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## Notes:

1. The following tables provide recommendations for preparation and priming of substrates and should be used as a guideline for proper adhesion & performance.
2. The primer application rate will vary and should be adjusted depending on the substrate. See Product Data Sheets, SDS, Guide Specifications and Details for complete information regarding the suitability, application and handling of products.

INSPECTION		EPDM	TPO	PVC / KEE HP	METAL SURFACES	MASONRY
A.1	Inspect insulation for wet conditions underneath the roof membrane. Remove & replace wet materials underneath to match in kind.	Y	Y	Y		
A.2	Ensure, membrane or roof assembly is properly secured.	Y	Y	Y		
A.3	Provide additional securement at the base of penetrations, tie-ins or angle changes per details.	Y	Y	Y		
A.4	Ensure, there is no standing water. Remove and dry the work area. Remove dust, debris and wipe the work surfaces clean. Masonry must be completely dry and sound.	Y	Y	Y	Y	Y
A.5	Verify structural integrity of metal objects. Check for broken welds or loose bolts. Verify the thickness of exposed metal after removal of finishes or rust for strength.				Y	
A.6	Ensure, there is no moisture present in the substrate.	Y	Y	Y	Y	Y
A.7	Within the work area, inspect the seams of existing membrane for proper seal.	Y	Y	Y		
A.8	Do not damage structural members, welds or remove any nuts/bolts unless approved by designer.				Y	
CLEANING & SUBSTRATE PREPARATION		EPDM	TPO	PVC / KEE HP	METAL SURFACES	MASONRY
B.1	Use 60 grit sandpaper to rough up the top surface of the membrane.	Y	Y	Y		
B.2	Use abrasive grinding wheel (a diamond cup wheel is suggested) to expose the bare metal (do not use wire brush). Expose metal around nuts & tighten as needed. Wipe the membrane cleaner.				Y	
B.3	Remove dust, clean the surfaces with broom & power blower.	Y	Y	Y	Y	Y
B.4	Wipe the surfaces with <a href="#">Carlisle Membrane Cleaner</a> , (Standard or Low VOC)	Y	Y	Y		
B.5	Use painter's tape to contain flashing resin. Tape shall be set 1/4" to 1/2" (6–13mm) beyond the fleece edges.	Y	Y	Y	Y	Y
EXISTING BITUMINUOUS ROOFING SUBSTRATES					CONCRETE & MASONRY PRIMER	
C.1	Modified Bitumen Smooth APP Surfaced.	Power wash to remove contaminants.			Y	
C.2	Modified Bitumen Smooth SBS Surfaced.					
C.3	Bituminous Roofing – Granular Surfaced.	Power wash to remove contaminants & loose grannules				
C.4	Following bituminous substrates are not acceptable: Aluminum coating, flood coat & aggregate, coal tar pitch roofing – flood coat & aggregate, hot–melt bituminuous waterproofing & ethylene–faced bituminous (bituthane) roofing.					

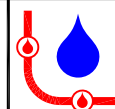
INSPECTION CLEANING & SUBSTRATE PREPARATION (PAGE 1 OF 2)		
		ATTACHMENT 1
For additional information, refer to Spec. Supplement		LIQUID FLASHING

METAL SUBSTRATES			METAL PRIMER
D.1	Bare aluminum, lead, copper & zinc.	Grind to remove corrosion, then use membrane cleaner to wipe and clean.	
D.2	Bare steel, galvanized steel.		
D.3	Black pipe, cast iron.	Grind to remove corrosion and coating. Then use membrane cleaner to wipe and clean.	
D.4	Stainless steel.	Grind to achieve rough surface. Then use membrane cleaner to wipe and clean.	
D.5	Kynar finish, ceramic coated, and painted metal.	Grind to remove coating. Then use membrane cleaner to wipe and clean.	
CEMENTITIOUS AND MASONRY SUBSTRATES			MASONRY PRIMER
E.1	Structural & or lightweight structural concrete.	Scarify, shot blast or grind to remove laitance and open up pores	
E.2	Granite, Marble.	Scarify, shot blast, grind to remove polished surface and open up pores	
E.3	Clay brick, terra cotta, tile.	Scarify, shot blast, grind to remove glazed surface and open up pores.	
E.4	Sandstone, limestone, synthetic stone.	Scarify, shot blast, grind to open up pores	
E.5	Porous/air-entrained concrete, concrete masonry block.		
E.6	Repair & leveling mortars.		
GLASS & PLASTIC SUBSTRATES			METAL PRIMER
F.1	Glass.	Sand to abrade surface. Then use membrane cleaner to wipe and clean.	
F.2	Acrylic.		
F.3	Fiberglass.		
F.4	ABS, PVC – Rigid.		

Note: Contact CCM for substrate not listed in these tables.

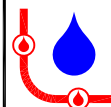
**CAUTION:**

All substrates must be prepared as necessary prior to the application of primers. Surfaces must be free from irregularities, loose, unsound or foreign materials such as rust, dirt, ice, snow, water, grease, oil, release agents, paint, lacquers, coatings, or any other conditions that would be detrimental to adhesion of the primer and resin.



LIQUISEAL PRIMER & RESIN APPLICATION		EPDM	TPO	PVC / KEE HP	METAL SURFACES	MASONRY
G.1	Ensure all surfaces are ready for application of primer prior to mixing, due to limited pot life.	Y	Y		Y	Y
G.2	Mix primer thoroughly, per specifications.	Y	Y		Y	Y
G.3	Apply <u>LIQUISEAL Metal Primer</u> per specifications.	Y			Y	
G.4	Masonry: Apply <u>LIQUISEAL Concrete &amp; Masonry Primer</u> and surfacing sand per specifications.					Y
G.5	Wait for primer to cure per written instructions.	Y			Y	Y
G.6	Apply <u>Low VOC Primer</u> and allow to flash off completely.		Y			
G.7	Cut & dry-fit all fleece prior to mixing resin. Ensure, the fleece is set back from painter's tape, per <u>B.5</u> .	Y	Y	Y	Y	Y
G.8	Mix <u>LIQUISEAL Flashing Resin</u> thoroughly (with spiral agitator if in pail).	Y	Y	Y	Y	Y
G.9	Apply a base layer of <u>LIQUISEAL Flashing Resin</u> ensuring generous coverage of entire substrate.	Y	Y	Y	Y	Y
G.10	Immediately press <u>LIQUISEAL Flashing Fleece</u> into the applied <u>LIQUISEAL Flashing Resin</u> , taking care at corners and crevices.	Y	Y	Y	Y	Y
G.11	Apply a 2nd (top coat) of <u>LIQUISEAL Flashing Resin</u> ensuring the fleece is completely saturated per published coverage rate.	Y	Y	Y	Y	Y

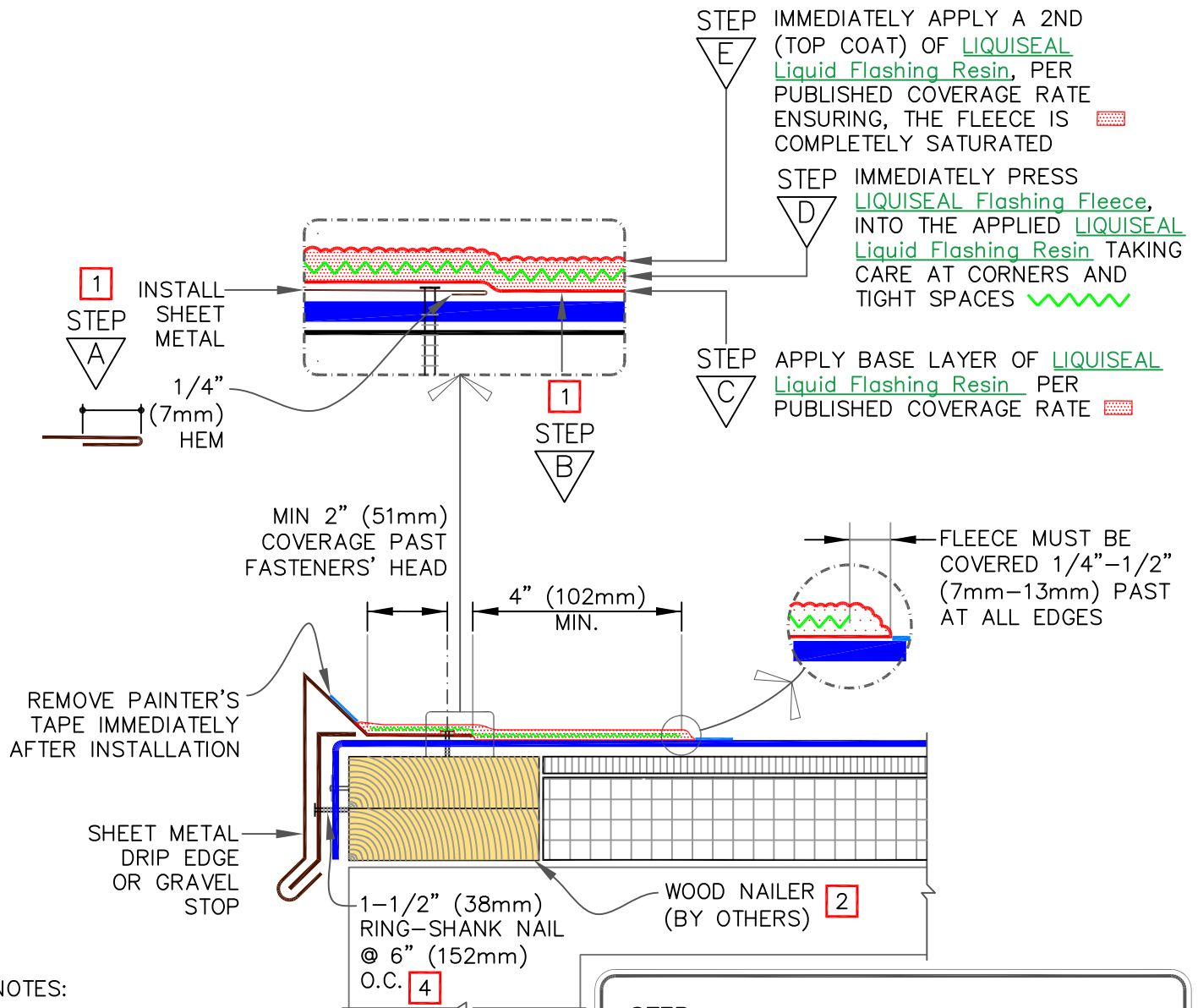
## APPLICATION OF LIQUISEAL PRIMER &amp; RESIN



## ATTACHMENT 2

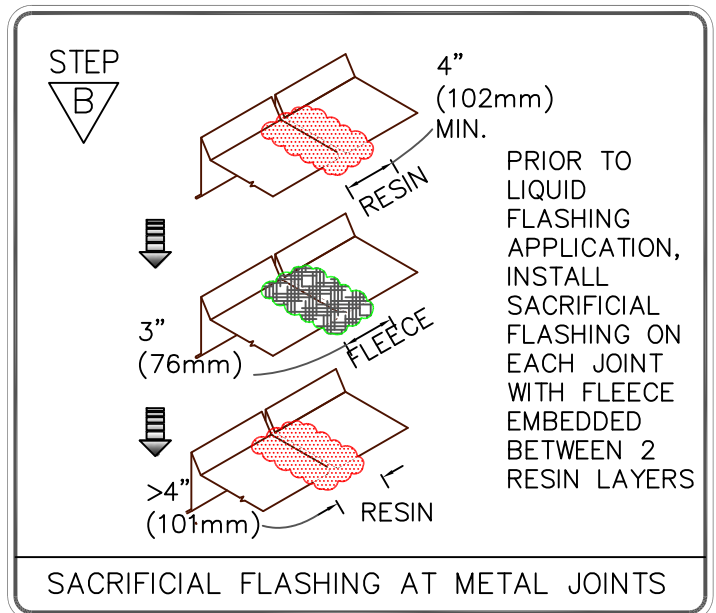
For additional information, refer to Spec. Supplement

LIQUID FLASHING



## NOTES:

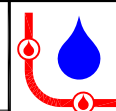
1. REFER TO TABLES ON SHEETS LF-A TO C FOR DETAILED INSPECTION, CLEANING AND PRIMING FOR DIFFERENT MATERIALS WITHIN THE FLASHING AREAS.
2. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF SHEET METAL FLANGE.
3. SAME DETAIL APPLIES AT THE TOP OF PARAPET WALL, WHERE FULL COPING IS NOT USED.
4. FASTENERS MUST BE SECURED INTO STRUCTURAL MEMBERS, E.G., CONCRETE, SOLID MASONRY OR WOOD BLOCKING.
5. DETAIL NOT FOR USE ON WARRANTY PROJECTS EXCEEDING 20-YEARS. UNLESS OTHERWISE SPECIFIED.



	ROOF MEMBRANE
	LIQUISEAL Flashing Fleece
	LIQUISEAL Liquid Flashing Resin
	SEE NOTE(S)

SHEET METAL DRIP EDGE OR GRAVEL STOP FLASHING

For additional information, refer to Specifications

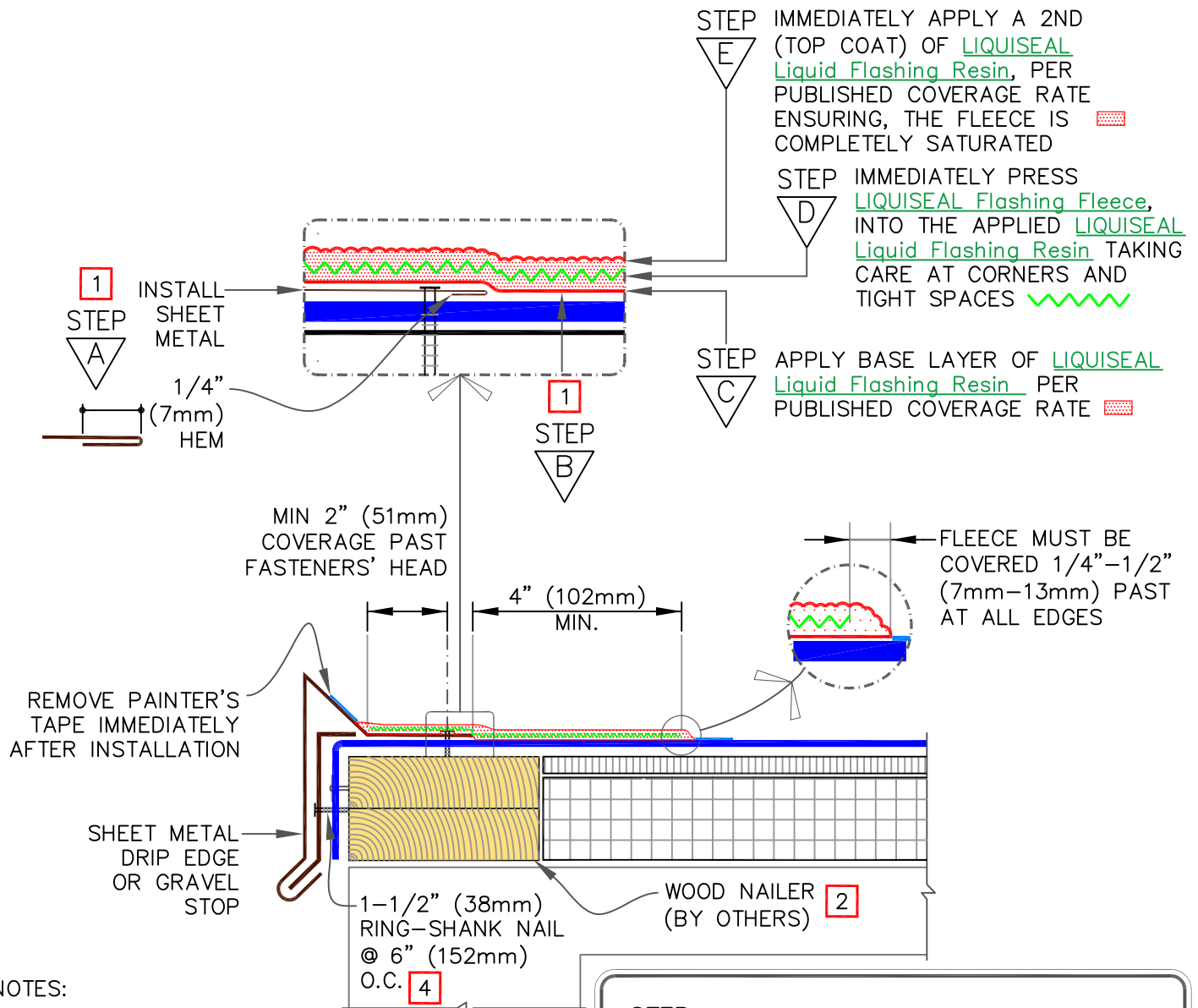


DETAIL NO.

LF-1.1

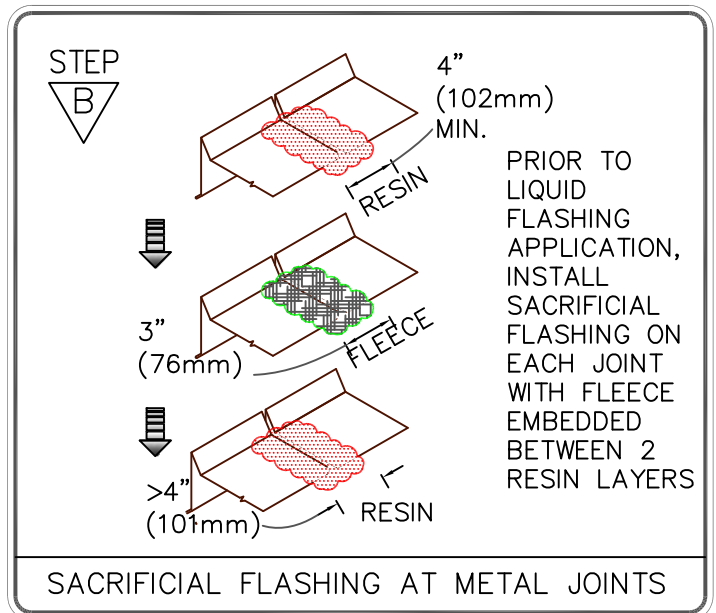
LIQUID FLASHING



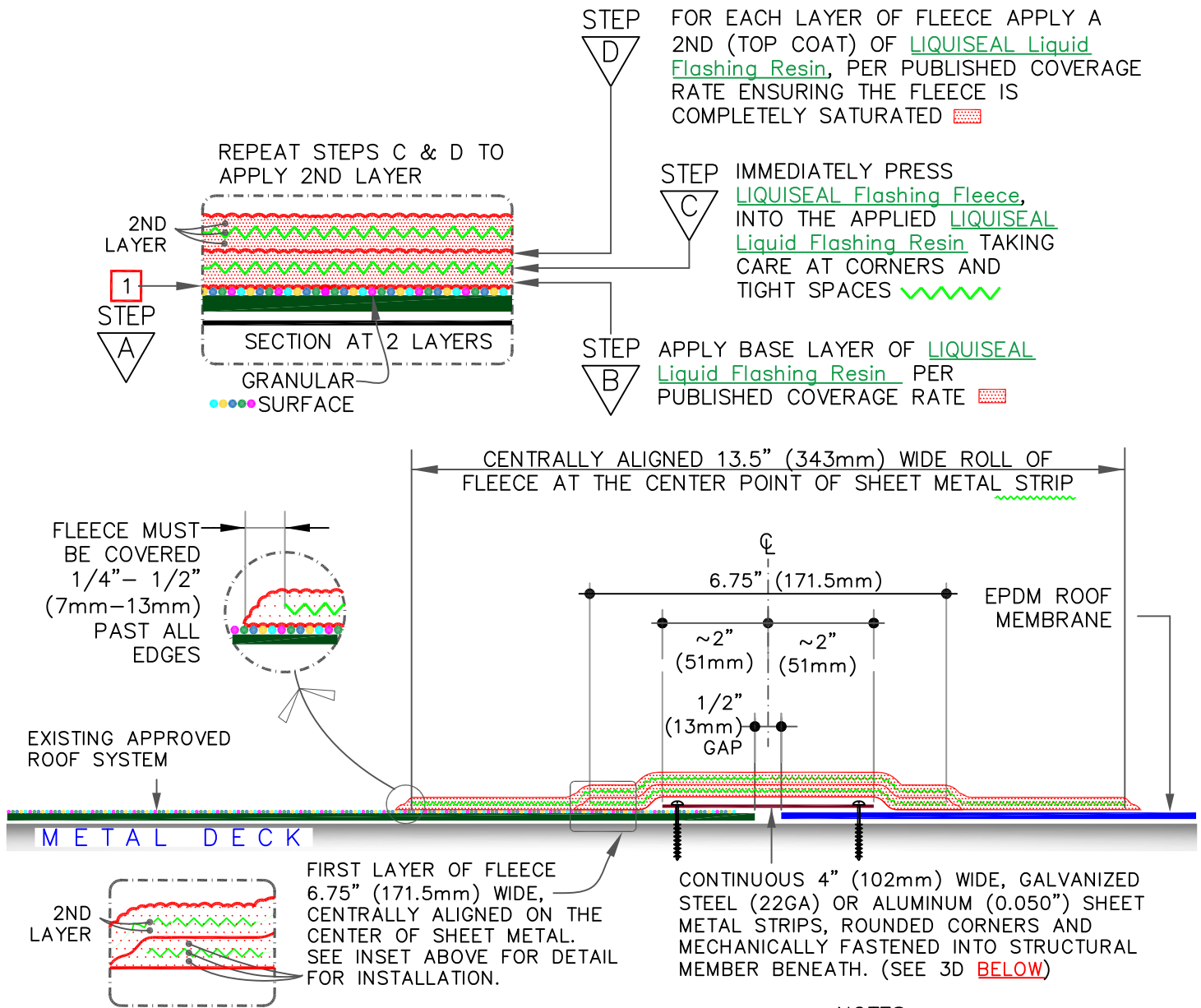


## NOTES:

1. REFER TO TABLES ON SHEETS LF-A TO C FOR DETAILED INSPECTION, CLEANING AND PRIMING FOR DIFFERENT MATERIALS WITHIN THE FLASHING AREAS.
2. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF SHEET METAL FLANGE.
3. SAME DETAIL APPLIES AT THE TOP OF PARAPET WALL, WHERE FULL COPING IS NOT USED.
4. FASTENERS MUST BE SECURED INTO STRUCTURAL MEMBERS, E.G., CONCRETE, SOLID MASONRY OR WOOD BLOCKING.
5. DETAIL NOT FOR USE ON WARRANTY PROJECTS EXCEEDING 20-YEARS. UNLESS OTHERWISE SPECIFIED.

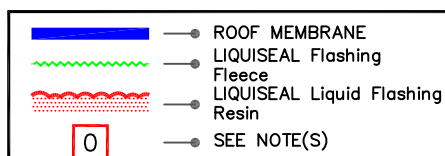


	<p>SHEET METAL DRIP EDGE OR GRAVEL STOP FLASHING</p> <p>For additional information, refer to Specifications</p>	<p>DETAIL NO.</p> <p>LF-1.1</p> <p>LIQUID FLASHING</p>
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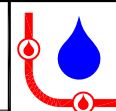
## NOTES:

1. REFER TO TABLES ON SHEETS LF-A TO C FOR DETAILED INSPECTION, CLEANING AND PRIMING FOR DIFFERENT MATERIALS WITHIN THE FLASHING AREAS.
2. IF FLUTES ARE PERPENDICULAR DRILL A 3/8" WEEP HOLE IN THE BOTTOM FLUTES OF THE STEEL DECK ALONG THE TIE IN.
3. DETAIL NOT FOR USE ON WARRANTY PROJECTS EXCEEDING 20-YEARS. UNLESS OTHERWISE SPECIFIED.



# EPDM MEMBRANE TIE-IN WITH EXISTING ROOF OVER STEEL DECK

For additional information, refer to Specifications

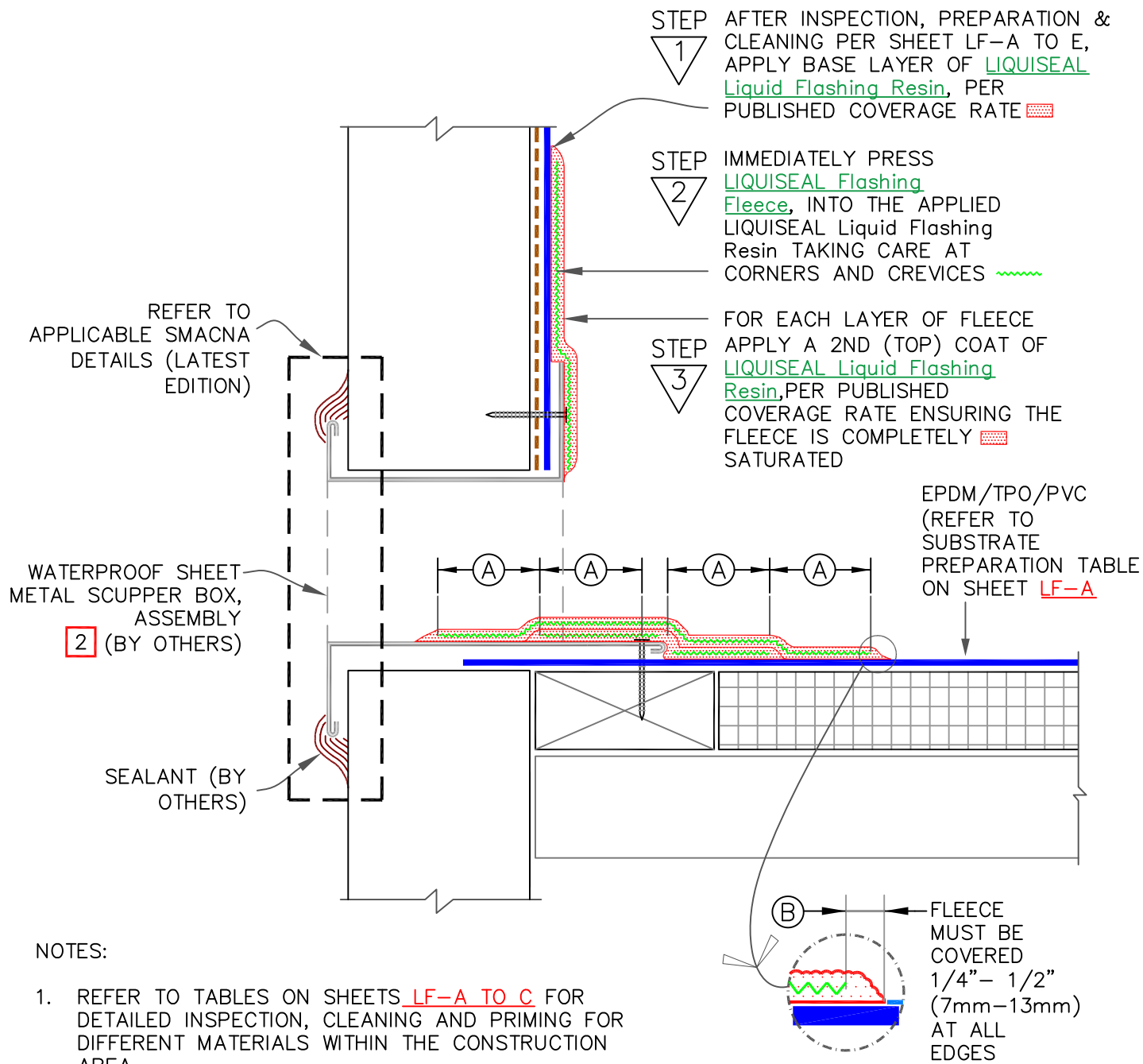


DETAIL NO.

LF-13.1

LIQUID FLASHING



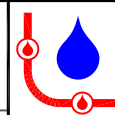


DIMENSIONS		mm	
(A)	3"	76	MIN.
(B)	1/4"	6.4	TO
	1/2"	12.7	

	ROOF MEMBRANE
	LIQUISEAL Flashing Fleece
	LIQUISEAL Liquid Flashing Resin
<b>0</b>	SEE NOTE(S)

## THROUGH-WALL SCUPPER

For additional information, refer to Specifications

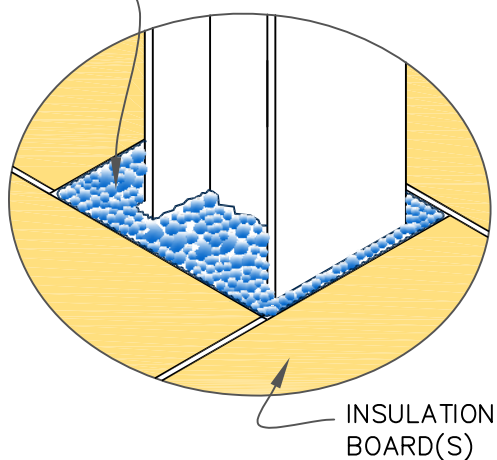


DETAIL NO.

LF-18.1

LIQUID FLASHING

INJECT **VapAir Seal Flashing Foam** PER SPECS & ALLOW TO SOLIDIFY. SHAVE PROTRUSIONS TO ACHIEVE SMOOTH SURFACE



STEP 1

GRIND METAL WITH DIAMOND CUP GRINDING WHEEL

MEMBRANE SECURED WITH PLATES & FASTENERS PER SPECS

STEP 2



A

NOTE: ENSURE BODY OF PENETRATIONS & WELDS ARE COMPLETELY WATERPROOF.



B

DIAMOND CUP GRINDING WHEEL

STEP 3



C

USE SAND PAPER GRIT# 60 TO ABRASE THE MEMBRANE SURFACE.

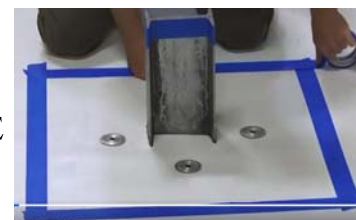
STEP 4



D

REMOVE ALL GRINDING DUST, CLEAN METAL & MEMBRANE WITH CLEAN RAGS & MEMBRANE CLEANER.

STEP 5



E

USE PAINTER'S TAPE AND TAPE OFF THE FLASHING AREA.

## MEASURING, CUTTING & DRY FITTING TECHNIQUE



F

STEP 6

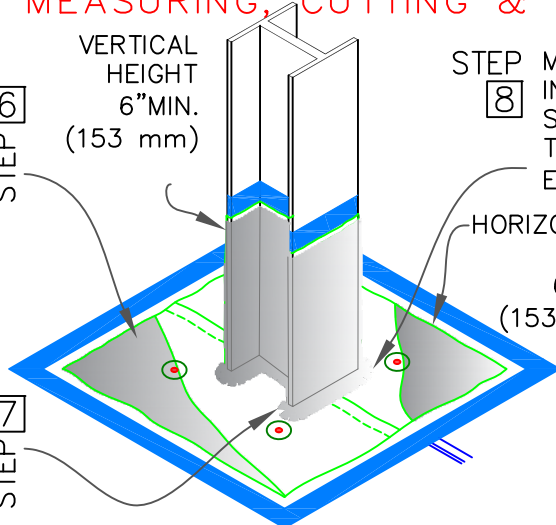
VERTICAL HEIGHT 6" MIN. (153 mm)

STEP 8 MAKE FINGER CUTS 2" (51mm) LONG IN **LIQUISEAL Flashing Fleece** AS SHOWN. THE FINGERS WILL REST ON THE HORIZONTAL SURFACE. SEE ENLARGED VIEW "1" ON [PAGE 2 OF 2](#).

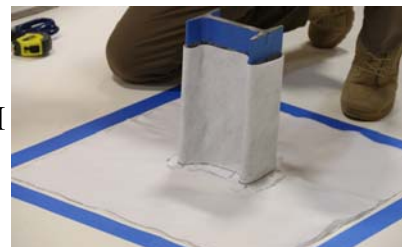
8

HORIZONTAL WIDTH 6" MIN. (153 mm)

STEP 7



H

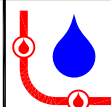


G

- ROOF MEMBRANE
- LIQUISEAL Flashing Fleece
- LIQUISEAL Liquid Flashing Resin
- SEE NOTE(S)

### STEEL I-BEAM FLASHING (PAGE 1 OF 2)

For additional information, refer to Specifications



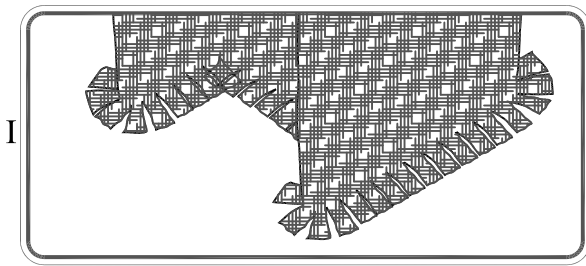
DETAIL NO.

LF-30.1

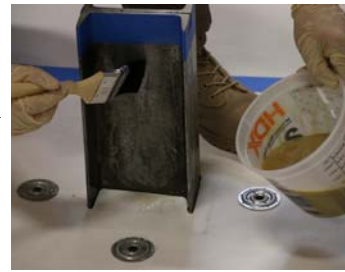
LIQUID FLASHING

## SACHET MIXING AND PRIMER APPLICATION

## STEP 9



J



PRIME I-BEAM AND METAL PLATES. ENSURE AMBIENT AIR TEMPERATURE IS 40° & RISING. ALLOW PRIMER TO CURE UNTIL TACK-FREE.

## STEP 10

APPLY 1ST COAT OF LIQUISEAL Liquid Flashing Resin & INSTALL LIQUISEAL Flashing Fleece ON VERTICAL SURFACES.

K

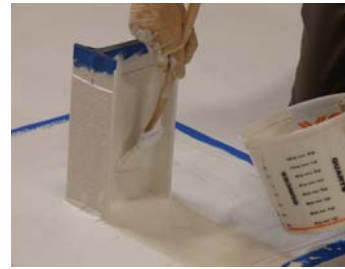


## FLASHING FINAL INSTALLATION

## STEP 11

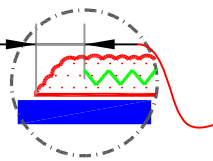
IMMEDIATELY APPLY A 2ND COAT OF LIQUISEAL Liquid Flashing Resin ENSURING THE FLEECE IS COMPLETELY SATURATED.

L

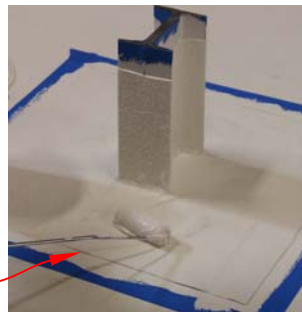


APPLY 1ST COAT OF RESIN AND INSTALL FLEECE ON HORIZONTAL SURFACES. IMMEDIATELY APPLY A 2ND COAT OF RESIN ENSURING FLEECE IS COMPLETELY SATURATED.

FLEECE MUST BE COVERED 1/4" – 1/2" (7mm – 13mm) BEYOND EDGES



## STEP 12



M

## STEP 13

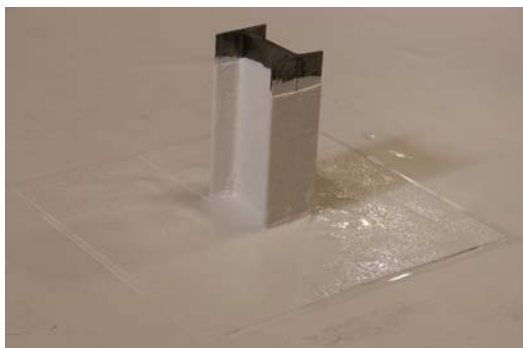


N

TOUCH UP AS NEEDED TO ENSURE ENTIRE FLEECE IS COMPLETELY SATURATED.

## STEP 14

O

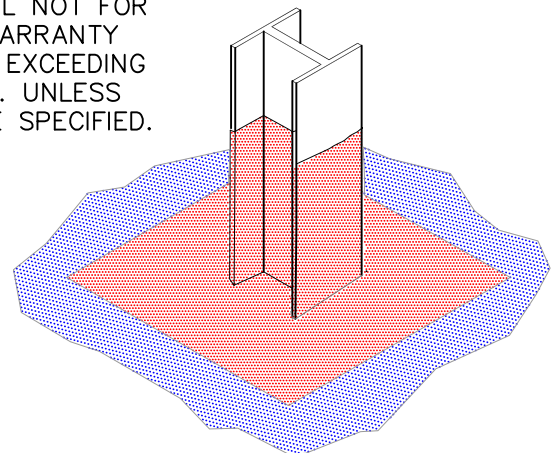


REMOVE TAPE IMMEDIATELY ENSURING THAT RESIN EXTENDS 1/4" – 1/2" BEYOND EDGE OF FLEECE

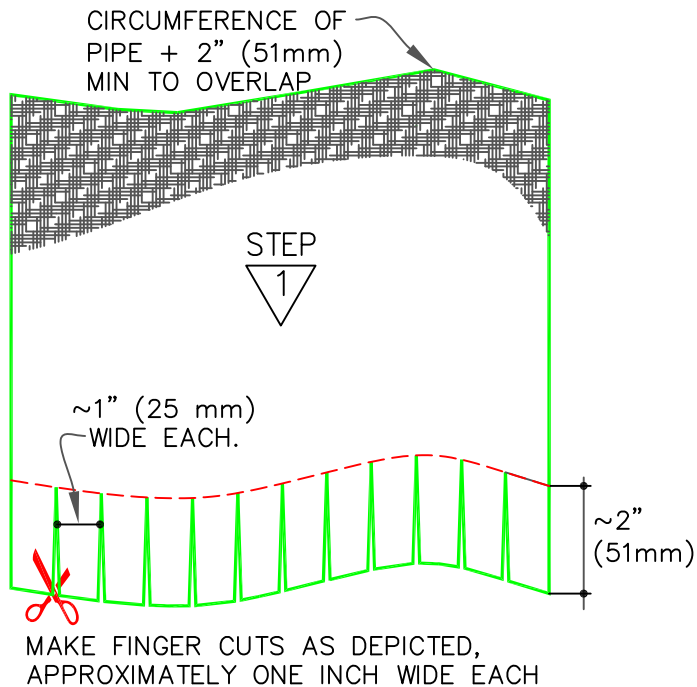
## COMPLETED FLASHING

## NOTE:

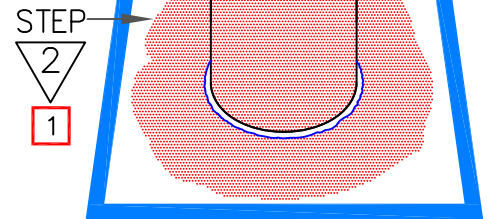
1. DETAIL NOT FOR USE ON WARRANTY PROJECTS EXCEEDING 20-YEARS. UNLESS OTHERWISE SPECIFIED.



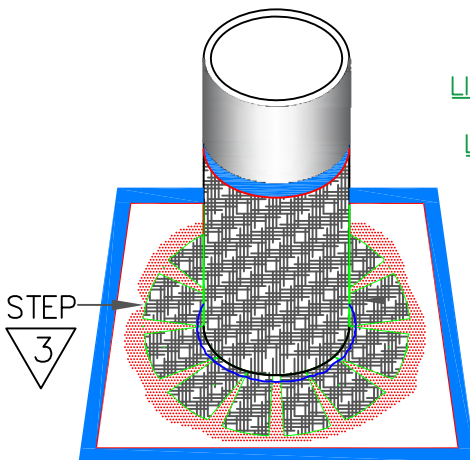
	<p>STEEL I-BEAM FLASHING (PAGE 2 OF 2)</p> <p>For additional information, refer to Specifications</p>	<p>DETAIL NO. LF-30.1</p> <p>LIQUID FLASHING</p>
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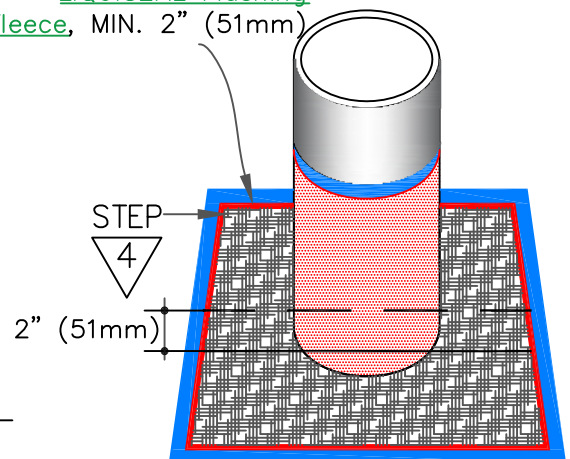
APPLY BASE COAT OF LIQUISEAL Liquid Flashing Resin PER PUBLISHED COVERAGE RATE



APPLY BASE COAT OF LIQUISEAL Liquid Flashing Resin ON HORIZONTAL SURFACES. IMMEDIATELY PRESS FLEECE INTO RESIN AND OVERLAP LIQUISEAL Flashing Fleece, MIN. 2" (51mm)



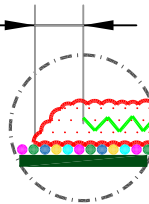
IMMEDIATELY PRESS LIQUISEAL Flashing Fleece, INTO THE APPLIED LIQUISEAL Liquid Flashing Resin. APPLY SECOND COAT OF RESIN. ENSURE ALL ENDS OF FINGERS ARE PROPERLY EMBEDDED.



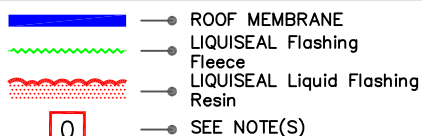
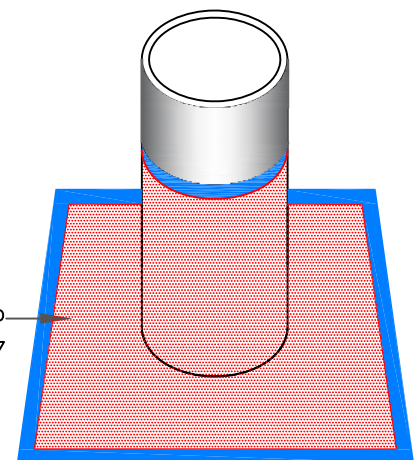
#### NOTES:

1. FOR MULTIPLE PIPE PENETRATIONS SEE STEP ZERO ON SHEET LF-8.1B AND FOLLOW REST OF THE STEPS AS SHOWN FOR SINGLE PIPE FLASHING.
2. REFER TO TABLES ON SHEETS LF-A TO C FOR DETAILED INSPECTION, CLEANING AND PRIMING FOR DIFFERENT MATERIALS WITHIN THE FLASHING AREAS.
3. SEE PAGE 2 OF 2 FOR ADDITIONAL NOTES.

FLEECE MUST BE COVERED 1/4" - 1/2" (7mm - 13mm) PAST ALL EDGES

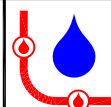


APPLY A TOP COAT OF LIQUISEAL Liquid Flashing Resin, ENSURING THE FLEECE IS COMPLETELY SATURATED PER PUBLISHED COVERAGE RATE AND APPLY 1/4" - 1/2" (7mm - 13mm) BEYOND THE FLEECE EDGES



SINGLE OR MULTIPLE PIPE PENETRATIONS (PAGE 1 OF 2)

For additional information, refer to Specifications

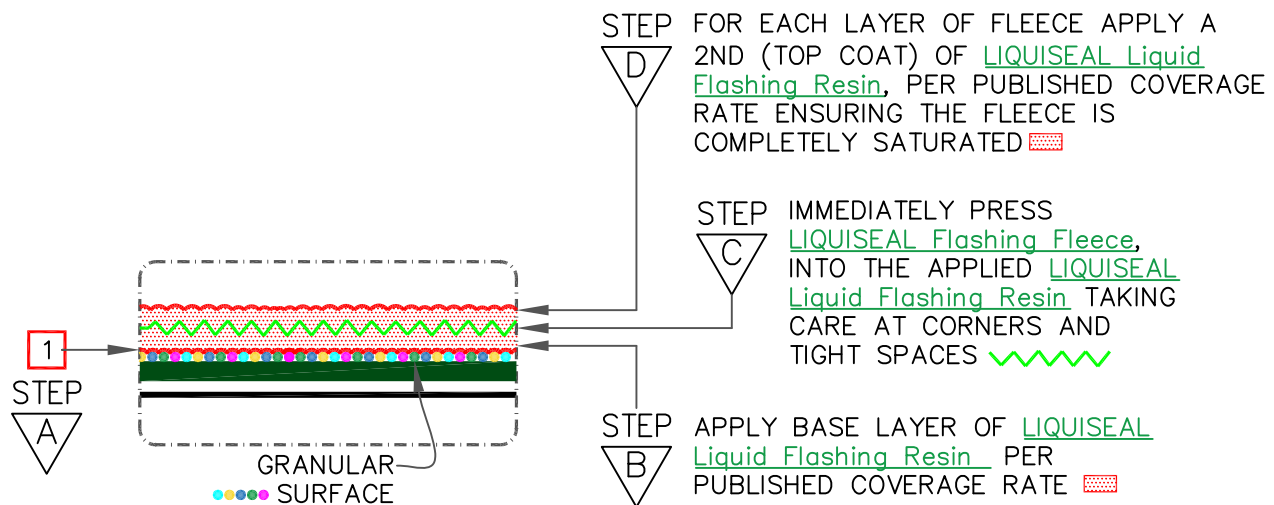


DETAIL NO.

LF-8.1

LIQUID FLASHING



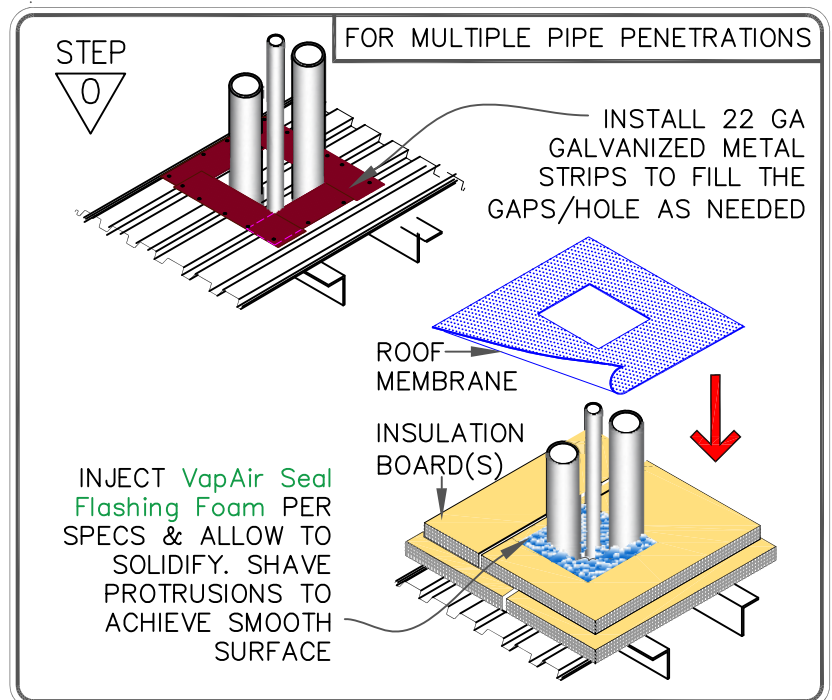


4 FASTENERS REQUIRED MIN.	 PLAN VIEW PIPE OUTSIDE DIAMETER < 6" (152mm)	SEAM FASTENING PLATES & FASTENERS			 PIPE OUTSIDE DIAMETER > 6" (152mm)
		DIMENSIONS	mm		
		(A)	6"	152	
		(B)	12"	305	
				TO	
				MAX.	

TABLE FOR FASTENER REQUIREMENTS ON MECHANICALLY FASTENED SYSTEMS. REFER TO CARLISLE TYPICAL PENETRATION DETAILS FOR FLASHING OVER FASTENER HEADS.

NOTES CONTINUE FROM **LF-8.1A**

- WHEN THERE IS ENOUGH CLEARANCE BETWEEN MULTIPLE PENETRATIONS, INSTALL LIQUID FLASHING USING THIS DETAIL.
- WHEN INSTALLATION OF LIQUID FLASHING IS NOT FEASIBLE FOR MULTIPLE PIPE PENETRATIONS, THEN USE APPLICABLE STANDARD ROOF MEMBRANE DETAIL (**U-16**) FOR FIELD MEMBRANE TYPE.
- DETAIL NOT FOR USE ON WARRANTY PROJECTS EXCEEDING 20-YEARS. UNLESS OTHERWISE SPECIFIED.



	SINGLE OR MULTIPLE PIPE PENETRATIONS (PAGE 2 OF 2) For additional information, refer to Specifications		DETAIL NO. <b>LF-8.1</b> LIQUID FLASHING
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