ROOSEVELT ISLAND
OPERATING CORPORATION
of The State of New York

The Roosevelt Island Tram

History

The original Roosevelt Island aerial tramway - the first tram in the country to be used for urban transportation – was opened in May 1976. The tram was originally developed as a temporary mode of transit, while Island residents awaited the completion of the Island's subway link. By the time the subway station finally opened, in 1990, the tram had become a popular and necessary mode of transportation. The tram continued to operate, serving two (2) million passengers annually, for a total of 34 years – double its projected service life of 17 years. The tram was shut down in March 2010 for a complete renovation.

The Roosevelt Island Operating Corporation (RIOC) of the State of New York, a New York State Public Benefit Corporation responsible for the operation and development of Roosevelt Island, owns the aerial tramway system. Currently, approximately 12-14 thousand residents live on the Island, which was developed as a planned community pursuant to a 1969 ground lease and General Development Plan (GDP) between the City and State of New York.

The New Tram

The Roosevelt Island Tram is once again the most modern urban aerial tramway system in the world; as it had been when first installed in 1976. The Tram's $25 million modernization, designed to extend the operations of the Tram for at least another thirty (30) years, is funded by a combination of New York State and RIOC funds.

Every component of the aerial tramway system has been replaced, except for the three tower bases that support the cables on which the tram cabins travel. The tower bases were deemed sound by engineers and required only minor reinforcement measures. The tower tops were replaced to accommodate a wider cable gauge creating a "*dual haul*" system. The dual haul concept supports a more advanced cable operating system available as a result of improvements made in ropeway (cable transport) technology in the 34 years since installation of the original Roosevelt Island system. The two tramway terminals, one situated

on Roosevelt Island and the other on Second Avenue between 59th and 60th Sts., are scheduled for modernization as well, starting spring 2011. Work will proceed on those during "non – peak" travel times, so as to not disrupt operations significantly. Station improvements are expected to be completed in summer of 2011.

The Tram is poised to accommodate increased ridership in the next few years resulting from the expected completion of housing development as well as the opening of two public park areas at the Island's southern end, pursuant to the 1969 GDP.

Benefits of Modernization Project

- Increased Efficiency - The dual haul system replaces the single haul system of the old tram, which worked like a giant clothes-line, requiring the Tram cars to be always situated opposite each other. The dual haul system means there are two separate Tram systems, each cabin operating independently of the other, in its own "lane". As a result, during peak travel periods both cabins can pick up passengers from the busier terminal at the same time, increasing rush hour capacity. During periods of low passenger travel, one cabin can remain in a station undergoing preventive maintenance, cleaning and other routine servicing, while the other cabin continues to transport passengers.

- Increased Stability - The dual haul system allows for a wider track on which the two cabins ride. Each cabin, riding on a wider gauge track lane will be more stable in winds up to fifty (50) miles per hour.

- Reduced Downtime - The ability to operate one cabin while the other is being serviced at a terminal reduces "down time" as the entire system does not have to be shut down for routine maintenance.

- Energy Efficiency – The flexibility of two independent lanes so one can be shut down when extra capacity is not required, along with other innovations, makes the new aerial tramway system even more energy efficient than before.

- Reduced Impact of Malfunctions – Back-ups are built into the entire system so that malfunctions, such as electrical outages, are minimized. Each cabin lane is serviced by two (2) independent motors which are reinforced by two back up motors. These, in turn, are backed up by four (4) independent generators which can support any of the motors in the event there is a power failure.

- Cabins Always Return to Stations – An independent retrieval system operated by a clamp attached to the haul rope and powered by a back up motor can be activated in the remote event of a complete electrical or mechanical malfunction, eliminating need for high level rescue.

- Reduced Maintenance and Operating Costs – As a result of all the innovations and redundancies, reduced operating and maintenance problems are projected. This translates into better service for aerial tramway passengers.

Roosevelt Island Aerial Tramway System Facts:

- The Tram was completely rebuilt by Pomagalski, SA (Poma), a French company and one of only two companies in the world capable of designing, building and installing the Roosevelt Island Tram system. The company was chosen after a competitive Request for Proposal (RFP) process in 2008.
- The Tram will be operated by Leitner-Poma of America, under a five (5) year operating agreement with RIOC. The prior director of Tram operations for Roosevelt Island, will continue in that role with Leitner-Poma.
- The Tram is completely handicapped accessible.
- The MTA MetroCard is accepted as a valid fare, allowing transfers to NYCTA subways and buses. Revenues are shared with the MTA.
- RIOC pays NYC a Franchise fee, totaling .05% of gross receipts.
- The New York State Department of Labor oversees certification of the tram for operational safety and compliance with NY State code regulations.
- Hours of Operation: Sunday - Thursday 6AM to 2AM (next day)

  Friday - Saturday 6AM to 3:30AM (next day)
  Rush Hour: Monday - Friday
  Morning - 7AM to 10AM
  Evening - 3PM to 8PM

Hours of operation may change from time to time to reflect demand and need. The public will be duly notified of any upcoming changes.

Aerial Tramway Vital Statistics

- The Tram travels between the Manhattan station at 2nd Avenue between 59th and 60th Streets and the Tram station on Roosevelt Island.
- It travels a distance of 3,140 feet at a speed of up to 17 miles per hour in less than three (3) minutes. It rises to a maximum height of 230 ft. and can carry a maximum of 109 passengers plus an attendant per cabin. The system annually transports more than two million passengers. Ridership is expected to increase once all housing development is completed and 14 acres of new park areas open.
- Each cabin (plus hanger and carrier) weighs 22,125 lbs. empty and 41,525 lbs. when fully loaded. The breaking load for each haul rope is 323,950 lbs. Each track rope has a breaking load of 827,297 lbs.
- The Tram can operate in all weather conditions except for lightning and winds over 50 miles per hour.

Modernization Project Organization

- Owner: Roosevelt Island Operating Corporation of the State of New York (RIOC).
- Owner's Representative and Construction Managers: LiRo Engineers, Inc., New York, NY.
- Owner's Engineer: Shea, Carr, Jewel, Denver Colorado.

- Design-Build Contractor: Pomagalski, S.A. (Poma), Grenoble France.
- Civil and Structural Engineering Design Consultants to Poma: Thornton Tomasetti, New York, NY.
- Fabricators and new Tram Manager: Leitner-Poma of America, Inc., Grand Junction, Colorado.
- Local Subcontractor, Fabricator and Erector:

    - Metropolitan Walters, LLC, New York, NY.
- Local Subcontractor, Demolition and Civil:
    - Coppola Paving & Landscaping, Corp, New York, NY.
- Local Subcontractor, Electrical:
    - A.S.R. Electrical Contracting, Inc, New York, NY.