



MASSACHUSETTS ORGANIZATION OF STATE ENGINEERS AND SCIENTISTS

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"The Barriers to Fraud Detection and Enforcement And how to Overcome Them: A Message from the Workers on the Site."

By Mary J. Richards, President of the Massachusetts Organization of State Engineers & Scientists and presented at the National Fraud Awareness Conference on June 9, 2004

Thank you very much for that introduction. It was an honor to be chosen as a speaker to the National Fraud Awareness Conference. The purpose of my speech is to bring a message to attendees about the barriers of fraud detection from a different perspective, that being the perspective of the engineers who work on highway project sites and who are the nations first line of defense against the waste, fraud and abuse of taxpayer dollars.

While my talk is biased toward the public employees as watchdogs on federally funded highway projects, I do not want to intimate that they at times have not also been involved in fraud and abuse, nor do I wish to give the impression that all contractors are bad.

As noted in my introduction, I am the president of the Massachusetts Organization of State Engineers & Scientists. The transportation workers MOSES represents include close to one thousand members who work at the Mass Highway Department (MHD) as Highway Engineers/Project Engineers, Bridge Inspectors, Materials Inspectors, Construction Inspectors, Environmental Analysts, and Federal Highway Aid Coordinators and Architects.

As one of the founding organizations of NASHTU, The National Association of State Highway Transportation Unions, I also bring to you the grave concerns our members have about the cost effectiveness, safety and integrity of transportation projects. Our members have witnessed the waste, and abuse of tax dollars on projects throughout the country. While we can point to the Big Dig in Massachusetts, as the poster child of highway projects with mammoth cost overruns, a virtually unchecked management scheme and ongoing design problems, our members have seen hundreds of federally funded projects where the lack of sufficient oversight has, unfortunately become the rule not the exception. NASHTU, as well as its member groups, advocate for professionalism and accountability in highway construction.

Our group commissioned a report on highway projects around the country entitled, *“Highway Robbery.”* The results of that study shows among other things that the lack of oversight on highway construction projects causes problems with cost overruns, quality of work, safety and accountability.

The widespread and serious nature of these concerns is what brought our group together. We believe that the time has come to change the status quo and to work with federal decision-makers for greater accountability and scrutiny on federally funded transportation projects. In addition, NASHTU members like MOSES are also working within their individual states to pass legislation to address the shortcomings currently in the system of checks and balances on these taxpayer-funded projects.

Public employees who work to ensure we get what we pay for are the eyes and ears of the taxpayer. Their duties involve the verification that work performed by private contractors meets the required specifications both in materials used and in construction practices rendered. **The number of these professionals has been drastically reduced and the ranks of private contractors has been increased so dramatically that the lack of oversight on public construction projects has spawned an even greater potential for the**

waste, fraud and abuse of tax dollars. In some circumstances, it may have created a real threat to public safety.

In his speech to the Third Annual NASHTU conference, US Secretary of Transportation Norman Mineta stated, “Your work as unions to address the accountability of taxpayer dollars spent on vital transportation projects is commendable.” And he went on “We have a responsibility to accurately and completely estimate, and disclose, costs at the onset of all projects, as well as to monitor progress and expenditures during the life of those projects.”

While I will rely heavily on our experiences in Massachusetts, with some specific references to the so-called “Big Dig” the symptoms indicative of and associated with the failures in the present system can be found in “any state, USA.”

For those of you not familiar with the Big Dig, the formal name is the Central Artery/Third Harbor Tunnel Project. The purpose of the project was to depress the elevated expressway known as the Central Artery which transversed the city of Boston and replace it with tunnels under the city to accommodate the traffic well in to the future. The original bid on the project in 1989 was some \$2.5 billion. The project today although still not completed, has a price tag of some \$14 billion. FHWA finally put a cap on any additional federal dollars. Unfortunately, that hasn’t stopped the spending which will be paid using state funds.

As Congressman Barney Frank, one of our more colorful representatives, once quipped, “It would have been cheaper to raise the city.”

To get down to the subject I would first like, with your help, to try and define the barriers to fraud detection and enforcement; Secondly; I will discuss some ideas for change or solutions to the problems and hope you will make recommendations from your various perspectives.

The barriers as I see them are:

1. Political/Campaign Financing
2. Financial Impacts Associated with Project investigations.
3. New construction management techniques/partnering/design-build
4. Whistleblowers: The fear of reprisal; a disincentive to report.
5. Understaffing at all levels which impedes oversight and enforcement capability, including State Departments’ of Transportation (DOT’s); Project inspectors at a federal level (FHWA) and Enforcement personnel at state & federal levels.

Starting from the top and briefly going over some of these:

1. POLITICAL. THIS CATEGORY IS TWO-FOLD:

One facet is the inherent fear that the exposure of fraud on a governor’s watch will somehow rub-off on the Administration as a whole. That the governor will always be associated in a negative light forever more which could harm chances for re-election or a move to higher office. The political mind, the political advisor, would fear that image would be negatively defined. People would say, “Ya, I remember when he/she was governor they found all that bid-rigging and other fraud on highway construction projects.”

The second facet is the over-reliance of our election process on campaign funds from those doing business with the states. This obviously holds true for the federal campaigns. Campaign finance reform needs to be addressed more vigorously, but it is unlikely to improve anytime soon.

On this front I would ask. Why isn't it just as alluring for a governor to say, "I will carry the mantle of reform in government contracting? I will dedicate my entire term to cleaning up corruption, I will wear the white hat, and I will find and eliminate corruption and fraud wherever it takes me. I will not stand for the waste and abuse of taxpayer dollars?"

Unfortunately, the answer takes us to the reality of "following the money," It appears that this culture runs down the chain of command of the governor's appointed managers who are unwilling to upset the status quo even when rank and file engineers complain of shoddy workmanship, shorting on materials, or unneeded costly construction practices.

More than one example comes to mind, but the most current is a New Jersey study done by the DOT, which concluded that the outsourcing of engineering services on highway and bridge projects as opposed to in-house engineers performing the work costs some 38% more. Bringing the work in-house would save some \$26 million a year. That generates into additional dollars for more local road and bridge projects.

State Engineers in New Jersey soon became frustrated that these costly practices, now presented for the entire world to see in dollars and cents, continued without regard for the costs. They were shocked by the unwillingness of legislators to pass needed legislation, which would require a cost comparison before work can be outsourced. The union for the transportation workers, The Communications Workers of America, (CWA), performed their own study. Not on engineering services but on campaign contributions. Their study revealed that the consulting engineering companies had donated huge sums of money to legislators, to the tune of \$8 million dollars in a four- year period, A Pay- to- Play scheme that we know is repeated over and over again in states across the country.

THE QUESTION IS THIS: SHOULD FHWA CONTINUE TO ALLOW THESE WASTEFUL POLICIES OR SHOULD A COST COMPARISON BECOME A REQUIREMENT FOR FEDERAL HIGHWAY FUNDING?

We believe the answer is an easy one. We believe that the taxpayers would agree. Why should we be paying more when we could be paying less?

As Secretary Mineta stated in his speech to NASHTU, "Accountability is at the core of everything we do at DOT...." "Clearly, we have a mandate from the American people, and from you – to improve and strengthen oversight and accountability of public funds entrusted to the Department of Transportation."

Increasingly state and local transportation agencies are spending hundreds of millions of federal dollars on private contracts for architectural, engineering, construction inspection and related transportation services without determining if these contracts are cost effective, result in the construction of safe projects, or in any way serve the public interest.

NASHTU has filed legislation to close this loophole and to require a cost comparison of all outsourced engineering services by state DOT's on federally funded highway projects. (HB 1980).

2. FINANCIAL IMPACTS ASSOCIATED WITH PROJECT INVESTIGATIONS:

This barrier needs little explanation. The fact of the matter is that stopping projects due to investigations; the debarment of the contractors that may result or stopping projects for any other reason is costly from a political point and from a real dollar and cents scenario. This may very likely inhibit any consideration of turning in the bad guys for the sake of the bottom line.

THE QUESTION IS: CAN A BETTER SYSTEM BE ESTABLISHED THAT WOULD PROTECT STATES FINANCIALLY ON PROJECTS WHERE INVESTIGATIONS MAY IMPEDE CONSTRUCTION OR SHOULD AWARDS BE GIVEN TO STATES IN THE FORM OF MORE HIGHWAY DOLLARS IF FRAUD IS REPORTED BY THE STATES AND WEEDED OUT?

3. NEW CONSTRUCTION MANAGEMENT TECHNIQUES:

The acceptance of new construction management techniques has spawned even greater concern by state engineers on the job for the proper oversight of highway construction projects. We believe it has in fact opened the door to greater fraud and abuse.

Design/Build, one of these new management techniques, removes much of the oversight and control of the project from the state and grants it to the private contractor. Other more expanded versions call for privately financed, designed, built, operated and maintained roadways. This is the ultimate scenario for getting government off of the proverbial backs of the contractors and assuring unfettered control.

The adoption of a "partnering" scheme, the contract management style for the Big Dig in 1992 by the Massachusetts Highway Department further weakened the oversight authority of state construction engineers. This form of contracting, according to its proponents, improves and streamlines the internal working relationship. Some believe this relationship is too relaxed. Its goals are to promote cooperation among all parties for their mutual benefit. Priorities are to prevent delays by avoiding work stoppages. In spite of the many significant findings by independent studies on the Big Dig and the failures associated with this style of management, it appears to have been adopted on highway projects throughout our state.

Public employees are now expected to be part of one happy family with those they are assigned to oversee. Instead of the state workers previous role as regulator, they are now considered team members with the contractors. The message over the last ten years to the workers we represent who oversee highway projects is "hands-off" if it interferes with the contractors.

Numerous contracts for engineering projects require multiple extra work orders. It becomes a legal and engineering nightmare to determine whether the claimed extra work should be part of the original contract and if not, to determine what additional price should be paid. These legal and engineering problems: slow the delivery of the project; undermine the expected quality; and dramatically increase the expected cost.

These problems have been repeatedly found by various studies done previously by the Massachusetts Inspector General's Office, and are specifically noted in "A Review of the Central Artery/Tunnel Project Cost Recovery Program, December 2000," which states "B/PB's (The Contractor/Management Team) role in the cost recovery process is akin to the fox guarding the hen house. The audit stated. "B/PB's role in preliminary design and final design management should preclude any role in a program –such as the cost

recovery program-that purports to examine problems that may have been caused by B/BP's own work. But B/BP controls the data." The loss of independent oversight has taken its toll.

On January 30, 2002 the Boston Globe reported, "The consultant managing the \$14.5 billion Big Dig, under fire recently for faulty construction and lagging repairs, has operated for nearly three years without a state engineer overseeing its quality assurance program."...." critics are saying the project is in desperate need of a watchdog."

THE QUESTION: SHOULD NEW HANDS-OFF CONSTRUCTION TECHNIQUES BE RE-EVALUATED FOR GAPS IN OVERSIGHT? ARE THEY PROVIDING NEW OPPORTUNITIES FOR FRAUD?

4. WHISTLEBLOWERS: FEAR OF REPRISAL, A DISINCENTIVE TO REPORT.

In case after case the unions representing workers on highway projects receive reports that state workers who are resident engineers or who work in other capacities on highway construction projects and who complain about contractors not meeting specifications or using shoddy materials are being taken off the job when the contractor complains to management. Some of these highly qualified workers have been relegated to a back cubicle never to perform the jobs for which they were hired, again.

In a letter to the union, a resident engineer wrote:

"The highly qualified District Construction Engineer was removed from his duties in November of 1998. The reason is "speculated" to be his opposition to management's decision to accelerate the Springfield Viaduct Project to match a planned ribbon cutting by the governor in the fall of 1998. He was never assigned to a project after that disagreement."

Being transferred to distant regions far from one's home has been the norm for trying to make contractors accountable for time and materials. Such reprisals cause a chilling effect on others who witness those who speak out about wrongdoing face sure and fast punishment. Workers feel devalued and become demoralized. This clearly creates an unhealthy climate for reporting.

Workers desperately need more protections and managers need to develop a process and a climate for them to report their concerns without fear of reprisal.

In an article, "*Valuing Whistleblowers*" and printed in *The Whistle* (Newsletter of [Whistleblowers Australia](#)), [May 1998](#), pp. 9-10.

Martin writes:

"To return to the idea of citizen advocacy, it is worth thinking about the idea of whistleblower advocacy. It would be nice to have more people who, while they are not whistleblowers themselves, are willing to take up the cause on behalf of individual whistleblowers. This is needed because the official channels are not working, just as citizen advocates are needed because service providers are failing. Whistleblowers Australia already has some members who are, in essence, whistleblower advocates (in some cases they are former whistleblowers), and there are some outside the organization who fill the same role. Perhaps we should think about formalizing and extending this role."

In a letter to the Office of Special Counsel where lawyers are responsible for protecting whistleblowers, (August 4,2003), Senator Charles Grassley, a leading advocate for whistleblowers, wrote to complain about the doubling of the backlog of cases brought to their attention by whistleblowers.

“Whistleblowers are national assets and at no time in our nation’s history has that been more apparent. Since September 11, 2001, government agencies have placed a greater emphasis on secrecy and restrictive information for security reasons, understandably so in some cases. But, with these restrictions comes the greater danger of stopping the legitimate disclosure of wrongdoing and mismanagement, especially about public safety and security. **Bureaucracies have an instinct to cover up their misdeeds and mistakes, and that temptation is even greater when potential security issues can be used as an excuse.** Whistleblowers serve as a check against this instinct and temptation. It is becoming increasingly clear that whistle blowing is crucial to the protection of the national security.”

Grassley requested an immediate action plan to address the backlog.

THE QUESTION: SHOULD THERE BE PENALTIES IMPOSED ON THOSE WHO ARE INFORMED OF FRAUD AND DO NOT REPORT IT, i.e. PENALTIES FOR THE FAILURE TO REPORT? HOW CAN WE DEAL WITH THOSE WHO RETALIATE AND HOW CAN THE REPORTING PROCESS BE IMPROVED?

5. UNDERSTAFFING, AT ALL LEVELS, IMPEDES OVERSIGHT AND ENFORCEMENT CAPABILITY, INCLUDING:

- A. State Departments’ of Transportation (DOT’s);
- B. Project inspectors at a federal level (FHWA);
- C. Enforcement personnel at state & federal levels.

While we are all aware of staff shortages at all levels of government including those listed here, I will concentrate on the area that I am most familiar with, which is staffing on the states’ highway and bridge projects. The member unions in NASHTU also report similar staffing shortages, which have a direct effect on the ability to detect fraud and abuse.

In July 2003 a study released by the Federal Highway Administration (FHWA) on staffing levels at the Massachusetts Highway Department warned. “Current overall construction and materials staffing levels are below the minimum needed. The projected staffing needed indicates that Mass Highway does not have sufficient staff to meet minimum construction and materials staffing needs. Insufficient staffing levels may jeopardize FHWA approval of future Federal-Aid projects.”

The report also noted, that “ between 1988 and 2001, the number of active projects in MassHighway’s statewide construction program has increased approximately 40%, while the total number of construction and materials personnel at the District level has decreased by nearly 30%.” This trend has continued all over the country with staffing levels decreasing for the most part..

The study goes on, “ This reduction in staff is attributed to a combination of factors including: post-interstate era Agency attrition, decreased interest by younger people in engineering and related transportation careers, and political goals to downsize government.

According to the study, “The American Association of State Highway Transportation Officials (AASHTO) has identified these national trends as an area of concern. AASHTO’s Subcommittee on Construction has focused its attention on the need for adequate staffing through related presentations at its Annual Meeting. Sufficient levels of qualified construction and materials staff are necessary to ensure that the quality of work meets specification requirements and to ensure that the quantity of materials paid for is accurate. As noted by the US DOT Office of the Inspector General at the 2001 AASHTO Construction Meeting, “Inadequate Agency construction staffing can lead to Contractor fraud.”

Existing Federal regulations require each state to be suitably equipped and organized to implement federal-aid projects. In addition, regulations require Quality Assurance programs including qualified personnel and a laboratory.

In MOSES testimony before the Massachusetts Post Audit and Oversight Committee, I noted MOSES recognition that the FHWA study reflects unsound and dangerous practices and I quote from the testimony.

“ The study is a fair and balanced assessment of the consequences of twelve years of the devaluation and disinvestments of state workers who serve as protectors of taxpayer dollars and public assets; twelve years of unqualified patronage hires into technical, scientific and engineering positions. We are reaping the consequences of outsourcing important oversight, design work and materials inspections at the expense of accountability and acceptable construction practices.”

While the study details several serious problems, we believe that the main issues of staffing numbers; training and the attraction and retention of qualified engineers, scientists and technical workers must be addressed in order to rebuild a state of the art department that has been deemed inadequate in many areas by this federal agency.

Also expressing concerns about staffing levels is the **Construction Industries of Massachusetts (CIM) who wrote to Governor Romney’s Transition Team, “MHD staffing is at a critical stage both in the number of employees and their qualifications.** In 1990 staffing was over 4000 employees. Today it is just over 1800 with just 400 in the construction division. ...The FHWA has raised issues regarding the number and qualifications of staff.” They also note that this has prevented the advertising of federally aided projects. Today the total number of MOSES members at MassHighway is 980.

We believe that the FHWA study is a verification of the concerns we have expressed over the years. It is no longer just the union and the professionals we represent expressing grave concerns about these issues, it is federal regulators and construction groups.

Staffing levels in Massachusetts for Materials Inspectors who ensure the quality and quantity of construction materials has gone from some 80 the late 1980's to approximately 27 statewide today and the duties have been limited. Once these professionals traveled to steel forging and fabricating facilities out of state to ensure that we were getting the quality and quantity of materials that were specified. **Today, private sector inspectors are performing much of this work. In some cases, the very contractor doing the project hires the inspectors. Often these private inspectors are beholden to contractors for future work. This could lead to dangerous lapses in safety.**

Workers have complained to the union about being assigned to too many projects at one time. One Resident Engineer described a reorganization of the workers and its ramifications in a letter to the union and in testimony submitted to the Committee.

The project engineer wrote to the union about staffing issues:

“By February of 1999, CE III’s (Civil Engineers) were directed to assume all project responsibilities. This engineer was personally assigned to 12 projects:

- (2) Full depth reconstruction projects.
- (2) Bridge replacement projects.
- (2) Interstate deck replacement contracts.
- (6) Resurfacing and Related Work contracts.

This system is still in place and is not working.

- The written Department of Personnel Administration (DPA) job descriptions are being ignored and revised descriptions, which would coincide with actual responsibilities, have been refused.
- CE III’s are being directed to be Resident Engineers on jobs they do not reside at, which involves:
 - Signing project diaries for work they did not witness.
 - Signing Pay Estimates for work they did not witness.
 - Completing final documents for work they did not witness.
 - Supervision and training of site personnel on projects where they are unable to be present.
 - Giving directions to Contractors, correcting errors in plans and specifications, and overall supervision of the work in progress in multiple locations at one time.

The professionals we represent believe that this policy places them in a dangerous and unfair position. It has been described to us as “ a physical and mental impossibility ...to dedicate the time required for proper supervision, inspection, public safety and contractor payment when we are assigned to multiple projects. **Under the reorganization, one engineer wrote, “ I could neither ensure compliance with contract specifications nor proper payment on projects that I did not reside at, and because of that I should not have been directed to sign documents to the contrary.”**

These workers were so upset with the directive to sign-off on un-witnessed work that they requested assistance from the union. MOSES’ attorneys crafted language for its member engineers who found themselves in this unfair predicament. Refusal to sign could have led to disciplinary actions. This person left the department after 24 years of service caused by stress and health related issues due to workload and the unrealistic demands of the job.

Obviously, staffing levels at the closest point to the construction site must be increased dramatically if we are serious about finding fraud and penalizing the perpetrators.

THE QUESTION: IS FHWA ENFORCING THE REQUIREMENTS OF STAFFING FOR STATES TO RECEIVE FEDERAL HIGHWAY FUNDING? WHAT ARE THE CHECKS AND BALANCES IN PLACE TO ASSURE PROPER OVERSIGHT? ARE THEY ENOUGH? WHAT ARE THE CONSEQUENCES?

Hopefully we can have a greater discussion on these issues and make some real changes.

In conclusion, I would like to state that that we all face challenges in what is a huge national problem. Because we are all in this together, we must first sound the alarm when we see that needed checks and balances are lacking.

The first thoughts I have always articulated to decision-makers at all levels every chance I get is that the one enduring element associated with why we care about making sure we get what we pay for is public safety. The traveling public relies on us to make sure they get where they want to go on a daily basis. It is not just about the money or wasted tax dollars. We hold a public trust and we will one way or another be held responsible for the decisions we make. That obligation belongs to all of us.

I want to thank you for your kind attention and participation in this workshop. I would like to leave you with a few thoughts, which were contained in a Presidential Commission Report on the failure of a major public/private project, which seem appropriate:

“the report was not silent on the need for more civil servant oversight of development efforts like the space shuttle program.

Management problems that were cited:

“Organizational barriers that prevented effective communication of critical safety information and stifled professional differences of opinion; lack of integrated management across program elements; and the evolution of an informal chain of command and decision-making processes that operated outside the organization’s rules.”

REPORT OF THE PRESIDENTIAL COMMISSION ON THE SPACE SHUTTLE CHALLENGER ACCIDENT

(In compliance with Executive Order 12546 of February 3, 1986)

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