



Published in the



NYC Transportation Projects Must Compete for Funding

By Larry Penner

May 22, 2015

New York City faces competition within the Metropolitan New York area for potentially \$80 billion-plus needed to fund major capital transportation improvements. Millions to billions more could be necessary by the time any project is completed and the true final costs are accounted for. Everyone has their own priority wish list which in many cases conflicts with others who have different agendas.

One potential funding source for many of these projects would be the proposed MTA \$32 billion 2015-2019 Five Year Capital Plan. The MTA faces a \$15 billion dollar shortfall in the proposed MTA 2015-2019 Capital Plan. The respected independent New York City Citizens Budget Commission released a well documented report on March 24, MTA Budget Problems May Be Bigger Than Expected. They reported even greater shortfalls of between \$16.5 to \$19 billion in the proposed MTA 2015-2019 Capital Plan.

Current major capital construction projects under way include the Long Island Rail Road East Side Access project. This will provide riders a direct connection to Grand Central Terminal at a cost of \$10 billion.

Next, is the first of four segments for the new Second Avenue Subway consisting of three stations between 96th Street and 63rd Street at a cost of \$4.5 billion.

It will take several decades and easily up to \$20 billion or more could be required if you include an express track for completion of the next three segments of the 2nd Avenue Subway north to 125th Street and south to Hanover Square downtown in the Financial District. Add another \$20 billion for those who dream of extending the 2nd Avenue subway north into the Bronx and south into Brooklyn.

The current No. 7 New York City Transit subway extension from Times Square to the Javits Convention Center is under construction. The original cost of the overall project was \$2.1 billion and is now \$2.4 billion, not counting the subway station that had to be dropped from the original scope of work, along with additional subway cars necessary to provide revenue service on opening day. No one could find \$500 million dollars to cover the proposed new subway station to be built at 42nd Street and 10th Avenue. This station was part of the original project scope. One trick used by transit managers to complete any project within budget, is to drop a portion of the original scope of work. This saves the necessary dollars which were not available to deliver 100 percent of what was originally promised. Start of revenue service has slipped from December 2013 to July 2015.

The first phase of the Patrick Moynihan Penn Amtrak Station Farley Building project is under way. This will extend the existing Penn Station Eighth Avenue west concourse from track 13 to track 1. In addition, two entrances for Amtrak commuters will be created at 31st and 33rd Streets along with train platform expansions, stairs and escalators at a cost



Published in the



under \$300 million. In the early 1990s, total project cost was estimated to be \$350 million. Politicians promised a beneficial use date around 2000. Fast forward to 2015 and the new overall project cost exceeds \$1.5 billion.

The existing 42nd Street Port Authority Bus Terminal is antiquated and lacks sufficient capacity to deal with current and future needs. Thousands of buses use this facility on a daily basis. Upon completion of their morning rush hour trips, hundreds of buses have to dead head back to New Jersey for midday storage. They have to make another return trip in the afternoon back to New York City for outbound evening service. Costs could easily start at several hundred million for renovation and upgrading of the existing facility. The Port Authority of New York and New Jersey (PANYNJ) just announced that up to \$9 billion or more may be needed if you build a new facility at the same or new location on the west side in Midtown Manhattan.

Then there is the \$16 billion to fund Amtrak's proposed "Gateway" project for construction of a new tunnel providing additional access to Penn Station from New Jersey for Amtrak and perhaps New Jersey Transit.

How do we find \$8 to \$10 billion more for the No. 7 subway extension from the Javits Convention Center on the west side of Manhattan to New Jersey Transit's Secaucus Junction station by Exit 15X on the New Jersey Turnpike? Ditto for \$5 billion to build an alternative extension of the 7 train to the PATH/New Jersey Transit Station in Hoboken, New Jersey.

The proposed new Triboro X subway route starting from Yankee Stadium connecting the Bronx with Queens and terminating in Bay Ridge, Brooklyn would traverse dozens of neighborhoods impacting several hundred thousand people living nearby. No one knows how they will react to potential noise and visual impacts of a new elevated subway? There are serious legal and operational issues to be resolved with the Federal Rail Road Administration. They have regulatory jurisdiction over significant portions of the proposed route which would run adjacent to existing active freight tracks. You have to deal with subway and freight trains coexisting on the same narrow corridor. Project costs will include a series of new stations with elevators and escalators. Add to that – new track, signals, power, power substations and several hundred new subway cars. This additional rolling stock may require construction of a new maintenance, operations and storage yard. There is also a potential serious conflict at the Bay Ridge terminus. This is also a potential site for a connection to the proposed Cross Harbor Freight Tunnel. No one knows either the timetable for implementation or how many billions this project could cost.

There is a new estimate of \$3.9 billion for replacing the Tappan Zee Bridge. Governor Cuomo has yet to identify how he will pay back a \$3 billion federal loan used to finance this project. This could rise who knows how many billions at a later date based on previous estimates if you add either Bus Rapid Transit, Light Rail or Heavy Commuter Rail capacity.

Then there is \$8 to \$10 billion for construction of a new Cross Harbor Freight Tunnel, which would put trucks on trains between New Jersey to either Brooklyn or Queens through to Long Island.

The proposed Metro-North Railroad access to Penn Station via the Amtrak Hell Gate Bridge which would include construction of several new stations in the East Bronx could easily cost over \$1 billion. Several hundred million more



Published in the



would be needed to provide new service from Riverdale and the west Bronx using Amtrak's Empire Hudson line corridor which already provides service into Penn Station.

The Port Authority of New York and New Jersey recently announced a project to extend PATH from its current terminus in Newark, New Jersey 2.5 miles to Newark Airport. Who knows if the estimated cost of \$1.7 billion and 2024 revenue service date will hold.

Others are revisiting an old idea periodically discussed for decades of direct access to LaGuardia Airport. One concept is to extend the N and Q subway lines from their current Queens terminus at Astoria/Ditmars Blvd to LaGuardia Airport. Another option is via Sunnyside Yards. Governor Cuomo's proposal to build an AirTrain with connections to Mets-Willets Point subway and Long Island Rail Road station could easily cost a \$1 billion or more, rather than the \$500 million he suggested.

Six hundred million is needed to restore service along the LIRR Rockaway Beach branch, also known as the White Pot Junction Line that was abandoned in the 1950s. This route started off as a spur from the LIRR mainline east of Woodside at Rego Park running to Ozone Park connecting to the A line subway near Aqueduct Racetrack and on to the actual Rockaways.

Five hundred million is needed for restoration of the old Staten Island North Shore Rail line abandoned in the 1950s which provided direct service to the St. George, Staten Island Ferry Terminal. Another alternative is to extend the existing New Jersey Transit Hudson/Bergen Light Rail line from the current 8th Street Station terminus to continue southward across the Bayonne Bridge to Staten Island.

An estimated \$200 million is needed to construct the Woodhaven Blvd. Queens Bus Rapid Transit system.

Mayor Bill de Blasio under his recently released "One NYC" Master Plan called for construction of the Utica Avenue subway. He has asked the MTA to initiate a feasibility study for this proposal. The concept originally proposed in 1910 would construct extensions for both the No. 3 and No. 4 original IRT subway lines in East Flatbush, Brooklyn. It would be built along Utica Avenue from Eastern Parkway to Avenue U. Costs for both the first phase of Second Avenue and 7 subway line extension averaged \$2 billion plus per mile. One can only imagine how many billions would be required to do the same along Utica Avenue.

On Long Island, there is the proposed \$1.5 billion LIRR Main Line Third Track. This would provide additional rush hour and reverse service capacity in the mornings and evenings for those who live in NYC and either work or attend college on Long Island for several key LIRR branches including Port Jefferson, Huntington, Oyster Bay and Ronkonkoma running between Floral Park and Hicksville stations. There is also a connection from Montauk, Speonk and Babylon via a spur between Babylon and Hicksville for access to this corridor.

Next, there is \$450 million to complete double tracking on the LIRR Ronkonkoma Line between Hicksville and Ronkonkoma. This was dropped in the 1980s during electrification of this branch as a way to save money. It would have cost a lot less to complete this work decades ago rather than today.



Published in the



Earlier this year, some called for extending electrification of LIRR service on the Port Jefferson branch from Huntington to Port Jefferson, on the Ronkonkoma line from Ronkonkoma to Yaphank and on the Montauk line from Babylon to Speonk. All three combined could easily cost several hundred million dollars.

Since 2005, there have been ongoing planning and environmental efforts to support a number of potential transportation improvements such as Bus Rapid Transit or Light Rail for the Nassau Hub. This might connect Roosevelt Field Mall, Hofstra University, Nassau Community College, Museum Row, Nassau Veterans Memorial Coliseum, the county seat in Mineola, Garden City, Hempstead and Westbury. The cost could easily be several hundred million dollars depending upon the transportation mode and route selected.

Many of the estimated costs for these proposed projects are based upon planning feasibility studies and or environmental documents with little design and engineering efforts necessary to validate any actual construction costs. They will be refined as projects progress beyond the planning and environmental phases into real and final design efforts. Value engineering which is a process used to reduce costs will be used during the final design phase. Unfortunately, history has shown that estimated costs for construction usually trend upwards as projects mature toward 100 percent final design. Progression of final design refines the detailed scope of work necessary to support construction. The anticipated final potential cost for many of these projects will never be known until completion. Costs will be further refined by award of construction contracts followed by any unforeseen site conditions and change orders to the base contracts during the course of construction.

History has told us that construction of most major new transportation system expansion projects has taken decades until completion of feasibility studies, environmental reviews, planning, design, engineering, real estate acquisition, permits, procurements, construction, budgeting, identifying and securing funding to pay for all of the above.

Construction for the 2nd Avenue subway began in the 1960s. (Bond money intended for this project in the 1950s was spent elsewhere). The latest completion date for the first segment of three stations between 63rd and 96th Streets on the upper east side of Manhattan has slipped to 2016. Construction for the original tunnel to support bringing the Long Island Rail Road from Queens into Grand Central Terminal began in the 1960s. In 1999, the estimated cost was \$3.5 billion for completion followed by beneficial use forecast by 2011. The previous revised opening day revenue service date of 2019 was recently changed once again – this time to 2023.

It is difficult for anyone at this point to really predict when we will see a shovel in the ground for many of these other new proposals, followed years later by beneficial use of projects supporting opening day service or the final price tag to taxpayers.

Clearly our region needs to prioritize the order for implementation of these projects based upon realistic assumptions for available funding.