

100% Schematic Estimate

**Masconomet Regional School District
District Center Office Building Roof
Replacement**

Boxford, MA

Prepared for:

Gale Associates, Inc

PM&C LLC

20 Downer Avenue; Suite 5
Hingham, MA 02043
(T) 781-740-8007

September 2024



Masconomet Regional School District
District Center Office Building Roof Replacement
Boxford, MA

100% Schematic Estimate

This 100% Schematic cost estimate was produced from a drawings prepared by Gale Associates, Inc. and their design team dated July 29, 2024.

This estimate includes all direct construction costs, contractor's overhead and profit and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149 of the Massachusetts General Laws with roofing contractor as Prime, open specifications for materials and manufacturers.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- All professional fees and insurance
- Land acquisition, feasibility, and financing costs
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items
- Construction or occupancy phasing or off hours' work



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MAIN CONSTRUCTION COST SUMMARY

**Estimated
Construction Cost -
Approx.**

Masconomet Regional School District	Start Date	
Roof Area D (YR 2026)	May-26	\$818,508
Lower Roofs (YR 2027)	May-27	\$3,034,561
Roof Area E, E2, F, F2 and Area F4 (YR 2028)	May-28	\$1,341,448
Roof Area A, A1 and Area A2 (YR 2029)	May-29	\$1,483,760
Hazardous Material Abatement @ Masonry walls		\$15,000
SUBTOTAL		\$6,693,277
DESIGN AND PRICING CONTINGENCY	10.00%	\$669,328
ESCALATION - May 2026 (Roof Area D)	6.50%	\$435,063
ESCALATION - May 2027 (Lower roofs)	10.00%	\$303,456
ESCALATION - May 2028 (Roof E&F)	13.50%	\$181,095
ESCALATION - May 2029 (Roof A)	17.00%	\$252,239
SUBTOTAL		\$8,534,458
GENERAL CONDITIONS & GENERAL REQUIREMENTS		Included in base estimate
BONDS & INSURANCE		Included in base estimate
PERMIT		Assume waived
OH & FEE	10%	\$669,328
TOTAL CONSTRUCTION COST		\$9,203,786



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MAIN CONSTRUCTION COST SUMMARY

**Estimated
Construction Cost**

Masconomet Regional School District	Start Date	
District Center Office Building Roof Replacement	May-26	\$6,678,277
Hazardous Material Abatement @ roof A masonry walls		\$15,000
SUBTOTAL		\$6,693,277
DESIGN AND PRICING CONTINGENCY	10.00%	\$669,328
ESCALATION - Start May 2026 (6 months duration)	6.50%	\$435,063
SUBTOTAL		\$7,797,668
GENERAL CONDITIONS & GENERAL REQUIREMENTS	May-Oct	Included in base estimate
BONDS & INSURANCE		Included in base estimate
PERMIT		Assume waived
OH & FEE	4%	\$267,731
TOTAL CONSTRUCTION COST		\$8,065,399



Masconomet Regional School District
Boxford, MA
District Center Office Building Roof Replacement

100% Schematic Estimate

CONSTRUCTION COST SUMMARY IN CSI FORMAT

	<i>Subtotal</i>	<i>ota</i>	<i>Total</i>
ROOF REPLACEMENT			
DIV. 2 EXISTING CONDITIONS			\$50,620
021500 Selective Demolition	\$50,620		
025000 Hazardous Material	Included w/ roofing		
DIV. 4 MASONRY			\$137,340
042000 Masonry	\$137,340		
DIV. 6 WOODS & PLASTICS			\$208,261
061000 Rough Carpentry	\$208,261		
DIV. 7 THERMAL & MOISTURE PROTECTION			\$6,030,406
070002 Roofing and Flashing	\$5,927,313		
079000 Sealants & Caulking	\$103,093		
DIV. 8 DOORS AND WINDOWS			\$158,650
081000 Doors, Frames and Hardware	\$4,000		
088000 Translucent Wall Panels	\$154,650		
DIV. 9 INTERIOR FINISHES			\$0
099000 Painting	\$0		
DIV. 22 PLUMBING			\$88,000
220000 Plumbing	\$88,000		
DIV. 23 MECHANICAL			\$0
230000 Mechanical	\$0		
DIV. 26 ELECTRICAL			\$5,000
260000 Electrical	\$5,000		
SUBTOTAL DIRECT (TRADE) COST			\$6,678,277



Masconomet Regional School District
 Boxford, MA
 District Center Office Building Roof Replacement

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
02 EXISTING CONDITIONS							
021500	Demolition						
	Miscellaneous demolition of existing conditions not included in roof demo - roof ladders, accessories, door, metal panel etc.	1	ls	30,000.00	30,000		
	Demolish glass block at roof E.1 including structural components	1,031	sf	20.00	20,620		
	SUBTOTAL					50,620	
025000	Hazardous components abatement						
	See Roofing						
	SUBTOTAL					-	
TOTAL, DIVISION 2 - EXISTING CONDITIONS							\$50,620
03 CONCRETE							
Not used							
TOTAL, DIVISION 3 - CONCRETE							
04 MASONRY							
042000	Masonry						
	Dtl 8 & 9/A502						
	Remove and replace 1 row brick as required including new thru wall flashing, fabric flashing, continuous counterflashing and termination bar @ expansion joints and new thru wall flashing	713	lf	180.00	128,340		
	Dtl 21/A504	30	lf				
	Remove and replace 3 to 4 rows brick and insulation including new thru wall flashing, copper fabric flashing, continuous counterflashing and termination bar	30	lf	300.00	9,000		
	SUBTOTAL					137,340	
TOTAL, DIVISION 5 - MASONRY							\$137,340
05 METALS							
Not used							
TOTAL, DIVISION 5 - METALS							
06 WOOD & PLASTICS							
061000	Rough Carpentry						
	Plywood @ metal panel and masonry work	346	sf	6.00	2,076		
	Allowance for miscellaneous rough carpentry and blocking replacement @ low rising walls, sills, parapets etc.	206,185	sf	1.00	206,185		
	SUBTOTAL					208,261	
TOTAL, DIVISION 6 - WOOD & PLASTICS							\$208,261



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
07 THERMAL & MOISTURE PROTECTION							
070002	Roofing and Flashing	206,185	TOTAL SF				
	Remove membrane roof assembly to deck including abatement						
	Lower Roofs (2026)	91,590	sf	6.00	549,540		
	Roof Area E.2, E.3, F, F2 and Area F4 (2027)	43,030	sf	6.00	258,180		
	Remove membrane roof assembly to deck excluding abatement (assume NR)						
	Roof Area D (2025)	23,970	sf	4.00	95,880		
	Roof Area A, A1 and Area A2 (2028)	47,595	sf	4.00	190,380		
	Temporary roofing - allowance						Assume N/A per note 8/G101
	<u>New work</u>						
	Roof type 1: PVC membrane, fully adhered 1/2" coverboard, R30 insulation (2 layers), self-adhered air/vapor barrier.	48,970	sf	24.00	1,175,280		
	Roof type 2: PVC membrane, R30 insulation (2 layers), self-adhered air/vapor barrier.	157,215	sf	20.00	3,144,300		
	Membrane flashing at ETR parapets and rising walls	2,264	sf	12.00	27,168		
	Typical roof edge - 8" fascia w/ gravel stop (blocking carried in 06100)	4,450	lf	30.00	133,500		
	Walkway pads	2,250	lf	18.00	40,500		
	New aluminum roof ladders	6	ea	3,000.00	18,000		
	Allowance for miscellaneous flashing replacement including at exhaust fans, RTUs, vent pipes, roof drains, fan/vent curbs etc.	206,185	sf	1.00	206,185		
	Dtl 8/A502	166	lf				
	Insulate existing metal stud w/ 2 layers new plywood	415	sf	15.00	6,225		
	Dtl 10/A502	115	lf				
	Sheetmetal sill and counterflashing at new translucent panels	115	sf	30.00	3,450		
	Dtl 22/A504	20	lf				
	Remove, cut and reinstall metal panel and insulation including new thru wall flashing, copper fabric flashing, continuous counterflashing and termination bar	20	lf	100.00	2,000		
	Dtl 23/A504	123	lf				
	Sloped standing seam sheet metal parapet cap with continuous hook strips, 14" x 6"	123	lf	75.00	9,225		
	Dtl 24/A505	120	lf				
	New insulated metal panel @ Fieldhouse	750	sf	90.00	67,500		
	SUBTOTAL						5,927,313
079000	Sealants & Caulking						
	Allowance for misc. sealants at roof, masonry and translucent wall panel work	206,185	sf	0.50	103,093		
	SUBTOTAL						103,093
TOTAL, DIVISION 7 - THERMAL AND MOISTURE PROTECTION							\$6,030,406
08 DOORS AND WINDOWS							
081000	Doors, Frames and Hardware						
	New door, frame and hardware at roof E.1	1	pr	4,000.00	4,000		
	SUBTOTAL						4,000
088000	Translucent Wall Panels						
	New translucent wall panels at demolished glass block	1,031	sf	150.00	154,650		
	SUBTOTAL						154,650
TOTAL, DIVISION 6 - WOOD & PLASTICS							\$158,650
09 INTERIOR FINISHES							
	No work in this section						
	SUBTOTAL						
TOTAL, DIVISION 6 - WOOD & PLASTICS							



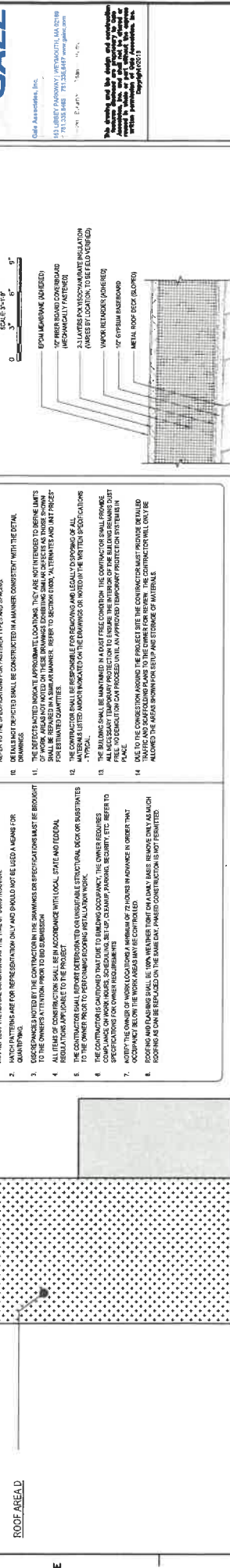
Masconomet Regional School District
Boxford, MA
District Center Office Building Roof Replacement

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
21 FIRE PROTECTION							
210000 FIRE PROTECTION, GENERALLY							
No work in this section							
SUBTOTAL							
TOTAL, DIVISION 21							
22 PLUMBING							
	Reset roof drains w/ new strainers and clamps (1/A501)	80	ea	500.00	40,000		
	Allowance to replace roof drains	10	ea	3,000.00	30,000		
	Extend ETR vent pipes (2/A501)	36	ea	500.00	18,000		
	SUBTOTAL					88,000	
TOTAL, DIVISION 22 \$88,000							
23 HVAC							
	RTU's	17	ea		ETR - no work		
	Exhaust fans and AC units	24	ea		ETR - no work		
	SUBTOTAL						
TOTAL, DIVISION 23							
26 ELECTRICAL							
	Allowance for miscellaneous electrical work if necessary - disconnect/ reconnect exhaust fan units, AC units etc.	1	ls	5,000.00	5,000		
	SUBTOTAL					5,000	
TOTAL, DIVISION 26 \$5,000							

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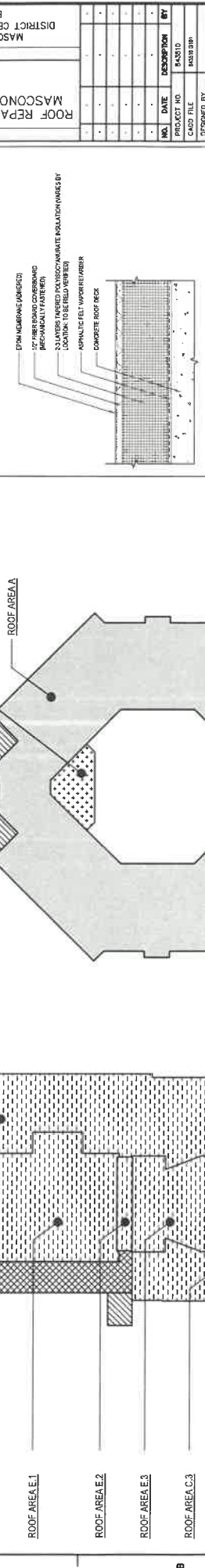
EXISTING ROOF CROSS SECTIONS



GENERAL NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED FROM VARIOUS SOURCES, AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHOULD NOT BE USED AS A MEANS FOR QUANTIFYING.
3. DISCREPANCIES NOTED BY THE CONTRACTOR IN THE DRAWINGS OR SPECIFICATIONS MUST BE BROUGHT TO THE OWNER'S ATTENTION PRIOR TO BEGINNING WORK.
4. THE CONTRACTOR SHALL VERIFY ALL INFORMATION AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING WORK.
5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING WORK.
6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING WORK.
7. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING WORK.
8. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING WORK.

EXISTING ROOF CROSS SECTIONS



LEGEND

- SLOPED METAL ROOF DECK AT THIS LOCATION
- METAL ROOF DECK AT THIS LOCATION
- CONCRETE ROOF DECK AT THIS LOCATION
- CEMENTITIOUS WOOD FIBER ROOF DECK AT THIS LOCATION
- ROOF AREA NOT IN CONTRACT (N/C)

OVERALL ROOF PLAN AND EXISTING ROOF CROSS SECTIONS

NO.	DATE	DESCRIPTION	BY
1	7/29/2024	ISSUED FOR PERMIT	MB
2	7/29/2024	ISSUED FOR PERMIT	MB
3	7/29/2024	ISSUED FOR PERMIT	MB
4	7/29/2024	ISSUED FOR PERMIT	MB
5	7/29/2024	ISSUED FOR PERMIT	MB
6	7/29/2024	ISSUED FOR PERMIT	MB
7	7/29/2024	ISSUED FOR PERMIT	MB
8	7/29/2024	ISSUED FOR PERMIT	MB
9	7/29/2024	ISSUED FOR PERMIT	MB
10	7/29/2024	ISSUED FOR PERMIT	MB

PROJECT: ROOF REPAIRS AND ASSOCIATED WORK AT THE MASCONOMET REGIONAL SCHOOL DISTRICT CENTER OFFICE BUILDING, 20 ENDCOTT ROAD BOXFORD, MA 01921

OWNER: MASCONOMET REGIONAL SCHOOL DISTRICT DISTRICT CENTER OFFICE BUILDING, 20 ENDCOTT ROAD BOXFORD, MASSACHUSETTS 01921

GALE
Gale Associates, Inc.
1000 Main Street, Suite 200
Boston, MA 02111
Tel: 617-552-1100
Fax: 617-552-1101
www.galeinc.com

DATE: 7/29/2024
DRAWING SCALE: 1/8" = 1'-0"
GRAPHIC SCALE: 0' 8' 16' 32'

SHEET TITLE: OVERALL ROOF PLAN AND EXISTING ROOF CROSS SECTIONS

DRAWING NO.: G101

NOTE: EXISTING ROOF DECK TO BE REPAIRED AREAS E.1, E.2, AND E.3 TO REMAIN.



GALE
 143 LIBERTY BARRACKS, WILMINGTON, MA 01890
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PROJECT
 MASCOMMET REGIONAL SCHOOL DISTRICT
 20 ENDICOTT ROAD
 BOXFORD, MA 01921
 OWNER
 MASCOMMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
1	04/20/2024	ISSUED FOR PERMIT	MM
2	07/29/2024	REVISIONS	MM
3	07/29/2024	REVISIONS	MM
4	07/29/2024	REVISIONS	MM
5	07/29/2024	REVISIONS	MM
6	07/29/2024	REVISIONS	MM
7	07/29/2024	REVISIONS	MM
8	07/29/2024	REVISIONS	MM
9	07/29/2024	REVISIONS	MM
10	07/29/2024	REVISIONS	MM

GRAPHIC SCALE
 0' 8' 16' 32'

SHEET TITLE
 PARTIAL ROOF AREA PLAN

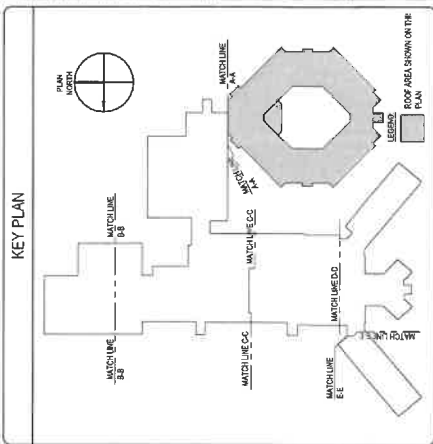
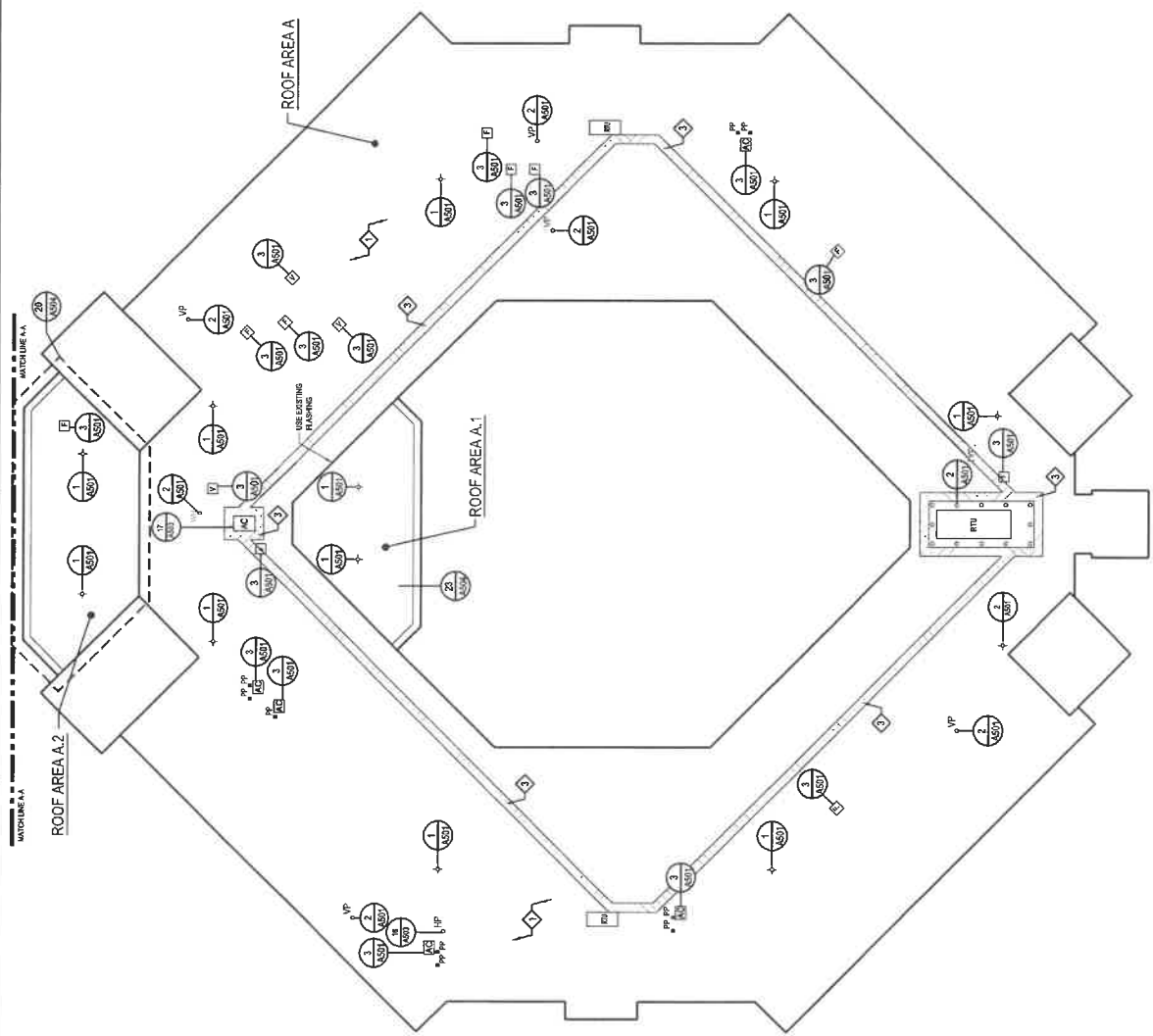
DRAWING NO.
 A101

- GENERAL NOTES**
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
 2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHOULD NOT BE USED AS A MEANS FOR QUANTIFYING.
 3. THE PLANS SHOWN ON THIS DRAWING ARE SCANNED REPRODUCTIONS OF THE ORIGINAL DESIGN DOCUMENTS THAT WERE PROVIDED BY THE OWNER. THE ACTUAL CONDITIONS MAY VARY FROM THESE SHOWN DUE TO THE REPRODUCTION. THE SCALE MAY BE SLIGHTLY AFFECTED.
 4. NOT ALL ROOF TOP EQUIPMENT IS SHOWN ON THIS PLAN. ROOF TOP EQUIPMENT AND PREPARATIONS SHOWN ON THIS PLAN INCLUDE ITEMS THAT WERE OBSERVED IN AND DIRECTLY ADJACENT TO ROOF DECK.

LEGEND

SYMBOL	DESCRIPTION
[Symbol]	ROOF EDGE
[Symbol]	PARAPET
[Symbol]	MATCHLINE
[Symbol]	VERT
[Symbol]	AIR CONDITIONER UNIT
[Symbol]	FAN
[Symbol]	HOT TAP
[Symbol]	VENT PIPE
[Symbol]	ROOF DRAIN
[Symbol]	WEATHERHEAD
[Symbol]	ROOF TOP MECHANICAL UNIT
[Symbol]	PITCH POCKET
[Symbol]	WALKWAY PADS

- ROOF NOTES**
1. REFER TO SPECIFICATIONS FOR THE ROOF DECK AND METAL DECK. REFER TO MECHANICALLY ATTACHED, ANCHORED NAILER, ANCHORED R-39 INSULATION AND ROOF TOP MECHANICAL UNIT FOR ROOF DECK PREPARATION.
 2. METAL DECKING IS 30" WALKWAY PADS MANUFACTURED BY BSA.





Gale Associates, Inc.
 100 WASHINGTON STREET, SUITE 100
 BOSTON, MASSACHUSETTS 02119
 (617) 552-1100
 www.galeassociates.com

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PROJECT
 MASCONOMET REGIONAL SCHOOL DISTRICT
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

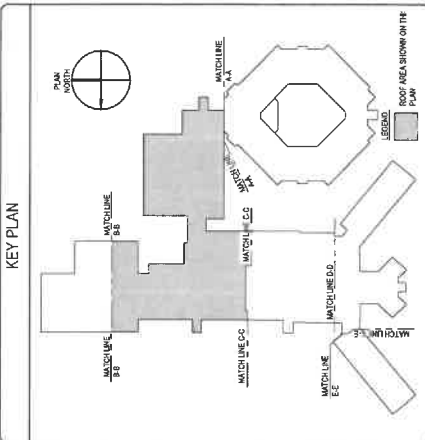
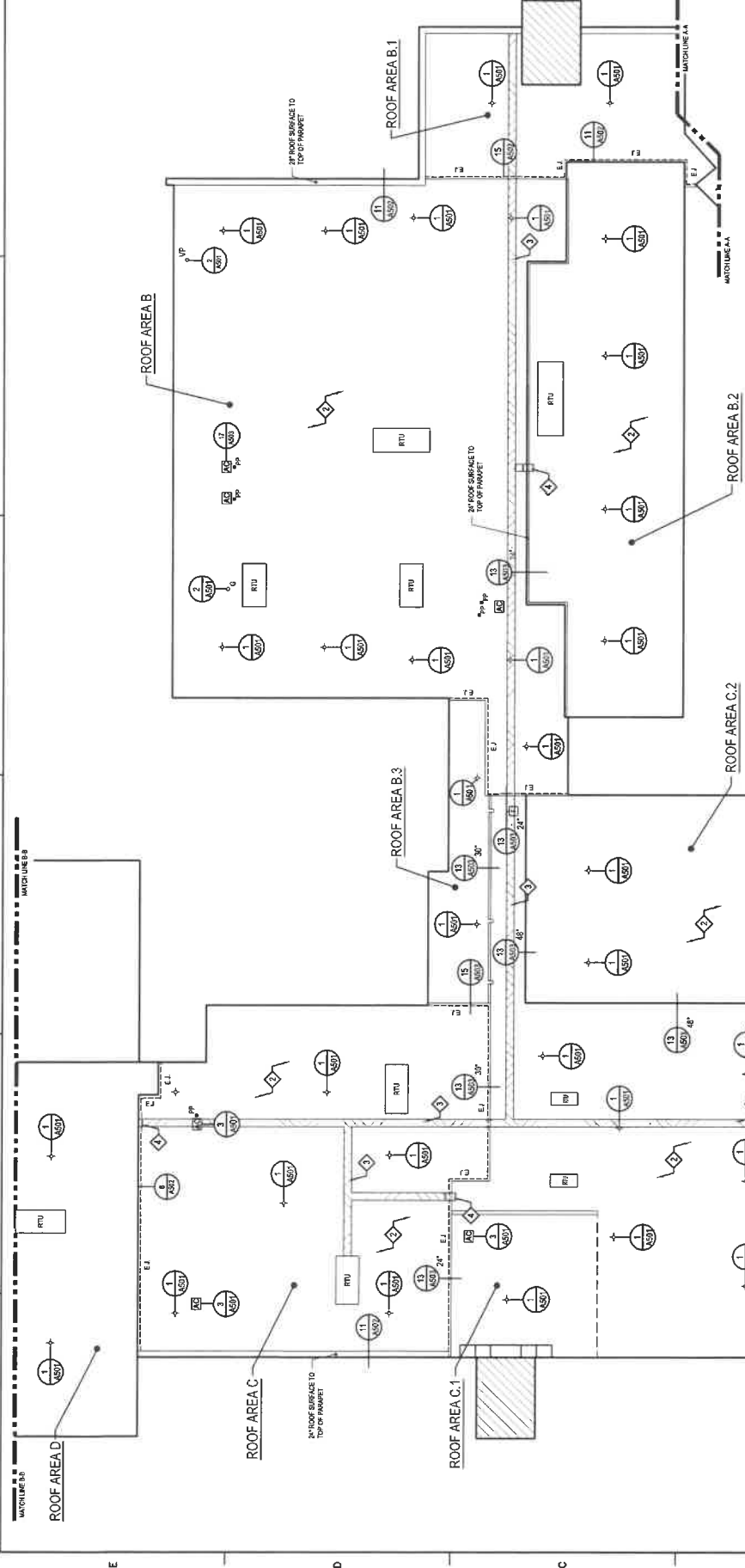
OWNER
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
1	7/29/2024	ISSUED FOR PERMITS	ML
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DRAWING SCALE: 1/4" = 1'-0"
 GRAPHIC SCALE: 0' 0" 10' 20'

SHEET TITLE
 PARTIAL ROOF AREA PLAN

DRAWING NO.
 A102



ROOF NOTES

- REMOVE EXISTING ROOF SYSTEM EXCEPT FOR THE EXISTING ROOF JOIST AND RIGID INSULATION. REMOVE EXISTING ROOF JOIST AND RIGID INSULATION. REMOVE EXISTING ROOF JOIST AND RIGID INSULATION. REMOVE EXISTING ROOF JOIST AND RIGID INSULATION.
- INSTALL CROSSBYP XTRA VALUWAT PADS AS MANUFACTURED BY SIKU.
- REMOVE ROOF LADDERS AND INSTALL NEW ALUMINUM ROOF LADDER.

GENERAL NOTES

- THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
- MAINTAIN EXISTING CONDITIONS UNLESS INDICATED OTHERWISE.
- THE DRAWINGS ON THIS DRAWING ARE SHOWN AS SHOWN UNLESS THE ORIGINAL DESIGN DOCUMENTS THAT WERE PROVIDED BY THE OWNER. THE ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN DUE TO THE REVISIONS AND/OR FIELD CONDITIONS THAT MAY BE ENCOUNTERED.
- MAINTAIN EXISTING CONDITIONS UNLESS INDICATED OTHERWISE. MAINTAIN EXISTING CONDITIONS UNLESS INDICATED OTHERWISE. MAINTAIN EXISTING CONDITIONS UNLESS INDICATED OTHERWISE.

LEGEND

—	ROOF EDGE
- - -	PANTRY
--- ---	EXPANSION JOINT
---	MATCHLINE
ABC	ABC CONTRACTOR LIMIT
○	MECHANICAL UNIT
○	FAN
○	VENT PIPE
○	ROOF DRAIN
○	CURB PIPE
○	PITCH POCKET
○	SCUPPER
○	ROOF LADDER
○	NEW ROOF EDGE LADDER
○	ROOF AREA NOT IN CONTRACT (N.I.C.)
○	VALUWAT PADS



One Associates, Inc.
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 WWW.ONEASSOCIATES.COM

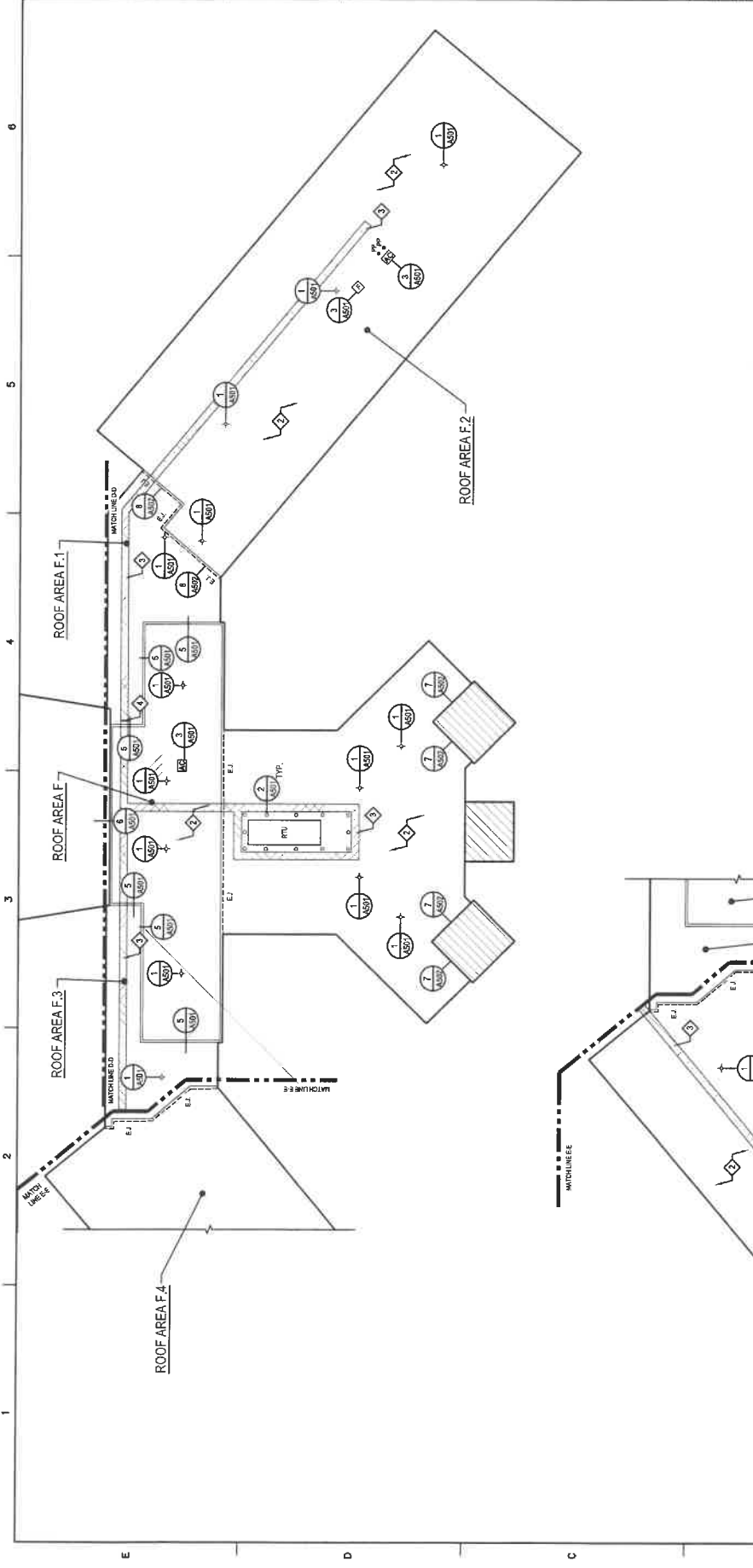
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PROJECT
 ROOF REPAIRS AND ASSOCIATED WORK AT THE
 MASCONOMET REGIONAL SCHOOL DISTRICT
 BOXFORD, MA 01921
 OWNER
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
1	04/20/2024	ISSUED FOR PERMIT	BR/BJM
2	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
3	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
4	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
5	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
6	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
7	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
8	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
9	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM
10	07/20/2024	ISSUED FOR CONSTRUCTION	BR/BJM

PARTIAL ROOF
 AREA PLAN

DRAWING NO.
 A103



KEY PLAN

ROOF NOTES

- REMOVE EXISTING ROOF SYSTEM DOWN TO THE STRUCTURE OF DECK AND REPAIR AS SHOWN ON THIS PLAN. ALL REPAIRS TO BE MADE IN ACCORDANCE WITH THE REPAIR NOTES.
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GENERAL NOTES

- THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED FROM THE RECORD DRAWINGS AND FIELD SURVEY. THE DRAWING ENGINEER HAS CONDUCTED VISUAL GENERAL VERIFICATION OF THE INFORMATION SHOWN ON THIS DRAWING. THE DRAWING ENGINEER HAS NOT CONDUCTED A DETAILED SURVEY OF THE PROJECT. THE DRAWING ENGINEER HAS NOT CONDUCTED A DETAILED SURVEY OF THE PROJECT. THE DRAWING ENGINEER HAS NOT CONDUCTED A DETAILED SURVEY OF THE PROJECT.
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LEGEND

- ROOF EDGE
- PERMIT
- EXPANSION JOINT
- MATCHLINE
- AIR CONDITIONER UNIT
- PAN
- PITCHPOCKET
- WALKWAY FANS
- ROOF AREA WITH CONTIGUOUS (R/C)

LEGEND

- ROOF EDGE
- PERMIT
- EXPANSION JOINT
- MATCHLINE
- AIR CONDITIONER UNIT
- PAN
- PITCHPOCKET
- WALKWAY FANS
- ROOF AREA WITH CONTIGUOUS (R/C)

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PROJECT
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
1	8/20/10	PROJECT NO.	8/20/10
2		CADD FILE	8/20/10
3		DESIGNED BY	BRK
4		DRAWN BY	BRK
5		CHECKED BY	BRK
6		DATE	7/29/2024
7		DRAWING SCALE	1/4" = 1'-0"
8		GRAPHIC SCALE	

SHEET TITLE
PARTIAL ROOF AREA PLAN

DRAWING NO.
A104

GENERAL NOTES

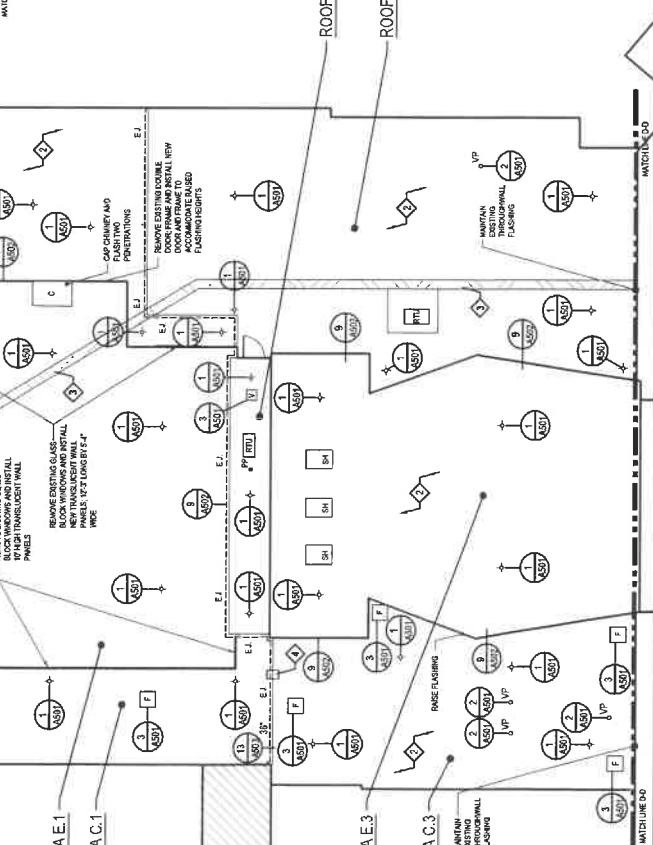
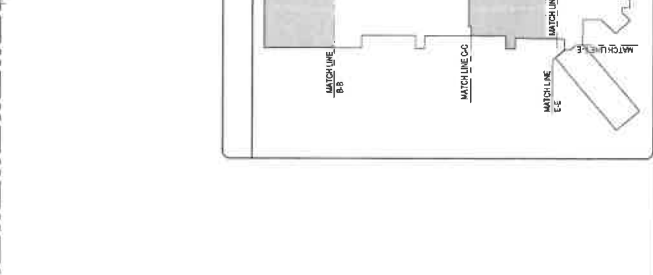
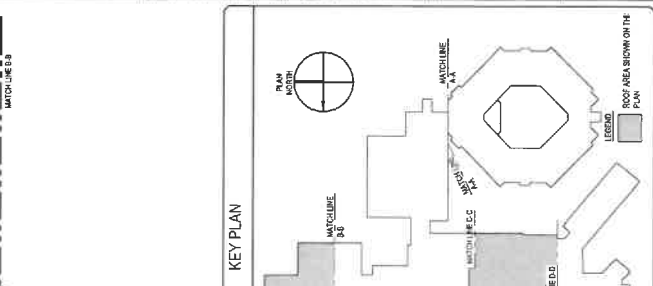
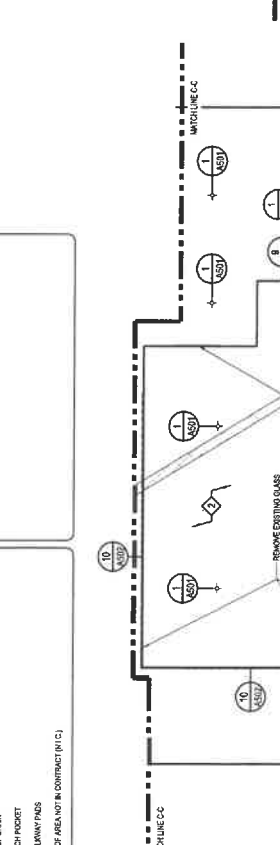
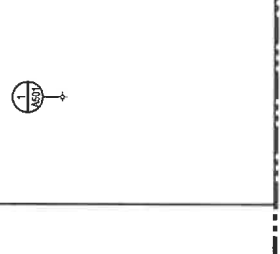
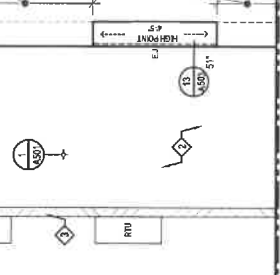
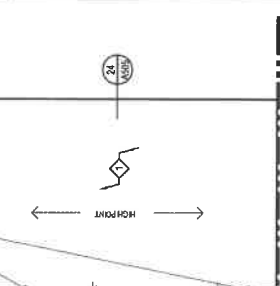
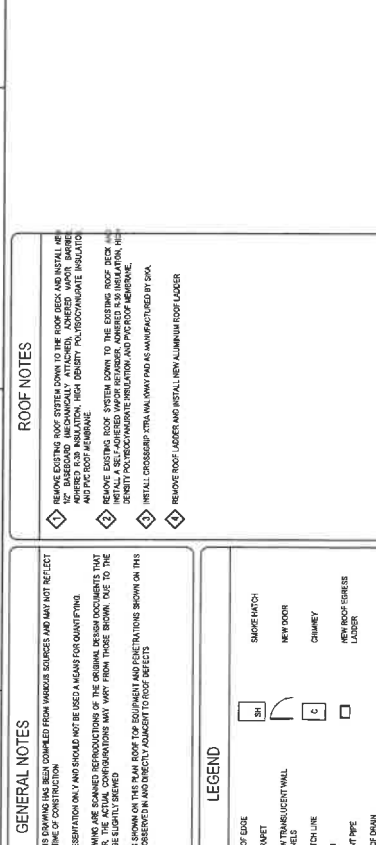
- THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
- MATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHOULD NOT BE USED AS A BASIS FOR QUANTIFYING.
- THE NAME SHOWN ON THE DRAWING HAS CHANGED SINCE THE DATE OF THE ORIGINAL DRAWING. ANY REVISIONS TO THIS DRAWING SHALL BE THE RESPONSIBILITY OF THE ORIGINAL DRAWING REPRODUCER. THE SCALE MAY BE SLIGHTLY DIFFERENT.
- NOT ALL EQUIPMENT IS SHOWN ON THE PLAN. ROOF EQUIPMENT AND PENETRATIONS SHOWN ON THIS PLAN INCLUDE ITEMS THAT WERE OBSERVED AND DIRECTLY ADJACENT TO ROOF DECK DETAILS.

ROOF NOTES

- REMOVE EXISTING ROOF SYSTEM DOWN TO THE ROOF DECK AND INSTALL NEW 1/2" BASEBOARD MECHANICALLY ATTACHED, ADHERED WATER BARRIER WITH 2" OVERLAP. INSTALL 2" POLYISOCYANURATE INSULATION AND PVC ROOF MEMBRANE.
- REMOVE EXISTING ROOF SYSTEM DOWN TO THE EXISTING ROOF DECK AND INSTALL A SELF-ADHERED WATER BARRIER, ADHERED 2.5" INSULATION, HIGH DENSITY POLYESTER FIBERGLASS INSULATION, AND PVC ROOF MEMBRANE.
- REMOVE ROOF LADDER AND INSTALL NEW ALUMINUM ROOF LADDER.

LEGEND

ROOF EDGE	ROOF EDGE
PARAPET	BASE MATCH
NEW TRANSLUCENT WALL PANELS	NEW DOOR
MATCHLINE	CHIMNEY
FAN	NEW ROOF FINISHES
VENT PIPE	LADDER
ROOF DRAIN	
PITCH POCKET	
WALKWAY PANS	
ROOF AREA NOT IN CONTRACT (N/C)	



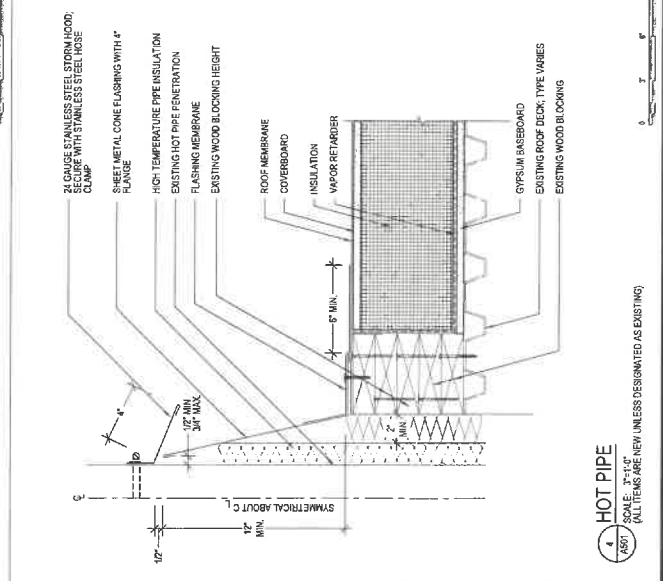
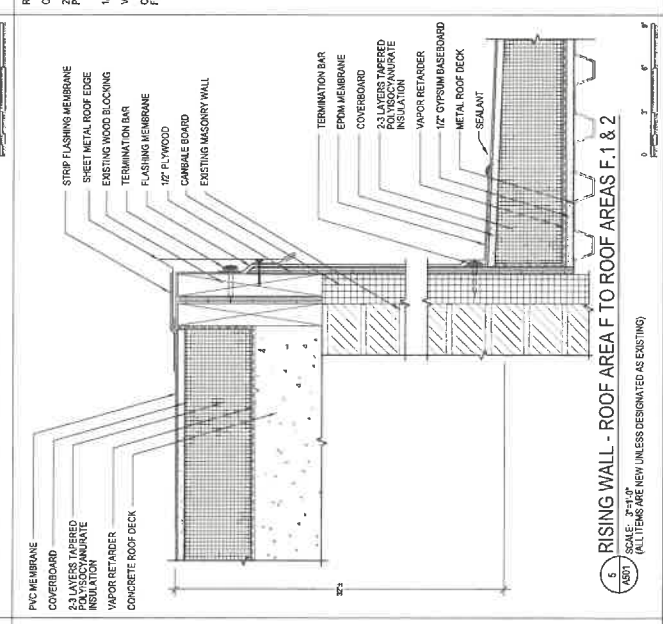
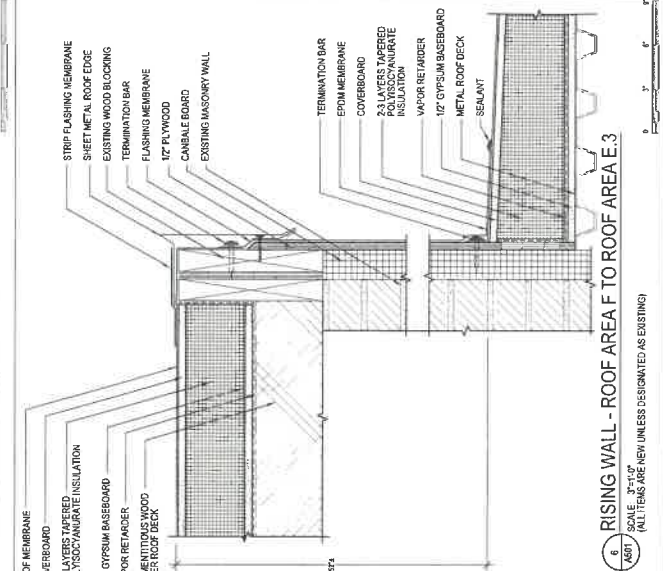
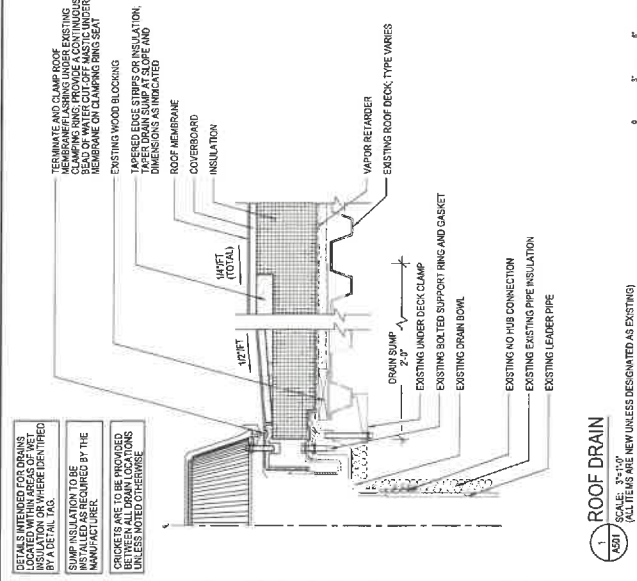
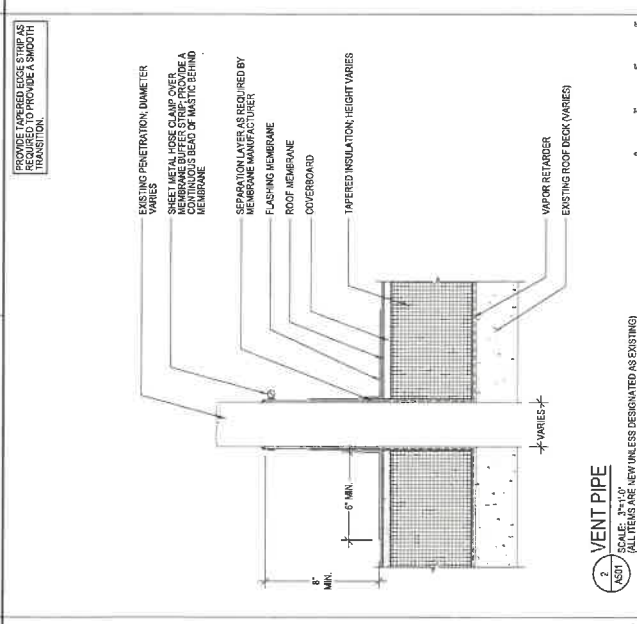
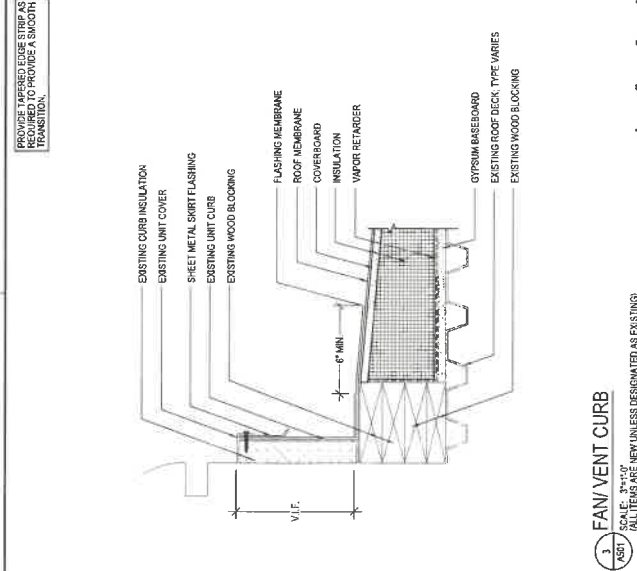
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PROJECT
 MASCOMMET REGIONAL SCHOOL DISTRICT
 CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

OWNER
 MASCOMMET REGIONAL SCHOOL DISTRICT
 20 ENDICOTT ROAD
 BOXFORD, MA 01921

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	BASIS		
DWG FILE	BASIS\A509		
DESIGNED BY			
DRAWN BY	HO		
CHECKED BY	HO		
DATE	7/20/2024		
DRAWING SCALE	3/4"=1'-0"		

SHEET TITLE	
DETAILS	
DRAWING NO.	
A501	



1 DETAILS INTENDED FOR DRAINS LOCATED WITHIN AREAS OF WET ROOF DECK. WHERE IDENTIFIED BY A DETAIL TAG.

2. ALL INSULATION TO BE INSTALLED AS REQUIRED BY THE MANUFACTURER.

3. CHECKS ARE TO BE PROVIDED BETWEEN ALL DRAIN LOCATIONS UNLESS NOTED OTHERWISE.

PROVIDE TAPERED EDGE STRIPS AS REQUIRED TO PROVIDE A SMOOTH TRANSITION.

PROVIDE TAPERED EDGE STRIPS AS REQUIRED TO PROVIDE A SMOOTH TRANSITION.

1 ROOF DRAIN
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

2 VENT PIPE
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

3 FAN/VENT CURB
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

4 HOT PIPE
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

5 RISING WALL - ROOF AREA F TO ROOF AREAS F.1 & 2
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

6 RISING WALL - ROOF AREA F TO ROOF AREA E.3
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

DETAILS

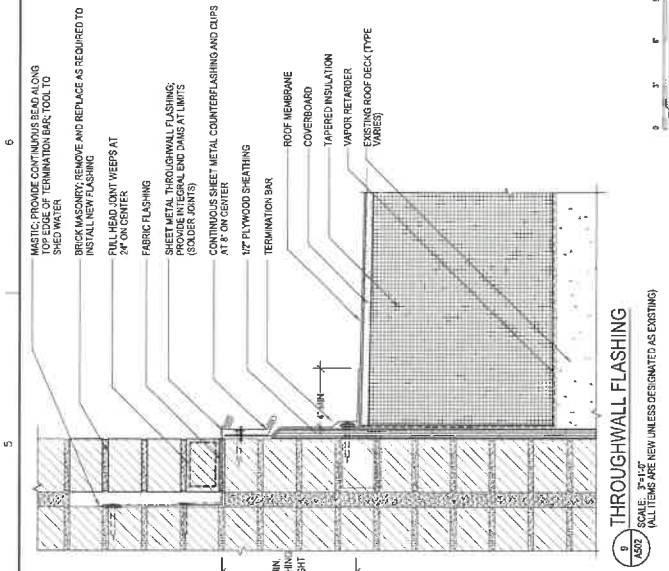
PROJECT
 ROOF REPAIRS AND ASSOCIATED WORK AT THE
 MASCONOMET REGIONAL SCHOOL DISTRICT
 20 ENDICOTT ROAD
 BOXFORD, MA 01921

OWNER
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

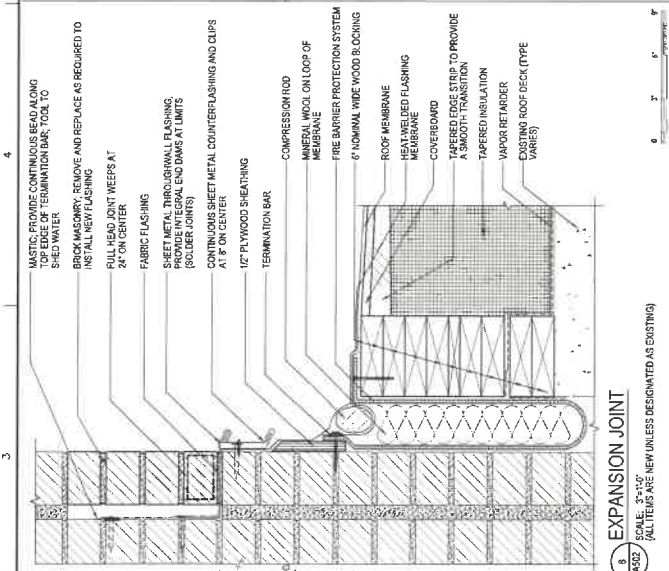
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PROJECT NO.		843310	
CAPI FILE		843310 A5008	
DESIGNED BY		HD	
DRAWN BY		BN	
CHECKED BY		BN	
DATE		7/29/2024	
DRAWING SCALE		3"=1'-0"	
GRAPHIC SCALE			
SHEET TITLE			

DETAILS

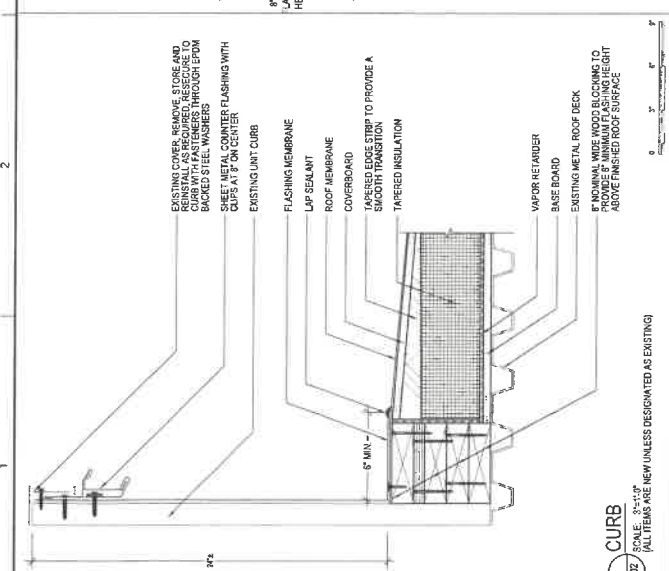
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A502



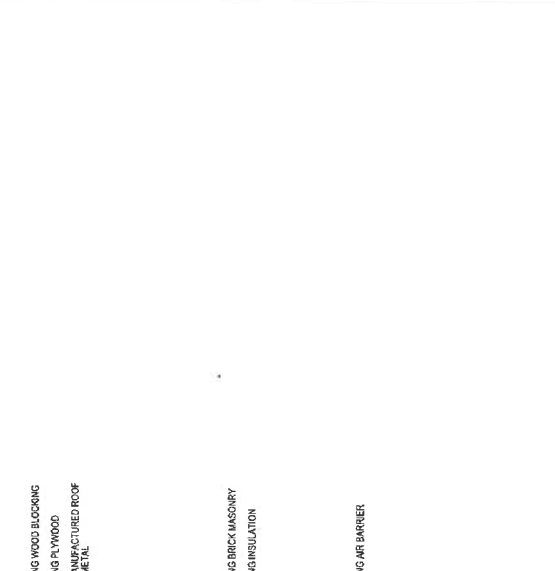
7 CURB
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



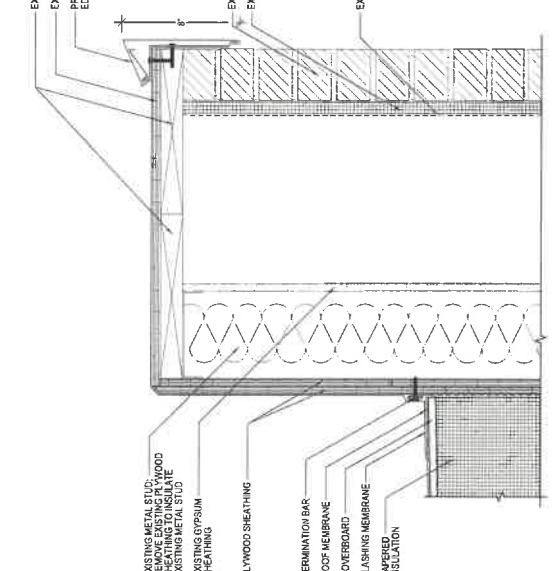
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 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



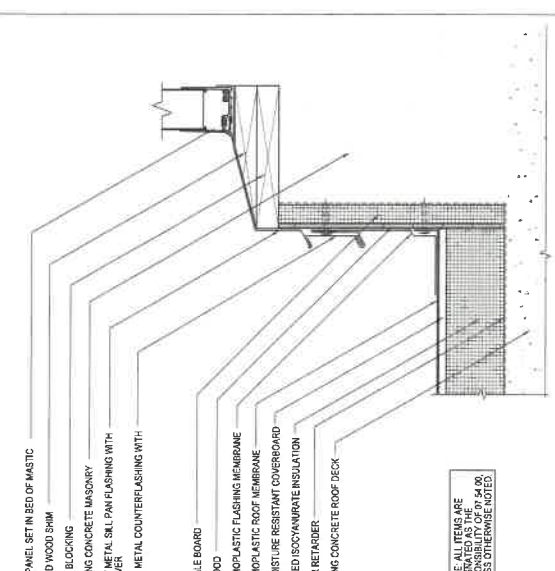
9 THROUGHWALL FLASHING
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



10 PARAPET
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



11 SILL AT CURTAIN WALL
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



12 THROUGHWALL FLASHING
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

NOTES: ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING. THE RESPONSIBILITY OF THE CONTRACTOR IS TO VERIFY THE ACCURACY OF THE INFORMATION AND TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AUTHORITIES.

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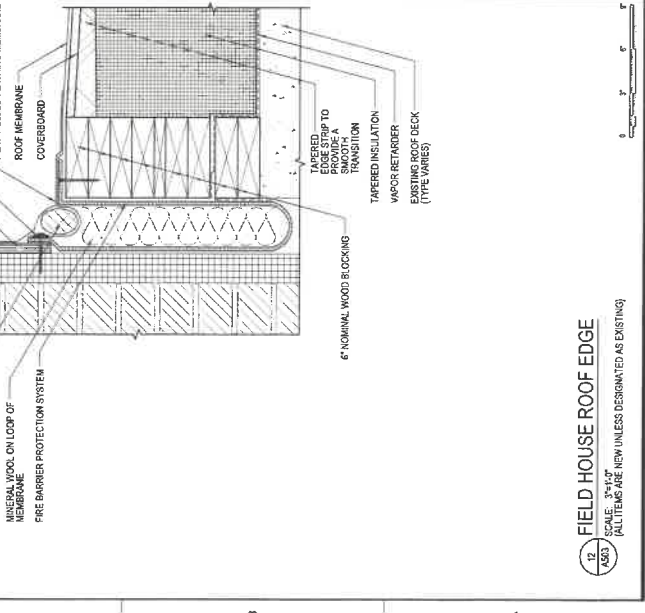
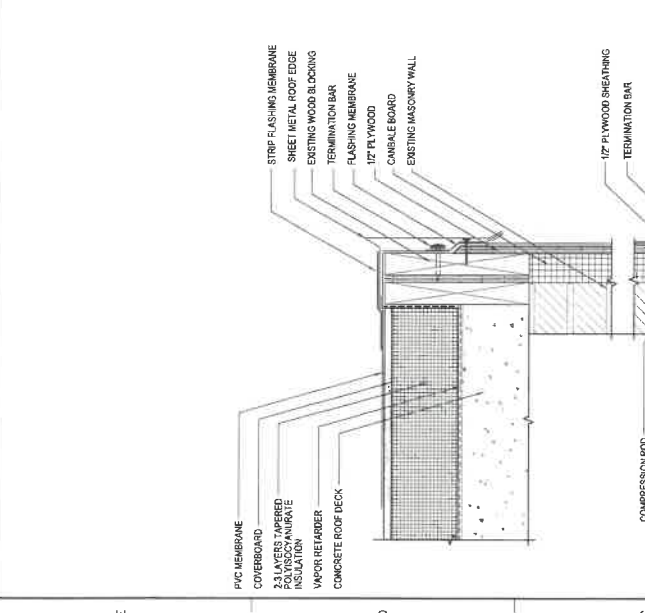
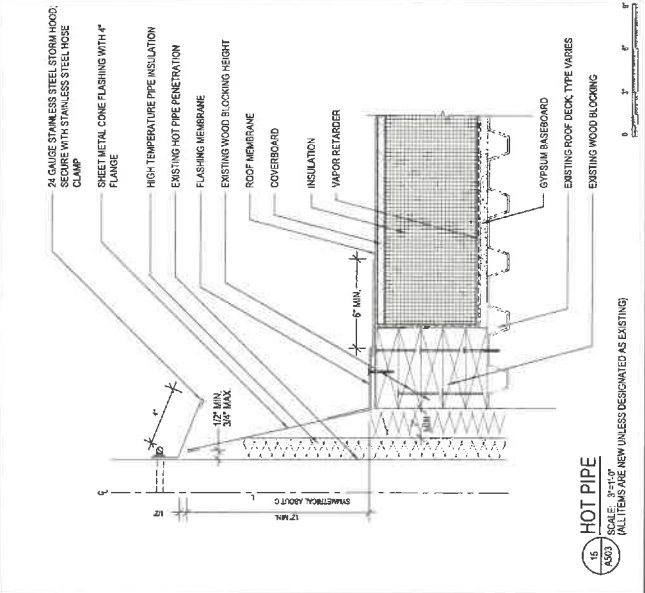
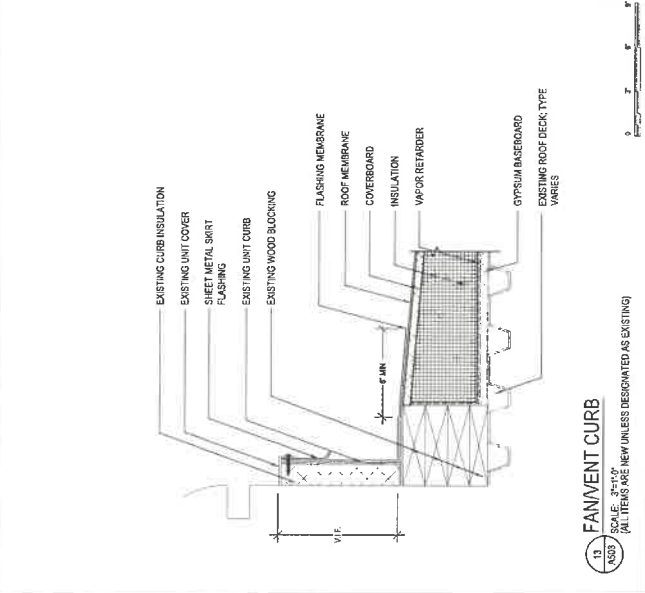
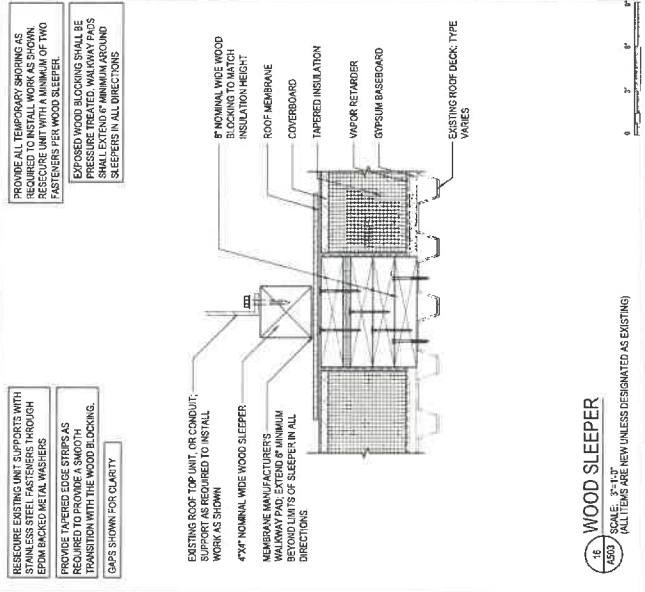
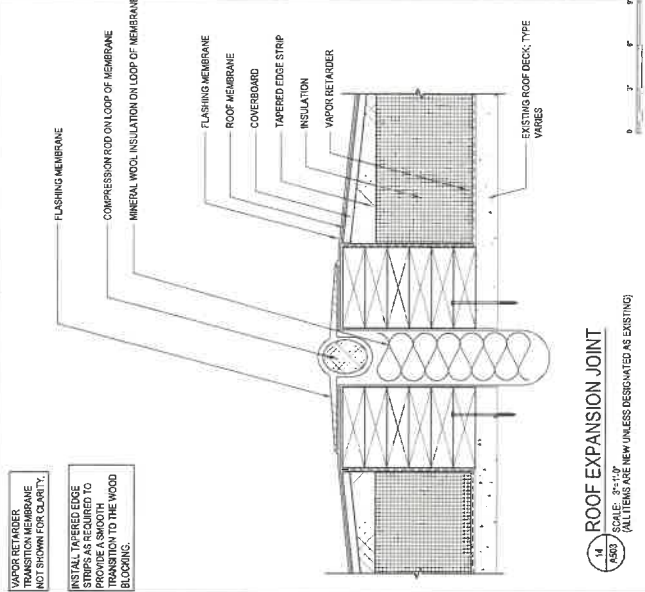
PROJECT
 ROOF REPAIRS AND ASSOCIATED WORK AT THE
 MASCONOMET REGIONAL SCHOOL DISTRICT
 BOXFORD, MA 01921

OWNER
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
CADD FILE		84310	
DESIGNED BY		84310	
DRAWN BY			
CHECKED BY			
DATE	7/29/2024		
DRAWING SCALE		AS NOTED	
GRAPHIC SCALE			

SHEET TITLE
DETAILS

DRAWING NO.
A503



USERS PLEASE: TRANSITION MEMBRANE NOT SHOWN FOR CLARITY.
 INSTALL TAPERED EDGE STRIPS AS REQUIRED TO PROVIDE A SMOOTH TRANSITION TO THE WOOD BLOCKING.

PROVIDE ALL TAPERED STRIPS AS REQUIRED TO INSTALL WORK AS SHOWN. REUSE UNIT WITH A MINIMUM OF TWO FASTENERS PER WOOD SLEEPER.
 EXPOSED WOOD BLOCKING SHALL BE PRESURE TREATED, WALKWAY PADS SHALL EXTEND 6\"/>

REUSE EXISTING UNIT SLEEPERS WITH STAINLESS STEEL FASTENERS THROUGH EPDM BACKED METAL FLASHERS.
 PROVIDE TAPERED EDGE STRIPS AS REQUIRED TO PROVIDE A SMOOTH TRANSITION WITH THE WOOD BLOCKING.
 GAPS SHOWN FOR CLARITY.

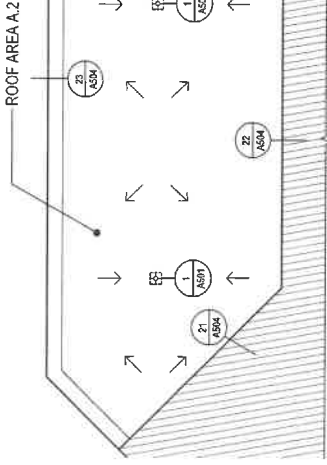
EXISTING ROOF TOOT UNIT OR CONDUIT. SUPPORT AS REQUIRED TO INSTALL WORK AS SHOWN.
 4\"/>

EXISTING CURB INSULATION
 EXISTING UNIT COVER
 SHEET METAL SHIRT FLASHING
 EXISTING UNIT CURB
 EXISTING WOOD BLOCKING
 FLASHING MEMBRANE
 ROOF MEMBRANE
 COVERBOARD
 INSULATION
 VAPOR RETARDER
 GYPSUM BASEBOARD
 EXISTING ROOF DECK TYPE VARIES

24 GAUGE STAINLESS STEEL STORM HOOD
 PIPE WITH STAINLESS STEEL HOSE CLAMP
 SHEET METAL CONE FLASHING WITH 4\"/>

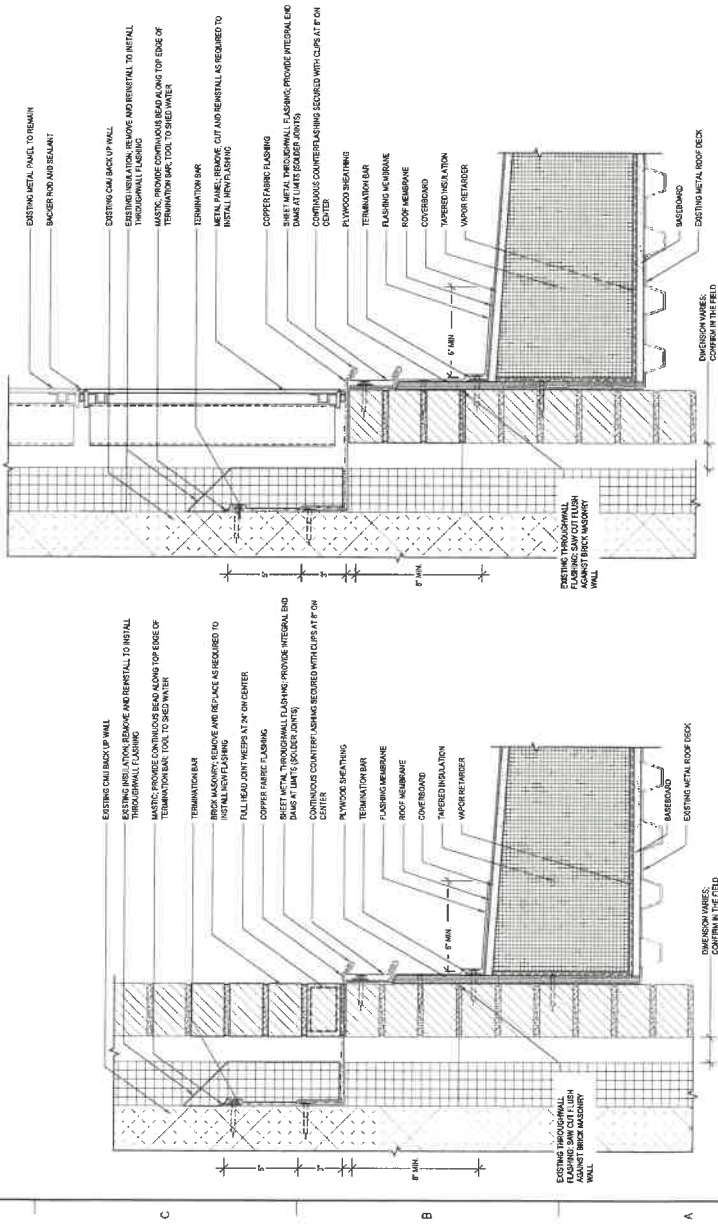
PVC MEMBRANE
 COVERBOARD
 2-3 LAYERS TAPERED INSULATION
 VAPOR RETARDER
 CONCRETE ROOF DECK
 STRIP FLASHING MEMBRANE
 SHEET METAL ROOF EDGE
 EXISTING WOOD BLOCKING
 TERMINATION BAR
 FLASHING MEMBRANE
 CANALE BOARD
 EXISTING MASONRY WALL
 1/2\"/>

1/2\"/>



20 ENLARGED PLAN
 SCALE: 1/8"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

21 PARTIAL VIEW OF ROOF AREA A.2
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



21 ROOF TO NEW THROUGHWALL FLASHING - MASONRY
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

22 ROOF TO NEW THROUGHWALL FLASHING - METAL PANELS
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

23 ROOF EDGE
 SCALE: 3/4"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

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 Gale Associates, Inc.
 150 LIBBY PARKWAY | WESTPORT, MA 02158
 TEL: (508) 845-7111 | WWW.GALE.COM

PROJECT
 ROOF REPAIRS AND ASSOCIATED WORK AT THE
 MASCONOMET REGIONAL SCHOOL DISTRICT
 BOXFORD, MA 01921

OWNER
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		845510	
CADD FILE		845510.A505	
DESIGNED BY			
DRAWN BY			
CHECKED BY			
DATE		7/29/2024	
DRAWING SCALE		AS NOTED	
GRAPHIC SCALE			

SHEET TITLE
 DETAILS

DRAWING NO.
 A504

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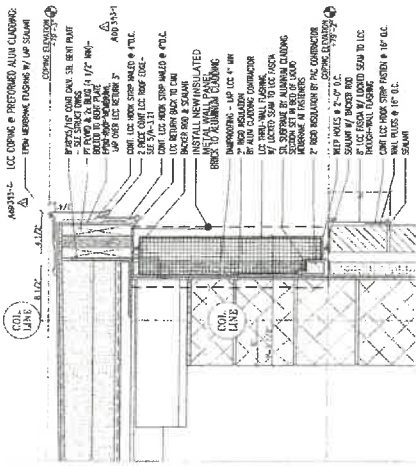
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PROJECT
 ROOF REPAIRS AND ASSOCIATED WORK AT THE
 MASCONOMET REGIONAL SCHOOL DISTRICT
 20 ENDICOTT ROAD
 BOXFORD, MA 01921
 OWNER
 MASCONOMET REGIONAL SCHOOL DISTRICT
 DISTRICT CENTER OFFICE BUILDING, 20 ENDICOTT ROAD
 BOXFORD, MASSACHUSETTS 01921

NO.	DATE	DESCRIPTION	BY
1		PROJECT NO. 845310	
2		CADD FILE 845310.A505	
3		DESIGNED BY	
4		DRAWN BY	MS
5		CHECKED BY	BMH
6		DATE	7/29/2024
7		DRAWING SCALE	AS NOTED
8		GRAPHIC SCALE	

SHEET TITLE
 DETAILS

DRAWING NO.
 A505



24 INSULATED METAL WALL PANEL
 SCALE: 1/16"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

1. 1/2" CORRUGATED ALUM. CLADDING
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