



STANDARD 4: AIR CONDITIONING UNITS/HEAT PUMPS

REVISED SEPTEMBER 2005, RESOLUTION 03-05-20

REVISED FEBRUARY 2006, RESOLUTION 03-06-09

REVISED SEPTEMBER 2006, RESOLUTION 03-06-40

REVISED JULY 2010, RESOLUTION 03-10-100

GENERAL REQUIREMENTS REVISED APRIL 2011, RESOLUTION 03-11-49

REVISED SEPTEMBER 2013, RESOLUTION 03-13-98

REVISED JULY 2015, RESOLUTION 03-15-101

REVISED JANUARY 2018, RESOLUTION 03-18-13

REVISED JULY 2019, RESOLUTION 03-19-71

REVISED MARCH 2023, RESOLUTION 03-23-23

REVISED JUNE 2023, RESOLUTION 03-23-68

1.0 GENERAL REQUIREMENTS

SEE STANDARD SECTION 1: GENERAL REQUIREMENTS

2.0 THROUGH THE WALL A/C-H/P UNITS

- 2.1** Units must be installed in knock-out panel areas, under windows, or as determined by the Alterations office, with due consideration given to the effect on adjoining manors.
- 2.2** No condensing unit may be located in or project into any walkway, breezeway, or interior court of a three-story building
- 2.3** Window mounted units are prohibited.
- 2.4** Condensing units must not be located more than 12" above grade, unless otherwise approved by the Alterations office due to site conditions.
- 2.5** Sleeves must be painted to match the color of the wall.
- 2.6** Above grade installation of heat pumps require condensation drain line connection to an approved discharge location. Mutual Member assumes all responsibilities for any damage that may occur from condensation.
- 2.7** In the absence of an approved alternate heat source, removal of the through-the-wall AC/Heat pump and wall condensing units is prohibited.

2.8 Removal of sleeves in stucco walls:

- a. Removal of sleeves in three-story buildings is allowed only when being replaced by a wall mounted minisplit condenser unit.
- b. Removal of sleeves in stucco walls of one, two and three story buildings shall be evaluated on a case-by-case basis. A variance may be required.
- c. When permitted, removal of sleeves in stucco walls require that the patch must be made in accordance with standard construction practices to maintain the water proof integrity of the wall. The texture and color must match the existing wall. On balconies, the spacing between the wrought iron and exterior of the building will be required to meet Code regulations. Lead samples may be requested by the Alterations Division.
- d. Removal of sleeves in walls with wood siding must be made In accordance with standard construction practices to maintain the water proof integrity of the wall. The entire section of wood siding under a window, from trim to trim, must be replaced and the texture and color must match the existing wood siding.

3.0 CENTRAL AND DUCTLESS UNITS

- 3.1** Only one condensing unit per manor is permitted.
- 3.2** Roof-mounted self-contained package units are prohibited.
- 3.3** Outdoor condensing units must be sized to be the most compact unit appropriate for the manor.
- 3.4** Outdoor condensing units for single level manors shall be installed at ground level only and must meet a 71 db rating or less. Outdoor condensing unit locations for two and three story buildings are as follows: second and third floor manors shall be installed at ground level unless not feasible. Outdoor condensing unit locations unfeasible for ground level installations for two and three story buildings may be installed on flat roofs directly above the manor.
- 3.5** The location of outdoor condensing units must be approved by the Alterations office and must be less than 71db. Prior to issuance of a Mutual consent, consideration will be given to any affected or adjoining manors. Manor Alterations will distribute Neighbor Awareness notices as deemed necessary.

- 3.6** All landscape and irrigation revisions required to accommodate the location of an outdoor condensing unit must be performed by the Mutual at the Mutual Member's expense.
- 3.7** Ground level outdoor condensing units must be located within 24" of the building wall and mounted on a manufactured non-metallic and/or concrete pad.
- 3.8** All exterior wiring, condensate, and coolant lines must be encased in a single, square or rectangular sheet metal two-piece chaseway painted to match the color of the wall to which it is attached. Roof mounted chases or ducts are prohibited.
- 3.9** The chaseway must be made rodent proof by installing wire mesh at the bottom of the chaseway. The use of steel wool is not allowed; but, pest control expanding foam may be installed in addition to the wire mesh as long as it is properly trimmed to remove visible overflow.
- 3.10** Watertight seals must be provided around all penetrations.
- 3.11** Each installation on a building's elevation that faces another building or heavily traveled common area will be limited to one run and the length must be kept to a minimum and as unobtrusive as possible.
- 3.12** Each installation on a building's elevation that does not face another building or heavily traveled common area will be limited to three runs, and the lengths must be kept to a minimum and be as unobtrusive as possible.
- 3.13** Cutting of a cornice molding to accommodate a chaseway shall be performed by removing the affected section of molding, cutting the metal flashing at both ends, applying sealant under the metal flashing, bending the metal flashing to be flush with the wall and fastening the metal flashing in place using screws. Sealant shall be applied as needed and the cut ends of the cornice molding shall be sealed.
- 3.14** Roof-mounted condensing units must be mounted on a raised platform constructed per Mutual approved Standard Plan drawings. All tie-ins to a PVC Cool Roof must be performed by a certified roofing contractor. A Roofing Contractor Verification form will be required prior to the issuance of a permit.
- 3.15** Cutting or altering of roof trusses for the installation of air handlers in attic spaces must be designed and stamped by a licensed architect or engineer.
- 3.16** When air handlers are installed in water heater closets, sufficient space must be provided above and around the water heater for repair and replacement of the water heater.

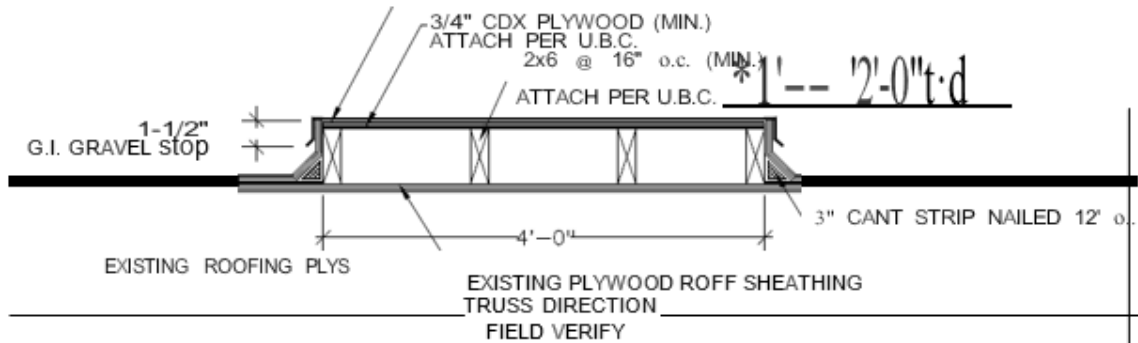
ROOFING NOTES

SPUD EXISTING ROOF AREA AROUND PLATFORM A
 MINIMUM OF 2 FEET AWAY FROM EACH SIDE.
 PRIMER PLATFORM SIDES, CANT STRIP, AND
 SPUDED SURFACE W/ CON PRIME AT THE RATE 1gal per 100 SQ.FT

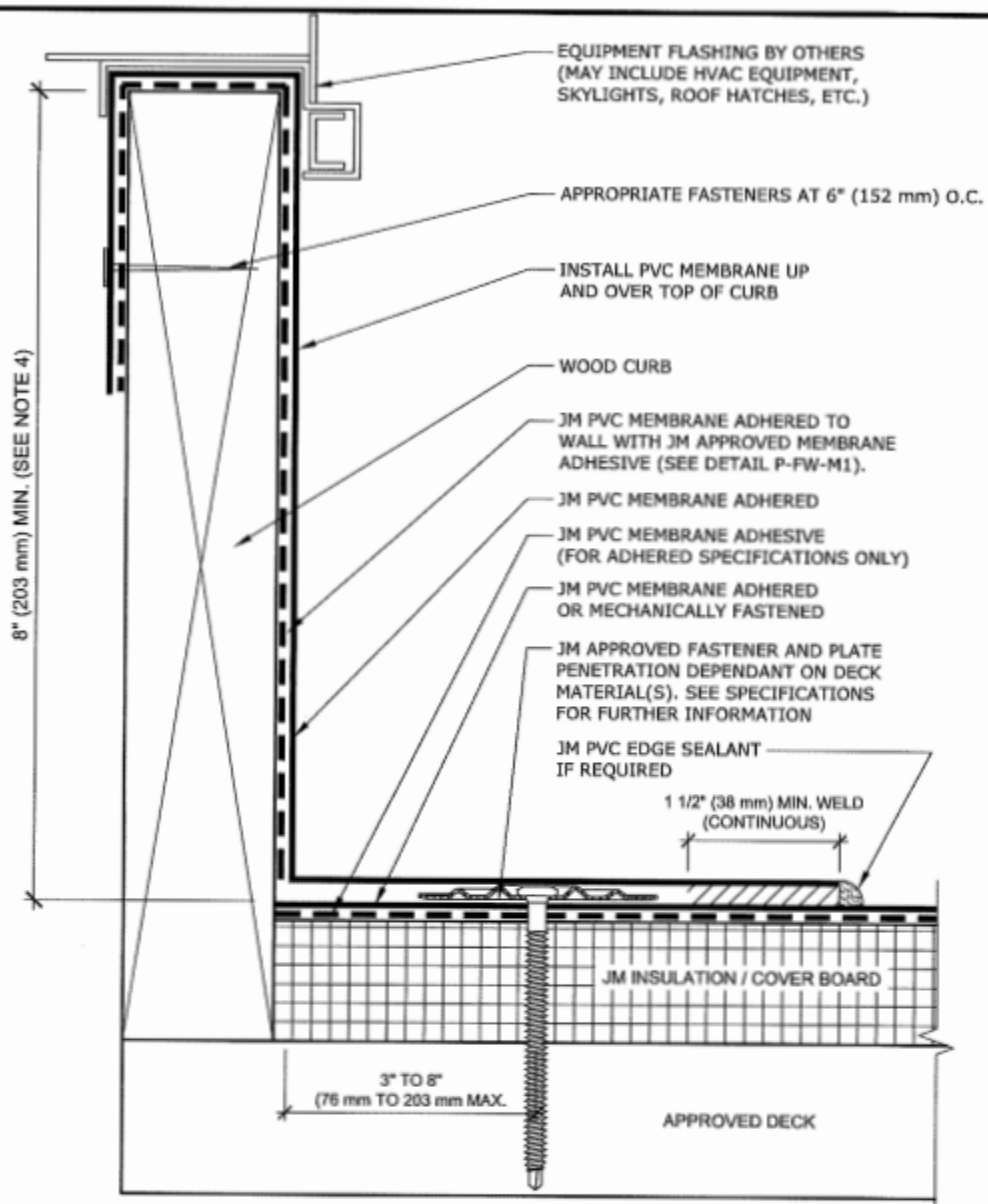
ROOF AS FOLLOWS PER 100 SQ.FT.

CONPLY TYPE A-IV(2LAYERS).....	22lbs	PER 100 SQ.FT.
HMP ASPHALT (PLIES) . . .	60lbs	PER 100 SQ.FT.
CONCAP (1 LAYER)	75lbs	PER 100 SQ.FT.
HMP ASPHALT (SURFACE). . .	25lbs	PER 100 SQ.FT.
GRAVEL (1/4" - 1/2")	400lbs	PER 100 SQ.FT.

26 GAUGE SEAMLESS GALV. METAL CAP (MIN.)
 ATTACH TO PLATFORM W/ CONST. ADHESIVE, NO NAILS OR SCREWS




HVAC ROOFTOP PLATFORM SCALE: 1" 1'-0"



NOTES:

1. REFER TO JOHNS MANVILLE WEBSITE (www.jm.com) FOR MOST UP-TO-DATE INFORMATION.
2. PLEASE SEE SINGLE PLY FLASHING SPECIFICATIONS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQUIREMENTS WHICH ARE CONSIDERED A PART OF THIS DETAIL.
3. ANY CARPENTRY OR METAL WORK SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY A LICENSED DESIGN PROFESSIONAL.
4. HEIGHT OF CURB TO BE ADJUSTED WITH NAILERS. IT IS PREFERRED TO RAISE CURB ONTO NAILERS TO EXTEND FLASHING HEIGHT.
5. PVC EDGE SEALANT IS OPTIONAL ON ALL CUT AND NON ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE (SEE DETAIL P-MS-01).
6. SEE P-FW-B DETAILS FOR JM APPROVED BASE FLASHING TIE IN TERMINATION METHODS.

DRAWING NO.		WOOD CURB BASE FLASHING		 <p>Agenda Item # 10a Johns Manville</p>
P-FC-05				
CURB & CORNER		MEMBRANE TYPE:	<small>Johns Manville is a manufacturer of commercial roofing products and offers this general conceptual information to you as a courtesy. This complimentary assistance is not to be used or relied upon by anyone as a substitute for professional engineering design and documentation required by building code, contract, or applicable law. By accepting these comments you agree they do not constitute any representation, endorsement of, or an assumption by Johns Manville of any liability for either the adequacy of the design of this building or any other material not supplied by Johns Manville.</small>	
SCALE	ISSUE DATE	MEMBRANE TYPE:		
N.T.S.	08-07-19	JM PVC	MAXIMUM GUARANTEE TERM:	
			30 YEAR	