



## Office of the Inspector General Commonwealth of Massachusetts

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### **A Review of the Central Artery/Tunnel Project Cost Recovery Program, December 2000**

The \$14+ billion Central Artery/Tunnel Project (the Project) involves constructing and reconstructing 7.5 miles of urban roads. Project construction includes replacing the current elevated Central Artery (I-93) with an underground highway, extending the Massachusetts Turnpike (I-90) to East Boston through a new tunnel under Boston Harbor, and building a new bridge across the Charles River. According to federal and state officials, the Project is the most complex and costly urban highway project ever undertaken in American history.

In the early 1980s, the Massachusetts Highway Department (MassHighway, formerly the Department of Public Works) was responsible for planning the Project, as well as overseeing the design and construction of road and bridge projects throughout the state. In 1985, MassHighway hired the joint venture of Bechtel/Parsons Brinckerhoff (B/PB) to manage the design, construction, and day-to-day operations of the Project. In 1997, the Massachusetts Turnpike Authority (MassPike) was designated the owner/operator of the Metropolitan Highway System and gradually took over management of the Project from MassHighway.

In general, "cost recovery" is the process by which "public and private owners file claims against design and construction management professionals for the costs claimed to be attributable to errors, omissions, or other 'deficient' or unsatisfactory performance ('cost recovery claims')." <sup>1</sup> This report focuses on MassPike's cost recovery program for the Project, and assesses whether MassPike: (a) developed an independent and viable cost recovery program for the Project; (b) ensured that staff adhered to reasonable procedures; and (c) pursued the cost recovery program objectives in a prudent, well-documented, and timely manner.

The Office's review of the Project cost recovery program covered the period of time from Project management's July 1994 introduction of a cost recovery procedure through implementation as of August 2000. This report identifies systemic vulnerabilities to waste and abuse, points out opportunities for increased cost control and accountability, and seeks to assist Project leaders in overseeing and strengthening Project operations. The Office's review, which focused on the Project's 62 closed cost recovery cases, disclosed the following:

**Finding 1. In six years, the Project has only recovered \$30,000 from about \$83.5 million in cost recovery related change orders.**

**Finding 2. The Project set up the cost recovery program primarily to ensure federal funding, not to recover costs.**

**Finding 3. B/PB's overly broad role in Project management undermines the Commonwealth's ability to hold B/PB accountable for its design work.**

- The Project failed to pursue cost recovery against B/PB.
- Changes to the cost recovery procedure reflect the Project's increased reliance on B/PB.
- Internal organizational relationships impede MassPike's ability to hold B/PB accountable for its performance.
- B/PB's conflicting interests in the cost recovery program serve as yet another example of the vulnerabilities of the current contractual arrangement.

**Finding 4. Project management directed B/PB to subcontract for the services of the consultant responsible for assessing B/PB's potential liability for cost overruns.**

**Finding 5. The cost recovery program shows serious signs of neglect.**

- On average, Project staff took more than a year (394 days) to close cost recovery cases.
- Project staff lost or misplaced many cost recovery files.
- The Project does not, under the cost recovery program, actively pursue alternative methods of cost recovery.
- Project managers limited the cost recovery program to design-related issues.
- Many of the cost recovery case files are incomplete.

**Finding 6. The Project does not adequately document cost recovery cases.**

- The unsigned and undated closing memoranda contain information that is not in the records in the file.
- The Project's closing memoranda do not accurately document the review process or adequately document the cost recovery committee's rationale for recommending no further action.

**Finding 7. The cost recovery procedure examined during this review does not mandate the use of stated criteria nor does it provide adequate guidance for identifying and pursuing cost recovery actions.**

- The cost recovery program fails to provide guidelines or training to staff members, including resident engineers, who are closest to the issues.
- The cost recovery procedures do not adequately describe the responsibilities and objectives of the cost recovery committee.
- The committee may revise the procedures without written justification.

**Finding 8. In some cases, the Project failed to assess accurately the full cost impact of deficient design work.**

**Finding 9. Project management eliminated an effective method for catching potential cost recovery actions that B/PB staff may have missed.**

The large share of Project costs to be funded by the Commonwealth lends urgency to Project leadership's responsibility to control costs and send an unequivocal message: public officials, designers, and contractors of every sort will be held accountable for their work. The cost recovery program offers an opportunity to underscore that message and reduce the net cost of the Project. As documented in this report, it has been a missed opportunity.

To its credit, Project management worked with the Federal Highway Administration to ensure federal financial participation in tens of millions of cost recovery related change orders. The Project also deserves credit for issuing a new revision of its cost recovery procedure, which responds to some of the concerns of the Office. The Project provided a copy of the revised procedures to the Office during the final production stages of this report. The Office will examine the new procedure and comment if necessary.

Project leadership should consider the following recommendations as it continues recent efforts to revitalize its cost recovery program efforts:

1. **Revisit the earlier decision not to regard the cost recovery program as an opportunity to cut costs or reduce the net cost to taxpayers.**
2. **Use the cost recovery program to send a clear message that all design professionals on the Project will be held accountable for their design work.**
3. **Reassess the basis for determining whether to pursue a cost recovery case.**
4. **Avoid conflicts of interest by ensuring that MassPike or MassHighway, not B/PB, contracts directly for any services aimed at assessing B/PB's liability for design deficiencies and cost overruns.**
5. **Delink the B/PB and MassPike organizations.**
6. **Define clearly and follow through on the purpose and processes of the cost recovery program procedures.**
7. **Provide training and guidelines to increase the likelihood that those closest to the issues in the field, including resident engineers, identify cost increases caused by deficient design.**
8. **Explore and vigorously pursue cost recovery opportunities that go beyond the current program boundaries to include recovery actions for construction management issues and indirect cost overpayments to consultants.**

Endnote

<sup>1</sup>. David J. Hatem, "Errors/Omissions Cost Recovery Claims against Design and Construction Management Professionals." The CA/T Professional Liability Reporter 1.4 (1996): 1.

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