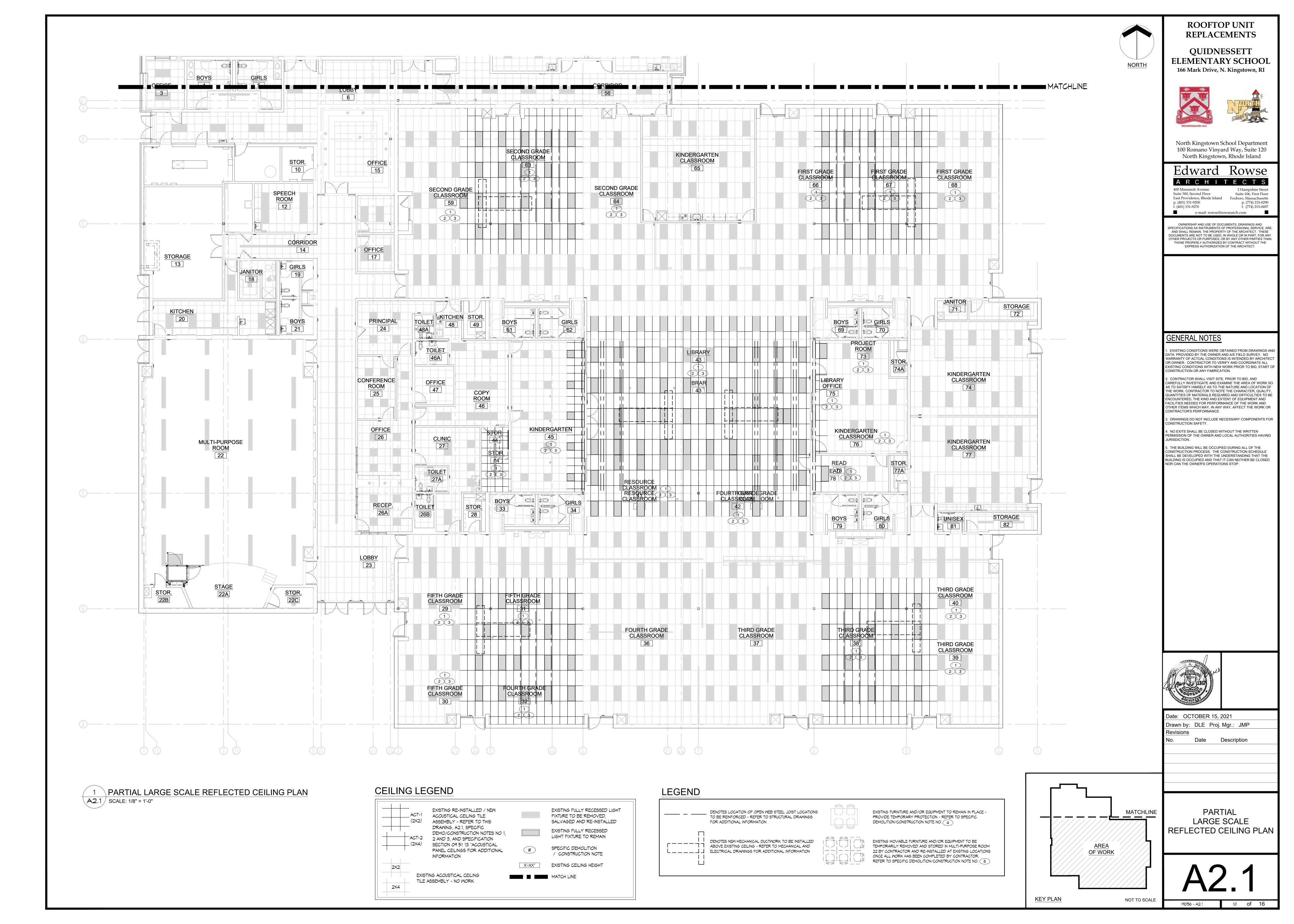
OVERALL FLOOR PLAN

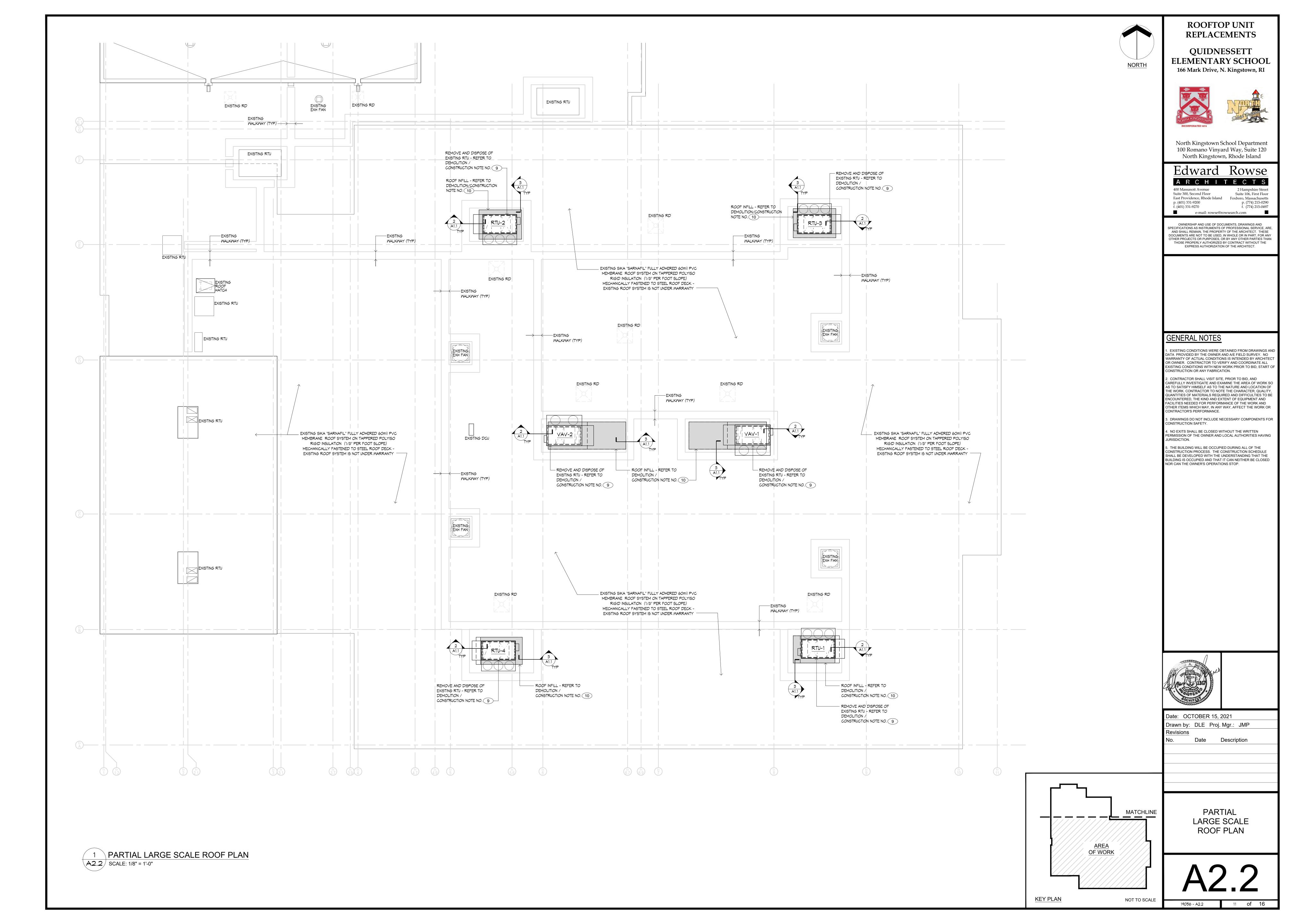
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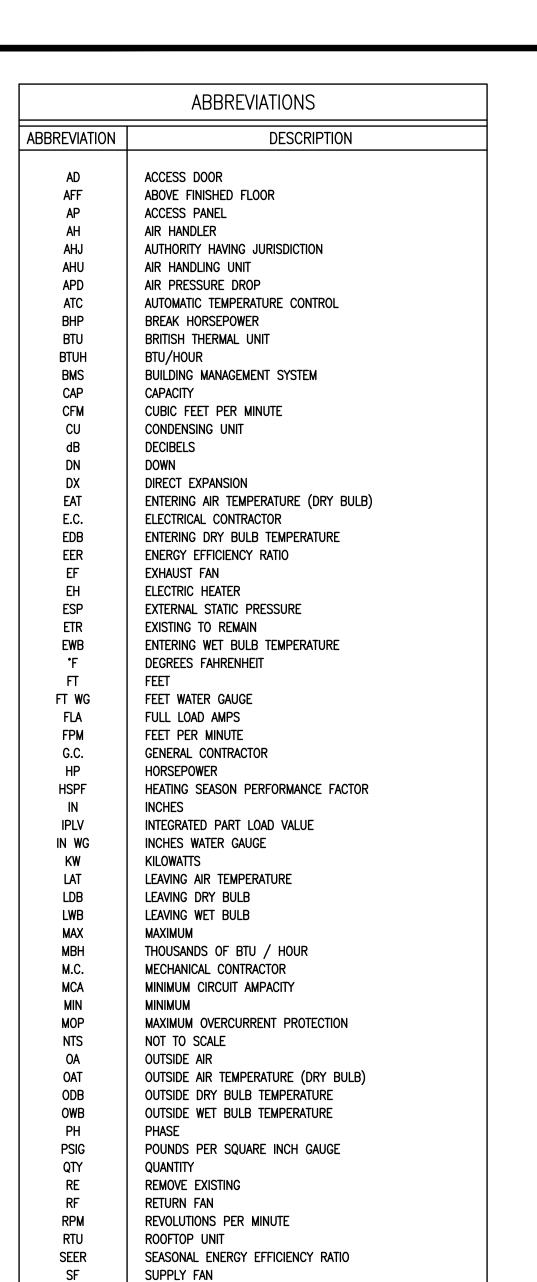
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STATIC PRESSURE

STATIC PRESSURE DROP

TOTAL STATIC PRESSURE

VARIABLE AIR VOLUME

VOLUME DAMPER

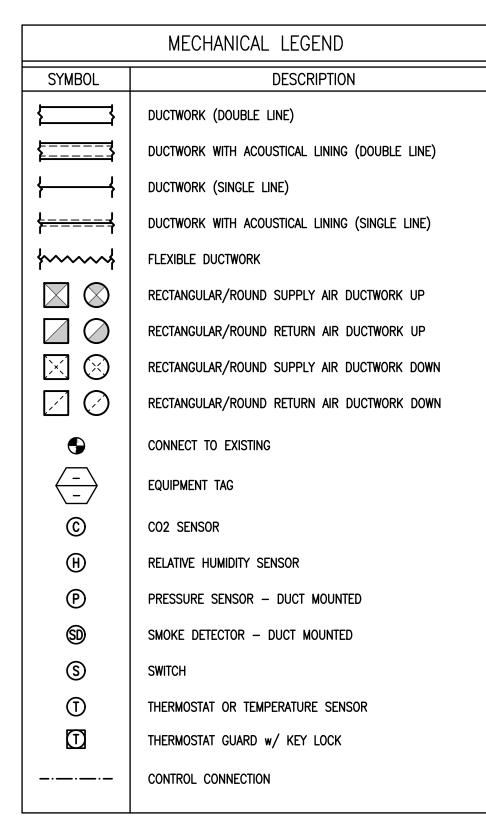
UNLESS OTHERWISE INDICATED

VARIABLE FREQUENCY DRIVE

VARIABLE VOLUME TERMINAL

SPD

TSP



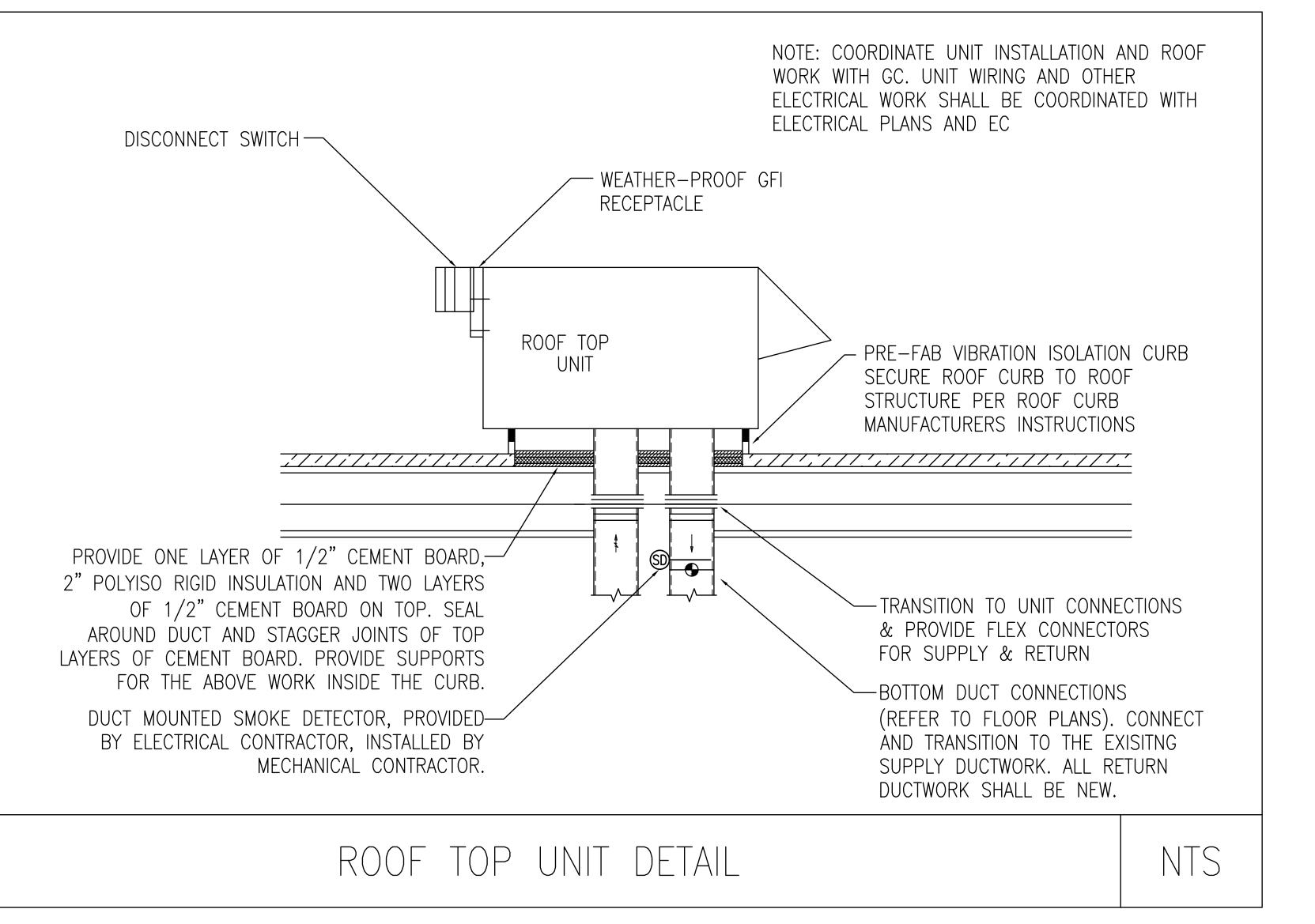
FURNACE, DX COOLING COIL, ROOF MOUNTED, BOTTOM DISCHARGE

													PACKAGE	D ROOFT	OP UNIT	SCHEDU	LE											
	GENERAL								Р	PERFORMAN	CE									ELEC	TRICAL			PHYSICAL			REMARKS	
			SUPPLY AIR FAN			RETURN AIR F			RETURN AIR FAN		HEATING		COOLING			OUTDOOR AIR		T			WEIGHT	MANUFACTURER		D.T.LOO				
TAG	SERVICE	CFM	ESP (IN WG)	RPM	HP	CFM	ESP (IN WG)	RPM	HP	HIGH FIF	RE (MBH) OUTPUT	MIN GAS PRESSURE	TONS	TOTAL	IBH SENSIBLE	EER	MIN CFM	MAX CFM	MCA	MOP	VOLTAGE	PHASE	(LBS)	MODEL	TYPE	RATINGS	FEATURES	INSTALL
RTU-1	ROOF	3550	1.0	1240	3.0	_	_	_	_	200	160	7.0 W.C.	15	192.2	121.9	12.1	500	1900	78.3	100	208	3	3255	TRANE OAKD180A3-D1B400JL	1	1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1	0234
RTU-2	ROOF	2800	1.0	1299	2.0	-	-	-	_	150	120	7.0 W.C.	12	146.5	93.7	13.3	500	1400	65.9	80	208	3	3105	TRANE OAKD144A3-D1B400GJ	1	1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1	
RTU-3	ROOF	2800	1.0	1299	2.0	-	-	_	-	150	120	7.0 W.C.	12	146.5	93.7	13.3	500	1400	65.9	80	208	3	3105	TRANE OAKD144A3-D1B400GJ	1	1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1	
RTU-4	ROOF	3550	1.0	1240	3.0	-	-	_	-	200	160	7.0 W.C.	15	192.2	121.9	12.1	500	1900	78.3	100	208	3	3255	TRANE OAKD180A3-D1B400JL	1	1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1	3 0 0 0
VAV-1	ROOF	3650	1.0	1859	2.0	-	_	_	-	350	280	7.0 W.C.	20	233.3	144.6	12.7	750	2400	80.1	100	208	3	3350	TRANE OADG020C1-DAB10AJ00	2	1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1	6 45
VAV-2	ROOF	2130	1.0	1379	1.0	_	_	_	_	150	120	7.0 W.C.	10	122.6	77.5	13.1	350	1000	54.6	70	208	3	3065	TRANE OADG010C1-DAB10AE00	2	1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1	3 (123) 6 (45)
SINGLE ZONE VARIABLE AIR VOLUME ROOF TOP UNIT, PACKAGED GAS FURNACE, DX COOLING COIL, ROOF MOUNTED, BOTTOM DISCHARGE MULTI ZONE VARIABLE AIR VOLUME ROOF TOP UNIT, PACKAGED GAS						2 DOUB	IDE MERV 13 BLE WALL CON MIC VIBRATION,	TRUCTION	N INTAKE TENUATING, PL	.ENUM	6 SPARE FILTERS 7 SERVICE OUTLET - FACTORY UM 8 TWO POSITION OUTDOOR AIR DAMPER											INSTALL PER MANUFACTURERS INSTRUCTION UNIT SHALL BE PROGRAMMED PER OWNERS REQUIREMENT AND HOURS OF OPERATION						

ROOF CURB

4 SUPPLY BLOWER, DIRECT DRIVE MOTOR WITH VFD

5 FIELD INSTALLED POWER EXHAUST



ECONOMIZER CYCLE

10 FUSED DISCONNECT SWITCH

11 PROGRAMMABLE CONTROLLER WITH BMS INTERFACE

HOURS OF OPERATION ③ SECURE ROOF CURB TO ROOF STRUCTURE PER ROOF CURB MANUFACTURERS INSTRUCTIONS

CONTRACTOR AND MOUNTED BY THE MECHANICAL CONTRACTOR (5) THE EXISTING VAV CONTROLLERS AND SENSORS SHALL BE REPLACED WITH NEW.

15 7.0 IN WC MINIMUM INCOMING GAS PRESSURE

16 MODULATING HOT GAS REHEAT DEHUMIDIFICATION

ARCHITECTS 2 Hampshire Street 400 Massasoit Avenue 4 A DUCT MOUNTED SMOKE DETECTOR SHALL BE INSTALLED IN Suite 300, Second Floor Suite 106, First Floor East Providence, Rhode Island Foxboro, Massachusetts THE SUPPLY AIR DUCT PRIOR TO ANY TAKE-OFF. THE p. (401) 331-9200 p. (774) 215-0290 DETECTOR SHALL BE SUPPLIED BY THE ELECTRICAL f. (401) 331-9270 f. (774) 215-0497 e-mail: rowse@rowsearch.com

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ROOFTOP UNIT

REPLACEMENTS

QUIDNESSETT

ELEMENTARY SCHOOL

OUIDNESSET ELEMENTARY

North Kingstown, Rhode Island

BUILDING ENGINEERING RESOURCES, INC. 351 Centerville Road 66 Main Street N. Easton, MA 02356 Warwick, RI 02886 508.230.0260 T 401.384.7682 F 508.230.0265 ber@ber-engineering.com www.ber-engineering.com

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> STEVEN A. KARAN PROFESSIONAL ENGINEER (MECHANICAL)

Date: OCTOBER 15, 2021 Drawn by: KWB Proj. Mgr.: GAA

Date Description

MECHANICAL -LEGENDS, NOTES, SCHEDULES &

DETAILS

19056 - M0.1 12 of 16

