NYCHA Capital Projects Fact Sheet: ELEVATORS

1. **Project Overview**
   - This project scope includes the installation of new gear machines, controllers, machine room ventilation, cab enclosures, door operators, platforms, signal fixtures, slide door panels, the associated door hardware at all floors, pit equipment and necessary electrical work.
   - The objective of this project scope is to upgrade aging assets and provide reliable elevators to NYCHA residents for decades to come.

2. **Key Terms**
   - Cab Enclosure: The part of the elevator that people or freight travel in.
   - Controller: A series of electronic components located in the Elevator Machine Room that ensure the elevator runs smoothly and safely.
   - Governor: A speed monitoring device an elevators that triggers a safety when an elevator reaches high speeds in either direction.
   - Gearbox: A component attached to an elevator's motor and drives the wheel that moves the ropes or steel cables, allowing the elevator to operate.
   - Geared Traction Elevator: A type of elevator system that uses a gearbox to turn a hoisting sheave and lift the elevator.
   - Machine Room: A specialized area with mechanical and electrical components that ensures the smooth and safe operation of elevator equipment.
   - Pit: The area located at the bottom of the elevator shaft, beneath the floor of an elevator cab.
   - Remote Elevator Monitoring System (REMS): A system that collects data from a lift in operation, diagnoses issues, and provides recommendations for preventative actions by maintenance technicians.
   - Sheaves: The pulleys that hold the elevator cables.

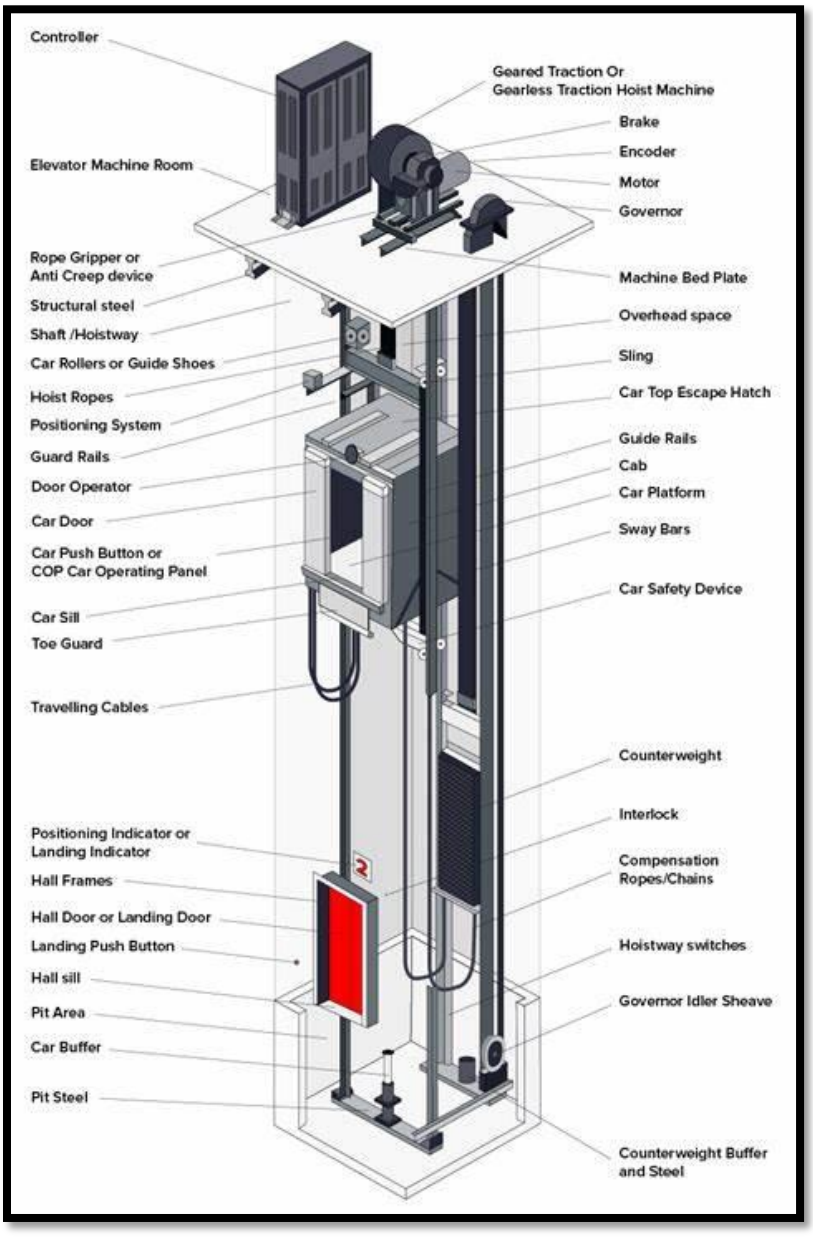

Diagram of a Geared Traction Elevator

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3. **Why is this capital project needed? Why is it important?**
   - Elevators enhance accessibility within developments, providing a lifeline for individuals with mobility challenges.
   - High volume use, rapidly aging stock, and building envelope decay have caused structural issues in elevator shafts, leading to the need for replacement.
   - In 2023, a $300 million funding agreement was signed between NYCHA and the Dormitory Authority of the State of New York (DASNY). This agreement aimed to replace 227 elevators at 18 NYCHA developments, and was made possible through collaboration between NYCHA, the NYS legislature and Governor Kathy Hochul. This initiative aligns with the 2019 U.S. Department of Housing and Urban Development agreement, which outlines the framework for modernizing NYCHA's elevator infrastructure.

4. **Scope of Work Details**
   - NYCHA uses **geared traction elevators**:
     - In this type of elevator, ropes or steel cables are attached to the elevator car and looped around a sheave driven by an electric motor. A gearbox increases the motor's torque.
     - Geared traction elevators have a range of 2 – 25 floors and can ascend or descend at a rate of 500 feet per minute.
   - High-level steps for elevator replacement are as follows:
     1. Planning and design: Selecting the right elevator type based on building needs and assessing the condition of the existing shaft.
     2. Existing elevator removal: Carefully dismantling old elevator components.
     3. Installing the elevator shaft components: Installing new guard rails and other support structures within the existing shaft.
     4. Installing the elevator car and door system: Installing the elevator car, doors, monitoring devices, and other safety features.
     5. Electrical wiring and system testing: Connecting all electrical components, including motor controls, wiring for buttons and signals, and thoroughly testing all elevator functions.

New elevators at Highbridge

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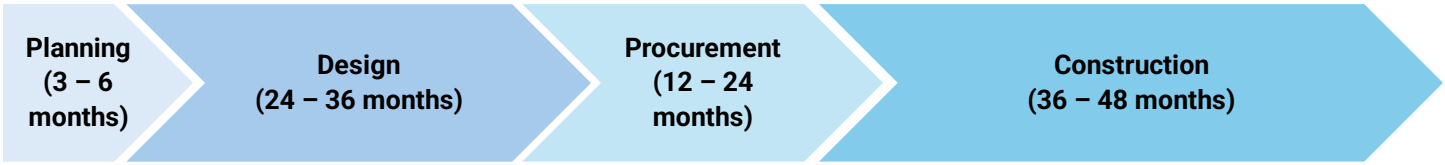
5. Construction Trades & Other Roles Involved

Type	Possible Roles
Trade	• Electrician
Non-Trade	• Admin

6. Typical Project Timeline

- The length of an elevator replacement project may vary greatly depending on the number of elevators targeted within a development.



7. What to Expect During Construction

- Crowded Elevators/Lobbies: During peak hours, elevators and lobbies may be crowded due to limited elevator availability. Longer wait times are anticipated as elevators in-use make more frequent stops.
- Noise: Construction noise will occur as workers operate in the elevator machine room and shafts.
- Service Disruptions: Elevator outages can occur in both single and two-hall configurations, leading to service disruptions. Some developments at NYCHA have a single-elevator configuration, which is particularly vulnerable to service outages because any individual outage represents a no-service condition.

8. Mitigating Construction Impacts

- No-Service Conditions: Stair climbers assist residents during no-service conditions. Operation of stair climber machines is performed on a voluntary basis by trained property management staff. If a no-service condition is likely to last beyond 24 hours, Property Management staff can invoke NYCHA Standard Procedure 040.00.9: *Elevator Modernization – Reasonable Accommodations for Residents with Disabilities,* enabling temporary relocation if possible.
- Trash and Debris: Caretakers must maintain elevators to keep them free of trash/debris that could obstruct doors, fill elevator pits and take cars out of service.