



142998

CTIAM Arcibo

***** Version 1 *****

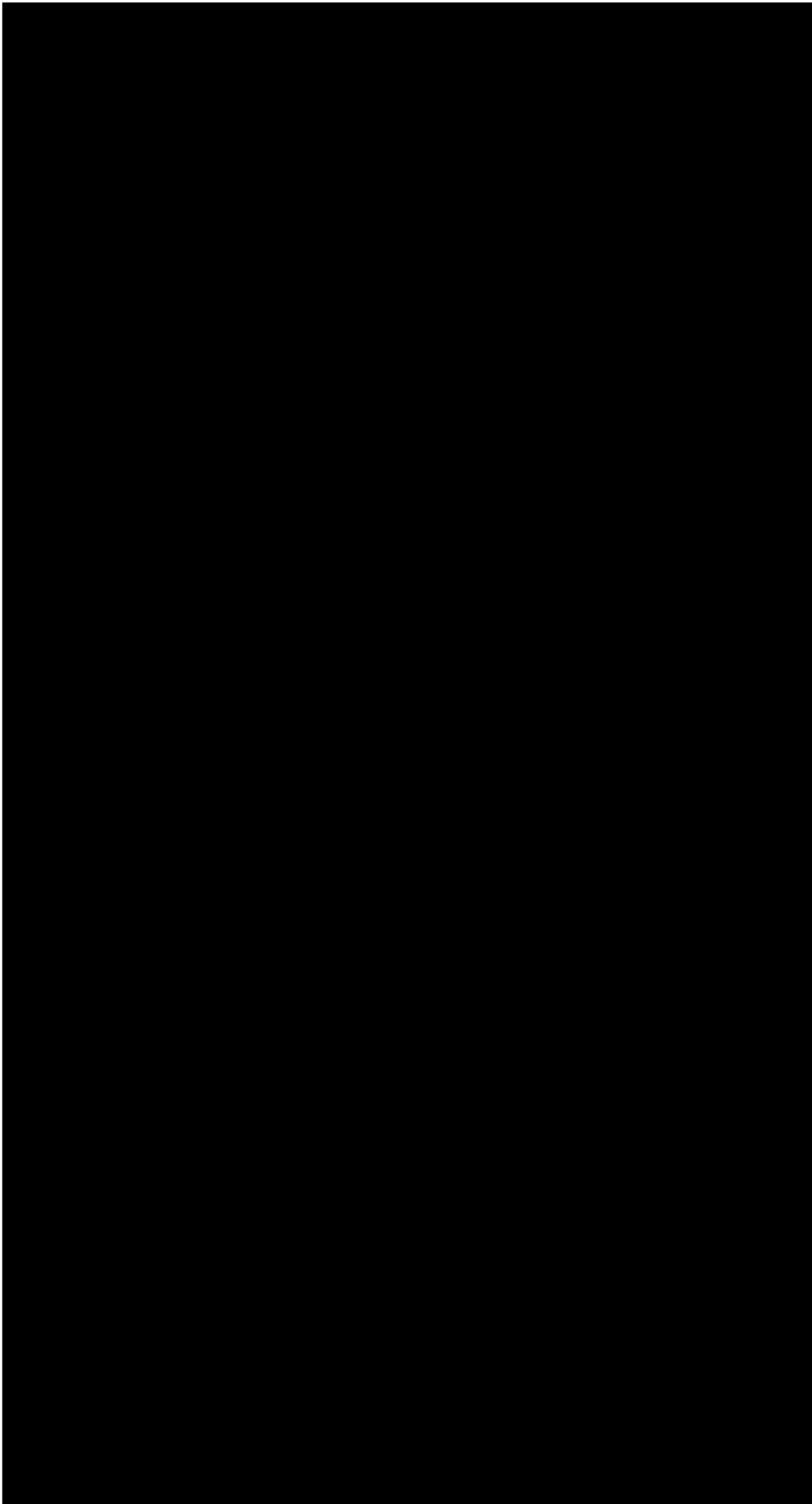
Version 1 created to capture Applicant/Subrecipient's provided Method of Repair for the repairs of the disaster related damages CTIAM Arcibo. In Version 0 a total of \$346,895.00 was awarded under DI 267691 in support to the Applicant/Subrecipient for the development of the Method of Repair for this facility. Applicant/Subrecipient has submitted a detailed MOR for FEMA's review. FEMA developed a cost estimate based on Applicant/Subrecipient's MOR. DI #142998 was included in V1 as the permanent repairs Damage Inventory Line Item.

Work Completed

The applicant utilized force account labor, equipment, materials, and contracts for repairs to the CTIAM Arcibo to restore facilities back to pre-disaster design, function and capacity (in-kind) within the existing footprint.

Building Damage :

Back Yard:





Work to be Completed

The applicant will utilize force account labor, equipment, materials, and contracts for repairs to the CTIAM Arecibo to restore facilities back to pre-disaster design, function and capacity (in-kind) within the existing footprint.

No Location/Grouping:

- A. Remove and replace 17 each of Jalousie Aluminum Windows, 2 FT long x 2 FT high

Registration Room:

- A. Remove and replace, 247 SF of 2ft. x 4ft. Square Edge Acoustical Ceiling Tile.
- B. Remove and replace, 247 SF of 2ft. x 4ft. Square Edge Acoustical Ceiling Grid.
- C. Prepare and paint, 247 SF of Paint Wall Finish.
- D. Remove and replace, 1 each of ComfortBreeze 24 BTU A/C Unit Mini Split.

Roofing:

- A. Replace, 1 each of GoosNeck Penetration Gooseneck Roof Penetration.
- B. Remove and replace, 3 each of PVC Tube Water Tank Tube Replacement, 10 FT long.
- C. Remove and replace, 2,919 SF of Waterproofing, Thermal Roof Treatment.

Sample Area:

- A. Prepare and paint, 99 SF of Paint Wall Finish.

social Worker:

- A. Remove and replace, 180 SF of 2ft. x 4ft. Square Edge Acoustical Ceiling Grid.

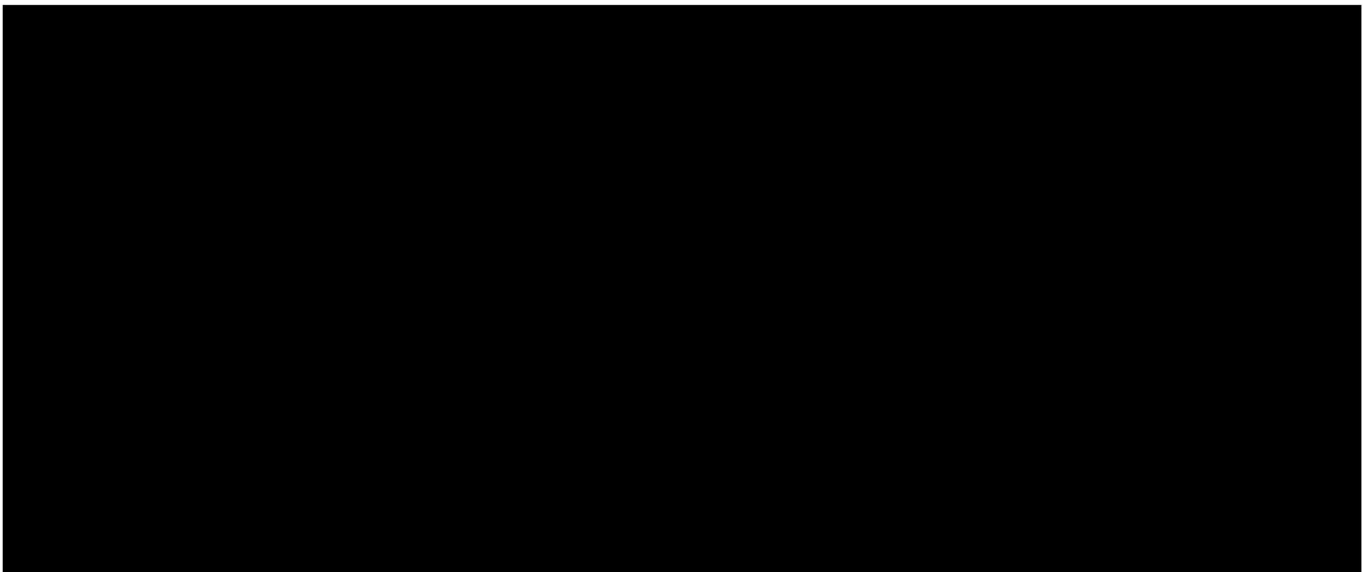
Social Worker:

- A. Remove and replace, 180 SF of 2ft. x 4ft. Square Edge Acoustical Ceiling Tile.
- B. Prepare and paint, 180 SF of Paint Wall Finish.

Vault Room:

- A. Prepare and paint, 133 SF of Paint Wall Finish.
- B. Repair, caulking cement Wall Damaged to Patch Left Side, 19 FT long x 10 FT high.

Work to be Completed total: **\$215,401.87**



406 HMP Scope

DI# 142998; CTIAM Arecibo

I. Hazard Mitigation Proposal (HMP) Scope of Work:

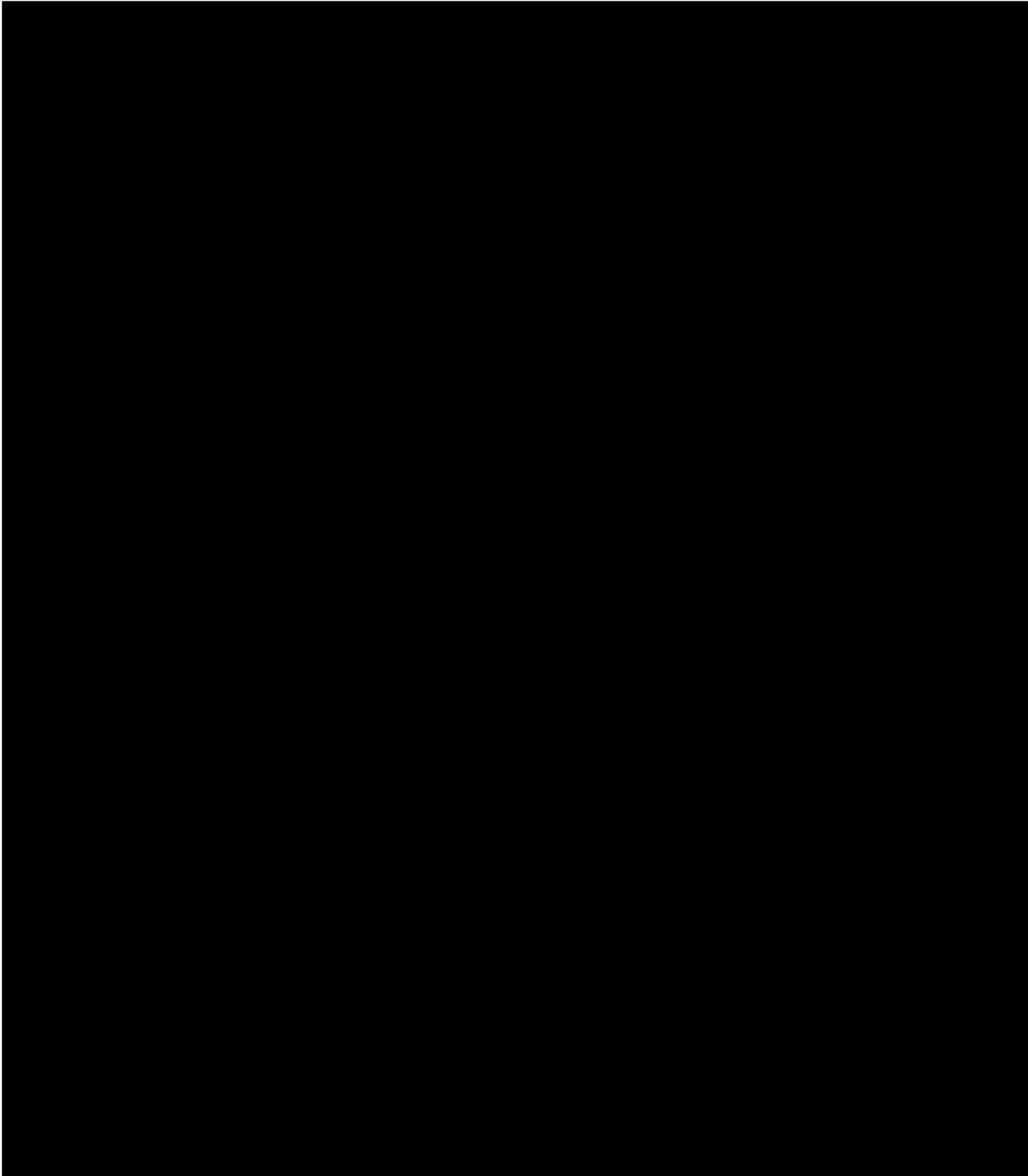
In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

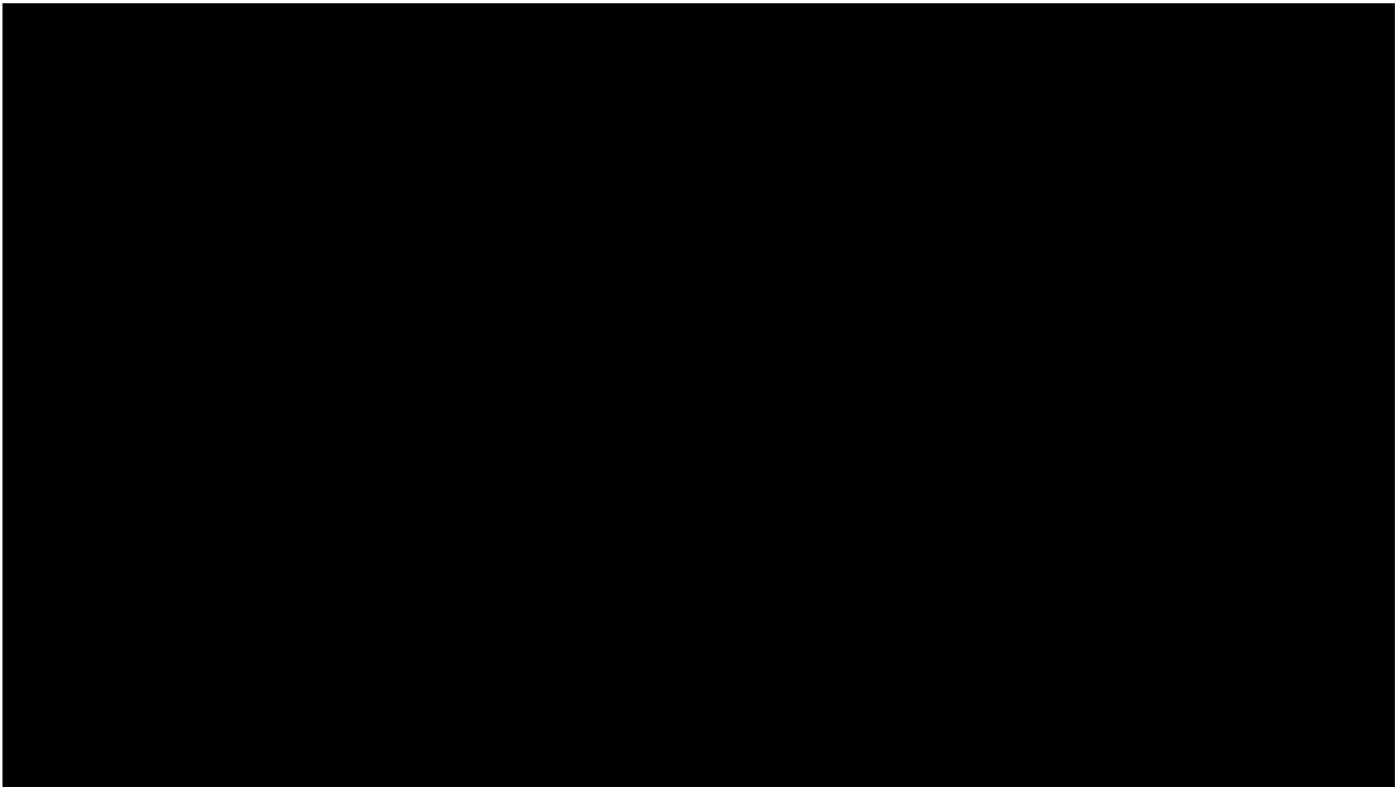
- No Location/Grouping: Windows: Add 272 LF of weatherstripping on 17 3' X 5' windows to prevent water infiltration and subsequent interior damages.
- Registration Room: Anchor one 2-ton fan coil AC unit to concrete roof slab/metal roof deck using an anchoring system such as wire rope tie downs to prevent overturning and displacement that can cause damages to waterproofing system and subsequent water infiltration.
- Roofing:
 - Install 216 LF of Termination Bar attached with 1/4 inches diameter x 2 inches long of zinc plated fasteners spaced every 8 inches. This mitigation will prevent detachment of waterproofing membrane and subsequent damages to the interior from water infiltration.
 - Install 216 LF of non-corrosive drip edge flashing along roof perimeter to direct water away from the building

and prevent water intrusion.

II. Hazard Mitigation Proposal (HMP) Cost:

Net Hazard Mitigation Cost (before CEF factors) = \$8,931.92





143344

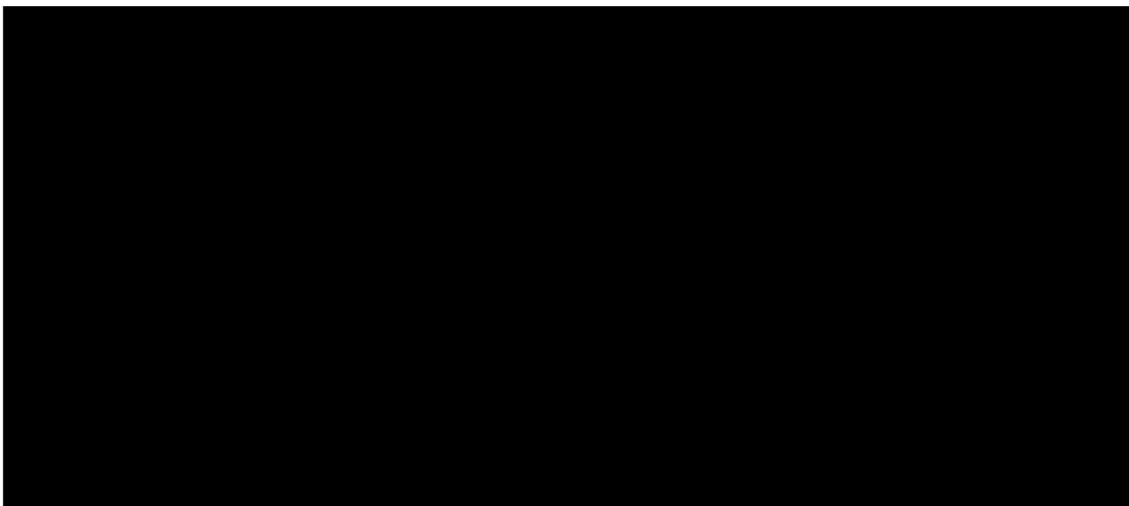
CTIAM Ponce

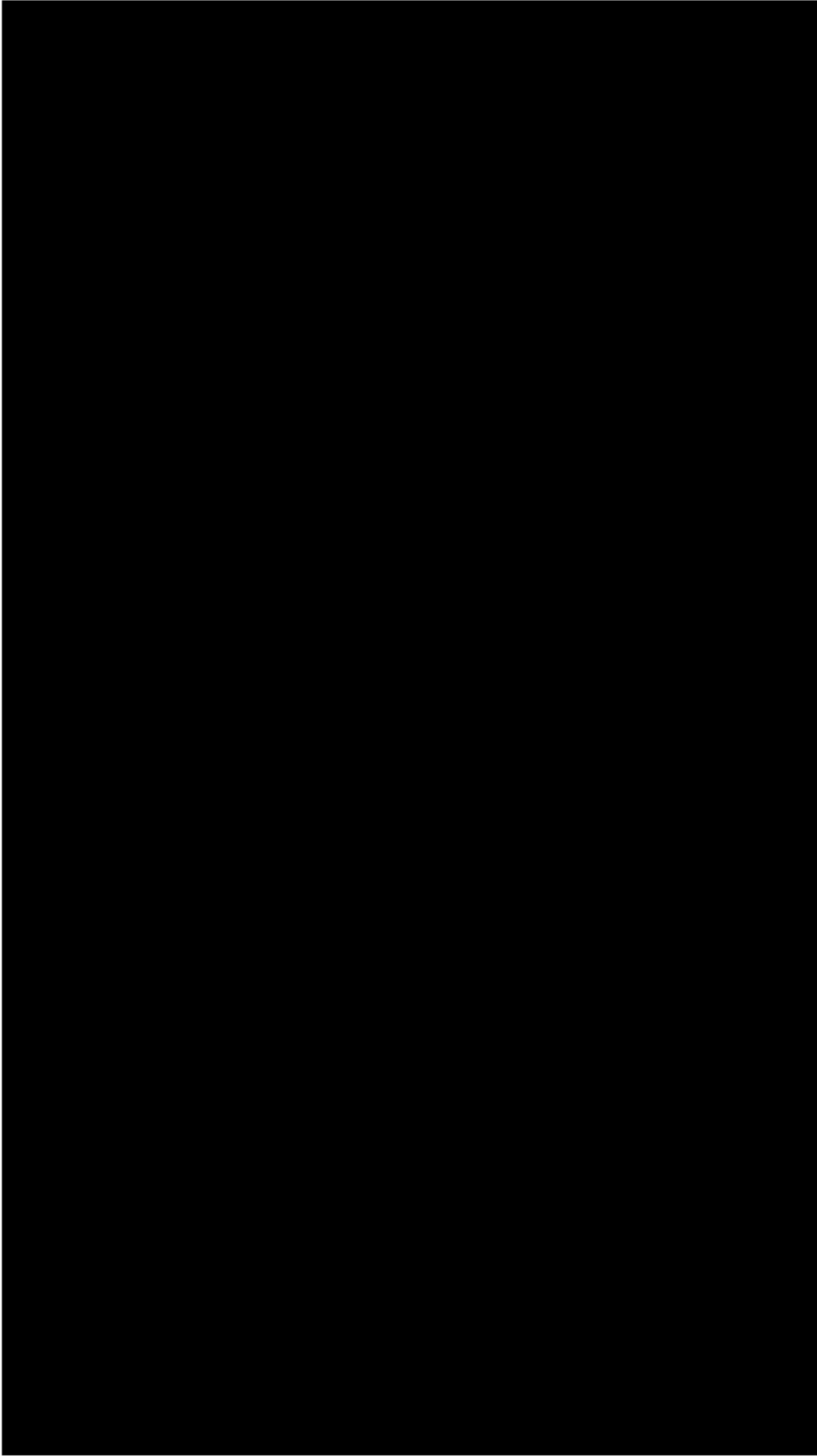
*****Version 1*****

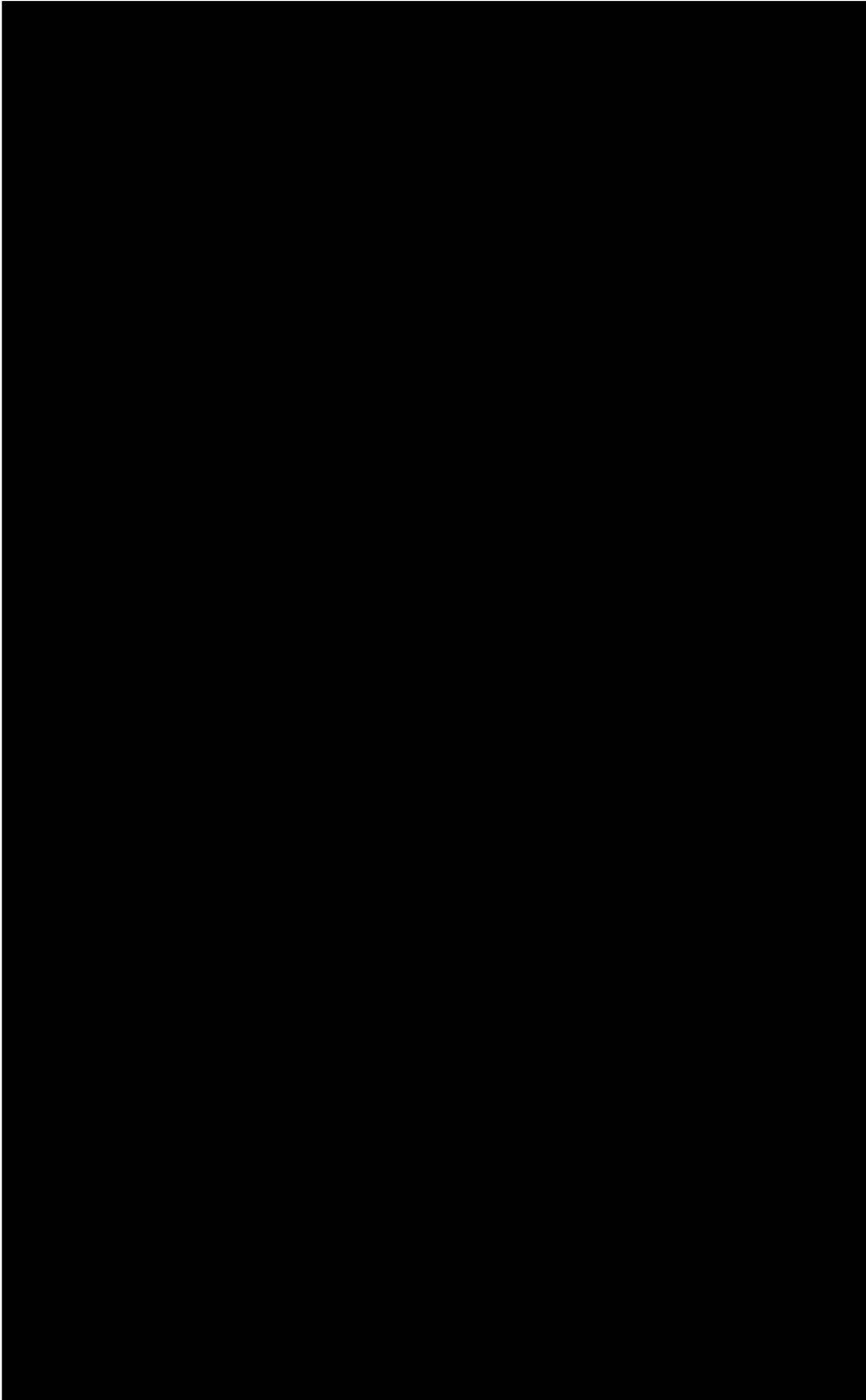
Version 1 created to capture Applicant/Subrecipient's provided Method of Repair for the repairs of the disaster related damages in **CTIAM Ponce**. In Version 0 a total of \$346,895.00 was awarded under DI 267691 in support to the Applicant/Subrecipient for the development of the Method of Repair for this facility. Applicant/Subrecipient has submitted a detailed MOR for FEMA's review. FEMA developed a cost estimate based on Applicant/Subrecipient's MOR since no cost estimate was provided by the Applicant/Subrecipient at this point. *DI #143344 was included in V1 as the permanent repairs Damage Inventory Line Item.*

Work Completed

The applicant utilized contracts for repairs to the CTIAM Ponce to restore facilities back to pre-disaster design, function and capacity (in-kind) within the existing footprint.







Work to be Completed

The applicant will utilize force account labor, equipment, materials, and contracts for repairs to the CTIAM Ponce to restore facilities back to pre-disaster design, function and capacity (in-kind) within the existing footprint.

Building A:

- A. Remove and replace 32 each of Jalousie Aluminum Windows, 2 FT long x 4 FT high.

Building B:

- A. Remove and replace 32 each of Jalousie Aluminum Windows, 2 FT long x 4 FT high.

Building C:

- A. Remove and replace 20 each of Jalousie Aluminum Windows, 2 FT long x 4 FT high.
- B. Remove and replace 24 each of Jalousie Aluminum Windows, 2 FT long x 2 FT high.

Building D:

- A. Remove and replace 16 each of Jalousie Aluminum Windows, 2 FT long x 8 FT high.

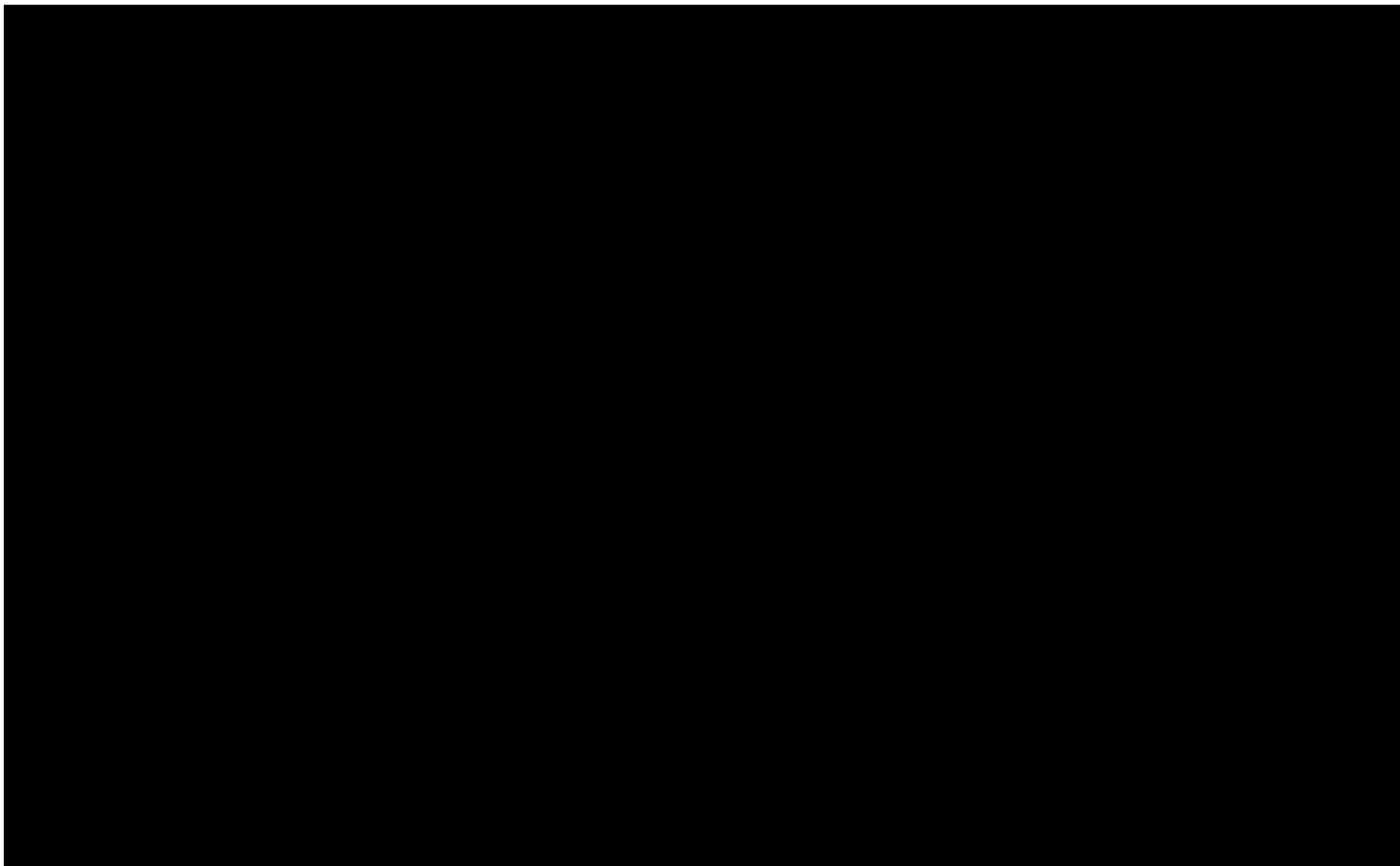
Building E:

- A. Remove and replace 24 each of Jalousie Aluminum Windows, 2 FT long x 4 FT high.

Building F:

- B. Remove and replace 24 each of Jalousie Aluminum Windows, 2 FT long x 2 FT high.

Work to be Completed total: \$537,157.72



406 HMP Scope

DI# 143344; CTIAM Ponce

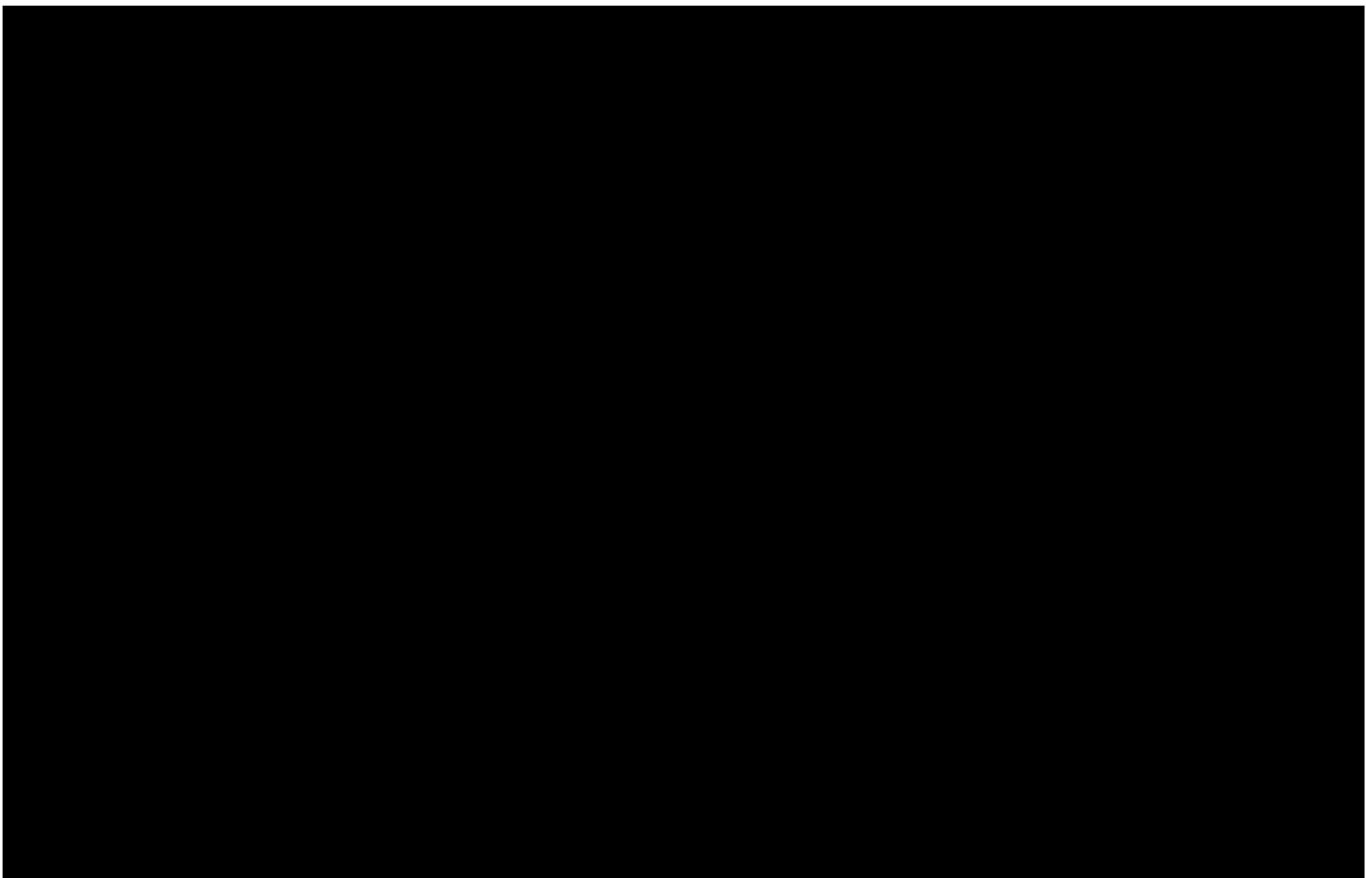
I. Hazard Mitigation Proposal (HMP) Scope of Work:

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

- Add 2,784 LF of weatherstripping on 174 single-hung 3' X 5' windows to prevent water infiltration and subsequent interior damages.

II. Hazard Mitigation Proposal (HMP) Cost:

Net Hazard Mitigation Cost (before CEF factors) = \$31,060.74

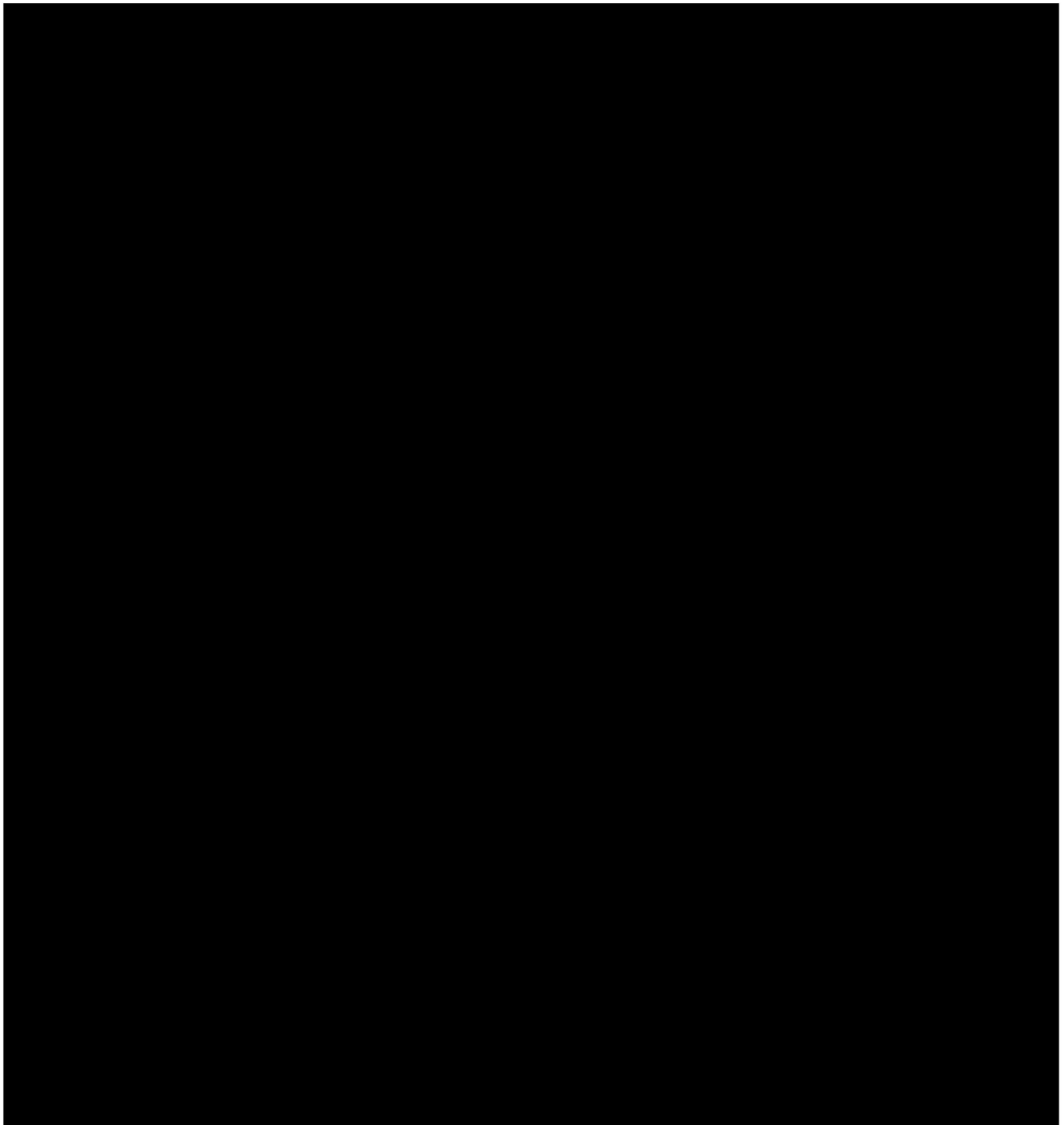


143354 **CTIAM San Juan**

*****Version 1*****

Version 1 created to capture Applicant/Subrecipient's provided Method of Repair for the repairs of the disaster related damages in **CTIAM San Juan**. In Version 0 a total of \$346,895.00 was awarded under DI 267691 in support to the Applicant/Subrecipient for the development of the Method of Repair for this facility. Applicant/Subrecipient has submitted a detailed MOR for FEMA's review. FEMA developed a cost estimate

based on Applicant/Subrecipient's MOR since no cost estimate was provided by the Applicant/Subrecipient at this point. *DI #143354* was included in V1 as the permanent repairs Damage Inventory Line Item.



Work to be Completed

The applicant will utilize force account labor, equipment, materials, and contracts for repairs to the CTIAM San Juan to restore facilities back to pre-disaster design, function and capacity (in-kind) within the existing footprint.

Exterior:

- A. Remove and replace, 1 each of Corrugated Metal Gutter, 75 FT long.

First Floor:

- A. Remove and replace, 6,925 SF of Acoustical Ceiling Tiles, 2 FT long x 4 FT wide.
- B. Remove and replace, 10 each of Wood Doors, 84 IN long x 36 IN wide.
- C. Remove and replace, 1 each of Metal Double Doors.
- D. Remove and replace, 42 each of Aluminum Jalousie Windows, 36 IN long x 60 IN wide.
- E. Remove and replace, 10,500 SF of Vinyl Floor Tile, 12 IN long x 12 IN wide.
- F. Remove and replace, 23 each of Recessed Light Fixtures, 2 FT long x 4 FT wide.
- G. Remove and replace, 1 each of Exit Sign.
- H. Remove and replace, Vinyl Base Board, 3,126 LF long.

052:

- A. Repair 50 SF of Concrete Plaster, spalling and exposed re-bar.

Hall:

- A. Remove and replace, 63 SF of Gypsum Board Wall.

General:

- A. Remove and replace, 2 each of CCTV Cameras.
- B. Remove and replace, 10 each of 1500 Watt Floodlights.
- C. Remove and replace, Chainlink with barbed wire Perimeter Fence, 72 FT long x 8 FT high.
- D. Remove and replace, Chainlink with barbed wire Security Fence, 72 FT long x 10 FT high.
- E. Remove and replace, 10 SF of 6" Thick Concrete Fence Footer, 2 FT high. completed.
- F. Remove and replace, 1 each of Iron Pedestrian Gate, 4 FT wide x 6 FT high.
- G. Remove and replace, 1 each of SHP, Electric; Century AC Motor Serial 35413J2 Potable Water Pump.
- H. Remove and replace, 1 each of Olympian Model GEP150, 165 kVA Generator.
- I. Remove and replace, 2" diameter Substation Electrical Conduit, 100 LF long.
- J. Remove and replace, 1 each of 5 Ton Split Systems; Air-Con Model A13CV4C4M60 HVAC Condensers.

Roof:

- A. Remove and replace, 10,600 SF of Bitumen Roof Waterproofing Membrane.

Guard House:

- A. Remove and replace, 1 each of Steel Sliding Door, 84 IN long x 48 IN wide.
- B. Remove and replace, 140 SF of Roof Acrylic Sealer.
- C. Remove and replace, 1 each of 1 Ton Mini Split System.
- D. Remove and replace, 1 each of Aluminum Jalousie Windows, 24 IN long x 24 IN wide.

Second Floor:

- A. Remove and replace, 10,500 SF of Acoustical Ceiling Tiles, 2 FT long x 4 FT wide.

- B. Remove and replace, 64 each of Aluminum Jalousie Windows, 30 IN long x 60 IN wide.
- C. Remove and replace, 2 each of Aluminum Safety Windows, 36 IN long x 48 IN wide.
- D. Remove and replace, 10,500 SF of Outdoor Vinyl Floor Tile, 12 IN long x 12 IN wide.
- E. Remove and replace, 17 each of Recessed Light Fixtures, 2 FT long x 4 FT wide.
- F. Remove and replace, 1 each of 4 Ton Mini Split Inverter.
- G. Remove and replace Vinyl Base Board, 3,126 LF long, Vinyl Base board.

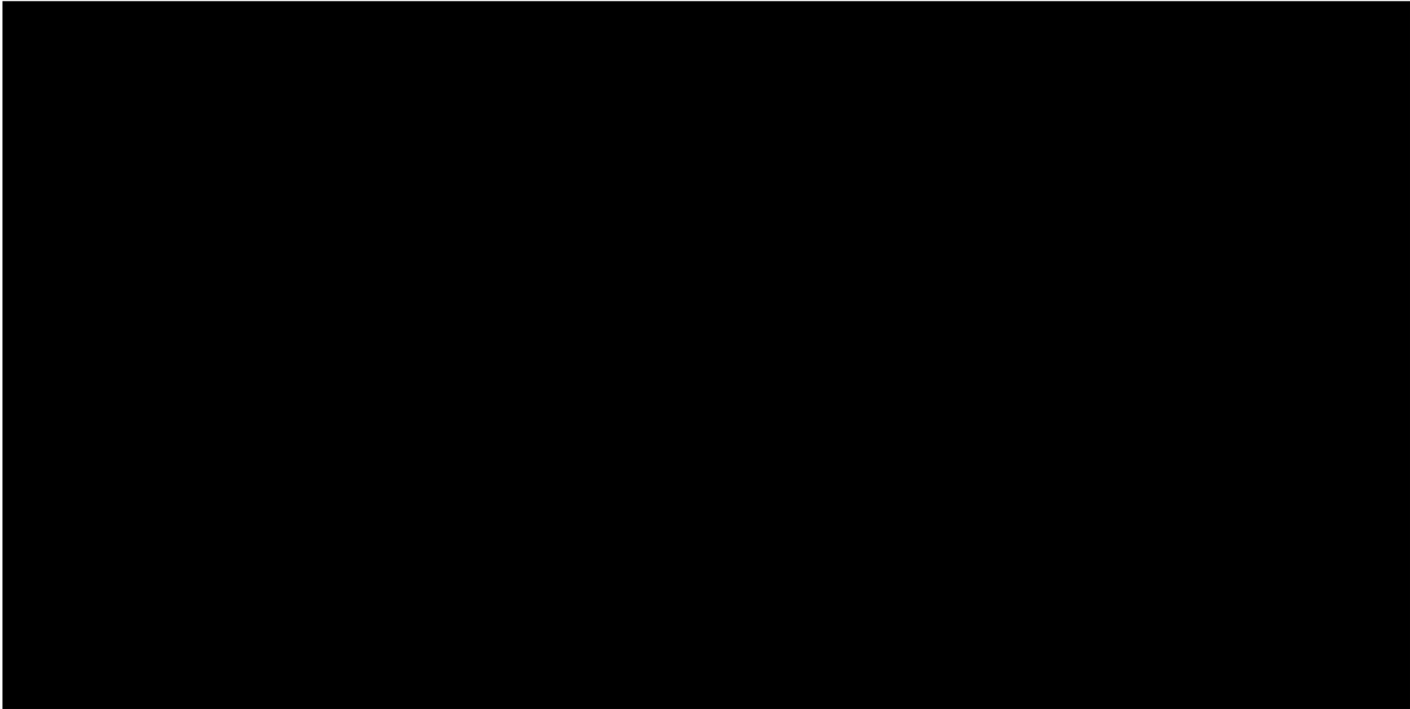
Elevator Hall:

- A. Remove and replace, 660 SF of Gypsum Board Wall.

Hall for Rooms 67, 68, 69, 70 85, 72, 73, 74:

- A. Remove and replace, 660 SF of Gypsum Board Wall.

Work to be Completed total: \$1,390,773.97



DI# 143354; CTIAM San Juan

I. Hazard Mitigation Proposal (HMP) Scope of Work:

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

- Exterior: Anchor 75 LF of damaged downspout using 1 strap every 5 LF to prevent displacement due to high velocity wind.
- First Floor:
 - Replace 10 damaged interior wood doors with metal doors to prevent water damages caused by water intrusion.

- Add 20 L.F. of weatherstripping on 1 3'x8' exterior door to prevent water infiltration and subsequent interior damages.
- Install 1 aluminum, flush, door sweep weatherstripping at bottom of door to prevent wind and water infiltration and subsequent interior damages.
- Add 672 LF of weatherstripping on 42 single-hung 3'x 5' windows to prevent water infiltration and subsequent interior damages.
- Install 10,500 SF of vinyl flooring using waterproof adhesive to prevent water damages.
- Install 1 Facility Power Surge Protection Device to protect recessed light fixtures and all electric equipment of a facility from failure caused by power surges resulting from a heavy rain and high velocity wind event.
- Install 1,042 SF (3,126 LF x 4") of vinyl wall base using waterproof adhesive to prevent water damages.
- General:
 - Fasten 10 exterior floodlights to concrete/masonry surface using 10 chemically anchored bolts into wall/slab to prevent displacement caused by high velocity wind.
 - Install 1 Ea. quick connect device to facilitate a rapid connection of emergency power generator to maintain electricity in facilities and mitigate damages related to power fluctuations, interruption of operation of sump pumps and air conditioning that can cause mold growth and subsequent interior damages.
- Roof:
 - Install 450 L.F. of termination bar along roof perimeter to prevent detachment and damages to waterproofing membrane and subsequent water intrusion.
 - Install a roof walking pad to reduce wear.
- Guard House:
 - Install 1 surge protective device to protect Guard House AC unit and prevent damages from voltage fluctuations and power surges caused by heavy rain and high velocity wind events.
 - Add 8 LF of weatherstripping on 1 single-hung 2'x 2' window to prevent water infiltration and subsequent interior damages.
- Second Floor:
 - Add 1,056 LF of weatherstripping on 66 single-hung 3'x 5' windows to prevent water infiltration and subsequent interior damages.
 - Install 10,500 SF of vinyl flooring using waterproof adhesive to prevent water damages.
 - Install 1,042 SF (3,126 LF x 4") of vinyl wall base using waterproof adhesive to prevent water damages.

II. Hazard Mitigation Proposal (HMP) Cost:

Net Hazard Mitigation Cost (before CEF factors) = \$92,730.57

