

**CURB DETAILS**

DN0010 - SINGLE ROOF CURB

DN0098 - PURLIN CAVITY FRAMING INSTALLATION (LIGHTWEIGHT CURBS)

DN0099 - LIGHTWEIGHT ROOF CURB INSTALLATION

DN0100 - LIGHTWEIGHT ROOF CURB

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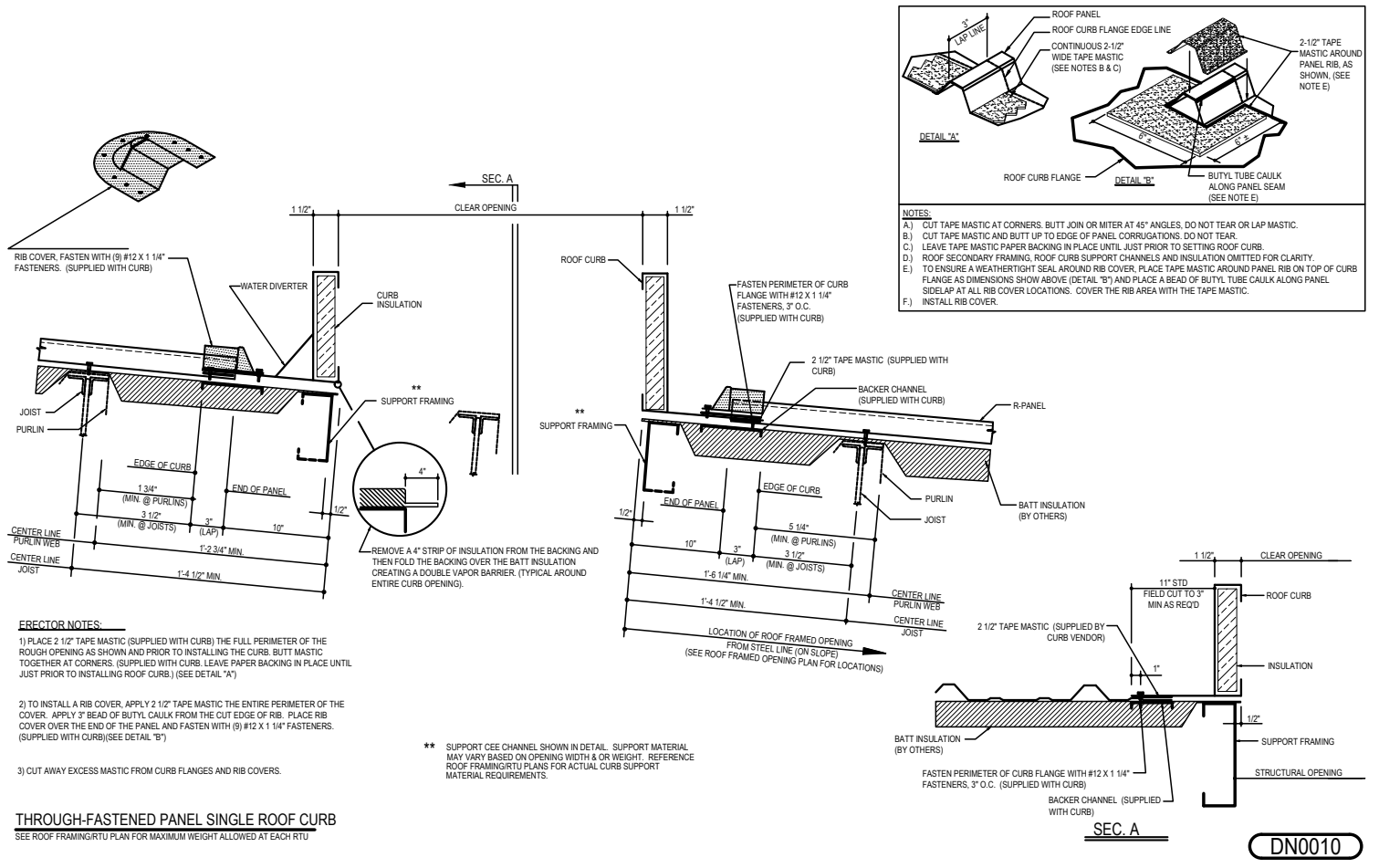
# NUCOR® STANDARD and LIGHTWEIGHT CURB DETAILS

## BUILDINGS GROUP

### THROUGH-FASTENED ROOF PANELS

#### DN0010 - SINGLE ROOF CURB

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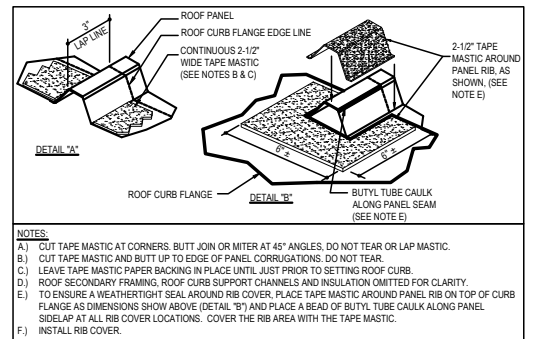
**ERECTOR NOTES:**  
 1) PLACE 2 1/2" TAPE MASTIC (SUPPLIED WITH CURB) THE FULL PERIMETER OF THE ROUGH OPENING AS SHOWN AND PRIOR TO INSTALLING THE CURB. BUTT MASTIC TOGETHER AT CORNERS. (SUPPLIED WITH CURB. LEAVE PAPER BACKING IN PLACE UNTIL JUST PRIOR TO INSTALLING ROOF CURB). (SEE DETAIL "A")

2) TO INSTALL A RIB COVER, APPLY 2 1/2" TAPE MASTIC THE ENTIRE PERIMETER OF THE COVER. APPLY 3" BEAD OF BUTYL CAULK FROM THE CUT EDGE OF RIB. PLACE RIB COVER OVER THE END OF THE PANEL AND FASTEN WITH (9) #12 X 1 1/4" FASTENERS. (SUPPLIED WITH CURB)(SEE DETAIL "B")

3) CUT AWAY EXCESS MASTIC FROM CURB FLANGES AND RIB COVERS.

\*\* SUPPORT CEE CHANNEL SHOWN IN DETAIL. SUPPORT MATERIAL MAY VARY BASED ON OPENING WIDTH & OR WEIGHT. REFERENCE ROOF FRAMING/RTU PLANS FOR ACTUAL CURB SUPPORT MATERIAL REQUIREMENTS.

**THROUGH-FASTENED PANEL SINGLE ROOF CURB**  
 SEE ROOF FRAMING/RTU PLAN FOR MAXIMUM WEIGHT ALLOWED AT EACH RTU



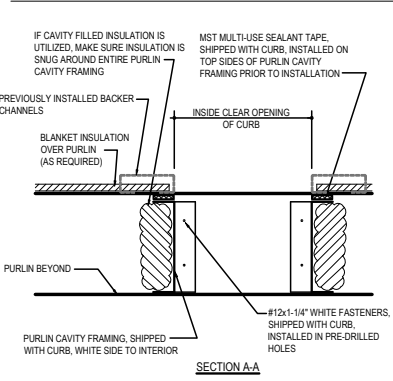
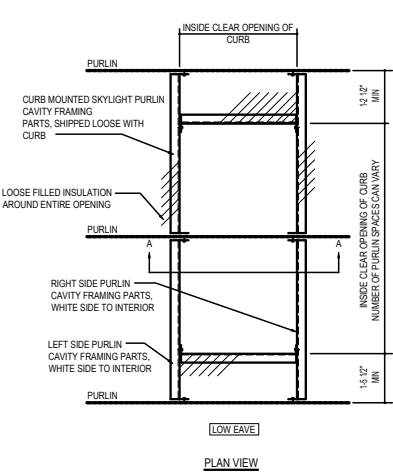
**NOTES:**  
 A.) CUT TAPE MASTIC AT CORNERS. BUTT JOIN OR MITER AT 45° ANGLES. DO NOT TEAR OR LAP MASTIC.  
 B.) CUT TAPE MASTIC AND BUTT UP TO EDGE OF PANEL CORRUGATIONS. DO NOT TEAR.  
 C.) LEAVE TAPE MASTIC PAPER BACKING IN PLACE UNTIL JUST PRIOR TO SETTING ROOF CURB.  
 D.) ROOF SECONDARY FRAMING, ROOF CURB SUPPORT CHANNELS AND INSULATION OMITTED FOR CLARITY.  
 E.) TO ENSURE A WEATHERTIGHT SEAL AROUND RIB COVER, PLACE TAPE MASTIC AROUND PANEL RIB ON TOP OF CURB FLANGE AS DIMENSIONS SHOW ABOVE (DETAIL "B") AND PLACE A BEAD OF BUTYL TUBE CAULK ALONG PANEL SIDELAP AT ALL RIB COVER LOCATIONS. COVER THE RIB AREA WITH THE TAPE MASTIC.  
 F.) INSTALL RIB COVER.

**Detailer Notes:**

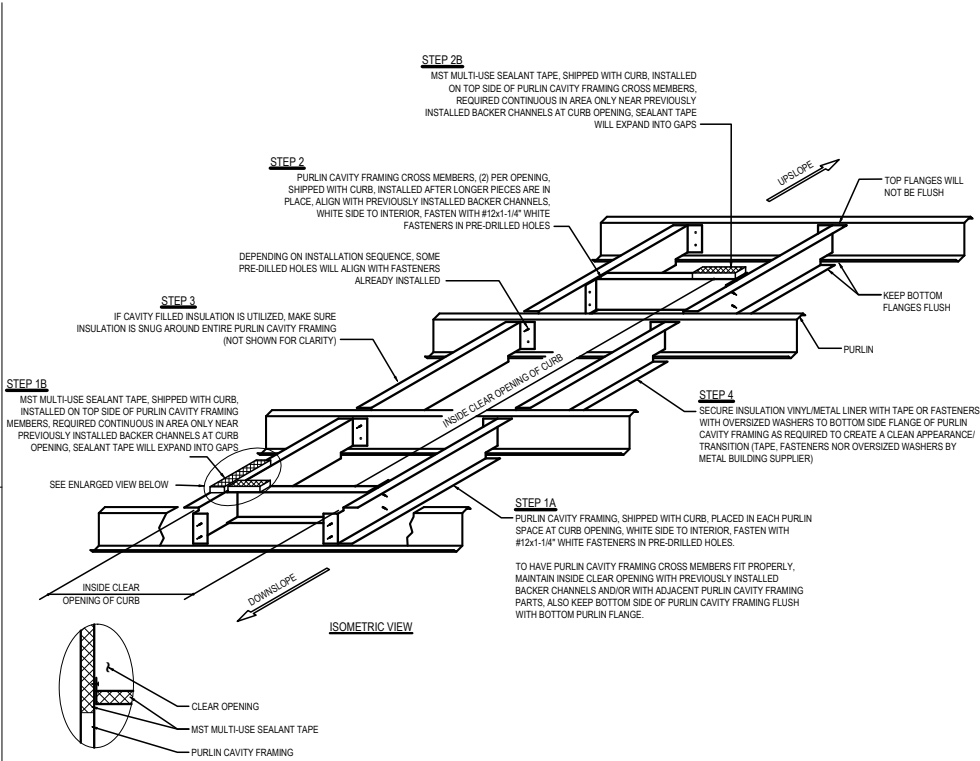
1) N/A

DN0098 - PURLIN CAVITY FRAMING INSTALLATION (LIGHTWEIGHT CURBS)

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**PURLIN CAVITY FRAMING INSTALLATION**  
UNCUT SECONDARY MEMBERS, PURLIN CAVITY FRAMING INSTALLATION, PREPPING ROOF OPENING FOR ALL STANDARD ROOF PANEL TYPES, FOR USE WITH CURB MOUNT PRISMATIC DOMES & PRISMATIC SMOKE VENTS ONLY



DN0098

Detailer Notes:

1) THIS DETAIL IS A DUPLICATE OF DETAILS DL0098, EN3098, AND EN6098. WHEN MAINTENANCE IS REQUIRED, BE SURE TO UPDATE THE ADDITIONAL DETAILS AS REQUIRED (PD ONLY).

# NUCOR® STANDARD and LIGHTWEIGHT CURB DETAILS

## BUILDINGS GROUP

### THROUGH-FASTENED ROOF PANELS

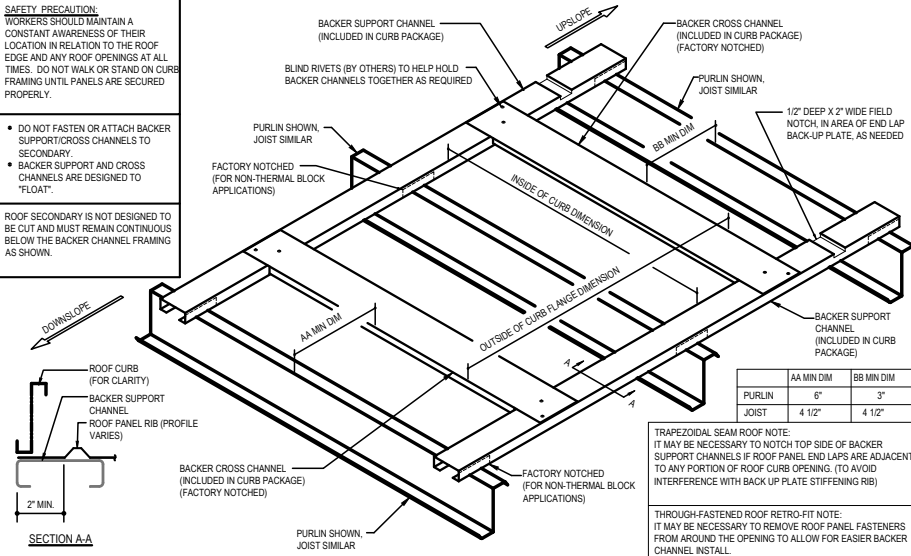
#### DN0099 - LIGHTWEIGHT ROOF CURB INSTALLATION

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**SAFETY PRECAUTION:**  
WORKERS SHOULD MAINTAIN A CONSTANT AWARENESS OF THEIR LOCATION IN RELATION TO THE ROOF EDGE AND ANY ROOF OPENINGS AT ALL TIMES. DO NOT WALK OR STAND ON CURB FRAMING UNTIL PANELS ARE SECURED PROPERLY.

- DO NOT FASTEN OR ATTACH BACKER SUPPORT/CROSS CHANNELS TO SECONDARY.
- BACKER SUPPORT AND CROSS CHANNELS ARE DESIGNED TO "FLOAT".

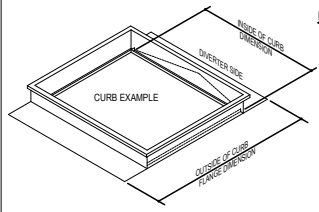
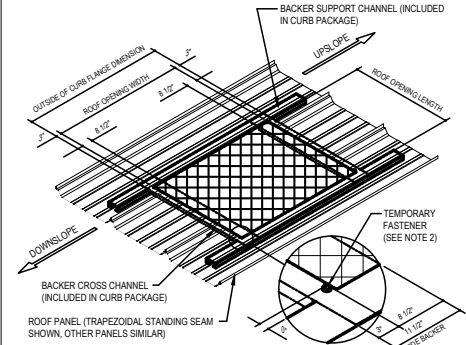
ROOF SECONDARY IS NOT DESIGNED TO BE CUT AND MUST REMAIN CONTINUOUS BELOW THE BACKER CHANNEL FRAMING AS SHOWN.



	AA MIN DIM	BB MIN DIM
PURLIN	6"	3"
JOIST	4 1/2"	4 1/2"

**TRAPEZOIDAL SEAM ROOF NOTE:**  
IT MAY BE NECESSARY TO NOTCH TOP SIDE OF BACKER SUPPORT CHANNELS IF ROOF PANEL END LAPS ARE ADJACENT TO ANY PORTION OF ROOF CURB OPENING. (TO AVOID INTERFERENCE WITH BACK UP PLATE STIFFENING RIB)

**THROUGH-FASTENED ROOF RETRO-FIT NOTE:**  
IT MAY BE NECESSARY TO REMOVE ROOF PANEL FASTENERS FROM AROUND THE OPENING TO ALLOW FOR EASIER BACKER CHANNEL INSTALL.



#### INSTALLATION PROCEDURE (RETRO-FIT):

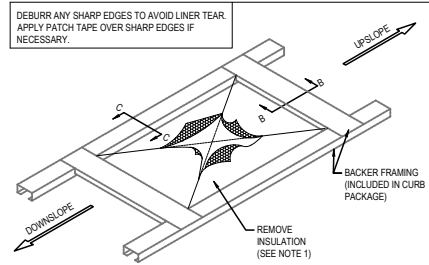
- 1) DETERMINE ROOF CURB LOCATION(S). IF POSSIBLE, TRY TO CENTER OPENING/CURB OVER A MAJOR RIB/SEAM. KEEP OPENING MINIMUM 2" FROM EDGE OF RIB. SEE SECTION A-A.
- 2) FOLLOW ROOF PANEL CUT-OUT PROCEDURES (AT RIGHT) FOR PROPERLY CUTTING OPENING IN ROOF PANEL.
- 3) INSTALL BACKER SUPPORT CHANNELS (SIDES), USING CAUTION NOT TO TEAR/CUT ROOF INSULATION WHEN PLACING WITHIN OPENING.
- 4) CENTER BACKER FRAMING OVER SECONDARY MAKING SURE THE ENDS OF THE BACKER SUPPORT CHANNELS REST ON SECONDARY EQUALLY. (IF A NON-THERMAL BLOCK ROOF APPLICATION, THE BACKER SUPPORT CHANNELS WILL COME FACTORY NOTCHED AT SECONDARY).
- 5) INSTALL BACKER CROSS CHANNELS (UPSLOPE/DOWNSLOPE), WITH FACTORY NOTCHED ENDS, ON TOP OF BACKER SUPPORT CHANNELS AND UNDER ROOF PANEL.
- 6) FOLLOW INSULATION TIE-OFF PROCEDURE (FROM BELOW) FOR PROPERLY REMOVING INSULATION FROM ROOF OPENING.

#### INSTALLATION PROCEDURE (NEW CONSTRUCTION):

- 1) DETERMINE ROOF CURB LOCATION(S). IF POSSIBLE, TRY TO CENTER OPENING/CURB OVER A MAJOR RIB/SEAM. KEEP OPENING MINIMUM 2" FROM EDGE OF RIB. SEE SECTION A-A.
- 2) ASSEMBLE BACKER SUPPORT/CROSS CHANNELS. PLACE (2) POP RIVETS IN EACH CORNER TO HELP HOLD BACKER CHANNELS TOGETHER, AS REQD.
- 3) LAY BACKER FRAMING ON TOP OF INSULATION. (IF NO INSULATION IS UTILIZED THEN LAY DIRECTLY ON TOP OF SECONDARY).
- 4) CENTER BACKER FRAMING OVER SECONDARY MAKING SURE THE ENDS OF BACKER SUPPORT CHANNELS REST ON THE SECONDARY EQUALLY. (IF A NON-THERMAL BLOCK ROOF APPLICATION, THE BACKER SUPPORT CHANNELS WILL COME FACTORY NOTCHED AT SECONDARY).
- 5) START SHEETING OVER BACKER FRAMING. ATTACH ROOF PANELS PER STANDARD PRACTICE.
- 6) PLACE A FASTENER AT LOWER AND UPPER CORNER OF SUPPORT FRAMING.
- SEE ROOF PANEL CUT-OUT PROCEDURE (AT RIGHT) FOR THIS INSTALLATION. CONTINUE SHEETING ROOF PANELS AND PLACE A FASTENER AT OTHER LOWER AND UPPER CORNERS OF SUPPORT FRAMING.
- 7) FOLLOW INSULATION TIE-OFF PROCEDURE (FROM BELOW) FOR PROPERLY REMOVING INSULATION FROM ROOF OPENING.

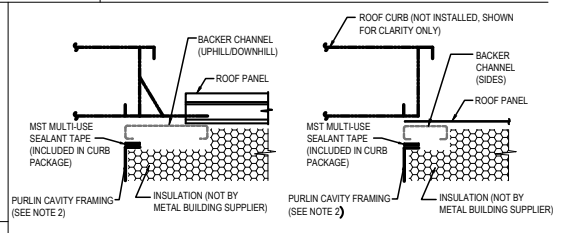
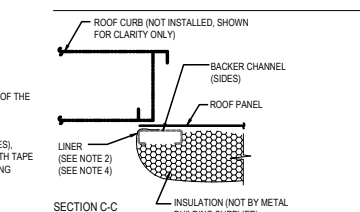
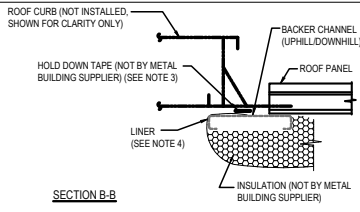
#### ROOF PANEL CUT-OUT PROCEDURE:

- WHEN FIELD CUTTING PANELS DO NOT USE ABRASIVE SAWS OR OTHER CUTTING METHODS WHICH PRODUCE HOT METAL PARTICLES AND/OR BURN THE CUT EDGES. THESE METHODS WILL DAMAGE THE PAINTED AND ALUMINUM COATED FINISH AND VOID ANY WARRANTIES. USE DOUBLE CUT SHEARS, NIBBLERS OR OTHER CUTTING DEVICES WHICH DO NOT PRODUCE HOT METAL PARTICLES OR BURNED EDGES.
- 1) FOR RETRO-FIT INSTALL, THE ROOF OPENING WIDTH DIMENSION WILL BE THE OUTSIDE OF CURB FLANGE DIMENSION MINUS (-) 8". THE ROOF OPENING LENGTH DIMENSION WILL BE THE INSIDE OF CURB DIMENSION, ONCE DIMENSIONS ARE LAID OUT AND CONFIRMED, DRILL A HOLE IN PANEL AT EACH CORNER AND CUT AWAY ROOF PANELS, USING CAUTION NOT TO CUT INTO ROOF INSULATION (IF UTILIZED).
  - 2) FOR NEW CONSTRUCTION, PLACE A FASTENER AT EACH CORNER OF THE SUPPORT FRAMING AS SHOWN IN DETAIL 'A' (THIS IS TEMPORARY AND WILL HELP ENSURE THE SUPPORT FRAMING DOES NOT MOVE DURING PANEL INSTALLATION). LOCATE CORNER FASTENERS UNDER ROOF PANELS, DRILL A HOLE IN ROOF PANEL AT EACH FASTENER LOCATION AND CUT AWAY ROOF PANELS, USING CAUTION NOT TO CUT INTO ROOF INSULATION (IF UTILIZED).
  - 3) DEBURR ALL FIELD CUT PANEL CORRUGATIONS AND PANEL EDGES OF SHARP EDGES BEFORE PROCEEDING.



#### INSULATION TIE-OFF PROCEDURE AT BLANKET INSULATION:

- USE WITH PURLINS OR JOIST AS ROOF SECONDARY MEMBER TYPES.
- 1) REMOVE INSULATION BACKING FROM THE LINER WITHIN THE ROOF OPENING AREA. CUT LINER INSIDE OF THE ROOF OPENING AREA.
  - 2) TUCK LINER UNDER ROOF PANEL AND ON TOP OF BACKER CHANNELS (SIDES).
  - 3) FOLD LINER OVER UPHILL/DOWNHILL BACKER CHANNELS AND TAPE LINER TO BACKER CHANNELS.
  - 4) OPTIONAL TIE-OFF PROCEDURE: INSTALL ROOF CURB (WITH PROPER SEALANTS UNDER CURB FLANGES), SECURE ROOF CURB, WRAP LINER UP AND OVER INNER CURB FLANGE PERIMETER, SECURE LINER WITH TAPE OR FASTENERS WITH OVERSIZED WASHERS (TAPE, FASTENERS NOR WASHERS NOT BY METAL BUILDING SUPPLIER).



**IF ORDERED AND SUPPLIED ONLY**

#### INSULATION TIE-OFF PROCEDURE AT PURLIN CAVITY FRAMING:

- USE WITH CAVITY FILLED INSULATION (BASKET) SYSTEMS AND/OR WITH METAL ROOF LINER IF ORDERED.
- 1) REMOVE ADDITIONAL INSULATION FROM WITHIN THE ROOF OPENING AREA TO BE ABLE TO INSTALL PURLIN CAVITY FRAMING, BUT NOT SO MUCH AS TO CREATE VOIDS. INSULATION NEEDS TO BE SMOG AROUND PURLIN CAVITY FRAMING.
  - 2) INSTALL PURLIN CAVITY FRAMING PARTS WITH MULTI-USE SEALANT TAPE APPLIED ON TOP SIDE FLANGE, TO CREATE SEAL BETWEEN BACKER CHANNELS AND PURLIN CAVITY FRAMING.
  - 3) FILL INSULATION VOIDS WITH ADEQUATE INSULATION, AS REQUIRED.
  - 4) SECURE INSULATION VINYL/METAL LINER WITH TAPE OR FASTENERS WITH OVERSIZED WASHERS TO BOTTOM SIDE FLANGE OF PURLIN CAVITY FRAMING (TAPE, FASTENERS NOR OVERSIZED WASHERS BY METAL BUILDING SUPPLIER).

**LIGHTWEIGHT ROOF CURB INSTALLATION**  
UNCLUT SECONDARY MEMBERS, SUPPORT FRAMING INSTALLATION,  
PREPPING ROOF OPENING FOR ALL STANDARD ROOF PANEL TYPES,  
FOR USE WITH CURB MOUNT PRISMATIC DOMES & PRISMATIC SMOKE VENTS ONLY

DN0099

#### Detailer Notes:

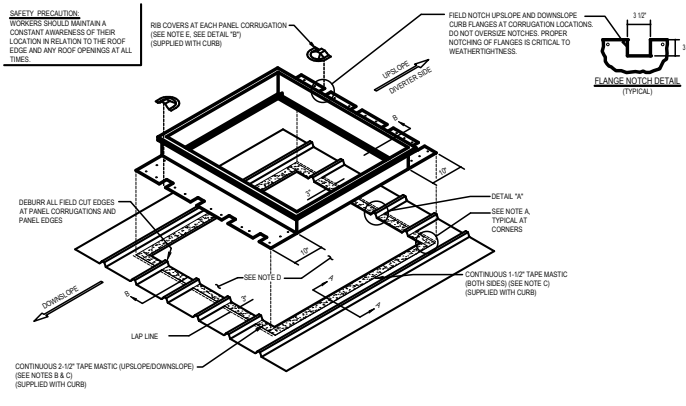
1) THIS DETAIL IS A DUPLICATE OF DETAILS DL0099, EN3099, AND EN6099. WHEN MAINTENANCE IS REQUIRED, BE SURE TO UPDATE THE ADDITIONAL DETAILS AS REQUIRED (PD ONLY).

# NUCOR® STANDARD and LIGHTWEIGHT CURB DETAILS

## THROUGH-FASTENED ROOF PANELS

### DN0100 - LIGHTWEIGHT ROOF CURB

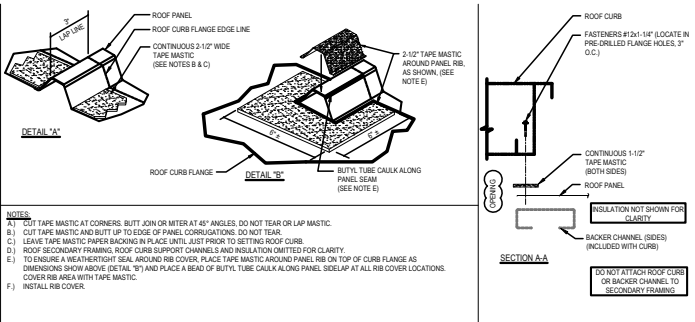
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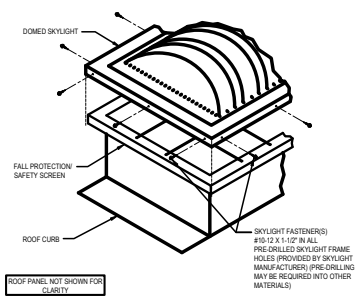
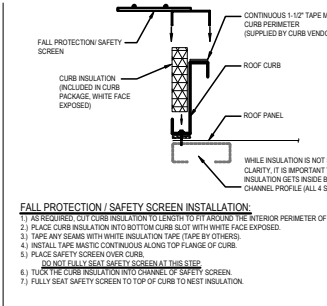
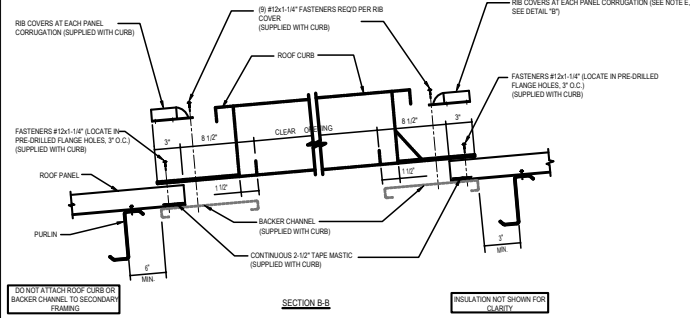
- INSTALLATION PROCEDURES:**
- 1) PRIOR TO INSTALLING CURB: MARK A 3" LAP LINE ON THE UPSLOPE/DOWNSLOPE ROOF PANEL EDGES. PLACE CURB OVER OPENING LINE-UP CURB FLANGES WITH 3" LAP LINE. CENTER CURB OVER OPENING (SIDE TO SIDE). MARK PANEL RB LOCATIONS.
  - 2) NOTCH UPSLOPE AND LOWER CURB FLANGES AS REQUIRED. SEE NOTCH DETAIL FOR DIMENSIONS. DRY-FIT CURB OVER OPENING. CHECK FOR PROPER FIT.
  - 3) IF A NEW CONSTRUCTION INSTALL AND THE 4" CORNER FASTENERS WERE UTILIZED, REMOVE FROM THE CORNERS OF FRAMING NOW, OTHERWISE OMIT NOTE.
  - 4) CLEAN OFF ALL DEBRIS, OIL, METAL SHAVINGS, ETC. FROM AROUND THE ROOF OPENING AND FROM ROOF CURB UNDERSIDE.
  - 5) INSTALL ALL PROPER TAPE MASTICS AROUND PERIMETER OF ROOF OPENING. NOTE OF PRESENT WIDTHS ARE USED. SEE DETAIL 'A' AND NOTES A, B AND C.
  - 6) AFTER TAPE MASTIC PAPER BACKING IS REMOVED, CAREFULLY SET CURB OVER OPENING, ALIGN AND FASTEN WITH #12x1-1/4" ROOF FASTENERS IN PRE-DRILLED FLANGE HOLES AND/OR EVERY 2'.
  - 7) PRIOR TO RIB COVER INSTALLATION, REVIEW NOTE E. SEE DETAIL 'B' FOR PROPER PLACEMENT OF TAPE MASTIC/TUBE CAULK. PLACE COVER OVER PANEL RB, LINING UP WITH EDGE OF CURB FLANGE. PUSHING DOWN FIRMLY. FASTEN RIB COVER WITH #8 FASTENERS AROUND PERIMETER.
  - 8) AFTER ALL ROOF CURB COMPONENTS HAVE BEEN INSTALLED, MAKE SURE AREA AROUND ENTIRE ROOF CURB PERIMETER (INCLUDING RIB COVERS) IS CLEAR OF DEBRIS, OIL, METAL SHAVINGS, ETC. AS NECESSARY, TRIM ANY EXCESS TAPE MASTIC OR TUBE CAULK FROM AROUND CURB COVERS.
  - 9) CUT AWAY EXCESS MASTIC FROM CURB FLANGES AND RIB COVERS.
  - 10) INSTALL FALL PROTECTION/SAFETY SCREEN AND DOMED SKYLIGHT AS INSTRUCTED IN DETAILS BELOW.

#### LIGHTWEIGHT ROOF CURB INSTALLATION

THROUGH-FASTENED ROOF PANELS  
FOR USE WITH PRISMATIC DOMES AND PRISMATIC SMOKE VENTS ONLY



- NOTES:**
- A) CUT TAPE MASTIC AT CORNERS. BUTT JOIN OR MITER AT 45° ANGLES. DO NOT TEAR OR LAP MASTIC.
  - B) CUT TAPE MASTIC AND BUTT UP TO EDGE OF PANEL CORRUGATIONS. DO NOT TEAR.
  - C) LEAVE TAPE MASTIC PAPER BACKING IN PLACE UNTIL JUST PRIOR TO SETTING ROOF CURB.
  - D) ROOF SECONDARY FRAMING, ROOF CURB SUPPORT CHANNELS AND INSULATION OMITTED FOR CLARITY.
  - E) TO ENSURE A WEATHERTIGHT SEAL AROUND RIB COVER, PLACE TAPE MASTIC AROUND PANEL RB ON TOP OF CURB FLANGE AS DIMENSIONS SHOW ABOVE (DETAIL 'B') AND PLACE A BEAD OF BUTY/TUBE CAULK ALONG PANEL SEAM. SEALUP AT ALL RIB COVER LOCATIONS.
  - F) INSTALL RIB COVER.



- DOMED SKYLIGHT INSTALLATION:**
- 1) HANDLE DOMED SKYLIGHT WITH CARE. INSURE THE INSIDE OF THE LENS IS CLEAR OF DEBRIS THROUGHOUT THE INSTALLATION PROCESS. DO NOT HIT SKYLIGHT FRAME WITH HAMMER OR ANY OTHER KIND OF Mallet. THIS MAY CAUSE THE WELDS TO SPALT.
  - 2) PROPERLY ELEVATE DOMED SKYLIGHT FROM FLAT SURFACES DURING STORAGE TO PREVENT HEAT BUILDUP OR EXCESSIVE INTERNAL TEMPERATURES UNDER THE DOME. OTHERWISE DAMAGE CAN OCCUR TO INTERNAL COMPONENTS.
  - 3) CALLING ON THE TOP SIDE OF THE FALL PROTECTION/SAFETY SCREEN IS NOT REQUIRED. AN AIR SEAL TAPE IS PRE-MOUNTED TO THE UNDERSIDE OF THE SKYLIGHT.
  - 4) SET DOMED SKYLIGHT OVER PREPARED CURB. MAKING SURE SKYLIGHT IS SQUARE AND EQUALLY SPACED ON ALL FOUR SIDES OF CURB.
  - 5) ATTACH SKYLIGHT WITH PROVIDED SCREENS. BE SURE NOT TO DISTORT THE SKYLIGHT FRAME. DRIVE SCREENS JUST BRAG TO THE FLANGE. OVERTIGHTENING MAY CREATE FORCES WHICH MAY CRACK THE SKYLIGHT LENS.
- DOMED SKYLIGHT CLEANING:**
- 1) WHEN CLEANING LENS, USE ONLY WATER OR WATER WITH MILD SOAP. USE A SOFT BRUSH TO REMOVE THE SCRATCHING.
  - 2) NEVER USE AMMONIA, ALCOHOL, AROMATIC OR PETROLEUM BASED PRODUCTS TO CLEAN LENS. THIS WILL CAUSE DETERIORATION AND/OR CRACKING OF THE LENS AND WILL VOID THE WARRANTY.

#### Detailer Notes:

- 1) N/A