



AMERICAN  
**STRUCTUREPOINT**  
INC.

December 19, 2025

Noble County Board of Commissioners  
101 North Orange Street  
Albion, Indiana 46701

Re: Noble County Highway Department Building – Structural Assessment  
1118 East Main Street  
Albion, Indiana 46701

Project No. 202502329

Dear Commissioners:

At your request, Mr. Jess M. Pounds, PE, of American Structurepoint, Inc. (ASI), performed a limited structural condition assessment at the above-referenced property on November 12, 2025, and has prepared this summary report. The purpose of the investigation was to:

- Summarize previously identified structural damages to the building resulting from a tornado.
- Perform a limited structural condition assessment of the building. Note the structural condition assessment was “limited” to only components that were visible without removal of finishes, cladding, or other building components.
- Provide conceptual repair recommendations for any found structural damages/deficiencies (regardless of causation).

## **BACKGROUND**

According to public records, the subject building was constructed in 1950 and has always been owned by the Noble County Board of Commissioners.

ASI had previously visited the site for a cursory structural and building enclosure investigation of the subject building and other buildings on the property on May 7, 2025. The purpose of the cursory investigation was to review insurance-provided estimates and reports to verify that all damages to the structure and building enclosure resulting from a storm were accounted for. As part of that cursory investigation and this structural assessment, Mr. Zachary Smith, PE, (Noble County Highway Director) provided us with the following background information in regard to the subject building:

- A Five-Star commercial roofing system was installed on the building approximately three to five years ago. Mr. Smith sent us a PDF showing an assembly view of the Five-Star product, which is included herewith as Exhibit A.
- A few years ago, the concrete masonry unit (CMU) exterior walls (believed to be original) were clad with metal siding. He stated that he believed the CMU were original to building, and some of the CMU were found to be in a deteriorated state.
- On March 30, 2025, a severe storm/tornado came through the area. The storm tore a large portion of the roof structure off of a building directly to the south of the subject building. The roof from the other building struck the chimney along the north elevation of the subject building, resulting in damages to the roofing, siding, and roof and wall structures. Temporary measures were promptly taken to shore the damaged roof area and ensure water did not further infiltrate the roof. Mr. Smith provided us with photos of the subject building immediately following the storm. A select set of these photos is included herewith as Exhibit B.
- Since our cursory investigation performed on May 7, 2025, additional collapsed brick (from chimney) was removed from the attic, such that all portions of the attic could be accessed.

An overhead aerial view of the roof is included herewith as Exhibit C. The aerial view was obtained via drone by the ASI investigative team during their May 7, 2025, site visit. Within the view, sections of the building and roof are labeled, and such labels are referenced throughout this report.

## **OBSERVATIONS**

For reference purposes in this report, the front of the building faces Main Street/State Road 8 to the north. The following observations were made regarding the subject property:

### ***Siding***

1. The exterior walls of the single-story building were clad with raised-rib metal siding (Photos 1 through 4). The siding was fastened to horizontal 2x4 furring strips spaced at 2'-9" on center (Photo 5).
  - a. Approximately 11 metal siding panels near the west end of the north elevation exhibited punctures and/or indentations consistent with impacts from the roof of the adjacent building during the storm, and collapse of the chimney (Photos 6 and 7).
  - b. Approximately three panels on the south elevation exhibited scrapes, indentations, and punctures consistent with impacts from airborne debris (Photo 8).
  - c. The other siding panels throughout the perimeter of the building appeared to be in good condition (Photos 1 through 4).

### ***Roofing and Roofing Drainage***

2. The roofing consisted of a built-up roofing system with an aluminum chip top coating (Photos 9 through 12).

3. A temporary covering had been installed over a section of the roof near the northwest corner of the building (Photo 13).
4. Standing water was observed in the valley located between the roof over the office areas/storage areas and the roof over the garage area (Photos 14 and 15).
5. Roof drains along the valley consisted of small openings/holes in the roofing, with no drain assembly (clamp ring, strainer, etc.) installed (Photos 16 and 17).

### ***Roof and Wall Structure Over Office Area***

6. The attic over the office area consisted of five “bays,” each separated by interior CMU walls (Exhibit C and Photo 18).
7. The roof structure consisted of precast concrete roof panels and steel framing, supported by CMU walls (Photo 18). The roof panels were steel-reinforced precast concrete panels, sometimes referred to as “precast concrete channels” due to their channel/C-shape (Photos 19 and 20). The panels were 24 inches wide and approximately 6’-3” long. The ends of the panels were supported by steel beams spanning in the east-west direction. Based on field-measurements the steel beams along north and south CMU walls of the attic appeared to be C7x9.8 shapes, while the intermediate beams appeared to be S7x15.3 shapes. Bays 1 and 3 also had center girder beams spanning in the north-south direction approximately 19’-0”, and based on field-measurements, the beams appeared to be W12x35 shapes. All steel beams were supported by 8-inch CMU walls (exterior and interior). Where CMU had been fractured/displaced, all CMU were found to be hollow and unreinforced (Photo 21).
  - a. Bay 1 (Exhibit C):
    - i. Approximately 37 of 48 panels were significantly damaged by impact (7) or were found to be in a deteriorated condition (30). The seven panels exhibiting impact damage were also deteriorated, cracked, and appeared to be in imminent danger of collapsing (Photo 22). Noble County personnel were notified of the danger immediately and it was recommended that they close or restrict access to the breakroom area below the panels and remove the loose panels as soon as possible. The other 30 panels exhibited moisture stains, cracks, spalls, and exposed and corroded steel reinforcing along the flanges of the C-shaped panels (Photos 23 and 24).
    - ii. Several of the S7x15.3 beams exhibited corrosion and pitting; however, none had measurable section loss (Photos 25 and 26).
    - iii. Approximately 50 square feet of CMU on the north exterior wall had been fractured and/or displaced, consistent with the storm/impact damage to the roof/wall (Photo 27).
    - iv. Moisture stains were observed on the face of the CMU along the south wall of the attic (Photo 28).

- b. Bay 2 (Exhibit C):
  - i. Approximately 12 of 24 panels were significantly damaged or displaced due to impact from the chimney (8) or found to be in a deteriorated condition (4) (Photos 29 and 30).
  - ii. Two beams (one C7x9.8 and one S7x9.8) exhibited deformations consistent with impact damage (Photos 31 and 32).
  - iii. Approximately 45 square feet of CMU on the north exterior wall had been fractured and/or displaced, consistent with the storm/impact damage to the roof/wall (Photo 32).
- c. Bay 3 (Exhibit C):
  - i. One panel (of 48 total) exhibited a crack along the flange of the panel (Photo 33).
  - ii. Moisture stains were observed on the face of the CMU along the south wall of the attic (Photo 34).
- d. Bay 4 (Exhibit C):
  - i. Approximately 10 of 24 panels exhibited cracks along the flanges of the panels (Photo 35).
  - ii. A vertical crack was observed in the CMU along the north exterior wall (Photo 36). The edges of the crack were rounded and the surfaces of the CMU within the crack were stained (Photo 37), indicating the crack had not formed recently.
  - iii. Moisture stains were observed on the face of the CMU along the south wall of the attic (Photo 38).
- e. Bay 5 (Exhibit C):
  - i. Approximately 15 of 24 panels exhibited cracks along the flanges of the panels (Photo 39).
  - ii. Moisture stains were observed on the face of the CMU along the south wall of the attic (Photo 40).

### ***Roof and Wall Structure Over Storage Areas***

- 8. The storage areas consisted of two rooms, with a CMU wall dividing the space into an east storage room and west storage room. The structure consisted of roof deck, steel roof beams, and CMU walls. The roof deck, exterior north wall, and the exterior east wall had been fully covered with spray foam (Photos 41 through 45). A portion of the CMU wall dividing the office space from the west storage room had also been coated in spray foam (Photo 44).
  - a. The roof deck was not visible from below as it was fully covered with spray foam; however, moisture stains were observed on the spray foam throughout the roof deck (Photos 41 through 45).
  - b. Rust spots were observed on the bottom flanges of the roof beams (Photos 41 through 45).
  - c. Moisture stains were observed on the spray-foamed north exterior CMU wall and east exterior CMU wall (Photos 41 through 45).

- d. Moisture stains were observed on the south CMU wall dividing the storage rooms from the garage (Photos 44 and 45).
- e. A thin vertical crack was observed in the CMU wall separating the east storage room from the garage (Photo 45). The edges of the crack were rounded and there was paint observed within the crack, indicating it had not formed recently.

### ***Roof and Wall Structure Over Garage Area***

9. The structure over the garage consisted of roof deck (concealed by spray foam), steel beams, steel trusses bearing on CMU pilasters, and CMU perimeter walls (Photo 46).
  - a. The roof deck was not visible from below as it was fully covered with spray foam (Photo 46); however, no areas of cracked, crumbling, or moisture-stained spray foam was observed (Photos 47 through 49).
  - b. The roof deck was supported by steel beams spanning in the east-west direction (Photo 46). With spray foam in place, only the bottom portion of the beams was visible; however, no significant bowing, deflection, or other evidence of structural distress was observed within the visible portions of the beams (Photos 50 and 51).
  - c. The CMU pilasters and walls were mostly concealed by interior metal wall panels and spray foam (Photos 52 and 53). Where not spray foamed, the CMU did not exhibit any sizeable cracks or spalls (Photos 54 through 56); however, one thin crack was observed on the north wall (Photos 54 and 55), opposite of the crack on the north face of the same wall in the east storage room (Photo 45).
  - d. Moisture stains were observed on the north CMU wall at roof drain locations (Photos 59 and 60).

## **CONCLUSIONS**

Based on our observations, experience, and professional judgment, we are of the opinion:

### ***Office and Storage Room Areas***

- Approximately 75 of 168 of the total concrete roof panels over the office area were storm-damaged and/or exhibited deterioration consistent with long-term exposure to moisture. Cracking along the flanges of the concrete panels is an indication of corrosion and volumetric expansion of the embedded reinforcing steel, which has manifested in spalling of the concrete where more severe corrosion is present. Additionally, two steel beams and approximately 95 square feet of the north CMU wall were damaged as result of storm/impact damage, and steel beams throughout Bay 1 of the attic exhibited varying levels of corrosion.
- The roof deck over the storage areas was concealed by the spray foam coating; however, based on spacing of the roof beams and location of the storage areas (also along north exterior wall), it is assumed that the roof structure over the storage areas matched that over the office area. Moisture stains were observed throughout the spray foam on the underside of the roof deck and rust spots were observed on the exposed portions of the roof beams. Therefore, it is likely that the majority of the concrete roof panels above this area (presumably approximately 48 panels) are in a deteriorated condition due to long-term exposure to moisture.

- Based on the above, we recommend the following minimum conceptual structural repairs be completed in conjunction with planned additions/renovations to the building:
  - The entire roofing system should be removed from the roof area over the offices and storage rooms (Exhibit A). The damaged/deteriorated concrete roof panels could then be removed, damaged CMU and steel beams be replaced in-kind, and corroded steel beams be cleaned and repainted or replaced in-kind. The damaged concrete roof panels (approximately 123 out of 216) should be replaced in-kind, or an alternate roof deck system such as a metal deck could be installed in its place. If a metal deck system is utilized, ballast or other dead load may have to be added in order for the structure to adequately resist uplift forces (pending structural analysis). In structural design/analysis of the roof, consideration of the overall lateral system of the building should also be considered.
  - In order to prevent future deterioration of the new and/or existing structure to remain, it is recommended that the roof drainage system be improved, specifically along the valley between the roof over the offices/storage rooms and roof over the garage. Such improvements could include but are not necessarily limited to, improving slope of the valley between roof drains to ensure no ponding water forms, adding additional drains, and improving existing drains (installing full drain assemblies).

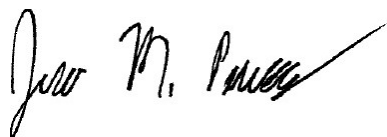
### ***Garage Area***

No evidence of structural damage (storm-related or otherwise) was observed within the garage area.

Please note that this report was based on a visual assessment of the property, and no structural analysis was performed as part of the assessment. We shall not be responsible for the assessment of, or failure to assess, items concealed by other building components, nor for the assessment of any items outside of the specified scope of services. Any repair recommendations which might be included in this report are conceptual in nature and should be completed by a qualified contractor with the assistance of a licensed design professional if necessary. All repairs should comply with the current governing building code. If additional information is discovered that could affect the contents of this report, it should be forwarded to our office for review and comment. American Structurepoint, Inc. reserves the right to amend and/or modify this report if any new and/or significant data that could affect this assessment become available.

If you have any questions, or require further assistance, please feel free to contact us at your convenience at (855) 822-1966.

Sincerely,  
**American Structurepoint, Inc.**



Jess M. Pounds, PE  
Senior Project Manager  
Investigative Group



December 19, 2025

## **PHOTOGRAPHS**

**NOBLE COUNTY HIGHWAY DEPARTMENT BUILDING - STRUCTURAL ASSESSMENT**  
**1118 East Main Street, Albion, Indiana 46701**  
**Project No. 202502329**



Photo 1: North (front) elevation of building.



Photo 2: West (side) elevation of the building.





Photo 3: South (rear) elevation of building.



Photo 4: East (side) elevation of the residence.



Photo 5: Wood furring strip visible behind area of damaged siding.



Photo 6: Storm/impact damaged siding on north elevation.



Photo 7: Closeup of storm/impact damaged siding near west end of north elevation.

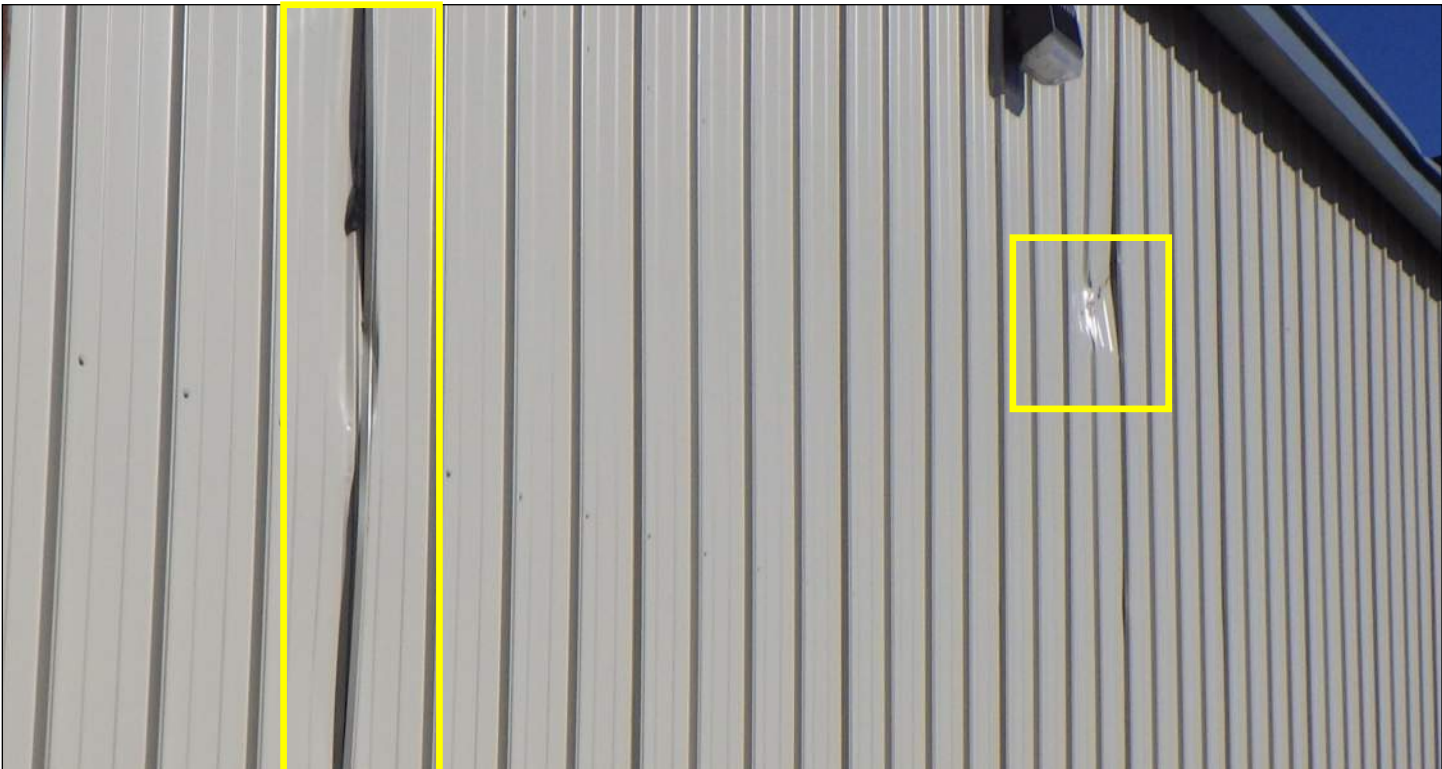


Photo 8: Scrapes, indentations, and punctures in siding panels on south elevation.





Photo 9: Overview of roof looking east.



Photo 10: Overview west side of roof, looking north.





Photo 11: Overview west side of roof, looking south.



Photo 12: Closeup of aluminum chip top coating on roofing.





Photo 13: Temporary covering installed over roofing.



Photo 14: Standing water (boxed outline) in valley between roof over office area (left in photo) and roof over garage area (right in photo).





Photo 15: Closeup of standing water in valley at east end of roof.



Photo 16: Drain hole in roofing.





Photo 17: Drain hole in roofing.



Photo 18: Overview of roof framing in Bay 3.





Photo 19: Underside view of typical precast concrete roof panels.



Photo 20: Side view of typical precast concrete roof panel. Note this panel in Bay 2 had partially collapsed.



Photo 21: View looking downward at CMU along north wall of Bay 1. Note top of CMU is visible due to CMU displaced as result of storm/impact damage. Also note CMU is hollow and unreinforced.



Photo 22: Precast concrete panels in area of chimney impact area. Note panels are deteriorated, cracked, and appear to be in imminent danger of collapse. View looking west.





Photo 23: Spalled concrete along flanges of C-shaped precast concrete roof panels. Note moisture stains on panels and visible corrosion of exposed steel reinforcing along flanges.



Photo 24: Cracks in flanges of C-shaped precast concrete roof panels.





Photo 25: Corrosion of S7x15.3 beam.



Photo 26: Corrosion of S7x15.3 beam.





Photo 27: Fractured/displaced CMU along north wall.



Photo 28: Moisture staining on CMU along south wall of attic. View looking south.



Photo 29: Overview of temporary oriented strand board covering installed over area of roof panels fractured/displaced by impact from chimney.



Photo 30: Spalled and cracked concrete along flanges of C-shaped precast concrete roof panels. Note moisture stains on panels and visible corrosion of exposed steel reinforcing along flange.





Photo 31: Bent/twisted S7x9.8 beam under area of displaced concrete roof panels.



Photo 32: Bent/twisted C7x9.8 beam (arrow) along north exterior CMU wall. Also note fractured/displaced CMU behind damaged beam.



Photo 33: Crack in flange of roof panel (arrows). Also note moisture stains on panel.



Photo 34: Moisture staining on CMU along south wall of attic.





Photo 35: Cracks in flanges of roof panels.



Photo 36: Vertical crack in CMU along north exterior wall.



Photo 37: Closeup of crack in CMU shown in previous view.



Photo 38: Moisture staining on CMU along south wall of attic.





Photo 39: Cracks in flanges of roof panels.



Photo 40: Moisture staining on CMU along south wall of attic.

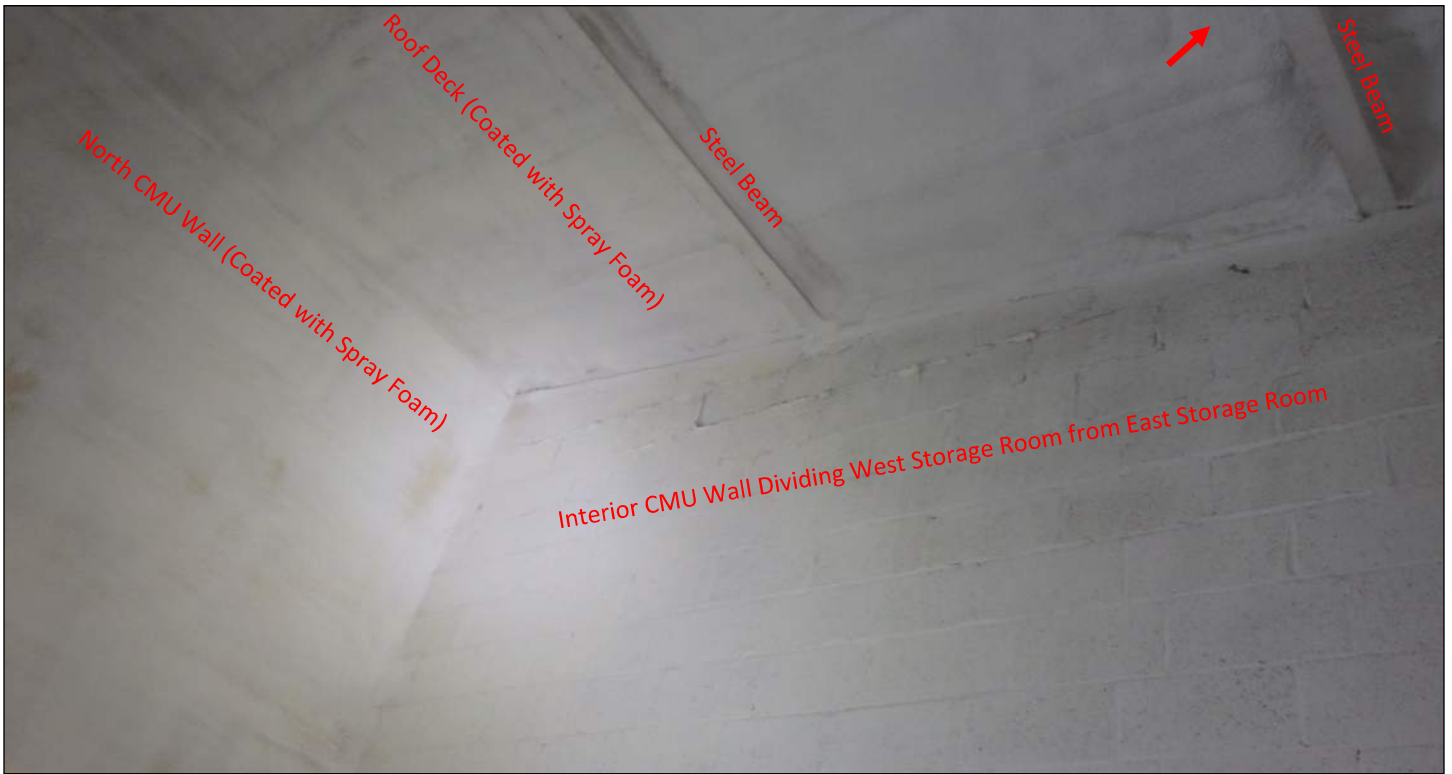


Photo 41: Overview of west storage room, looking up and to the northeast. Note moisture stains on roof deck and north CMU wall.

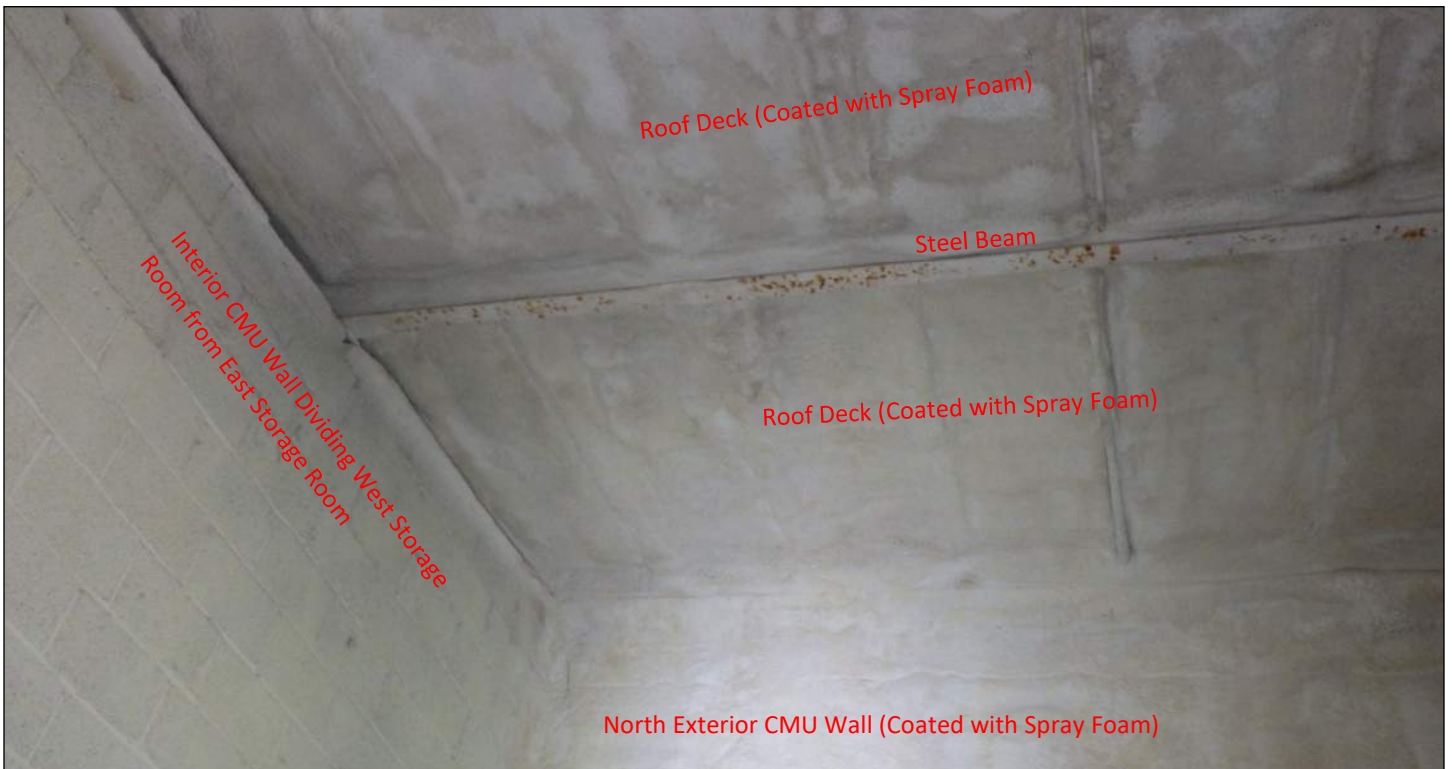


Photo 42: Overview of east storage room, looking up and to the northwest. Note moisture stains on roof deck and north CMU wall. Also note rust spots on steel roof beam.





Photo 43: Overview of east storage room, looking up and to the east. Note moisture stains on roof deck and north CMU wall. Also note rust spots on steel roof beam.



Photo 44: Overview of west storage room, looking up and to the southwest. Note moisture stains on south CMU wall. Also note rust spots on steel roof beam.



Photo 45: Overview of east storage room, looking up and to the south. Note vertical crack in CMU (arrows). Also note moisture stains on roof and rust spots on steel roof beam.



Photo 46: Overview of garage structure. View looking west.





Photo 47: Underside of roof structure along south eave of garage roof.



Photo 48: Underside of roof structure along north eave of garage roof (shared valley with office roof).



Photo 49: Underside of roof structure along west exterior wall of garage.



Photo 50: Roof beams (arrows) spanning between trusses.





Photo 51: Roof beams (arrows) spanning between trusses.



Photo 52: North CMU wall clad with metal panels (bottom arrow) and coated with spray foam (top of photo).



Photo 53: South CMU wall clad with metal panels (bottom arrow) and coated with spray foam (top of photo).



Photo 54: CMU pilaster (arrow) at truss bearing location.





Photo 55: CMU pilaster (arrow) at truss bearing location.



Photo 56: CMU pilaster (left arrow) within CMU wall (right arrow). View from above looking downward.



Photo 57: Overview of CMU wall section above metal panels. Note thin vertical crack in CMU that aligns with crack on other side of wall in east storage room (reference Photo 45).

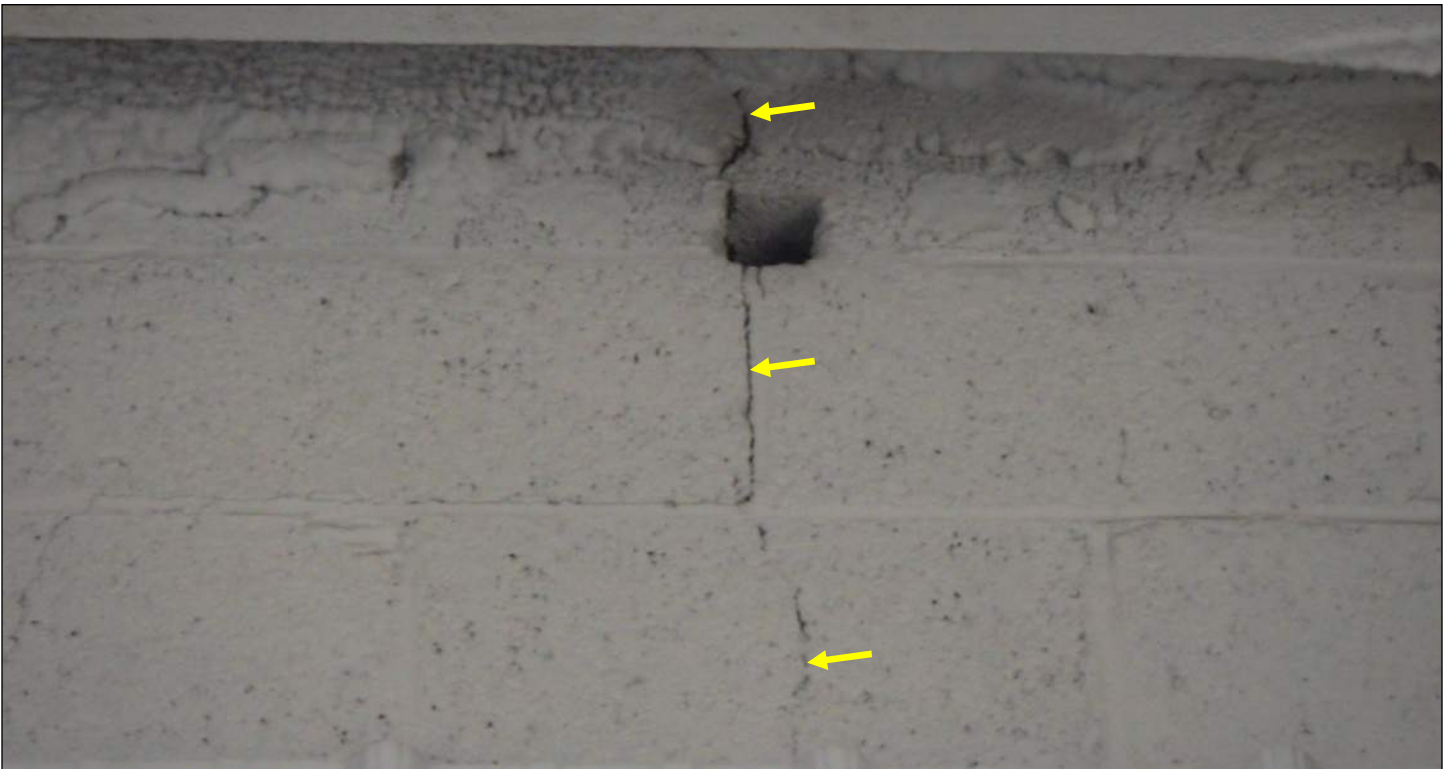


Photo 58: Closeup of crack shown in previous photo. Note rounded edges of CMU along crack and paint within crack.





Photo 59: Moisture staining on north CMU wall (box outline), adjacent to roof drain (arrow).

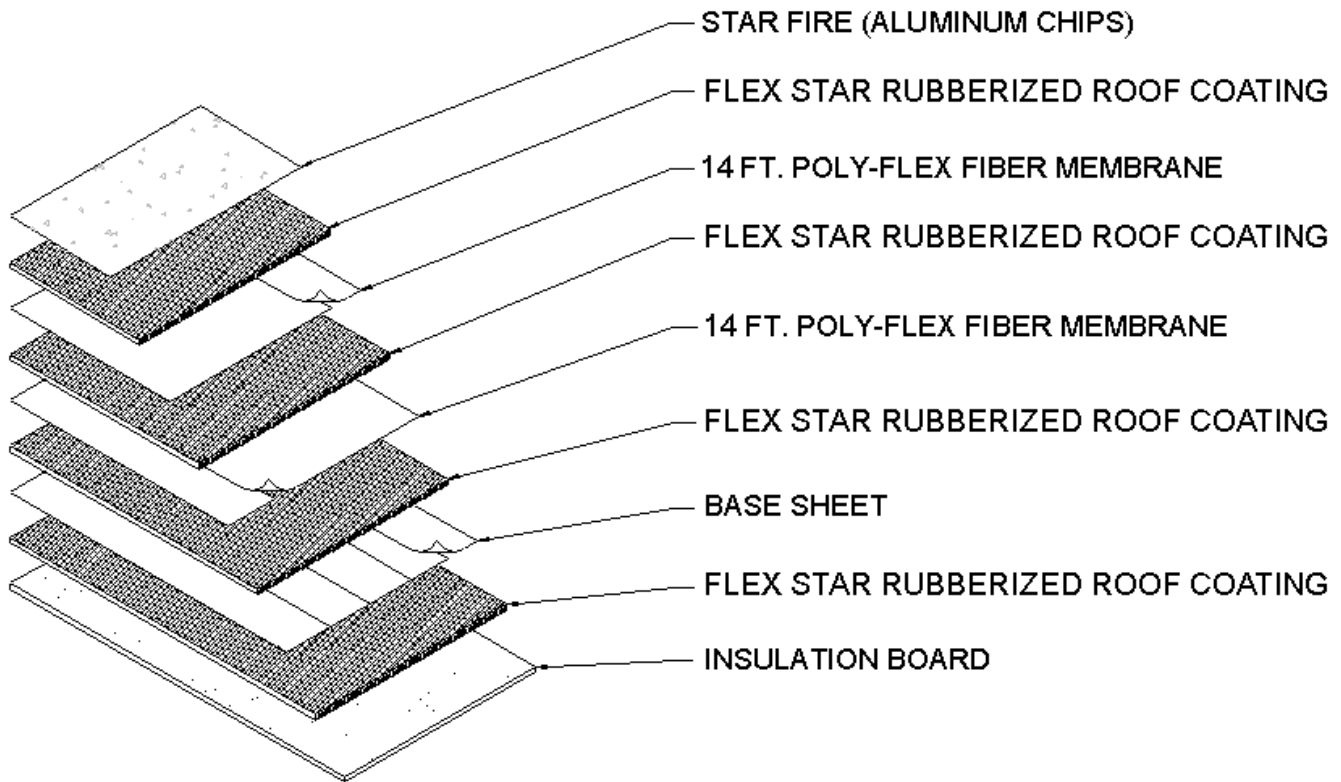


Photo 60: Moisture staining on north CMU wall (wall coated in spray foam) at roof drain.

## **EXHIBIT A**

# **20 YEAR ROOFING SYSTEM**

## **ROOF SYSTEM FOR FLAT ROOFS**



### **FLAT TWO PLY CHIP TEAR OFF ROOFING SYSTEM**

Tear off old roof.

Install a layer of rigid insulation mechanically fastened to the decking.

Apply first layer of Flex Star Rubberized Roof Coating.

Install a layer of base sheet over Starbond.

Apply second layer of Flex Star Rubberized Roof Coating.

Install first layer of Poly-Flex fiber Membrane staggering seams.

Apply third layer of Flex Star Rubberized Roof Coating.

Install second layer of Poly-Flex fiber Membrane staggering seams.

Flash all protrusions through roof, i.e.: vents, drains, HVAC units, etc.

Apply fourth layer of Flex Star Rubberized Roof Coating.

Apply cover layer of Starfire Aluminum Chips.

## **EXHIBIT B**



**Exhibit B - Photos Provided by Noble County**



Image 1: Overview of building following storm.



Image 2: Front elevation of building following storm.





Image 3: Closeup of north wall storm damage.



Image 4: Overview of roof following storm.





Image 5: Closeup of roof storm damage.



Image 6: Overview of roof during installation of temporary covering.





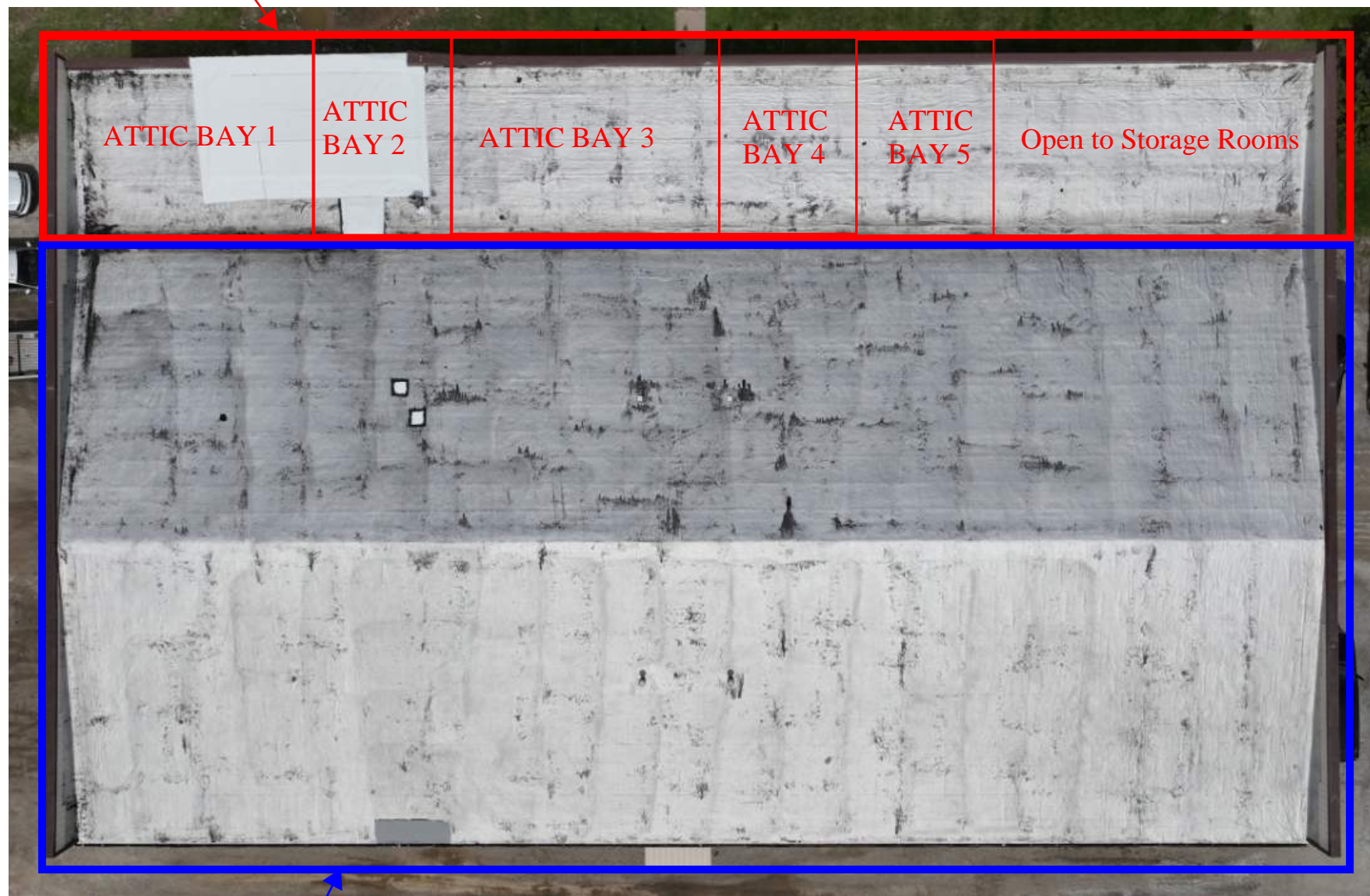
Image 7: Overview of roof after installation of temporary covering.



## **EXHIBIT C**

## Exhibit C - Overhead Aerial Imagery of Building

Roof Over Office and  
Storage Rooms Area



Roof Over Garage Area