Roosevelt Island Aerial Tramway

- The Tramway was built in 1976 (32 years old).
- Roosevelt Island Operating Corporation (RIOC) owns, operates and maintains it.
- Conventional Design Life is 30 years.
- Annual Ridership: two million people with a consistent increase in recent years. Completely handicap accessible.
- NYC Franchise: 0.5% of gross receipts
- MTA Metro Cards are used for fare collection and the revenues are shared with the MTA.
- New York State Department of Labor certifies the safety and operational compliance of the tramway with code regulations.
- The aging tramway increasingly needs more maintenance and replacement of parts to maintain reliability.
- Machinery parts are becoming obsolete and securing spare parts has become increasingly difficult.
- Tramway electrical malfunction in April 2006 required emergency rescue and kept it out of service for six months. Particularly burdensome to elderly, disabled and children due to a lack of bus alternative directly to Manhattan.
Genesis of the Modernization Project

- Tramway underwent several inspections and overhauls over the last 30 years.
- Tramway breakdown in April 2006 required emergency rescue.
- RIOC Consultant, Parametrix, Inc. prepared an evaluation of how to upgrade the entire tramway system to provide service for the next 25 years.
- Schematic Design Report with upgrade alternatives was issued in May 2006.
- Preliminary Engineering Report was issued in March 2007.
- A Design-Build Contract was awarded to Poma of France in Nov. 2008 to modernize the RI Tramway for a 30-year design life. One of only two capable companies worldwide.
The New Tramway

• The RIOC awarded the Design-Build Contract to Poma, one of the two worldwide companies that is capable of designing and building such tramways.

• Project is funded with $15 million from the New York State and $10 million from the RIOC.

• The scope of the Project:
  
  – Provide two independent reversible tramway lanes by replacing the current two jig-back reversible tramway lanes.
  – Replace the rope systems, the machinery and the vehicles.
  – Replace the tower tops of the three existing towers.
  – Construct architectural modifications to the two stations.
The New Tramway

- The benefits of the Project:
  - Increased reliability
  - Service life: 30 years
  - Each tramway lane can be operated independently, if the other malfunctions.
  - Integrated rescue system will ensure that in the event of a malfunction of any component or power failure, the cabin cars will be brought back to the nearest station using redundant power and motive systems, avoiding emergency rescue operations.
  - Reduced downtime for maintenance and repairs. One lane can be shut down during off-peak hours for maintenance or repairs while the other lane can provide uninterrupted service.
  - Reduced needs for emergency high rescue efforts.
  - Reduced maintenance and repair costs.
  - Improved quality of the travel experience: Smoother ride under high winds due to the new wide track rope gage, enhanced appearance of the Stations.
Project Schedule

• Project Milestones
  – Notice to Proceed: Nov. 25, 2008
  – System Shutdown: July, 06, 2009
  – First Tramway Lane opens: Dec. 18, 2009
  – Second Tramway Lane opens: Jan. 08, 2010
The New Tramway

• Project Organization:

  – Owner: Roosevelt Island Operating Corporation, New York, NY
  – Owner’s Representative & Construction Managers – LiRo Engineers, Inc., New York, NY
  – Owner’s Engineer: Parametrix, Inc., Denver, CO
  – Design-Build Contractor: Pomagalski, S.A. (Poma), Grenoble, France
  – Civil and Structural Design Subconsultants to Poma: Thornton Tomasetti, New York, NY
  – Fabricators: Leitner Poma of the USA, Grand Junction, CO
  – Local Subcontractor, Fabricator and Erector: Metropolitan Walters, LLC.
  – Technical Expert: Professor Rene Testa, Columbia University
  – Local Permit Expeditor: RPO, Inc., New York, NY
Jurisdictions and Permits

• **Station Modifications:**
  – The Manhattan Station is located on property under the jurisdiction of the New York City Parks Department.
  – The Roosevelt Island Station land is under the jurisdiction of the RIOC.
  – The Department of Buildings approval is necessary.
  – Will the New York City Arts Commission review and comment on the proposed architectural modifications to the stations?

• **Tower strengthening and replacement of tower tops:**
  – Towers No. 1 and 2 are located on the 60th Street in Manhattan.
  – Tower No. 3 is located on the Roosevelt Island.
  – The Department of Buildings will review and approve the modification drawings and procedures for the three towers.
  – RIOC has already obtained the aerial navigation hazard determination for all three towers from the Federal Aviation Administration.
  – RIOC will also coordinate with the New York City DOT regarding traffic implications including the likely periodic closing of Queensboro Bridge ramp/s and City Streets.

• **Replacement of the Track and haul ropes:**
  – This work will be done above the East River without impacting the navigational channel.
  – RIOC has informed the U.S. Coast Guard and will provide the details of the planned work.
  – RIOC will also coordinate with the New York City DOT regarding traffic implications including the likely periodic closing of Queensboro Bridge ramp/s and City Streets.
Manhattan Station
Tower No. 1 in Manhattan
Tower No. 2 in Manhattan