

**STATEMENT OF WORK - Revised**  
**Project Number VBDZ232100**

**Repair Roofs**

**DESCRIPTION:**

Roofs on seven facilities are to be repaired per *UFC 3-110-03 Roofing*. The UFC can be obtained on the following website: <https://www.wbdg.org>. The EPDM roofs require reattachment of the membrane and patching of holes. Bitumen roofs need patching and sealing. Metal roofs need fastener replacement and elastomeric coating. All roof area measurements are approximate and shall be field verified by the contractor during the site visit, prior to offering a price estimate. Contractor may propose alternative solutions to the below scope prior to the award. Please provide the pricing for each of the Option items separately. Not all options may be awarded. **With exception of Building 20, none of the buildings are leaking. After the discoveries during the site visit, the scope has been adjusted by removing the Bldg1 and Bldg 26 from the project.**

| Bldg # | Section | Roof Type | Repair Size (Approximate) | Scope Summary  | Bid    |
|--------|---------|-----------|---------------------------|--|--------|
| 1      | G       | EPDM      | 155 LF                    | <b>Removed</b>   | Base   |
| 7      | C       | Metal     | 3,600 SF                  | <i>Investigate a leak. Fasteners and patch repairs</i>   | Option |
|        | A & B   | MB        | 60 LF                     | Repair joints, splits, flashings, patching, protrusions. | Base   |
| 8      | A - D   | MB        | 300 LF                    | Repair joints, splits, flashings, patching, protrusions. | Base   |
| 18     | A       | MB        | 200 LF                    | Repair joints, splits, flashings, patching, protrusions. | Base   |
| 20     | A       | Metal     | 11,480 SF                 | Coating and repair fasteners, flashings, and patches     | Base   |
| 26     | B       | EPDM      | 120 LF                    | <b>Removed</b>   | Base   |
| 42     | N/A     | Metal     | 4,000 SF                  | Recoat   | Option |
| 55     | N/A     | Metal     | 560 SF                    | Clean rust and paint                                     | Option |
| 56     | N/A     | Metal     | 560 SF                    | Clean rust and paint                                     | Option |

**1. PROJECT SCOPE**

If there is a contradiction between the UFC and this SOW, Contractor shall bring it to the attention of the COR, who will provide guidance on the solution.

**1.1. EPDM roofs**

~~1.1.1. Building 1, Section G membrane is separating near the edges and shall be reattached. Approximately 155 LF shall be reattached. These areas are marked with arrows and red lines in Figure #1.~~

~~1.1.1.1. Contractor shall take care not to damage the existing membrane.~~

~~1.1.1.2. Contractor may propose an alternative solution to the membrane reattachment during the Request for Information period.~~



**Figure #1: Roof 1, Section G—Separating Membrane**

~~1.1.2. Building 26, Section B membrane is separating at the edges.~~

~~1.1.2.1. Approximately 120 LF shall be reattached. These areas are marked with red lines in Figure #2.~~

~~1.1.2.1.1. Contractor may propose an alternative solution to the membrane reattachment during the Request for Information period.~~

~~1.1.2.2. Base flashing in the areas where the membrane will be reattached shall be repaired.~~

~~1.1.2.3. Additional fifteen (15) areas of base flashing shall be repaired. Most of the flashing repairs are simple seams and five (5) of them are angles/corners.~~

~~1.1.2.4. Contractor shall take care not to damage the existing membrane.~~

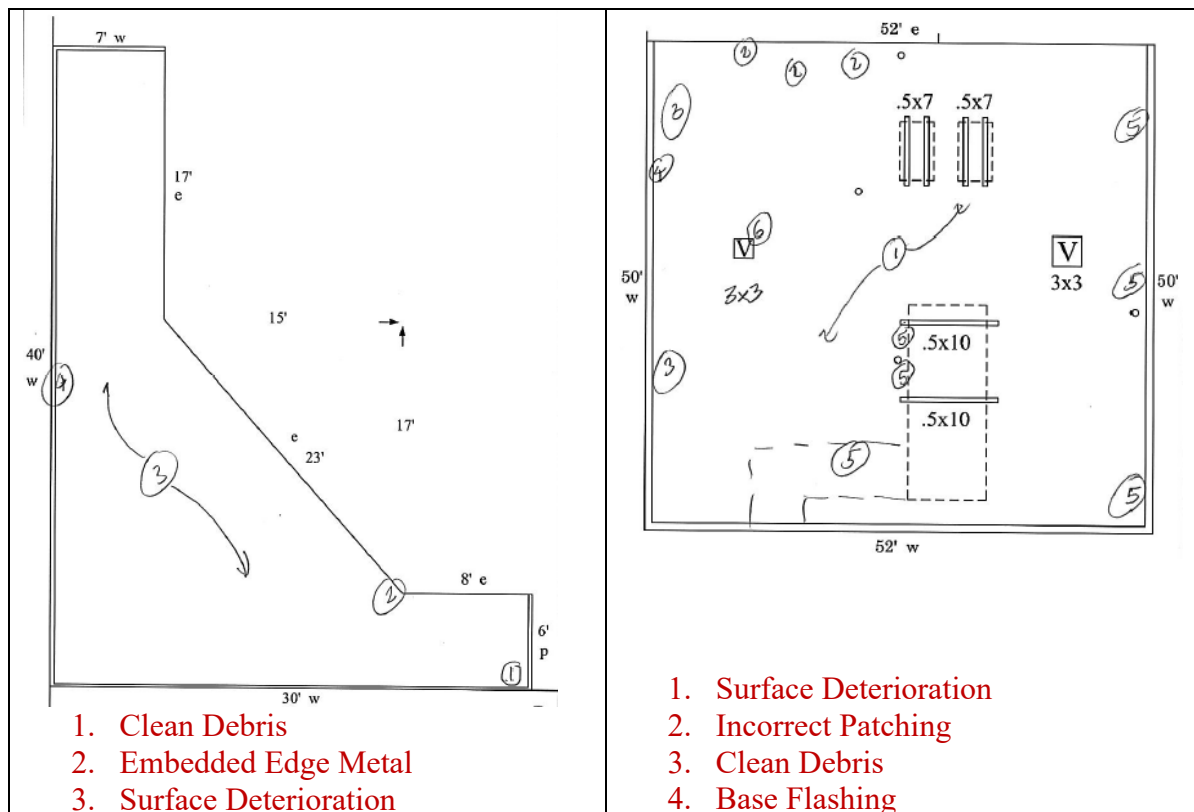


## 1.2. Bitumen Roofs

1.2.1. Access to Building 7 and Building 8 shall be coordinated beforehand. These are controlled areas.

## 1.3. Building 7

1.3.1. Figure below shows the type of damage on the section of the roof to be repaired.



|   |                                     |
|---|-------------------------------------|
| 4. Base Flashing<br>5. Incorrect Patching                                     | 5. Clean Debris<br>6. Base Flashing |
| <b>Figure #5: Building 7, Section A and B damage location and description</b> |                                     |

1.3.2. Contractor shall inspect the surfaces and repair any defects encountered following manufacturer (Garland Roofing System) recommendation and best practices including but not limited to

1.3.2.1. Repair damaged base flashing by overlaying each localized defect with new base flashing.

1.3.2.2. Remove temporary repair material from base flashing, reinforce patch as necessary and coat with heavy bodied asphalt coating.

1.3.2.3. Replace patches having inferior repair material with same or better quality than existing membrane. Restore surfacing material.

1.3.2.4. Cut and re-secure unbonded base flashing, mechanically fasten slipped flashing and apply manufacturer recommended patch over all repairs.

1.3.2.5. Renail loose edge metal flange into solid support. Apply manufacturer recommended stripping ply over new fasteners.

1.3.2.6. Apply stripping ply over edge metal joints that are split.

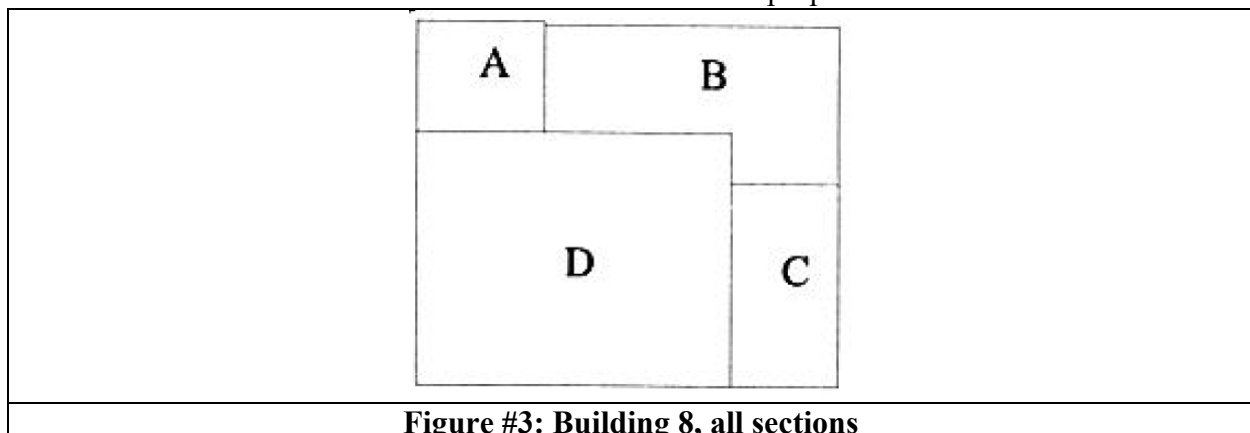
1.3.3. Manufacturing repair procedure recommendation is listed below and could be requested from manufacturer as well (Garland Roofing System).

1.3.3.1. Greenlock Flashing Adhesive and Garmesh, shall be used to make repairs on the granular surface roofs. Documentation attached.

1.3.3.2. Any existing rubber pipe boots or old asphalt material needs to be removed from the roof surface. Install Greenweld PVB armored flashing set in Greenlock Flashing Adhesive to properly flash the pipes.

#### 1.4. Buildings 8

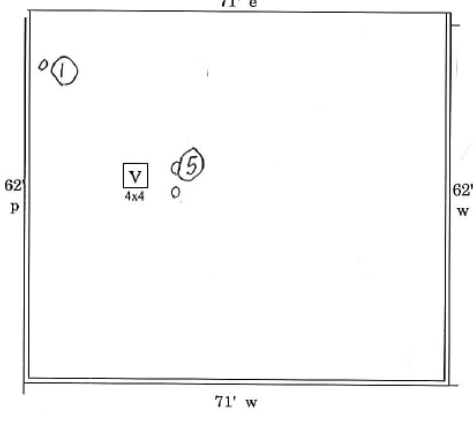
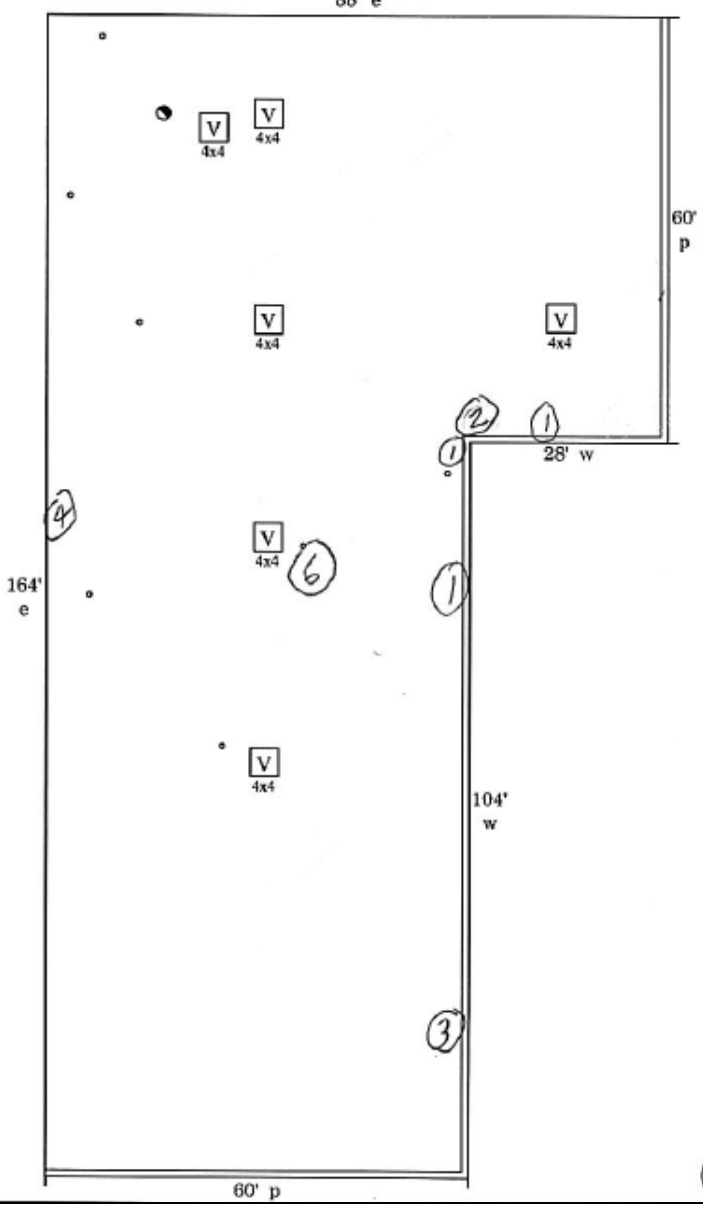
1.4.1. Figure #3 below show the sections of Building 8. All four sections will have some items to address and are shown for illustrative purposes.

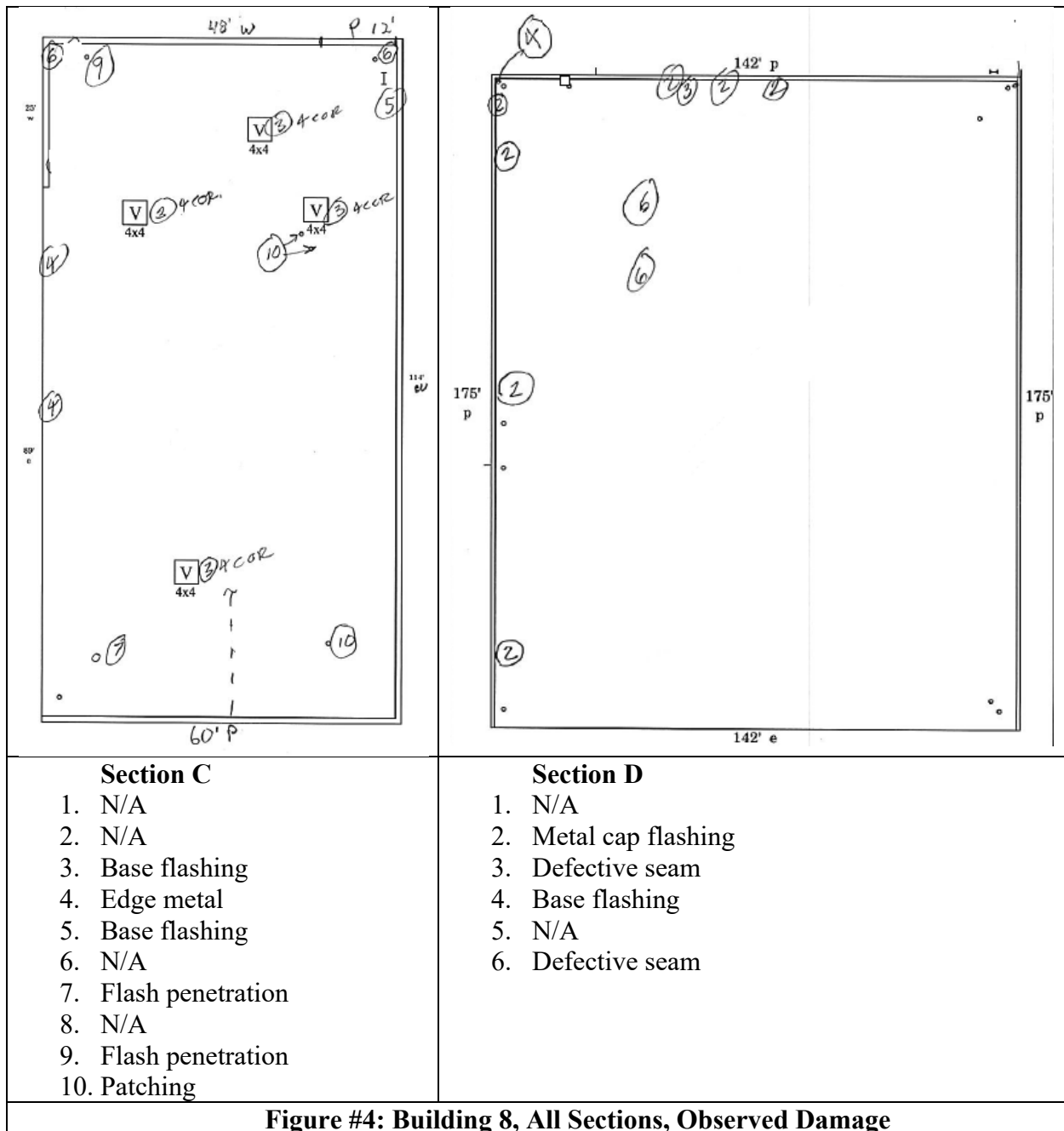


**Figure #3: Building 8, all sections**

1.4.2. Figure #4 indicates the location and type of damage to be repaired per section. Repeated numbers corresponding to the same damage are due to different descriptions/details the roof inspector has noted in his report and are omitted in this

SOW for brevity. Should Contractor want additional detail, a redacted inspection report is provided separately. Additional descriptive pictures of the damage are provided in the Appendix.

|   |   |
|---|---|
|    |    |
| <p><b>Section A</b></p> <ol style="list-style-type: none"> <li>Flash penetration</li> <li>N/A</li> <li>N/A</li> <li>N/A</li> <li>Flash penetration</li> </ol> | <p><b>Section B</b></p> <ol style="list-style-type: none"> <li>Metal cap flashing</li> <li>Base flashing</li> <li>Defective seam</li> <li>Edge metal</li> <li>N/A</li> <li>Flash penetration</li> </ol> |



**Figure #4: Building 8, All Sections, Observed Damage**

1.4.3. Contractor shall inspect the surfaces and repair any defects encountered following manufacturer recommendation (Garland Roofing Systems) and best practices including but not limited to

1.4.3.1. Reseal failed joints in metal coping cap and reattach.

1.4.3.2. Install extension of counterflashing over exposed top termination of the base flashing.

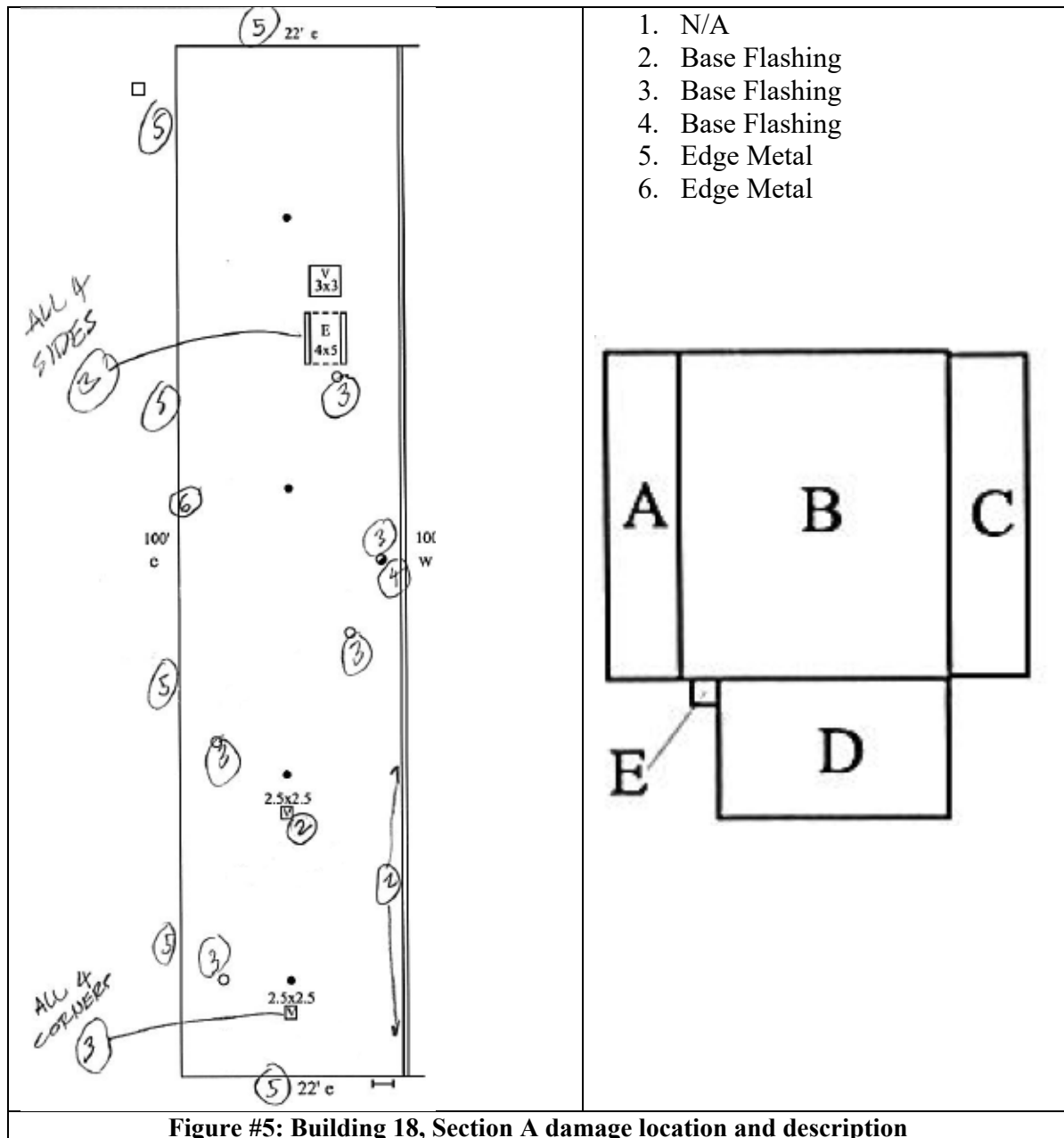
1.4.3.3. Apply stripping ply over edge metal joints that are split.

1.4.3.4. Remove temporary repair material from base flashing, reinforce patch as necessary and coat with heavy-bodied asphalt coating.

- 1.4.3.5. Cut and re-secure unbonded base flashing, mechanically fasten slipped flashing and apply cold patch over all repairs.
- 1.4.3.6. Clean and prepare defective seam, reseal lap.
- 1.4.3.7. Install missing flashing sleeves on flashed penetrations.
- 1.4.3.8. Prime surface and apply stripping plies around unsealed flashed penetrations.
- 1.4.3.9. Replace patches having inferior repair material with the same or better quality than the existing membrane. Restore surfacing material.
- 1.4.4. Manufacturing repair procedure recommendation is listed in bullets below and could be requested from manufacturer as well (Garland Roofing System).
  - 1.4.4.1. Greenlock Flashing Adhesive and Garmesh, shall be used to make repairs on the granular surface roofs. Documentation attached.
  - 1.4.4.2. Any existing rubber pipe boots or old asphalt material needs to be removed from the roof surface. Install Greenweld PVB armored flashing set in Greenlock Flashing Adhesive to properly flash the pipes. Documentation attached.

## **1.5. Building 18 (Section A)**

- 1.5.1. Figure below shows the type of damage on the section of the roof to be repaired. Additional descriptive pictures of the damage are provided in the Appendix.



1.5.2. Contractor shall inspect the surfaces and repair any defects encountered following manufacturer (Garland Roofing System) recommendation and best practices including but not limited to

1.5.2.1. Repair damaged base flashing by overlaying each localized defect with new base flashing.

1.5.2.2. Remove temporary repair material from base flashing, reinforce patch as necessary and coat with heavy bodied asphalt coating.

1.5.2.3. Cut and re-secure unbonded base flashing, mechanically fasten slipped flashing and apply cold patch over all repairs.



1.5.2.4. Renail loose edge metal flange into solid support. Apply stripping ply over new fasteners.

1.5.2.5. Apply stripping ply over edge metal joints that are split.

1.5.3. Manufacturing repair procedure recommendation is listed and could be requested from manufacturer as well (Garland Roofing System).

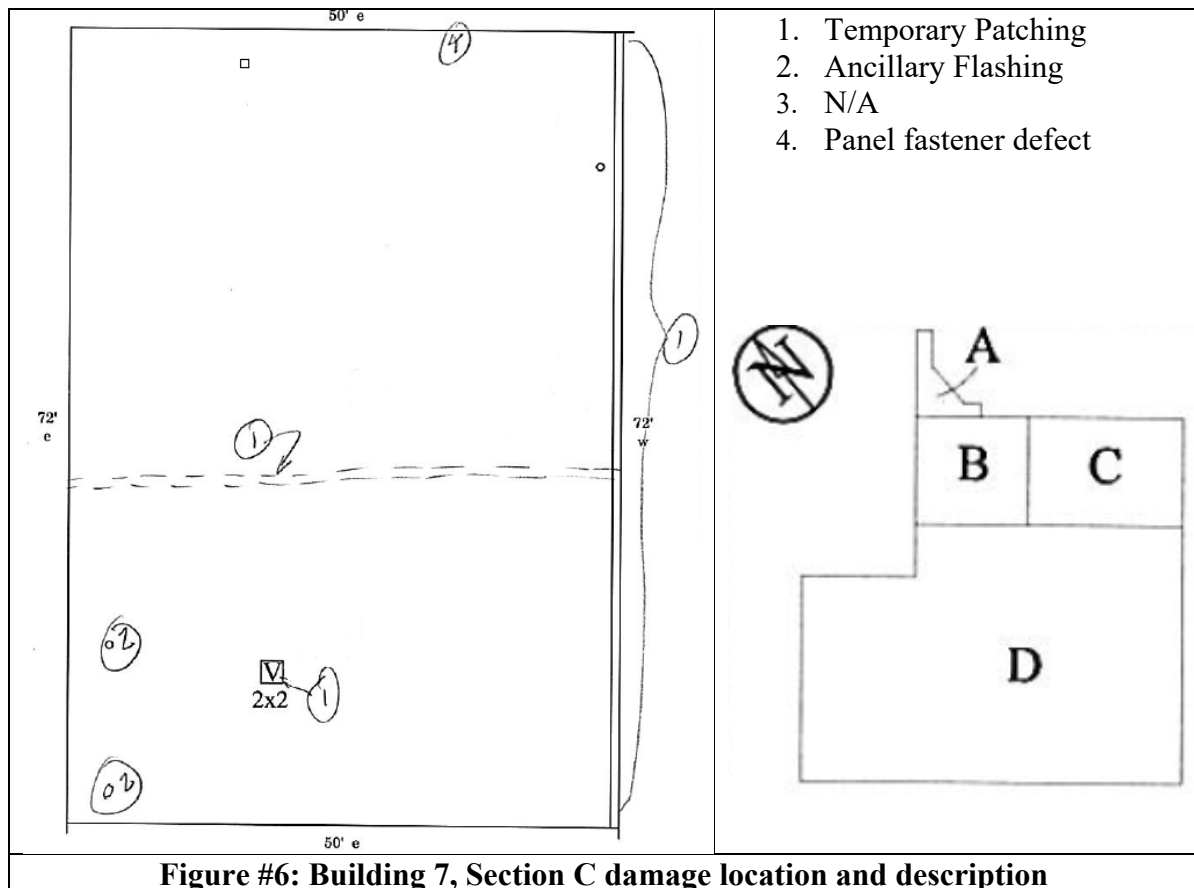
1.5.3.1. Greenlock Flashing Adhesive and Garmesh, shall be used to make repairs on the granular surface roofs. Documentation attached.

1.5.3.2. Any existing rubber pipe boots or old asphalt material needs to be removed from the roof surface. Install Greenweld PVB armored flashing set in Greenlock Flashing Adhesive to properly flash the pipes. Documentation attached.

## 1.1.Metal Roofs

### 1.1.1. Building 7 (Section C)

1.1.1.1. Figures below indicate the location and type of damage to be repaired.



1.1.1.2. Contractor shall inspect all the fasteners and replace loose fasteners with a shaft at least one size larger in diameter. Approximately 15 fasteners may need to be replaced.

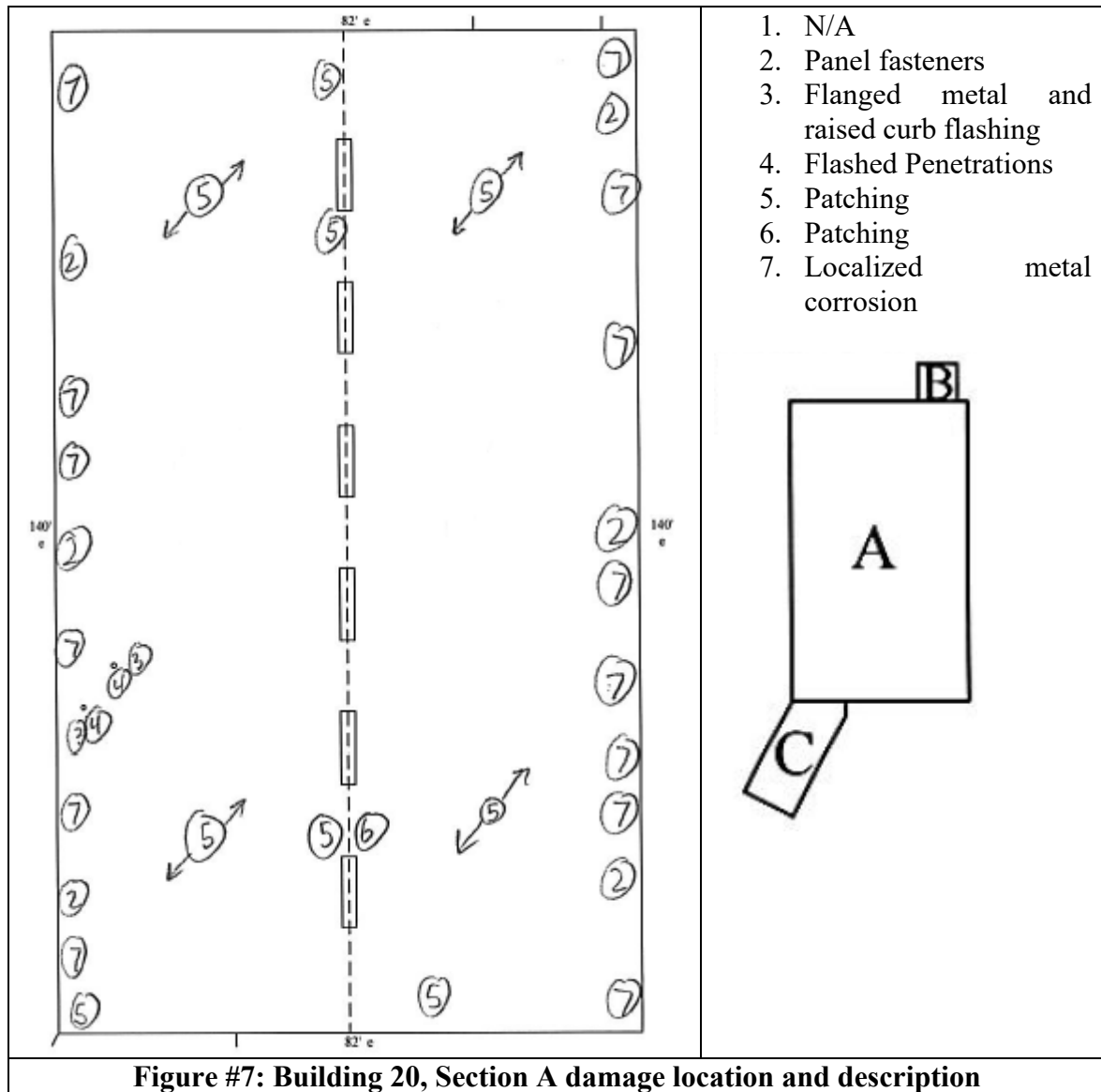
1.1.1.3. Contractors shall investigate a leak over the wheel and tire shop. For bidding purposes, assume a repair equivalent to 100 fasteners and a 50 x 3 ft metal strip.

1.1.1.4. Remove patch, clean surface, and install new patch.

1.1.1.5. For ancillary flashing clean area and apply sealant, solder or elastomeric membrane patch.

1.1.2. **Building 20 (Section A)**

1.1.2.1. Figures below indicate the location and type of damage to be repaired.





**Figure #8: Roof 20, Section A current condition (ADDITIONAL PHOTOS IN APPENDIX)**

- 1.1.2.2. Contractor shall inspect all the fasteners and replace loose fasteners and fasteners sealed improperly with a shaft at least one size larger in diameter. Expect approximately **two** hundred (**200**) fasteners to be defective.
- 1.1.2.3. Create a watertight seal on all fastener heads by applying a heavy dab of Coating to the tops of all fastener heads or approved caulk around the fastener.
- 1.1.2.4. Remove patches, clean the surface, and install new patches.
- 1.1.2.5. For the flashings, clean and prepare the surface, re-glue seam, and seal edges per manufacturer instructions.
- 1.1.2.6. Contractor shall remove corrosion, prime, and coat the metal roof with an elastomeric coating. The roof area is 11,480 sf.
  - 1.1.2.6.1. **Priming material shall be compatible with the membrane described below.**
  - 1.1.2.6.2. **Any corrosion shall be removed and cleaned with denatured alcohol.**
  - 1.1.2.6.3. **Should contractor power wash the roof before the coating application, as long as there are no paint particulates removed from the roof, water does not need to be collected.**
  - 1.1.2.6.4. Apply manufacturer recommended thickness to meet the specification.
    - 1.1.2.6.4.1. **Do not apply excessive amount of coating as it prevents proper curing resulting in material premature failure.**
  - 1.1.2.6.5. Membrane shall provide an elongation (ASTM D 412) of **>600%**, tensile strength (ASTM D 412) **600** psi, energy start approved. Zero rating fungi resistance.

The potential product specification (CPR White Coating) and description are attached.

1.1.2.6.6. Should contractor decide to use a different membrane, please provide the specification and warranty description/limitations for review and approval.

1.1.2.6.7. Manufacturer shall provide full system warranty for a period of 10 years. No prorating allowed.

1.1.2.6.8. Contractor shall follow manufacturer recommendations for product application.

### 1.1.3. **Building 42**

1.1.3.1. Contractor shall coat the roof with multi-purpose, high build, urethane, elastomeric membrane. The roof area is 4,000 sf.

1.1.3.1.1. Contractor shall remove the existing elastomeric membrane, clean, and prime the roof before applying the new material. All the old elastomeric material shall be collected and disposed.

1.1.3.1.2. Priming material shall be compatible with the membrane described below.

1.1.3.1.3. Any rust shall be removed and cleaned with denatured alcohol.

1.1.3.1.4. Contractor shall inspect all the fasteners and replace loose fasteners and fasteners sealed improperly with a shaft at least one size larger in diameter. Expect approximately one hundred (100) fasteners to be defective.

1.1.3.1.5. Create a watertight seal on all fastener heads by applying a heavy dab of Coating to the tops of all fastener heads or approved caulk around the fastener.

1.1.3.1.6. Should contractor power wash the roof before the coating application, as long as there are no paint particulates removed from the roof, water does not need to be collected.

1.1.3.1.7. Apply manufacturer recommended thickness to meet the specification.

1.1.3.1.7.1. Do not apply excessive amount of coating as it prevents proper curing resulting in material premature failure.

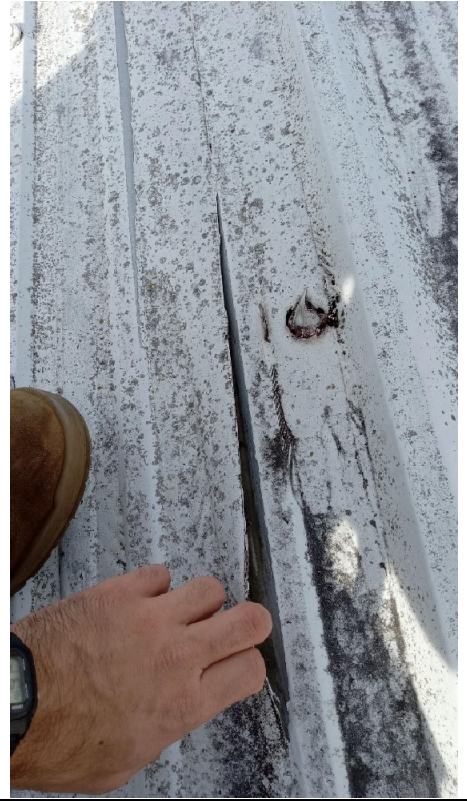
1.1.3.1.8. Membrane shall provide an elongation (ASTM D 412) of >600%, tensile strength (ASTM D 412) 600 psi, energy start approved, flash point of 105°F. Zero rating fungi resistance. The potential product specification and description (CPR White Coating) are attached.

1.1.3.1.9. Should contractor decide to use a different membrane, please provide the specification and warranty description/limitations for review and approval.

1.1.3.1.10. Manufacturer shall provide full system warranty for a period of 10 years. No pro-rating allowed.

1.1.3.1.11. Contractor shall follow manufacturer recommendations.





**Figure #9: Roof 42 – Deteriorated elastomeric membrane (ADDITIONAL PHOTOS IN APPENDIX)**

#### 1.1.4. **Buildings 55 and 56**

1.1.4.1. Satellite imagery of the roof is in the figure below.



**Figure #10: Building 55 & 56 roof condition as of spring 2022**

1.1.4.2. Contractor shall remove corrosion, prime, and coat metal with equivalent paint. The entire roof shall be repainted as the roof condition has likely deteriorated since the photo was taken.

*1.1.4.2.1.* Alternatively, if this is cost-effective, Contractor may propose placing an EPDM instead of coating.

## **1.2. General**

1.2.1. Contractor to provide material submittals as noted for approval of all materials prior to installation.

1.2.2. Material applications shall follow manufacturer's recommendations.

1.2.3. Contractor shall provide all equipment necessary to perform the work including any lifts, hoists, rigging.

1.2.4. Contractor shall notify the COR when the existing roof system has been removed to allow time to conduct a full evaluation of decking before beginning placement of the new system, where applicable.

1.2.5. Shall there be any contradiction between the UFC and this SOW, contractor shall confirm the path forward with COR.

1.2.6. Contractor shall fill out and sign a form DD1354 to signify the acceptance of the project by ANG and authorize the capitalization of the asset. The Project will not be approved past 95% payment without the DD1354 completed and ready for signature. Draft DD1354 is attached (Fill out the company information and the line cost per building. Line cost must add up to the project cost).

1.2.7. Contractor shall submit a Detailed Work Plan including work sequence and means to protect against or address inclement weather (including temperature, humidity, rain, and wind).

1.2.8. Contractor shall consider potential weather-related limitations in their work schedule.

1.2.8.1. Contractor shall not apply roofing systems during inclement weather, when a 40% chance of precipitation or greater is expected, or when the temperatures are below 40°F.

1.2.8.2. All material storage shall follow manufacturer recommendation. (temperature conditions, dry storage, etc)

1.2.8.3. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.

1.2.8.4. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.

1.2.9. Due to budget constraints, the base may not be able to award all of the listed options. Please, provide an estimate following the below breakdown.

1.2.9.1. Base cost of addressing Buildings 1 (Sec G only), 8, 18, 20, and 26.

1.2.9.2. OPTION 1: inspect and repair Building 7 roof.

1.2.9.3. OPTION 2: clean and coat Building 42 roof.

- 1.2.9.4. OPTION 3: repaint buildings 55 and 56 roofs.
- 1.2.10. Some areas, such as Building 55 and 56, will require special escorting and access permission, even for badged individuals.

## **2. CONTRACTOR REQUIREMENTS**

- 2.1. The contractor shall comply with all applicable installation/facility access and local security policies and procedures, which may be obtained from the Contracting Officer's Representative (COR). The contractor shall also provide all information required for background checks to meet installation access requirements to be accomplished by the local installation's Security Forces, Director of Emergency Services or local Security Office. The contractor shall ensure compliance with all personal identity verification requirements as directed by DoD, HAF and/or local policy. Should the Force Protection Condition (FPCON) change, the Government may require changes in contractor security matters or processes.
- 2.2. Contractor and all associated sub-contractors employees shall comply with adjudication standards and procedures using the National Crime Information Center Interstate Identification Index (NCIC-III) and Terrorist Screening Database (TSDB) (AFI 31-101 and AFI 10-245), applicable installation, facility and area commander installation/facility access and local security policies and procedures (provided by government representative), or, at OCONUS locations, in accordance with status of forces agreements and other theater regulations.
- 2.3. All contractor employees, to include subcontractor employees, requiring access to Government Installations, Facilities and Controlled Access areas shall complete AT Level I awareness training within 10 calendar days after contract start date or effective date of incorporation of this requirement into the contract, whichever is applicable. Certificates of completion for each affected contractor employee and subcontractor employee will be maintained by the COR or Antiterrorism Representative. AT level I Awareness Training is available through MyLearning by completing the Force Protection CBT. For Contractors that do not require issuance of a CAC, local training will be provided during badge issuance at SFS via informational binder.
- 2.4. Requirement for OPSEC Training. In accordance with AFI 10-701, Operations Security, OPSEC PMs/SMO/SMNCOs/Coordinators will provide OPSEC training or training materials to contract employees within 90 days of employees' initial assignment to the contract and annually thereafter. General organizational orientations may need to be supplemented by duty-related orientations in the work center targeted toward specific critical information and vulnerabilities associated with the work. Initial training (OPSE 1301 - OPSEC Fundamentals) and refresher training (Protecting Sensitive Information) are both available on the MyLearning website. For Contractors that do not require issuance of a CAC, local training will be provided during badge issuance at SFS via informational binder.
- 2.5. The use and possession of controlled substances to include marijuana (medical or recreational use) on the installation is in violation of Title 10 US Code 912a. Art 112a. Contractors are notified this policy is strictly enforced and violators will be denied entry. Personnel caught on the installation can be prosecuted.

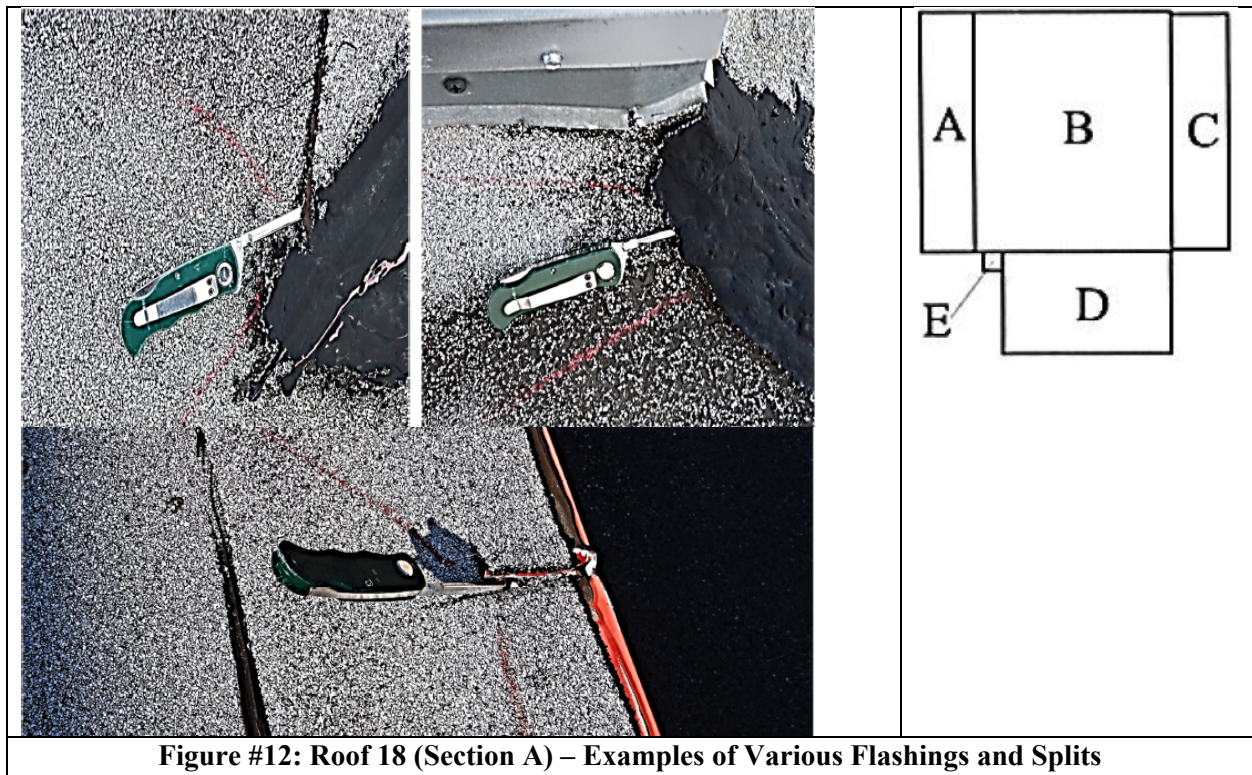
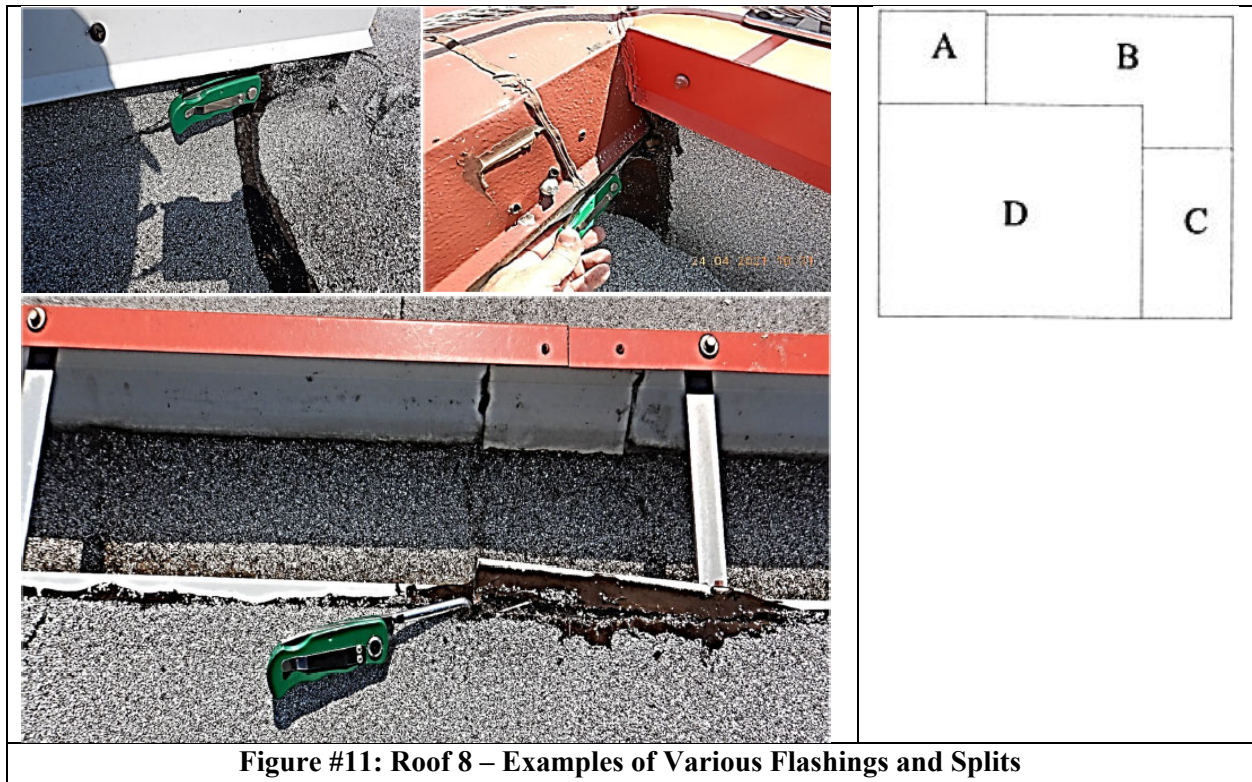
- 2.6. The Contractor shall provide all personnel and necessary equipment to establish an adequate and safe work zone. OSHA is applicable at the site and inspectors appear unexpectedly.
- 2.7. Contractor is responsible for site cleanliness and shall remove any waste or debris after the work is complete. All materials shall be secured to prevent loose objects from blowing and hindering flying operations in any manner.
- 2.8. The Contractor shall recycle to the greatest extent possible and turn in weight slips to 109 Environmental Management Office for construction debris.
- 2.9. The Contractor shall bring any unforeseen project conditions to the attention of the COR immediately. Unexpected or differing site conditions, which may alter the scope of work, shall be approved by the contracting officer (KO) prior to such work being performed.
- 2.10. The Contractor must get approval from the COR prior to any utility shutdowns. (do not have contractor contact production control directly)
- 2.11. The Contractor shall notify the COR prior to delivery of any material or equipment to the site. The contractor shall ensure someone is available to receive delivered materials and able to store them safely in an area to be coordinated with the government project manager. Any materials delivered without prior coordination and without having someone to take receipt, shall not be accepted and turned away.
- 2.12. Contractor shall repair or replace in kind any property that is damaged.
- 2.13. Contractor hours are 0700-1530 Monday thru Friday, excluding Government holidays.

### **3. PROPOSED PROJECT SCHEDULE**

The Project shall begin 14 days after the Notice to Proceed is issued. Due to potential weather constraints, such as temperatures being too low, the start date may be changed with approval of Contracting Officer. The project shall be completed within 90 days following the Notice to Proceed or agreed start date.

## **APPENDIX**

















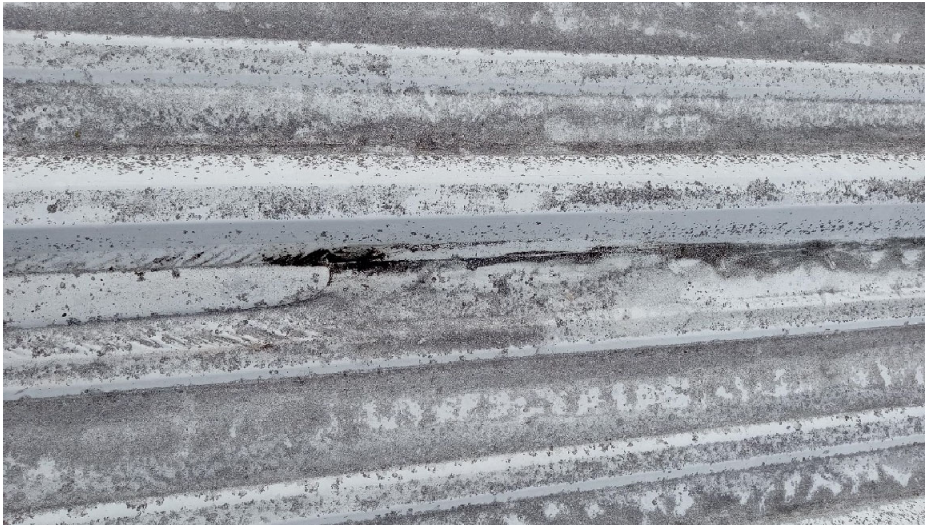
**Figure #13: Roof 20 – General Roof Condition**

Building 42

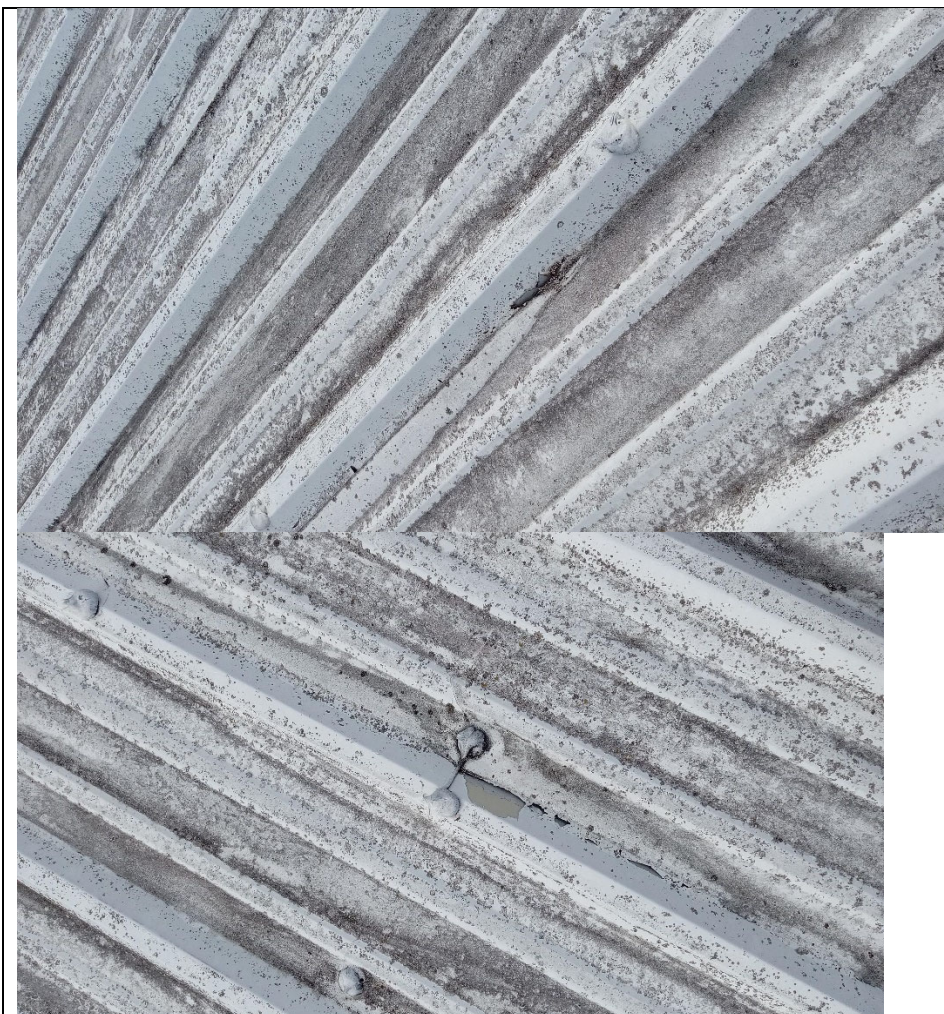




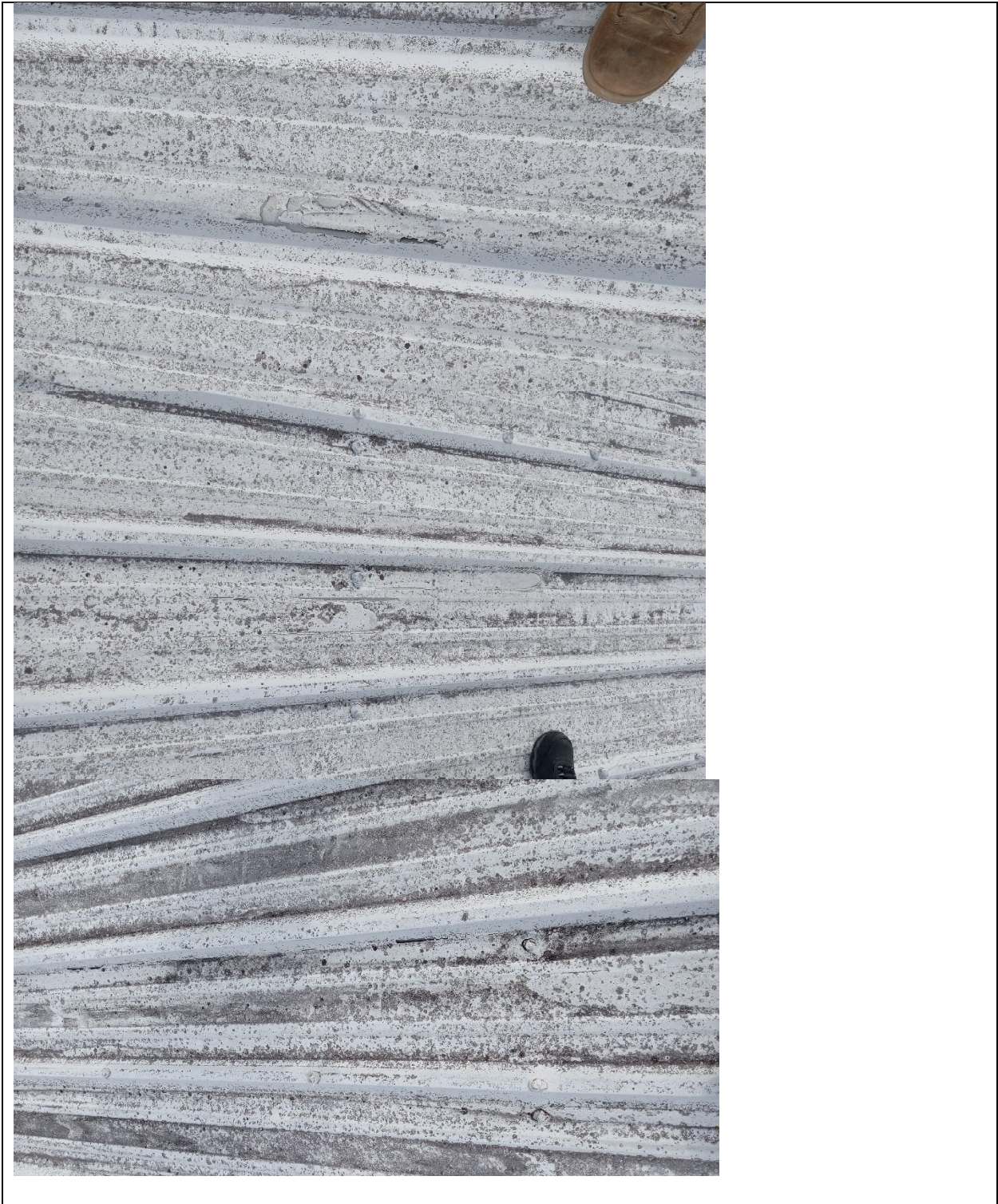


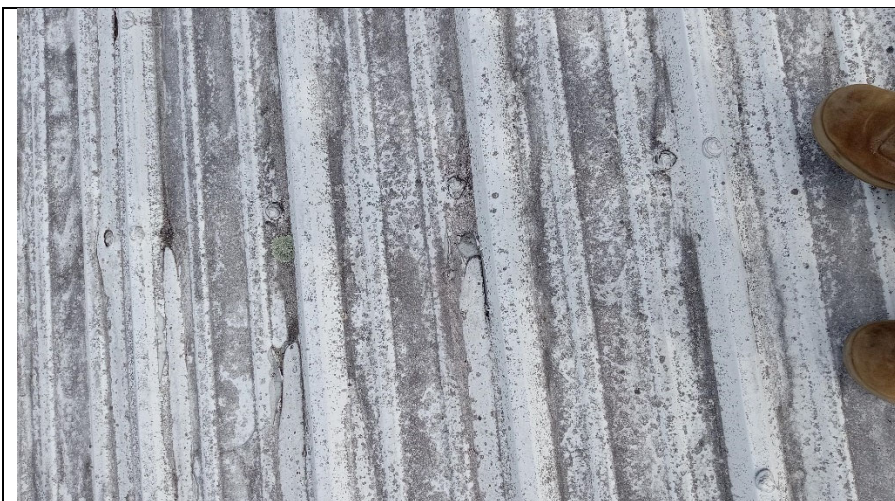












**Figure #14: Roof 42 – General Roof Condition**