

The future of New York infrastructure



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New York's commuters experience daily delays, but it will cost \$19 billion in the first five years to fix the Metropolitan Transportation Authority's infrastructure and \$1.6 billion to renovate the James A. Farley Post Office Building into a new Pennsylvania Station. Infrastructure, it seems, is on everyone's mind—for its price and its potential to improve New Yorkers' quality of life. It has been a standard talking point in election campaigns over the past several years, from Staten Island to Albany and back down again to Washington, D.C.

President Donald Trump made it a cornerstone of his campaign for the White House but has yet to fund any major initiatives like the Gateway Tunnel under the Hudson River. In his bid for a third term, Gov. Andrew Cuomo points to projects like the replacement of the Tappan Zee Bridge and the opening of the Second Avenue subway as positive changes effected over the course of his tenure in office and reasons to vote for him yet again. Cynthia Nixon, his opponent in the recent Democratic gubernatorial primary, accused him of using the MTA as an ATM. Mayor Bill DiBlasio has his share of transit woes and victories, too. He increased ferry service around the city, but Hurricane Sandy remediation is far from complete. Hot spots seem to mark every level of government.

Crain's Custom has assembled a team of experts in infrastructure to analyze the current landscape and provide insight into the city's future, which clearly depends on healthy infrastructure projects and maintenance.

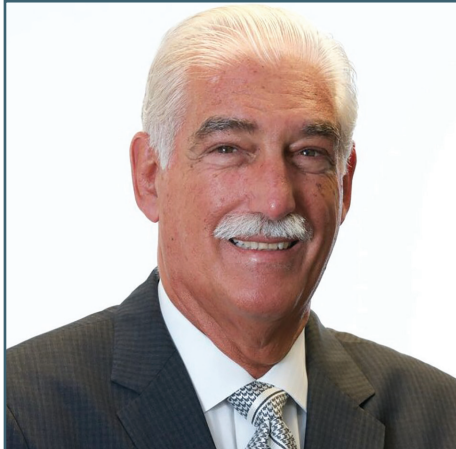
Our experts include:

Louis J. Coletti, president and CEO of the Building Trades Employers' Association, vice chairman and former president of the New York Building Congress and a member of the advisory board of the New York University Schack Real Estate School of Construction Management

Denise M. Richardson, executive director of the General Contractors Association of New York, a trade association that represents public works contractors

Sanjay Mody, special counsel in the New York office of Windels Marx Lane & Mittendorf LLP with expertise in infrastructure finance and policy, real estate and public-private partnerships

Louis J. Coletti, president and CEO, Building Trades Employers' Association



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Crain's: What are the most important infrastructure projects underway in the region currently and what projects are missing that you would like to see?

Richardson: New tunnel capacity under the Hudson River is the most important infrastructure project in the region, followed by rehabilitation of the existing tunnels, as well as those under the East River. It is a grave dereliction of the public sector's collective responsibility that six years after Hurricane Sandy, we are still not close to building this critical project.

Mody: Gateway Tunnel is the single most important infrastructure project in the U.S. The failure of one of the existing tunnels would have extraordinary adverse impacts on our regional and national economy so funding and completion are critical. As for "missing projects" I think responsible decision-makers need to focus equally on deferred maintenance and reinvesting in our existing infrastructure—our subway and

buses, water systems, airports and schools. Let's prioritize signaling systems over the Hyperloop (a proposed ultra high speed mode of transportation developed by Tesla that moves pods of passengers or freight through a sealed tube, sometimes called a vactrain).

Coletti: The two most important infrastructure projects in this region are Gateway and the BQE because of their importance in moving people and goods. The lack of federal funding for these projects is unconscionable.

Crain's: There is a great deal of discussion in the industry about design-build as a way of building more efficiently in New York because of the way all design and construction services are contracted by a single entity, called the design builder. What are the key elements that make this process efficient?

Richardson: Design-build saves costs by integrating the designer and constructor into one team. It saves time over design-build where a project owner first engages a design team, then solicits construction bids then starts construction. A clear and fixed scope from the owner is key, as is shared responsibility for unanticipated developments. Otherwise potential benefits and savings from design-build will not be achieved.

Coletti: Most important is that the owner, design professional and contractor all work together with a clear understanding of the scope. This kind of collaboration from the start is the best way to generate cost savings as opposed to traditional design-bid-build.

Crain's: The construction industry has a very high rate of business failure. What are the challenges for new firms and what are the challenges for all firms in building a track record for success?

Richardson: Ability to manage cash flow. New firms need enough cash to cover the lag between buying materials, paying workers, completing the work and getting paid, and surviving the three to five years it takes to be profitable. Knowing how to operate a business and understanding contracts is as important as knowing how to execute the work the business performs. They have to know that while contract terms imply payment within 30 days, the reality is much closer to 90 or 120 days. Business owners have to open up shop with adequate financial reserves to manage that time frame, then begin to invest back in the business as it begins to be profitable.

Coletti: Financial institutions know construction is very high risk and are often reluctant to provide financing or do so with very high borrowing costs. In the public sector here, regulatory requirements like penalties for delays and late payments or New York's 240 Scaffold Law and its insurance costs add to the cost of construction, but financial institutions feel these reduce the risk for them.

Crain's: What can the public sector do to facilitate more private investment in our infrastructure?

Richardson: Public sector contracts are notoriously adversarial and shift all risk to the contracting team irrespective of the regulatory burdens placed on contractors. The contracts also include social requirements such as community benefit or subcontracting requirements that impact construction efficiency, project cost and schedule, and revenue generation. Private investors seek projects that maximize their rate of return. This equation is incompatible with how the public sector builds. The track record of P3 projects (public-private

Denise M. Richardson, executive director, General Contractors Association of New York



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partnerships) in the U.S. is decidedly mixed. There will not be an expansion of P3 projects until the public sector becomes more willing to allow the private sector to build projects within guidelines that actually allow for cost saving efficiencies.

Coletti: The public sector needs to change certain statutes to allow the use of private funds in more infrastructure projects. The government just does not have the financial resources to rebuild the region's infrastructure and the longer we wait to fund these projects, the more our infrastructure deteriorates. Ultimately it will restrict the economic growth and vitality of the region.

Mody: Rebuilding infrastructure should not be a public vs. private zero sum game. Properly structured hybrid public-private approaches take advantage of available private capital, transfer risks from the public to the private sector, and capitalize on private sector innovations. New York and New Jersey should enact P3 enabling legislation. At the same time, the public sector must continue to play a leading role; private investment alone won't solve our problems.

Crain's: The Farley Post Office is funded with a combination of public and private funds, the replacement for the Tappan Zee Bridge is all public money. Which is the best way to approach the huge budgets, privately or with public money raised by issuing bonds, imposing tolls or using other methods like congestion pricing?

Richardson: There is no "one size fits all." The new Tappan Zee was built using public funds including Thruway revenues. Private sector management and investment makes sense at the Farley Post Office conversion because it has significant revenue generating retail and commercial space, with the potential for adjacent commercial development. Likewise LaGuardia Airport. But the Goethals Bridge replacement is a hybrid. The private sector made the initial investment that will be repaid by both Goethals toll revenue and Port Authority funds payable over many years.

Coletti: There is a strong need for continued public and public/private investment. We need to be creative about generating the revenue required to finance both whether it be by issuing bonds, or imposing tolls or congestion pricing strategies. There is no free lunch to finance the infrastructure projects that are needed to continue the region's remarkable economic growth.

Mody: Beyond public funding, our tool kit should include value capture, tolls, ground leases, public-private partnerships and more, and the approach used for a specific project should be based on an assessment of whether a particular tool will achieve the desired outcome. It makes little sense

to consider private investment when an infrastructure project won't generate cash flows to repay investors (e.g., the subway). But we should explore the menu of private options where opportunities exist for private sector to invest and receive a return on its capital.

Crain's: Fixing and maintaining the MTA, renovating Farley Post Office into a new Penn Station and upgrading Amtrak will cost billions of dollars. Why are these infrastructure projects so important to the economy of the city, state and region and what can be done to streamline them?

Richardson: New York City's economy represents 10% of U.S. GDP. On a daily basis, the MTA network carries over 8 million riders. Penn Station is used by 600,000 people a day, more than any other station in North America. There is a definite tradeoff between

public inconvenience, the time it takes to construct a project and cost. Streamlining these projects requires better coordination within the public sector's managing organizations so that the entities responsible for design, construction and operations are all aligned in terms of the project's scope and requirements, avoiding the need for construction changes and last-minute scope changes that delay final acceptance.

Crain's: In Europe, the popular high-speed train system, the TGV, has been wildly successful. The Munich subway and the Eurostar are other successful public projects that deliver high returns to the riding public. Could New York get the same results with projects like the Gateway Tunnel under the Hudson River? What are the Europeans doing differently?

Richardson: Europeans approach these projects as a partnership between the engineering and contracting teams. In the U.S., schedules and budgets are politicized and

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often deliberately low-balled by public sector owners and officials to gain support. Resulting “cost overruns” make the public sour on much needed projects which contributes to America’s inability to build projects we need to remain competitive.

Mody: I’m a big admirer of the European rail systems but it would not be productive to try to simply imitate them. Our geographies, governance models and financing approaches are radically different. But Europeans understand tunnel construction very well, and they have a history of private investment in infrastructure. We can draw lessons from both European and Asian projects as we consider all sources of funding for the Gateway Tunnel, the single most important infrastructure project in the U.S.

Crain’s: Atlantic Yards and the whole redevelopment of Downtown Brooklyn have been deemed very successful and Hudson Yards is on its way to completion. Sunnyside Yard in Queens is being eyed by planners as the next blank canvas. How can the city continue to build these dense complexes without more improvements to transit, like the extension of the No. 7 subway line?

Richardson: It can’t. One subway station at 34th Street and 11th Avenue is not enough to serve Hudson Yards; a second one planned for 10th Avenue should have gone forward but did not. The far West Side needs a whole new subway line. Massive residential development in Astoria and Long Island City makes developing Sunnyside Yard highly impractical, especially with Flushing and Willets Point poised for development, too. Transit capacity needs to come first; it cannot be an afterthought.

Coletti: Without the improvement of the No. 7 subway line there probably would be

Sanjay Mody, special counsel, New York Office, Windels Marx



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no Hudson Yards or it would be vastly reduced in scope. The same can be said for Atlantic Yards, and it is the major challenge with Sunnyside Yard if its success is to be measured in the same scale as the previous projects mentioned. The importance of investment in transportation and infrastructure cannot be underestimated.

Mody: I’m not sure enough consideration has been given in the past to how large-scale developments impact our existing infrastructure—not only transportation but also schools. Large-scale development should be accompanied by a private commitment to fund infrastructure. We could use incremental tax revenues or base zoning approvals on an agreement to subsidize the cost of subway station development like at 1 Vanderbilt. Good models are Battery Park City or Brooklyn Bridge Park, where revenues from long-term ground leases help fund public priorities like affordable housing, parks and resiliency projects.

Crain’s: Should New York City be doing more to utilize its waterways?

Richardson: Increased use of commuter ferries has fostered housing development and relieved pressure on the MTA network. Freight movement could likewise benefit but an issue there will be availability of adjacent land-based facilities for loading and unloading as the “last mile(s)” to the freight’s destination will be by truck. There will be tension between factions using waterways for recreational purposes and those using them for residential and commercial development. Passenger ferry service will be the most efficient use of the waterways as long as there is a growing, stable ridership with a solid revenue base.

Crain’s: Identify an infrastructure project you regard as a success story and why. Could it have been done differently?

Richardson: The Third Water Tunnel construction represents a success story that has largely been overlooked but is perhaps the city’s most important infrastructure investment. The first two water tunnels became operational in 1916 and 1937 respectively and have operated continuously since their original openings. The Third Water Tunnel will ensure that the city will have sufficient water as each tunnel is rehabilitated and all three tunnels will provide the city with adequate capacity to handle future population growth and demand.

Mody: Brooklyn Bridge Park—a project close to my heart. It has a lot of things that make a great infrastructure project—the public sector responding to decades of local, community advocacy, repurposing an under-utilized area for a new, cherished amenity and developing an innovative financing model to meet ongoing maintenance and operations. The years of debates over what to build and how to build it have resulted in a truly world class project that has inspired other new, waterfront parks around the U.S. and the world. ■

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