



**Bluestone, Inc.**

P.O. Box 304  
New Boston, NH 03070  
603-487-5419  
800-639-4016

## ROOF INSPECTION REPORT

10-19-2005

Company Carroll County Commissioners Type of business Carroll County Complex  
Address Route 171 \* P.O. Box 152  
City Ossipee, NH 03864-0152  
Individual Joe Boyd Title Director of Maintenance

### BUILDING DESCRIPTION

Building located at Carroll County Complex  
Building used for Nursing Home  
Owners identification of area or building # Mountain View Nursing Home  
Exterior wall construction: X Masonry    Wood    Steel    Other   

### ROOF DESCRIPTION

   New roof X Old roof + or-15 yrs? Age of roof 314,000 Area in sq. ft.  
Roof shape: X Flat    Gable    Arched roof    Other   

### ROOF DECK

   Wood    Gypsum plank    Concrete    Lightweight concrete X Steel    Poured Gypsum    Other  
Re-roofed or restored with Butler metal roofing systems Date 1990??

### ROOF MAT

   No. of plys of felt    Tar and gravel    Asphalt and gravel    Smooth asphalt    Mineral surfaced asphalt X Steel    Polyurethane foam    Single ply    Type of single ply  
   Fully adhered    Ballasted    Mechanically attached  
Name of manufacturer of roofing materials Butler Metal Roofs

### DRAINAGE

   3" rise per ft. or more    1" to 2" rise per ft. X Less than 1" rise per ft.    Dead level flat



X Water ponds on surface 20 % of area: Only in the winter from ice dams.

### INSULATION

   None    Fiberglass    Fiber board    Other Thickness    in.    Dry    Wet    %  
   Vapor barrier?    Base sheet?

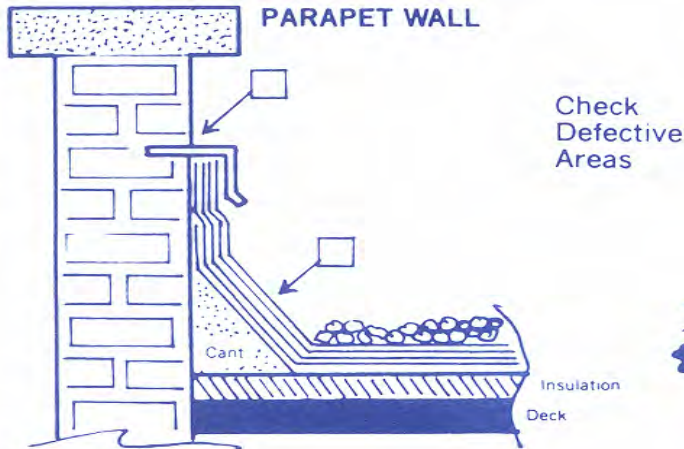
## CONDITION OF ROOF

\_\_\_ Dry and brittle \_\_\_% Alligatored \_\_\_ Curled edges \_\_\_ Drains clogged \_\_\_ Open seams \_\_\_% Blisters  
\_\_\_ Unfilled pitch pockets \_X\_ Open seams on metal roof \_X\_ Structural cracks/splits \_\_\_ Wrinkled felts  
\_\_\_ Debris \_X\_ Open coping joints \_\_\_\_\_ partial  
Aggregate adhesion \_\_\_ good \_\_\_ fair \_\_\_ poor \_\_\_ other \_\_\_\_\_

Is roof leaking? Describe exactly: Loose screws, loose seams, failed flashing around protrusions and HVAC units

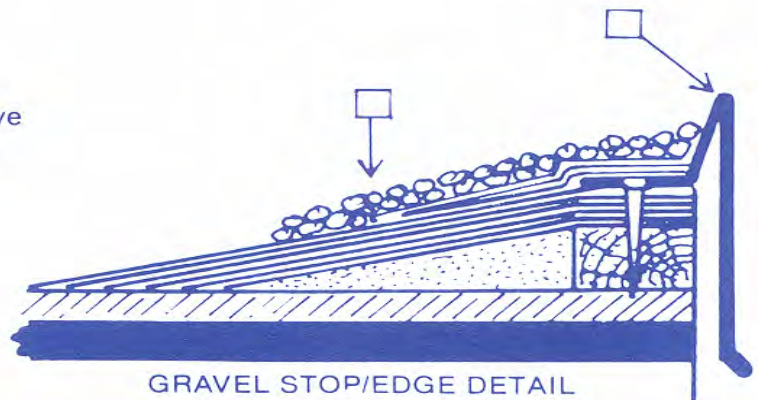
Cause of leaks: \_X\_ Splits & breaks in roof mat \_X\_ Flashing failure \_X\_ Gravel stop or edge failure  
\_\_\_ Roof top traffic \_\_\_ Improper roof top installations \_X\_ Improper construction \_X\_ Ponding

## FLASHING CONDITIONS



Total lineal feet \_\_\_\_\_  
Height of vertical flashing \_\_\_\_\_  
Condition of exposed membrane \_\_\_\_\_

\_\_\_ Replace flashing  
\_\_\_ Restore flashing



Total lineal feet \_\_\_\_\_  
Gravel stop \_\_\_ raised \_\_\_ flat  
Gravel stop joints open? \_\_\_ yes \_\_\_ no  
Gravel stop needs renailling? \_\_\_ yes \_\_\_ no  
\_\_\_ Replace flashing  
\_\_\_ Restore flashing

### ADDITIONAL IMPORTANT INFORMATION:

Your roof problems with this particular type of low slope metal roofing system in this area of the country is not new or unique. Low slope metal roofing systems perform well in many parts of the country but are problematic in areas where snow is heavy and the winters are cold.

One solution is to remove all of the screws, pull up all of the metal panels and apply a new gasket seal to all of the joints and seal all of the metal roof panels 12 feet up from the edge of the roof. This comes with no warranty because it is a repair of an old roofing system failing because of poor design.

The permanent solution is to fill the flutes of the metal panels with light weight rigid insulation and to re-roof with a 250 mil Bluestone COPA membrane with stone. This roofing system comes with a 15 year warranty and is maintenance free.

# PROPOSAL

NEW ROOF WITH BLUESTONE COPA 6 & STONE

BLUESTONE, INC.

P.O. Box 304

NEW BOSTON, NEW HAMPSHIRE 03070

603-487-5419

800-639-4016

|  |               |  |                    |
|--|---------------|--|--------------------|
| PROPOSAL SUBMITTED TO<br>The Carroll County Commissioner |               | PHONE<br>603-539-2428                                      | DATE<br>10-24-2005 |
| STREET<br>Route 171 * P.O. Box 152                       |               | JOB NAME<br>NEW ROOF WITH 250 mil BLUESTONE COPA 6 & STONE |                    |
| CITY, STATE and ZIP CODE<br>Ossipee, NH 03864-0152       |               | JOB LOCATION<br>Mountain View Nursing Home                 |                    |
| ARCHITECT  | DATE OF PLANS |  | JOB PHONE          |

We hereby submit specifications and estimates for:

**31,336 sq. ft. NEW ROOF WITH 250 mil BLUESTONE COPA 6 AND STONE**

A 3¾"x6" nailer board will be installed on the drainage edge perimeter of the roof. 2'x8'x3¾" sheets of ISOCYANURATE board insulation will be laid between the ribs of the failed metal roof and butted up against the wood nailer. This assembly will be covered with a 100 mil BLUESTONE APP 2 **POLYESTER** reinforced base sheet. This heavy duty base sheet will also act as a temporary roof until the 250 mil BLUESTONE COPA 6 membrane is installed.

Once the insulation and base sheet is secured, starting at the low point of the roof, 100 sq. ft. sheets of 250 mil BLUESTONE COPA 6 membrane will be fully adhered to the base sheet with 6 inch side laps and 10 inch end laps. All end laps will be staggered a minimum of 2 ft.

One the roofing membrane is installed, new HEAVY DUTY (.050) ALUMINUM drip edge will be installed on all perimeters.

Once the membrane and flashing is installed, the membrane will be covered with BLUESTONE SUPERFLEX COATING at a rate of 10 gallons per 100 sq. ft. and covered with stone at a rate of 2 lbs. per sq. ft.

TOTAL -----\$412,387.00

*We Propose* hereby to furnish material and labor - complete in accordance with above specifications, for the sum of:

FOUR HUNDRED TWELVE THOUSAND THREE HUNDRED EIGHTY SEVEN AND 00/100

Payment to be made as follows:

50% down and progressive payments equal to the amount of work done

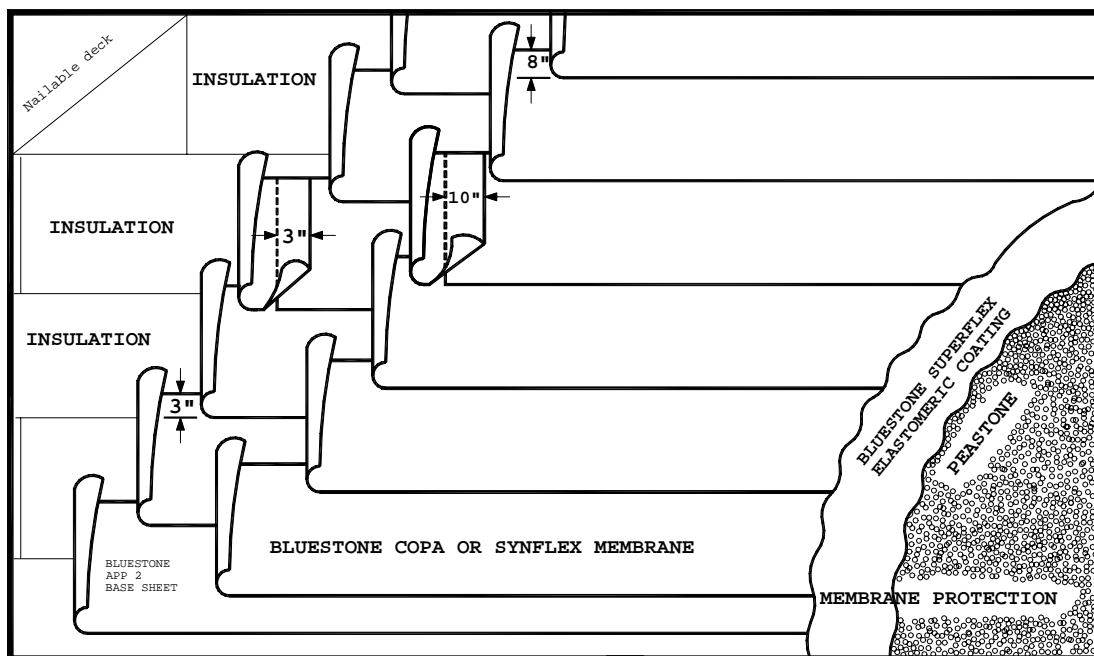
All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature \_\_\_\_\_ Note: This proposal may be withdrawn by us if not accepted within \_\_\_\_\_ days

*Acceptance* - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

|                  |                          |
|------------------|--------------------------|
| Signature: _____ | Date of Acceptance _____ |
| Signature: _____ | Date of Acceptance _____ |

NAILABLE DECK  
WITH INSULATION  
NEW CONSTRUCTION



The Bluestone membrane should have lap  
in the center of the base sheet.

1. TYPE OF DECK:

Plywood, wood plank, gypsum, metal.

2. MATERIALS:

Vapor barrier (OPTIONAL)  
Acceptable insulation  
Approved fasteners  
BLUESTONE APP 2 base sheet  
BLUESTONE COPA (Co Polymer Alloy) 4, 5, 5.5 or 6 (160, 200, 225 or 250 mil)  
BLUESTONE SYNIFLEX (SYNthetic FLEXene) 4, 5, 5.5 or 6 (160, 200, 225 or 250 mil)  
BLUESTONE SUPERFLEX ELASTOMERIC COATING  
Pea stone, 1/2" fracture stone or slag

3. MECHANICAL ATTACHMENT OF INSULATION AND BASE SHEET:

Roof insulation and base sheet shall be mechanically attached to the underlying roof deck using the architect approved number of fasteners. The base sheet shall have 3" overlaps and extend up the walls a minimum of 2 inches past the cant strip.

4. MEMBRANE INSTALLATION:

Starting at the low point of the roof deck, fully adhere one ply of BLUESTONE membrane by HEAT WELDING to the base sheet, making sure to stagger all of the end laps a minimum of 4'. Side laps must be 8" and end laps 10". ADHERING AND SEAMING THE BLUESTONE MEMBRANES WITH GLUES OR HOT ASPHALT WILL AUTOMATICALLY VOID THE WARRANTY.

5. MEMBRANE PROTECTION:

The new roof will be coated with BLUESTONE SUPERFLEX ELASTOMERIC COATING at a minimum rate of 10 gals. per 100 sq. ft. and covered with pea stone, 1/2" fractured stone or slag at a minimum rate of 2 lbs. per sq. ft. On roofs that pond water, BLUESTONE F.A.R., (Flat Asphalt Roofcoating) is recommended at a rate of 7 gallons per 100 sq. ft. and covered with the afore mentioned stone at a minimum rate of 3 lbs. per sq. ft. SUNSHIELD ALUMINUM CHIPS and SUPER DUTY ALUMINUM paint are lightweight options.



















# PROPOSAL

SEALING METAL ROOF

BLUESTONE, INC.

P.O. Box 304

NEW BOSTON, NEW HAMPSHIRE 03070

603-487-5419

800-639-4016

|  |               |   |                    |
|--|---------------|---|--------------------|
| PROPOSAL SUBMITTED TO<br>The Carroll County Commissioner |               | PHONE<br>603-539-2428   | DATE<br>10-24-2005 |
| STREET<br>Route 171 * P.O. Box 152                       |               | JOB NAME<br>Sealing metal roof with BLUESTONE SUPERFLEX SEALANT |                    |
| CITY, STATE and ZIP CODE<br>Ossipee, NH 03864-0152       |               | JOB LOCATION<br>Mountain View Nursing Home                      |                    |
| ARCHITECT  | DATE OF PLANS |   | JOB PHONE          |

We hereby submit specifications and estimates for:

**31,336 sq. ft. SEALING GALVANIZED STEEL METAL ROOF WITH BLUESTONE SUPERFLEX ELASTOMERIC SEALANT AND STAINLESS STEEL SCREWS**

The galvanized steel metal roof sections will be pressure washed with soap and water. This pressure washer is similar to the ones used in self service car washes but much stronger.

All screws will be removed and the metal sections separated. Where possible, the old gasket will be removed. A new bead of **BLUESTONE SUPERFLEX ELASTOMERIC SEALANT** will be applied to the joint and into the old screw hole. When the screws are threaded into place, the threads will be coated with sealant and the screws will be locked into place.

Screws that have lost their grip will be replaced with new **STAINLESS STEEL** screws of a slightly larger size, with a new rubber washer. All steel screws will be replaced with new **STAINLESS STEEL** screws.

TOTAL-----\$156,965.00

*We Propose* hereby to furnish material and labor - complete in accordance with above specifications, for the sum of:

ONE HUNDRED SIXTY FIVE THOUSAND NINE HUNDRED SIXTY FIVE AND 00/100

Payment to be made as follows:

50% down and progressive payments equal to the amount of work done

If material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature \_\_\_\_\_ Note: This proposal may be withdrawn by us if not accepted within \_\_\_\_\_ days

*Acceptance* - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

|                  |                          |
|------------------|--------------------------|
| Signature: _____ | Date of Acceptance _____ |
| Signature: _____ | Date of Acceptance _____ |



**Your metal roof has hundreds if not thousands of holes in the roof plugged by screws that are working their way loose. The good news is that it can be fixed.**



DONE



DURING

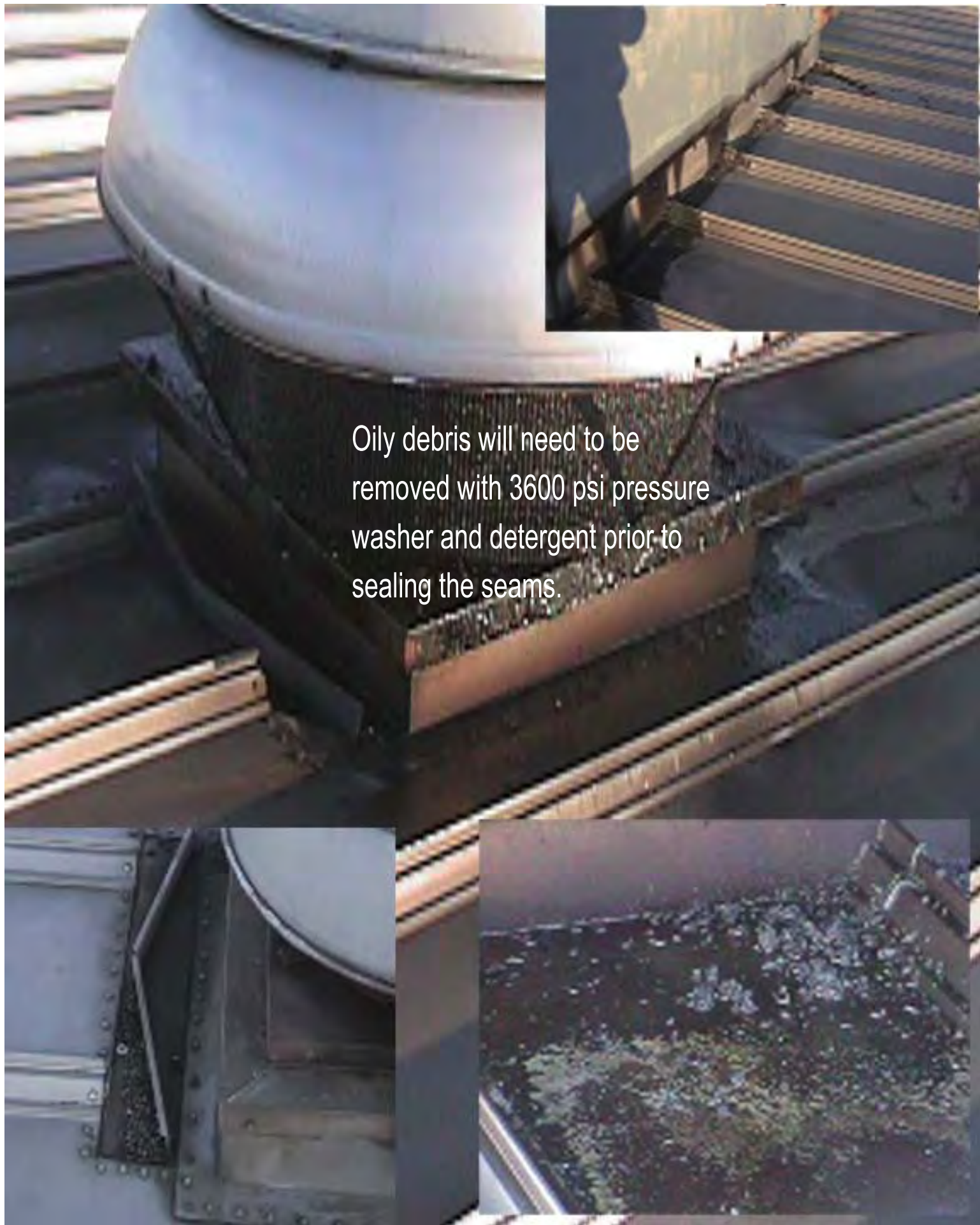
BEFORE





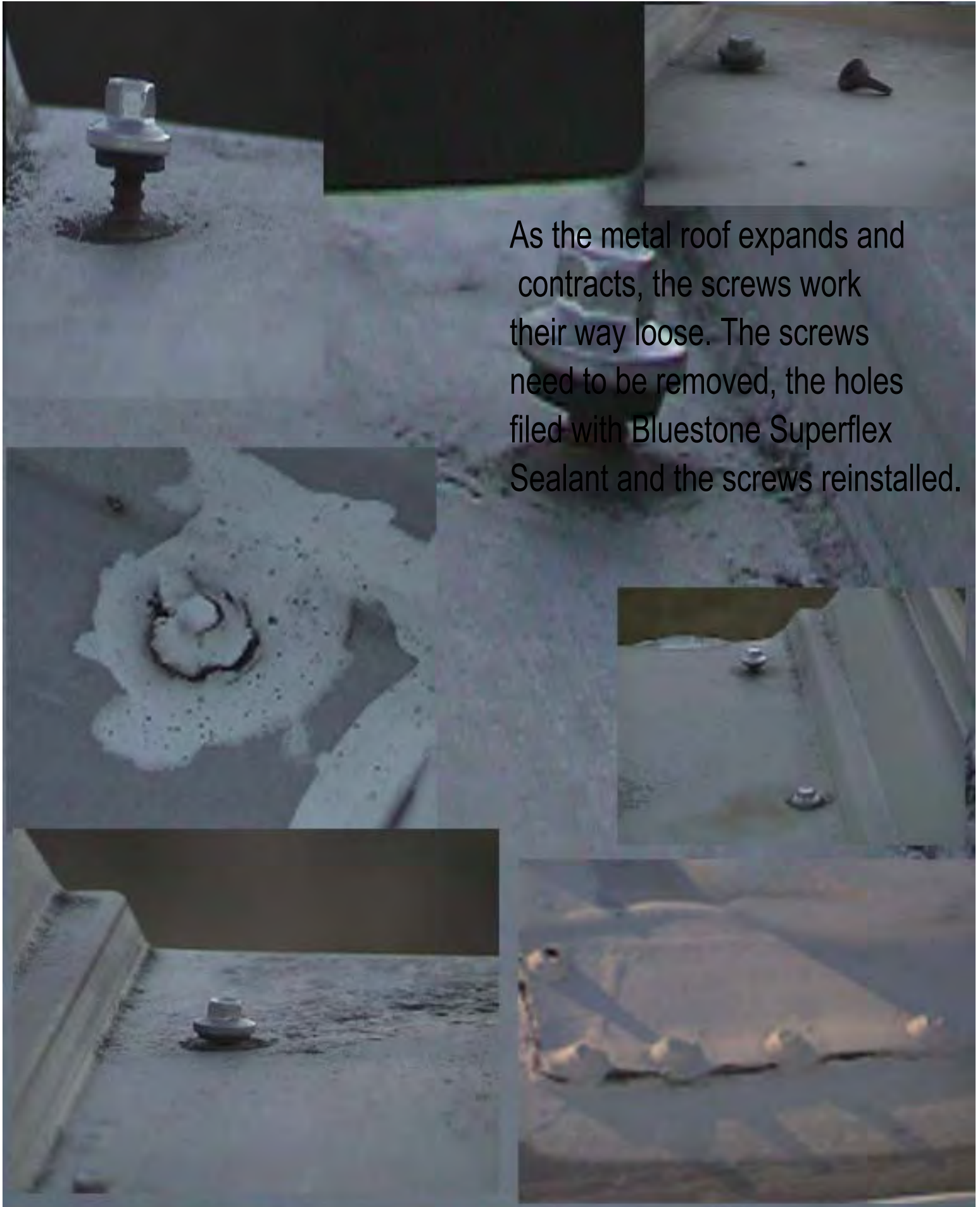
The screws are removed, the metal lifted, the Bluestone Superflex Elastomeric Sealant applied and the screws reinstalled. This creates a powerful gasket seal AND locks the screws into place.





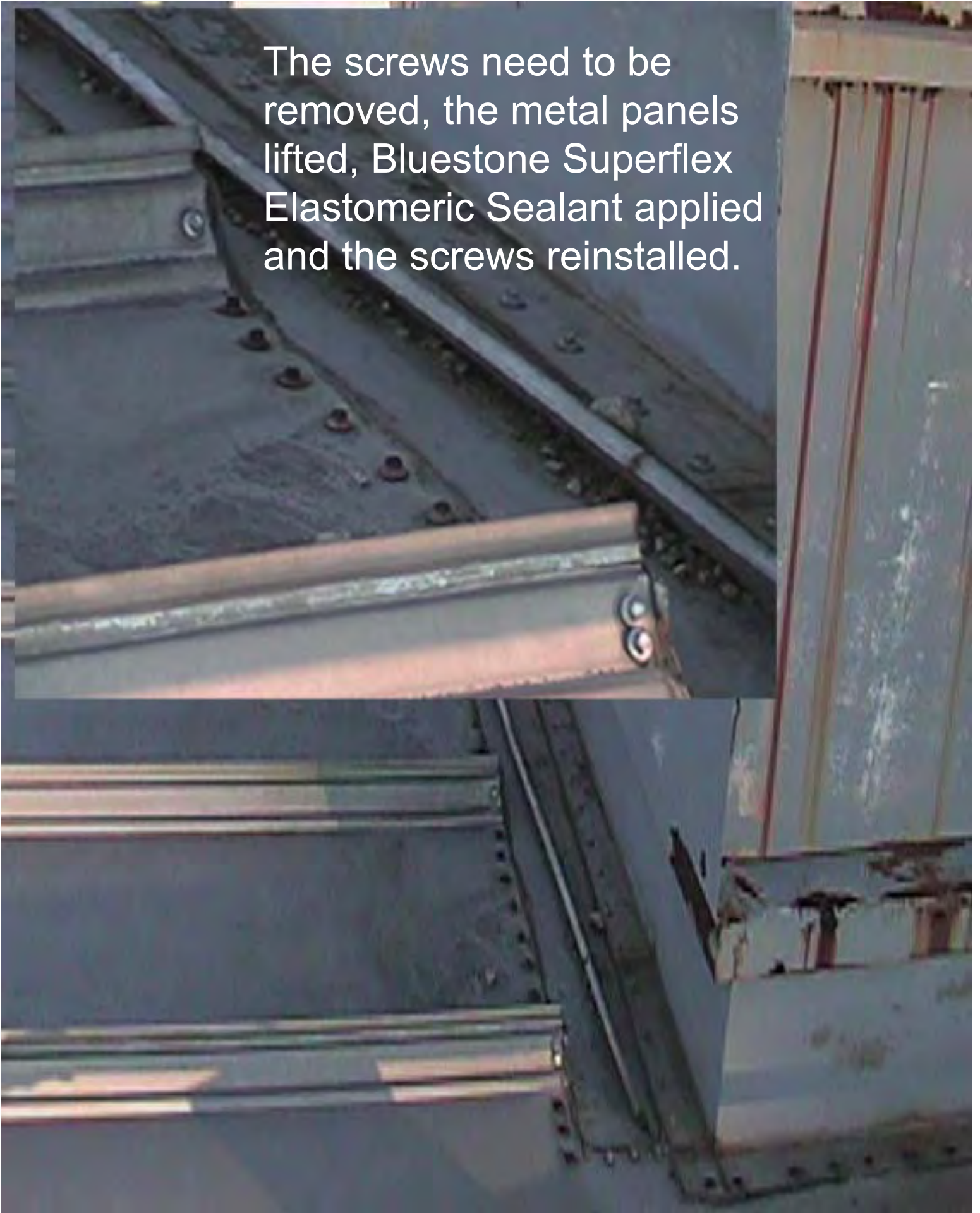
Oily debris will need to be removed with 3600 psi pressure washer and detergent prior to sealing the seams.



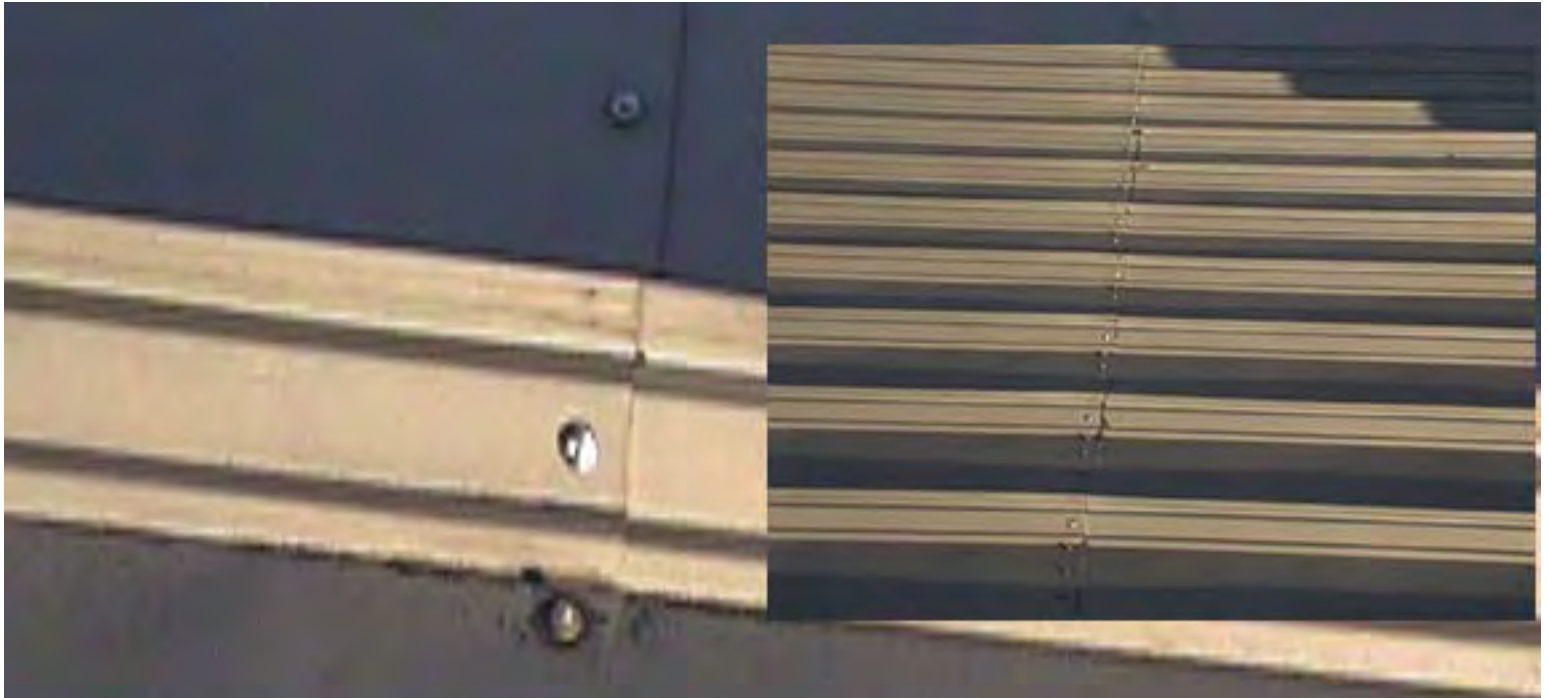


As the metal roof expands and contracts, the screws work their way loose. The screws need to be removed, the holes filed with Bluestone Superflex Sealant and the screws reinstalled.

The screws need to be removed, the metal panels lifted, Bluestone Superflex Elastomeric Sealant applied and the screws reinstalled.







The field of the roof looks good.  
However, water is seeping in  
through loose screws.



