

# NYCHA Capital Projects Fact Sheet:

## ROOF REPLACEMENT

### 1. Project Overview

- The project scope typically includes replacing the roof, including bulkhead, railing, canopy roofs, and the installation of rigid insulation, roof drains, flashing and sealing.
- These critical infrastructure upgrades improve the quality of life for residents and extend the useful life of this asset (once replaced) approximately 30 years.

### 2. Key Terms

- Canopy Roofs: An overhead roof typically placed over an entrance which provides shade or shelter from weather conditions such as sun, hail, snow and rain.
- Flashing: A thin material used to direct water away from critical area of the roof, where the roof plane meets a vertical surface like a wall. Flashing is used to surround vents, chimneys and skylights.
- Liquid Applied Roof: A type of multi-layer layer roofing system where rigid insulation is installed and liquid is applied directly onto the roof surface, forming a seamless and continuous membrane.
- Roof Membrane: A type of material that is used to waterproof and protect the building roof. It is typically a thin, flexible sheet that is installed over the roof to create a barrier against water, moisture and other environmental elements.
- Parapet Wall: A parapet is a barrier that is an upward extension of a wall at the edge of a roof. Older buildings often have this type of wall instead of a roof railing. The parapet offers fall protection to anybody walking on the roof.
- Bulkhead: A rooftop structure enclosing a shaft, stairway, tank or service equipment.



*Rehabilitated Parapet Walls*



*Completed Roof Rehabilitation*

### 3. Why is this capital project needed? Why is it important?

- NYCHA's original roofing systems had few roof drains and often allowed standing water to accumulate.
- Leaks caused by water infiltration from the roof should be reduced or eliminated when a roof is replaced, supporting maintenance, and reducing the number of work tickets.
- A new roof typically decreases energy (heating and cooling) costs, allowing NYCHA to better meet energy code



*Flashing*

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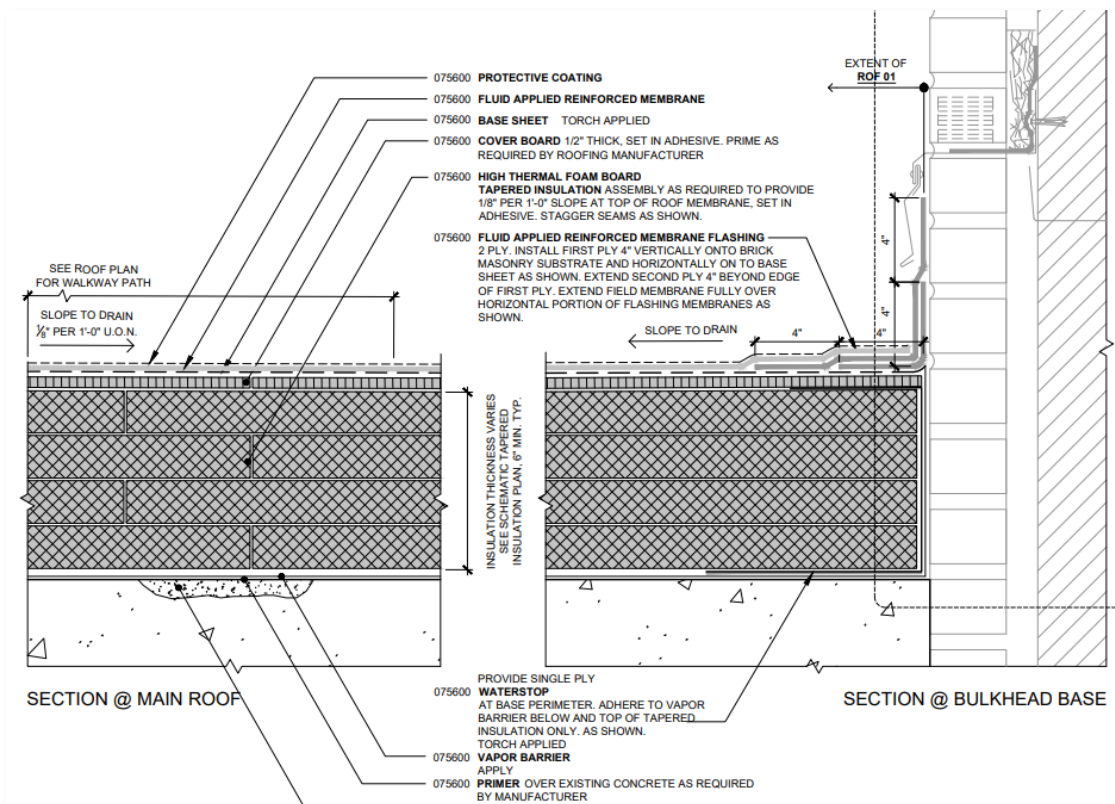
requirements. It also ensures the asset is durable for decades to come.

- Roof replacements also support NYCHA's mold remediation obligations with both the 2018 Revised Baez Consent Decree and the 2019 HUD Agreement.

#### 4. Scope of Work Details

- Liquid applied roof has an easy application that saves time and labor costs for NYCHA and is easier to repair and maintain.
- The liquid roofing material can be sprayed, rolled, or brushed onto the roof substrate, and it adheres tightly to create a protective and waterproof barrier.
- The material must be applied in good weather to ensure application will last. An infrared picture of the roof confirms the application was applied evenly. Pictures may also identify potential areas of leaks.
- The **basic layers of the roofing system** from the deck up are as follows:
  1. Vapor Barrier Membrane (Initial membrane at the roof substrate)
  2. Rigid Insulation Boards (Varying Thickness, built up in layers)
  3. Tapered Rigid Insulation Boards (For Pitching Roof to Drains)
  4. ½" Cover Board (for durability and protection of the insulation below)
  5. Cap Sheet Membrane (creates base of finished roof for liquid application)
  6. Liquid Applied Membrane (Applied in multiple layers to create a seamless surface)
  7. Liquid Applied Texture Surfacing (For a non-slip walkable surface)

The items in **bold below** illustrate the typical layers.



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### 5. Construction Trades & Other Roles Involved

Type	Possible Roles
Trade	<ul style="list-style-type: none"> <li>Asbestos &amp; Lead Handler</li> <li>Bricklayer and PCC</li> <li>Carpenter</li> <li>Concrete Worker</li> <li>Electrician</li> <li>Iron Worker</li> <li>Laborer (including Flaggers, Demolition Workers)</li> <li>Metal Fabricator / Welder</li> <li>Roofer</li> </ul>
Non-Trade	<ul style="list-style-type: none"> <li>Supervisor</li> </ul>

### 6. Typical Project Timeline

- The construction period is typically 6-8 months per building but can be reduced when working on multiple buildings simultaneously.



### 7. What to Expect During Construction

- Sidewalk sheds:** Project will require temporary sidewalk sheds and fencing for pedestrian protection on buildings with active construction (depends on the size and number of roofs. Projects with multiple buildings typically have three (3) buildings under construction at any given time. Shedding is removed as work at each building is completed.
- Noise and vibrations:** Heavy machinery is used and noise and vibrations throughout the building should be expected.
- Vehicle traffic:** trucks are used to transport materials to the site and for removing debris. If necessary, a parking plan is coordinated with the Resident Association Board and management.
- Temporary Relocation:** Residential spaces and means of egress remain largely undisturbed. If there is major leaking in the top floor units, affected residents may be relocated until renovation is completed.



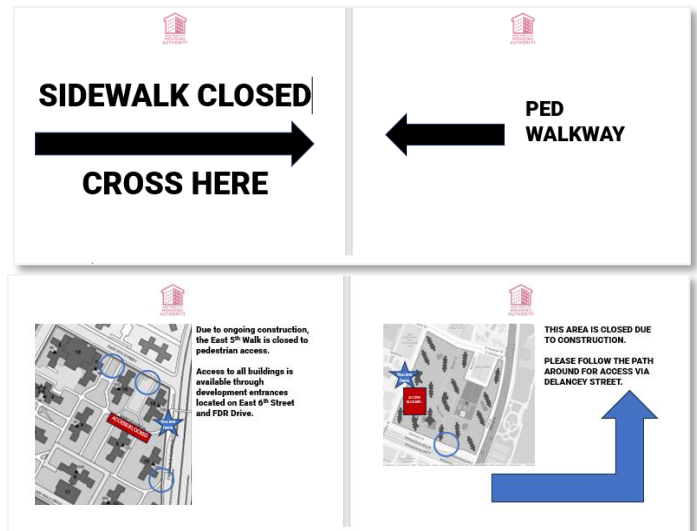
Roof Construction-related sheds

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### 8. Mitigating Construction Impacts

- **Access and Safety:** Construction sidewalk sheds are installed to protect residents from falling debris and are removed post-construction. Walkways and parking lots may be blocked or limited. All accessways are measured to ensure emergency vehicles can still mobilize where necessary. Residents who are unable to use their parking spot may be relocated temporarily to a nearby lot.
- **Seasonal Considerations:** Installation cannot be completed in rainy or snowy conditions. In addition to safety/slipping hazards, extremely hot or cold temperatures affect the installation of roofing material. Since construction must occur from spring through early fall, limited or no access to playgrounds, parking lots, and other resident amenities may occur during warmer months due to sheds and fencing.
- **Relocations:** If there is major leaking in the top floor units, affected residents may be relocated until the roof replacement is completed. Prior notice and support are provided to affected residents.



*Sample Wayfinding Instructions*