

# NYCHA DESIGN GUIDELINES

## Introduction and User Guide

Design Principles, Strategies and Tools for NYCHA Properties

NYCHA Asset & Capital Management

2025

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## Letter from NYCHA Leadership

We are excited to launch NYCHA's 2025 Design Guidelines interactive website, which integrates and updates various previous performance requirements, standards, specifications, and other guidance and information critical for ensuring design and construction excellence during the modernization of NYCHA properties and new construction projects.

In 2017, NYCHA published its Design Guidelines: Rehabilitation of NYCHA Residential Buildings to support NYCHA staff and design professionals in implementing the Authority's 10-year strategic plan (2015 - 2025). Since then, the Authority has vastly expanded its property rehabilitation activities: As of the beginning of 2025, NYCHA is managing a \$6 billion capital portfolio, has \$7 billion of comprehensive renovation work completed or in construction through the Permanent Affordability Commitment Together (PACT) program, and has established the Public Housing Preservation Trust to take on additional comprehensive renovations.

The 2025 Design Guidelines consolidate the expertise and learning NYCHA has developed working closely with residents and a wide range of partners through these initiatives. Evident in the guidelines is NYCHA's commitment to delivering high-guality housing for residents by restoring developments to a state of good repair and embracing new technologies that improve the quality, sustainability, and resiliency of public housing.

Restructured as an interactive website, the guidelines present a large amount of information and downloadable specifications, drawings, and other documents - in user-friendly formats - and they enable NYCHA staff responsible for design and construction projects, as well as ongoing operation and maintenance of assets, to share their experience and feedback. The website format also allows the guidelines to be easily updated and expanded to reflect changes in codes and local laws, refinements to NYCHA's performance requirements and specifications, and innovation in building materials and technologies.

We expect the 2025 Design Guidelines to significantly enhance communication, collaboration, and impact across NYCHA staff, design and construction consultants and contractors, and residents. The development of the guidelines itself was a highly collaborative effort between NYCHA leadership, staff, and partners, and we would like to thank everyone who contributed to this effort. A special thanks to staff in NYCHA's Asset & Capital Management Division's Architecture & Engineering Services, Sustainability, and Comprehensive Modernization departments, and in NYCHA's Real Estate Development Department. Thank you also to the teams at Dattner Architects and Lugh Studio.

Hoan plani

Lisa Bova-Hiatt Chief Executive Officer

Shaan Mavani Chief Asset & Capital Management Officer

## Introduction

### The New York City Housing Authority (NYCHA)

has significantly refined and updated the content and format of our 2017 Design Guidelines which detail the Authority's performance requirements, standards, specifications and other related information for capital investments in our properties. In addition to integrating various guidance the Authority had issued since then, refinements to the Design Guidelines address changes in codes and local laws, new technologies and industry best practices, and lessons learned through our projects, in particular related to the needs and operational experience of our property management staff and residents.

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modernization work:

- Designing for High-Quality Housing & Building Performance
- Designing for Resident Health & Well-Being
- Designing for Climate Mitigation & Adaptation

The Guidelines are presented as an online database of regularly updated standards and specifications. This new, interactive web-based format enables NYCHA staff, design and construction consultants and contractors, and other partners and stakeholders to more easily access and understand design and construction requirements and options to deliver high-quality projects, align on design decisions, and share lessons learned. The centralized, integrated format also ensures greater consistency across the wide variety of project types implemented at NYCHA properties across our major programs.

- Information is in one place, easily accessible to users.

This document overviews the background, goals and target audience of the Design *Guidelines*, details the design principles, strategies and categories relevant to NYCHA properties, and provides a high-level user guide for the interactive website.

#### The Design Guidelines represent NYCHA's commitment to design and construction excellence, and specifically three underlying principles that inform NYCHA's property

• Design guidance can be updated and further expanded on an ongoing basis.

• Internal users and design consultants will be able to directly provide feedback.

## Background

The New York City Housing Authority (NYCHA), the first and largest public housing authority in North America, was created in 1934 to provide decent, affordable housing for low- and moderate-income New Yorkers.

NYCHA provides affordable housing to **528,105 residents** through conventional public housing, the Permanent Affordability Commitment Together (PACT) and New York City Public Housing Preservation Trust (PHPT) programs, and administration of Section 8 tenant vouchers for private landlords. NYCHA has **177,569 apartments** in 2,411 buildings across 335 conventional public housing, PACT and **Trust developments**. The Authority also connects residents to critical programs and services, with a focus on economic opportunity, youth development, seniors, and social services.

NYCHA's portfolio includes a diverse range of building types, from three-story walkups, to mid-rise buildings, to high-rise "towers in the park". These developments were built in different periods, under a variety of funding and regulatory frameworks, using different construction systems and materials. Significant capital investment is required to address the physical needs of the developments and to improve the quality of life for residents, and NYCHA is making significant capital investments each year through capital projects and through the PACT and Trust programs to ensure the modernization and long-term sustainability of New York City's public housing.



Vladeck Houses, built in 1940 in Manhattan's Lower East Side, are a series of six-story plain brick buildings with generous open spaces.



Children playing at a NYCHA development in Harlem, 1965.



# prehensive Modernizatio sultation White Paper







## Integrated **Guidelines**

The Authority's Asset & Capital Management (A&CM) Division and Real Estate Development Department (REDD) lead and manage much of this work. The Design Guidelines integrate and update information from previous guidance issued by A&CM and REDD:

- Design Guidelines Rehabilitation of NYCHA Residential Buildings
- Project Phase Submission Requirements Guidelines
- PACT Program Requirements Design & Construction
- NYCHA Comprehensive Modernization Consultation White Paper
- NYCHA Sustainability Agenda
- Flood Resilience at NYCHA
- Connected Communities Guidebook
- NYCHA Open Space Master Plan
- NYCHA Urban Forest
- Various detailed libraries, standards specifications, project needs assessment reports, and drawing sets from recent projects





Solar panels installed on roofs at Queensbridge Houses.

The Design Guidelines also reference specific requirements from Performance Standards ratings systems including Enterprise Green Communities - NYC Overlay, WELL Building Standard, LEED v4 Multifamily, and Passive House standards, where applicable. In addition, NYCHA Historic Properties that are listed (or eligible to be listed) on the National Historic Register are required to comply with the Secretary of the Interior's Standards for Rehabilitation and are subject to supplemental design review by NYCHA, the New York State Historic Preservation Office (SHPO), and the National Parks Service (NPS). Historic Properties designated as local landmarks by the Landmarks Preservation Commission (LPC) are also subject to design review by the Landmarks Preservation Commission. For all modernization and new construction projects, design professionals should also directly reference these standards and specific NYCHA program requirements to determine applicability for each project.

The Design Guidelines therefore present technical requirements, specifications, drawings and other information relevant to design and construction projects, holistically, and in a format that is accessible to NYCHA staff, project partners, residents and the broader public. The interactive website also enables direct feedback from staff and design consultants to continually improve NYCHA's requirements and incorporate best practices based on design, construction and ongoing operation and maintenance experience.

Goals



To **ESTABLISH BASE AND "STRETCH" REQUIREMENTS** to achieve enhanced quality housing, building performance and resiliency.

To **PROVIDE A SINGLE SOURCE** for architectural and engineering design information that can be easily accessed by NYCHA personnel, consultants, contractors, residents and the public.



To **ALIGN AND INTEGRATE TECHNICAL STANDARDS** for all of NYCHA's design and construction projects.



To **DEVELOP A FORMAT THAT CAN BE EASILY UPDATED** as NYCHA's requirements change, and as new products, materials and systems are introduced.



To include commenting features to ENABLE NYCHA USERS TO PROVIDE FEEDBACK on specific requirements and specifications.

## **Who Are These Guidelines For?**





## **NYCHA Staff**

The Guidelines identify design priorities, and facilitate use of the most current performance requirements, specifications and details across departments and project types, and incorporate historical experience, technical expertise, and ongoing staff feedback. The Guidelines also provide strategies for effective and transparent resident engagement.

## Community Organizations and Other Partners

Community-based organizations and other partners are important stakeholders in the success of NYCHA's community and senior center, grounds, and other projects. The Guidelines provide information to partner organizations and the public about NYCHA's goals and standards, for use in upfront planning and understanding requirements when working with NYCHA.



The Guidelines articulate a clear set of design principles and strategies, baseline and stretch requirements for specific project types and funding levels, and a comprehensive database of the NYCHA's specifications, drawing and other resources in a downloadable format, to facilitate more effective design and delivery.



## **NYCHA Residents**

Residents can utilize the Guidelines to more easily understand design principles, requirements and options for work planned at their developments, and to engage with NYCHA staff and consultants on design decisions including potential impacts of renovations and new technologies on resident quality of life.



## **Principles & Strategies**

The Design Guidelines are aligned with NYCHA's broader goals to promote design and construction excellence, through a set of principles and strategies. The principles ensure that quality housing, resident well-being, and sustainability are centered in efforts to restore and modernize the Authority's buildings and grounds. The strategies detail how to implement the principles through specific actions.

- 1. Designing for High-Quality Housing & Building Performance
- 2. Designing for Resident Health & Well-Being
- 3. Designing for Climate Mitigation & Adaptation

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## **Design Principles**

## Design for High-Quality Housing & Building Performance



By prioritizing high-quality housing and building performance, NYCHA aims to foster improved quality of life and comfort for residents, enable easier and lower-cost operation and maintenance by NYCHA property management, and improve the durability and useful life of building systems and assets.

Modernization projects should therefore be designed and built to a standard of excellence that aligns with resident and property staff needs, especially with respect to safety and security, quality and durability of materials and fixtures, performance of building systems, and use of indoor and outdoor spaces and amenities.



A living room at Twin Parks West.



Senior Center at Queensbridge Houses.

## Design for Resident Health & Well-Being





Recognizing the critical role that the built environment plays in shaping individuals' physical and mental vitality, NYCHA prioritizes creating living spaces that foster cleaner, safer, and more nurturing environments. This includes ensuring accessibility and inclusivity for residents to fully engage with their surroundings.

Materials, systems, structures and amenities should promote physical health, accessibility, and active lifestyles for residents of all ages and abilities, while minimizing pollution and environmental hazards. Amenities and facilities that encourage physical activity and social interaction should be well-integrated in our properties, reinforcing the bonds of community and enhancing overall well-being.



Laundry Room at Twin Parks West.

Dance Room at Unity Plaza.

## **Design for Climate Mitigation & Adaptation**



Through adopting innovative building systems and infrastructure solutions that can reduce greenhouse gas emissions and waste generation, and strengthen resiliency of buildings and properties, NYCHA strives to safeguard the well-being of resident and surrounding communities.

Climate mitigation and adaptation measures – including energy and water efficient technologies, sustainable materials, and resilient building systems, infrastructure, ground and landscape features – should be integrated in designs wherever possible to address increased frequency of flooding and extreme weather events and reduce greenhouse gas (GHG) emissions and waste.



Sub-surface water retention at Linden Houses.



Sandy recovery at Coney Island Houses.

## **Design Strategies**

To facilitate the implementation of the design principles described above, NYCHA has defined a set of strategies that serve as a roadmap for integrating these principles into every stage of design. These strategies also connect specific work type standards and specifications with larger goals and scope priorities for internally developed designs or consultant proposals.

The following strategies support implementation of NYCHA's design principles to ensure design and construction excellence:

- 1. Center Community Knowledge, Experience, and Connection
- 2. Promote Safety and Security of Residents and Staff
- 3. Optimize Performance, Operation, and Maintenance of Buildings, Systems and Assets
- 4. Utilize Healthy Materials and Health-Promoting Building Systems
- 5. Implement Active Design Approaches
- 6. Ensure Accessibility and Inclusion
- 7. Prioritize Sustainable Materials, Technologies, and Practices
- 8. Innovate Adaptive and Resilient Solutions
- 9. Maximize Flexible and Adaptable Use of Spaces

### 01 Center Community Knowledge, Experience and Connection



By actively involving relevant NYCHA staff including within property management, residents, and other stakeholders in the project decision-making process, NYCHA ensures that its housing developments reflect the unique needs, preferences, and aspirations of the communities they serve. Recognizing the deep knowledge that local property management staff and residents have of their properties is not only necessary to the success of capital investments but also helps foster a sense of ownership and belonging.

### Promote Safety and Security of Residents and Staff



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By establishing robust security protocols, implementing layered access control and CCTV systems, and improving open and secure visual and physical access, NYCHA strives to create environments that enhance safety and security, mitigate risks and instill confidence and peace of mind among residents and staff.

### **03** Optimize Performance, Operation and Maintenance of Buildings, Systems and Assets



Through rigorous monitoring, preventive maintenance, and regular inspections, NYCHA aims to maximize the useful lifespan of new assets and minimize downtime and disruptions to residents. By leveraging data in project planning and embracing technological innovations, NYCHA incorporates the requirements of operational maintenance and service into the design and construction process. Early and continued coordination with property and skilled trades staff is critical for ease of maintenance and to foster a culture of continuous improvement.

## **Marlboro Houses Heating Systems Upgrade**

This project at Marlboro Houses development includes de-coupling domestic hot water generation from the existing natural gas-fired boilers, radiator valve replacement, and comprehensive upgrades to the central boiler plant, which will continue to provide heat for the 28-building housing development. Electrification of hot water heating is achieved with state-of-the-art air source heat pumps on free-standing platforms, raised above grade and surrounded by custom-designed perforated metal panels. NYCHA A&CM worked with the joint venture Design-Build team, Macan Deve Engineers + Architects and Maric Mechanical, who jointly undertook extensive consultation with NYCHA property management and heating management services staff as well as residents.



Rendering of a new air source heat pump system at Marlboro Houses.

#### Strategies incorporated:

**02 Promote Safety and Security of Residents and Staff** - The project incorporates safety measures by ensuring adequate lighting around the equipment enclosures. The custom perforated metal panels surrounding the heat pumps are designed to extend to the ground, minimizing the potential for debris and waste accumulation or concealed spaces.

**O3 Optimize Performance, Operation, and Maintenance of Buildings, Systems and Assets** - The replacement of radiator valves, comprehensive upgrades to the central boiler plant, and the decoupling of domestic hot water generation optimize the performance of the existing systems. Additionally, the use of air source heat pumps provides a more efficient and sustainable solution, and ensures easier maintenance and operation.

**07 Prioritize Sustainable Materials, Technologies, and Practices** - The electrification of hot water heating through air source heat pumps reflects a commitment to energy and water efficient technologies, reducing GHG emissions. The thoughtful design of equipment enclosures considers durability and minimizes environmental impact.

**08 Innovate Adaptive and Resilient Solutions** - This project innovatively addresses site-specific challenges, such as flood hazard zones, extensive tree canopies, and topography. The orientation and placement of the platforms minimizes disturbance to existing trees, and varying platform heights respond to the flood elevation levels in specific areas. The raised platforms for the heat pumps and the design of perforated metal panels demonstrate adaptive and resilient solutions tailored to the historic Marlboro Houses development.

## **04** Utilize Healthy Materials and Health-Promoting Building Systems



By ensuring any existing hazardous materials are identified and safely abated, and selecting materials free from harmful toxins and allergens, NYCHA creates environments that support health and overall comfort or residents and staff. The integration of building systems that enhance indoor air quality, regulate temperature, and optimize natural light promotes a healthier and positive living experience.

## **05** Implement Active Design Approaches



By incorporating features such as walking paths, bike lanes, and recreational spaces for diverse populations into housing developments, NYCHA supports active lifestyles and encourages residents to engage in healthy indoor and outdoor activities. The design of buildings and common areas should prioritize accessibility and encourage movement, fostering a culture of health and vitality.

## 06 Ensure Accessibility and Inclusion



By incorporating universal design principles and adhering to Federal, State, and City accessibility requirements and guidelines, NYCHA ensures that housing developments are welcoming and accommodating to residents of all ages, abilities, and backgrounds. This commitment extends beyond physical accessibility to encompass social inclusion and equitable access to amenities and resources for varied resident populations.

#### **CASE STUDY 2:**

## PACT Project - Historic Rehabilitation of Williamsburg Houses

The PACT Williamsburg Houses project provided comprehensive renovations to the Williamsburg Houses including enhanced property management and on-site social services. Completed in 1938, Williamsburg Houses is a designated New York City Landmark and was listed on the U.S. National Register of Historic Places in 2021. Because of the historic status of the buildings, NYCHA leveraged historic tax credits to rehabilitate apartments, common areas, facades, elevators and HVAC systems, while retaining the historic design and features. This project was completed in 2023, in collaboration with between NYCHA Real Estate Development Department (REDD), RDC Development and Williamsburg residents.



Comprehensive site and building upgrades at Williamsburg Houses completed through the PACT program.



Upgraded apartment interiors at Williamsburg Houses.

**Strategies incorporated:** 

**01 Center Community Knowledge, Experience, and Connection** – Residents were actively involved throughout the development process, from reviewing proposals and helping choose the development team to participating in design workshops that shaped everything from the site layout to the apartment finishes.

**04 Utilize Healthy Materials and Health-Promoting Building Systems** – The project enhanced the quality of living for residents by providing comfortable and reliable heat through heating system improvements and incorporating finishes compliant with EGC and other healthy material requirements. The rehabilitation of the buildings also included extensive abatement of hazardous materials and the replacement of all domestic piping to address mold concerns.

**05 Implement Active Design Approaches** - Renovations to the grounds included repairs to basketball courts, new playgrounds and exercise stations, new water features, new poured-in-place safety surfaces, and enhanced lighting and walkways, thus encouraging active use of the outdoor amenities.

**06 Ensure Accessibility and Inclusion** - Due to the substantial 55+ population, the project pursued aging-in-place measures including well-lit exterior and interior spaces and egress paths and outdoor seating to encourage socialization and accommodate residents with limited mobility. Several apartments were reconfigured to create additional mobility units and accessible ramps were added to several buildings without existing accessible routes.

**07 Prioritize sustainable materials, technologies, and practices** – The project aimed to provide energy efficiency through new insulated roofs and windows, upgrades to the heating system that will reduce space heating energy by ~25-30%, and new LED lighting and Energy Star appliances to significantly reduce electricity usage.

**09 Maximize flexible and adaptable use of spaces** – There are community facilities integrated on-site that will provide social services including senior services, skills training and job placement programs, educational opportunities, and more.

#### CASE STUDY 3:

## **Resilient Grounds Renovation at Jefferson Houses**

This comprehensive open space renovation at Jefferson Houses incorporated cloudburst and green infrastructure-related resiliency features in the development. NYCHA A&CM consulted extensively with property management staff and residents and partnered with consultants from Grain Collective and Hazen and Sawyer, with additional guidance provided by representatives from the NYC Department of **Environmental Protection.** 



Intergenerational grounds renovation incorporating resiliency features at Jefferson Houses.

#### Strategies incorporated:

**01 Center community knowledge, experience, and connection** - Participatory design and stakeholder engagement with children, youth, adults, and seniors set the foundation for the design process. The team incorporated holistic resident feedback into design decisions for the various amenities that were created and transformed.

**05 Implement active design approaches** - With new amenities that include a fitness area, senior gardens, and walking trails, the project implemented active design methodologies throughout the two superblocks of the development.

**06 Ensure accessibility and inclusion** - The final design is centered around intergenerational use and community cohesion. With amenities such as fitness areas, adventure play, seating plazas, walking trails, and senior gardens, the new infrastructure caters to users with diverse needs.

**08 Innovate adaptive and resilient solutions** - To tackle rainwater flooding and surface runoff, this project used subsurface resiliency elements, such as a catch basin for underground water storage, permeable surface treatments, and strategic rerouting of overflows.

**09 Maximize flexible and adaptable use of spaces** - The project created multifunctional areas, such as passive lawns, water plazas, and an adventure fitness area, that cater to a wide range of activities and community needs. These spaces can be easily reconfigured and repurposed for different uses, ensuring they remain relevant and valuable to residents.

#### Prioritize Sustainable Materials, Technologies and 07 **Practices**



By selecting environmentally friendly materials, integrating energy-efficient technologies, and implementing resource conservation measures, NYCHA minimizes its ecological footprint through decarbonization, energy and water efficiency. These measures contribute to local efforts to combat climate change and environmental hazards that can adversely impacts residents and surrounding communities, and reduce energy and water costs.

#### **Innovate Adaptive and Resilient Solutions** 08



By implementing new technologies, green infrastructure, flood prevention measures, and resilient design strategies, NYCHA enhances resiliency of buildings and grounds to heat heavy rain and flooding, strengthening community preparedness and safety in the face of extreme weather events and other environmental risks.

## ng



By designing multifunctional spaces that can be easily reconfigured and repurposed, NYCHA enhances the functionality and versatility of public housing for residents and community organization. This ensures facilities fit the changing needs of residents and shifting resident demographics, and strengthens collaboration with residents and community organizations to identify opportunities for programming and the best uses for shared spaces.

### Maximize Flexible and Adaptable Use of Spaces

### **Entryway Renovation at Carver Houses**

This project piloted a new entryway and storefront standard developed to improve safety and security, reduce maintenance time and costs, and comply with new energy efficiency code requirements. This involved a shift from stainless steel to aluminum as the primary material for NYCHA entrances, and enhanced hardware and fixtures. The pilot project was a collaboration between NYCHA Asset & Capital Management (A&CM), Curtis + Ginsberg Architects, and H2M architects + engineers, with extensive consultation with property management staff, residents, and NYCHA's Office of Safety & Security throughout. Other pilot sites included 45 Allen Street, Seth Low Houses, Conlon LIHFE, and Cassidy-Lafayette.

#### **CASE STUDY 5:**

## **Basketball Court Renovation at Marcy Houses**

This basketball court renovation project with an integrated running track at Marcy Houses was funded by the District Attorney as part of a larger effort to foster a greater sense of community within NYCHA developments. NYCHA A&CM partnered closely with residents and property management to finalize the court's design. The renovation included resurfacing the court, installing new backboards, rims, and nets, as well as adding benches, trash receptacles, and new trees around the perimeter.



Upgraded building entrance at Carver Houses.

#### **Strategies incorporated:**

**01 Center community knowledge, experience, and connection** - The project team engaged resident leadership and property staff to develop an effective design for NYCHA entrances.

**02 Promote safety and security of residents and staff** - The project improved safety and security with better visibility, lighting, WiFi-enabled intercoms, and more robust and durable hardware and fixtures. Repairs of aluminum storefronts can now be made more quickly, using off-the-shelf parts to reduce the amount of time an entrance component is broken and thus ineffective.

**03 Optimize performance, operation, and maintenance of buildings, systems, and assets -** By switching from stainless steel to aluminum as well as more robust and durable hardware and fixtures, this project improves safety and security, reduces maintenance time and costs, and enhances energy performance, while aligning the design with other housing best practices.

06 Ensure accessibility and inclusion - Wider and lighter weight doors allow for easier access.

**07 Prioritize sustainable materials, technologies, and practices -** Thermally broken aluminum framing and doors reduce energy loss through the façade. Vestibules reduce air infiltration into buildings.

Aerial view of integrated running track around upgraded basketball court at Marcy Houses.

Strategies incorporated:

**O1 Center community knowledge, experience, and connection** - A resident-facing stakeholder survey captured community input relating to design elements such as colors, patterns, and various furnishings.

**05 Implement active design approaches** - The project included a basketball court and a track, with supplemental active design elements including painted verbiage on the track that indicates distance.

**09 Maximize flexible and adaptable use of spaces** - The renovated court and track and the restored pavement enable multifunctional activities such as mixed sports, and can be used for fitness classes and community events such as Family Day.

## **Design Categories**

The design categories used to organize work types, standards and specifications across NYCHA projects are based on industry standard design disciplines and classifications, as well as NYCHA's internal scope of work groupings and types. Certain naming, technical terminology and other language has been simplified for clarity and accessibility, making it easier for users to understand the content within each design category and the associated work types or scopes.

(e.g. 'Apartment Bathrooms', 'Apartment Kitchens', etc.).

#### The 18 Design Categories are listed below:

Apartments
Building Exterior, Facade, &
Common Areas & Lobbies
Energy Efficiency
Environmental Remediation
Fire Protection
Flood Protection
Grounds
Heating
Interior Electrical & Lighting
Plumbing
Roofs
Safety & Security
Signage
Structural
Ventilation & Air Conditionii
Vertical Transportation Sys

#### For each Work Type (shown in the graphic below) within each Design Category, the Work Type pages include seven sections:

	1.	Overall Description
2	2.	Baseline Standards
	3.	Stretch Standards
	4.	RAD Conversion Standards
Ę	5.	Design Strategies
(	5.	Tags (for related informati

### Information is therefore presented in these two tiers: (1) 18 overall Design Categories (e.g. 'Apartments'), and (2) Work Types under each Design Category

on and guidance)

## **Design Categories**







	Domestic Water Systems
	Geothermal & Ground Source Heat Pumps
	Natural Gas Piping
	Non-Residential Space Plumbing Fixtures
	Plumbing General
	Roof Tanks
	Underground Hydronic Pipin
	Underground Natural Gas Piping
	Underground Water Piping

Plumbing



## Website **User Guide**



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The Design Guidelines website is a central hub – accessible by computer, tablet or mobile devise - where NYCHA design standards and related content are maintained and updated. As a "living" resource, the Guidelines will be updated as new requirements, specifications, building materials and technologies are adopted, and feedback and lessons learned are incorporated.

## **Landing Page**

#### Search

The search box is the easiest way to find resources related to a specific design category, work type, topic or program. The advanced search function will fill in as you type. Search by keyword or by tag (such as PACT or Sustainability Agenda) to find all associated design categories, standards and specifications.

#### **Design Categories**

Clicking on any of the categories below the search box (e.g. 'Apartments') will bring you to a page presenting all work types or scopes under that design category (e.g. 'Apartment Bathrooms', 'Apartment Kitchens', etc.) and associated resources. This is a convenient way to explore the Design Guidelines if you do not know exactly what you are looking for.

#### Sidebar Menu

The sidebar menu can also be used to navigate the Design Guidelines and Design Categories, including the Introduction & User Guide and other Resources. Clicking on any of the Design Categories will bring a drop-down menu with each of the individual work types. Using the Resources menu, the user can directly access all specifications, AutoCad and other files, link to previous or additional design guidance issued by NYCHA, and access a variety of related external resources including City, State and Federal codes and laws.

#### Website Footer -

The footer area at the bottom of all pages on the website provides links to other NYCHA sites, technical resources, and how to report content and technical issues with the site.



## **Work Type Pages**

#### Description

An overall description of the work type under the corresponding design category, including the possible elements of the work scope.

#### **Baseline Standards**

This section provides the minimum performance and/or prescriptive requirements that should be followed as a baseline for NYCHA projects.

#### Stretch Standards

This section provides stretch performance and/or prescriptive requirements, including features that are recommended to achieve an enhanced level of quality, performance, resiliency, and/or sustainability, that should be incorporated in projects when technically and financially feasible.

#### **RAD Conversion Standards**

RAD Conversions, including the NYCHA PACT and PHPT programs, maintain specific additional minimum requirements that are captured in this section. Additionally, design professionals must refer to program-specific documentation including PACT Program Requirements for Design & Construction or Public Housing Preservation Trust Design Requirements as companion resources to the Design Guidelines.

#### **Design Strategies**

This section indicates design strategies serve as a roadmap for integrating NYCHA's design principles into every stage of the design process.

#### Tags

Tags (e.g. PACT, Sustainability Agenda, Connected Communities Guidebook) allow the user to access other related information as well as access previous or additional design guidance documents.

#### Downloads and Data

This section provides links to technical resources, such as specifications, AutoCad, and other files.

Introduction & User Guide	NYCHA Design Guidelines > Building Exterior, Facade & W
Resources 🗸	Building Exterior, Facade & Window
Design Categories:	windows
Apartments ~	Description     High-quality_energy-efficient windows ca
Building Exterior, Facade	energy costs and improving indoor comf low-E glass with a low Solar Heat Gain C
 & Window	heat loss through windows are responsib Windows insulative gualities are rated by
Entrances & Evite	by the New York city Energy conservation
Fire Escanes	maintain and have handles and locks tha
Loading Docks	Window replacement may also require re
Scaffolding	<ul> <li>sheds, see Building Exterior, Masonry see</li> <li>Window replacement may involve enviro</li> </ul>
Sidewalk Sheds	Baseline
Windows	The Architectural & Engineering Services
🖽 Common Areas & Lobbies 🗸 🗸	window is located at the shower or tub.
	<ul> <li>In some instances a combination of a fix</li> <li>The color of windows doors and lowers</li> </ul>
Environmental	windows, doors, and louvers.
Remediation	<ul> <li>Integral sash stops are required for the s accessibility factors must comply with Ferrica statements</li> </ul>
🕑 Fire Protection 🗸 🗸	<ul> <li>Energy Efficiency – NYCHA uses thermal anodized aluminum finish. However, som</li> </ul>
$\bigcirc$ Flood Protection $\checkmark$	materials, and this is permissible.
$\oplus$ Grounds $\checkmark$	<ul> <li>Glazing must meet NYC Energy Conserva Overlay. Low-emissivity (Low-e) coatings</li> </ul>
Heating V	compromising the amount of visible ligh
Interior Electrical &	value.
Lighting	<ul> <li>The installation detail must be air-sealed</li> <li>Many NYCHA windows fall under the reg</li> </ul>
R. Desfe	Window-mounted Air-Conditioners - NYC
ROOTS V	which causes tremendous financial wast broken window AC partition that makes i
	<ul> <li>Air-Conditioners – Installation should be</li> </ul>
当 Signage V	Stretch
🔂 Structural 🗸 🗸	Propose and price an exterior or window
Ventilation & Air Conditioning	<ul> <li>Options include but are not limited to fine other façade treatment, or between-the-g</li> </ul>
Vertical Transportation	RAD Conversion
Waste Management & Vest Control	<ul> <li>Replace all windows with high-performar glazing units (IGU). Owner-provided wind provided where residents request them.</li> <li>Maximum U value: 0.3</li> </ul>
	<ul> <li>SHGC: 0.30 - 0.60</li> </ul>
	<ul> <li>Maximum infiltration rate: 0.3 CFM/5 E783</li> </ul>
	<ul> <li>Minimum NFRC Condensation Resis</li> </ul>
	<ul> <li>Materials: Aluminum, Fiberglass or of</li> <li>Additional improvements may include:</li> </ul>
	<ul> <li>Replace all windows with high-perfo glazing units (IGU).</li> </ul>
	<ul> <li>Install an exterior or window-integra brise soleil, external-frame sunshade shadea</li> </ul>
	<ul> <li>Exterior shading systems that are m</li> </ul>
	that are not candidates for Historic shading strategy is specified (windo
	Strategies
	Promote Safety and Security of Residents & Staff
	CompMod PACT
	Downloads and Da
	Specifications
	08 51 23 - Steel Windows
	07 62 00-1 – Flashing: Sheet Metal ar
	07 62 00-2 - Flashing: Sheet Metal ar 10 72 00 - Window Guards

an play a significant part of a well-designed building envelope by reducing fort by minimizing drafts and temperature fluctuations. AES recommend pefficient (SHGC) on south and southwest facing windows. Heat gain and ible for 25%-30% of residential heating and cooling energy use (DOE). U-Value, which is the inverse of R-value, and the U-Value is determined on Code. Selection should include the highest ENERGY STAR and National t is within the budget; while also ensuring they are durable, easy to at are easily reachable and operable by all residents, including those with not have sharp edges and screws should be tamper-proof.

repair of lintels and surrounding brickwork and scaffolding / sidewalk ction and Scaffolding section.

nmental abatement

office (AES) recommends sliding and casement windows in living kitchens/bathrooms, and double-hung windows in bathrooms where the

ixed and operable sash is acceptable.

s located on lower floors must match the color of the existing l

safety of children. Window operating forces, heights, and othe Federal, State, and City codes

Ily broken aluminum frames. AES recommends baked enamel over an ne manufacturers have obtained prior DOB approval for alternate

ation Code (NYCECC) and the Enterprise Green Community (EGC) NYC s or films must be used to improve solar and thermal performance without transmitted

I Buildings as per the NYECC and must follow those requirements for U-

d as per NYCECC.

uirements of Commercial buildings

CHA receives numerous citations for improper window AC installations. te and organizational inefficiency. Details should consider a thermally nstallation and removal easy and code compliant. For buildings with ould ensure the sleeves are air-sealed.

dinated with Mechanical disciplin

-integrated shading strategy. [COMPMOD]

s, louvers, brise soleil, external frame sunshades, shutters, screens, o lass shades.

nce thermally-broken double-pane double-hung windows with insulated ow treatments (blinds) should be assumed and insect screens should be Minimum energy performance specifications are as follows:

/SF at 75pa when tested in accordance with ASTM E2357 and ASTM

stance Rating: 50

other material satisfying the requirements above

mance, thermally-broken casement windows with Low-E insulated

ed shading system. Options include but are not limited to fins, louver es, shutters, screens, or other façade treatment, or between-the-glass

nechanically fastened to the building facade are preferred for buildings Tax Credits or already National Register eligible or listed. If an interior w blinds or similar), identify a strategy and budget for maintenance and ns for solar heat gain mitigation as compared to an exterior system

imize Performance, Operation & Intenance of Buildings, Systems & Solutions

	Last Updated on May 8, 2025 at 2:51 pm	
id Data	Download All	
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t Metal and Flexible	<b>9</b>	

## **Feedback Function**

The feedback function is an important feature of the Design Guidelines, initially available to NYCHA staff and to later be extended to design consultants. Users can provide feedback on the information provided about specific Work Types, as well as on the content of the standards, specifications and other resources based on their experiences designing, building, operating and maintaining the systems, technologies, materials and fixtures covered under each Work Type. This feedback will be regularly reviewed and incorporated into the standards and specifications.

#### **Performance Ratings**

This section is a "star" rating system for user to rate standards and specifications for a Work Type for performance, considering areas like availability, cost, durability, ease of operating, and preventative and corrective maintenance needs, of the systems, technologies, materials and fixtures covered under each Work Type. One star indicates the least satisfaction with performance while five stars indicates the most satisfaction with performance.

#### **Review Comments**

This section allows users to enter free-text comments on the standards and specifications for a Work Type, to further elaborate on their Performance Rating or share any other feedback or thoughts. Users are highly encouraged to provide detailed comments and feedback to allow the guidelines to be improved and updated on an ongoing basis.

#### File Upload

Users can upload photos, documents, and other relevant files, that further elaborate their review comments. For example, a photo of a frequently damaged section or part of an asset, or difficult to clean and maintain area, can usefully inform a change in performance or prescriptive requirements and specifications.



y, and cost of this item. Your comr s.	ments will be visible to o	ther NYCHA employees,
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