

**APPENDIX A: SURVEILLANCE TECHNOLOGY IMPACT REPORT**

<b>Department or Division:</b>	Somerville Police Department (SPD)/Jeff Curley (Somerville Public Schools)
<b>Compliance Officer (name and position):</b>	Lt. Sean Sheehan
<b>Submitted by:</b>	Lt. Sean Sheehan/Jeff Curley (Somerville Public Schools)
<b>Date:</b>	
<b>Surveillance Technology:</b>	Guardian Indoor Active Shooter Detection System (GIASDS)

X	<b>Please identify the purpose(s) of the proposed surveillance technology. Select ALL that apply by entering "X" in the left column.</b>
x	Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
x	Identifying, apprehending, and prosecuting criminal offenders
x	Gathering evidence of violations of any law in criminal, civil, and administrative proceedings
x	Providing information to emergency personnel
	Documenting and improving performance of City employees
	Executing financial transactions between the City and any individual engaged in a financial transaction with the City
	Preventing waste, fraud, and abuse of City resources
x	Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings and property
	Enforcing obligations to the City
	Operating vehicles for City business
	Analyzing and managing service delivery
	Communicating among City employees, with citizens, or with third parties
	Surveying and gathering feedback from constituents
	Other (Describe):  If the surveillance technology is used for a purpose not listed above, does the purpose comply with the surveillance use policy? ___ Yes ___ No

**Complete ALL of the following items related to the proposed surveillance technology. Be as specific as possible. If an item is not applicable, enter "N/A." Do NOT leave fields blank.**

1. Information describing the surveillance technology and how it works:

The Guardian Indoor Active Shooter Detection System (GIASDS) is a gunshot detection service that utilizes ten sensors installed in various locations within Somerville High School in order to identify and locate gunfire. Sensors "listen" for an acoustic bang and "look" for the heat signature emitted from the discharge of a firearm to virtually eliminate false alerts to other sounds in the environment. Third-party testing by a nationally-recognized test lab indicated a 100% detection rate of gunshots and zero false positives. The Centre for the Protection of National Infrastructure, the United Kingdom's government authority that provides security expertise to protect national security, also found a 100% detection rate and zero false positive in their testing. The GIASDS is designed to work independently or integrate with the school's existing technologies to provide law enforcement, school staff and students with immediate, actionable information to help make the best decisions to how to respond. An alert is sent through a Situational Awareness Application and is then transmitted to law enforcement and school staff via text and email alerts.

The GIASDS sensors are not acoustic listening devices and do not transmit or record audio. Instead, the GIASDS sensor incorporates specially-tuned microphones that only identify high-decibel impulsive sounds, like a gunshot, not voices or other noises. All audio processing occurs within the sensor, and no audio leaves the sensor. In addition, GIASDS nor any other third party has access to the system's data—it is not cloud-based and is not monitored by a human being. Notification of a gunshot, which is detected within a second, is only sent to registered users in the City of Somerville.

a. Authorized use – the uses that are authorized, the rules and processes required before that use, and the uses that are prohibited (10.64.b.2):

All sworn officers, 911 personnel, and Crime Analysis personnel have an account to monitor GIASDS for alerts. Each person has their own username and password. Alerts are sent to individuals via their SPD issued cell phones via text and email.

b. Training – the training, if any, required for any individual authorized to use the surveillance technology or to access information collected by the surveillance technology, including whether there are training materials (10.64.b.9):

Instruction on use of the program is given during an in service training course. The company that runs the system can make on-site visits to help maintain equipment as well as train anyone we select to be an administrator. The application is relatively simple to use and the functionality is basic. If a shot is detected, the location is given via text and email alerts and through a map of the school on the situational awareness application.

2. Information on the proposed purpose(s) for the surveillance technology (10.64.b.1):

This technology allows police to respond to incidents of gunfire that have been detected at Somerville High School, potentially, before any E911 calls are made. It gives police the opportunity to locate potential gunshot victims for medical attention, intervene in an active shooter scenario, and / or potentially identify or apprehend suspects. The

purpose of GIASDS is improve public safety at Somerville High School and protect students and staff.
3. Information describing the kind of surveillance the surveillance technology is going to conduct and what surveillance data is going to be gathered (10.64.b.3):
The technology provides an estimated location in the High School, based on sensor activation, where the gunshots originated from, aiding police with locating potential victims and/or shooters.
a. Data access – the individuals who can access or use the collected surveillance data, and the rules and processes required before access or use of the information (10.64.b.4):
All sworn officers and 911 personnel have access to the GIASDS Situational awareness application, which maps the location of the gunshot detections within the high school. Select Somerville Public Schools personnel and the Director of Emergency Management will also have access to ensure proper emergency protocols are promptly followed in the even of a shooting.
b. Data protection – the safeguards that protect information from unauthorized access, including, but not limited to, encryption, access-control, and access-oversight mechanisms; (10.64.b.5)
All users must be registered and access is only given through login credentials with an active account.
c. Data retention – the time period, if any, for which information collected by the surveillance technology will be routinely retained, the reason that retention period is appropriate to further the purpose(s), the process by which the information is regularly deleted after that period has elapsed, and the conditions that must be met to retain information beyond that period (10.64.b.6):
The only data that is retained is the notification of a gunshot detection.
d. Public access – if and how collected surveillance data can be accessed by members of the public, including criminal defendants (10.64.b.7):
Gunshot detection alerts may be subject to public information laws and all requests would be vetted through the City’s law department. Information about gunshot detections may be used as evidence in criminal cases.
e. Third-party data-sharing – if and how other city or non-city entities – can access or use the surveillance data, including any required justification and legal standard necessary to do so, and any obligation(s) imposed on the recipient of the surveillance data (10.64.b.8):
Information on gunshot data may be shared with law enforcement agencies depending on need. As the technology does not record audio, the information shared would be log files that would essentially indicate where and when a gunshot occurred.
4. The location(s) it may be deployed and when:
The Somerville High School will be outfitted with ten GIASDS sensors located at various locations throughout the high school which will provide gunshot detection coverage for the entire high school.
5. A description of the privacy and anonymity rights affected and a mitigation plan describing how the department’s use of the equipment will be regulated to protect privacy, anonymity, and limit the risk of

potential abuse:
There is no personally identifiable information included in any gunshot detection alerts.
6. The potential impact(s) on privacy in the city; the potential impact on the civil rights and liberties of any individuals, communities or groups, including, but not limited to, communities of color or other marginalized communities in the city, and a description of whether there is a plan to address the impact(s):
Given there is no personally identifiable information included in gunshot detection alerts and the use of this technology is limited to active shooter situations in the high school, the City does not anticipate any impacts on the privacy of individuals. The technology does not have the ability to record voice-level audio, only the ability to detect a gunshot, so there is no risk to the privacy of students, staff, or others in the school building.
7. An estimate of the fiscal costs for the surveillance technology, including initial purchase, personnel and other ongoing costs, and any current or potential sources of funding:
The cost of the installation, including technology and labor, is \$48,190. The City has received a UASI grant, which is before the City Council for acceptance on the July 14, 2022 meeting of the Council. This grant is for \$45,904.98. The remaining \$2,285.02 will be covered by Somerville Public Schools general fund monies. There is an initial free 5-year period of maintenance. Following that period, SPS will budget for ongoing maintenance costs, which is an estimated \$2,500 annually.
8. An explanation of how the surveillance use policy will apply to this surveillance technology and, if it is not applicable, a technology-specific surveillance use policy:
This technology does not provide law enforcement with any personally identifiable information.
a. Oversight – the mechanisms to ensure that the surveillance use policy is followed, including, but not limited to, identifying personnel assigned to ensure compliance with the policy, internal record keeping of the use of the technology or access to information collected by the surveillance technology, technical measures to monitor for misuse, any independent person or entity with oversight authority, and the sanctions for violations of the policy (10.64.b.10):
Administrative Captain will oversee the GIASDS, Crime Analysis tracks gunfire incidents, and the GIASDS Situational Awareness. This will be done in partnership with SPS and the Emergency Management Director. Application provides alert tracking, as does SPD’s CAD system. The GIASDS is reactive to gunshots/potential gunshots. Triggers only occur when sensors detect an acoustic bang and/or infrared flash of gunfire. Regarding the use of the available functionality, log-in information of officers would be documented.