

MEMO

Date: March 16, 2000

To: Peter Nesson

From: Fred Salvucci

RE: Improving the Environmental and Fiscal Credibility of the Big Dig

While the current situation has damaged the credibility of the "Big Dig", in particular the lack of disclosure, and the delay to transit investments related to the effort to "cover up" the higher costs, the basics of the Big Dig and its implementation remain strong. The credibility of both the project and its implementation can be re-established if there is a thorough analysis of current problems and opportunities, to make modest adjustments to the project, establish a new financial plan, and allow reasonable, public participation in the process within a clearly established time frame. The primary elements of this process should be fully honoring the transportation and environmental commitments of the project, and containing cost impact. The major elements I suggest are these:

1) An independent "value engineering" review of contracts not yet awarded, and construction not yet initiated, to both reduce cost, and improve implementation of environmental commitments, within reasonable urban transportation parameters.

2) Re-prioritize "acceleration" funds for fully honoring socio-economic and environmental commitments, in particular increased levels of transit service during the remainder

of the Big Dig, and after, without which the traffic congestion relief expected from the Big Dig will simply not occur.

3) Ensure reasonable, reliable revenue streams for the operation and maintenance of the new underground transportation facilities and park facilities in downtown and East Boston, by relieving Mass Turnpike of excessive debt, shifting to a greater role for Massport and greater use of state surplus and "rain day" funds.

Let me provide some added detail on each of these:

1) "Value engineering" of outstanding contracts before contract award, and of major elements awarded but not yet constructed.

(A) East Boston Contract 8A. This contract has been advertised for construction and the low bid is \$22 million over the office estimate. The engineering design involves several violations of environmental commitments, (Ramps 53' and 36' high in lieu of "at or below grade" near parks and housing, elimination of airport bus to Blue Line "level platform transfer", interference with proposed "urban ring" bus service, incompatibility with a separate future project to relocate Sumner Tunnel toll plaza and reunite East Boston Porter Street neighborhood. Moreover the Bremen Street buffer park committed to in the EIS is at risk because the land is still not acquired, and new controversies have arisen because of Massport conditions on cooperating in the land swap.) It is possible to honor all the environmental

commitments while reducing cost to stay within budget, by eliminating the 53' high ramp, and accepting a somewhat indirect path for vehicles from the airport to the Sumner tunnel, similar to the diversion which has been used during peak hours for the past 15 years, (a reasonable compromise since over half of the traffic will shift to the Ted Williams Tunnel when it is fully open to general purpose traffic), and remodeling the existing airport Blue Line station instead of building a new station further from the Porter Street community. (A cost saving that will avoid depriving the Porter and Gove Street community of transit access.) the time required to re-design and re-bid the less expensive contract can be used to resolve controversies on the land swap and acquire the land for the Bremen Street park so it can proceed into construction at the same time as the highway and transit investment.

(B) Dewey Square Southbound Roadway Contract. The current design concept for this contract involves tearing out the existing center wall, involving substantially more cost (at least \$40 million) and more traffic disruption than the 1990 plan of leaving the wall in place, accepting the current 35 MPH speed limit rather than "upgrading" the speed to 45 MPH. Bostonians have lived with the center wall and its speed constraints for almost 50 years, and avoiding traffic disruption is a major benefit. The project implementation has done a good job maintaining traffic service to date, creating good will that would be jeopardized by a one year much more disruptive construction process which will add 2000 vehicles to the surface streets in Dewey Square during construction. In addition, the north bound Essex Street ramp is a very expensive ramp which may be expendable if the Dewey Square center wall

remains in place, and an Essex Street off ramp replaces the existing south bound Summer Street ramp. This modification appears to have substantial cost savings and a dramatic improvement in (reduction of) pedestrian/vehicle conflicts in Dewey Square, enhancing its urban design, and improves compatibility with the Dewey Square abutters urban design proposal. Moreover, the South Bay interchange should be reviewed to preserve the option of restoring improved access to the Back Bay. The "Big Dig" was to have provided improved Back Bay access via Marginal Street reducing traffic on Storrow Drive, Arlington, Clarendon and Exeter Streets, but it was dropped to "save" \$60 million and avoid conflict in Chinatown. However a new proposal called the Herald Street Boulevard could solve the Chinatown problem, and the decision should be reviewed to be certain to maintain the feasibility of providing a Back Bay ramp. By dropping the expensive Essex Street north bound ramp, the net cost with a Back Bay ramp re-introduced should be less than the cost of the current plan.

(C) Review of Outstanding Ventilation Issues. The Big Dig financed very expensive tunnel fire experiments, which generated new information on less massive and expensive ventilation systems, yet the newer, more cost effective methods have not been incorporated in many of the ventilation buildings. It may still be possible to save some money and commercial space by reviewing this ventilation.

(2) Re-prioritization of \$300 Million in Proposed "Acceleration Funds". If this is an accurate net number, it may be possible to construct the Herald Street Boulevard with enormous

benefit to Back Bay access, and to place the Sumner and Callahan ramps below Chelsea and Bremen Street, with enormous benefit to the quality of the Bremen Street park, and still achieve some "savings" from this \$300 million, by re-prioritizing. In particular the traffic disruption mitigation plan always counted on the completion of the Ted Williams Tunnel and Seaport access road link to the turnpike being completed prior to the most disruptive activities downtown in order to provide an alternate route. This may suggest that the acceleration effort is appropriate for the seaport access road but not for the central artery and East Boston portions.

(3) Ensure Reasonably Reliable and Adequate Maintenance with Independent Revenue Streams.

(A) It is always difficult to manage proper maintenance in the public ^{Sector} ~~section~~ because of the uncertainties of the annual appropriation process, and the fact that under funding maintenance, while it has severe negative consequences, is often not visible in the short run. In addition, it will be very difficult to get adequate maintenance appropriations for a complex, sophisticated tunnel system in Boston from a legislative body whose job is to represent the whole state. The reason the Lazard Freres study recommended operation by the Boston end of the turnpike and/or Massport was to achieve a Boston area source of funds that would be reliable. In addition, the added transit services committed to in the vent shaft regulations to ensure continued, growing transit mode share during construction and after so that the newly constructed tunnels will operate congestion free will cost money to operate, money not provided for in the "forward funding" MBTA legislation. But the

Turnpike Authority prospective revenues would be excessively leveraged for debt service for capital, leaving inadequate maintenance and operation funds under many of the finance plans under discussion.

(B) One way for Masspike to get relief from excessive debt service is to use "rainy day" and "surplus" funds rather than turnpike bonds. There is a strong equity argument for this. Over the past decade the "Big Dig" has brought \$5 billion more into Massachusetts than our contribution to the National Fund. Because of the "multiplier" effect this has generated \$12 to \$15 billion in economic activity and probably over \$1.5 billion in state revenues. Consequently about \$1.5 billion in cash reserve support for the Big Dig instead of bonding is really just the state putting back the "windfall" generated by the Big Dig.

(C) Additional financial support for the Big Dig and relief for the turnpike could be achieved by reviewing the contribution of Massport. If Massport were to "buy" the central interchange at Logan which is nearly complete for approximately \$300 million, it could begin contributing to the Big Dig much sooner, with no violation of FAA anti-diversion regulations, and the landing fees can be used to support it as a legitimate airfield activity. In addition, Massport could continue to provide the \$300 million already committed when Contract 8A is complete, thus relieving Masspike of excessive debt service so that adequate allowance for reliable maintenance and operation funds can be programmed. Since over half of the cost of the Big Dig is in

the Seaport access road and Ted Williams Tunnel which provide access to the Seaport and airport, a substantially larger contribution from Massport can be warranted.

(D) An additional means of relieving Massport of excessive burden would be for Massport to "buy" the Ted Williams Tunnel and Seaport access road from the turnpike, and take responsibility for the maintenance and operation of half of the Big Dig. I once discussed this possibility informally with staff from the rating agencies, and the conceptual reaction was positive. If Massport were free to set their own tolls, the fact that these roads do not exist for general purpose traffic yet, and their high quality, congestion free operation, would permit much higher toll levels than the Turnpike Authority is contemplating, while maintaining and operating the facilities as well.

(E) Alternatively, additional toll revenues could be achieved by opening the Ted Williams Tunnel to general purpose traffic now, at a premium toll to discourage excessive use. (Perhaps \$4.00 or \$5.00.) Since there are not yet general purpose traffic users of the Ted Williams Tunnel, and speed is of great value for trips to Logan, there might be less opposition than increasing the Allston Masspike tolls, and a much greater revenue stream created.

In conclusion, the basic point is that the current "crisis" reaction to the \$1.4 billion can lead to bad outcomes (Continued under estimates of costs, failure to program adequate funds for maintenance and operation, continue excessive borrowing, pressure to renege on environmental

and transit commitments, continued acrimony in western Massachusetts at over reliance on turnpike tools and in Washington at sending \$5 billion federal dollars to Massachusetts while Massachusetts eliminated auto registration fees and considers lowering the state income tax.) Alternatively, the current situation can be viewed as an opportunity to restore credibility by putting forward an honest financial plan, adequate to fund the full construction and operating and maintenance costs of the project including its environmental and transit commitments, without excessive borrowing and with a major expanded contribution by Massport, an eastern Massachusetts public agency whose access needs have generated at least \$6 billion of the project costs.