



ROBERT E. PAASWELL
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REGION II UNIVERSITY TRANSPORTATION RESEARCH CENTER

Testimony to NY State Commission on State Asset Maximization

By: Robert E Paaswell, PhD, PE, F.ASCE
Distinguished Professor of Civil Engineering and
Director, University Transportation Research Center
City College of New York

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Background: Since a Federal Commission published a report on the state of US infrastructure in 1988, Fragile Foundations, volumes have been written about the deteriorating condition of our roads, transit systems, water works and other parts of what we term “life support” infrastructure. There are a number of reasons why this condition has only gotten worse over the last two decades. They start with the easy access to capital to build our capital assets in the half century after WW2, but the lack of adequate funding to maintain them. We can also look to the policies of devolution begun in the 1980s as policies which have created such large funding gaps today. These are the subjects of books and theses. But that is where my testimony begins today; our infrastructure – the underpinnings of our quality of life – is in real trouble, and, today, November 6, 2008, we are not sure of how to get out of that trouble. My testimony today will deal with your charge – does the Private Sector have a role in the maintenance and rebuilding of our infrastructure. And, what is that role (or those roles) for bringing 21st C infrastructure up to world class standards. I will have two themes in my testimony. The first addresses Public – Private models, their workability and utility. The second addresses a more fundamental concept – that in making critical choices about investments and project selection.

Public Private models:

There is a wide range of Public- Private models that includes:

- Fully public ownership and operating of services
- Public ownership and degrees of private contracting
- Public oversight with private ownership or provision
- Private ownership with or without some public constraints

We have many examples of the first; the most familiar being the NYS Public Authorities (e.g. MTA). In the remainder of this brief testimony, I will touch on the other models.

There have been public private models since we have had public agencies. Construction of capital projects has always (for the most part) been carried out by contractors, working from carefully crafted specifications and contract demands. This is the model for Public Authorities in New York State. The best example is the Port Authority of NY & NJ – a success story by any standards. They “own” their assets, have in house engineers and architects, but also have the ability to contract out for services (some at their airports). They set tolls, and fees, are able to issue revenue backed debt, set long term capital plans and operate in the black. They are viewed as a state of good practice oversight and operating authority throughout the world.

But, for most of NY State the needs to bring roads, bridges and transit systems up to a state of good repair (SGR), add new technologies – so critical in this globally competitive 21st C, or expand our infrastructure will take substantially more resources than now available. These include not only dollars, but qualified personnel – project managers, engineers, architects, etc. We see that the funding problem has two subsets; the first is how to gain more productivity out of available funds. This, in a sense frees up funds for more projects. The second is how to create funds from existing or planned assets.

For gaining productivity from assets, new approaches to the model of having all project specifications and oversight carried out by in house forces to now familiar models of design – build, design build operate and design build operate maintain. In each, the public agency sets the performance requirements of the asset they control, but they contract out most or all of the work from design to actual operations. A strong rationale for this is the rapid emergence of new technologies that not only impact how construction is carried out, but technologies that aid how design is carried out, the integration of design build and accountability and how projects are managed. In the recent MTA Blue Ribbon Panel on construction, the Panel made a strong recommendation for such innovation in the Capital Program; one they believed would lead to substantial savings in the delivery of Capital projects. Successful applications of such approaches (see appendix) to project implementation require agency investments. Whether State or local DOTs or Transit Authorities, the need for qualified in-house staff, literate in finance, project management, legal aspects as well as engineering is critical. New Civil Service titles, new salary levels and aggressive recruiting are all part of improving productivity from transportation assets.

But while these approaches to going from project idea to implementation will generate productivity savings, the mega dollars needed for new project implementation must come from new sources of funding. The old formula – relying on Federal support based upon the gas tax, and the issuance of debt based on full faith and credit are not adequate. In addition to the Port Authority, NY State has a good model of how to fund infrastructure – the State Thruway Authority. Their source of funding is tolls from which they leverage capital support through the issuance of revenue based bonds. That model is one that must be expanded for both building and renovating critical infrastructure in the State. Whether the bridges around New York City or around the State, or on expressways now untolled (Grand Central Pkwy, Van Dyck, the X90s around Buffalo, Syracuse, Rochester) tolls might be applied realizing the value that the user gains from these facilities. Modern toll techniques, such as the overhead cams in Toronto, can be used to register travel and bill asset users. The issue of equity or of “tolls hurt businesses” can be countered with reliable and fast access creates value. The discussion of costs and benefits go beyond this brief testimony – but are very critical to this issue. Needless to say, in Europe and Asia, high design facilities are tolled and at levels substantially higher per mile than in New York State. To sum this idea: it is possible to toll more highly used facilities in the State, and raise revenue that can be used for SGR, modernization and expansion. This would mean looking at the structure of existing authorities – expanding them, or dissolving them, and build new State Authorities with far reaching infrastructure oversight and management.

Transit poses a different problem. Fares take the place of tolls. I have presented a white paper on fares to the Ravitch Commission, which can be, if you are interested forwarded to you. But fares are not the answer alone – agency structure must be considered, The European Union (EU), over a decade ago mandated that all transit service in urban areas should be “contracted out”. The type of contract is up to the local area. The basic transit model in European Cities is one where the Public controls transit system oversight, levels of service and, perhaps fare levels. The actual operations are contracted out. The contracts vary from public agencies providing service under contracted performance targets to the letting of tenders to qualified bidders from the private sector for service. After a decade, the results show some cost savings –mostly attributed to lower labor costs, but, in many cases, some diminution in quality of service. I believe I have forwarded a paper to this commission with more details.

Real Estate and Transit: Transit creates high value access at or near stations and terminals. European systems and Asian systems have taken advantage of this by having co development. Private investors would use Station areas to have joint development projects or would build stations to gain further rights for station area development (very popular in Hong Kong and Shanghai). This is

high value untapped potential in NY State, NYC and the nation – but should be examined.

Selling Assets. Many urban areas and States are looking at assets, paid for by public funds and users and considering whether to take a one time value for them. This could be accomplished by selling the asset or providing a long term lease (50-99 years) to private interests. The example most cited is the Chicago Skyway. The Mayor of Chicago received nearly \$2 billion that he could (but did not) apply for outstanding infrastructure needs. The Consortium of investors got a valuable property which will yield continuing revenue streams and from which they extract, annually, substantial fees. Many believe that the 99 year value of that asset is substantially higher, that the fees are too large, and that the region is at risk for much higher tolls in the future. There are some obvious problems with this;

- The City and/or State could realize similar value through coordinating appropriate toll increases and the issuance of revenue based debt. This was at the heart of the Corzine plan in New Jersey. While there were many problems with this plan as first presented, the Corzine Plan was meant to keep public infrastructure in the public domain.
- Separating assets from the State network creates impacts that are not addressed in such a transaction. For example, if the consortium raises tolls to a high level, where will the diverted traffic go, and what will be the costs to the state of accommodating such traffic.

There is still much risk in this unknown territory; NY State has many options before it might even examine such strategies.

The new Federal approach. There is much pressure in Congress to put in place an “Infrastructure Bank”. Such a bank might complement or replace current sources of Federal Aid to States for Capital Programs. The Bank could provide grants, loans, issue bonds, guarantee bonds (and tax relief) and other financial incentives for infrastructure initiatives. Some States are duplicating this model. The key in the legislation is that projects will be carefully vetted on a number of factors including rigorous Benefit Cost Analysis.

Planning and Priorities: This is the last point that I want to make today. In times of difficult Capital it is essential that the State underwrite only those projects that clearly add to the States strategic plan; one addressing transportation, land use, economy and quality of life. One part of this evaluation is to compare projects competing for funds and set priorities among these projects. New York State, across the State has many worthy projects – the Tappan Zee Bridge, the Peace Bridge, 2nd Avenue Subway – full length, Rte 86 modernizations. What criteria would help rank where investment dollars should go when such dollars are very

tight. This commission might recommend a more careful vetting of projects and setting modern priorities for State investment.

First costs. Finally, projects must have more realistic first costs. The term over run applies to nearly every capital project done in the State (and around the world). Much research – ours included – has looked at this phenomenon. A major factor is that the first cost presented to line up funding and get the project on the table is usually substantially under true costs – and this is not unknown to those who estimate. Costs usually don't incorporate true risk, and all of the components of risk, the time value of money, the actual funding stream, escalation of labor and materials. Project costs when first presented should go through a non political professional vetting panel. The approval of the estimate, or the new estimate determined by the panel should be a formal part of the application for funding process.

I would be pleased to discuss any of these topics, mentioned here so briefly, at the Commission's convenience. Thank you.

Robert E. Paaswell
November 6, 2008

Appendix – Models of PPP

Arrangements that attach risk and reward to the responsibilities of the private sector are considered PPPs, though their structure can take on many different forms (listed below in ascending order of privately assumed risk and reward):

- Construction Manager at Risk
- Design-Build (DB)
- Design-Build with Warranty (DB-W)
- Design-Build-Operate-Maintain (DBOM)
- Design-Build-Finance-Operate (DBFO)
- Build-Operate-Transfer (BOT)
- Build-Transfer-Operate (BTO)
- Build-Own-Operate-Transfer (BOOT)
- Build-Own-Operate (BOO)
- Transit-Oriented Development
- Joint Development Agreement (JDA)
- Multimodal Agreement
- Full Service Long-Term Concession or Lease
- Asset Sale