

Business Operations
J. E. Surash, P. E., Chief Business Officer

**SUBJECT: WATER INTRUSION, INDOOR AIR QUALITY AND DEFERRED
MAINTENANCE REMEDIATION**

COMMITTEE: FACILITIES MANAGEMENT

Background

Several months ago, District staff initiated a study of the causes of water intrusion in the facilities built over the last ten years. The primary focus of this study was to identify potentially responsible parties as it relates to design and construction defects. In addition, this initial work rated the severity of mold and mildew in the subject facilities. Although the surveys conducted through the office of Capital Construction Compliance provided insight into the magnitude of the problem, it became readily apparent that a much more comprehensive approach was warranted. There are three separate but related concerns and all three must be addressed simultaneously. This Board item has been prepared to provide an overview of all three. It should be noted that there is one other Board item on the November Agenda that is referenced in this explanation. Specifically, Item C-3, which addresses the District's recommended litigation effort. In addition, the Board previously adopted a recommended plan for reducing deferred maintenance, including many projects which will eliminate water intrusion. A summary of each of three dimensions referenced above follows so that the depth and breadth of the entire program can be reviewed in its proper context.

Additional Information

1. Construction defects – The Maintenance Department (Maintenance) identified seventy-eight schools built in the last ten years that have some occurrence of water intrusion. In addition, there are also many smaller facilities (PLC and MLC) constructed in the last ten years that have similar problems. The Board recently adopted the five-year capital work program that included for the first time specific maintenance projects intended to reduce the overall backlog of deferred maintenance. One of the highest priorities identified within this plan was the protection of the building envelope, which includes faulty roofs, windows, plaster and any other source of water intrusion. The plan for the current fiscal year (03-04) includes 12 building envelope projects, of which 8 are from the list of the seventy-eight schools originally identified by Maintenance.
2. Plaintiff litigation and legal reviews – Staff feels the District should aggressively pursue potentially responsible parties regarding obvious design or construction defects. To properly focus, a small group of District facilities and legal professionals have developed the following plan of action:
 - a. Select a legal firm with a strong construction litigation practice. The selected firm will give the District a fresh and objective perspective. Initially

the group held informal discussions with three firms and documentation on selected projects' documentation was made available to all three firms for their review. Proposals were received from all three however the scope of work described in each response was considerably different which rendered uniform evaluation of the proposals difficult. To narrow and better define the requirements of this engagement, a scope of work and deliverables were developed and sent to two of the three firms. The scope of work which is attached as Exhibit 1, has two primary objectives:

- To determine, on selected construction projects (two to four) from both a legal and engineering perspective the viability of pursuing claims;
 - Based on the above review, to develop a protocol for the District to follow while correcting the underlying defects, and provide recommendations on how to protect the District's legal position.
- b. To avoid unnecessary legal expense, select the projects to be reviewed by the legal firm according to the following criteria:
- Recent enough to avoid statute of limitation issues;
 - Not currently involved in other construction litigation;
 - Complete and thorough District documentation; and,
 - The extent of defect, based on cost to correct, is large enough that the cost of litigation is worth the risk of undertaking same.
- c. Board Item C-3 is to select the recommended legal firm to support this effort.
3. Indoor Air Quality Program – Rather than focusing on mold and mildew concerns alone, it is recommended that the District embrace a broader program initiative referred to as Indoor Air Quality (IAQ). Staff recommends adoption of a program developed and offered by the U.S. Environmental Protection Agency (EPA) under 'Tools for Schools'. This EPA program is comprehensive, easy to understand and effective. The program also calls for very straightforward, common sense management and remediation strategies that protect the students and staff with minimum disruption to the educational process. Many other school districts around the country have already adopted the program and are reporting very favorable results. A brief synopsis of the 'Tools for Schools' program is attached as Exhibit 2. The IAQ Plan of Action recommended by staff for implementation in the District was submitted to the School Board under separate cover.

RECOMMENDATION: That The School Board of Miami-Dade County, Florida:

- a. accept this report on Water Intrusion, Indoor Air Quality and Deferred Maintenance Remediation;
- b. accept the staff proposed Indoor Air Quality (IAQ) Action Plan, including the IAQ Task Force Memberships and sub-groups, which was submitted to the Board under separate cover; and
- c. approve and adopt the EPA 'Tools for Schools' Program for implementation in the District.

EXHIBIT 1

LEGAL SCOPE OF WORK

1. Identification of construction and design defects, which have led to or caused water intrusion at selected schools.
2. Determination of the extent and severity of the design and construction defects that are identified, which includes, but is not limited to: (a) establishing a date certain or an approximate date of when the defect was first detected or should have been detected; (b) possible remediation strategies; (c) cost of each possible remediation strategy; (d) calculation of costs incurred by District in attempting to remediate the defects that are identified; and (e) evaluation and a cost estimate of current and future impact of design or construction defects on physical plant, indoor air quality, maintenance costs and other relevant factors;
3. Determination of the cause of the construction defect, including, but not limited to, identification of responsible parties;
4. Identification of the legal claims and theories that may be asserted against the potentially responsible parties, their agents and representatives;
5. Determination of the viability of pursuing said claims against the responsible parties, including, but not limited to, an estimation of the legal and technical costs of pursuing said claims, an estimate of total damages per each available claim, the effect on these claims of the relevant statute of limitations period, the probability and assessment of counterclaims, and evaluation of litigation risks associated in pursuing said claims;
6. Recommendation of a detailed plan of action for pursuing any available claims against potentially responsible parties and for the present or future remediation of confirmed defects in a manner that will not diminish the viability of the School Board's claims against the responsible party or parties, but which will preserve any evidence required to support said claims;
7. Analysis and development of legal defenses against claims that may be raised by affected third parties; and
8. Viability of alternatives to litigation (e.g., mediation, delinquency, suspension, or debarment) against the identified responsible parties.

EXHIBIT 2

IAQ TOOLS FOR SCHOOLS

IAQ Tools for Schools



Indoor Air Quality Tools for Schools Program

Step-by-step guidance to improving the air quality in our nation's schools

The Problem

Nearly 56 million people in the United States spend their days in elementary and secondary schools. According to the Department of Education's National Center for Education Statistics, in 1999, 43 percent of America's public schools—about 33,800—reported at least one unsatisfactory environmental condition (i.e., lighting, heating, ventilation, indoor air quality, acoustics or noise control, or physical security of the building). Approximately 25 percent of public schools reported that ventilation was unsatisfactory, while indoor air quality (IAQ) was reported to be unsatisfactory in about twenty percent of schools. Poor indoor air quality can impact the comfort and health of students and staff, which in turn can affect concentration, attendance, and student performance.

Schools that fail to respond promptly and effectively to poor IAQ run the risk of increased short-term health problems, such as fatigue and nausea, as well as long-term health problems like asthma. In serious cases, schools have been shut down and have had to move staff and students to temporary facilities. Delaying remediation of IAQ problems can also be costly and may even lead to liability claims and lawsuits that can damage a school's reputation. Clearly, IAQ issues are best addressed early and better still proactively.

The Solution

The *IAQ Tools for Schools (IAQ TFS)* Program is a comprehensive resource that can help you maintain a healthy environment in your school buildings, by identifying, correcting, and preventing IAQ problems. The Kit is provided to schools at no cost and includes easy-to-follow checklists, videos, sample memos and policies, a recommended management plan, and a unique problem-solving wheel. Using the tools in the Kit, school officials can educate staff, students, and parents about the importance of good IAQ and their roles in ensuring a healthy, comfortable learning environment. Armed with the knowledge of good IAQ practices and commonsense preventive measures, schools can address most IAQ problems on their own. After

all, ensuring a healthy school environment is an investment in your students and staff.

To learn more about the *IAQ TFS* Kit and other resources available to you, visit EPA's Web site at www.epa.gov/iaq/schools, or order a free Kit by calling the IAQ INFO hotline at (800) 438-4318.

Awards and Recognition

The *IAQ TFS* Awards Program provides incentives and public recognition to schools and school districts that are implementing the Kit. Three award categories are offered: *Great Start*, *Leadership*, and *Excellence*, each honoring schools and school districts as they progress through the various stages of the *IAQ TFS* Kit. Many school districts have been recognized for outstanding achievement and leadership in improving indoor air quality. See our Web site at www.epa.gov/iaq/schools/awards for additional information and applications.

Training and Networking Resources

Learn from the experts! Training and networking resources for schools managing IAQ issues are widely available. The *IAQ TFS* Program sponsors an annual Symposium, internet presentations, and offers specialized training on financing, communications, and facilities maintenance. See www.epa.gov/iaq/schools/index.html for additional information.

