

Office of the Superintendent of Schools  
MONTGOMERY COUNTY PUBLIC SCHOOLS  
Rockville, Maryland

September 26, 2018

MEMORANDUM

To: Members of the Board of Education  
From: Jack R. Smith, Superintendent of Schools  
Subject: Cost of Installing Metal Detectors in Schools (08-30-18-05)

**Question**

Mr. Durso requested information regarding the cost for the installation of metal detectors in schools, to include hardware, personnel, etc.

**Response**

A rough cost estimate of the primary hardware elements included in a metal detection system is as follows:

- Portal (walk-through) unit: \$10,000 per unit
- Wand detector: \$200 per wand
- X-ray baggage scanner: \$35,000 per machine

The full cost per school would depend on how many of each of these elements would be necessary to implement a metal detection system for entrance into a school. For example, some districts have reported using multiple portals for students to walk through, followed by hand-held wand detector scanning for students flagged by the portals. If there were three portals at a single entrance, and six wand detectors for secondary screening, that would total \$32,000 per entrance per school. The addition of two X-ray baggage scanners could bring the total to more than \$100,000 per entrance per school.

Metal detection systems also are staff intensive. Each portal unit and wand detector screening combination requires at least three staff members to monitor students through an entrance and employing the wand detector for those who need secondary screening. Using current budget figures for mid-level security assistants, salary and benefit costs total approximately \$54,000 per Full-time Equivalent position. Staff costs then could total \$81,000 per portal (assuming half-time employees). In the preceding example with three portals, staff costs could total \$243,000 per entrance per school. Additional staff would be needed if baggage screening is included. Alternatively, staff costs could be minimized by redeploying existing staff; however, this would result in less security staffing elsewhere in the building.

Three portals at a single entrance may not be sufficient to efficiently allow students entry into the school, particularly in larger high schools. The number of entrances, detection systems, and staff would need further operational review at each school. Other modifications also may be required for entrances, such as configuration or power availability, to facilitate use of the systems.

A number of operational issues require consideration before a system could be implemented. These concerns include how to address high schools with open lunch policies; how to incorporate community use with the metal detection systems; and whether to scan all other visitors to a school.

Several school districts throughout the country use metal detectors in some of their secondary schools. The only district we are aware of in Maryland that currently uses metal detectors is Baltimore City Public Schools. A recent report in the Los Angeles Unified School District found that the metal detection system was ineffective compared to other security measures and had a negative impact on school climate. This report recommended removal of the metal detection systems in that district.

If you have any questions, please contact Dr. Andrew M. Zuckerman, chief operating officer, at 240-740-3050 or Mr. Robert B. Hellmuth, director, Department of School Safety and Security, at 240-740-3066.

JRS:AMZ:sro

Copy to:

- Dr. Navarro
- Dr. Statham
- Dr. Zuckerman
- Mr. Civin
- Dr. Johnson
- Ms. Diamond
- Mr. Hellmuth
- Mr. Turner
- Mr. Ikheloa