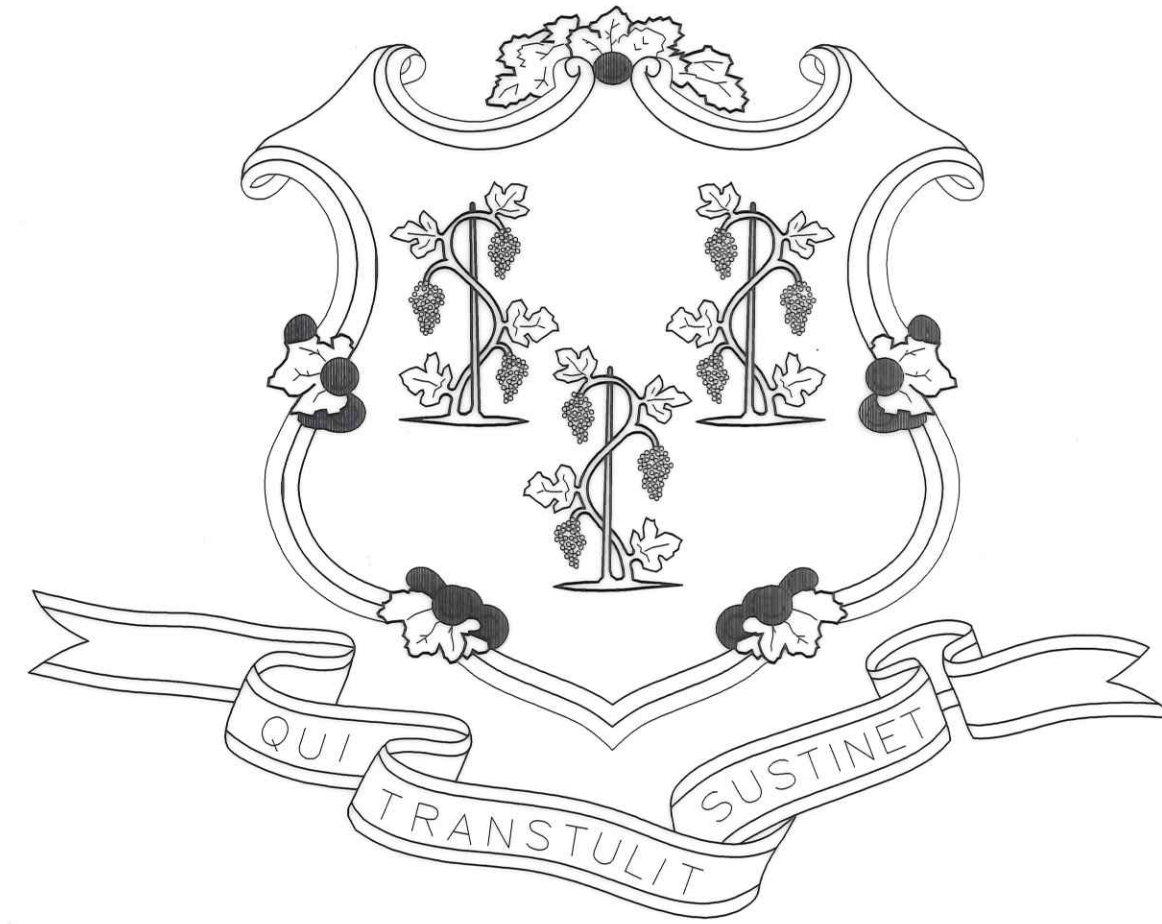


# STATE OF CONNECTICUT



**DANNEL P. MALLOY GOVERNOR**

DEPARTMENT OF ADMINISTRATIVE SERVICES  
**MELODY A. CURREY**  
 COMMISSIONER

DEPARTMENT OF MOTOR VEHICLES  
**MICHAEL BZDYRA**  
 COMMISSIONER

DEPARTMENT OF MOTOR VEHICLES  
**HAMDEN ROOF AND HVAC**  
 1985 STATE STREET  
 HAMDEN, CONNECTICUT  
 PROJECT NO. BI-MM-54

ARCHITECT  
**HOFFMANN ARCHITECTS, INC.**  
 2321 WHITNEY AVENUE  
 HAMDEN, CT 06518  
 203-239-6660



MECHANICAL/ELECTRICAL ENGINEER  
**KOHLER RONAN, LLC CONSULTING ENGINEERS**  
 93 LAKE AVENUE  
 DANBURY, CT 06810  
 203-778-1017



**CONTRACT DRAWINGS**

NO.	TITLE
	COVER SHEET

**ARCHITECTURAL**

G0.1	SYMBOLS LIST, ABBREVIATIONS, GENERAL NOTES, CODE AND BUILDING INFORMATION
G1.1	SITE LAYOUT PLAN
D1.1	ROOF DEMOLITION PLAN
D5.1	ROOF DEMOLITION DETAILS
A1.1	ROOF PLAN
A1.2	WIND UP-LIFT PLAN
A5.1	DETAILS
A5.2	DETAILS
A5.3	DETAILS
A5.4	DETAILS

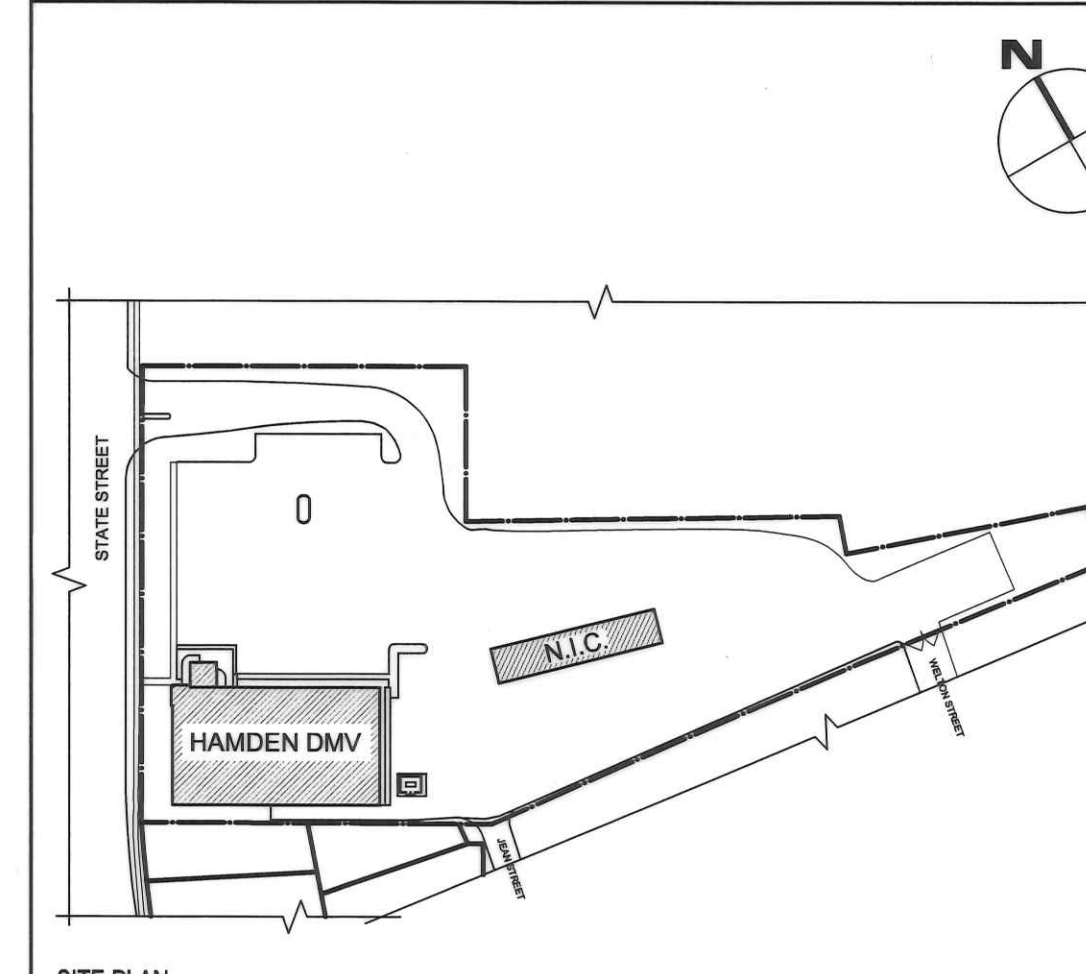
**MECHANICAL**

M-001	COVER SHEET - MECHANICAL
MD-103	DEMOLITION ROOF PLAN - MECHANICAL
M-101	FIRST FLOOR PLAN - MECHANICAL
M-102	SECOND FLOOR PLAN - MECHANICAL
M-103	ROOF PLAN - MECHANICAL
M-300	SCHEDULES - MECHANICAL
M-400	DETAILS - MECHANICAL

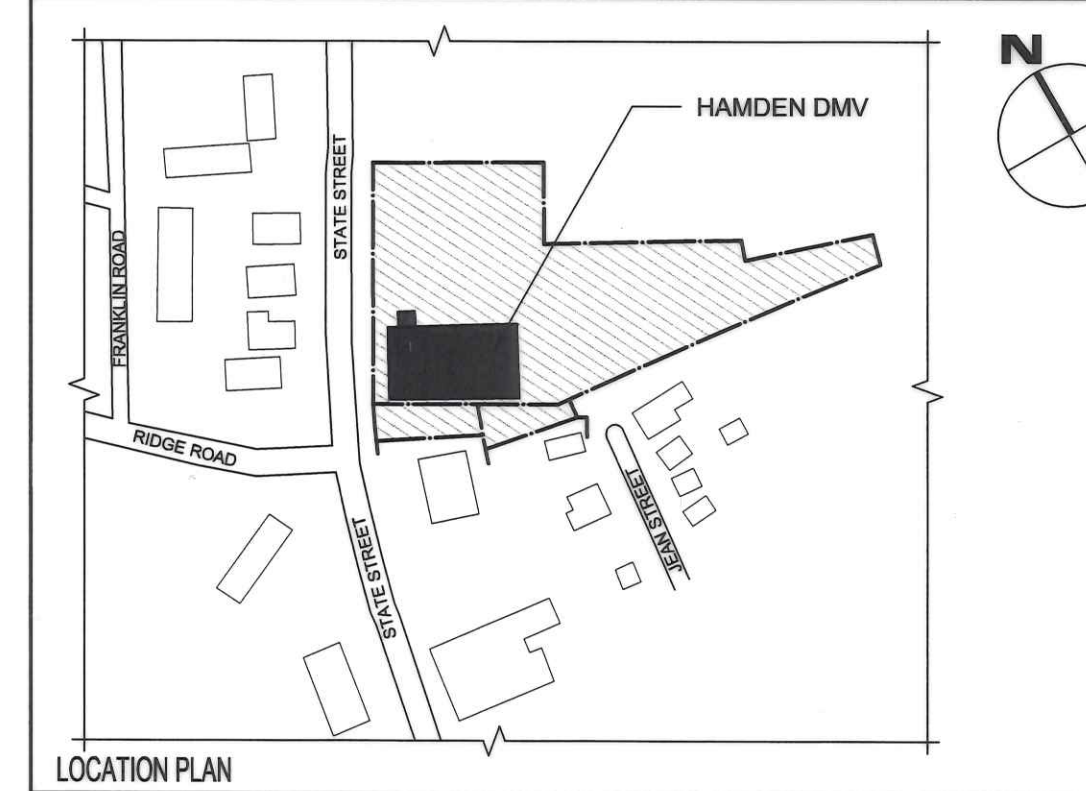
**ELECTRICAL**

E-001	COVER SHEET - ELECTRICAL
E-103	ROOF PLAN - ELECTRICAL

D.C.S. BUILDING NUMBER 17920



SITE PLAN

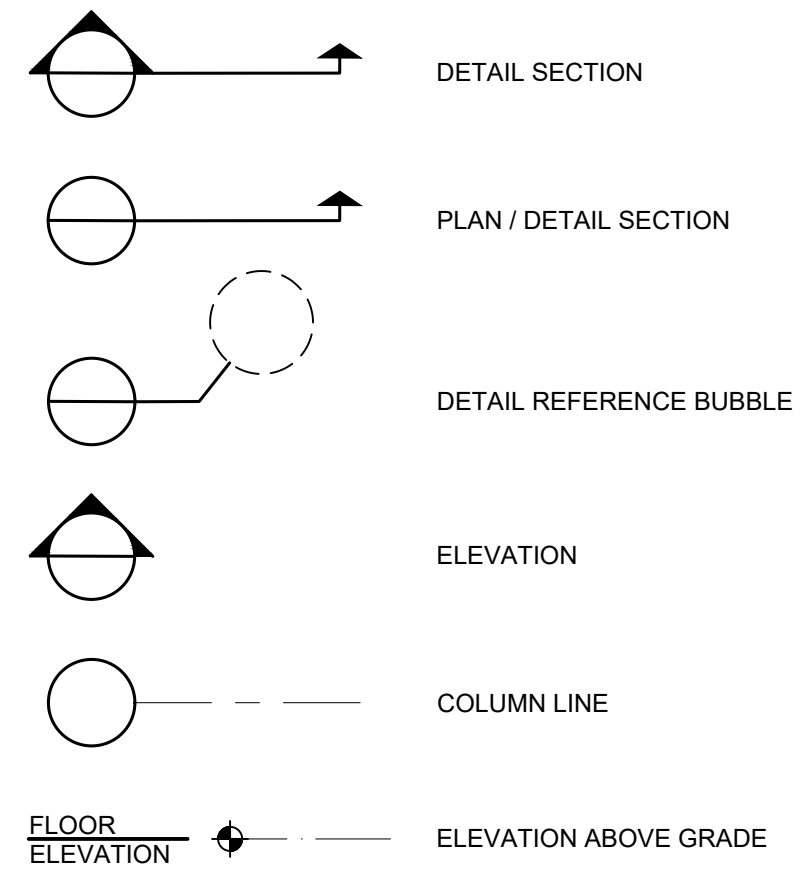


LOCATION PLAN

**APPROVALS**

<i>Melody A. Currey</i>	12/15/18
DEPT. OF ADMINISTRATIVE SERVICES	DATE
<i>Michael F. Bzdyra</i>	DMV 12/13/18
AGENCY	DATE

**SYMBOLS LEGEND**



**ABBREVIATIONS**

A.F.F.	ABOVE FINISHED FLOOR	IN	INCH
AHU	AIR HANDLING UNIT	INSUL.	INSULATION
APPROX.	APPROXIMATELY		
ARCH.	ARCHITECTURAL	MAT'L	MATERIAL
AT	EXISTING LIGHTENING AIR TERMINAL	MAX.	MAXIMUM
		MIN.	MINIMUM
		MISC.	MISCELLANEOUS
BLDG.	BUILDING	MECH.	MECHANICAL
BR	BRICK REPAIR		
		N	NORTH
C.J.	CONTROL JOINT	N.I.C.	NOT IN CONTRACT
CL	CENTER LINE	No.	NUMBER
CMU	CEMENT MASONRY UNIT	N.T.S.	NOT TO SCALE
CONT.	CONTINUOUS		
CR	CONCRETE REPAIR	O.C.	ON CENTER
		O.D.	OUTSIDE DIAMETER
DIA.	DIAMETER	OPP.	OPPOSITE
DL	DRAIN LEADER		
DN	DOWN	PL.	PLATE
DS	DOWN SPOUT	PP	PITCH POCKET
DWG.	DRAWING	PT.	PRESSURE TREATED
		R	RADIUS
EJ	EXISTING EXHAUST FAN	R.D.	ROOF DRAIN
E.J.	EXPANSION JOINT	REQ'D.	REQUIRED
EL.	ELEVATION	R.L.	RAIN LEADER
EQ.	EQUAL	RTU	ROOFTOP UNIT
EXIST.	EXISTING		
EXT.	EXTERIOR	S	SCUPPER
		SAN	SANITARY
F	FAN	SCH.	SCHEDULE
FL	FLOOR LEVEL	SIM.	SIMILAR
FT.	FOOT/FEET	SRD	SECONDARY ROOF DRAIN
		S.S.	STAINLESS STEEL
G	GAS		
GA.	GAUGE		
GALV.	GALVANIZED	TYP.	TYPICAL
		U.L.	UNDERWRITERS LABORATORY
HVAC	HEATING, VENTILATION, AIR CONDITIONING, COOLING	VERT.	VERTICAL
		VS	VENT STACK

**GENERAL NOTES**

- THE WORK OF THIS CONTRACT "HAMDEN ROOF AND HVAC - HAMDEN DEPARTMENT OF MOTOR VEHICLES BRANCH OFFICE FACILITY" IS DEFINED ON THE DRAWINGS LISTED ON THE COVER SHEET, GENERAL PROVISIONS OF THE CONTRACT, GENERAL AND SUPPLEMENTARY GENERAL CONDITIONS, AND THE SPECIFICATIONS, INCLUDING DIVISION ONE GENERAL REQUIREMENTS. THESE NOTES ARE INTENDED TO SUPPLEMENT THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DETAILS AND CONDITIONS OF THE SITE AND/OR BUILDING AND INFORM THE DAS PROJECT MANAGER IMMEDIATELY OF ANY DISCREPANCIES. DIMENSIONS SHOWN ON THE DRAWINGS ARE TO ESTABLISH RELATIVE RELATIONSHIPS. THEY MUST BE FIELD VERIFIED BEFORE ORDERING MATERIALS OR DOING ANY WORK. DRAWINGS ARE NOT TO BE SCALED.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN CONFORMANCE WITH ALL APPLICABLE REQUIREMENTS OF THE STATE OF CONNECTICUT CONSTRUCTION CODES, AS WELL AS ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, STANDARDS, AND REGULATIONS.
- COORDINATION OF ALL WORK UNDER THIS CONTRACT SHALL BE MAINTAINED TO ENSURE THE QUALITY AND TIMELY COMPLETION OF THE WORK.
- BUILDINGS AND GROUNDS WILL BE IN USE BY THE AGENCY DURING THE WORK. SAFEGUARD AGENCY PERSONNEL AND BUILDING OCCUPANTS.
- MAINTAIN ACCESS TO BUILDING ENTRANCE AND ALL EGRESS DOORS UTILIZED BY BUILDING OCCUPANTS AND AGENCY PERSONNEL THROUGHOUT CONSTRUCTION. COORDINATE WITH AGENCY TO PERFORM WORK THAT CANNOT BE ENCLOSED WITHIN FENCING. THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL ENTRANCES AND EXITS WHEN WORKING OVERHEAD.
- THE CONTRACTOR'S OPERATIONS SHALL BE CONFINED WITHIN WORK ZONES AND LAY-DOWN SPACES. WITHIN THE WORK ZONES, KEEP WORK AND STOCKPILE AREAS CLEAN AND FREE OF DEBRIS. MAINTAIN TRAFFIC LANES AND PEDESTRIAN WAYS CLEAR OF OBSTRUCTION AT ALL TIMES. WORK ZONES AND LAY-DOWN SPACES TO BE COORDINATED WITH THE CONTRACT ADMINISTRATOR AND FACILITY PERSONNEL.
- THE BUILDING SHALL BE KEPT WATERTIGHT DURING THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION AND OFF ALIGNMENT ACCORDING TO THE CODES AND STANDARDS OF GOOD PRACTICE.
- WITHIN THE LIMITS OF THE SITE THERE EXIST UTILITIES BELOW GROUND. THE CONTRACTOR SHALL COORDINATE WITH "CALL BEFORE YOU DIG", AND PRIVATE UTILITY LOCATOR TO MAKE HIS OWN SURVEY AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO BREAKING GROUND FOR ANY REASON. ALL UTILITIES SHALL BE MAINTAINED AND PROTECTED IN THEIR EXISTING LOCATIONS UNLESS NOTED ON THE CONTRACT DRAWINGS.
- ALL SITE PAVING, PLANTINGS, FENCING, FIXTURES AND OTHER SITE FEATURES SHALL BE PROTECTED DURING THE WORK UNDER THIS CONTRACT.
- ALL BUILDING MOUNTED EQUIPMENT, FIXTURES AND DEVICES SHALL BE PROTECTED DURING THE WORK UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL AT ALL TIMES PROVIDE NOISE, FUME, ODOR, AND DUST CONTROL MEASURES TO THE EXTENT POSSIBLE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRIERS TO SEAL OPENINGS TO PREVENT DUST AND DIRT MIGRATION INTO THE BUILDING. PROVIDE PRE-FILTERS TO FRESH AIR INTAKES WITHIN WORK ZONES.
- CONTRACTOR SHALL KEEP WORK SITE FREE FROM DEBRIS AND ACCUMULATED REFUSE. THE SITE SHALL BE LEFT CLEAR OF DEBRIS AT THE END OF EACH WORKING DAY.

**CODE INFORMATION**

2018 CONNECTICUT STATE BUILDING CODE (CSBC)

2015 INTERNATIONAL BUILDING CODE  
 2015 INTERNATIONAL EXISTING BUILDING CODE  
 2015 INTERNATIONAL PLUMBING CODE  
 2015 INTERNATIONAL MECHANICAL CODE  
 2015 INTERNATIONAL ENERGY CONSERVATION CODE  
 2017 NFPA 70, NATIONAL ELECTRICAL CODE, OF THE NATIONAL FIRE PROTECTION ASSOCIATION INC.  
 2009 ICC/ANSI A117-1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

2018 CONNECTICUT STATE FIRE SAFETY CODE (CSFSC)

2015 INTERNATIONAL FIRE CODE  
 2015 NFPA 101, LIFE SAFETY CODE

**STRUCTURAL DESIGN CRITERIA**

SITE DATA:

WIND SPEED: 110 MPH (BASED ON FM GLOBAL)  
 SURFACE ROUGHNESS: C  
 WIND BORNE DEBRIS RISK: NO  
 HAIL IMPACT: MODERATE  
 HURRICANE REGION: NO

ROOF STRUCTURE: (EXISTING TO REMAIN)

- W8x COLUMNS
- 24" DEEP OPEN WEB BAR JOISTS @ 5'-4" O.C.
- TYPE B STEEL DECK, 1 1/2" DEEP, ASSUMED 18 GA
- SPOT WELDED @ 12" O.C.
- SIDE LAPS NESTED

WIND DESIGN:

WIND SPEED  
 V<sub>ULT</sub> (ULTIMATE DESIGN) = 125  
 V<sub>ASD</sub> (NOMINAL DESIGN) = 97  
 RISK CATEGORY: II  
 WIND EXPOSURE: B  
 INTERNAL PRESSURE COEFFICIENT: ENCLOSED BUILDING +/- 0.18

WIND LOAD ANALYSIS:

ROOF COMPONENTS AND CLADDING PRESSURES:

FIELD: -28.11 PSF  
 PERIMETER: -47.16 PSF  
 CORNER: -70.98 PSF  
 POSITIVE: 11.43 PSF (ALL ZONES)

(REFER TO DRAWING A1.2, "WIND UP-LIFT" FOR FM GLOBAL WIND UP-LIFT PRESSURES FOR ROOFING COVER DESIGN)

SEISMIC CRITERIA:

RISK CATEGORY: II  
 IMPORTANCE FACTOR: 1.0  
 S<sub>B</sub> (MAPPED SPECTRAL ACCELERATIONS-SHORT PERIODS): 0.185  
 S<sub>1</sub> (MAPPED SPECTRAL ACCELERATIONS-1-SECOND PERIOD): 0.063  
 SITE CLASS: D (GEOLOGICAL INFORMATION UNKNOWN)  
 F<sub>a</sub> (SITE COEFFICIENT @ SHORT PERIODS): 1.6  
 F<sub>v</sub> (SITE COEFFICIENT @ 1-SECOND PERIOD): 2.4

$S_{DB} = \frac{2}{3}S_{B1} = \frac{2}{3}F_a S_B = \frac{2}{3}(1.6)(0.185) = 0.197$

$S_{D1} = \frac{2}{3}S_{M1} = \frac{2}{3}F_v S_1 = \frac{2}{3}(2.4)(0.063) = 0.101$

SEISMIC DESIGN CATEGORY: B

ROOF LOADS:

ROOF LIVE LOAD - 300 PSF CONCENTRATED  
 20 PSF UNIFORM

ROOF SNOW LOAD -

$P_1 = 0.7C_e C_{p1} P_g$  WHERE: P = FLAT-ROOF SNOW LOAD  
 C<sub>e</sub> (SNOW EXPOSURE FACTOR) = 0.9  
 C<sub>p</sub> (THERMAL FACTOR) = 1.0  
 I<sub>s</sub> (SNOW IMPORTANCE FACTOR) = 1.0  
 P<sub>g</sub> (SEISMIC IMPORTANCE FACTOR) = 1.0

P<sub>1</sub> = 20.79, THEREFORE, P<sub>1</sub> = 30 PSF

ROOF SNOW LOAD: P<sub>g</sub> (GROUND) - 30 PSF  
 P<sub>1</sub> (FLAT ROOF) - 30 PSF

**BUILDING INFORMATION**

<u>CT STATE BUILDING CODE</u>		
1.0 EXISTING BUILDING:		YES
1.1 CONTINUATION OF EXISTING USE		YES
1.2 CHANGE OF USE		NO
1.3 COMPLYING WITH INTERNATIONAL EXISTING BUILDING CODE		YES (LIMITED TO AREA EFFECTED BY WORK)
2.0 NEW BUILDING OR ADDITIONS:		NO
2.1 EXCEEDS THRESHOLD BUILDING LIMITS		NO
3.0 OCCUPANCY CLASSIFICATION:		B-BUSINESS (EXISTING)
3.1 MIXED OCCUPANCIES		NO
4.0 HEIGHT AND AREA COMPUTATION + CONSTRUCTION TYPE		
CASE 1 - SINGLE OCCUPANCY/NON-SEPARATED MIXED OCCUPANCY		
ACTUAL BUILDING AREA		12,150 SF
ADJUSTED BUILDING AREA		N/A
ACTUAL BUILDING HEIGHT		25 FEET, 2 STORIES
ALLOWABLE BUILDING HEIGHT		55 FEET, 4 STORIES
PERMITTED CONSTRUCTION TYPES		2B
TYPE OF CONSTRUCTION ASSUMED FOR REVIEW		2B
ALLOWABLE FLOOR AREA PER FLOOR		N/A
TOTAL FLOOR AREA (ALL STORIES)		12,150 SF
ALLOWABLE FLOOR AREA (ALL STORIES)		N/A
CASE 2 - MIXED OCCUPANCY SEPARATED USE		
ALLOWABLE AREA PER FLOOR		N/A
TOTAL FLOOR AREA (ALL FLOORS)		N/A
PERMITTED TYPE OF CONSTRUCTION:		N/A
TYPE OF CONSTRUCTION ASSUMED FOR REVIEW		N/A
MEZZANINES		
N/A AREA LIMITATIONS		N/A OPENNESS
N/A EGRESS		N/A EQUIPMENT PLATFORMS
UNLIMITED AREA BUILDINGS		
N/A UNSPRINKLERED, ONE STORY		N/A HIGH-HAZARD USE GROUPS
N/A SPRINKLERED, ONE STORY		N/A AIRCRAFT PAIN HANGER
N/A TWO STORY		N/A GROUP E BUILDINGS
N/A REDUCED OPEN SPACE		N/A MOTION PICTURE THEATERS
N/A GROUP A-3 BUILDINGS		
SPECIAL PROVISIONS		
N/A SPECIAL CONDITION APPLICABLE		
6.0 MEANS OF EGRESS:		
6.1 TOTAL OCCUPANCY LOAD (ENTIRE BUILDING)		EXISTING, NOT EFFECTED BY WORK
6.2 TOTAL OCCUPANCY LOAD (LARGEST FLOOR)		EXISTING, NOT EFFECTED BY WORK
6.3 TOTAL CAPACITY OF EXITS		EXISTING, NOT EFFECTED BY WORK
6.4 TOTAL NUMBER OF EXITS		EXISTING, NOT EFFECTED BY WORK
7.0 FIRE RESISTANT RATING OF STRUCTURAL ELEMENTS:		
7.1 EXTERIOR WALLS:		
7.1.1 LOAD BEARING		EXISTING, NOT EFFECTED BY WORK
7.1.2 NON-LOAD BEARING		EXISTING, NOT EFFECTED BY WORK
7.2 FIRE WALLS & PARTY WALLS		N/A
7.3 FIRE SEPARATION ASSEMBLIES:		
7.3.1 FIRE ENCLOSURE OF EXITS		1 HR EXISTING, NOT EFFECTED BY WORK
7.3.2 SHAFTS		1 HR EXISTING, NOT EFFECTED BY WORK
7.3.3 MIXED USE SEPARATION		N/A
7.3.4 OTHER SEPARATION ASSEMBLIES:		N/A
7.4 FIRE PARTITIONS		N/A
7.5 DWELLING UNIT SEPARATIONS		N/A
7.6 SMOKE BARRIERS		N/A
7.7 OTHER NON BEARING PARTITIONS		0 HR, EXISTING, NOT EFFECTED BY WORK
7.8 INTERIOR BEARING WALLS, BEARING PARTITIONS, COLUMNS, GIRDERS, TRUSSES AND FRAMING:		
7.8.1 SUPPORTING MORE THAN ONE FLOOR		N/A
7.8.2 SUPPORTING ONE FLOOR ONLY OR A ROOF		N/A
7.8.3 STRUCTURAL MEMBERS SUPPORTING WALL		N/A
7.9 FLOOR CONSTRUCTION INCLUDING BEAMS		0 HR EXISTING, NOT EFFECTED BY WORK
7.10 ROOF CONSTRUCTION		
7.10.1 15 FT OR LESS		N/A, NOT EFFECTED BY WORK
7.10.2 15 FT OR MORE		N/A
7.10.3 20 FT OR MORE		N/A
"HEIGHT TO LOWEST MEMBER		
8.0 FIRE PROTECTION SYSTEM:		
8.1 FIRE SUPPRESSION SYSTEM		NONE
8.2 ALARMS		EXISTING FULLY ADDRESSABLE SYSTEM (FIRST FLOOR ONLY)
8.3 AUTOMATIC FIRE DETECTION SYSTEMS		EXISTING FULLY ADDRESSABLE SYSTEM (FIRST FLOOR ONLY)
8.4 SMOKE CONTROL SYSTEM		N/A
8.5 SUPERVISION		N/A, EXISTING FULLY ADDRESSABLE SYSTEM
PART 2 - CONNECTICUT STATE FIRE SAFETY CODE		
1.0 CLASSIFICATION OF OCCUPANCY:		BUSINESS
2.0 CONSTRUCTION CLASSIFICATION:		BUSINESS
3.0 MINIMUM CONSTRUCTION TYPE REQUIRED:		2B
4.0 ACTUAL CONSTRUCTION TYPE PROVIDED:		2B
5.0 NOTIFICATION/ALARMS:		EXISTING FULLY ADDRESSABLE SYSTEM (FIRST FLOOR ONLY)
6.0 DETECTION:		EXISTING FULLY ADDRESSABLE SYSTEM (FIRST FLOOR ONLY)
7.0 EXTINGUISHMENT REQUIREMENTS:		NONE

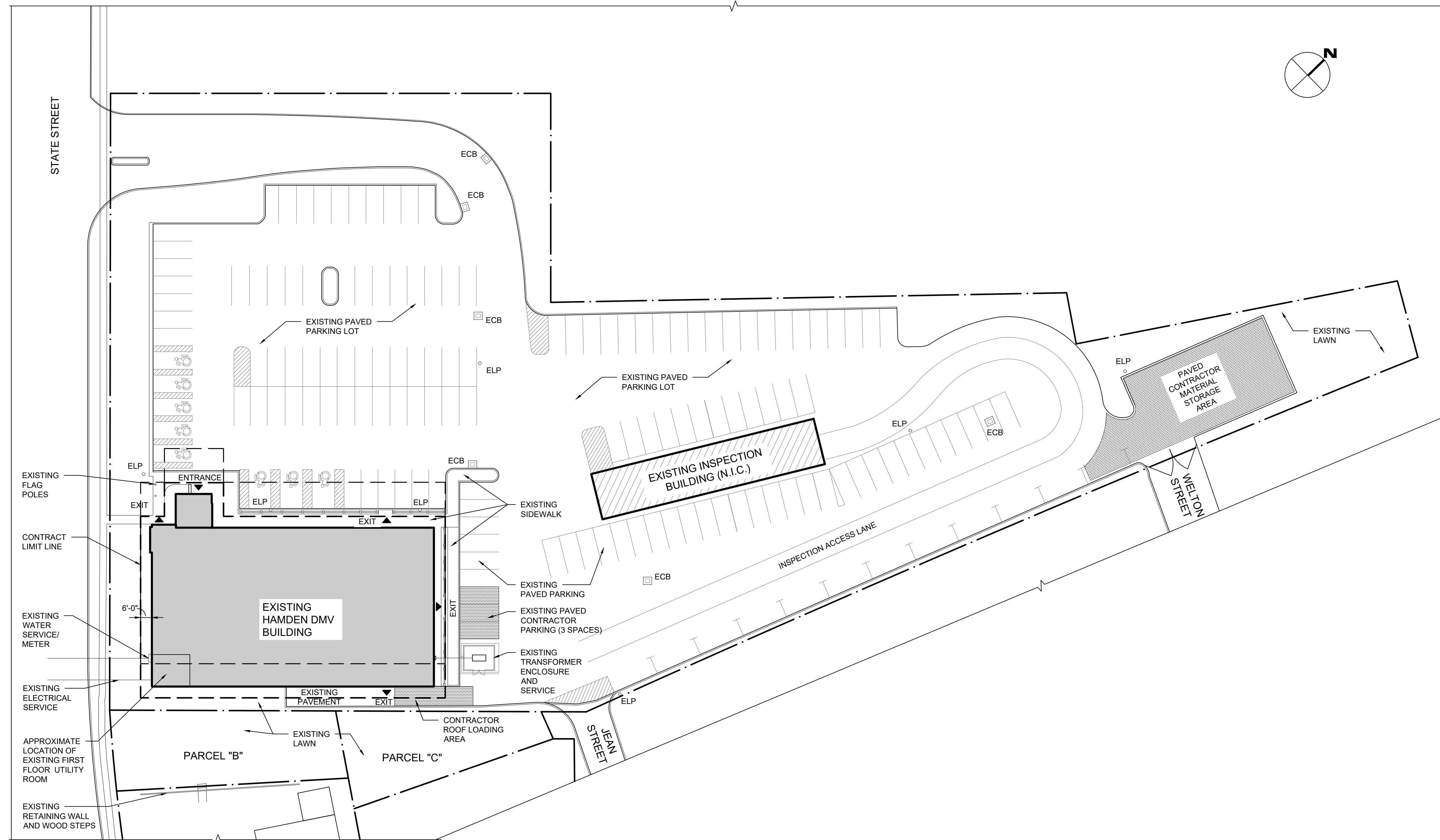
drawing title		STATE OF CONNECTICUT	
SYMBOLS LIST, ABBREVIATIONS, GENERAL NOTES, CODE AND BUILDING INFORMATION		DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS		drawing prepared by	
mark	date	description	
		HOFFMANN ARCHITECTS 2321 WHITNEY AVENUE HAMDEN, CT 06518	
		project	date
		DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT	12 NOV 2018
		CAD no.	scale
		218028 G0.1.dwg	AS NOTED
		project no.	drawn by
		BI-MM-54	DSOKRG
			approved by
			LEK
			drawing no.
			<b>G0.1</b>

**PROTECTION NOTES**

- DURING CONSTRUCTION, PROVIDE TEMPORARY Baffles TO SEAL CONSTRUCTION OPENINGS TO PREVENT DUST, DIRT AND ODORS FROM FILTERING INTO OCCUPIED AREAS ARE TO BE PROVIDED BY CONTRACTOR.
- CONTRACTOR SHALL RELOCATE/MODIFY AND PATCH ANY EXISTING ITEMS INTERFERING WITH THE INSTALLATION OF NEW WORK, WHETHER SHOWN OR NOT ON THESE DRAWINGS.
- SUBMIT FOR APPROVAL BY CT DCS/DMV, SEPARATE AND COORDINATED SITE SAFETY AND SITE PROTECTION PLANS SPECIFIC TO THIS PROJECT.
- PROTECT ALL EXISTING SURFACES TO REMAIN THAT MAY BE EFFECTED BY THIS WORK.
- SUBMIT FOR APPROVAL BY CT DCS/DMV AN EXISTING CONDITION PLAN, ILLUSTRATED WITH PHOTOGRAPHS AND INDICATING THE CONDITION OF THE WORK AREAS AND SURROUNDING PROPERTY PRIOR TO CONSTRUCTION.
- RESTORE ALL MATERIALS AND FINISHES TO REMAIN THAT WERE DISTURBED OR DAMAGED DURING THE COURSE OF CONSTRUCTION, TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF CT DCS/DMV.
- CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL PROTECTION NECESSARY TO PROTECT PEOPLE AND PROPERTY IN AND AROUND THE WORK AREA TO THE SATISFACTION OF OSHA AS WELL AS DDC/NYPD.
- CONTRACTOR SHALL PROTECT ALL PAVED AND LANDSCAPED AREAS WITH PLYWOOD OR BY OTHER MEANS ACCEPTABLE TO CT DCS/DMV IN ORDER TO DISTRIBUTE THE LOAD OF MECHANICAL EQUIPMENT OR STORED MATERIAL. ANY SURFACE, FINISH, MATERIAL OR FEATURE DAMAGED DURING THE COURSE OF WORK OF THIS PROJECT SHALL BE REPLACED TO MATCH EXISTING.
- CONTRACTOR TO PROVIDE APPROVED PORTABLE FIRE EXTINGUISHERS THROUGHOUT ALL WORK AND STORAGE AREAS IN QUANTITIES AS APPROVED BY CT DCS/DMV AND THE CT STATE FIRE MARSHAL.
- CONTRACTOR SHALL INSTALL TEMPORARY FENCING AROUND TREE PROTECTION ZONES TO PROTECT REMAINING TREES AND VEGETATION FROM CONSTRUCTION DAMAGE. MAINTAIN TEMPORARY FENCE AND REMOVE WHEN CONSTRUCTION IS COMPLETE. DO NOT EXCAVATE IN PROTECTION ZONES.

**GENERAL NOTES**

- THE FOLLOWING NOTES SHALL APPLY THROUGHOUT.
- THE CONTRACTOR SHALL, UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS, SECURE AND PAY FOR THE REQUIRED CONSTRUCTION PERMIT(S), FEES, LICENSES AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
  - COORDINATION OF ALL WORK UNDER THIS CONTRACT SHALL BE MAINTAINED TO ENSURE THE QUALITY AND TIMELY COMPLETION OF THE WORK/PROJECT.
  - THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK OR TO MAKE ITS PARTS FIT TOGETHER PROPERLY WITHOUT COMPROMISING THE QUALITY OF THE WORK.
  - PRIOR TO BEGINNING WORK AT SITE, WHERE POSSIBLE, AND THROUGHOUT THE COURSE OF THE WORK, INSPECT AND VERIFY THE LOCATION AND CONDITION OF EVERY ITEM AFFECTED BY THE WORK UNDER THIS CONTRACT AND REPORT DISCREPANCIES TO ARCHITECT BEFORE DOING WORK RELATED TO THAT BEING INSPECTED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTIONS, AND OFF ALIGNMENTS ACCORDING TO CODES AND STANDARDS OF GOOD PRACTICE.
  - PRIOR TO BEGINNING WORK AT SITE, INSPECT THE EXISTING BUILDING AND DETERMINE THE EXTENT OF EXISTING ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT.
  - ALL WORK IS TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF LOCAL GOVERNING CODES, CT STATE DEPARTMENT OF LABOR, INDUSTRIAL LABOR CODE, HEALTH CODE, FIRE DEPARTMENT REGULATIONS, UTILITY CODES, OSHA CODES AND CONNECTICUT STATE BUILDING CODE.
  - DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS AND CONDITIONS SHOWN AND ASSUMED ON THE DRAWINGS MUST BE VERIFIED AT THE SITE BY THE CONTRACTOR BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK. ANY DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS SHALL BE REPORTED TO THE ARCHITECT. NO CHANGE IN DRAWINGS OR SPECIFICATIONS IS PERMISSIBLE WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT.
  - ALL WORK ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK WHETHER STATED OR NOT EXCEPT WHERE SPECIFICALLY NOTED AS "EXISTING".
  - DETAILS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER AND ACCEPTABLE CONSTRUCTION, INSTALLATION OR OPERATION OF ANY PART OF THE WORK AS DETERMINED BY THE ARCHITECT, SHALL BE INCLUDED IN THE WORK THE SAME AS IF HEREIN SPECIFIED OR INDICATED, AT NO ADDITIONAL COST TO CT DCS/DMV.



**1 SITE LAYOUT PLAN**  
**G1.1**  
 SCALE: 1/32" = 1'-0"

**LEGEND**

- ECB □ EXISTING CATCH BASIN TO REMAIN
- ELP ○ EXISTING LIGHT POLE TO REMAIN
- EXIT ► EXISTING BUILDING ENTRANCE/EXIT MAINTAIN CLEAR ACCESS

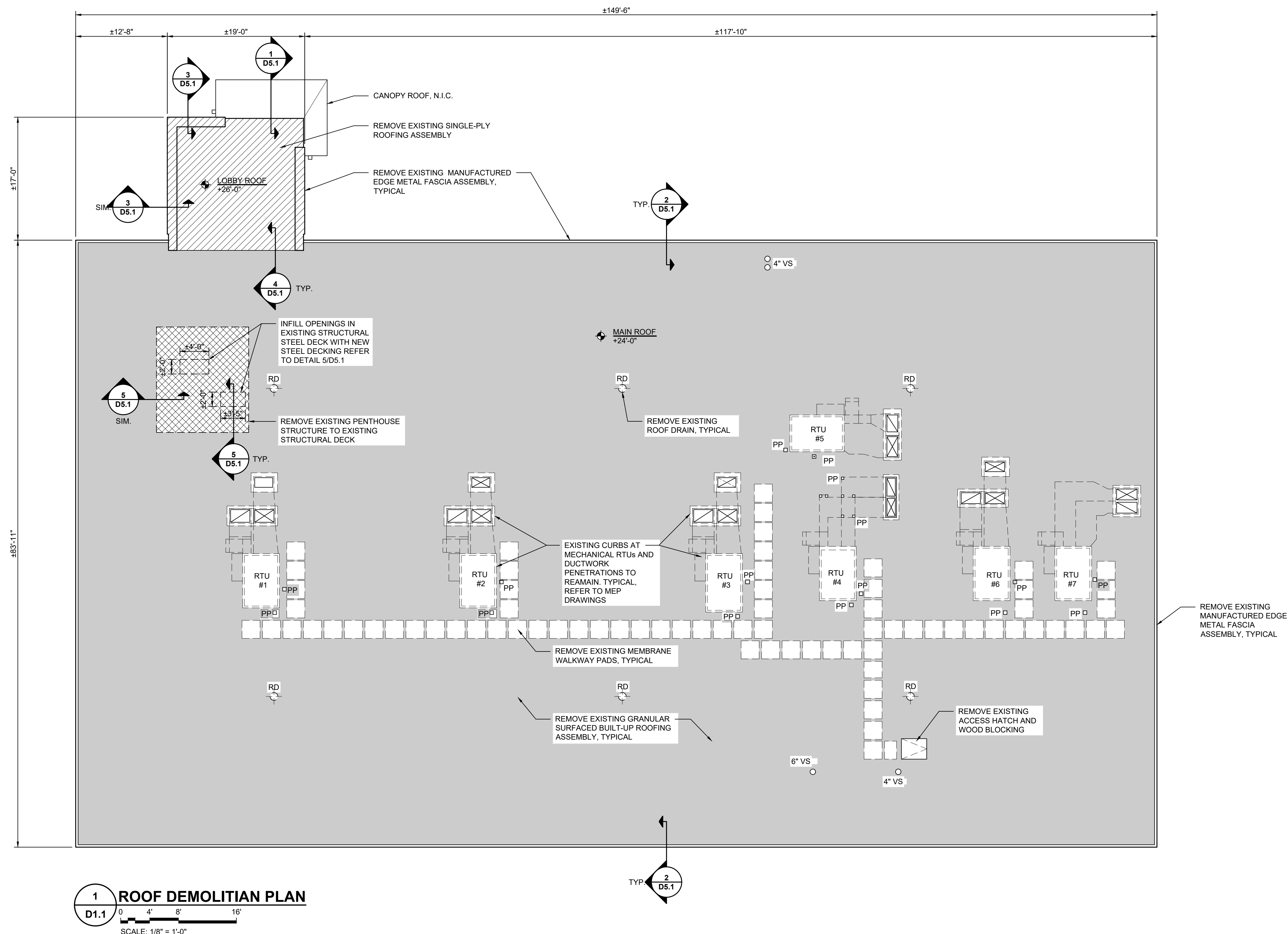
**LAYDOWN AREA / STAGING NOTES**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL LANDSCAPING, MATERIALS AND FINISHES TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF CT DCS AND DMV AT THE COMPLETION OF THE WORK.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PRESERVE ALL EXISTING UTILITIES AND EQUIPMENT, BOTH ABOVE AND BELOW GRADE.
- CONTRACTOR SHALL FULLY PROTECT ALL ENTRANCES, WALKWAYS, AND POTENTIAL ACCESS ROUTES TO MATCH EXISTING TO THE SATISFACTION OF OSHA AS WELL AS CT DCS/DMV, AND IN CONFORMANCE WITH THE CONTRACTORS SITE SAFETY PLAN.
- ALL MATERIAL SHALL BE ADEQUATELY SECURED AND STORED AT GRADE LEVEL. NO MATERIALS SHALL BE STORED ON THE ROOF OR INSIDE THE BUILDING.
- ALL CONTRACTOR ACCESS TO THE ROOF SHALL BE FROM THE EXTERIOR OF THE BUILDING. NO TRAFFIC IN OR THROUGH THE BUILDING WILL BE PERMITTED. CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN AN OSHA COMPLIANT EXTERIOR STAIR WITHIN THE ROOF ACCESS AREA FOR THE DURATION OF THE PROJECT. REMOVE AND RESTORE ALL ADJACENT SURFACES AT COMPLETION.
- NO VEHICLES WILL BE ALLOWED TO PARK IN STAGING AREA. OWNER WILL PROVIDE ASSIGNED LIMITED PARKING SPACES FOR CONTRACTOR USE ADJACENT TO THE WORK AREA WITH ADDITIONAL PARKING REMOTE FROM BUILDING.

**NOTE:**

SURVEY INFORMATION BASED ON INFORMATION PROVIDED BY STATE OF CT DEPARTMENT OF ADMINISTRATIVE SERVICES. FOR PROJECT BI-MM-023A. DRAWINGS PREPARED BY MEYERS ASSOCIATES PC., 60 LINDEN STREET, WATERBURY, CT AND BARAKOS-LANDINO DESIGN GROUP.

drawing title <b>SITE LAYOUT PLAN</b>		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS		drawing prepared by <b>HOFFMANN ARCHITECTS</b> 2321 WHITNEY AVENUE HAMDEN, CT 06518	date 12 NOV 2018
mark	date	description	scale AS NOTED
			drawn by DSOKRG
			approved by LEK
			drawing no. <b>G1.1</b>
CAD no. 218028 G1.1.dwg	project no. BI-MM-54		



**GENERAL DEMOLITION NOTES:**

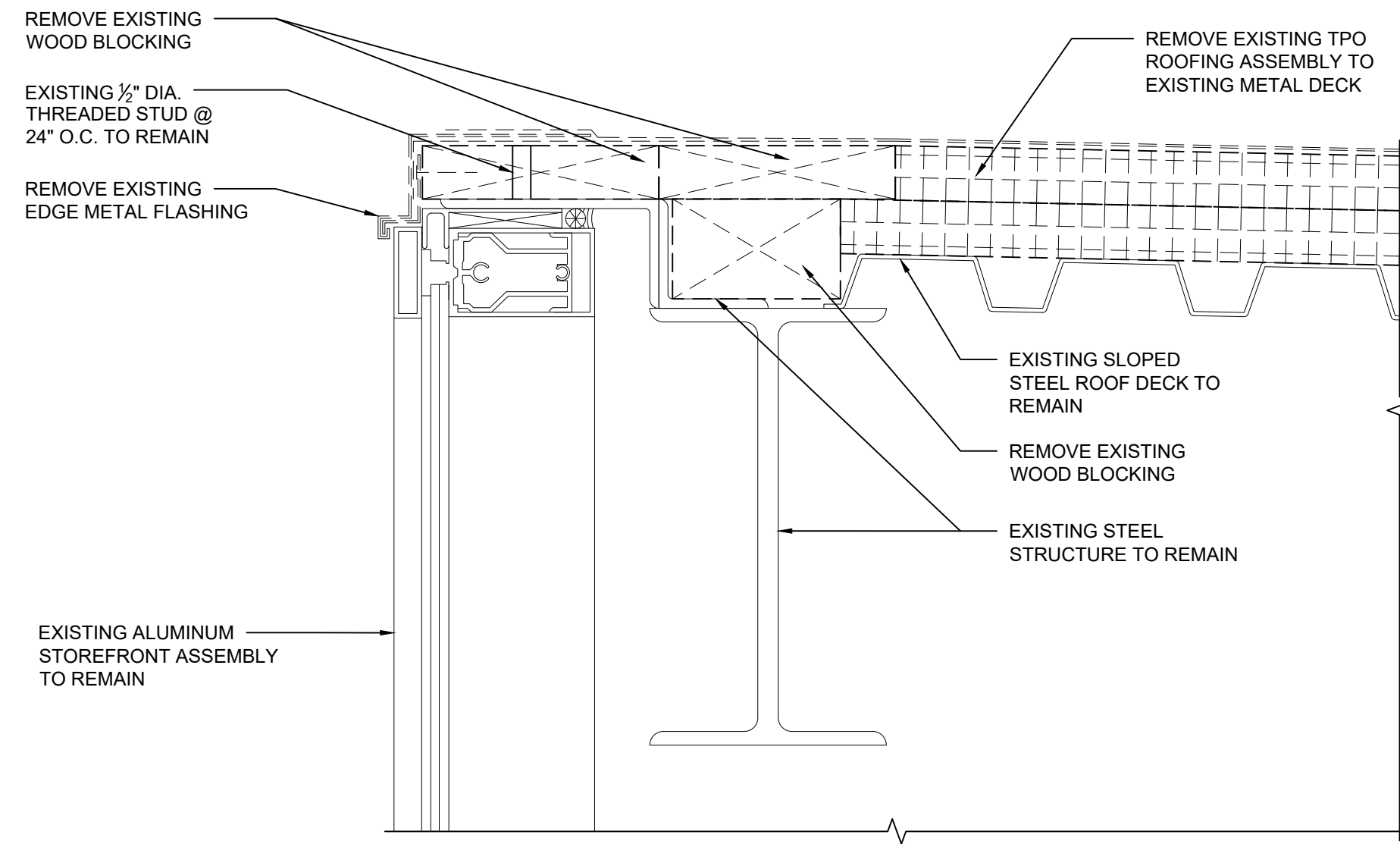
- DEMOLITION PROCEDURES SHALL BE COORDINATED WITH THE INSTALLATION OF NEW ROOFING AND MEP EQUIPMENT.
- DURING CONSTRUCTION, PROVIDE TEMPORARY Baffles TO SEAL CONSTRUCTION OPENINGS TO PREVENT DUST, DIRT AND ODORS FROM FILTERING INTO OCCUPIED AREAS ARE TO BE PROVIDED BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL MEANS NECESSARY TO PROTECT PEOPLE AND PROPERTY IN AND AROUND THE WORK AREA TO THE SATISFACTION OF THE OWNER. ALL EXISTING SURFACES TO REMAIN SHALL BE PROTECTED DURING WORK. RESTORE ALL MATERIALS AND FINISHES TO REMAIN THAT WERE DISTURBED, DAMAGED OR TEMPORARILY REMOVED DURING THE COURSE OF CONSTRUCTION, TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER.
- PRIOR TO BEGINNING WORK AT SITE, INSPECT AND VERIFY THE LOCATION AND CONDITION OF THE EXISTING BUILDING AND DETERMINE THE EXTENT OF EXISTING ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK OR TO MAKE ITS PARTS FIT TOGETHER PROPERLY WITHOUT COMPROMISING THE QUALITY OF THE WORK.
- EXISTING EQUIPMENT FIXTURES AND DEVICES TO REMAIN OPERATIONAL THROUGHOUT DURATION OF PROJECT. TEMPORARILY SUPPORT EXISTING EQUIPMENT, FIXTURES AND DEVICES TO ALLOW INSTALLATION OF NEW ROOFING ASSEMBLIES AND DETAILS. REFER TO MEP DRAWINGS FOR SCOPE OF WORK RELATED TO ROOF TOP MECHANICAL EQUIPMENT.

**KEY:**

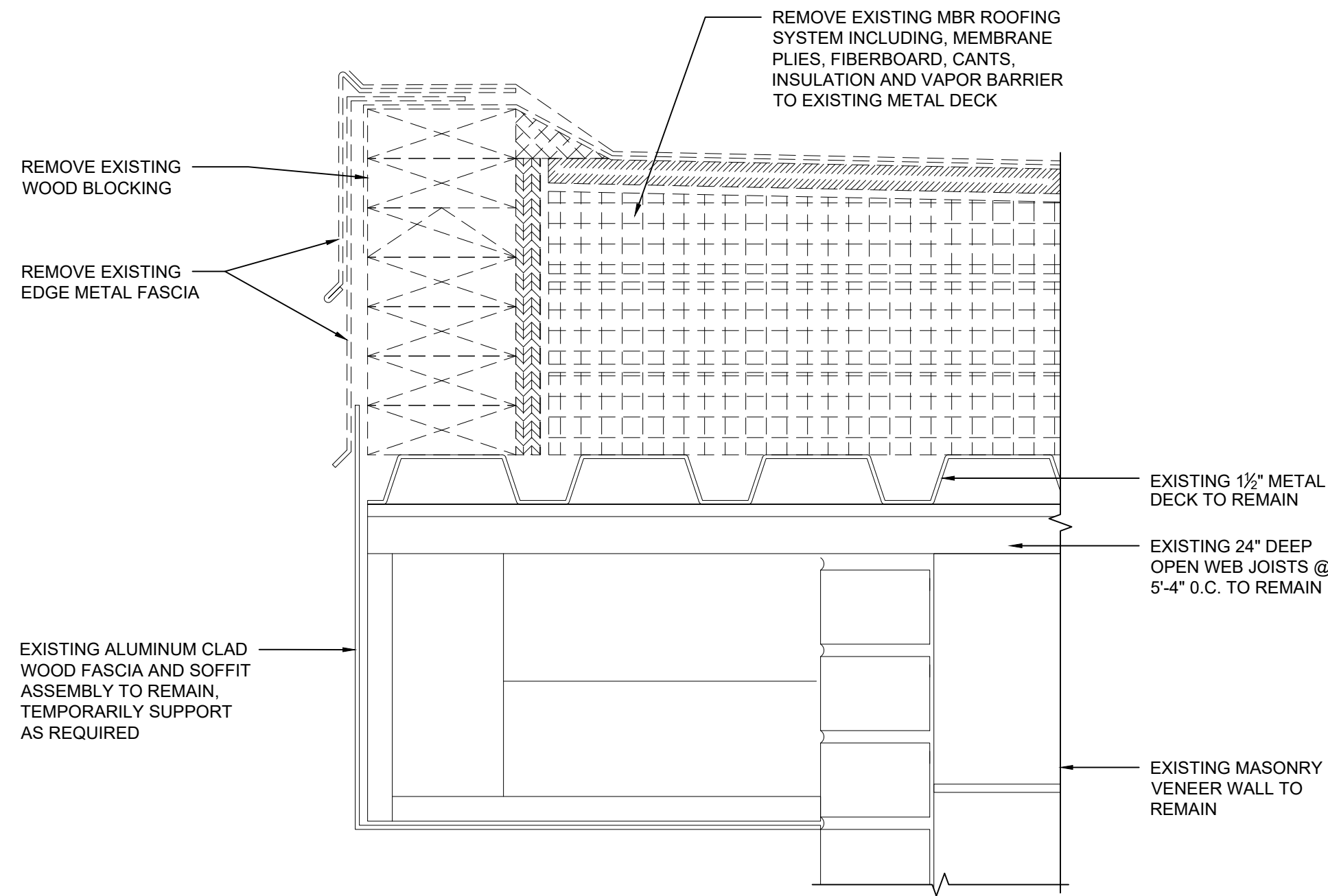
	REMOVE EXISTING GRAVEL SURFACED BUILT-UP ROOFING ASSEMBLY DOWN TO STRUCTURAL STEEL DECK
	REMOVE EXISTING SINGLE-PLY ROOFING ASSEMBLY DOWN TO STRUCTURAL STEEL DECK
	REMOVE EXISTING ROOF PENTHOUSE. PATCH EXISTING STRUCTURAL STEEL DECK
	REMOVE EXISTING ROOF TOP MECHANICAL UNIT AND ASSOCIATED DUCTWORK. REFER TO MECHANICAL DRAWINGS
	ROOF DRAIN - REMOVE
	VENT STACK - EXISTING TO REMAIN
	PITCH POCKET - REMOVE

**1 ROOF DEMOLITION PLAN**  
D1.1  
SCALE: 1/8" = 1'-0"

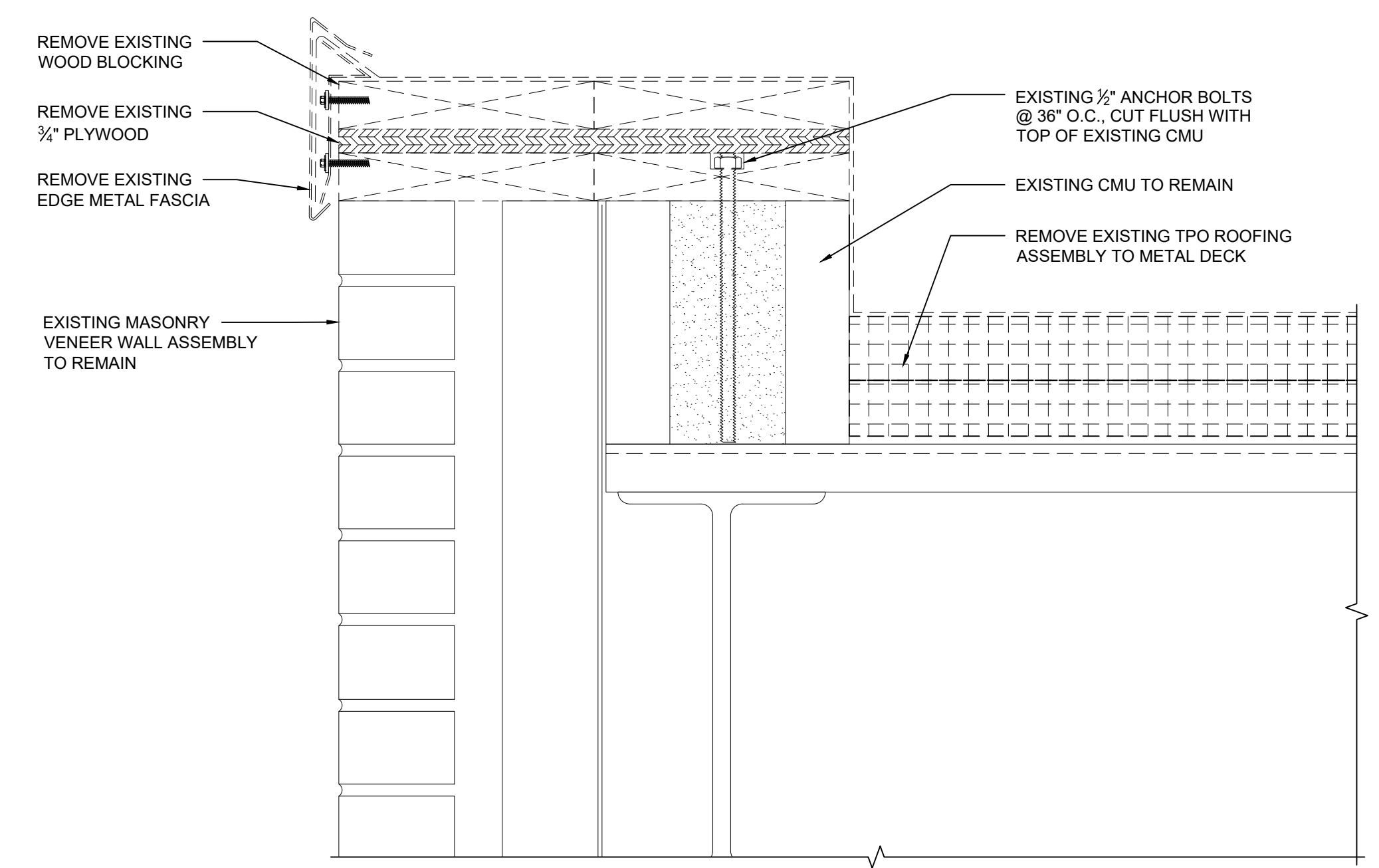
drawing title <b>ROOF DEMOLITION PLAN</b>		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			
mark	date	description	
drawing prepared by <b>HOFFMANN ARCHITECTS</b> 2321 WHITNEY AVENUE HAMDEN, CT 06518		date 12 NOV 2018	scale AS NOTED
project <b>DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT</b>		drawn by DSOKRG	approved by LEK
CAD no. 218028 D1.1.dwg	project no. BH-MM-54	drawing no. <b>D1.1</b>	



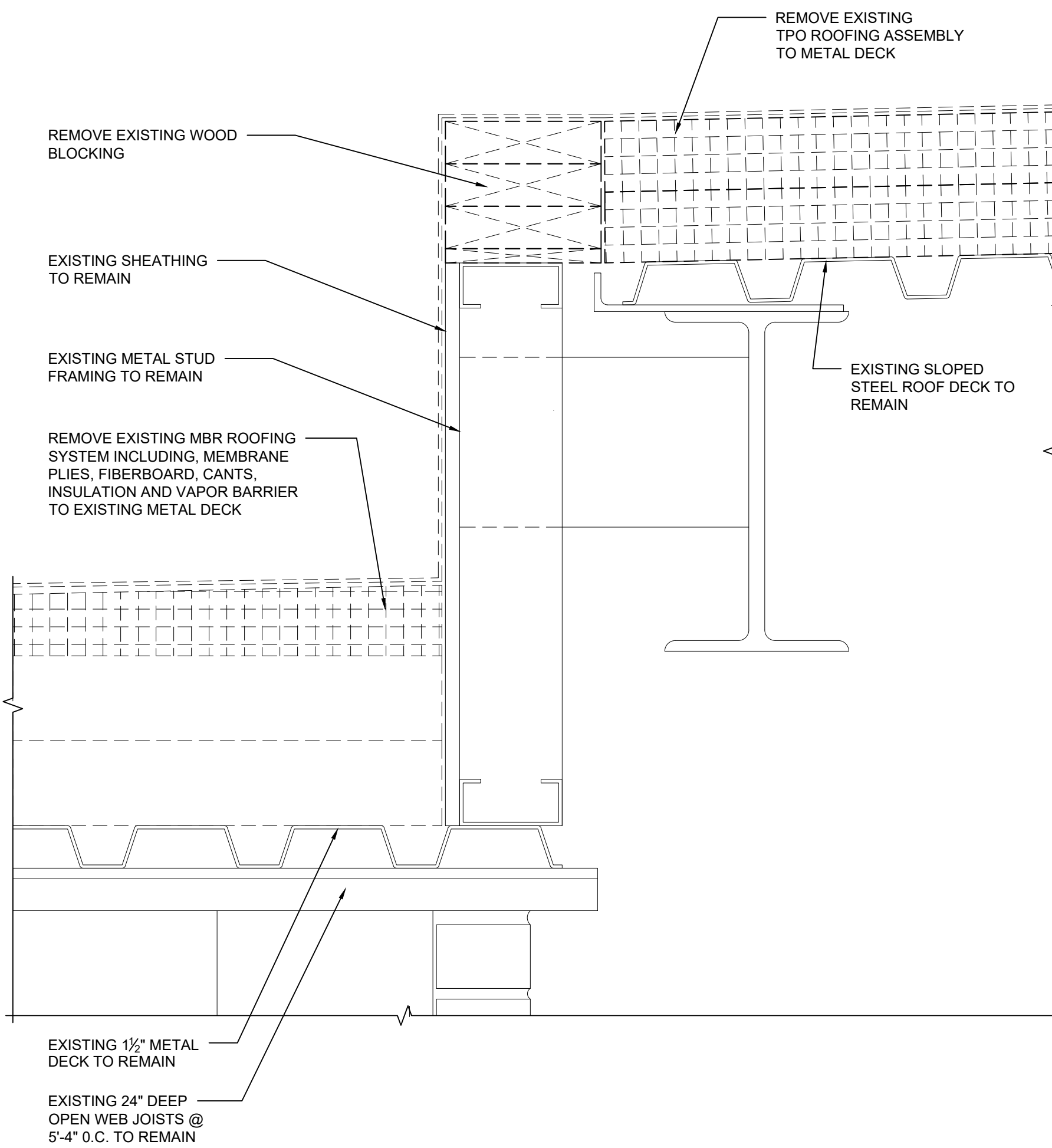
**1 LOBBY HIGH POINT**  
D5.1  
SCALE: 3" = 1'-0"



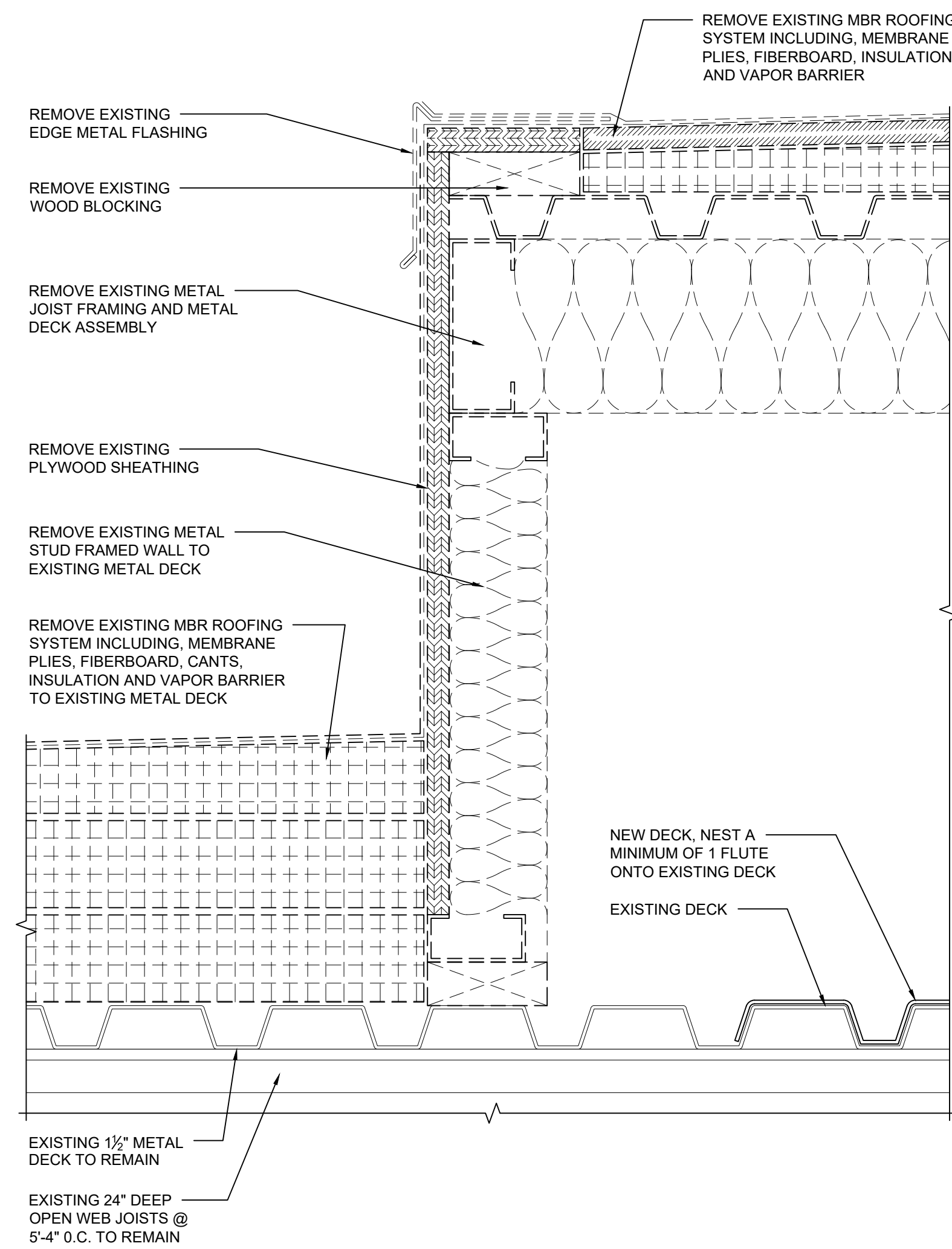
**2 ROOF EDGE DETAIL - MAIN ROOF**  
D5.1  
SCALE: 3" = 1'-0"



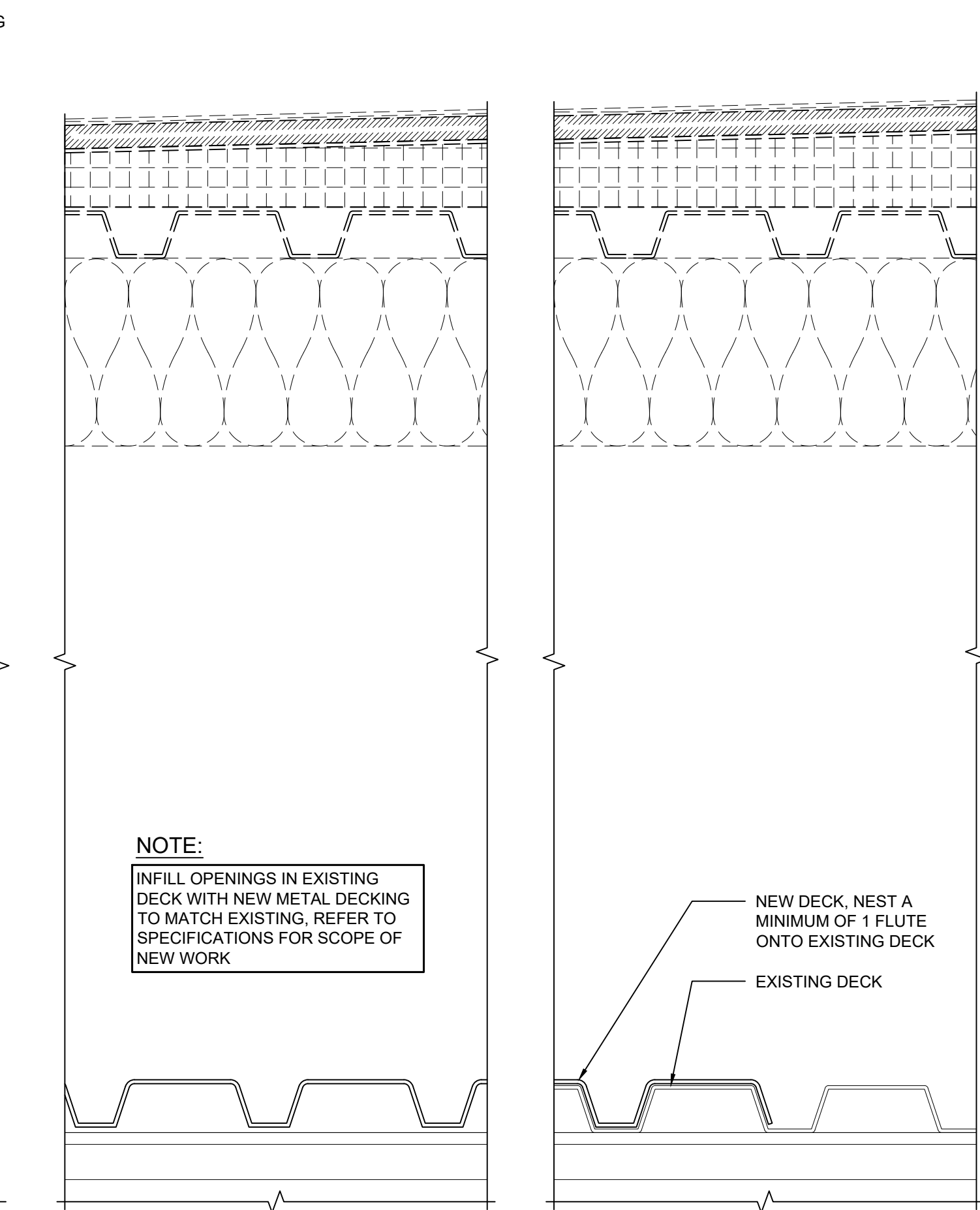
**3 PARAPET DETAIL**  
D5.1  
SCALE: 3" = 1'-0"



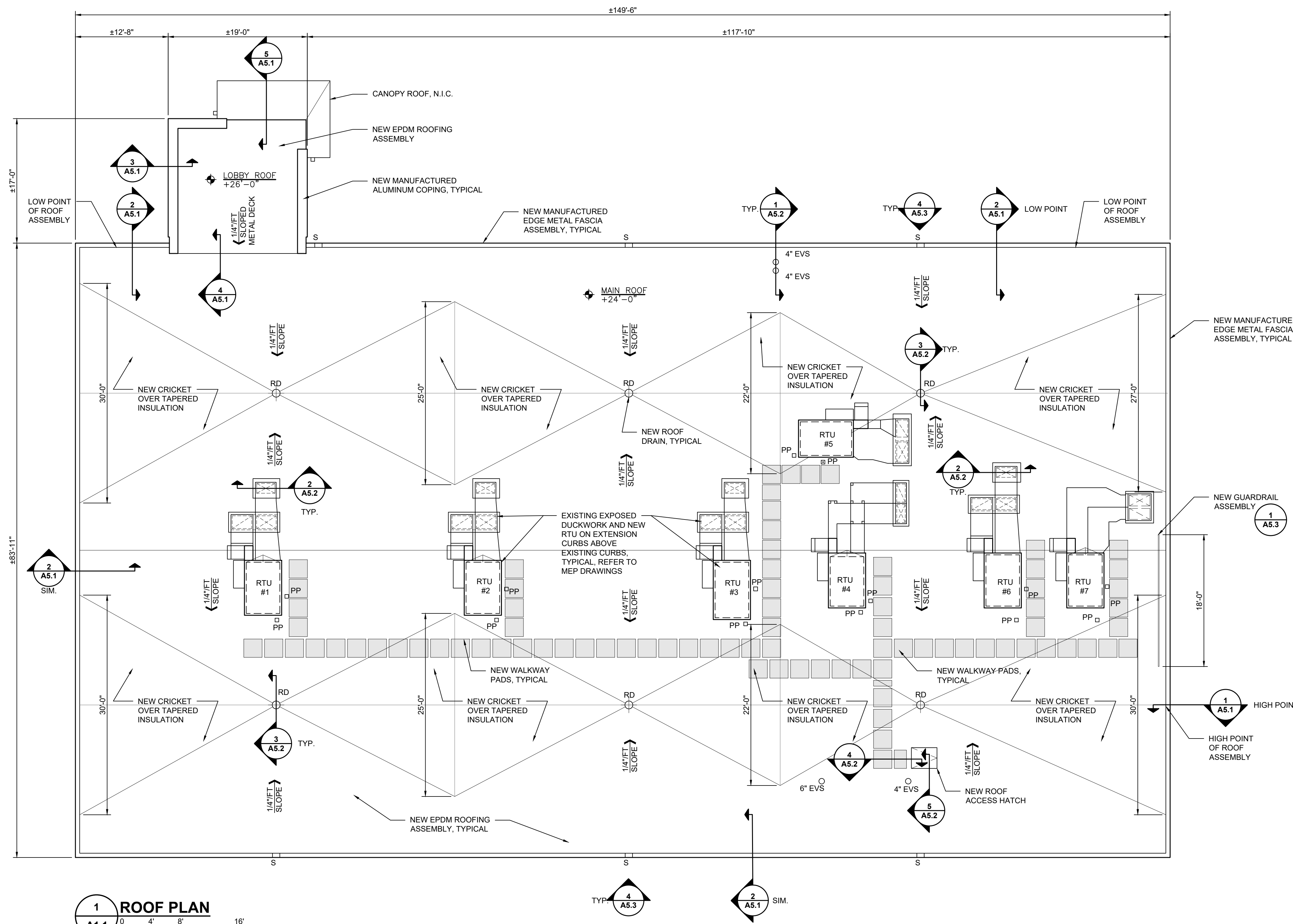
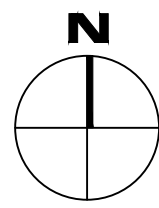
**4 ROOF STEP DETAIL**  
D5.1  
SCALE: 3" = 1'-0"



**5 PENTHOUSE DETAIL**  
D5.1  
SCALE: 3" = 1'-0"



drawing title <b>ROOF DEMOLITION DETAILS</b>			<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES		
REVISIONS			drawing prepared by <b>HOFFMANN ARCHITECTS</b> 2321 WHITNEY AVENUE HAMDEN, CT 06518		
mark	date	description	date 12 NOV 2018		
			scale AS NOTED		
			project DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT		
			drawn by DSOKRG		
			approved by LEK		
			drawing no. <b>D5.1</b>		
CAD no. 218028 D5.1.dwg			project no. BH-MM-54		



**1 ROOF PLAN**  
A1.1  
SCALE: 1/8" = 1'-0"

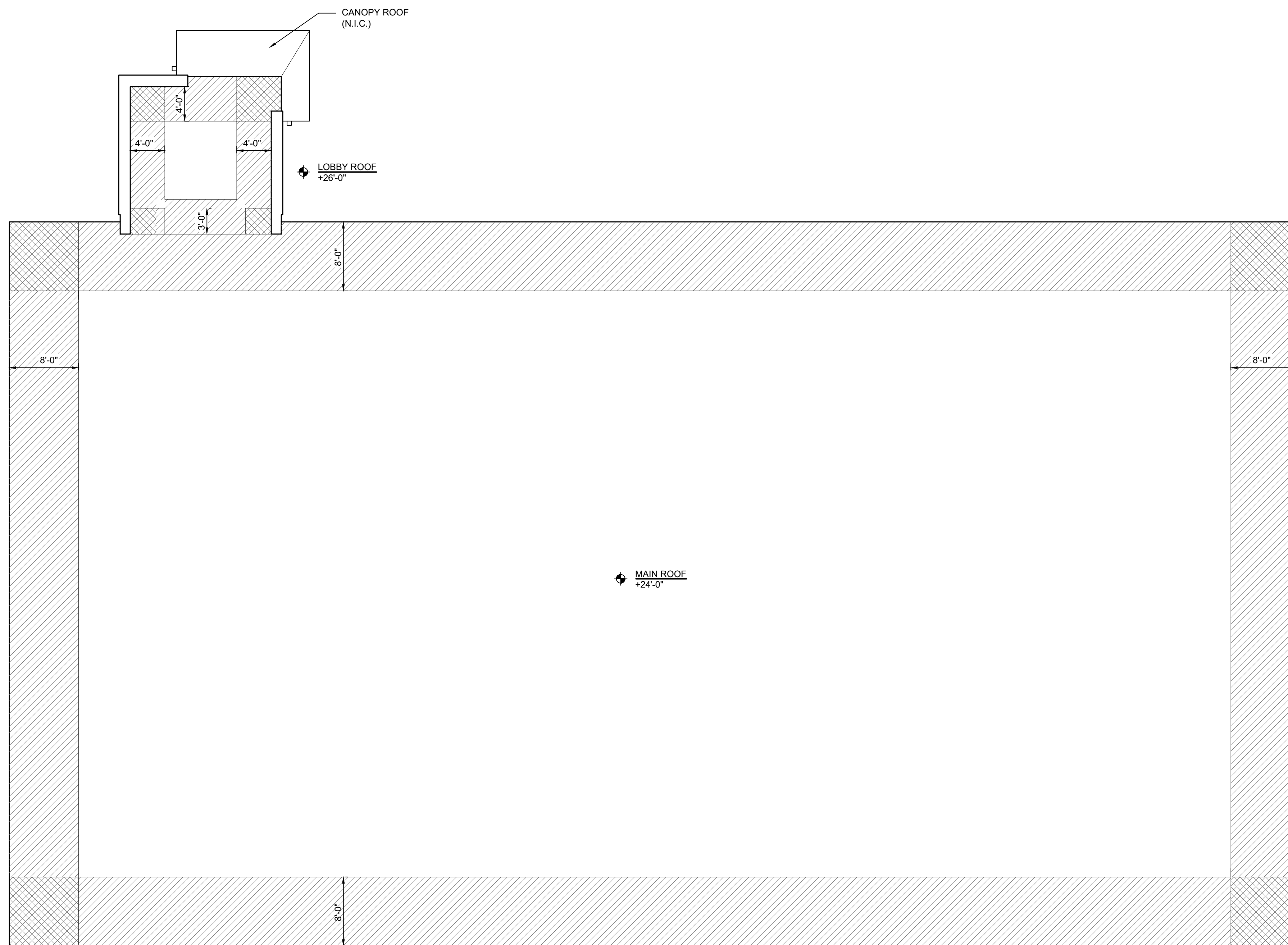
**ROOF REPLACEMENT SCOPE NOTES:**

1. FOLLOWING ROOFING REMOVAL, CONTRACTOR IS TO SURVEY THE EXISTING METAL ROOF DECK WITH A LEVEL TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOF WORK.
2. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING INSTALLATION TO INSURE THAT NO INTERIOR MATERIALS, EQUIPMENT OR FINISHES WILL BE PIERCED OR DAMAGED. COORDINATE WITH ALL PLUMBING, MECHANICAL AND ELECTRICAL FIXTURES AND DEVICES AS REQUIRED.
3. CONTRACTOR SHALL THOROUGHLY INSPECT EXISTING METAL ROOF DECK PRIOR TO RE-ROOFING. NOTIFY ARCHITECT OF ANY DETERIORATED DECK CONDITIONS PRIOR TO COMMENCING NEW ASSEMBLY INSTALLATION.
4. PROVIDE ADDITIONAL DECK SECUREMENT OF ROOF DECK IN FIELD, PERIMETER AND CORNER ZONES OF ROOF. REFER TO DRAWINGS A1.2 FOR ROOF ZONES AND SPECIFICATIONS FOR REQUIRED FASTENING PATTERNS.
5. FURNISH AND INSTALL NEW NON-TREATED WOOD BLOCKING AT ACCESS HATCH AND PERIMETER OF ROOF.
6. EXISTING WOOD BLOCKING AND INSULATED METAL CURB AT MECHANICAL EQUIPMENT AND DUCT PENETRATIONS TO REMAIN. RE-SECURE BLOCKING TO METAL DECK AT 8" O.C.
7. FURNISH AND INSTALL NEW ADHERED 0.90 MIL NON-REINFORCED, FIRE RATED ETHYLENE PROPYLENE DIENE MONOMER (EPDM) ROOFING ASSEMBLY CONSISTING OF THERMAL BARRIER, VAPOR BARRIER, FLAT AND TAPERED RIGID INSULATION BOARD, COVER BOARD, AND EPDM MEMBRANE AND FLASHING.
8. FURNISH AND INSTALL NEW MANUFACTURED EXTRUDED ALUMINUM BAR AND FASCIA COVER ASSEMBLY AT EDGE OF MAIN AND LOBBY ROOF.
9. NEW ROOFING SYSTEM TO BE INSTALLED IN ACCORDANCE WITH ROOFING MANUFACTURERS FM GLOBAL TESTED ASSEMBLY.
10. PROVIDE ALL NECESSARY ATTACHMENT ENHANCEMENTS AT ROOF PERIMETERS AND CORNERS AS REQUIRED FOR THE CALCULATED WIND UP-LIFT RATINGS.
11. FURNISH AND INSTALL MANUFACTURER'S WALKWAY PADS AROUND ALL MECHANICAL EQUIPMENT, TO THE EXTENT POSSIBLE, AVOID PLACEMENT OF PADS OVER SEAMS OF THE FIELD MEMBRANE.
12. FURNISH AND INSTALL GUARD RAILINGS AT MECHANICAL EQUIPMENT WITHIN 10-FEET OF ROOF EDGE. EXTEND RAILING 3-FEET BEYOND EDGE OF EQUIPMENT.
13. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK AND TO MAKE ITS PARTS FIT TOGETHER PROPERLY WITHOUT COMPROMISING THE QUALITY OF THE WORK.
14. CONTRACTOR TO PROFESSIONALLY CLEAN ALL INTERIOR AREAS AFFECTED BY RE-ROOFING ACTIVITIES.

**LEGEND:**

	NEW ROOF DRAIN		SLOPE OF FINISHED ROOFING
	EXISTING VENT STACK		GUARDRAIL ASSEMBLY
	NEW PENETRATION POCKET		WALKWAY PADS
	NEW INSULATION CRICKET		ROOF DECK ELEVATION A.F.F.
	NEW SCUPPER		NEW CURB MOUNTED MECHANICAL EQUIPMENT

drawing title <b>ROOF PLAN</b>		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS		drawing prepared by <b>HOFFMANN ARCHITECTS</b> 2321 WHITNEY AVENUE HAMDEN, CT 06518	
mark	date	description	date 12 NOV 2018 scale AS NOTED
			project <b>DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT</b>
			drawn by DSOKRG approved by LEK drawing no. <b>A1.1</b>
		CAD no. 218028 A1.1.dwg	project no. BH-MM-54



**1 WIND UP-LIFT PLAN**  
**A1.2**  
 SCALE: 1/8" = 1'-0"

**BUILDING DATA**

MAIN ROOF		LOBBY ROOF	
BASIC WIND SPEED:	110 MPH	BASIC WIND SPEED:	110 MPH
EXPOSURE CATEGORY:	C	EXPOSURE CATEGORY:	C
BUILDING CLASSIFICATION:	III	BUILDING CLASSIFICATION:	III
BUILDING HEIGHT:	24 FT	BUILDING HEIGHT:	26 FT
WIDTH OF PERIMETER:	8 FT	WIDTH OF PERIMETER:	4 FT
CALCULATED WIND PRESSURES:		CALCULATED WIND PRESSURES:	
ZONE 1 = 33 PSF		ZONE 1 = 33 PSF	
ZONE 2 = 56 PSF		ZONE 2 = 56 PSF	
ZONE 3 = 85 PSF		ZONE 3 = 85 PSF	
DESIGN WIND UP-LIFT RATINGS:		DESIGN WIND UP-LIFT RATINGS:	
ZONE 1 = 90 PSF		ZONE 1 = 90 PSF	
ZONE 2 = 135 PSF		ZONE 2 = 135 PSF	
ZONE 3 = 195 PSF		ZONE 3 = 195 PSF	

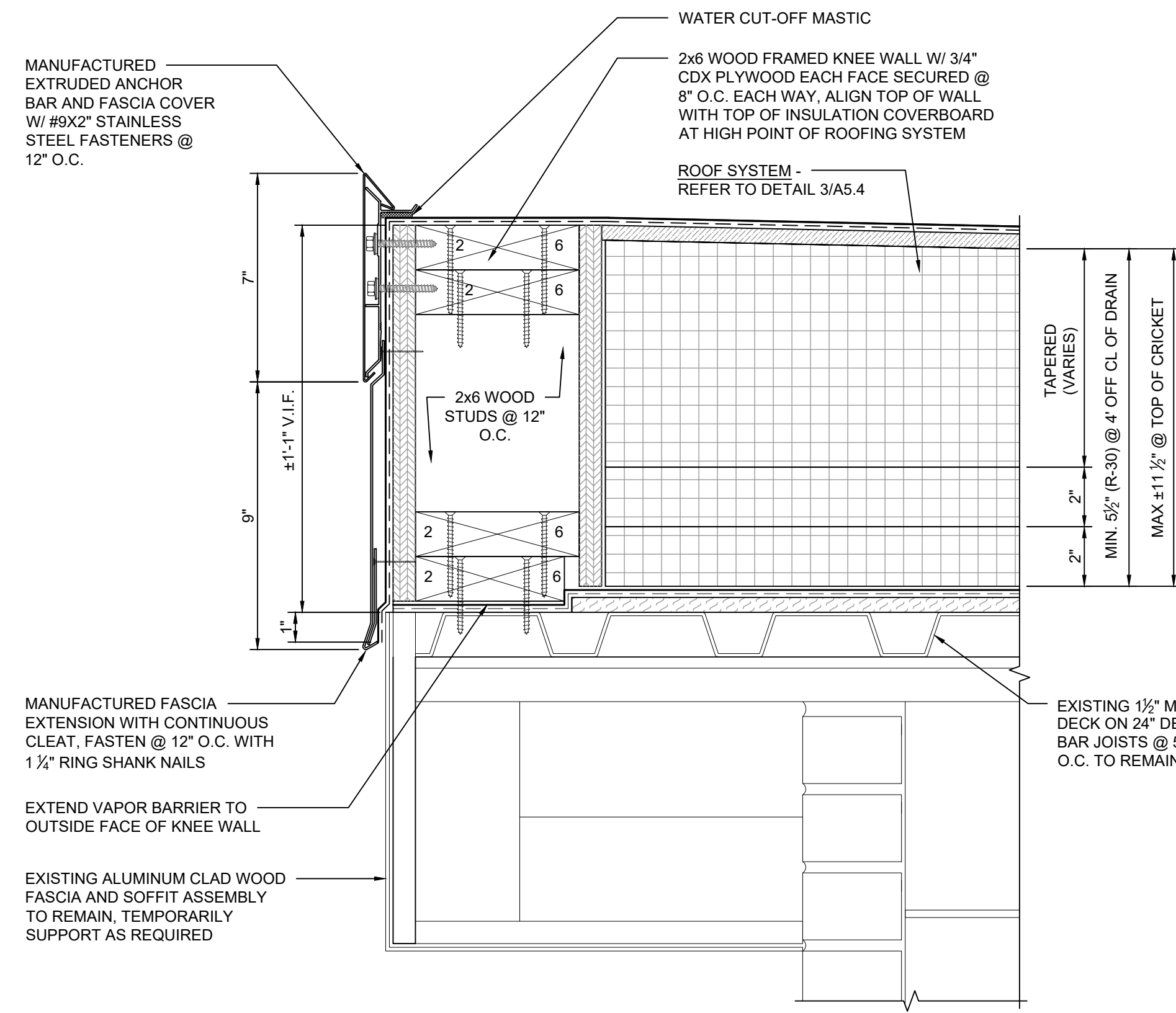
**NOTES:**

- PREPARE EXISTING DECK TO RECEIVE NEW ROOFING ASSEMBLY PATCH AND REPAIR DETERIORATED METAL DECKING.
- MAIN ROOF DECK FASTENING (PERIMETER AND CORNER ZONES): EXISTING METAL DECK IS TO BE MECHANICALLY FASTENED TO STRUCTURAL OPEN WEB JOISTS AND BEAMS. FASTENERS TO BE #12-24 SELF-DRILLING SCREWS WITH #5 DRILL POINT. SCOPE OF FASTENING IS AS FOLLOWS:  
 END LAPS - 6" O.C.  
 MID-SPAN OF DECK - 6" O.C.  
 DECK SIDE LAPS AND PERIMETER EDGES - 15" O.C.
- MAIN ROOF DECK FASTENING (FIELD ZONE): MECHANICALLY FASTEN SIDE LAPS AT EXISTING METAL DECK TO ADJACENT DECKING AT 30" O.C.
- FURNISH AND INSTALL NEW NON-TREATED WOOD BLOCKING AT ROOF EDGE. SECURE NEW BLOCKING TO STRUCTURAL DECK @ 8" O.C.
- EXISTING WOOD BLOCKING AT MECHANICAL EQUIPMENT CURBS AND DUCT PENETRATIONS TO REMAIN. RE-SECURE BLOCKING TO STRUCTURAL DECK @ 8" O.C.
- FURNISH AND INSTALL NEW ETHYLENE PROPYLENE DIENE MONOMER (E.P.D.M.) ROOFING ASSEMBLY CONSISTING OF THERMAL BARRIER, VAPOR BARRIER, FLAT AND TAPERED RIGID INSULATION, PROTECTION BOARD, E.P.D.M. MEMBRANE AND FLASHING AND MANUFACTURED ALUMINUM EDGE METAL.
- NEW ROOF SYSTEM TO BE INSTALLED IN ACCORDANCE WITH ROOFING MANUFACTURER'S FM GLOBAL TESTED ASSEMBLY.
- PROVIDE ALL NECESSARY ATTACHMENT ENHANCEMENTS AT ROOF PERIMETER AND CORNERS AS REQUIRED FOR THE CALCULATED WIND UP-LIFT RATINGS.

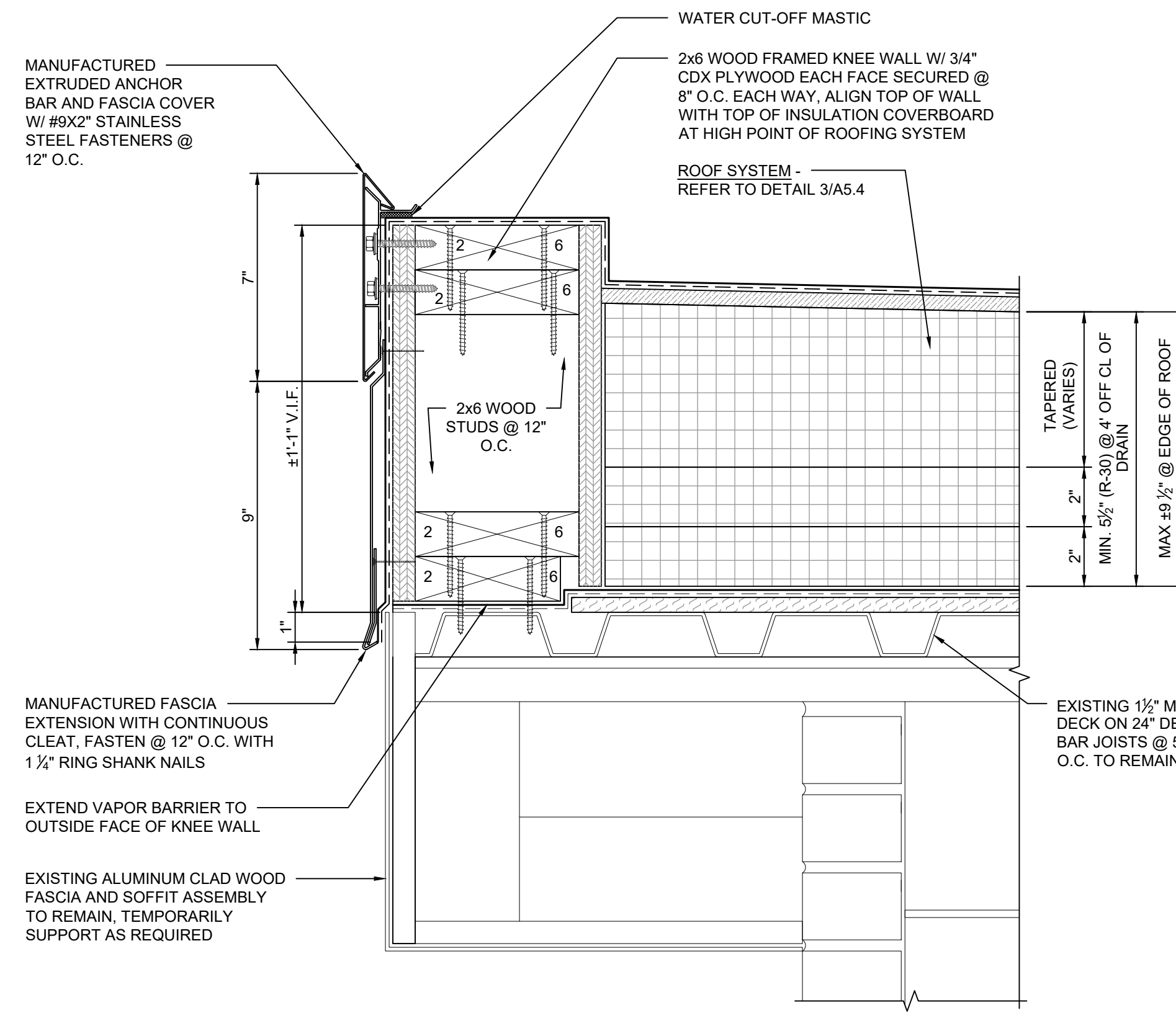
**LEGEND:**

	ZONE 1: FIELD
	ZONE 2: PERIMETER
	ZONE 3: CORNER

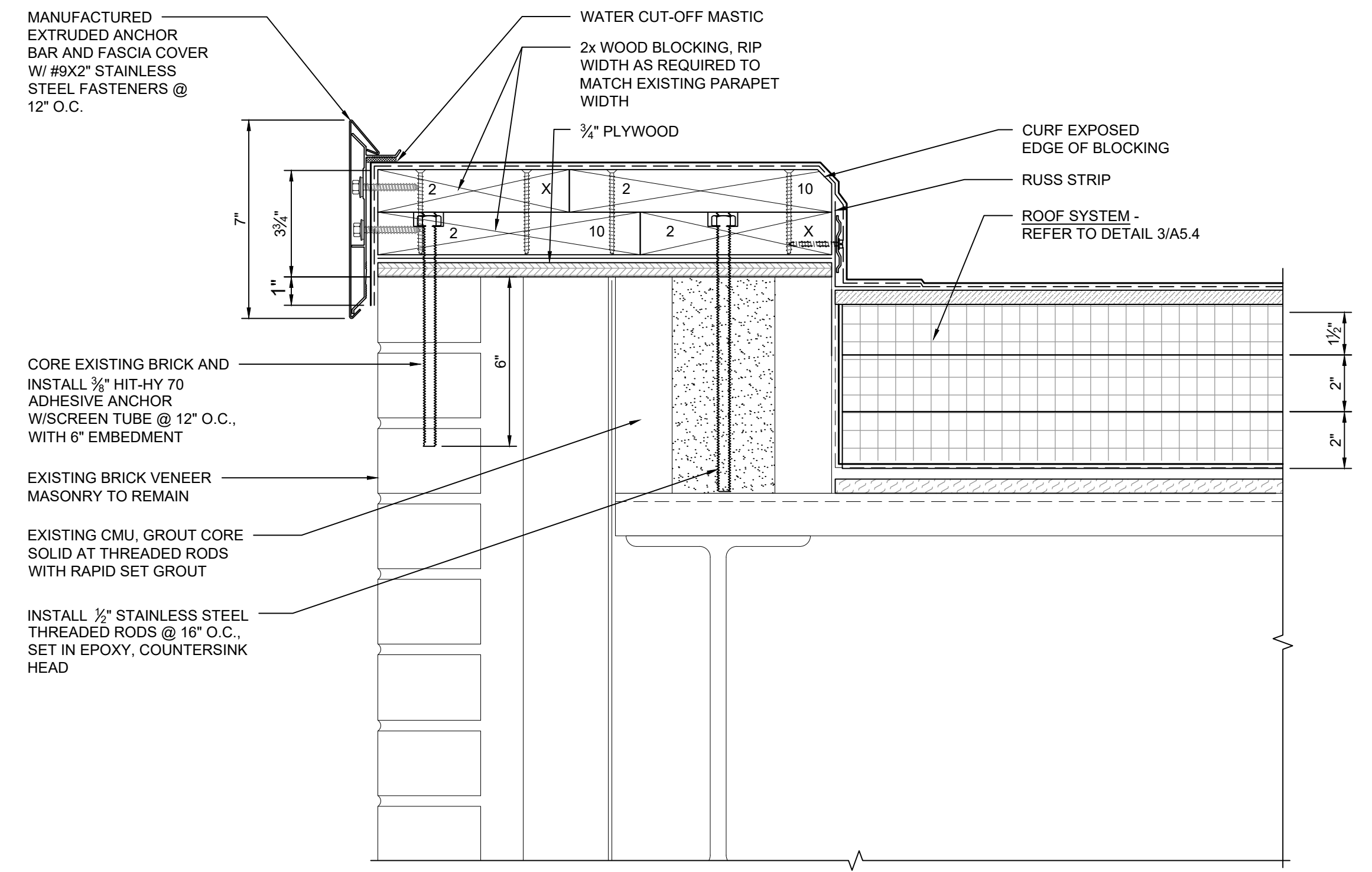
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WIND UP-LIFT PLAN			DEPARTMENT OF ADMINISTRATIVE SERVICES		
REVISIONS					
mark	date	description	drawing prepared by	date	scale
			HOFFMANN ARCHITECTS	12 NOV 2018	AS NOTED
			2321 WHITNEY AVENUE		
			HAMDEN, CT 06518		
			project	drawn by	approved by
			DEPARTMENT OF MOTOR VEHICLES	DSOKRG	LEK
			HAMDEN ROOF AND HVAC		
			1985 STATE STREET		
			HAMDEN, CT	drawing no.	A1.2
CAD no.	project no.				
218028 A1.2.dwg	BI-MM-54				



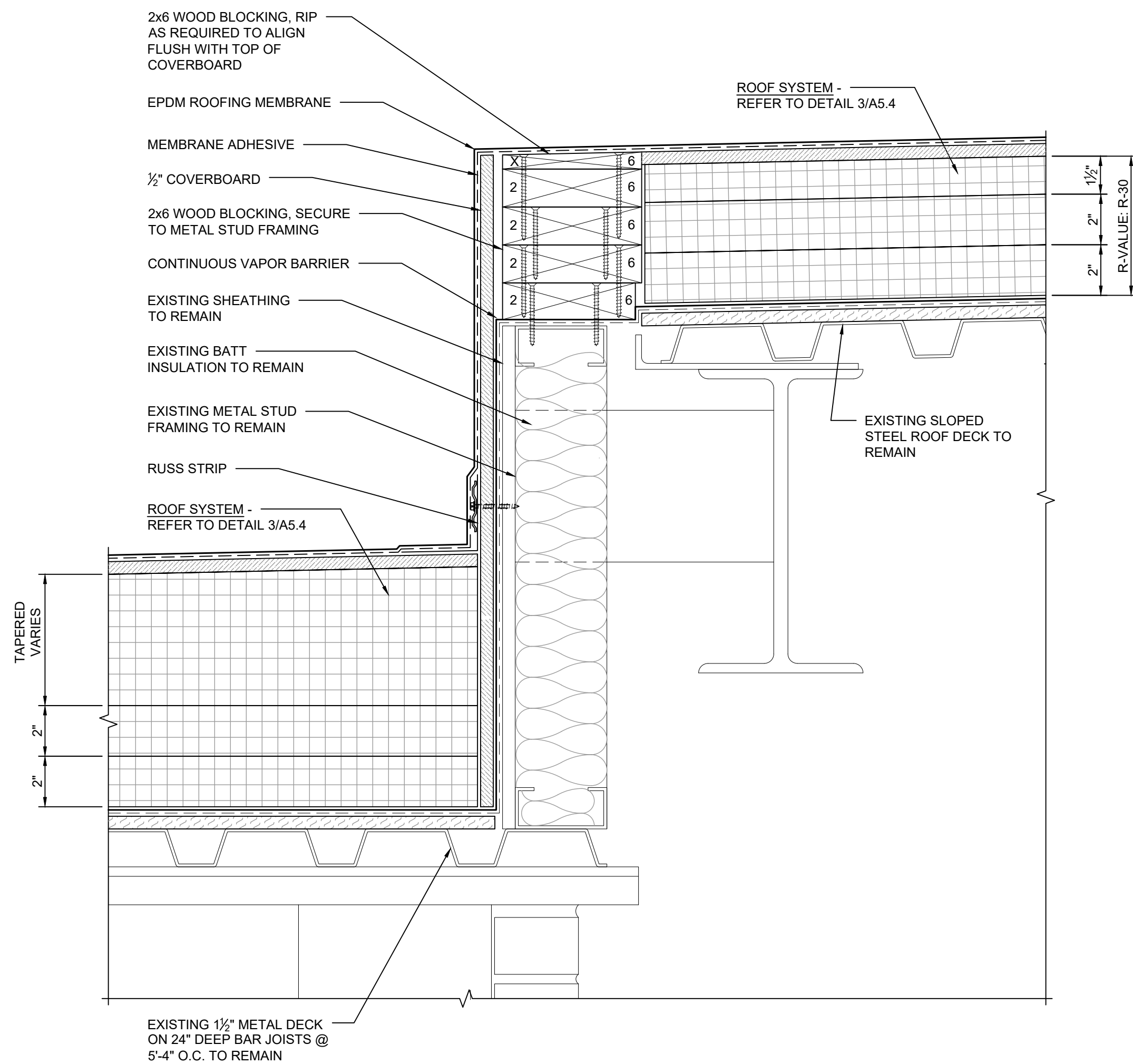
**1 ROOF EDGE DETAIL - HIGH POINT**  
A5.1  
SCALE: 3" = 1'-0"



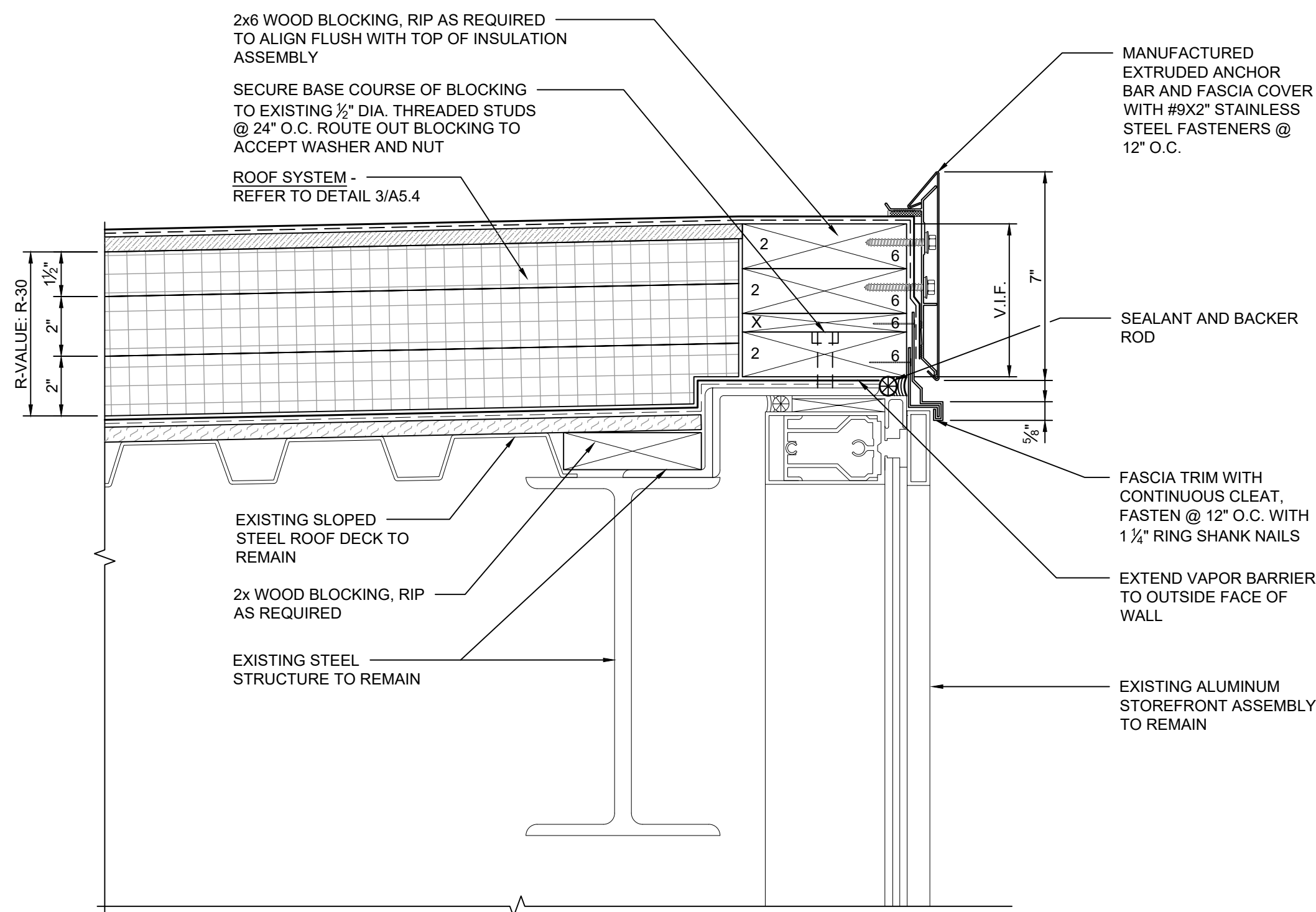
**2 ROOF EDGE DETAIL - LOW POINT**  
A5.1  
SCALE: 3" = 1'-0"



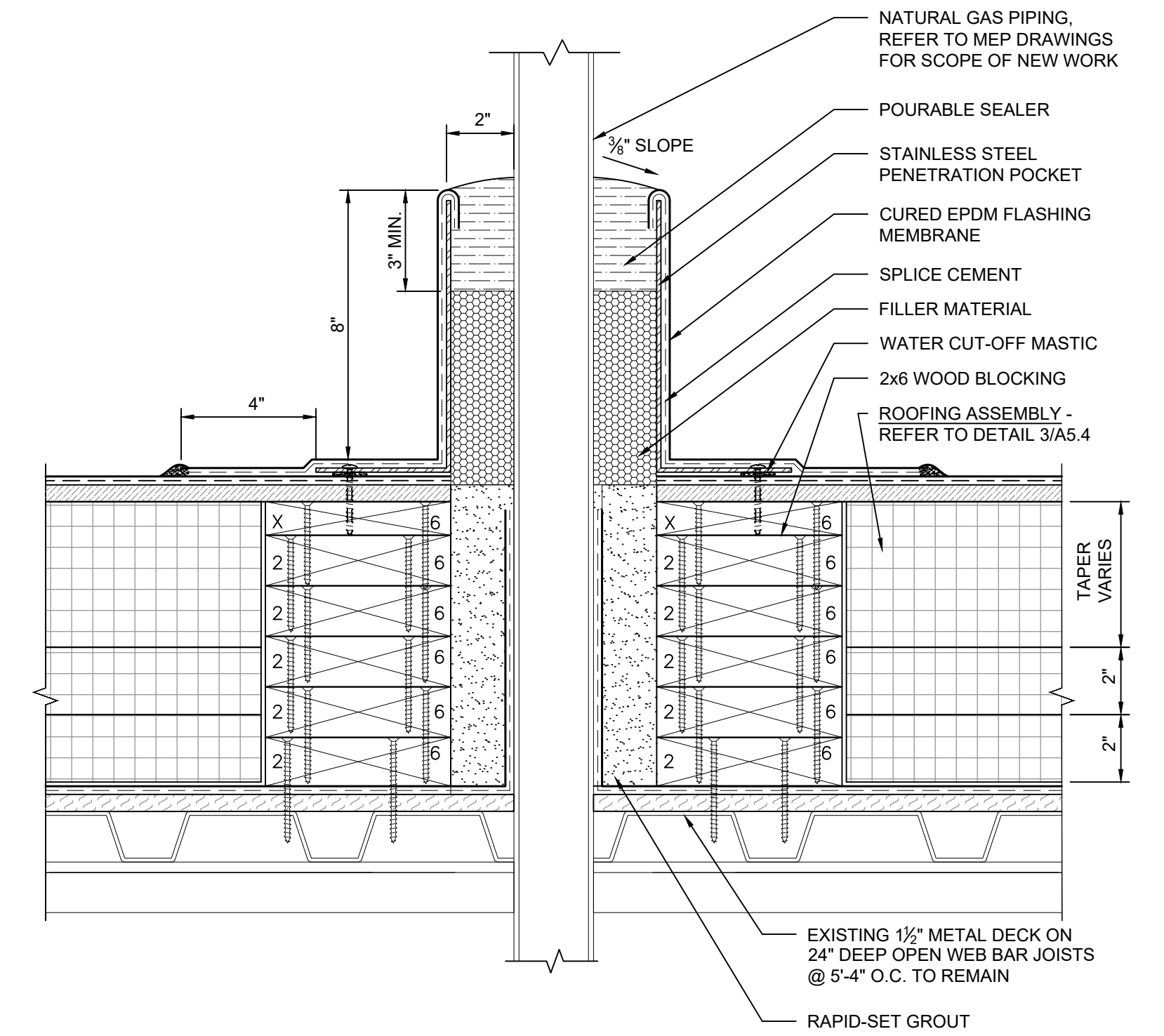
**3 PARAPET DETAIL**  
A5.1  
SCALE: 3" = 1'-0"



**4 LOBBY ROOF - LOW POINT**  
A5.1  
SCALE: 3" = 1'-0"



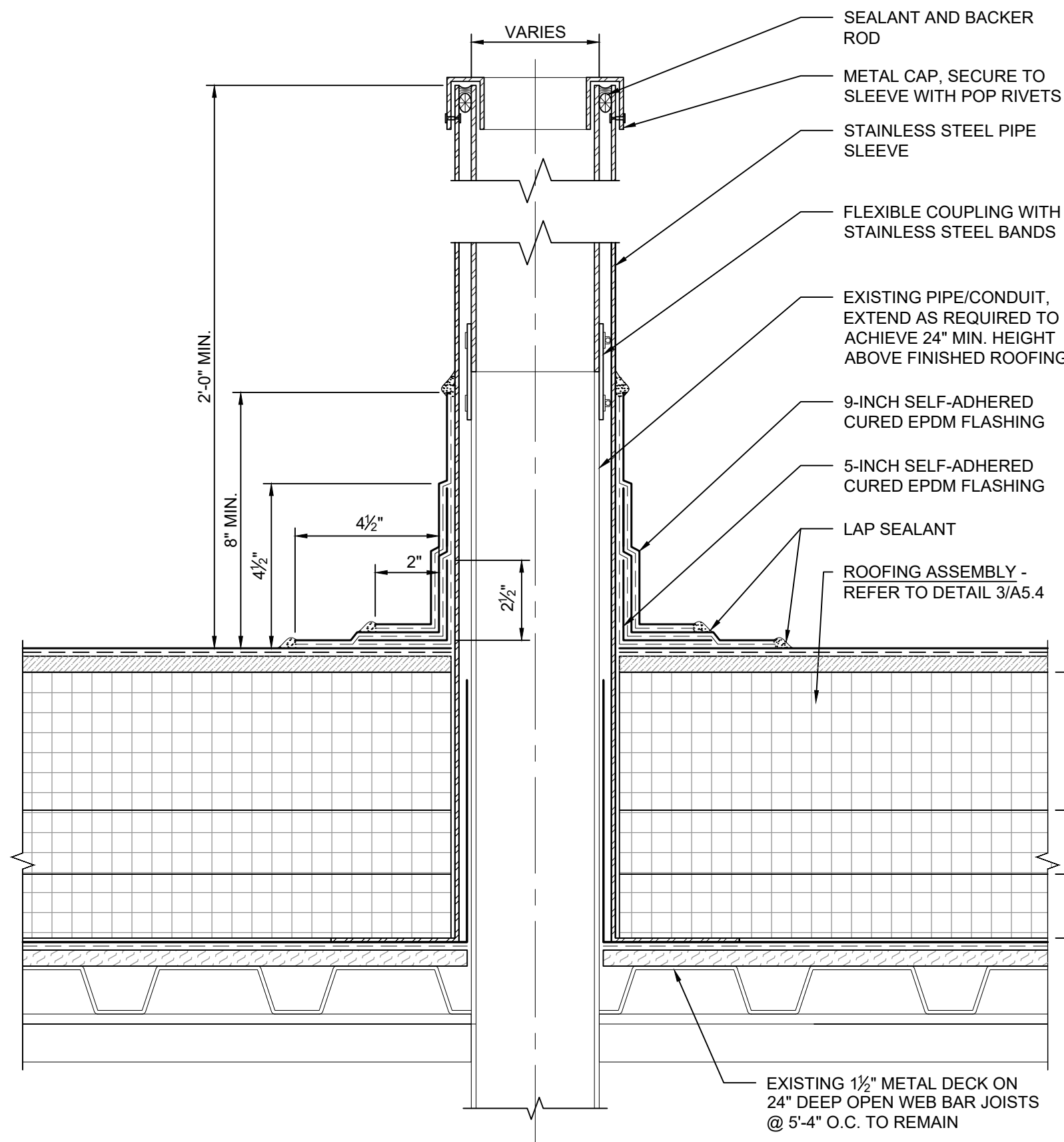
**5 ROOF EDGE DETAIL - CURTAIN WALL**  
A5.1  
SCALE: 3" = 1'-0"



**6 PENETRATION POCKET DETAIL**  
A5.1  
SCALE: 3" = 1'-0"

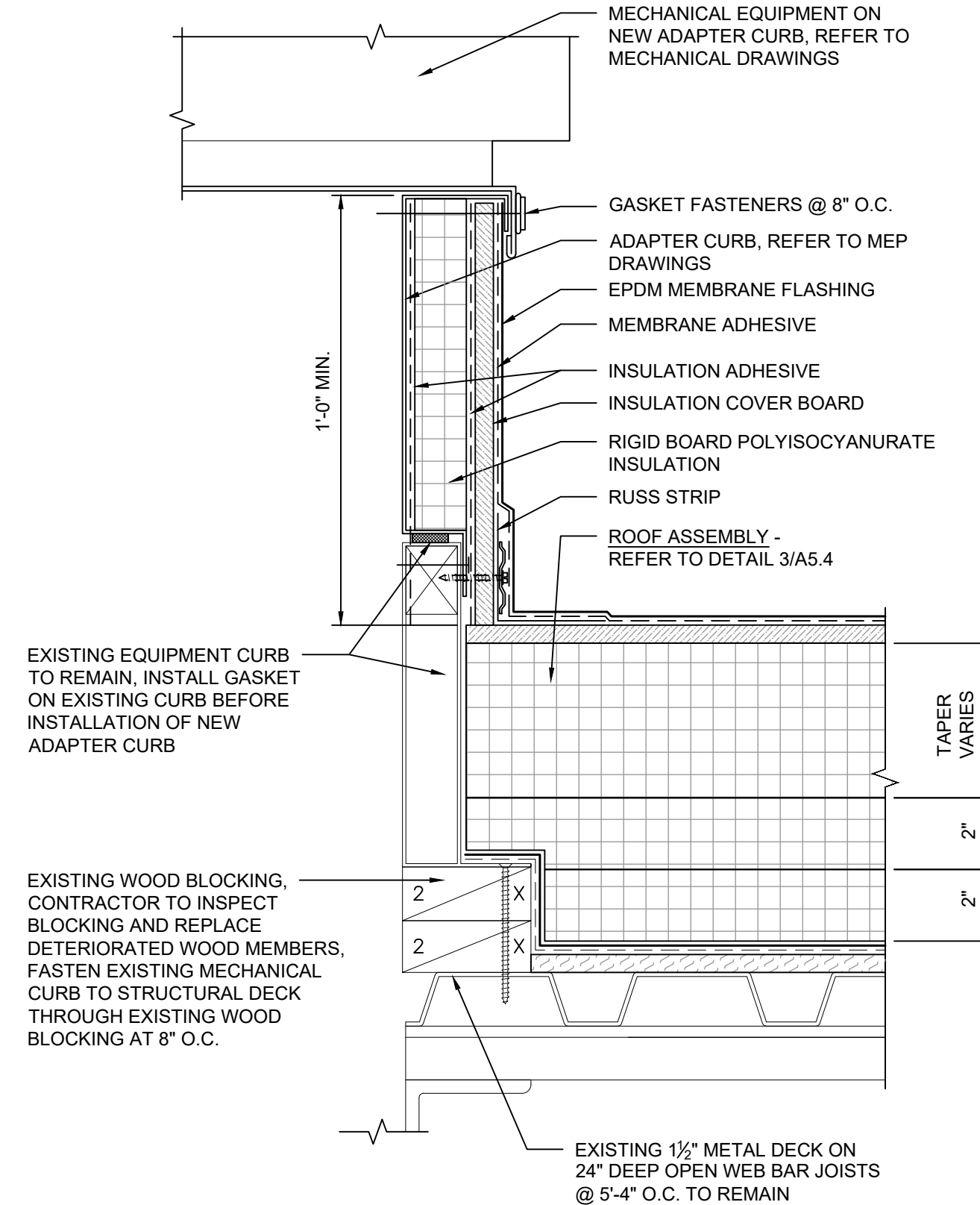
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DETAILS			DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS				
mark	date	description	drawing prepared by	date
			HOFFMANN ARCHITECTS	12 NOV 2018
			2321 WHITNEY AVENUE	scale
			HAMDEN, CT 06518	AS NOTED
			project	drawn by
			DEPARTMENT OF MOTOR VEHICLES	DSOKRG
			HAMDEN ROOF AND HVAC	approved by
			1985 STATE STREET	LEK
			HAMDEN, CT	drawing no.
			CAD no.	project no.
			218028 A5.1.dwg	BI-MM-54
				<b>A5.1</b>





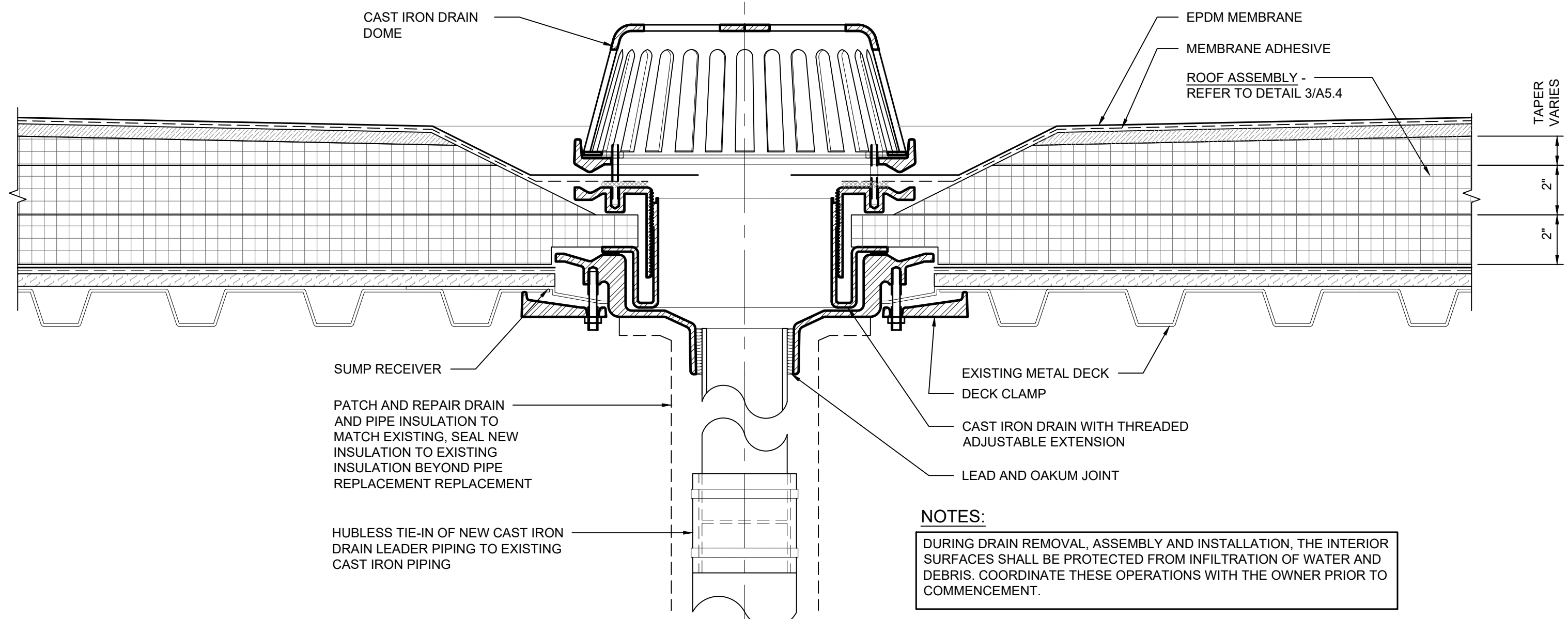
**1 PIPE PENETRATION DETAIL**

A5.2 SCALE: 3" = 1'-0"



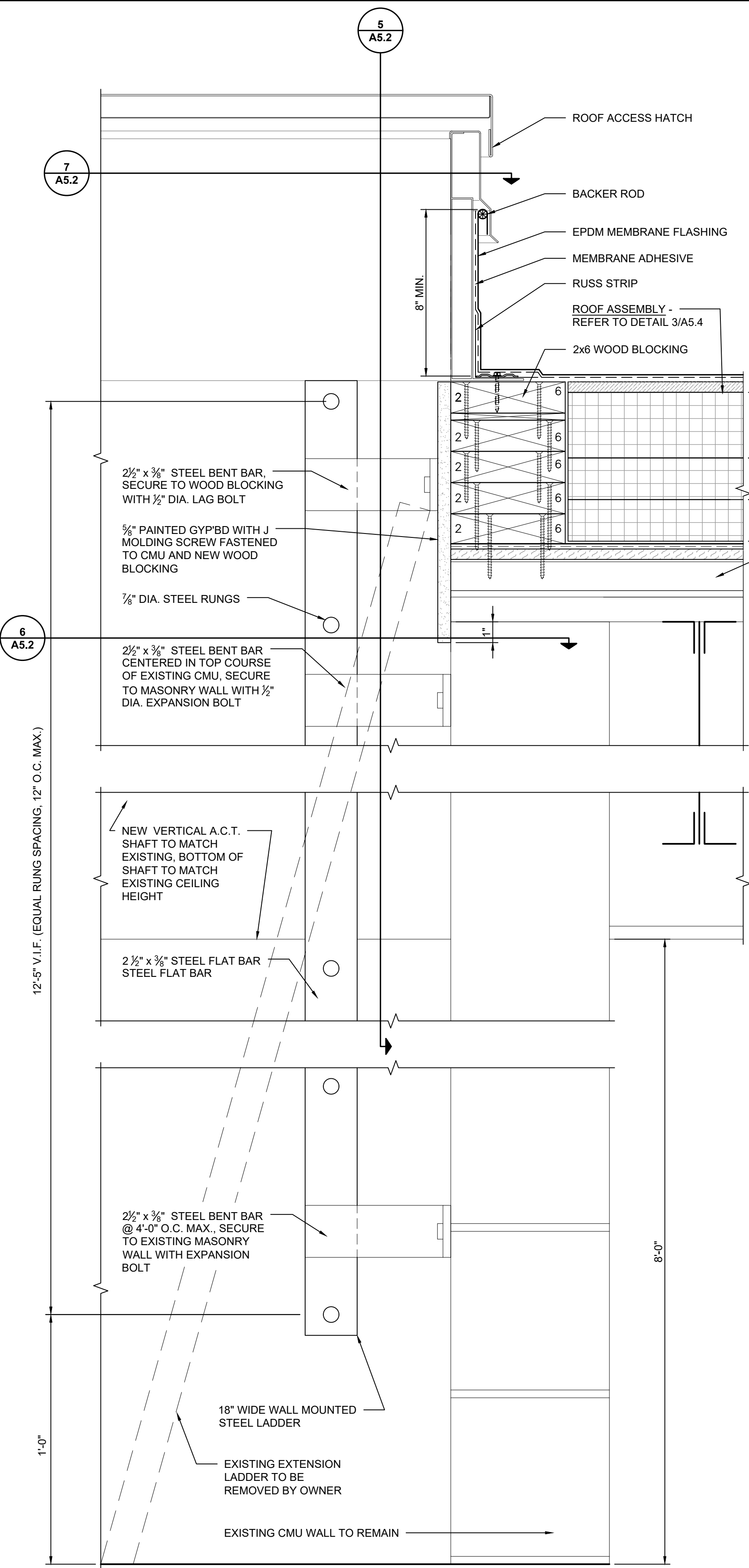
**2 CURB DETAIL**

A5.2 SCALE: 3" = 1'-0"



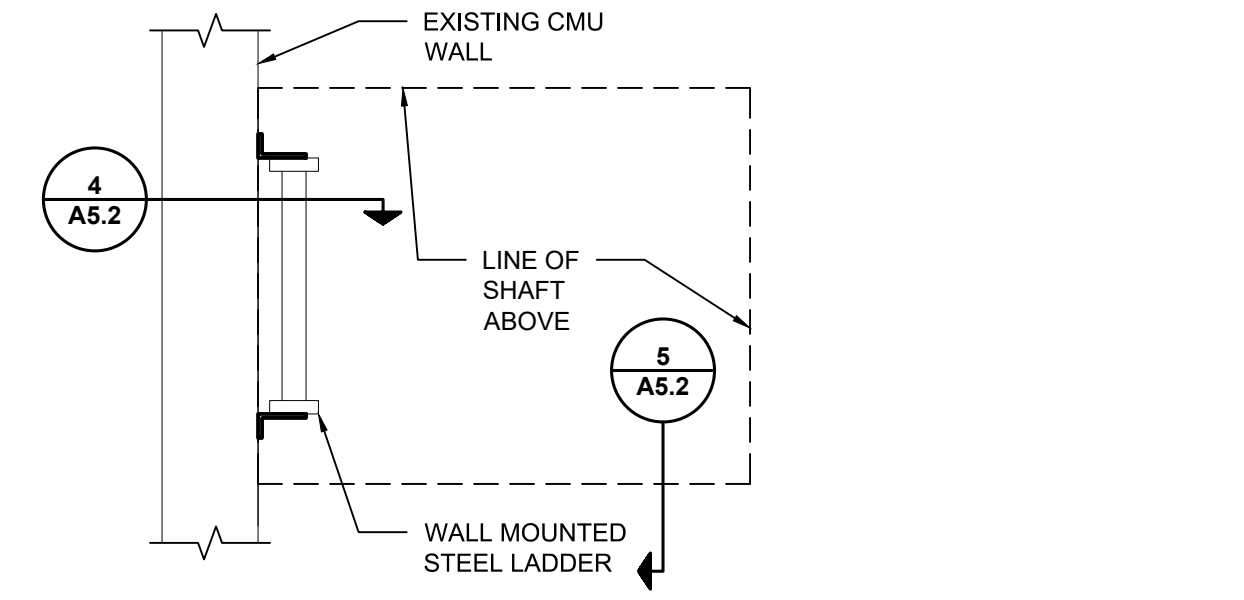
**3 ROOF DRAIN DETAIL**

A5.2 SCALE: 3" = 1'-0"



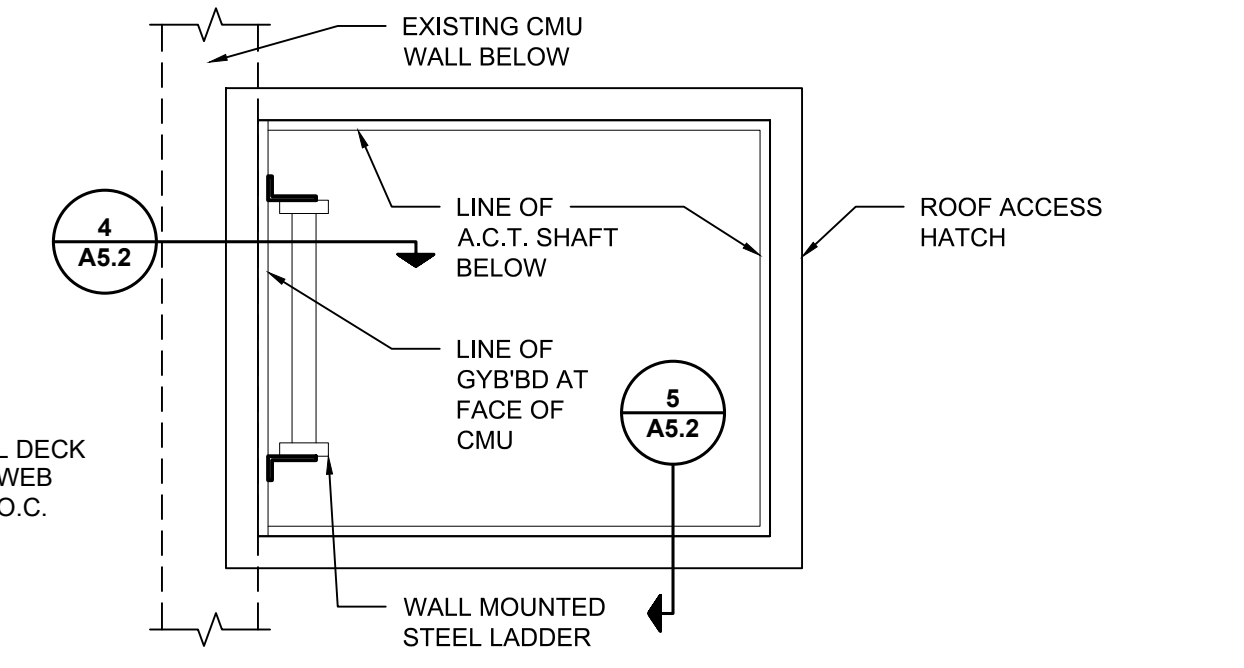
**4 ROOF HATCH DETAIL**

A5.2 SCALE: 3" = 1'-0"



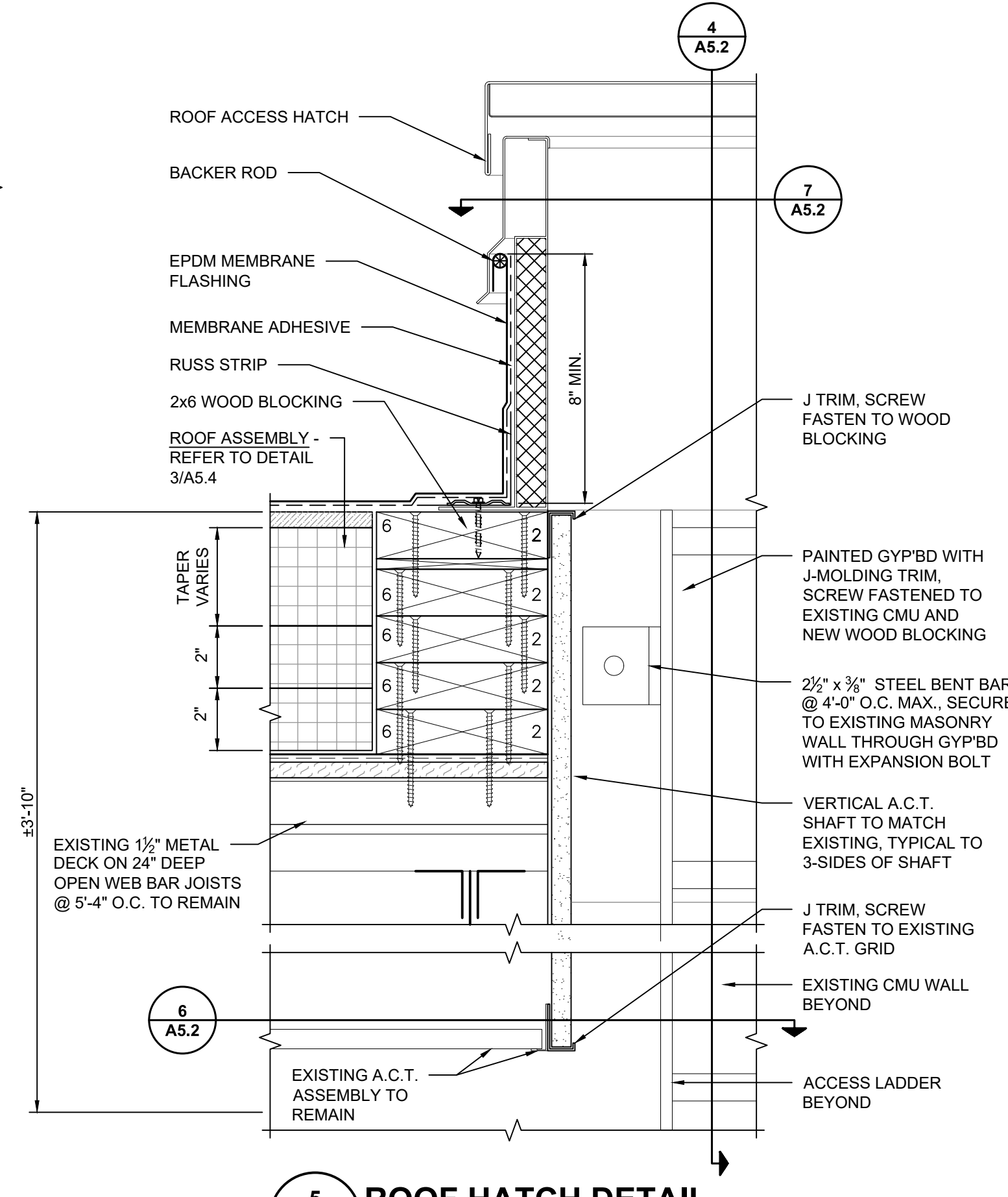
**6 PARTIAL FLOOR PLAN @ LADDER**

A5.2 SCALE: 1" = 1'-0"



**7 PARTIAL PLAN @ ROOF HATCH SHAFT**

A5.2 SCALE: 1" = 1'-0"

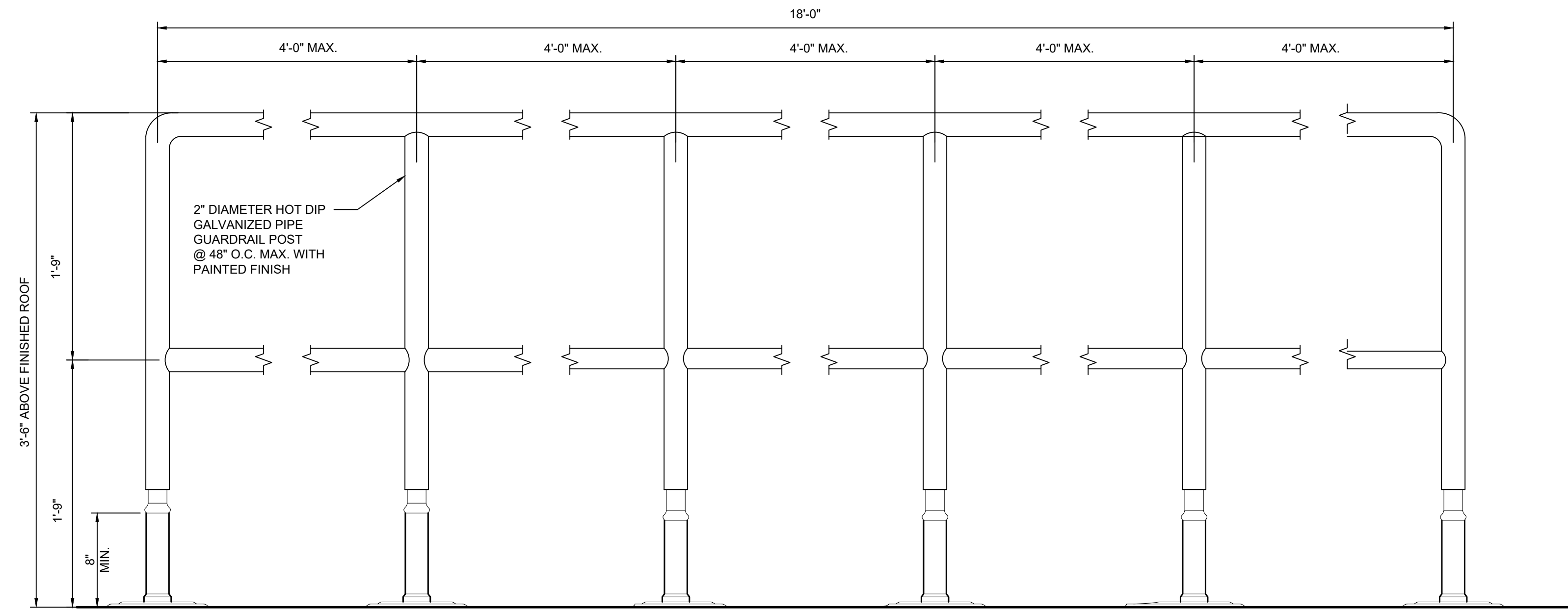


**5 ROOF HATCH DETAIL**

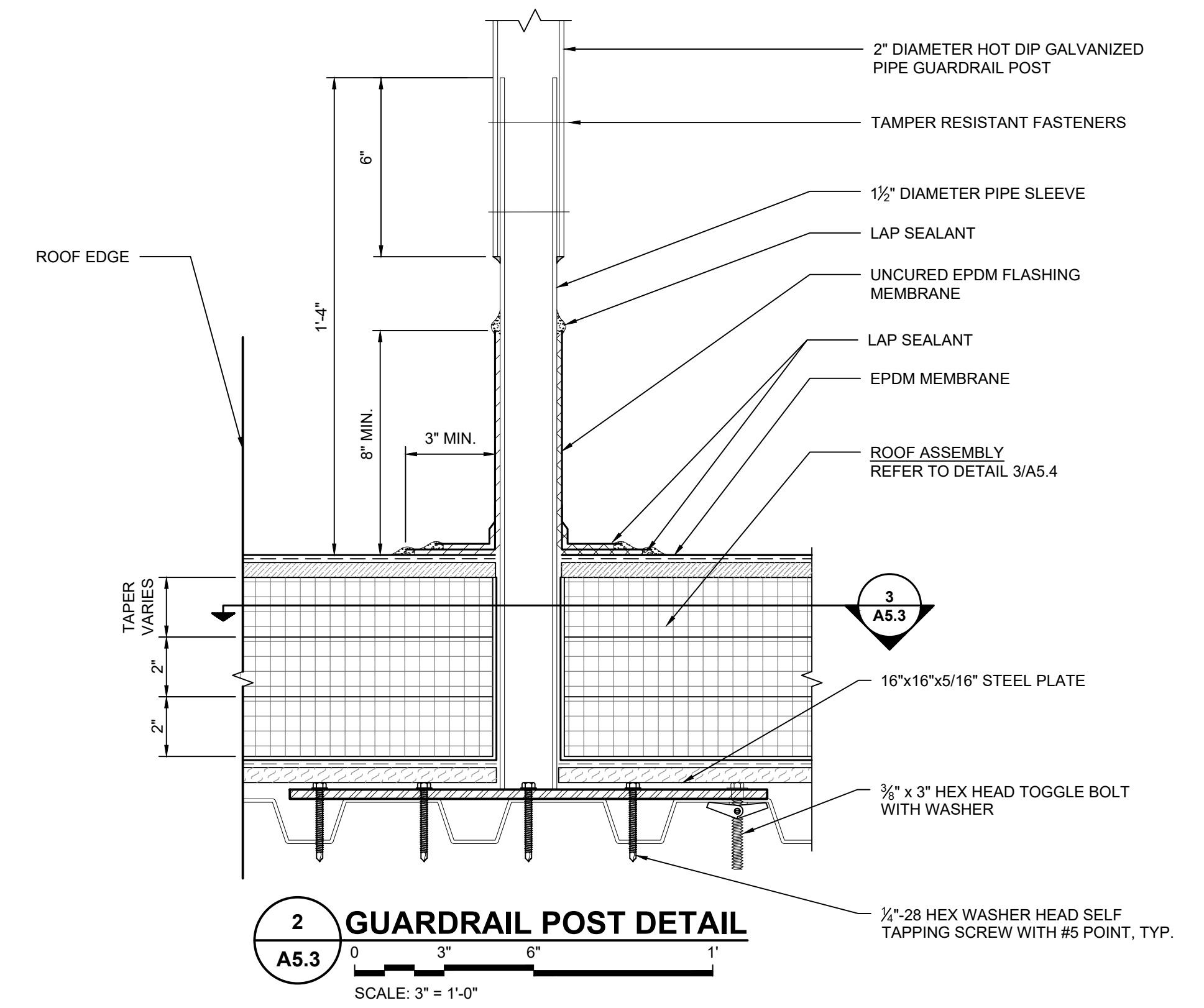
A5.2 SCALE: 3" = 1'-0"

**NOTES:**  
DURING DRAIN REMOVAL, ASSEMBLY AND INSTALLATION, THE INTERIOR SURFACES SHALL BE PROTECTED FROM INFILTRATION OF WATER AND DEBRIS. COORDINATE THESE OPERATIONS WITH THE OWNER PRIOR TO COMMENCEMENT.

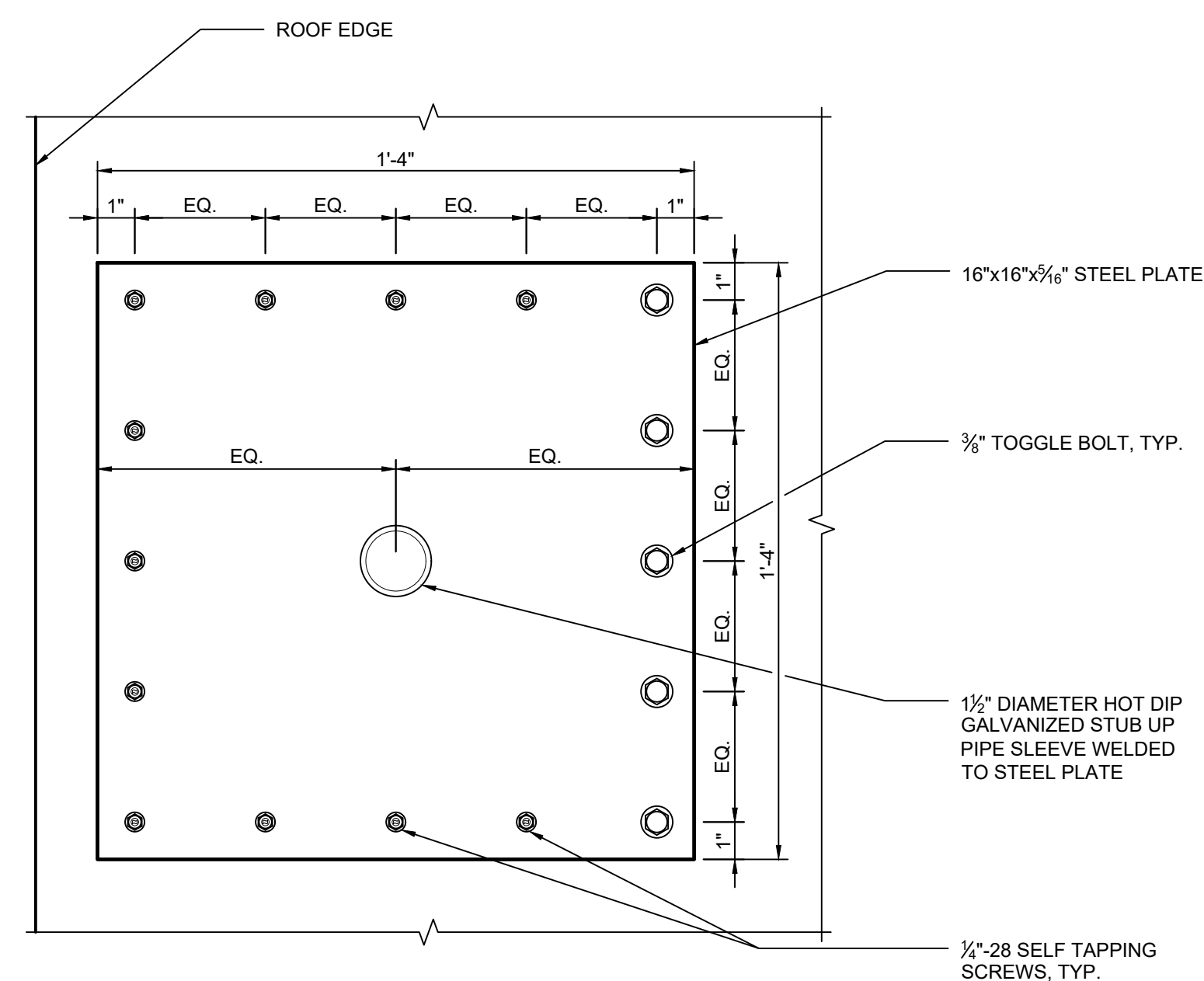
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DETAILS			DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS				
mark	date	description	drawing prepared by	date
			HOFFMANN ARCHITECTS 2321 WHITNEY AVENUE HAMDEN, CT 06518	12 NOV 2018
			DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT	AS NOTED
				drawn by DSO/KRG
				approved by LEK
				drawing no. A5.2
			CAD no. 218028 A5.1.dwg	project no. BI-MM-54



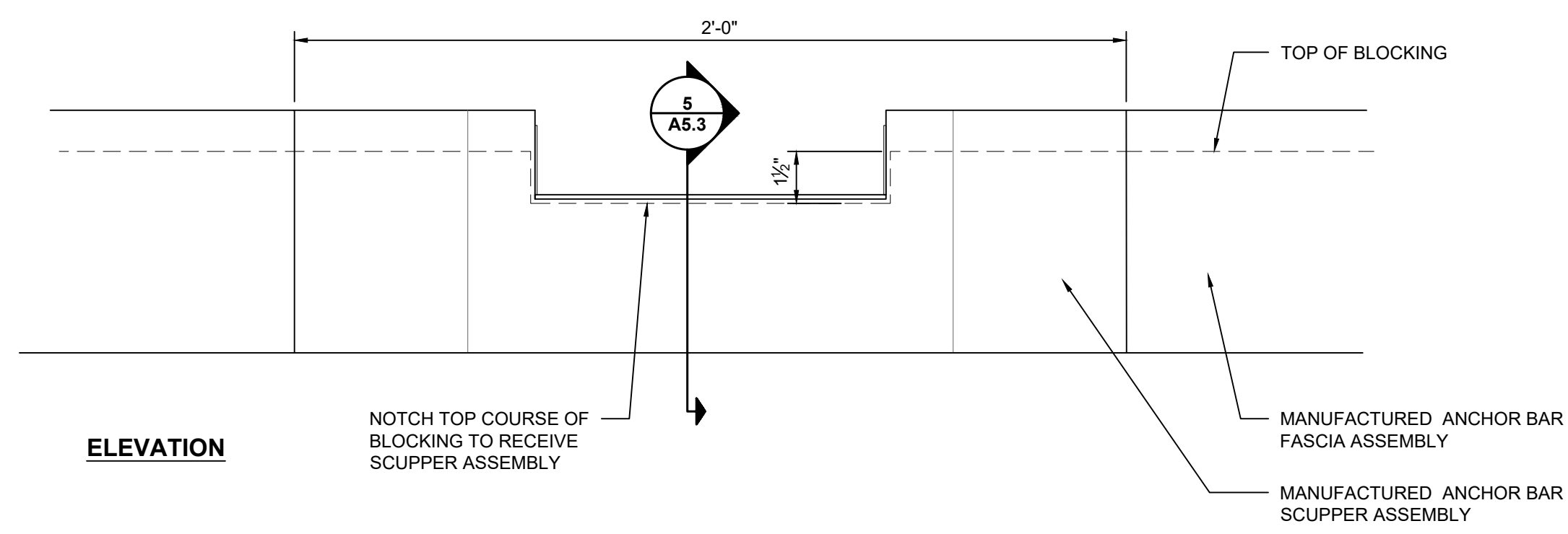
**1 GUARDRAIL ELEVATION**  
 A5.3  
 SCALE: 1 1/2" = 1'-0"



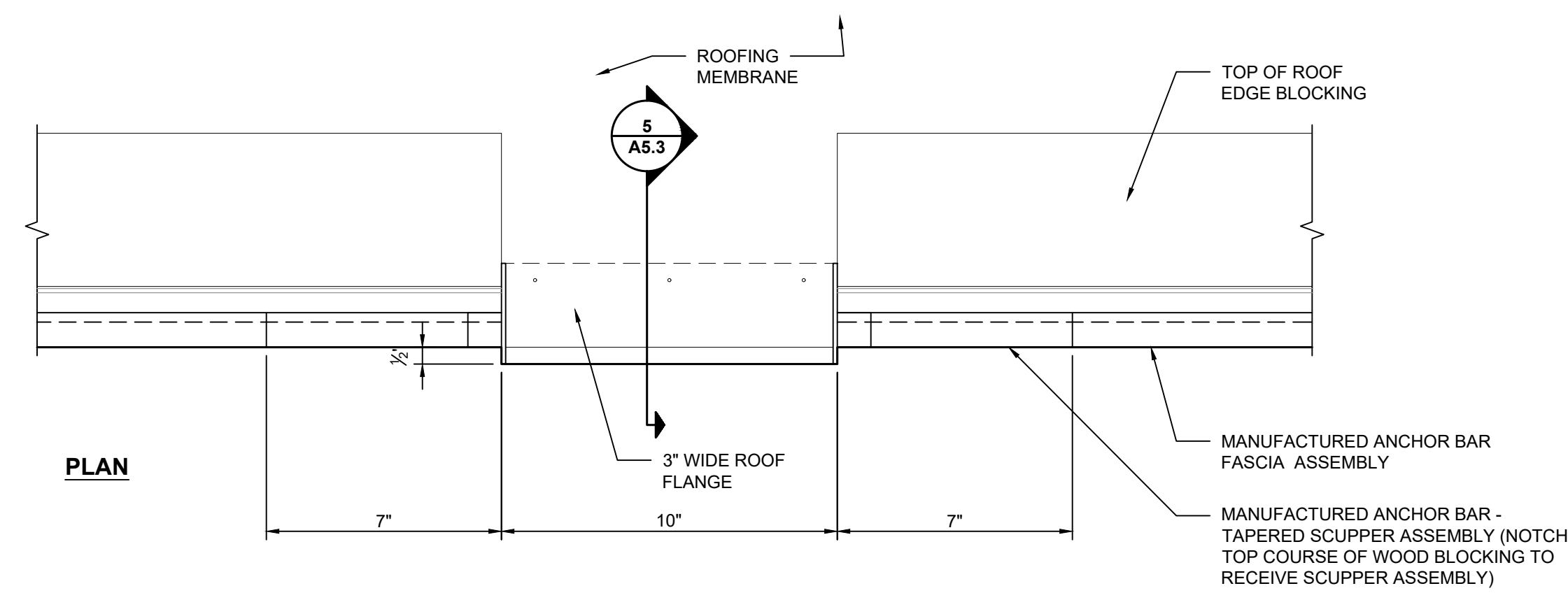
**2 GUARDRAIL POST DETAIL**  
 A5.3  
 SCALE: 3" = 1'-0"



**3 GUARDRAIL BASE PLATE DETAIL**  
 A5.3  
 SCALE: 3" = 1'-0"

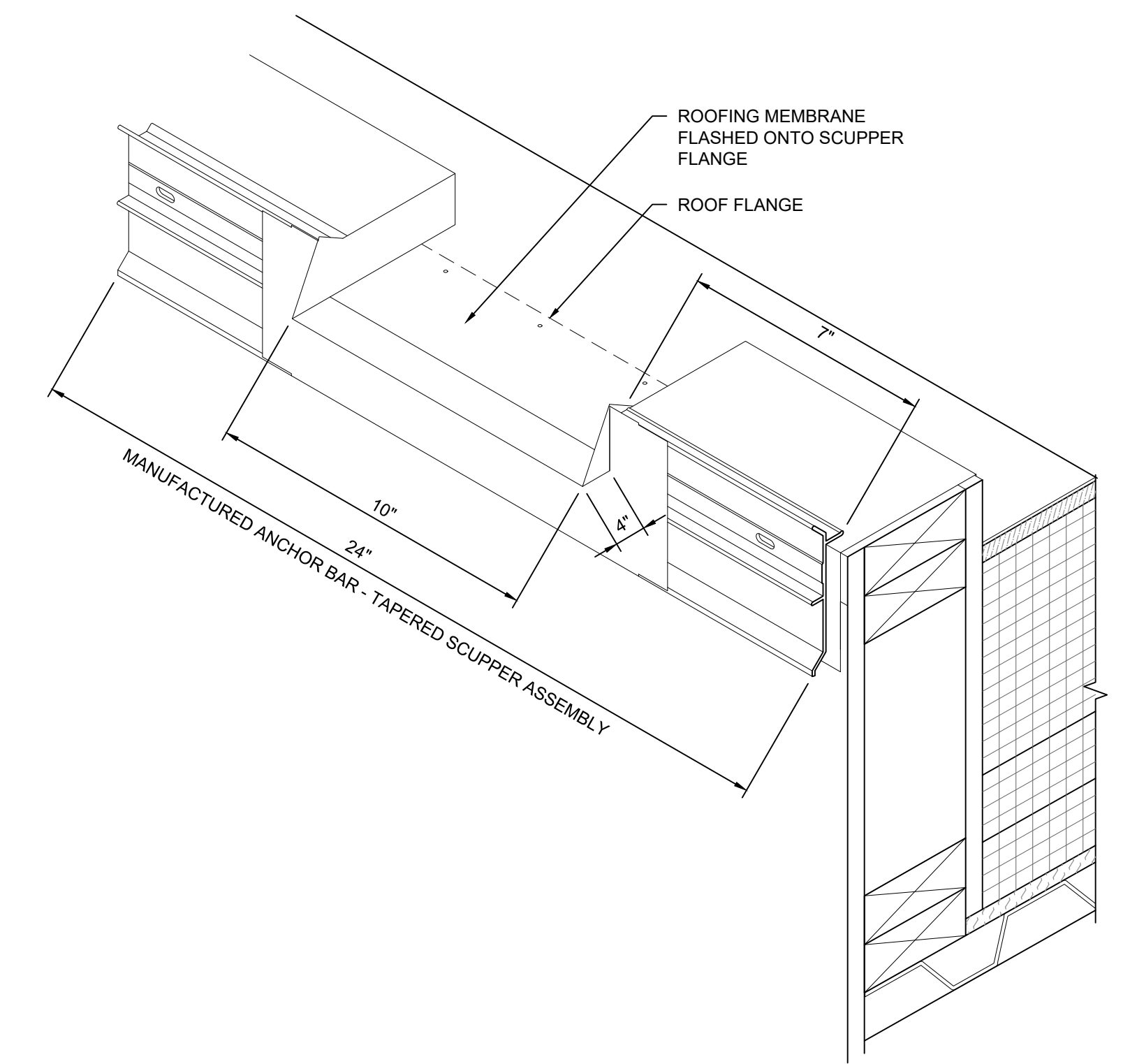


**ELEVATION**



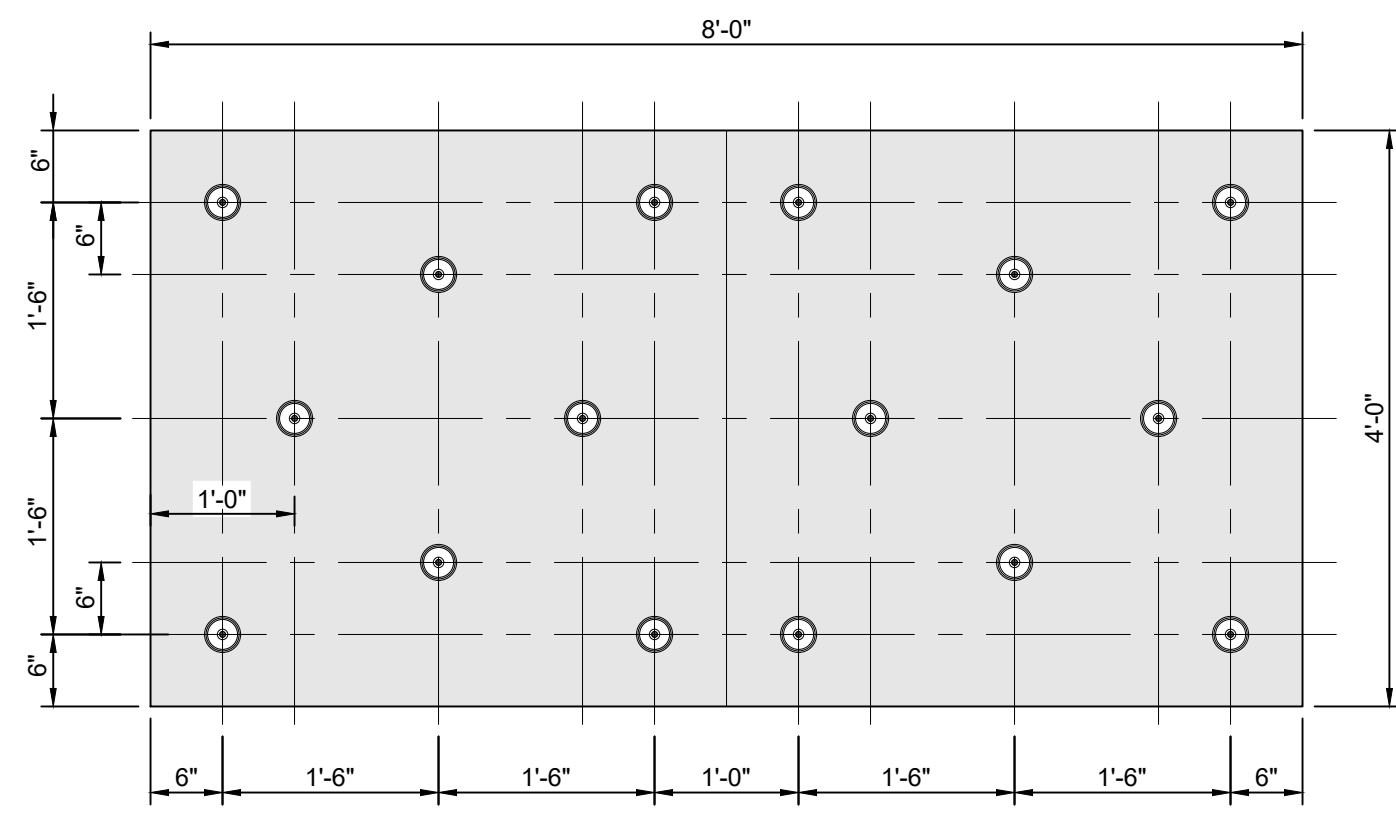
**PLAN**

**4 MANUFACTURED SCUPPER**  
 A5.3  
 SCALE: 3" = 1'-0"



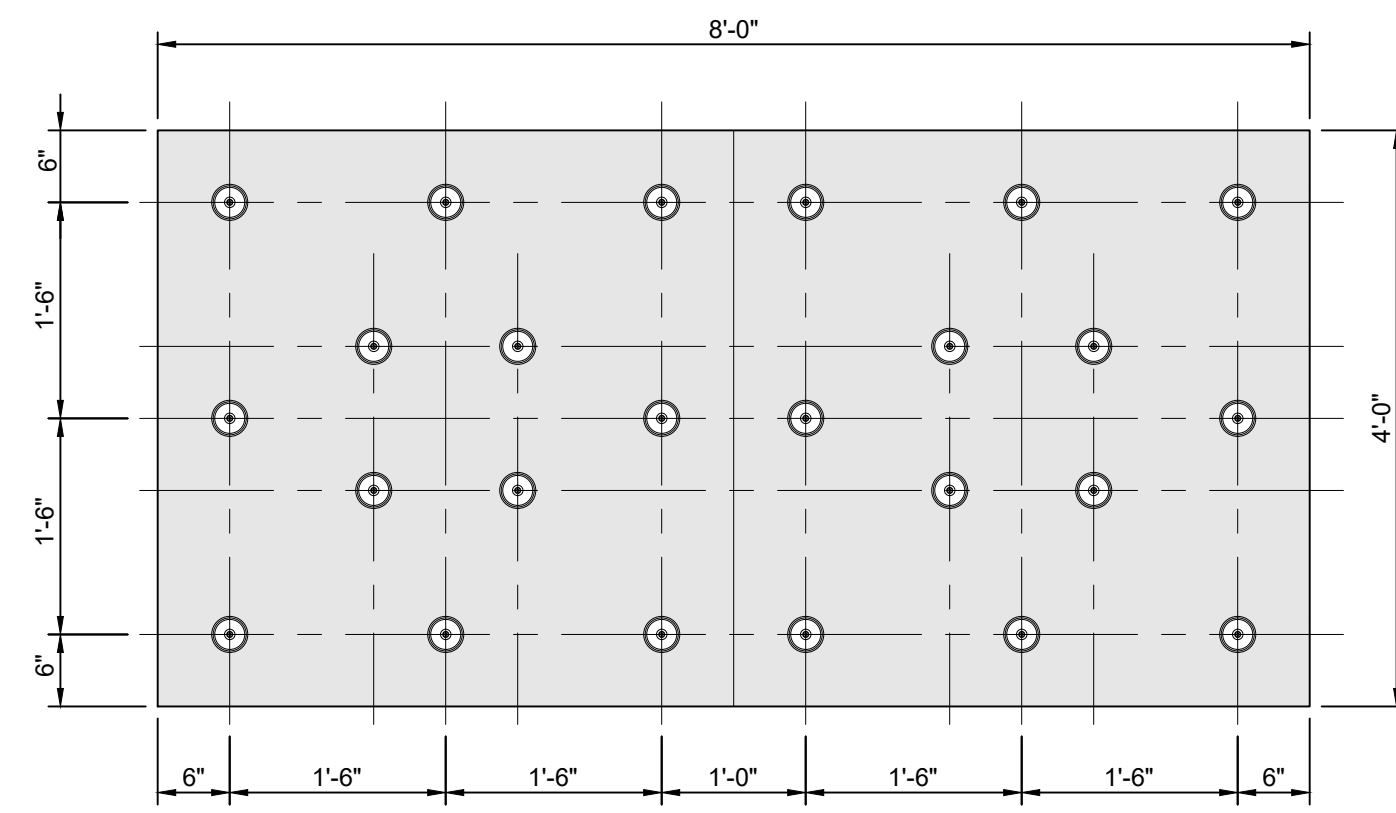
**5 MANUFACTURED OVERFLOW SCUPPER**  
 A5.3  
 SCALE: 3" = 1'-0"

drawing title			STATE OF CONNECTICUT	
DETAILS			DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS				
mark	date	description	drawing prepared by	date
			HOFFMANN ARCHITECTS	12 NOV 2018
			2321 WHITNEY AVENUE	scale
			HAMDEN, CT 06518	AS NOTED
			project	drawn by
			DEPARTMENT OF MOTOR VEHICLES	DSOKRG
			HAMDEN ROOF AND HVAC	approved by
			1985 STATE STREET	LEK
			HAMDEN, CT	drawing no.
			CAD no.	A5.3
			218028 A5.1.dwg	
			project no.	
			BI-MM-54	

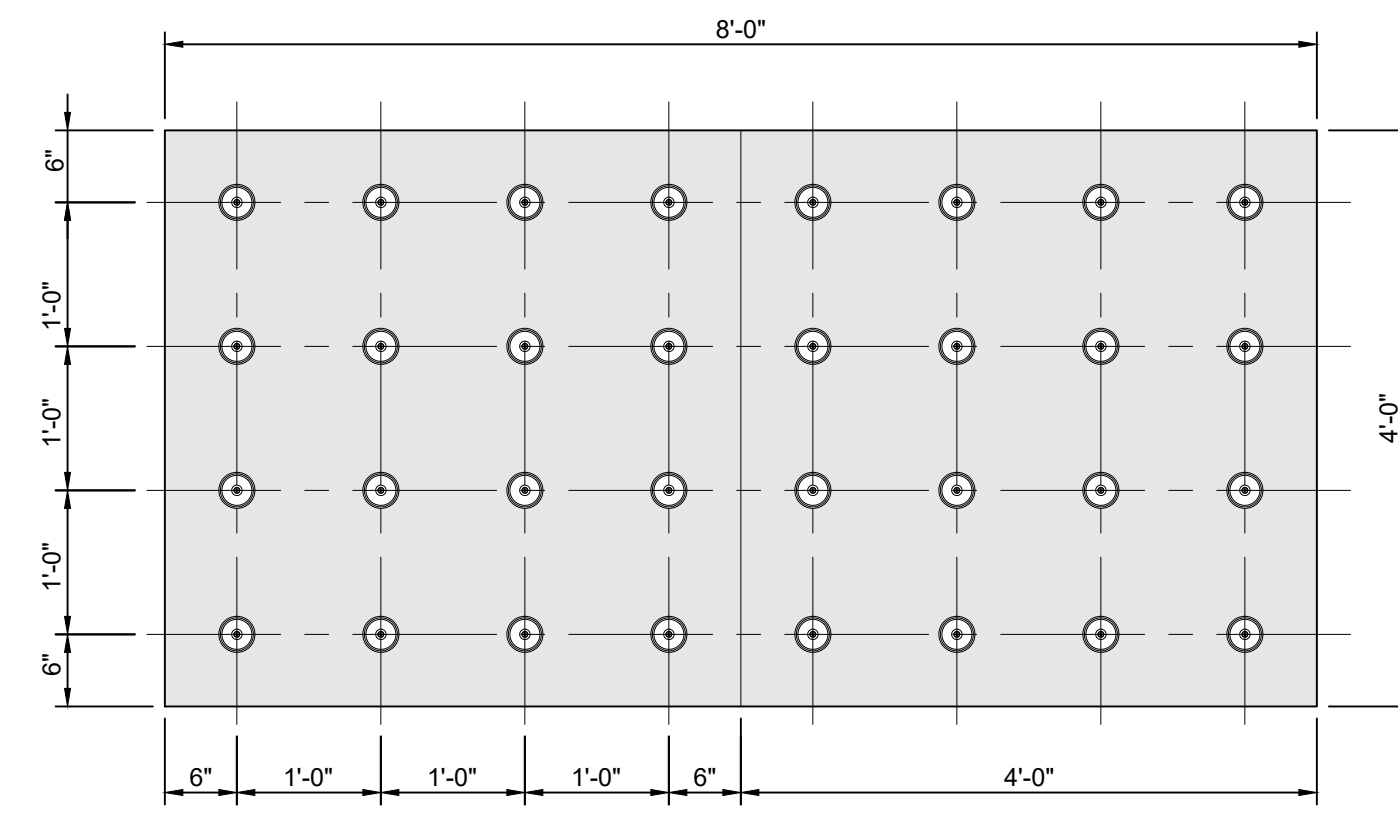


**ZONE 1 (16 FASTENERS)**

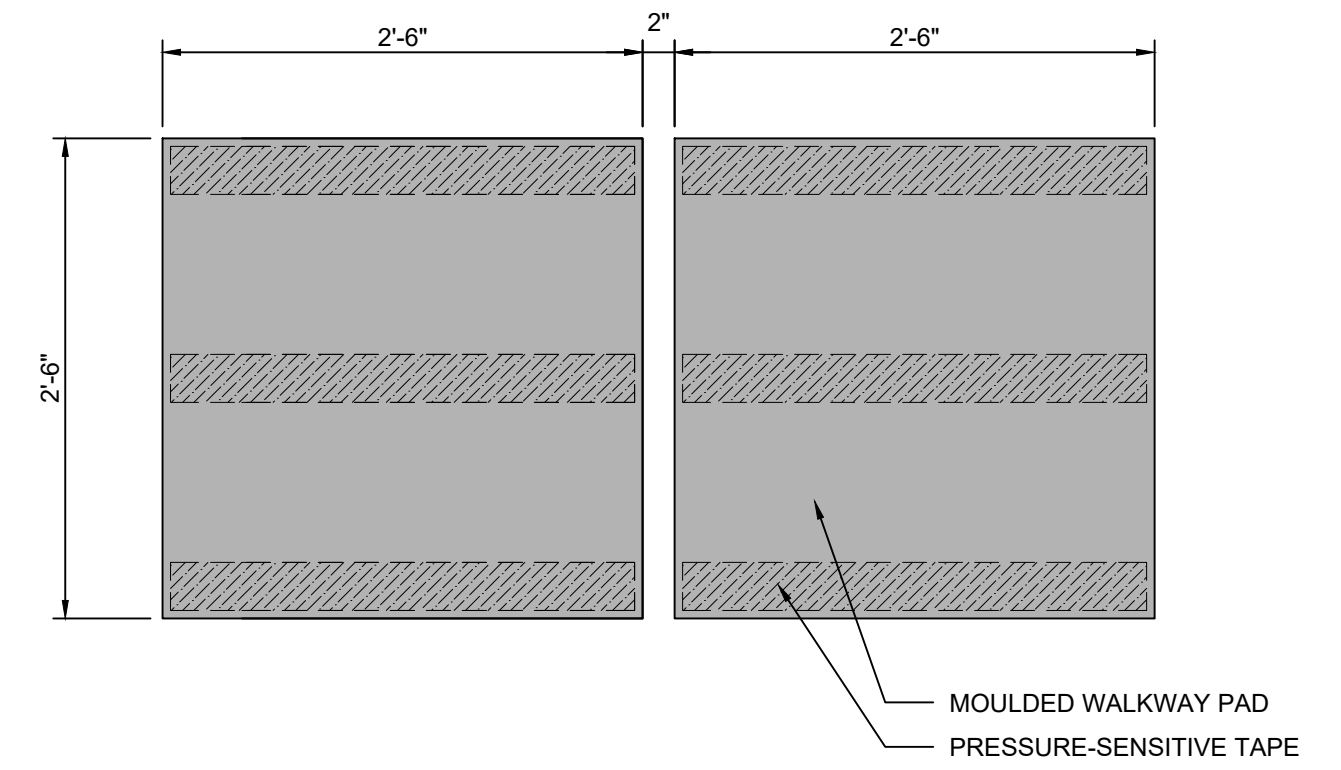
NOTE: ROOF ASSEMBLY FASTENING PATTERNS BASED ON A MINIMUM FM 1-90 TESTED ASSEMBLY WITH PRESCRIPTIVE ENHANCEMENTS AT PERIMETER AND CORNER ZONES. FINAL FASTENING PATTERN TO BE CONFIRMED WITH SELECTED MANUFACTURER'S FM GLOBAL TESTED ROOF ASSEMBLY.



**ZONE 2 (24 FASTENERS)**

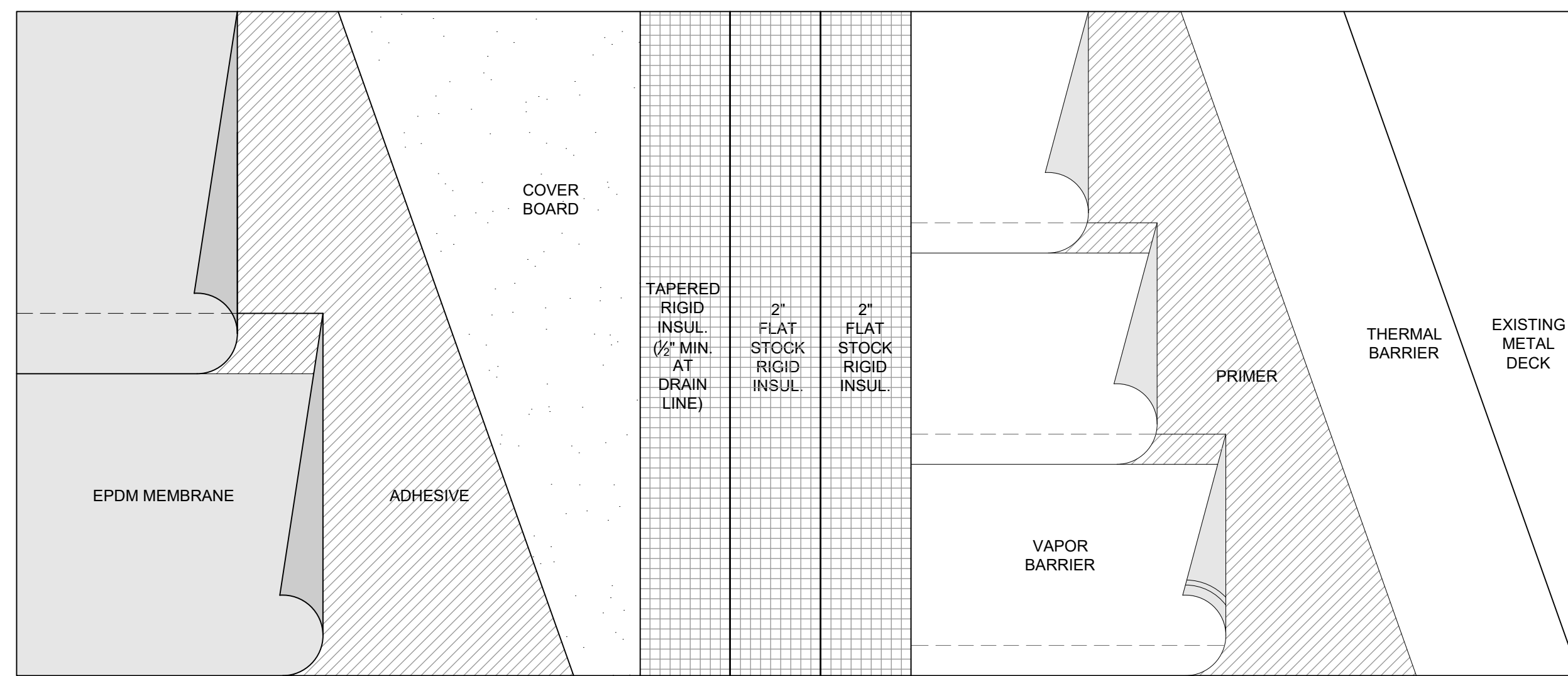


**ZONES 3 (32 FASTENERS)**

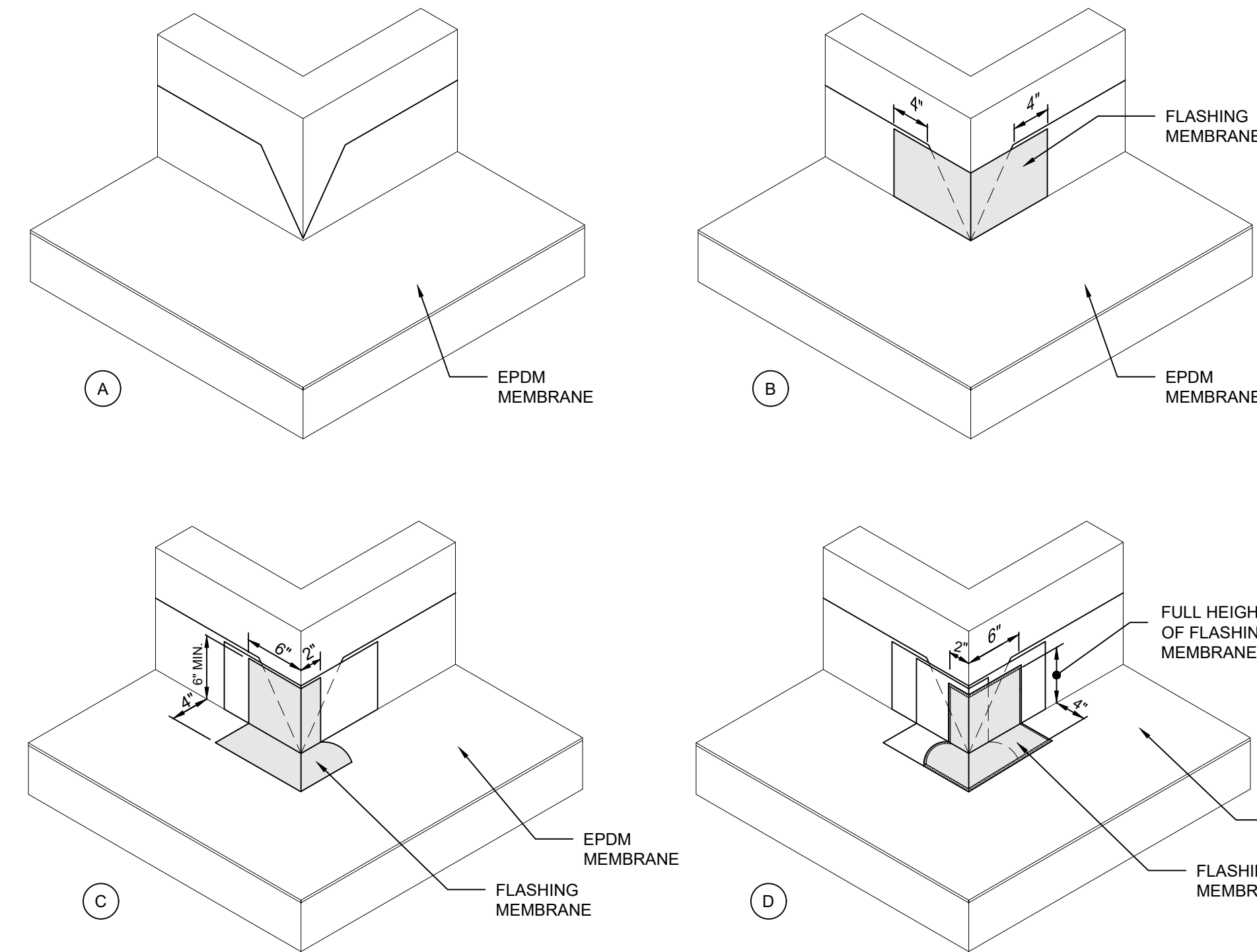


**2 WALKWAY PAD DETAIL**  
SCALE: 1" = 1'-0"

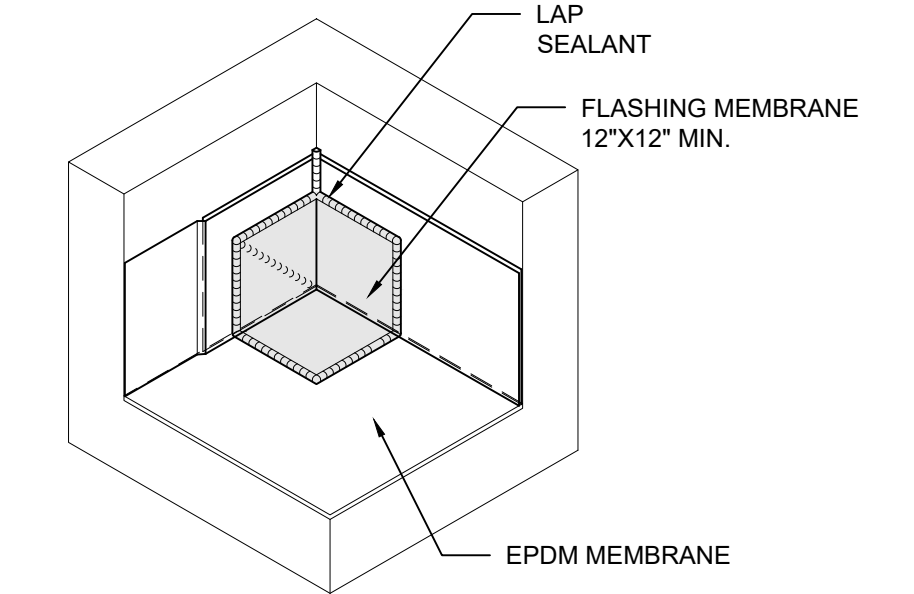
**1 ROOF ASSEMBLY FASTENING PATTERN**  
SCALE: 3/4" = 1'-0"



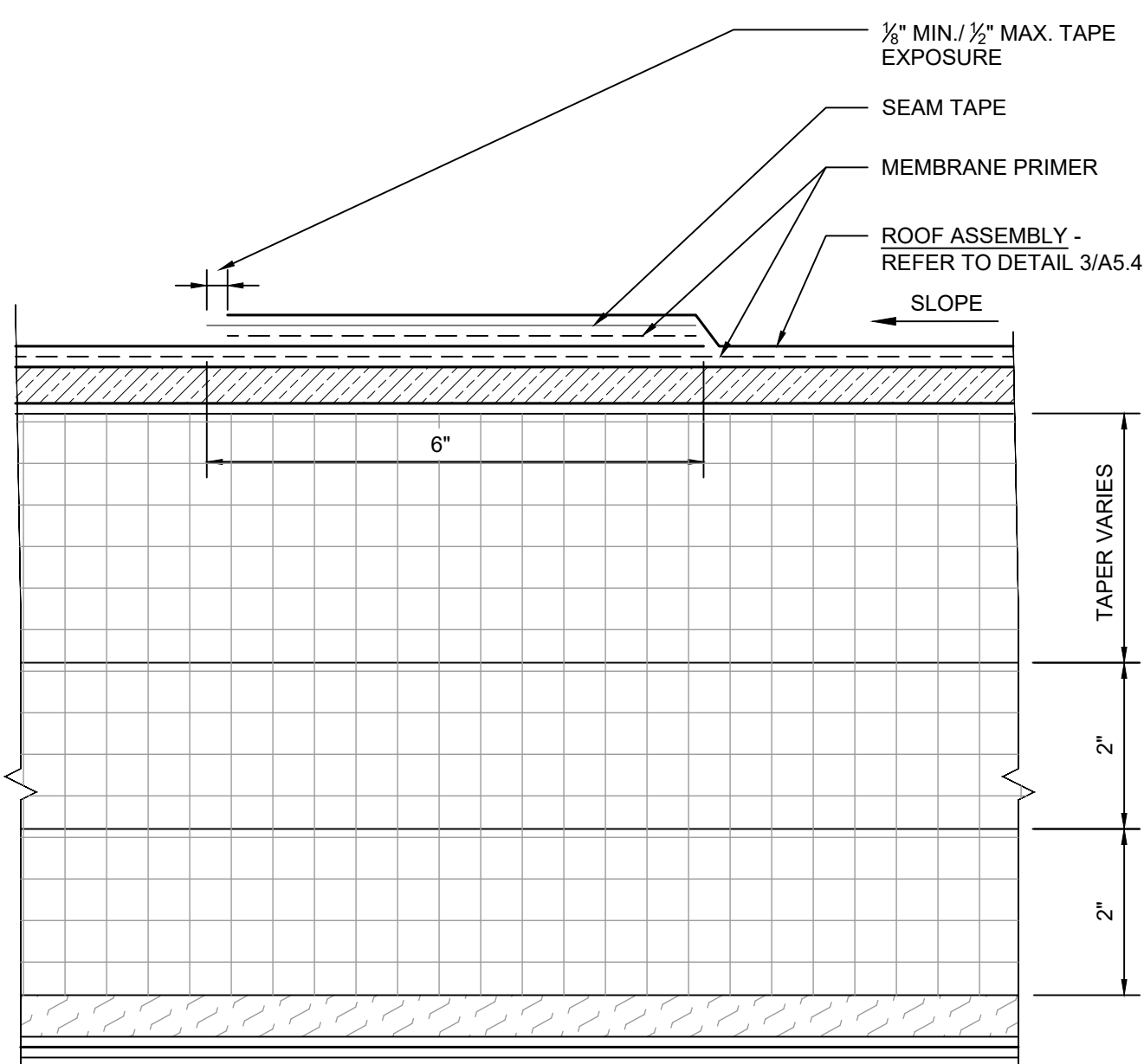
**3 ROOF SYSTEM DETAIL**  
SCALE: 1" = 1'-0"



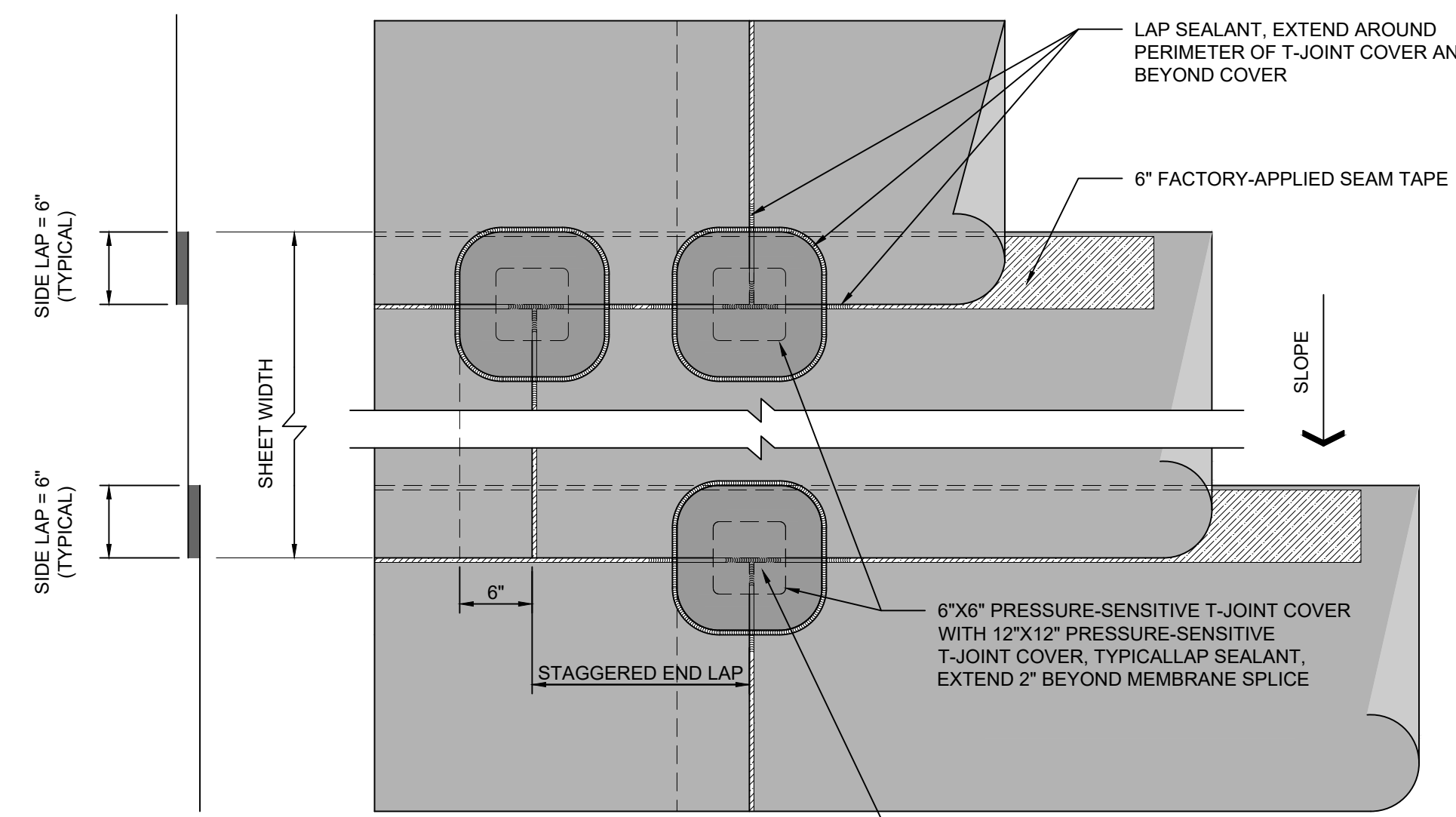
**4 OUTSIDE CORNER FLASHING DETAIL**  
SCALE: 1" = 1'-0"



**5 INSIDE CORNER FLASHING DETAIL**  
SCALE: 1" = 1'-0"



**6 SEAM SPLICE DETAIL**  
SCALE: HALF FULL



**7 SIDE AND END LAP DETAIL**  
SCALE: 1" = 1'-0"

drawing title		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
DETAILS		drawing prepared by <b>HOFFMANN ARCHITECTS</b> 2321 WHITNEY AVENUE HAMDEN, CT 06518	
REVISIONS		date 12 NOV 2018	
mark	date	description	scale AS NOTED
			drawn by DSOKRG
			approved by LEK
			drawing no. <b>A5.4</b>
CAD no. 218028 A5.1.dwg	project no. BH-MM-54		

## GENERAL MECHANICAL NOTES

- GENERAL**
- WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
  - IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.
  - ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.
  - WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
  - DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO INCLUDE THE PROVISIONS AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.
  - PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.
  - WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
  - STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.
  - THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION NOT SPECIFICALLY PROVIDED BY OTHERS BUT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS. COORDINATE REQUIREMENTS WITH DIVISION 26.
  - COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL STEEL, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.
  - ALL EXISTING CONDITIONS AS INDICATED ARE APPROXIMATIONS OF EXACT CONDITIONS TO BE VERIFIED IN THE FIELD. CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE CONSTRUCTION CONDITIONS BEFORE SUBMITTING BID.
  - LOCATE ALL BALANCING DAMPERS AT MAIN DUCTWORK ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS.
  - PROVIDE TRAPPED CONDENSATION DRAIN PIPING FROM COOLING COIL DRAIN PAN TO AN APPROVED POINT OF DISCHARGE WHETHER INDICATED OR NOT.
  - REFER TO SPECIFICATION SECTION 230000 FOR ADDITIONAL PENETRATION SEALING REQUIREMENTS. PENETRATIONS TO COMPLY WITH ASTM E84 & E814 AND APPROVED UL 1479 AND SPECIFIC UL ASSEMBLIES AS REQUIRED TO SUIT PENETRATION CONDITIONS.
  - DO NOT RUN ANY MECHANICAL OR CONTROL SERVICES THROUGH RATED STAIR ENCLOSURES UNLESS SYSTEMS ARE DESIGNED AND DESIGNATED TO SERVICE STAIRS.
  - COORDINATE ALL ROOF AND FLOOR PENETRATIONS W/ STRUCTURAL DWGS AND PROVIDE STRUCTURAL CONTRACTOR W/ FLOOR, WALL & ROOF OPENING SIZES.
  - THE DRAWINGS AND SPECIFICATIONS ARE DIVIDED INTO SECTIONS TO MEET THE NEEDS OF THE ARCHITECT, THE ENGINEERS, AND THE DESIGN CONSULTANTS. THEY ARE NOT PREPARED AS INSTRUCTIONS TO THE CONTRACTOR FOR HOW TO BUY OUT OR SUBCONTRACT THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, REGARDLESS OF WHERE IT IS SHOWN. FOR EXAMPLE, ELECTRICAL WORK IS SHOWN ON FP-SERIES DRAWINGS AS WELL AS ON M-SERIES DRAWINGS AND E-SERIES DRAWINGS. MISCELLANEOUS METALS AND STRUCTURAL ELEMENTS ARE SHOWN ON A-SERIES DRAWINGS AS WELL AS ON S-SERIES DRAWINGS. STRUCTURAL SUPPORTS ARE REQUIRED BY THE FP DRAWINGS. TO AVOID OMITTING ANY COMPONENT OF THE PROJECT, REFER TO ALL THE CONTRACT DOCUMENTS IN THEIR ENTIRETY.
  - WHEREVER EXISTING SYSTEMS ARE ALTERED OR EXTENDED THE INTEGRITY OF THE SYSTEM IS TO BE MAINTAINED AND FUNCTION FULLY AS BEFORE. COORDINATE SCHEDULE FOR HOOK-UPS TO EXISTING SYSTEMS AND EQUIPMENT REMOVAL OR RELOCATION WITH THE OWNER AND PERFORM THIS WORK AT SUCH TIMES TO ENSURE THAT PERIODS OF SHUTDOWN WILL BE ACCEPTABLE TO THE OWNER.
  - VERIFY EXACT LOCATION OF CONNECTION POINTS (NEW TO EXISTING) IN FIELD PRIOR TO CONSTRUCTION.
  - RELOCATE EXISTING DUCTWORK AND/OR PIPE WORK IN EXISTING CEILING SPACES TO ACCOMMODATE ALL RENOVATIONS.
  - TAKE DOWN AND REINSTALL EXISTING CEILINGS IN ALL AREAS WHERE MECHANICAL WORK IS INDICATED AND EXISTING CEILINGS REMAIN. REPLACE CEILING TILES DAMAGED DURING WORK.
  - PATCH ALL WALLS, FLOORS, CEILINGS, AND ROOFS TO MATCH EXISTING IN ALL CASES WHERE EXISTING WALLS, FLOORS, CEILINGS, AND ROOFS REMAIN AND HVAC DEMOLITION IS INDICATED.

## GENERAL MECHANICAL SYMBOLS

	CONDENSATE DRAIN PIPING
	NATURAL GAS PIPING
	EXISTING PIPING OR DUCTWORK TO REMAIN
	EXISTING PIPING OR DUCTWORK TO BE REMOVED
	EXISTING DUCTWORK TO REMAIN (DRAWN DOUBLE LINE)
	EXISTING DUCTWORK TO BE REMOVED (DRAWN DOUBLE LINE)
	HIDDEN DUCTWORK (DRAWN DOUBLE LINE)
	SUPPLY DUCT UP / DOWN
	RETURN AIR DUCT UP / DOWN
	EXHAUST AIR DUCT UP / DOWN
	DOUBLE LINE DUCTWORK WITH INDICATION OF INSIDE DIMENSIONS
	ACCESS DOOR IN DUCT
	ROUND DUCT DIAMETER SIZE
	FLEXIBLE DUCT CONNECTION
	UNDERCUT DOOR
	SUPPLY AIR FLOW
	EXHAUST / RETURN AIR FLOW
	MITERED ELBOW WITH TURNING VANES
	DUCT TAKE-OFF
	VANE EXTRACTOR
	GAS PLUG VALVE
	CEILING DIFFUSER
	REFER TO SCHEDULE FOR SIZE & TYPE
	EXISTING SUPPLY DIFFUSER TO REMAIN
	RETURN / EXHAUST GRILLE
	REFER TO SCHEDULE FOR SIZE & TYPE
	EXISTING RETURN / EXHAUST GRILLE TO REMAIN
	THERMOSTAT
	RELATIVE HUMIDITY SENSOR OR HUMIDISTAT
	SMOKE DETECTOR IN DUCT
	SMOKE DAMPER
	FIRE DAMPER
	MOTORIZED DAMPER
	MANUAL VOLUME DAMPER / CABLE OPERATED DAMPER (COD)
	UNDERLINED TEXT DENOTES EQUIPMENT
	REFER TO SCHEDULES
	DIFFUSER LEGEND
	CFM = CFM QUANTITY
	POINT OF CONNECTION
	POINT OF DEMOLITION

\* ALL SYMBOLS MAY NOT BE USED IN THESE DOCUMENTS.

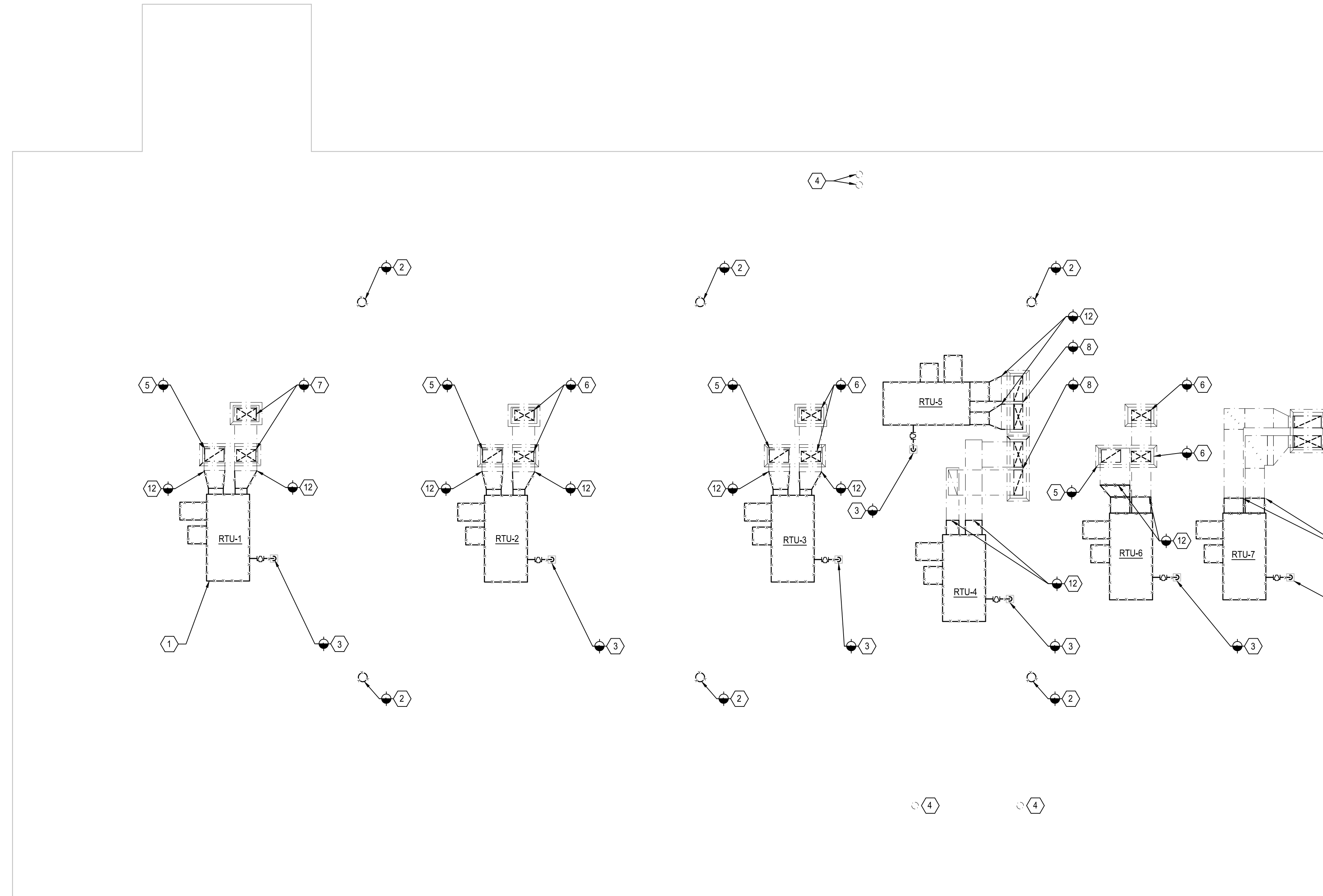
## MECHANICAL DEMOLITION NOTES

- COORDINATE PHASING OF DEMOLITION WITH AGENCY, CM/GC AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.
- THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE WORK.
- WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING PIPING OR DUCTWORK WHICH MAY CAUSE DISRUPTION TO OCCUPIED FACILITIES, CONFER WITH THE OWNER, AND SCHEDULE A MUTUALLY AGREEABLE PERIOD OF INTERRUPTION.
- WHERE REPLACEMENT, RELOCATION OR MODIFICATION OF EXISTING EQUIPMENT IS INDICATED, PROVIDE AND MAINTAIN ALL TEMPORARY SERVICES, CONNECTIONS, CONTROLS, AND ANY OTHER MATERIALS AND APPURTENANCES REQUIRED TO MAINTAIN SERVICES TO OCCUPIED AREAS.
- NO WORK SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S PRIOR WRITTEN PERMISSION.
- THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING MECHANICAL EQUIPMENT UNTIL THE NEW SYSTEMS COME ON LINE.
- IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED OPERATIONS OF THE BUILDING.
- REMOVED MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
- HAZARDOUS MATERIALS - SHALL BE DISPOSED OF BY AN EPA APPROVED, LICENSED DISPOSAL SERVICE. CONTRACTOR SHALL OBTAIN AND HAVE ON FILE, AFFIDAVIT, AND RECEIPTS STATING HOW AND WHERE THE WASTE WAS DISPOSED OF OR CONVERTED.
- DUCTWORK, EQUIPMENT AND TERMINAL DEVICES HAVE BEEN TAKEN FROM FIELD OBSERVATION AND ARE TO BE USED FOR REFERENCE AND SHALL NOT BE CONSTRUED TO BE ACTUAL FIELD CONDITIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SYSTEMS PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
- ALL EQUIPMENT TO BE REMOVED SHALL BE DISPOSED OF PER OR STORED PER DIRECTION OF OWNER. ANY ITEM NOT RETAINED BY OWNER SHALL BE REMOVED FROM SITE AND DISCARDED IN AN APPROVED MANNER.
- IT IS THE INTENTION OF THESE SPECIFICATION TO REMOVE ALL MATERIALS ABANDONED BY THE SCOPE OF THIS CONSTRUCTION PROJECT. NO OBSOLETE MATERIALS (I.E. HANGERS, SUPPORTS, INSULATION, DUCTWORK, ETC.) SHALL REMAIN.
- CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION TO ANY EXPOSED OR UNCAPPED NEW OR EXISTING DUCTWORK TO REMAIN TO MINIMIZE DUST CONTAMINATION IN ANY AND ALL OF THE AIR SYSTEMS. THIS SHALL INCLUDE BUT IS NOT LIMITED TO TEMPORARY FILTERS, CAPS, ENCLOSURES, ETC.

## MECHANICAL DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
M-001	COVER SHEET - MECHANICAL
MD-103	DEMOLITION ROOF PLAN - MECHANICAL
M-101	FIRST FLOOR PLAN - MECHANICAL
M-102	SECOND FLOOR PLAN - MECHANICAL
M-103	ROOF PLAN - MECHANICAL
M-300	SCHEDULES - MECHANICAL
M-400	DETAILS - MECHANICAL

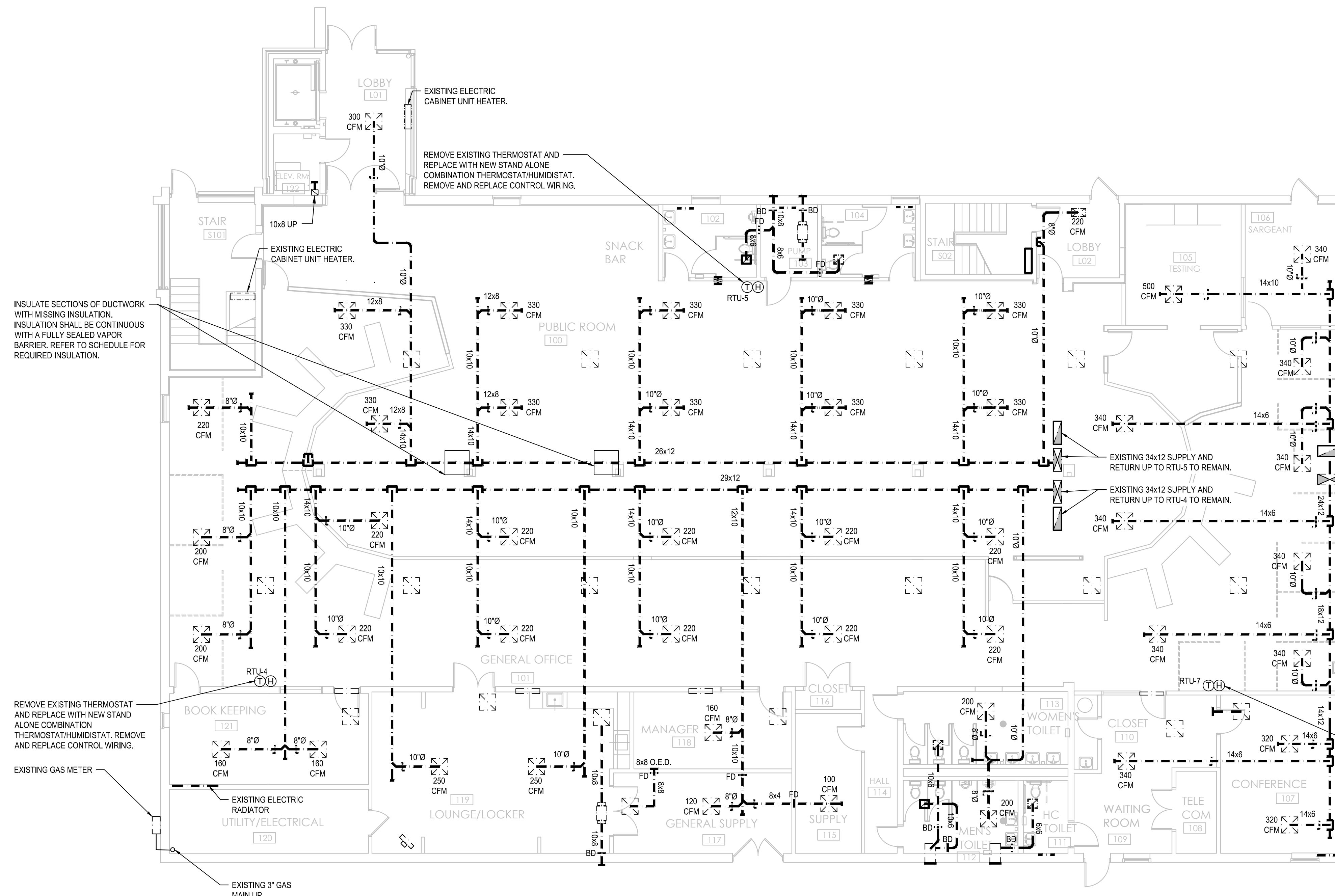
drawing title <b>COVER SHEET - MECHANICAL</b>		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			
mark	date	description	
drawing prepared by <b>KOHLER RONAN, LLC</b> 93 LAKE AVENUE DANBURY, CT 06810		date 12 NOV 2018	scale N.T.S.
project <b>DEPARTMENT OF MOTOR VEHICLES</b> <b>HAMDEN ROOF AND HVAC</b> 1985 STATE STREET HAMDEN, CT		drawn by JRM	approved by CFR
CAD no. www.kro.com/Cover_Sheet.dwg	project no. BI-MM-54		<b>M-001</b>



DEMOLITION KEYNOTES	
1	EXISTING ROOF TOP UNIT TO BE REMOVED. TYPICAL FOR ALL ROOF TOP UNITS. ROOF CURB TO REMAIN.
2	EXISTING ROOF DRAIN TO BE REMOVED AND REPLACED WITH NEW ROOF DRAIN. EXISTING ROOF DRAIN PIPING TO REMAIN. REFER TO M-103 FOR NEW WORK.
3	REMOVE EXISTING 1" GAS SERVING ROOF TOP UNIT BACK TO ROOF PENETRATION. REMOVE PITCH POCKET.
4	EXISTING PLUMBING VENT STACK TO REMAIN. TYPICAL.
5	EXISTING 27x17 RETURN DOWN TO REMAIN. DISCONNECT AT CONNECTION TO EXISTING HORIZONTAL ROOFTOP DUCTWORK. HORIZONTAL ROOFTOP DUCTWORK SHALL BE SALVAGED AND RE-USED.
6	EXISTING 26x14 SUPPLY DOWN TO REMAIN. DISCONNECT AT CONNECTION TO EXISTING HORIZONTAL ROOFTOP DUCTWORK. HORIZONTAL ROOFTOP DUCTWORK SHALL BE SALVAGED AND RE-USED.
7	EXISTING 26x16 SUPPLY DOWN TO REMAIN. DISCONNECT AT CONNECTION TO EXISTING HORIZONTAL ROOFTOP DUCTWORK. HORIZONTAL ROOFTOP DUCTWORK SHALL BE SALVAGED AND RE-USED.
8	EXISTING 34x12 SUPPLY AND RETURN DOWN TO REMAIN. DISCONNECT AT CONNECTION TO EXISTING HORIZONTAL ROOFTOP DUCTWORK. HORIZONTAL ROOFTOP DUCTWORK SHALL BE SALVAGED AND RE-USED.
9	EXISTING 36x14 RETURN DOWN TO REMAIN. DISCONNECT AT CONNECTION TO EXISTING HORIZONTAL ROOFTOP DUCTWORK. HORIZONTAL ROOFTOP DUCTWORK SHALL BE SALVAGED AND RE-USED.
10	EXISTING 36x16 SUPPLY DOWN TO REMAIN. DISCONNECT AT CONNECTION TO EXISTING HORIZONTAL ROOFTOP DUCTWORK. HORIZONTAL ROOFTOP DUCTWORK SHALL BE SALVAGED AND RE-USED.
11	EXISTING DUCT PENETRATION ROOF CURB TO REMAIN. AND BE RE-USED. TYPICAL FOR ALL.
12	EXISTING HORIZONTAL DUCTWORK TO BE SALVAGED AND RE-USED. DISCONNECT AT RTU TRANSITION.
13	REMOVE EXISTING 1" GAS SERVING ROOF TOP UNIT BACK TO 2ND FLOOR CEILING LOCATION AS INDICATED ON M-102. REMOVE PITCH POCKET.

1 DEMOLITION ROOF PLAN  
MD-103 Scale: 1/8"=1'-0"

drawing title			STATE OF CONNECTICUT	
DEMOLITION ROOF PLAN - MECHANICAL			DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS				
mark	date	description	drawing prepared by	date
			KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	12 NOV 2018 scale 1/8"=1'-0"
			DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT	drawn by JRM approved by CFR drawing no.
			CAD no. www.mds-103-Roof Plan.dwg	project no. BI-MM-54
				MD-103



**AIR BALANCE NOTES**

- REBALANCE ALL SUPPLY AIR DIFFUSERS TO VALUES SHOWN ON FLOOR PLAN.
- BALANCE OUTSIDE AIR AND RETURN AIR MAIN PROVIDED IN ROOF TOP UNIT SCHEDULE.

**SUPPLEMENTAL BID #2**

INTERNALLY CLEAN ALL DUCTWORK, DAMPERS, AND TURNING VANES PRIOR TO ADJUSTING AND BALANCING. THOROUGHLY CLEAN ALL EXISTING REGISTERS, GRILLES, AND DIFFUSERS. REFER TO SPECIFICATION 230130.51 FOR DETAILED CLEANING REQUIREMENTS.

INSULATE SECTIONS OF DUCTWORK WITH MISSING INSULATION. INSULATION SHALL BE CONTINUOUS WITH A FULLY SEALED VAPOR BARRIER. REFER TO SCHEDULE FOR REQUIRED INSULATION.

REMOVE EXISTING THERMOSTAT AND REPLACE WITH NEW STAND ALONE COMBINATION THERMOSTAT/HUMIDISTAT. REMOVE AND REPLACE CONTROL WIRING.

EXISTING GAS METER

EXISTING ELECTRIC RADIATOR

EXISTING 3" GAS MAIN UP.

EXISTING 34x12 SUPPLY AND RETURN UP TO RTU-5 TO REMAIN.

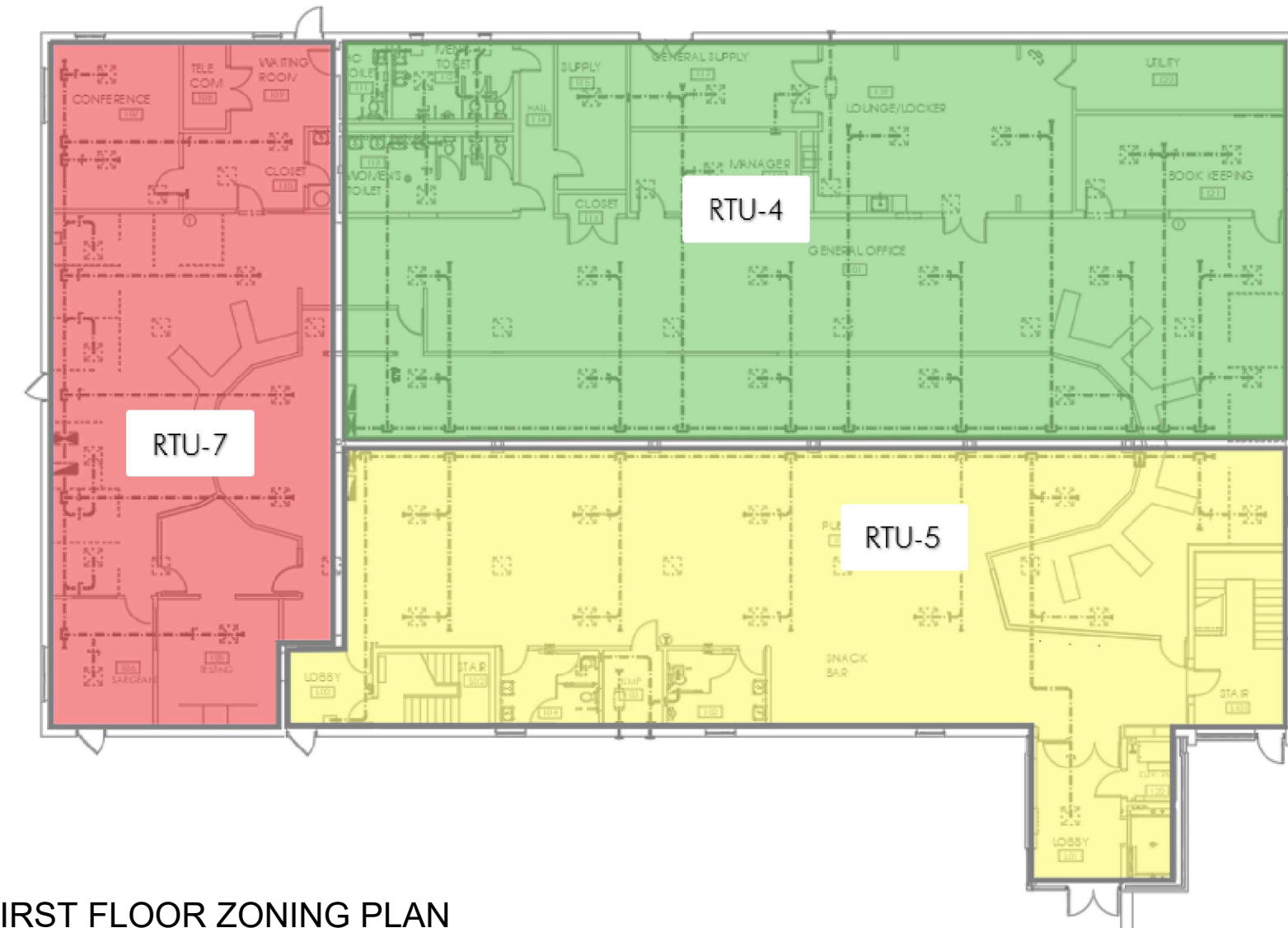
EXISTING 34x12 SUPPLY AND RETURN UP TO RTU-4 TO REMAIN.

EXISTING 36x16 RETURN UP TO RTU-7 TO REMAIN.

EXISTING 36x16 SUPPLY UP TO RTU-7 TO REMAIN.

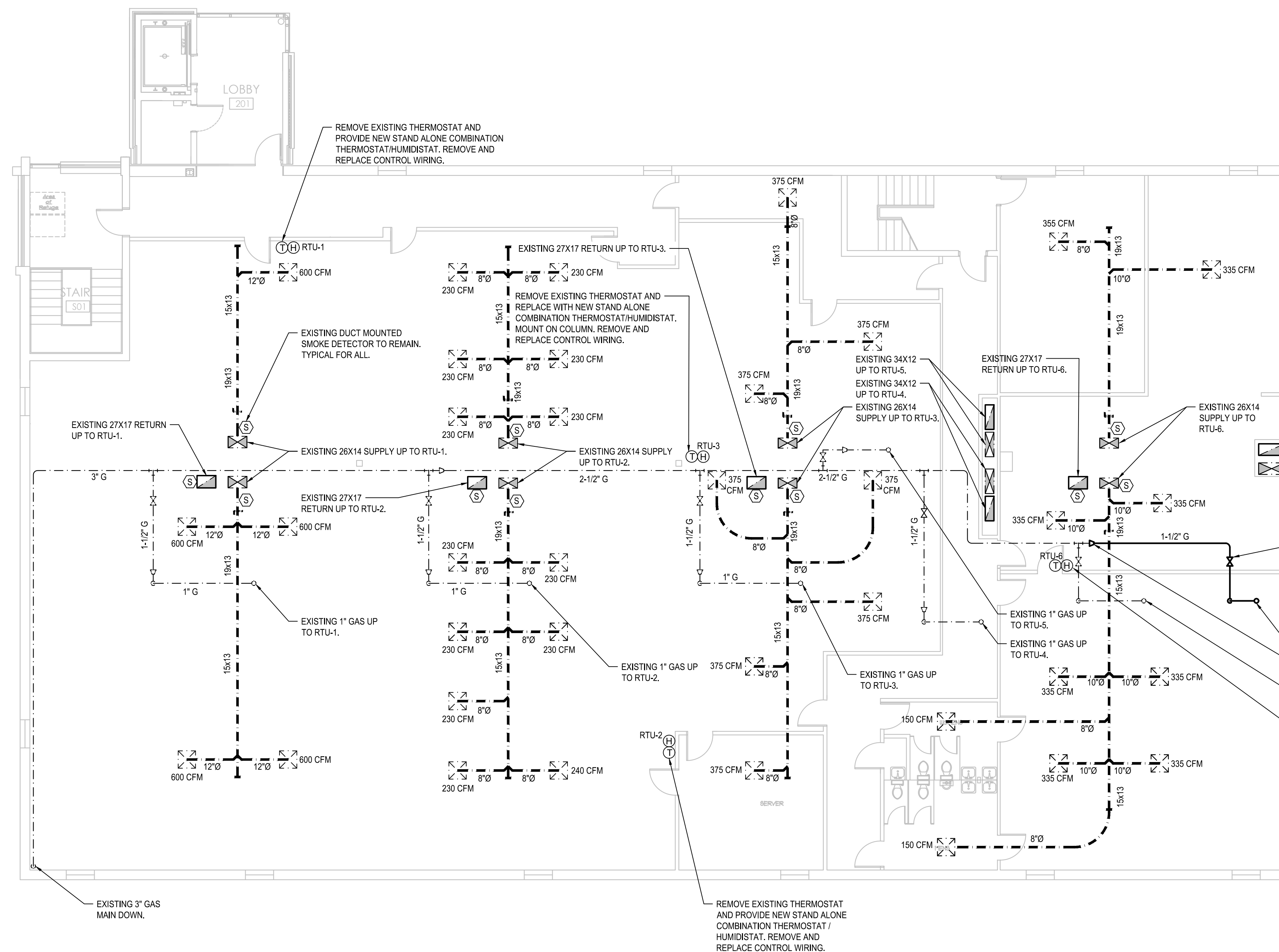
REMOVE EXISTING THERMOSTAT AND REPLACE WITH NEW STAND ALONE COMBINATION THERMOSTAT/HUMIDISTAT. REMOVE AND REPLACE CONTROL WIRING.

**1 FIRST FLOOR PLAN**  
M-101 Scale: 1/8"=1'-0"



**2 FIRST FLOOR ZONING PLAN**  
M-101 Scale: NOT TO SCALE

drawing title <b>FIRST FLOOR PLAN - MECHANICAL REVISIONS</b>			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			drawing prepared by <b>KOHLER RONAN, LLC</b> 93 LAKE AVENUE DANBURY, CT 06810	
mark	date	description	date	12 NOV 2018
			scale	AS NOTED
			project	DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT
			drawn by	JRM
			approved by	CFR
			drawing no.	M-101
CAD no.			project no.	BI-MM-54



**AIR BALANCE NOTES**

- REBALANCE ALL SUPPLY AIR DIFFUSERS TO VALUES SHOWN ON FLOOR PLAN.
- BALANCE OUTSIDE AIR AND RETURN AIR MAIN PROVIDED IN ROOF TOP UNIT SCHEDULE.

**SUPPLEMENTAL BID #1**

REMOVE AND REPLACE ALL EXISTING DUCT MOUNTED SMOKE DETECTORS FOUND ON SECOND FLOOR. RECONNECT TO EXISTING FIRE ALARM SYSTEM.

**SUPPLEMENTAL BID #2**

INTERNALLY CLEAN ALL DUCTWORK, DAMPERS, AND TURNING VANES PRIOR TO ADJUSTING AND BALANCING. THOROUGHLY CLEAN ALL EXISTING REGISTERS, GRILLES, AND DIFFUSERS. REFER TO SPECIFICATION 230130.51 FOR DETAILED CLEANING REQUIREMENTS.

EXISTING 36X16 RTU-7 RETURN UP AND DOWN TO REMAIN.

EXISTING 36X16 RTU-7 SUPPLY UP AND DOWN TO REMAIN.

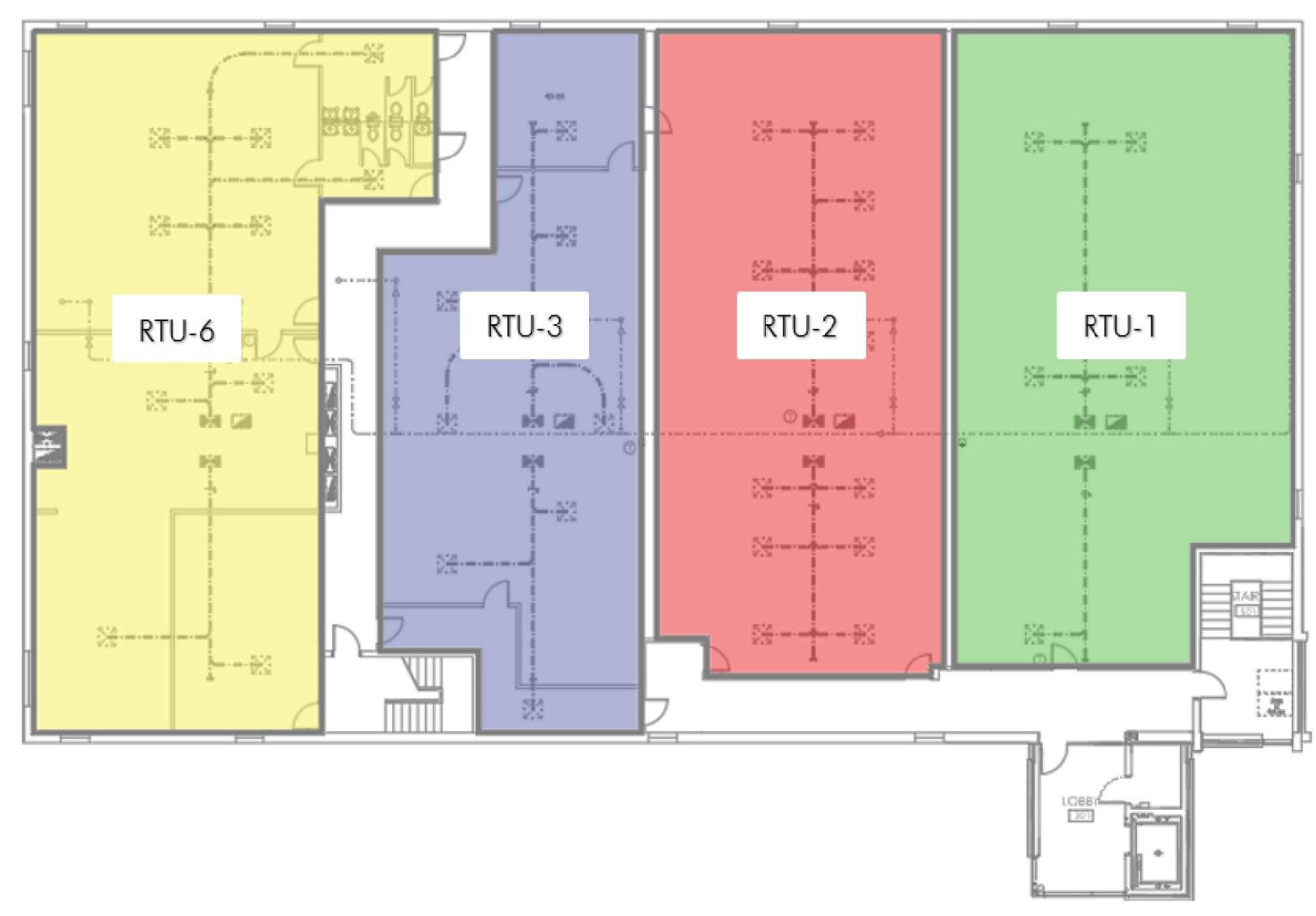
REMOVE EXISTING 1" GAS SHUT OFF VALVE AND REPLACE WITH NEW 1-1/2" GAS SHUT OFF VALVE.

REMOVE EXISTING 1" GAS UP TO RTU-7 AND REPLACE WITH NEW 1-1/2" GAS. RUN NEW 1-1/2" GAS TO UNIT CONNECTION.

EXISTING 1" GAS UP TO RTU-6.

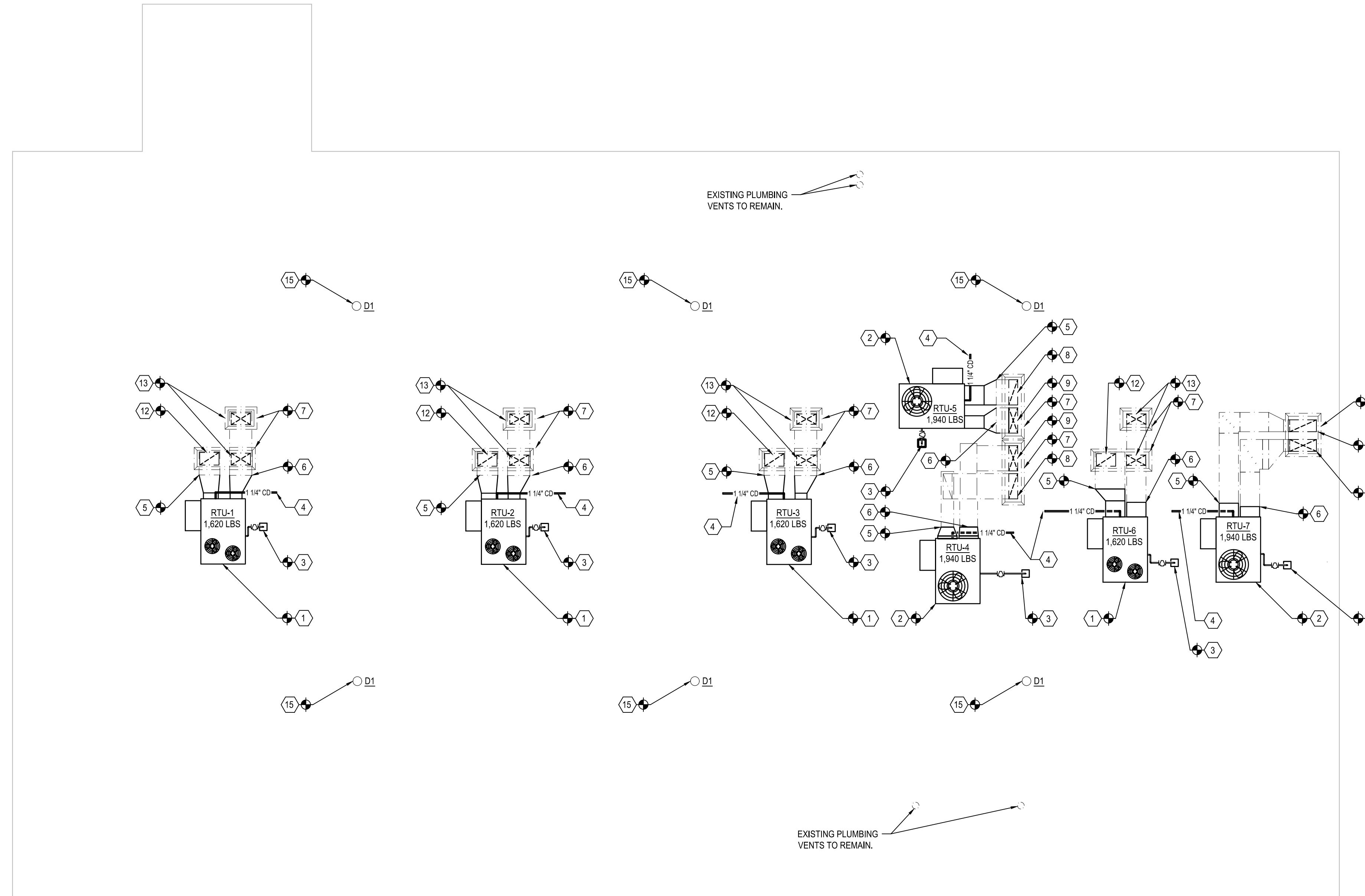
REMOVE EXISTING THERMOSTAT AND PROVIDE NEW STAND ALONE COMBINATION THERMOSTAT/HUMIDISTAT. REMOVE AND REPLACE CONTROL WIRING.

**1 SECOND FLOOR PLAN**  
M-102 Scale: 1/8"=1'-0"



**2 SECOND FLOOR ZONING PLAN**  
M-102 Scale: NOT TO SCALE

drawing title <b>SECOND FLOOR PLAN - MECHANICAL</b>		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			
mark	date	description	
drawing prepared by <b>KOHLER RONAN, LLC</b> 93 LAKE AVENUE DANBURY, CT 06810		date 12 NOV 2018	scale AS NOTED
project <b>DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC</b> 1985 STATE STREET HAMDEN, CT		drawn by JRM	approved by CFR
CAD no.	project no. BI-MM-54	drawing no. <b>M-102</b>	



- ### MECHANICAL KEYNOTES
- 1 NEW ROOFTOP UNIT SERVING SECOND FLOOR. MOUNT ON 12" HIGH ADAPTER CURB. CONNECT NEW ADAPTER CURB TO EXISTING ROOF CURB.
  - 2 NEW ROOFTOP UNIT SERVING FIRST FLOOR. MOUNT ON 12" HIGH ADAPTER CURB. CONNECT NEW ADAPTER CURB TO EXISTING ROOF CURB.
  - 3 CONNECT NEW 1" GAS SUPPLY TO EXISTING 1" GAS SUPPLY AT ROOF PENETRATION. PROVIDE NEW PITCH POCKET. ROUTE 1" GAS TO NEW ROOF TOP UNIT WITH LOCKABLE PLUG VALVE.
  - 4 PROVIDE NEW 1-1/4" TRAPPED CONDENSATE LINE SERVING ROOFTOP UNIT COOLING COIL. TERMINATE NEARBY ON ROOF WITH SPLASH BLOCK. PITCH CONDENSATE PIPE 1-1/4" PER FOOT TOWARDS SPLASH BLOCK.
  - 5 CONNECT SALVAGED RETURN AIR MAIN TO NEW ROOFTOP UNIT WITH NEW TRANSITION. RE-INSULATE SALVAGED RETURN AIR MAIN.
  - 6 CONNECT SALVAGED SUPPLY AIR MAIN TO NEW ROOFTOP UNIT WITH NEW TRANSITION. RE-INSULATE SALVAGED SUPPLY AIR MAIN.
  - 7 CONNECT NEW 12" HIGH ADAPTER CURB TO EXISTING ROOF CURB.
  - 8 EXTEND EXISTING 34x12 VERTICAL RETURN MAIN THROUGH ROOF AND CONNECT TO EXISTING RAISED RETURN AIR MAIN.
  - 9 EXTEND EXISTING 34x12 VERTICAL SUPPLY MAIN THROUGH ROOF AND CONNECT TO EXISTING RAISED SUPPLY AIR MAIN.
  - 10 EXTEND EXISTING 36x16 VERTICAL RETURN MAIN THROUGH ROOF AND CONNECT TO EXISTING RAISED RETURN AIR MAIN.
  - 11 EXTEND EXISTING 36x16 VERTICAL SUPPLY MAIN THROUGH ROOF AND CONNECT TO EXISTING RAISED SUPPLY AIR MAIN.
  - 12 EXTEND EXISTING 27x17 VERTICAL RETURN MAIN THROUGH ROOF AND CONNECT TO EXISTING RAISED RETURN AIR MAIN.
  - 13 EXTEND EXISTING 26x14 VERTICAL SUPPLY MAIN THROUGH ROOF AND CONNECT TO EXISTING RAISED SUPPLY AIR MAIN.
  - 14 CONNECT NEW 1-1/2" GAS SUPPLY TO RTU-7. PROVIDE NEW PITCH POCKET AND LOCKABLE PLUG VALVE.
  - 15 NEW ROOF DRAIN. REFER TO ROOF DRAIN SCHEDULE AND ARCHITECTURAL DETAILS. CONNECT TO EXISTING PIPING BELOW ROOF.

### SUGGESTED RTU PHASING

**GENERAL**

THE INTENT IS TO MINIMIZE THE DOWNTIME OF EACH RTU SERVING THE FIRST FLOOR. TEMPORARY CONDITIONS ALLOW EXTENDED DOWNTIME BUT DOWNTIME SHALL BE LIMITED TO TWO DAYS MAXIMUM OF TEMPORARY CONDITIONS. NOTE DMV IS CLOSED ON MONDAYS. CONTRACTOR TO MAKE ALL PROVISIONS SUCH AS PROCURING ALL DUCTWORK, CURBS, PIPING, ELECTRICAL, ETC. TO MINIMIZE ACTUAL DOWNTIME.

**RTU-1, 2, 3, & 6:**

SECOND FLOOR SHALL NOT BE OCCUPIED DURING CONSTRUCTION, THEREFORE, RTU-1,2,3, AND 6 CAN BE REMOVED AND REPLACED IN KIND.

**RTU-4:**

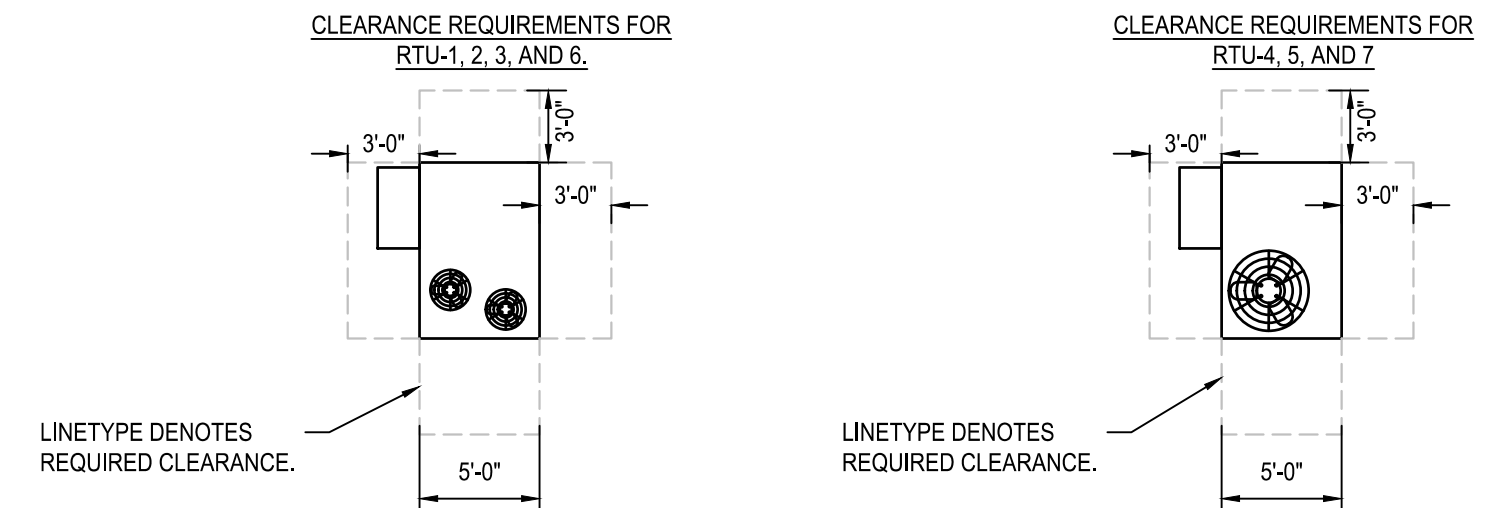
FIRST FLOOR SHALL BE OCCUPIED DURING CONSTRUCTION. RTU-3 SHALL BE USED TO BACK-FEED ZONE SERVED BY RTU-4. PROVIDE TEMPORARY BLANK OFF PLATES IN DUCT MAINS SERVING ZONE RTU-3. ROUTE (2) 18" INSULATED SUPPLY AIR FLEX DUCTS ALONG ROOF FROM RTU-3 TO EXISTING RTU-4 SUPPLY AIR MAIN. ROUTE (2) 18" INSULATED RETURN AIR FLEX DUCTS ALONG ROOF FROM RTU-3 TO EXISTING RTU-4 RETURN AIR MAIN. REMOVE AND REPLACE RTU-4. TEMPORARILY ADJUST OUTSIDE AIR OF RTU-3 TO 750 CFM. MAKE FINAL SUPPLY AND RETURN AIR CONNECTIONS. CONNECT GAS AND POWER. REMOVE FLEX DUCTS FROM RTU-4 DUCT MAINS. PATCH AND SEAL RTU-4 DUCT MAINS AIR TIGHT. HAVE UNIT RUNNING BY NEXT BUSINESS DAY.

**RTU-5:**

FIRST FLOOR SHALL BE OCCUPIED DURING CONSTRUCTION. RTU-3 SHALL BE USED TO BACK-FEED ZONE SERVED BY RTU-5. ROUTE (2) 18" INSULATED SUPPLY AIR FLEX DUCTS ALONG ROOF FROM RTU-3 TO EXISTING RTU-5 SUPPLY AIR MAIN. ROUTE (2) 18" INSULATED RETURN AIR FLEX DUCTS ALONG ROOF FROM RTU-3 TO EXISTING RTU-5 RETURN AIR MAIN. REMOVE AND REPLACE RTU-5. TEMPORARILY ADJUST OUTSIDE AIR OF RTU-3 TO 750 CFM. MAKE FINAL SUPPLY AND RETURN AIR CONNECTIONS. CONNECT GAS AND POWER. HAVE UNIT RUNNING BY NEXT BUSINESS DAY. REMOVE ALL TEMPORARY FLEX DUCTS. PATCH AND SEAL RTU-5 DUCT MAINS AIR TIGHT. REMOVE BLANK OFF PLATES IN DUCT MAINS SERVING RTU-3. PATCH AND SEAL RTU-3 DUCT MAINS AIR TIGHT AND RETURN ZONE RTU-3 TO FULL OPERATION.

**RTU-7:**

FIRST FLOOR SHALL BE OCCUPIED DURING CONSTRUCTION. RTU-6 SHALL BE USED TO BACK-FEED ZONE SERVED BY RTU-7. PROVIDE TEMPORARY BLANK OFF PLATES IN DUCT MAINS SERVING ZONE RTU-6. ROUTE (2) 18" INSULATED SUPPLY AIR FLEX DUCTS ALONG ROOF FROM RTU-6 TO EXISTING RTU-7 SUPPLY AIR MAIN. ROUTE (2) 18" INSULATED RETURN AIR FLEX DUCTS ALONG ROOF FROM RTU-6 TO EXISTING RTU-7 RETURN AIR MAIN. REMOVE AND REPLACE RTU-7. TEMPORARILY ADJUST OUTSIDE AIR OF RTU-6 TO 750 CFM. MAKE FINAL SUPPLY AND RETURN AIR CONNECTIONS. CONNECT GAS AND POWER. HAVE UNIT RUNNING BY NEXT BUSINESS DAY. REMOVE ALL TEMPORARY FLEX DUCTS. PATCH AND SEAL RTU-7 DUCT MAINS AIR TIGHT. REMOVE BLANK OFF PLATES IN DUCT MAINS SERVING RTU-6. PATCH AND SEAL RTU-6 DUCT MAINS AIR TIGHT AND RETURN ZONE RTU-6 TO FULL OPERATION.



### SUPPLEMENTAL BID #3

REMOVE AND REPLACE ALL ROOF MOUNTED SUPPLY AND RETURN AIR DUCTWORK WITH NEW DUCTWORK OF EQUIVALENT SIZE.

1 ROOF PLAN  
M-103 Scale: 1/8"=1'-0"

drawing title <b>ROOF PLAN - MECHANICAL</b>		<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS		drawing prepared by <b>KOHLER RONAN, LLC</b> 93 LAKE AVENUE DANBURY, CT 06810	date 12 NOV 2018 scale 1/8"=1'-0"
mark	date	description	drawn by JRM approved by CFR drawing no. <b>M-103</b>
CAD no. www.krlr.com/03-Roof-Plan.dwg		project no. BI-MM-54	



HVAC PIPING/TUBING MATERIAL, JOINTS & FITTINGS						
SYSTEM	PIPE SIZE	CONSTRUCTION	PIPING	FITTINGS	UNIONS	FLANGES
COOLING COIL CONDENSATE DRAINS	2" AND SMALLER	SOLDER JOINT CONSTRUCTION WITH THREADED ADAPTERS AS REQUIRED. 95-5 TIN/ANTIMONY SOLDER.	COPPER, TYPE L, HARD DRAWN, ANSI H23.1, ASTM B88.	CAST BRONZE OR WROUGHT COPPER, SOLDER ENDS, ANSI B16.9 OR ANSI B16.22.	BRONZE SOLDER ENDS, GROUND JOINTS, ANSI B16.19 OR ANSI B16.22.	USE UNIONS
NATURAL GAS	2" AND SMALLER	THREADED CONSTRUCTION WITH THREADED CONNECTIONS TO EQUIPMENT AS REQUIRED.	BLACK STEEL, SCHEDULE 40, SEAMLESS, ASTM A53, GRADE B.	MALLEABLE IRON THREADED, CLASS 150	MALLEABLE IRON, CLASS 150, THREADED ENDS, GROUND JOINTS, ANSI B16.49, ASTM A181, GRADE 1.	-
ABOVE GROUND STORM DRAIN	ALL	SERVICE WEIGHT CAST IRON PIPES AND FITTINGS CONNECTED WITH NO HUB HEAVY DUTY 4-BAND CLAMPS	SERVICE WEIGHT CAST IRON PIPING	SERVICE WEIGHT CAST IRON FITTINGS	NO HUB HEAVY DUTY 4-BAND CLAMPS SIMILAR TO HUSKY SD 4000.	-

DUCT PRESSURE CLASS	
APPLICATION	PRESSURE CLASS
SUPPLY / RETURN AIR DUCTWORK	2" W.G.

- NOTES:
- LEAKAGE CLASS SHALL BE DETERMINED PER ASHRAE 90.1-2010 REQUIREMENTS.
  - PRESSURE CLASS SHALL BE DEFINED PER SMACNA THIRD EDITION - 2015.
  - DUCTWORK, JOINTS, SEALING, AND FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA THIRD EDITION - 2015.

HVAC DUCT/PLENUM MATERIAL				
APPLICATION	SUPPLY	RETURN	EXHAUST	
TYPICAL (UNLESS OTHERWISE SPECIFIED)	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL	-	

- DUCT CONSTRUCTION SHALL MEET SMACNA METAL & FLEXIBLE 2005 3RD EDITION STANDARDS.

### RTU SEQUENCE OF OPERATIONS

**GENERAL:**

- EACH UNIT SHALL OPERATE INDEPENDENTLY WITHIN THEIR DESIGNATED ZONE.
- BUILDING HOURS OF OPERATION SHALL BE PROGRAMMED THROUGH THE 7-DAY PROGRAMMABLE COMBINATION THERMOSTAT / HUMIDISTAT.
- PROGRAMMABLE THERMOSTAT / HUMIDISTAT SHALL ALLOW 2-HOUR LONG OCCUPANT OVERRIDE.

**OCCUPIED COOLING:**

- THE UNIT PACKAGED CONTROLS SHALL SEQUENCE COMPRESSOR OPERATION, HOT GAS REHEAT COIL, AND SUPPLY FAN AIRFLOW TO MAINTAIN DESIRED SETPOINT (75°F / 50%RH ADJUSTABLE).

**UNOCCUPIED COOLING:**

- THE UNIT PACKAGED CONTROLS SHALL SEQUENCE COMPRESSOR OPERATION AND STAGE SUPPLY FAN AIRFLOW TO MAINTAIN DESIRED SETBACK TEMPERATURE (85°F ADJUSTABLE).

**OCCUPIED HEATING:**

- THE UNIT PACKAGED CONTROLS SHALL STAGE THE GAS BURNER OPERATION AND STAGE SUPPLY FAN AIRFLOW TO MAINTAIN DESIRED SETPOINT (70°F ADJUSTABLE).

**UNOCCUPIED HEATING:**

- THE UNIT PACKAGED CONTROLS SHALL STAGE GAS BURNER OPERATION AND STAGE SUPPLY FAN AIRFLOW TO MAINTAIN DESIRED SETBACK TEMPERATURE (60°F ADJUSTABLE).

**SAFETIES:**

- SUPPLY AND RETURN DUCT MOUNTED SMOKE DETECTORS; UPON SENSING PRODUCTS OF COMBUSTION, OR SIGNAL RECEIVED FROM CENTRAL FIRE ALARM SYSTEM, SHALL SHUT DOWN THE ASSOCIATED ROOFTOP UNIT. RESET OF SMOKE DETECTOR INITIATION SHALL BE MANUAL.
- UNIT MOUNTED CONDENSATE OVERFLOW SWITCH SHALL MONITOR CONDENSATE LEVEL IN THE COOLING COIL DRAIN PAN AND SHUT DOWN COMPRESSOR OPERATION WHEN OVERFLOW CONDITIONS OCCUR.

**ECONOMIZER:**

- ROOFTOP UNIT PACKAGED CONTROLS SHALL PROVIDE A DUAL ENTHALPHY BASED ECONOMIZER.

ROOF TOP AIR HANDLING UNITS																																
UNIT NO	LOCATION	SERVES	MIN. VENT. CFM	SUPPLY FAN SECTION							ELECTRICAL					DX COOLING COIL						INDIRECT GAS FIRED HEATER					FILTER	MAKE/MODEL				
				TOTAL CFM	TOTAL SP	EXT. SP	DRIVE	FAN RPM	FAN QTY	BHP EACH	HP	VOLTS	PH	MCA	MOCP	CAP MBH	EAT DB	EAT WB	LAT DB	LAT WB	OUTDOOR AIR TEMP.	EER	VEL FPM	CAP MBH IN	CAP MBH OUT	AIR DATA EAT			AIR DATA LAT	GAS PRESSURE	O.A. TEMP.	EFFICIENCY
RTU-1	ROOFTOP	SECOND FLOOR	450	3,000	1.04"	0.75"	BELT	893	1	1.61	3	208	3	41	50	91 T 88 S	77.0°F	64.1°F	56.0°F	53.8°F	88°F DB 73°F WB	12.0	500 MAX	120 180	98 148	60.7°F	106.1°F	5"	8"	82%	MERV 13	CARRIER 48HCEE03J2M5-2FGM0
RTU-2	ROOFTOP	SECOND FLOOR	450	3,000	1.04"	0.75"	BELT	893	1	1.61	3	208	3	41	50	91 T 88 S	77.0°F	64.1°F	56.0°F	53.8°F	88°F DB 73°F WB	12.0	500 MAX	120 180	98 148	60.7°F	106.1°F	5"	8"	82%	MERV 13	CARRIER 48HCEE03J2M5-2FGM0
RTU-3	ROOFTOP	SECOND FLOOR	450	3,000	1.04"	0.75"	BELT	893	1	1.61	3	208	3	41	50	91 T 88 S	77.0°F	64.1°F	56.0°F	53.8°F	88°F DB 73°F WB	12.0	500 MAX	120 180	98 148	60.7°F	106.1°F	5"	8"	82%	MERV 13	CARRIER 48HCEE03J2M5-2FGM0
RTU-4	ROOFTOP	FIRST FLOOR	800	4,200	1.4"	0.85"	BELT	1127	1	3.75	5	208	3	54	60	118 T 90 S	77.5°F	64.5°F	57.7°F	55.1°F	88°F DB 73°F WB	12.0	500 MAX	180 224	147 184	58.2°F	98.6°F	5"	8"	82%	MERV 13	CARRIER 48HCEE1J2M5-2FGM0
RTU-5	ROOFTOP	FIRST FLOOR	800	4,040	1.25"	0.85"	BELT	1073	1	3.24	5	208	3	54	60	118 T 90 S	77.6°F	64.6°F	57.0°F	54.8°F	88°F DB 73°F WB	12.0	500 MAX	180 224	147 184	57.8°F	99.8°F	5"	8"	82%	MERV 13	CARRIER 48HCEE1J2M5-2FGM0
RTU-6	ROOFTOP	SECOND FLOOR	450	3,000	1.04"	0.75"	BELT	893	1	1.61	3	208	3	41	50	91 T 88 S	77.0°F	64.1°F	56.0°F	53.8°F	88°F DB 73°F WB	12.0	500 MAX	120 180	98 148	60.7°F	106.1°F	5"	8"	82%	MERV 13	CARRIER 48HCEE03J2M5-2FGM0
RTU-7	ROOFTOP	FIRST FLOOR	800	4,200	1.4"	0.85"	BELT	1127	1	3.75	5	208	3	54	60	118 T 90 S	77.5°F	64.5°F	57.7°F	55.1°F	88°F DB 73°F WB	12.0	500 MAX	180 224	147 184	58.2°F	98.6°F	5"	8"	82%	MERV 13	CARRIER 48HCEE1J2M5-2FGM0

- NOTES:
- FANS SHALL BE BALANCED TO AIRFLOW QUANTITY INDICATED ON PLANS AT INLETS AND OUTLETS.
  - ALL COILS SHALL BE MAXIMUM 8 ROWS AND MAXIMUM 12 FINS PER INCH.
  - ALL CONDENSERS SHALL BE SELECTED AT 95°F AMBIENT DRY BULB.
  - FAN MOTORS SHALL BE INVERTOR DUTY RATED FOR USE WITH VARIABLE FREQUENCY DRIVES.
  - PROVIDE 1 COMPLETE SET OF SPARE SET OF FILTERS FOR EACH UNIT.
  - INTAKE PLENUM AND COIL SECTIONS SHALL HAVE SOLID LINER. FILTER, ACCESS AND FAN SECTIONS SHALL HAVE PERFORATED LINER.
  - FURNISH EACH ROOFTOP UNIT WITH A 7 DAY PROGRAMMABLE COMBINATION THERMOSTAT / HUMIDISTAT WITH DIGITAL BACKLIT DISPLAY BY ROOFTOP UNIT MANUFACTURER. THERMOSTATIC CONTROLS SHALL HAVE AN ADJUSTABLE DEADBAND ORIGINALLY SET TO 5°F, AND SHALL PERMANENTLY RETAIN THEIR PROGRAMMED SETTINGS IN THE EVENT OF A POWER FAILURE.
  - FOR EACH ROOFTOP UNIT: PROVIDE 2 STAGE GAS FIRED FURNACE AND 2 SPEED VFD FURNISHED BY MANUFACTURER.

HVAC VIBRATION-CONTROL			
EQUIPMENT	BASE	ISOLATOR	DEFLECTION
ROOF MOUNTED AIR HANDLING UNITS	ADAPTOR CURB ON EXISTING ROOF CURB	-	-

- REMARKS:
- REFER TO SPECIFICATION SECTION 237413 - "PACKAGED OUTDOOR CENTRAL AIR HANDLING UNITS" FOR A DESCRIPTION OF ROOF AND ADAPTOR CURBS.
  - SEISMIC ANCHORS, SUPPORTS AND BRACING EQUIPMENT SHALL BE PROVIDED. THE DESIGN OF ALL COMPONENTS SHALL BE SUBMITTED SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUT SHEETS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.
  - PROVIDE SUPPLEMENTAL STEEL WITHIN THE ROOF CURB TO SUPPORT DUCTWORK INDEPENDENT FROM THE ROOF CURB.

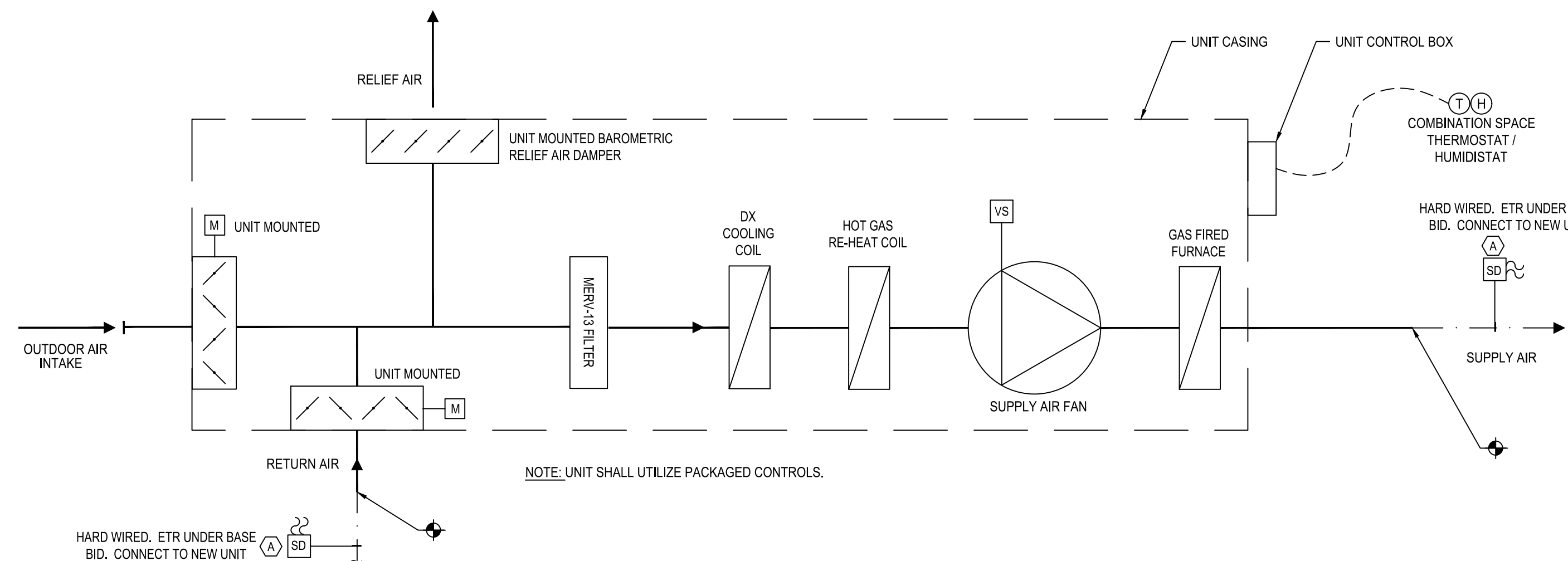
HVAC DUCT/PLENUM INSULATION			
SYSTEM	INSULATION TYPE	MINIMUM INSTALLED INSULATION VALUES	NOMINAL DENSITY
ABOVEGROUND, OUTDOOR DUCT/PLENUM CONCEALED OR EXPOSED SA AND RA	MINERAL FIBER BOARD (REFER TO NOTE #1)	2" R-8	3 LB/FT <sup>3</sup>
INDOOR DUCT/PLENUM CONCEALED SA AND RA:	MINERAL FIBER BLANKET	2" R-6.0	3/4 LB/FT <sup>3</sup>
	MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER.	2" R-6.0	3 LB/FT <sup>3</sup>

- ALL DUCTWORK INSTALLED OUTDOOR: PROVIDE A PRE-MANUFACTURED SELF ADHERING PRODUCT WITH AN UV RESISTANT, STUCCO EMBOSSED FACING. WATER VAPOR TRANSMISSION OF THE INSTALLED PRODUCT SHALL BE .020 PERMS OR LESS. PRODUCT SHALL BE SUITABLE FOR CONTINUOUS USE IN LOW TEMPERATURES OF -10°F. MANUFACTURERS SHALL BE SIMILAR TO FLEX-GLAD 400, MFM BUILDING PRODUCTS CORP. OR ALUMAGUARD 60, POLYGUARD PRODUCTS, INC.
- INSULATION TYPES INDICATED IN THE SCHEDULE SHALL BE USED UNLESS OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS.

SA = SUPPLY AIR DUCTWORK  
RA = RETURN AIR DUCTWORK

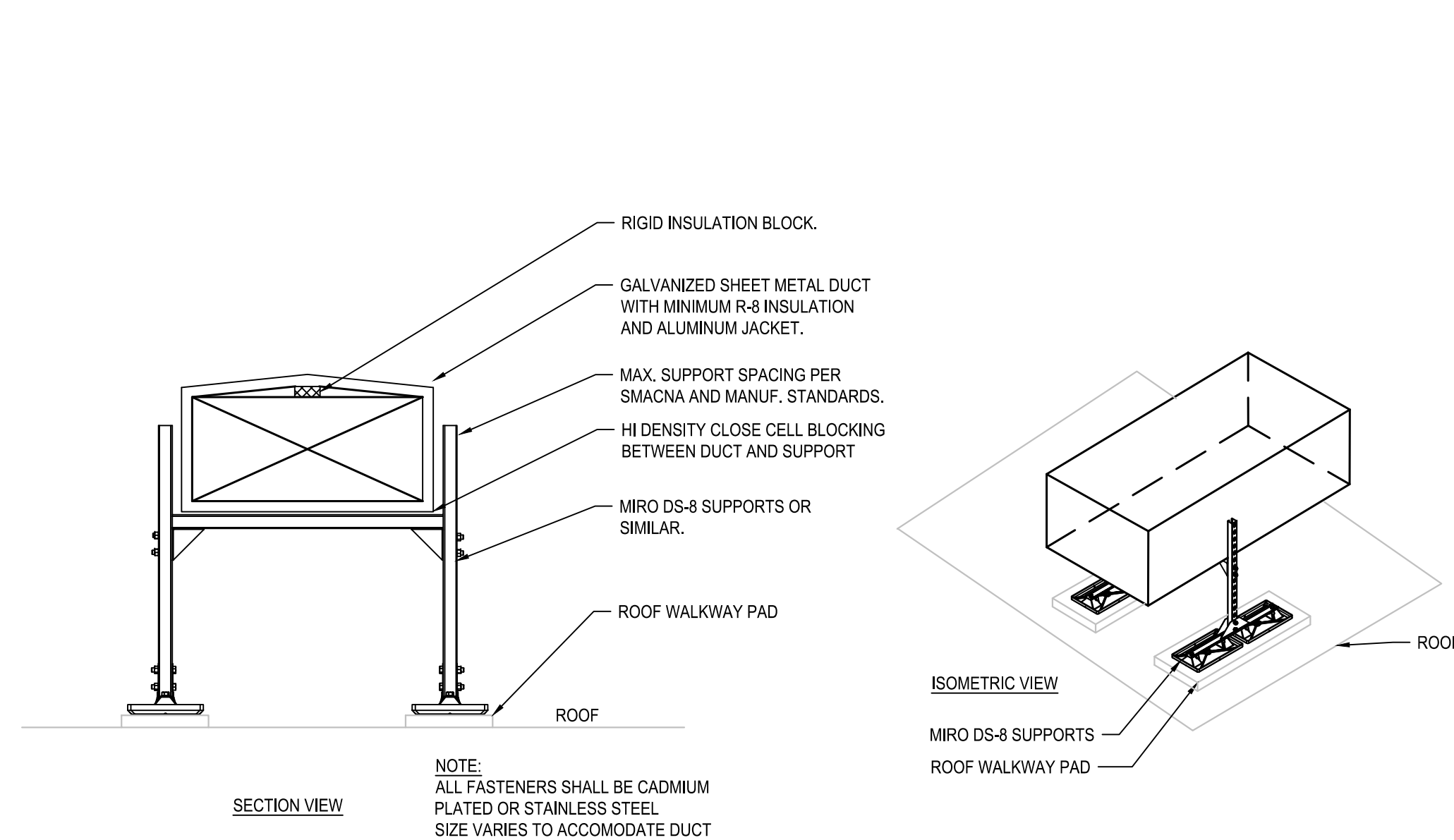
VALVE SCHEDULE													
DESCRIPTION	SIZE	TYPE							REMARKS	ABBREVIATIONS			
		GATE	GLOBE	CHECK	BALL	PLUG	BALAN.	CLASS		ABB.	DESCRIPTION		
GAS	2" AND SMALLER	--	--	--	--	PGVT	--	125 PSI	--	PGVT	LOCKABLE PLUG VALVE THREADED - AGA APPROVED		

PLUMBING DRAIN SCHEDULE							
DRAIN TAG	DRAIN TYPE	DRAIN MANUFACTURER MODEL, MODEL NO.	MATERIAL	DESCRIPTION	TRAP SIZE	REMARKS	
D1	ROOF DRAIN	FROET 200C SERIES WADE 3011 SERIES WATTS RD-300-F	CAST IRON	HEAVY DUTY DRAIN WITH 13"-15" DIAMETER CAST IRON BODY, BOTTOM OUTLET, 12" DIAMETER CAST IRON DOME, ROOF SUMP RECEIVER, UNDER DECK CLAMP, EXTENSION, AND COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD.	EXISTING TO REMAIN	NOTE: INCLUDE EXTENSION COLLAR AS REQUIRED FOR INSTALLATION OR CONSTRUCTION THICKNESS.  MATCH DRAIN TO EXISTING PIPE SIZE	



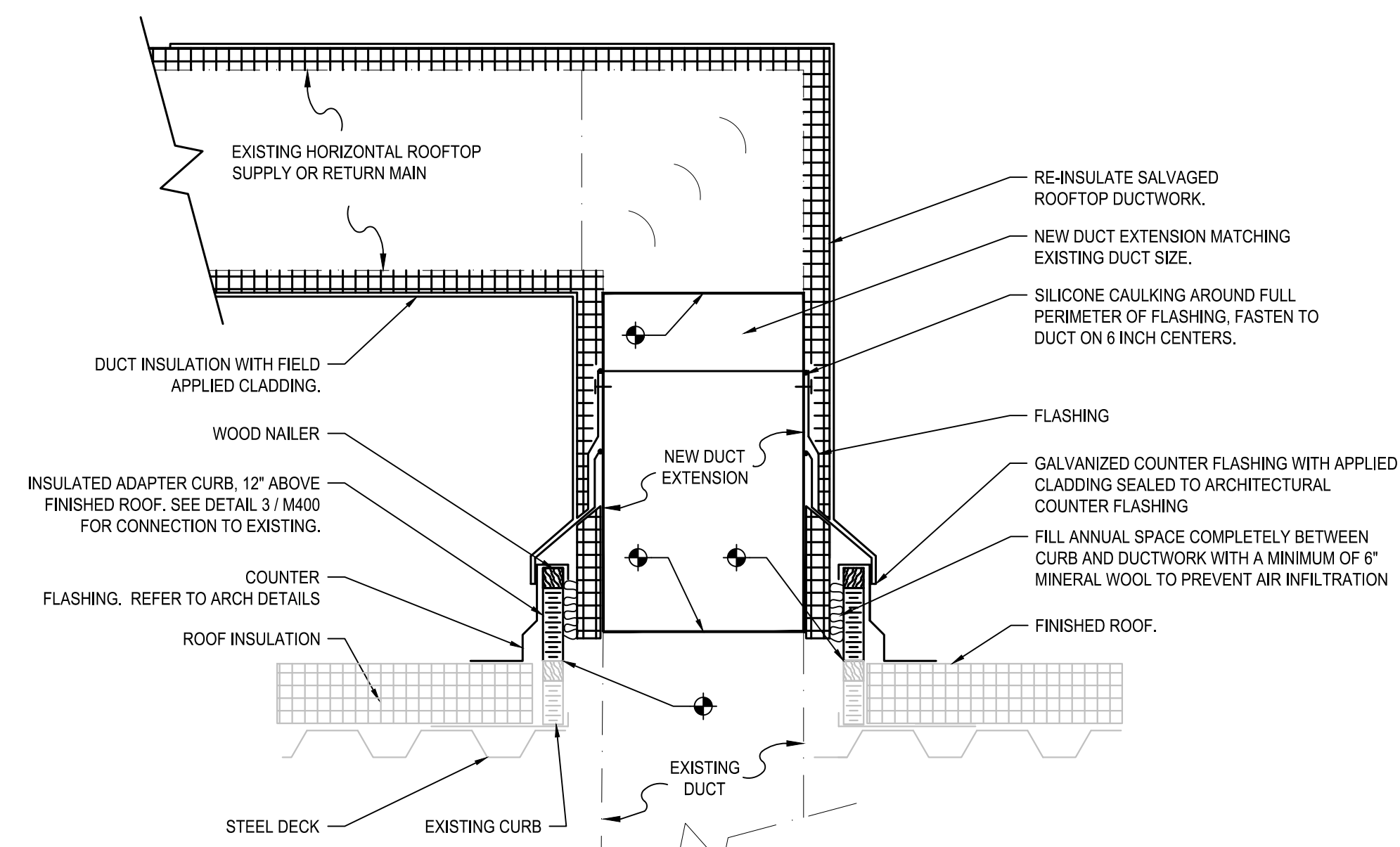
1 ROOFTOP UNIT FLOW AND CONTROL DIAGRAM  
M-300 SCALE: NONE

drawing title <b>SCHEDULES - MECHANICAL</b>			<b>STATE OF CONNECTICUT</b> DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			drawing prepared by <b>KOHLER RONAN, LLC</b> 93 LAKE AVENUE DANBURY, CT 06810	
mark	date	description	project <b>DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT</b>	date 12 NOV 2018 scale NO SCALE
CAD no. www.m-h-s.com/Schedules.dwg			project no. BI-MM-54	drawn by JRM approved by CFR drawing no. <b>M-300</b>



**1 ROOF MOUNTED DUCTWORK SUPPORT DETAIL**

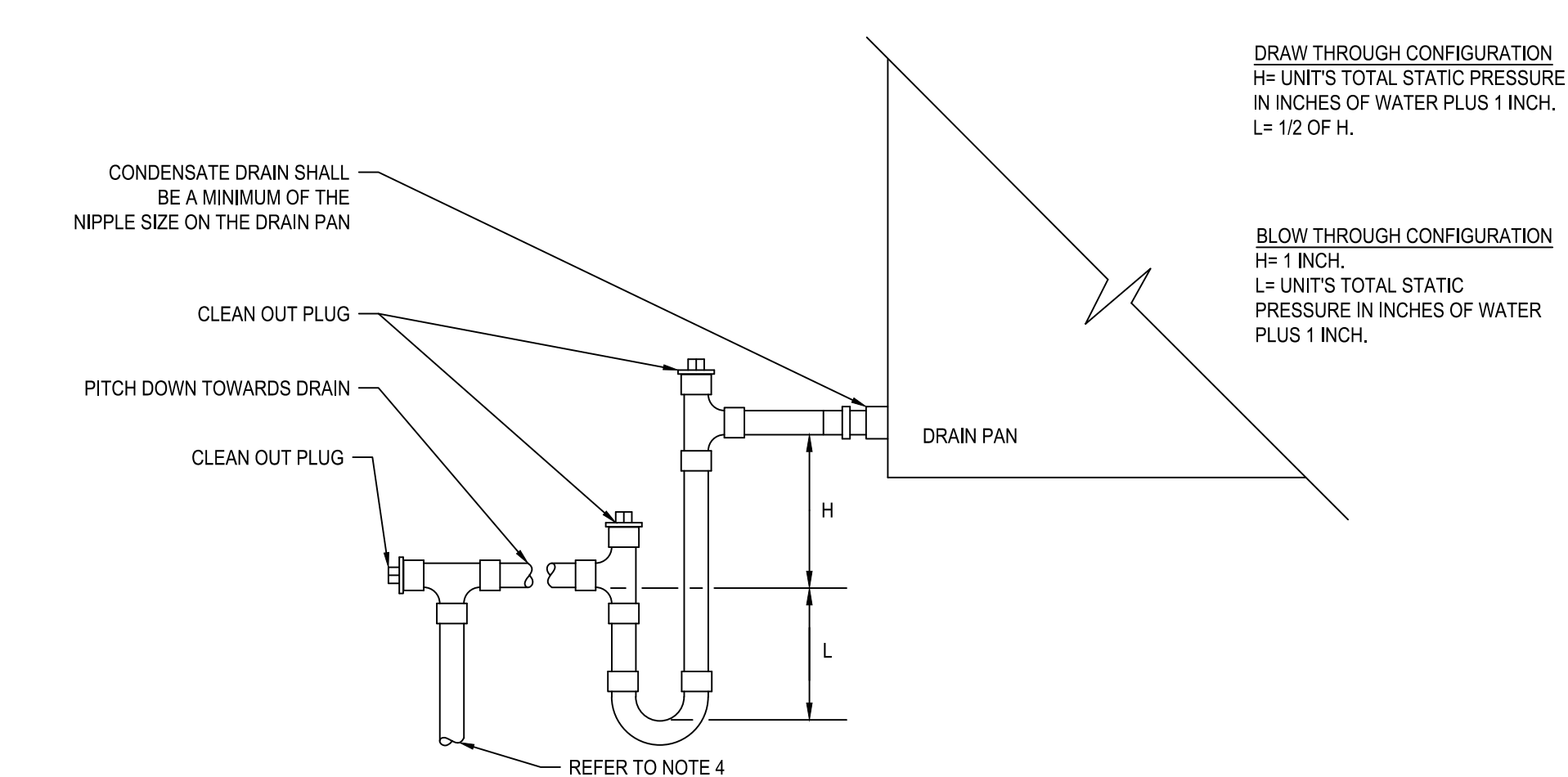
M-400 NOT TO SCALE



- NOTES:
- COORDINATE CURB STEP HEIGHT WITH ROOF DECK INSULATION THICKNESS.
  - COORDINATE ROOF TYPE WITH ARCHITECTURAL DRAWINGS.

**4 DUCT PENETRATION THROUGH ROOF DETAIL**

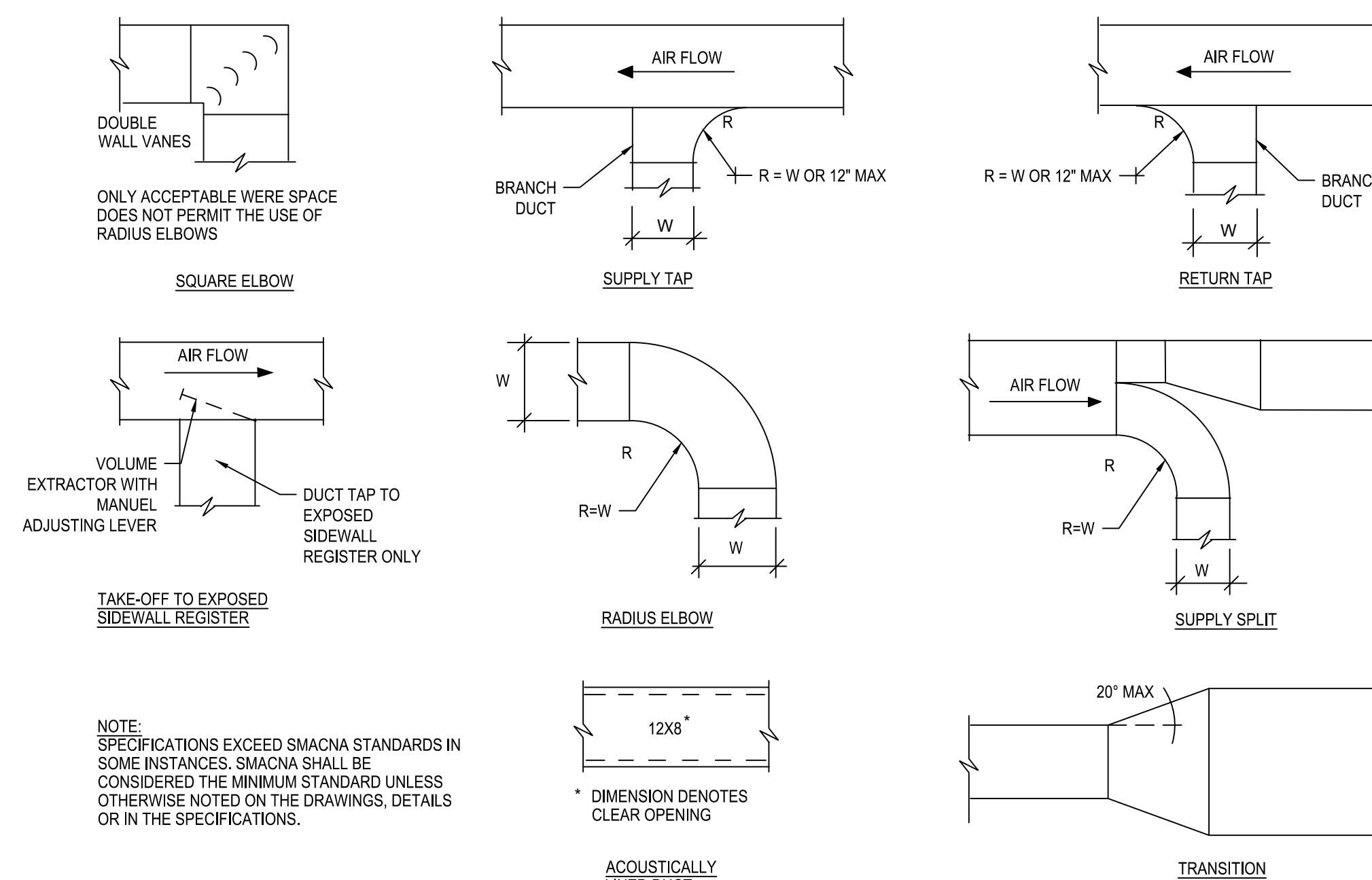
M-400 NOT TO SCALE



- NOTES:
- REFER TO FLOOR PLANS AND SCHEDULES TO DETERMINE UNIT'S CONFIGURATION.
  - REFER TO SCHEDULES FOR UNIT'S TOTAL STATIC PRESSURES.
  - MANUALLY PRIME TRAP PRIOR TO START-UP OF UNIT.
  - UNITS ON ROOFS, DRAIN PIPING SHALL BE PIPED TO ROOF DRAIN OR SPLASH BLOCK.

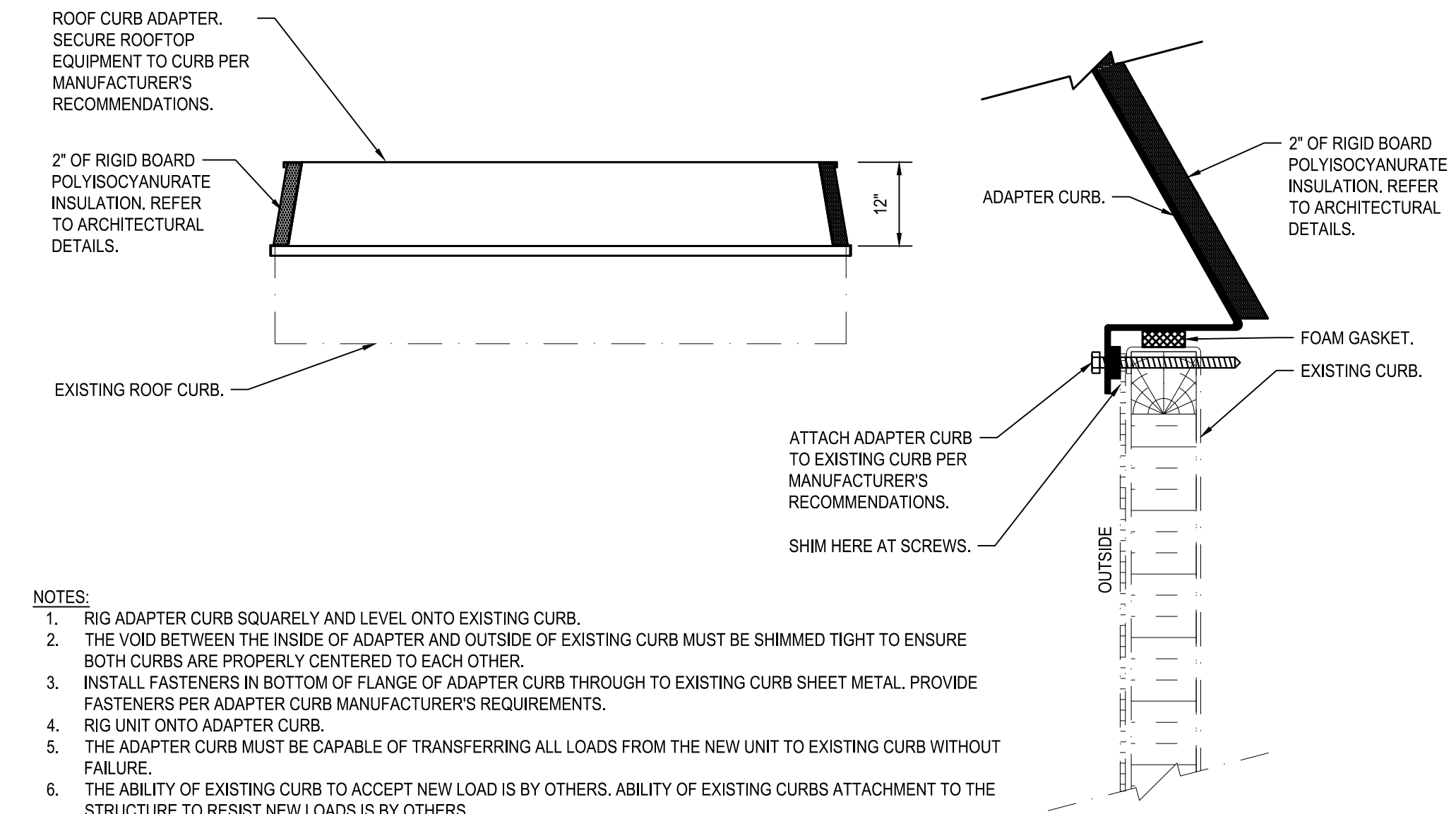
**2 COOLING COIL DRAIN TRAP DETAIL**

M-400 NOT TO SCALE



**5 DUCT CONSTRUCTION DETAIL**

M-400 NOT TO SCALE



**3 ROOF CURB TO ADAPTER CURB DETAIL**

M-400 NOT TO SCALE

drawing title			STATE OF CONNECTICUT		
DETAILS - MECHANICAL			DEPARTMENT OF ADMINISTRATIVE SERVICES		
REVISIONS					
mark	date	description	drawing prepared by		date
			KOHLER RONAN, LLC		12 NOV 2018
			93 LAKE AVENUE		scale
			DANBURY, CT 06810		N.T.S.
			project		drawn by
			DEPARTMENT OF MOTOR VEHICLES		JRM
			HAMDEN ROOF AND HVAC		approved by
			1985 STATE STREET		CFR
			HAMDEN, CT		drawing no.
			CAD no.	project no.	M-400
			www.kro.com	BI-MM-54	

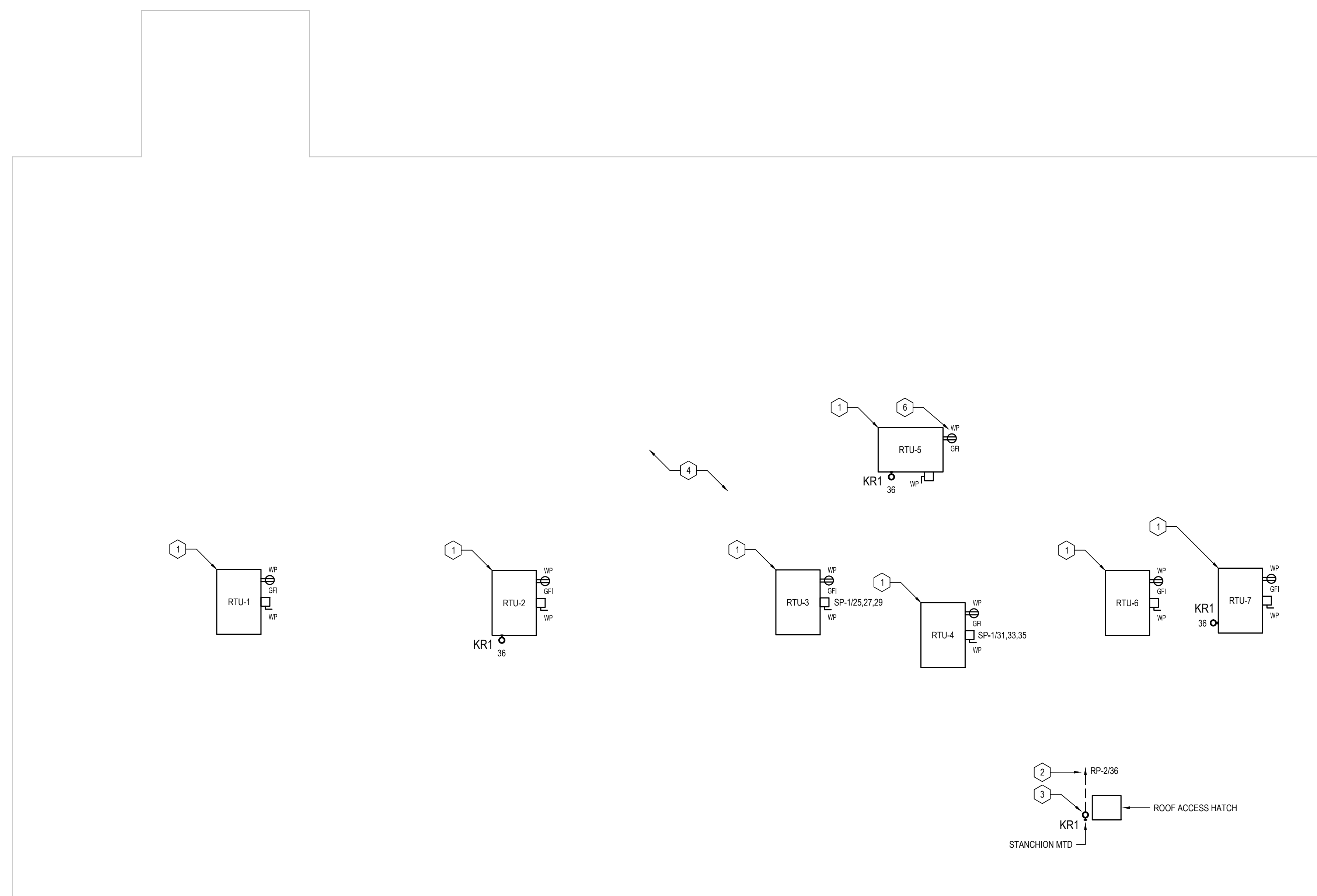


### KEY NOTES

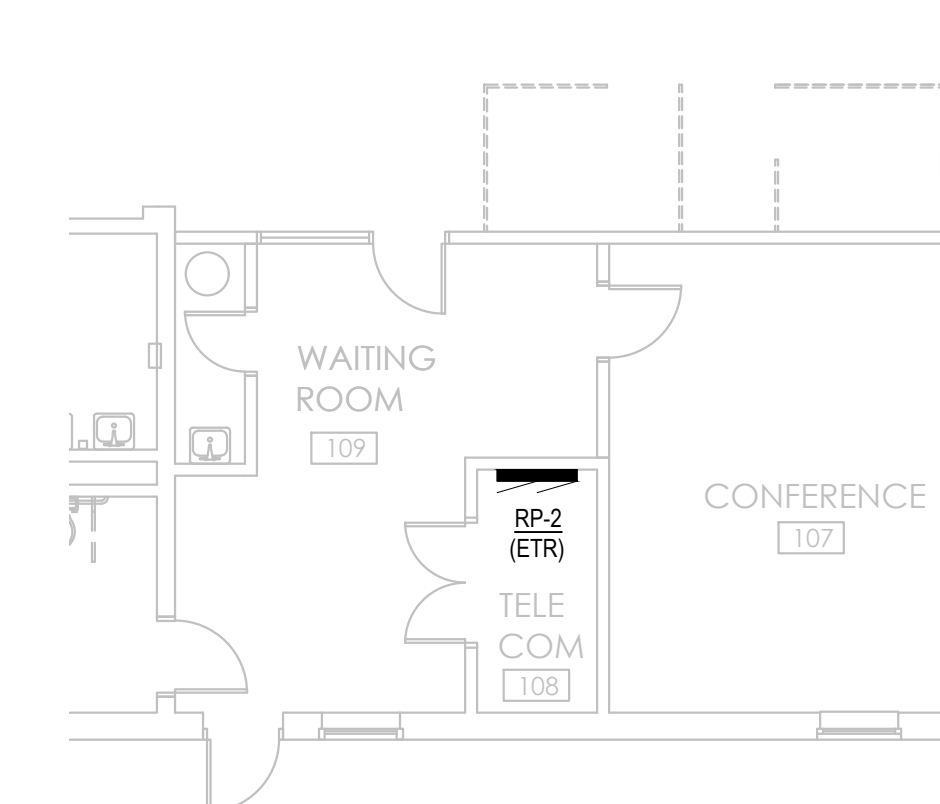
- 1 DISCONNECT AND REMOVE ALL EXISTING FINAL CONNECTIONS, DISCONNECT SWITCHES, BOXES, AND CONDUIT AND WIRING SERVING UNIT BACK TO INTERIOR POINT BELOW ROOF. PROVIDE JUNCTION BOX AND NEW CONDUIT AND WIRE AS REQUIRED, MATCHING EXISTING, FROM INTERIOR POINT BELOW ROOF TO NEW UNIT VIA NEW DISCONNECT SWITCH.
- 2 PANELBOARD RP-2 IS LOCATED ON FIRST FLOOR. CONNECT TO EXISTING 20A/1P CIRCUIT BREAKER WITH 2#12 +G -3/4"Ø.
- 3 PROVIDE PILOT LIGHT SWITCH ON SECOND FLOOR. LOCATE SWITCH ON WALL ADJACENT TO ROOF HATCH. SWITCH SHALL CONTROL ROOF LIGHTING FIXTURE AND BE IDENTIFIED ACCORDINGLY. COORDINATE LOCATION IN FIELD. PROVIDE CONDUIT AND WIRE TO AND FROM SWITCH.
- 4 DISCONNECT AND REMOVE ALL EXISTING RECEPTACLES, LIGHTING FIXTURES, AND ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE OR NEXT ETR UPSTREAM DEVICE (TYP FOR ENTIRE ROOF).
- 5 REPLACE EXISTING 45A/3P CIRCUIT BREAKER SERVING RTU-3 WITH 50A/3P CIRCUIT BREAKER. REPLACE EXISTING 45A/3P CIRCUIT BREAKER SERVING RTU-4 WITH 60A/3P CIRCUIT BREAKER.
- 6 RECEPTACLE SHALL BE PROVIDED BY RTU MANUFACTURER AND ENERGIZED BY SINGLE POINT POWER PROVIDED TO UNIT (TYP FOR ALL UNIT MOUNTED RECEPTACLES).

### SUPPLEMENTAL BID SUMMARY

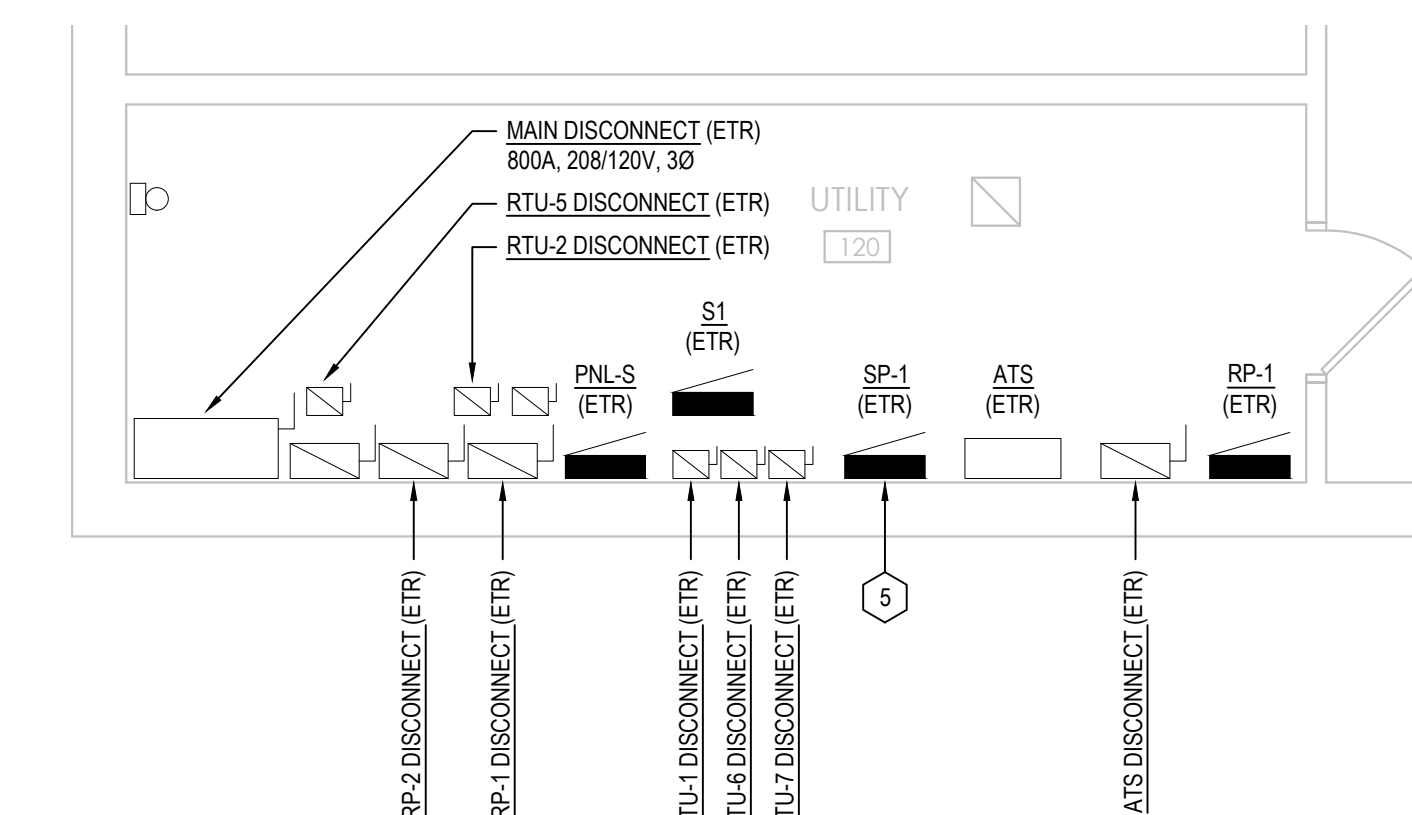
1. SUPPLEMENTAL BID #1: DISCONNECT AND REMOVE ALL EXISTING DUCT SMOKE DETECTORS SERVING SECOND FLOOR AND ASSOCIATED CONDUIT AND WIRE BACK TO EXISTING FIRE ALARM CONTROL PANEL LOCATED IN LOBBY L01. FIRE ALARM CONTROL PANEL IS MANUFACTURED BY EST. PROVIDE NEW DUCT SMOKE DETECTORS TO MATCH EXISTING QUANTITY AND LOCATIONS. CONNECT TO EXISTING FIRE ALARM CONTROL PANEL MATCHING EXISTING CONDUIT AND WIRE. FIRE ALARM SYSTEM IS MANUFACTURED BY EST. PROVIDE ALL PROGRAMMING AND HARDWARE AS REQUIRED. REFER TO DRAWING M-102.



1 ROOF PLAN  
E-103 Scale: 1/8"=1'-0"



2 TELE ROOM 108 PART PLAN  
E-103 Scale: 1/8"=1'-0"



3 UTILITY ROOM 120 PART PLAN  
E-103 Scale: 1/8"=1'-0"

drawing title			STATE OF CONNECTICUT	
ROOF PLAN - ELECTRICAL			DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS				
mark	date	description	drawing prepared by	date
			KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	12 NOV 2018 scale 1/8"=1'-0"
			DEPARTMENT OF MOTOR VEHICLES HAMDEN ROOF AND HVAC 1985 STATE STREET HAMDEN, CT	drawn by RM approved by JOC drawing no.
			CAD no. BI-MM-54	E-103