



















Roosevelt Island Aerial Tramway

- The Tramway was built in 1976 (32 years old).
- Roosevelt Island Operating Corporation (RIOCC) 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 RIOCR 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 RIOCR.
- 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.
 - State-of-the-art technology in the Tramway business. Highly energy efficient mass transit.





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.

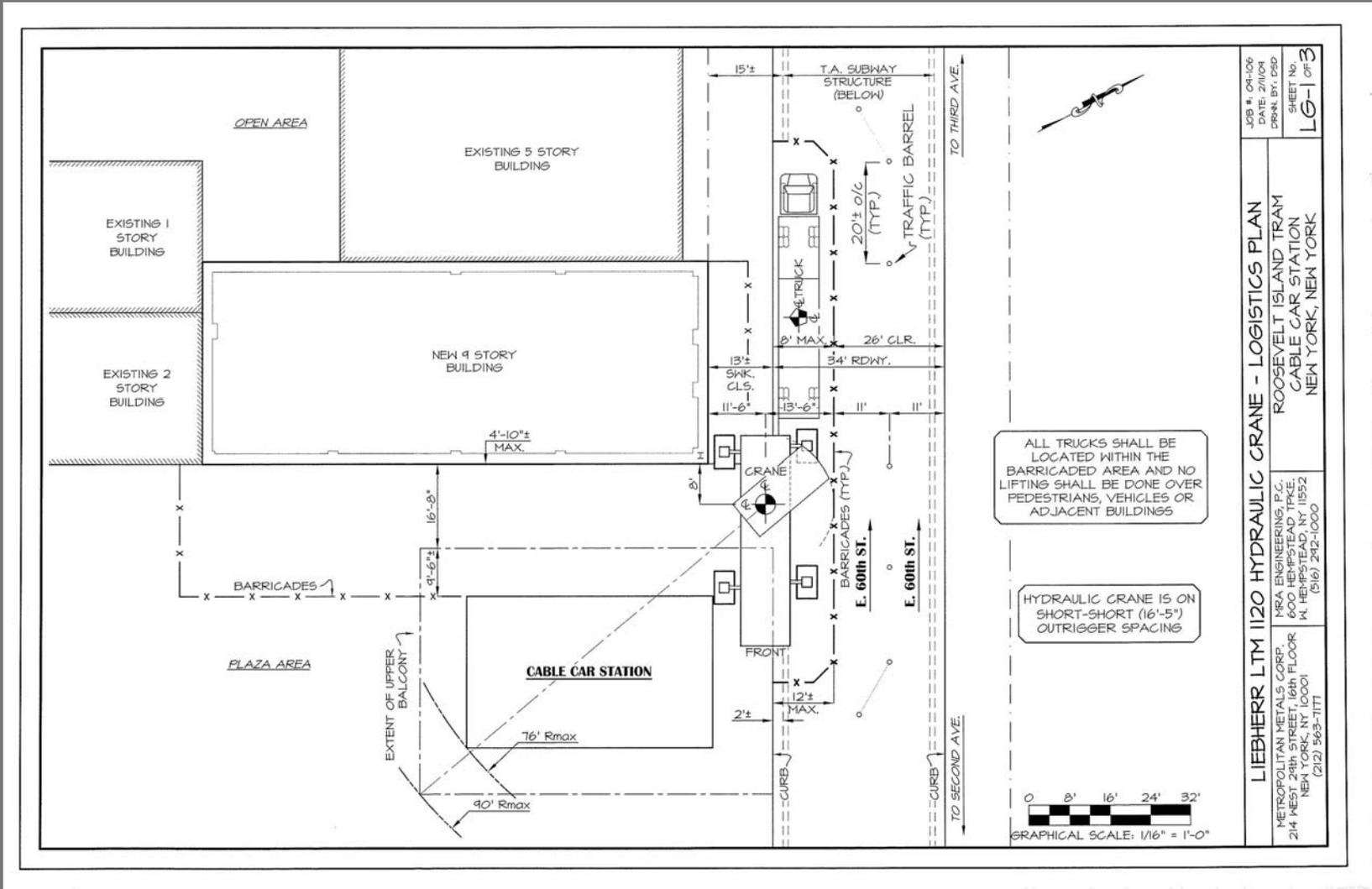
- Replacement of the Track and haul ropes:

- 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



ALL TRUCKS SHALL BE LOCATED WITHIN THE BARRICADED AREA AND NO LIFTING SHALL BE DONE OVER PEDESTRIANS, VEHICLES OR ADJACENT BUILDINGS

HYDRAULIC CRANE IS ON SHORT-SHORT (16'-5") OUTRIGGER SPACING

JOB #. 04-106
DATE: 2/1/04
DRN. BY: DSD

LIEBHERR LTM 1120 HYDRAULIC CRANE - LOGISTICS PLAN
ROOSEVELT ISLAND TRAM
CABLE CAR STATION
NEW YORK, NEW YORK

MRA ENGINEERING, P.C.
600 HEMPSTEAD TRKE.
H. HEMPSTEAD, NY 11552
(516) 242-1000

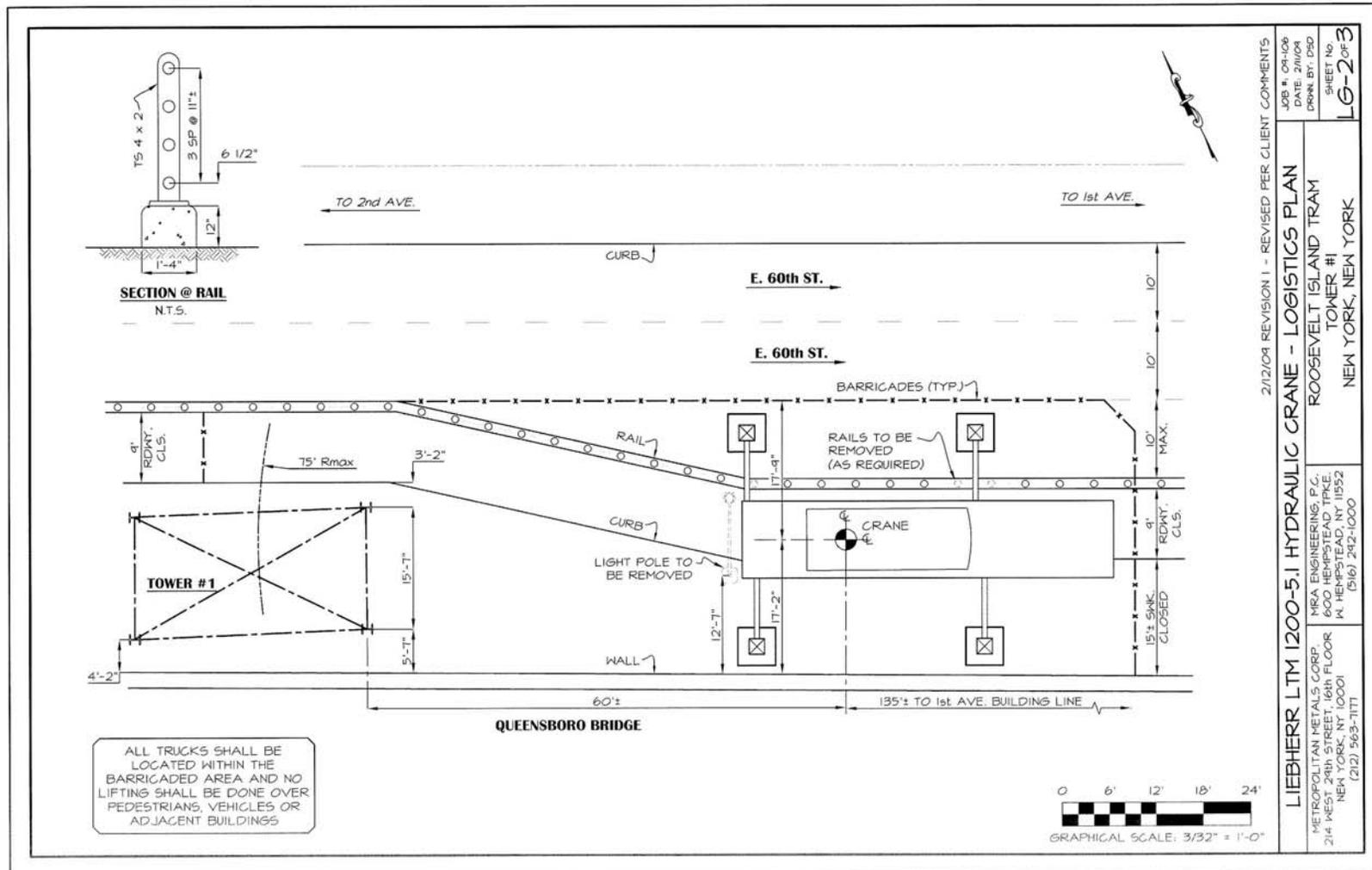
METROPOLITAN METALS CORP.
214 WEST 24th STREET, 16th FLOOR
NEW YORK, NY 10001
(212) 563-1111

SHEET NO.
LG-1 OF 3



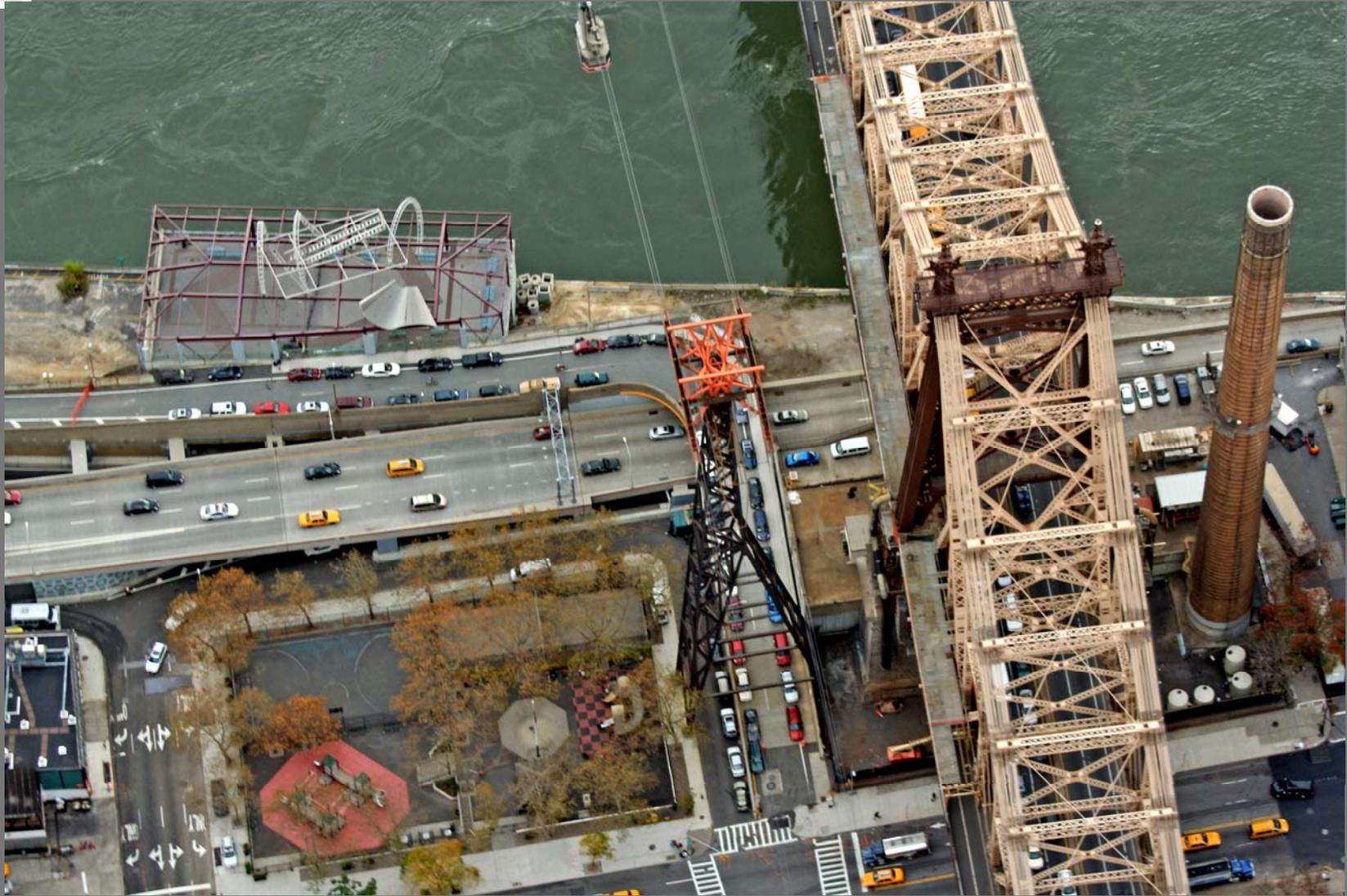


Tower No. 1 in Manhattan









Tower No. 2 in Manhattan

