City of Cambridge
Executive Department

LOUIS A. DePASQUALE
City Manager

LISA C. PETERSON
Deputy City Manager

December 9, 2019

The Honorable, the City Council
City Hall, 795 Massachusetts Avenue
Cambridge, Massachusetts 02139

Re: Surveillance Technology Impact Reports

To the Honorable, the City Council:

Pursuant to Chapter 2.128, Section 2.128.030 of the Cambridge Municipal Code, I hereby submit to the City Council for approval the following Surveillance Technology Impact Reports.

No.	Department	Technology
1.	Assessing	Lexis/Nexis
2.	Emergency Communications	Rapid SOS
3.	Emergency Communications (Police)	Trespass Tracking
4.	Executive/City Manager	Media Monitoring—Meltwater
5.	Executive/City Manager	Social Media Monitoring–Meltwater Engage (powered by Sprout Social)
6.	Finance	Atlas Database (RMV)
7.	Information Technology	Checkpoint Firewall
8.	Information Technology	Web Server Access and Error Logging
9.	Law	WestLaw (Public Records Search function)
10.	Mayor's Office	Tweetdeck
11.	Police	Accurint Workstation
12.	Police	BRIC Omega Dashboard
13.	Police	Coplink
14.	Police	QED
15.	Police	Incident Database
16.	Police	CLEAR
17.	Police	Focused Deterrence Database
18.	Police	LENS
19.	Police	GPS tracking devices

20.	Police	Digital Intelligence Workstation
21.	Police	Dell Laptop BCERT
22.	Police	Magnet Forensics–Axiom
23.	Police	Getdata Forensic Explorer
24.	Police	Shotspotter
25.	Police	Keltech Covert Streetlight Camera
26.	Police	CSA Pole Camera
27.	Police	DTC Body Wire
28.	Police	IVC
29.	Police	Morpho (AFIS) with camera (MSP)
30.	Police	Live Scan (booking).
31.	Police	Live Scan (booking)
32.	Police	Live Scan (records)
33.	Police	Robotex Avatar II 2 Camera Wireless
34.	Police	Robotex Avatar II 2 Camera wireless
35.	Police	Robotex Avatar II 2 Camera Wireless
36.	Police	Foster Miller Tallon Robot 4 Camera Wireless
37.	Police	Foster Miller Dragon Runner 4 Camera Wireless
38.	Police	Remotetec F6A Robot 4 Camera Wireless and Fiberoptic
39.	Police	Tactical Electronics VF52 Fiber Scope
40.	Police	ATF Bomb Arson Tracking
41.	Police	Transport Wagon 240 Recording
42.	Police	Transport Wagon 236 Recording
43.	Police	Throwbot XT
44.	Police	Case Cracker
45.	Police	Infraware
46.	Police	Lexis Nexis
47.	Police	TweetDeck
48.	Public Health	MAVEN (Massachusetts Virtual Epidemiologic Network)
49.	Schools	Bus Video Recorders
50.	Traffic, Parking & Transportation	ATLAS: Massachusetts RMV Website Portal
51.	Traffic, Parking & Transportation	Traffic Signal Detection Cameras

52.	Traffic, Parking & Transportation	MioVision Traffic Count Mobile Camera Units
53.	Water	Automated Meter Reading System (AMR)
54.	Water	Consumer Engagement (AMR)

I look forward to answering any questions you may have concerning the enclosed Surveillance Technology Impact Reports.

Sincerely,

Louis A. DePasquale
City Manager

Enclosures

1. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Assessing**
Division or Unit (if applicable):	
Submitted by:	Gayle Willett
Date:	12/9/19
Surveillance Technology:	Lexis/Nexis

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Assessing is in the process of acquiring LexisNexis to review information submitted by taxpayers seeking residential exemptions and personal exemptions. This data will allow the Assessing department to vet information received from taxpayers in order to prevent fraud.

2. **What is the purpose of the Surveillance Technology?**

   - Preventing waste, fraud, and abuse of City resources

3. **Where will the Surveillance Technology be deployed? When?**

   - Assessing Department in December 2019

4. **What privacy impact will the Surveillance Technology have?**

   - Assessing is limiting the access to LexisNexis to two staff members. These are staff who are currently part of the review process of the exemptions and access to this program should make their jobs easier. Additionally, the use of the software by the Assessing department is reviewed by LexisNexis to ensure that it is used only for department business. LexisNexis can audit the Assessing department to ensure that the data is being used only for business purposes.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Assessing department budget will cover the costs for two licenses at $120.00 each, equaling $240.00 per year.

2. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Emergency Communications Department**
Division or Unit (if applicable):	Emergency Communications Center
Submitted by:	Christina Giacobbe
Date:	12/9/19
Surveillance Technology:	Rapid SOS

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - RapidSOS is the preferred provider of location information that is used through the State 911 Department in deploying the Next Generation 911 system. This system delivers 911 calls to the appropriate jurisdiction and RapidSOS functions as a clearinghouse to present the call to the PSAP for emergency response. The data that is collected is the location and phone number. There is no subscriber information presented. All 911 calls are required to be recorded as well as caller information. Callers who contact 911 do so voluntarily seeking emergency services.

2. **What is the purpose of the Surveillance Technology?**

   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings
   - Analyzing and managing service delivery
   - Communicating among City employees, with citizens, or with third parties
   - In particular, the purpose of this technology is to provide Call Takers/Dispatchers with location information of wireless callers who contact 911 in our jurisdiction. The platform sits on the Next Generation 911 platform to provide location information and phone number.

3. **Where will the Surveillance Technology be deployed? When?**

   - The technology is deployed by the Commonwealth of Massachusetts by the State 911 Deaprtment to all Public Safety Answering Points (PSAP) in the Commonwealth as required by by law to review and assess the technological and operational capability and financial feasibility of wireless 911 calls being routed to and handled directly by the PSAP in which the caller is located, and if such capability exists, the State 911 department establishes these standards, by which our PSAP receive wireless calls.

The State 911 Department reviews and assesses new communications technologies that may include, but are not limited to, wireless, video, broadband, and IP–based applications that may serve as the next generation 911 technology platforms, consistent with FCC decisions and federal law.

4. **What privacy impact will the Surveillance Technology have?**

   - There will be no privacy impact with this technology as RapidSOS is a platform the Commonwealth oversees on the Next Generation 911 platform to deliver location information for wireless calls to PSAP jurisdictions. This is necessary to provide aid to the caller, to dispatch emergency personnel, and to provide emergency services. When a caller contacts 911, they are voluntarily seeking emergency services and/or assistance from our jurisdiction. The caller's information that is provided is location and phone number only through RapidSOS. The Next Generation 911 System administered by the State provides subscriber information, address and phone number.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - There are no associated costs with RapidSOS as the platform clearinghouse is deployed by the Commonwealth of Massachusetts, State 911 Department as they are authorized to administers the State 911 system.

3. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Emergency Communications Department**
Division or Unit (if applicable):	Police
Submitted by:	Christina Giacobbe
Date:	12/9/19
Surveillance Technology:	Trespass Tracking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Trespass Tracking tracks no trespass notices/letters issued to individuals. The information is recorded in our QED (CAD) database. The information recorded is name, location of the trespass, and other identification information if known such as address, who served the order, license number and date of issue and expiration.

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Providing information to emergency personnel
   - Enforcing obligations to the City
   - In particular, the purpose of recording this information is to ensure the safety of those impacted as well as for officer safety. In addition, the Trespass Tracking technology allows us to maintain an electronic record of all active No Trespass notices in the City in one database in CAD.

3. **Where will the Surveillance Technology be deployed? When?**

   - The informaiton is in the QED(CAD) database that is deployed in the Emergency Communications Center, Police, and Fire Departments. However, there are restictions and access to this datbase that is managed by ECC. There is no public access to this database and only autrhrized employees can review.

4. **What privacy impact will the Surveillance Technology have?**

- The individuals who are recorded in the Trespass Tracking are notified verbally and in writing of the notice to not trespass at the said location. The information obtained in the Trespass Tracking is safeguarded as all information under Criminal Justice Information Services (CJIS).

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

- There are no costs for the Trespass Tracking as it is a database that lives in the QED (CAD) that is part of the provider platform for CAD.

4. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Executive/City Manager**
Division or Unit (if applicable):	Public Information Office & Communications/Community Relations staff in: Arts Council, Community Development, Library, Police Department and Public Works
Submitted by:	Lee Gianetti
Date:	12/9/19
Surveillance Technology:	Media Monitoring - Meltwater

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Meltwater is a software as a service (SaaS) company that monitors media channels and social media platforms to identify relevant content based on keyword search terms. Meltwater monitors digital and print media coverage, broadcast and radio coverage, and social media sites including Twitter, Facebook, YouTube, and blogs. The platform collects information through its content partnerships and aggregates results into different search channels for authorized City users. Additionally, the platform provides access to its media influencers (media contacts) database, and is used to distribute city media releases to the public and media.
   - Meltwater is used to monitor coverage of the City of Cambridge and key topic areas of interest (i.e. sustainability, construction, transportation, and Visionzero) to compile weekly reports to share with internal staff.

2. **What is the purpose of the Surveillance Technology?**

   - Communicating among City employees, with citizens, or with third parties

3. **Where will the Surveillance Technology be deployed? When?**

   - Meltwater is a web based platform used by authorized city employees.

4. **What privacy impact will the Surveillance Technology have?**

   - Meltwater media searches collects publicly available content, both open access and paywall access. Meltwater social media searches pull from the respective channels "firehoses" and only provides content that is allowed by the individual user or sites

privacy settings. The platform provides various metrics on each search result and tracks open rates for media release emails.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Funds come from the Public Information Office's OOM budget.
   - Annual subscription cost is $23,100.

5. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Executive/City Manager**
Division or Unit (if applicable):	Public Information Office & Communications/Community Relations staff in: Arts Council, Community Development, Library, Police Department and Public Works
Submitted by:	Lee Gianetti
Date:	12/9/19
Surveillance Technology:	Social Media Monitoring - Meltwater Engage (Powered by Sprout Social)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Meltwater Engage, which is powered by Sprout Social, is a software as a service (SaaS) that allows the City to schedule posts, respond to messages, deploy bots (on Twitter Direct Messages and Facebook messenger and private messages), store assets, access customizable analytics reports, and use social listening across networks and profiles (Twitter, Facebook, Instagram, Pinterest, and LinkedIn). Additionally, Meltwater Engage allows for direct connection to external help solutions (to open service request tickets) and provides a social CRM for staff within the platform.

2. **What is the purpose of the Surveillance Technology?**

   - Documenting and improving performance of City employees
   - Analyzing and managing service delivery
   - Communicating among City employees, with citizens, or with third parties
   - Surveying and gathering feedback from constituents

3. **Where will the Surveillance Technology be deployed? When?**

   - Meltwater Engage is a web based platform that used by authorized city employees.

4. **What privacy impact will the Surveillance Technology have?**

   - Meltwater Engage can monitor conversations based on keywords, search operators, hashtags, geographic area, and user profile name, in addition to the monitoring direct interactions with city-maintained accounts. Its searches collect publicly available content and direct private messages sent to City accounts in the platform. Only content that is allowed by the individual user privacy settings are visible in the

platform. The platform provides various metrics for measuring content and campaign performance.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Funds come from the Public Information Office's OOM budget.
   - Annual subscription cost is $33,500.

6. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Finance Department**
Division or Unit (if applicable):	Revenue Division
Submitted by:	Michele Kincaid
Date:	12/9/19
Surveillance Technology:	Atlas Database (RMV)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The Atlas Database is used in a very limited capacity to release the Non-Renewal hold at the RMV for a taxpayer who has paid a delinquent Motor Vehicle Excise tax bill via credit card or cash. The City provides this service to accommodate those taxpayers who need a release relatively quickly. For instance, a taxpayer may not even realize they are on RMV hold until they go to the registry to renew their license or registration. The taxpayer will pay the outstanding bill on-line via credit card and then call the Finance Office for a release.

2. **What is the purpose of the Surveillance Technology?**

   - Enforcing obligations to the City
   - Executing financial transactions between the City and any individual engaged in a financial transaction with the City

3. **Where will the Surveillance Technology be deployed? When?**

   - Only 3 Finance staff have the Atlas Database system on their computers.

4. **What privacy impact will the Surveillance Technology have?**

   - The data provided is the Driver's name, address, Class D license #, Birth date, weight, height, gender, and eye color.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**
   - The City is assessed RMV fee on the Cherry Sheet Assessments. There are no personnel costs associated. (See annual surveillance report.)

7. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Information Technology**
Division or Unit (if applicable):	
Submitted by:	Mike Dugas
Date:	12/9/19
Surveillance Technology:	Checkpoint Firewall

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The firewall collects IP addresses from all internal and external connections and connected attempts. This information is used to limit and protect the City network from malicious sites and unauthorized access.

2. **What is the purpose of the Surveillance Technology?**

   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Deployed in 2013 in City building(s).

4. **What privacy impact will the Surveillance Technology have?**

   - The firewall collects IP addresses from all internal and external connections.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $300,000 Initial cost with implementation
   - $20,000 ongoing training
   - $50,000 annual maintenance
   - Source of funds:
     - Initial cost 300k – eGov
     - Annual and training – OOM
     - Personnel costs - .5 FTE

8. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Information Technology**
Division or Unit (if applicable):	
Submitted by:	Eric Belford
Date:	12/9/2019
Surveillance Technology:	Web server access and error logging

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

    - We utilize built-in functionality in IIS (Microsoft's web server software) to record information about every request that the server receives and responds to. The data is written to log files on disk for future reference and analysis.

2. **What is the purpose of the Surveillance Technology?**

    - Analyzing and managing service delivery

3. **Where will the Surveillance Technology be deployed? When?**

    - All City web servers

4. **What privacy impact will the Surveillance Technology have?**

    - The log entries record the current date & time, IP address, referring URL (if provided by the browser), and user agent string (again, if provided by the user's browser) at the time of the request.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

    - This functionality is built-in to the web server software and incurs no additional costs.

9. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Law**
Division or Unit (if applicable):	
Submitted by:	Nancy Glowa
Date:	12/9/19
Surveillance Technology:	WestLaw Public Records Search function

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - WestLaw's public records search function is used to gather publicly available information concerning litigants such as other lawsuits filed, judgments, convictions, warrants, bankruptcies, property records, and other publicly available filings or documents.

2. **What is the purpose of the Surveillance Technology?**

   - Gathering evidence of violations of any law in criminal, civil, and administrative actions.
   - Preventing waste, fraud, and abuse of City resources.

3. **Where will the Surveillance Technology be deployed? When?**

   - On an as-needed basis in litigation.

4. **What privacy impact will the Surveillance Technology have?**

   - None. The technology searches for public records based on documents filed in courts, registry of deeds, and other publicly available sources.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - The WestLaw subscription total cost is bundled and not broken down by feature, therefore the cost for this specific feature is unknown.

10. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Mayor's Office**
Division or Unit (if applicable):	
Submitted by:	Wilford Durbin, Chief of Staff
Date:	12/9/19
Surveillance Technology:	Social media monitoring software (Section 2.128.020(G)(1)(l), Twitter monitoring via Tweetdeck

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Tweetdeck allows users to organize and search Tweets in various ways -

     From Twitter Help Center:

     "Collections
     With collections, you can organize Tweets according to topics, events, interests, conversations, and more, all in real-time. Add your collections as columns and Tweet the URL to share it with others.

     Search Typeahead
     When you begin to type characters into the search box, TweetDeck will run a real-time search that attempts to autocomplete your search term, surfacing potentially relevant search topics and accounts. Different search topics will be shown on the top half of the drop-down menu, whereas user accounts will be shown on the bottom half.
     If you select one of the suggested search terms, you will be given the option to browse users related to that search topic or Tweets related to that search term.

     Sentiment
     It's easy to uncover sentiment surrounding a topic; simply search for a topic followed by a happy or sad emoticon. For example, you can create a search column with the keyword "San Francisco :)" to see Tweets regarding San Francisco in a positive manner.

     Column filters

TweetDeck's column filters are a powerful way to customize searches by keyword, date and time, and to stay on top of new Tweets as columns quickly update.
Click the filter icon at the top of any column to access the options menu:

Content: Tweets matching keywords, media type, dates and time, language, or including or excluding Retweets
Location: Tweets geotagged in a specified locations
Users: Tweets from a specific account, members of a List, or verified accounts
Engagement: Tweets with a minimum number of Retweets, likes, or replies
Alerts: Tweet alerts through sound or desktop notifications

List management
TweetDeck allows you to manage your Lists easily in one centralized place for all your accounts. You can create Lists in TweetDeck filtered by by your interests or by particular accounts. Any List that you have set up or subscribed to previously can also be added as separate columns in TweetDeck.

Tweets from a specific account
You can designate a column to display a specific account's Tweets. Just add a Tweet column and search for the account you would like featured in the search box."

2. **What is the purpose of the Surveillance Technology?**

- Surveying and gathering feedback from constituents. More frequently, people are using Twitter to communicate their constituent concerns or issues with City services much in the same way that they would send an email.

3. **Where will the Surveillance Technology be deployed? When?**

- Through City-issued computers and laptops, the technology is available continuously.

4. **What privacy impact will the Surveillance Technology have?**

- Tweets complied by Tweetdeck would potentially collect all Tweets responding to designated search criteria that are Public (see definition below) and Protected Tweets if the official Mayoral account follows that person. In each case, Mayor's Office staff would only be able to see information that a person has chosen to release publicly on their Twitter account, in accordance with Twitter's Terms and Conditions. Obviously, the search also only applies to people who use Twitter, and only those who include

identifiable information on their account (some accounts, for example, are anonymous, use a nom de plume or, perhaps more appropriately, nom de guerre).

Impacts to privacy would likely not be felt by any individual, as a simple search of one's Twitter profile shows all Tweets, likes, retweets, and other activity from a user over the course of that profile's existence, and Tweetdeck would not provide any additional information than could be found during such a search. It is Tweetdeck's ability to monitor public conversations in real time across multiple Twitter accounts that could trigger a privacy concern, as one could use the information to build a network of individuals who used keywords or hashtags associated with certain ideologies: #MeToo, #MAGA, #NobodyWins, #NeverTrump, #BlackLivesMatter, etc. As Twitter's search functions become more advanced, it is becoming possible to search people's sentiments in a Tweet, collecting all posts that mention Cambridge in a positive or negative sentiment, for example.

- **From Twitter:**

  "What is the difference between public and protected Tweets?

  - When you sign up for Twitter, your Tweets are public by default; anyone can view and interact with your Tweets. Should you choose to protect your Tweets, you can do so through your account settings.

- If you protect your Tweets, you'll receive a request when new people want to follow you, which you can approve or deny. Accounts that began following you before you protected your Tweets will still be able to view and interact with your protected Tweets unless you block them. **Who can see my Tweets?**

  - **Public Tweets** (the default setting): Are visible to anyone, whether or not they have a Twitter account.

  - **Protected Tweets**: Only visible to your Twitter followers. Please keep in mind, your followers may still capture images of your Tweets and share them."

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - There are no costs associated with Tweetdeck, and the Mayor's Office does not pay for, nor does it intend to pay for more advanced search options. Personnel costs are minimal as Tweetdeck is only passively monitored.

11. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Accurint Workstation

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Crime Analysis Software for analysis, mapping, etc

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as the software analyzes incident data from the Department's records management system. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $30,000

12. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis (and CID)
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	BRIC Omega Dashboard

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Intel portal for Boston Regional Intel CTR

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigation Division

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it analyzes and maps incident data from the surrounding communities.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

13. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis (and CID)
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Coplink

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Nespin portal for exchange of criminal justice incident reports.

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigation Division.

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it combines and provides access to incident data from the surrounding communities.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available.

14. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Police Department
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	QED

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Record Management System

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - CPD

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact. QED serves as the central report writing and incident documentation system for the Department. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not Available. Multi-agency product.

15. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Incident Database

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Access database of corrected RMS Data

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact. This database is a condensed accounting of QED incidents for purposes of crime incident statistical reporting. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

16. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	CLEAR

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Public Records search engine

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigation Division

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since it is composed of public records.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

17. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis and Focussed Deterrence Unit
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Focused Deterrence Database

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Algorithm to analyze RMS data

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Focussed Deterrence Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it analyzes existing incident reports from the Department's Records Management System. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

18. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	LENS

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Federal Probation Database (active Cambridge federal probationers)

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as the Department only has access to those individuals who are Cambridge residents that are on federal probation.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

19. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	GPS Tracking Devices (2)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Location tracking through satellite triangulation

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Various (e.g., Bicycle Package Theft Sting Operations)

4. **What privacy impact will the Surveillance Technology have?**

   - This technology should have no privacy impact since it is utilized to track property (bikes/packages) stolen from the Cambridge Police Department.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

20. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Digital Intelligence Workstation

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Desktop computer hardware

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

21. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Dell Laptop BCERT

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Hardware for computer evidence recovery

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

22. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Magnet Forensics - Axiom

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Forensics software for computers & mobile devices

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

23. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Getdata Forensic Explorer

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Software for analysis of digital evidence

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

24. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Shotspotter

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Gun shot detection system

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Deployed across the City with 12 sensors and 1.25 square mile coverage area

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it captures the sound of gunshots.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

25. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Keltech Covert Streetlight Camera

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Covert camera

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is typically used in public spaces that do not implicate constitutional protections. This technology is only used in constitutionally protected spaces with consent, a search warrant or exigent circumstances.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available.

26. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	CSA Pole Camera

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Pole camera

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is typically used in public spaces that do not implicate constitutional protections. This technology is only used in constitutionally protected spaces with consent, a search warrant or exigent circumstances.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

27. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	DTC body wire

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Audio surveillance

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is used for officer safety purposes during controlled drug buys, prostitution stings and human trafficking operations.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

28. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	I.V.C.

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Exterior point, tilt and zoom camera

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is typically used in public spaces that do not implicate constitutional protections. This technology is only used in constitutionally protected spaces with consent, a search warrant or exigent circumstances.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

29. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Morpho (AFIS) with camera (MSP)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Fingerprint database with MSP

2. **What is the purpose of the Surveillance Technology?**

   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Scene Services

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact. It allows the Department's Crime Scene Serves Section to compare unknown latent fingerprints to a state database of known fingerprints.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $4,571 in maintenance costs

30. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Live scan (1) booking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Digital fingerprint system with live feed to MSP and FBI for criminal history

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Booking

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to document and identify persons in lawful police custody or those persons who voluntarily wish to be fingerprinted.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $29,000 plus $9,660 in maintenance costs

31. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Live scan (2) booking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Digital fingerprint system with live feed to MSP and FBI for criminal history

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Booking

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to document and identify persons in lawful police custody or those persons who voluntarily wish to be fingerprinted.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $29,000 plus $9,660 in maintenance costs

32. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Live scan (1) records

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Digital fingerprint system with live feed to MSP and FBI for criminal history

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Records

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to document and identify persons in lawful police custody or those persons who voluntarily wish to be fingerprinted.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $29,000 plus $9,660 in maintenance costs

33. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Robotex Avartar II 2 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Small platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 6

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was approximately $40,000.00. Ongoing cost is maintenance when needed

34. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Robotex Avartar II 2 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Small platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 7

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was approximately $40,000.00. Ongoing cost is maintenance when needed

35. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Robotex Avartar II 2 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Small platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 8

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was approximately $40,000.00. Ongoing cost is maintenance when needed

36. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Foster miller Tallon robot 4 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Medium platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 4

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $105,000.00. On going cost is maintenance when needed.

37. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Foster Miller Dragon runner 4 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Medium platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 1

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $102,000.00. On going maintenance cost when needed

38. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Remotetec F6A robot 4 camera wireless and fiberoptic

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Large platform robot gripper and camera asist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Response vehicle

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $150,000.00. On going maintenance cost as needed

39. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Tactical electronics VF52 Fiber scope

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Optical scope technology used to view enclosed or secure areas for explosive mitigation

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Response vehicle

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $56,000.00 plus ongoing maintenance

40. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	ATF Bomb arson tracking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - ATF reporting online system

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - ATF

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it only used to track arson and bomb incidents.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - none

41. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Fleet
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Transport Wagon 240 recording

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Prisoner Transport Security Cameras

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Transport vehicles

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to view persons lawfully in police custody who are being transported by the Department and is implemented strictly for their safety and the safety of the transporting officers.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $2,500

42. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Fleet
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Transport Wagon 236 recording

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Prisoner Transport Security Cameras

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Transport vehicles

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to view persons lawfully in police custody who are being transported by the Department and is implemented strictly for their safety and the safety of the transporting officers.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $2,280.00

43. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SRT
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	1 Throwbot XT

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Robotic camera for remote viewing; no recording

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since the technology is used in minimal situations where an exigency exists and the Special Response Team needs to assess whether a threat exists before making lawful entry or taking further action.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $14,000 purchase vost plus most recent maintenance of $1,750.

44. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Case Cracker

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Video Recording - Interview Rooms

2. **What is the purpose of the Surveillance Technology?**

   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Police Station

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since the recordings are all done voluntarily, and there is a legal requirement to record criminal interrogations where practicable.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $40,000.

45. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Professional Standards Unit
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Infraware

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Dictation Software

2. **What is the purpose of the Surveillance Technology?**

   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Police station

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since the technology records voluntary interviews.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

46. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Lexis Nexis

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Public Safety Search Engine

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigations Division

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since it is composed of public records.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Part of Accurint cost.

47. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	PIO
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	TweetDeck

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - TweetDeck is a social media dashboard application for management of Twitter accounts. Originally an independent app, TweetDeck was subsequently acquired by Twitter Inc. and integrated into Twitter's interface.

2. **What is the purpose of the Surveillance Technology?**

   - Providing information to emergency personnel
   - Analyzing and managing service delivery
   - Documenting and improving performance of City employees
   - Surverying and gathering feedback from constituents

3. **Where will the Surveillance Technology be deployed? When?**

   - Cambridge Police PIO

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as the software merely aggregates publically available Twitter posts and mentions about the Department.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Free

48. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Public Health Department**
Division or Unit (if applicable):	Public Health Nursing Epidemiology and Data Services
Submitted by:	Anna Wielgosz Manager, Epidemiology and Data Services Cambridge Public Health Department
Date:	12/9/19
Surveillance Technology:	MAVEN (Massachusetts Virtual Epidemiologic Network)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - M.G.L. c.111, §§ 1, 3, 5, 6, 7, 94C, 109, 110, 110B, 111 and 112 define the responsibilities of the local boards of health and the Department of Public Health with respect to the reporting and control of diseases dangerous to the public health. M.G.L. c.111D, § 6, references the obligation of clinical laboratories to report infectious diseases to the Department.

     By state law, when a MA resident is diagnosed or has a suspected diagnosis of a reportable condition, their medical providers are required to report information about the patient (when available, full demographic, clinical and epidemiologic information, as defined by the Massachusetts Department of Public Health) to the health department. At this point in time, most of these reports are automatically sent by laboratories and providers electronically to the state health department through MAVEN; they can also report information via fax or phone to either the state health department or their local health department, where staff then enter this information into MAVEN by hand. Reporting is mandated by the state for certain conditions.

2. **What is the purpose of the Surveillance Technology?**

   - "MAVEN" is the Massachusetts Virtual Epidemiologic Network - a PHIN (Public Health Information Network) compliant, secure web-based surveillance and case management system for infectious diseases that enables rapid, efficient communication among local and state health departments and laboratories. MAVEN is an easy way to conduct case investigations and management while also decreasing paperwork. The system was purchased and developed in 2005 by MDPH and local

health partners. The data in MAVEN goes back until approximately 1989 for the general epidemiology and vaccine preventable disease events. For tuberculosis, the data goes back to approximately 1993.

Infectious disease surveillance is the routine collection, analysis, interpretation, and distribution of data in order to reduce morbidity and mortality through the control and/or prevention of disease.

- Surveillance data is used to:
  - Monitor disease trends over time
  - Rapidly detect increases in disease occurrence
  - Implement control measures
  - Identify high-risk groups
  - Allocate resources & guide public health policy and action

- There are approximately 90 notifiable infectious diseases that have a required response.

3. Where will the Surveillance Technology be deployed? When?

- The Cambridge Public Health Department has been using MAVEN since its inception in 2005. Access is limited by a user's roles and groups, so, by default, CPHD users can see only Cambridge residents' information. Within CPHD, only those staff who are required to use MAVEN to conduct infectious disease surveillance work have access to the system.

4. What privacy impact will the Surveillance Technology have?

The information collected in MAVEN is considered protected health information (PHI) under HIPAA. HIPAA specifically allows public health reporting and access to PHI for public health activities without requiring an individual's authorization.

5. What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?

- MAVEN is managed and maintained by the Office of Integrated Surveillance and Informatics Services at the Massachusetts Department of Public Health, which funds MAVEN. CPHD staff use MAVEN to do state-mandated infectious disease investigations, but are not involved in the initial or ongoing maintenance of the system.

49. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	School Department
Division or Unit (if applicable):	Safety & Security, Transportation (buses)
Submitted by:	Diane Fisk Johnson, Financial Manager Transportation
Date:	12/9/19
Surveillance Technology:	Bus video recorders on individual buses

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The cameras on the school buses allow us to review any incidents that take place, after the event is over. The cameras allow us to determine the source of any behavioral outbursts on the bus, many of which take place out of the line of sight of the bus driver.
   - Images are recorded to a box, and the images are retrieved manually by the Transportation Director when investigating an incident.

2. **What is the purpose of the Surveillance Technology?**

   - Supporting the safety of all students and staff on bus transportation by addressing disruptive behavior appropriately.

3. **Where will the Surveillance Technology be deployed? When?**

   - All school buses have carried these on board cameras since their original installation in FY13.

4. **What privacy impact will the Surveillance Technology have?**
   - The data from these cameras is not maintained, but is over-recorded at monthly intervals. Without physically retrieving the imagining data from the bus, it is not accessible to anyone.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - The **initial cost** of the SEON camera system was $47,190 when it was installed in the spring of 2013.

- There have been **ongoing maintenance** expenditures for moving equipment to newer buses, and adding cameras as needed.
    - FY14 $4,955
    - FY16 $12,500
- It is not possible to determine the **personnel costs** of using this equipment. The Transportation Director must board a bus after an incident and download the images in order to proceed with an investigation, but it is difficult to quantify the time involved.
- Both equipment and personnel were **funded** from the School Department General Fund.

50. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Traffic, Parking, and Transportation**
Division or Unit (if applicable):	Parking Management
Submitted by:	Joe Barr, Brooke McKenna, Stephanie McAuliffe
Date:	12/9/19
Surveillance Technology:	ATLAS: Massachusetts RMV Website Portal

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The ATLAS: Massachusetts RMV Website Portal is a web application provided by the Commonwealth of Massachusetts to access the RMV system. It used by Parking Services staff. Internal access only with user restrictions by name and password. Information accessed includes name, address, license plate number, registration status, vehicle details, vehicle addresses and garage code. Used to issue resident parking permits; view handicap placard information and clear holds on licenses and vehicle registrations. No data is collected or stored, and the public cannot access it.

2. **What is the purpose of the Surveillance Technology?**

   - The purpose of the ATLAS: Massachusetts RMV Website Portal is to assist Parking Services staff in issuing resident parking permits; viewing handicap placard information and clearing holds on licenses and vehicle registrations. The information accessed includes Information accessed includes name, address, license plate number, registration status, vehicle details, vehicle addresses and garage code.

3. **Where will the Surveillance Technology be deployed? When?**

   - The ATLAS: Massachusetts RMV Website Portal is a web application provided by the Commonwealth of Massachusetts to access the RMV system. It used by Parking Services staff daily. Internal access only with user restrictions by name and password. No data is collected or stored, and the public cannot access it.

4. **What privacy impact will the Surveillance Technology have?**

   - The use of ATLAS: Massachusetts RMV Website Portal has little to no impact on privacy: The information accessed is not collected or stored and the public can not access it. The information is only accessed by the Parking Services staff when issuing resident parking permits; viewing handicap placard information and clearing holds on licenses and vehicle registrations all of which are requested by the customer.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - There is a $20.00 RMV surcharge for license plate clears. In FY 2019, there were 17,973 chargeable clears for license and registration holds.

51. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Traffic, Parking, and Transportation**
Division or Unit (if applicable):	Street Management
Submitted by:	Joe Barr, Brooke McKenna, Stephanie McAuliffe
Date:	12/9/19
Surveillance Technology:	Traffic Signal Detection Cameras

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The traffic detection units each consist of a video camera device which is mounted approximately 10 feet above one of the traffic signal mast arms at an intersection. There are two types of cameras:
     - MioVision SmartLink 360 cameras
     - Iteris directional detection cameras

   The MioVision units are mounted in a location that allows visibility towards all approaches to the intersection and provide detection of users in all directions from a single device. The Iteris units are mounted for each approach where intersection detection is required and provide for detection of users from one roadway approach.

   The camera communicates a video feed via the hardwire signal conduit to the signal control cabinet at the intersection, where a video processing unit is installed. The video processing unit analyzes the video feed on-site in order to count and classify roadway users approaching the intersection by their transportation mode type and direction of travel.

   The MioVision Cameras and supporting software and hardware originally included the ability to collect video by plugging a laptop into the processing unit located in the traffic control cabinet at the intersection or to stream video upon demand to the cloud for access through an online portal. Use of captured video is needed from time to time to ensure proper functionality of the system to recognize and count vehicles, cyclists and pedestrians.

   At our request, MioVision has changed the default settings so that the City cannot collect video at the control cabinet or stream video to the cloud. Only the Vendor will be able to collect video in the field or stream data to the cloud. The vendor has agreed

in writing that they will do so only under specific circumstances and will notify the City in advance of streaming or collecting any data. They have also agreed to delete all captured video within 30 days. The circumstances agreed upon include: capture video for training purposes, capture video for intersection detection accuracy validation, capture video specifically to validate a solution to a problem at the intersection, and capture video to analyze and detect/root-cause a problem at the intersection.

The Iteris cameras do not have the ability to stream or record video as configured.

2. What is the purpose of the Surveillance Technology?

- The purpose of this technology is to analyze and manage service delivery, in this case operation of traffic signals and counting vehicles, bicycles, and pedestrians. The technology provides detection of roadway users, to classify their mode of transportation, and to quantify their movements at signalized intersections in the City of Cambridge. The aggregated data collected will be analyzed and used to improve the efficiency and safety of operations for all roadway users. The technology will also provide City staff with continuous roadway user counts to allow for evaluation of seasonal and annual traffic volume variations to assist in future design and planning projects.

- The processed data collected will be used for two purposes:
    - Traffic detection – this process provides a notification to the traffic signal controller requesting to call or extend a signal phase to allow for dynamic signal phasing that adapts to changes in the number of roadway users present.
    - Traffic counts – providing continuous counts of roadway users traveling through the intersection. Counts are broken out by movement (i.e., direction of approach and turn or straight movement through the intersection) and by transportation mode type (i.e., truck, bus, vehicle, bicycle, pedestrian)

3. Where will the Surveillance Technology be deployed? When?

- MioVison Intersection Cameras were deployed in the field in the Fall of 2019 at multiple signalized intersections across the City.
- MioVision Cameras will be installed at additional locations as funding becomes available.
- Iteris cameras have been installed at isolated locations over the past three years.

4. **What privacy impact will the Surveillance Technology have?**

- We expect that the impact on privacy will be minimal, for the following reasons:
  - The cameras do not have sufficient resolution to provide personally identifiable details in the video such as faces or license plates.
  - While video streaming and collection is used in an extremely limited and controlled manner as indicated above, the core functionality of the technology operates through real-time processing of lower resolution video data, resulting in non-identifiable discrete data on number of users and deletion of video in real time on-site.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

- The initial 8 units were purchased for just under $21,000 each and funded by the Casino Mitigation Fund. 4 additional units were installed as part of a new private development and turned over to the City for no cost. Ongoing operations and maintenance costs for the units will be covered by the Department's signal operations budget.

52. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Traffic, Parking, and Transportation**
Division or Unit (if applicable):	Street Management
Submitted by:	Joe Barr, Brooke McKenna, Stephanie McAuliffe
Date:	12/9/19
Surveillance Technology:	MioVision Traffic Count Mobile Camera Units

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - MioVision Scout is a portable, battery operated, traffic video collection unit. It is a standalone unit that is deployed in the field for unattended traffic video collection, Video is collected over a series of days and stored in the Scout unit on a digital storage card. At the end of the data collection period, the unit is removed and data is taken from the storage card and processed for traffic data. Additionally, Scout units have the capability of detecting and recording MAC addresses from devices searching for wireless networks within their range. MAC addresses and timestamps are then transmitted to a central system. The central system then looks to see if the same MAC address has been recorded previously by other units and uses any matches to establish travel times. During deployment, the units also communicate wirelessly for monitoring purposes, but do not stream data.

     The City of Cambridge does not own or plan to purchase Scout Units. However, the units are used regularly by traffic engineering and transportation planning consultants in order to collect traffic data in Cambridge to complete Traffic Impact Studies and other transportation related studies.

2. **What is the purpose of the Surveillance Technology?**

   - The purpose of this technology is to analyze and manage service delivery, in this case collecting traffic video and data that is later processed to provide a variety of traffic related data such as turning movement counts, intersection counts and classifications, road volume counts, and travel times.

3. **Where will the Surveillance Technology be deployed? When?**

   - These units are deployed in the field, at various locations on a temporary basis. The units are typically attached to a signal, utility, or streetlight pole within the right of way. They boxes are locked and inaccessible during deployment.
   - Deployment is based on the need for transportation data for use in a transportation study, traffic impact study, or other transportation related data analysis.

4. **What privacy impact will the Surveillance Technology have?**

   - MioVision Scout units records Video at 720 x 480 resolution. This standard resolution video offers limited personal information and does not include license plate reading ability, limiting privacy impacts. In addition, all video recordings will be done within the public right of way.

     In the past, consultants have deployed Scout units in Cambridge without approval from the City. Moving forward, the Traffic, Parking, and Transportation Department will implement a permitting system that will require pre-approval for all deployments. The permit will require that all deployments meet certain data security and data retention requirements.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

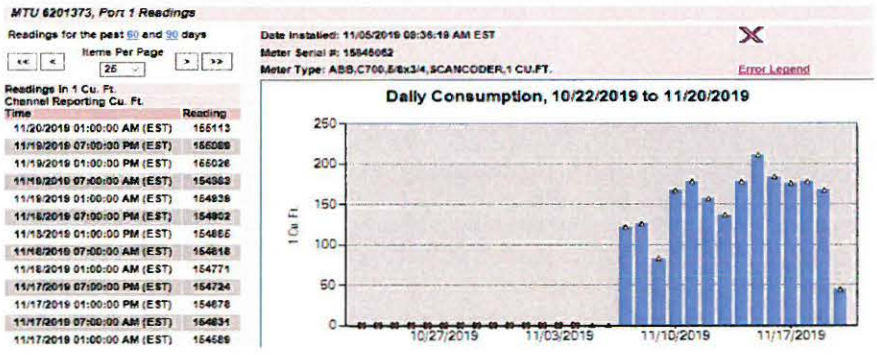
   - All costs associated with the use of MioVision Scout Units are paid by private consultants.

53. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Water**
Division or Unit (if applicable):	
Submitted by:	Fred Centanni
Date:	12/9/19
Surveillance Technology:	Automated Meter Reading System (AMR)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The Water Department's AMR system is a radio-based system which transmits on a Federal Communication Commission (FCC) licensed/reserved frequency. Meter Transmitter Units (MTUs) are attached to every water meter throughout the city. The MTU transmits water meter reads in a propriety format. These reads are transmitted every 4 hours on a floating schedule. For example, an MTU will transmit a read today at 6:00AM, and then transmit a read tomorrow at 6:03AM. The reads are received by the Data Collection Units (DCUs) located within the city. The DCUs transmit the meter readings, using a cell phone network, to a communications computer located at the Water Department. The communications computer then transfers the data to a database computer which translates the data in order for the city to view the water meter reads. This allows the Water Department to provide actual reads for billing and allows us to alert customers for potential leaks at their property. Below is an example of our STAR AMR software and the data collected:



2. **What is the purpose of the Surveillance Technology?**

   - The AMR System allows the Water department to provide actual reads for billing and allows us to alert customers of potential leaks in their property.

3. **Where will the Surveillance Technology be deployed? When?**

   - Meter Transmitter Units (MTUs) are attached to every water meter/building throughout the city and the deployment started in 2004. Several Data Collection Units (DCUs) located within the city were installed in 2004.

4. **What privacy impact will the Surveillance Technology have?**

   - None, there has been no impact.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - **Initial costs** – The original implementation cost on 2004 was approximately $4,000,000.
   - We are nearing completion of an upgrade of the AMR system to replace all the MTUs because the batteries reached their life expectancy. The MTU cost was $1,545,600 and the full value of the installation contract is $1,102,500.
   - We also have a contract to upgrade the DCUs and software for $48,380.
   - **Ongoing maintenance** – The Water Department has an annual maintenance agreement for approximately $15,000.
   - **Personnel costs** – personnel costs have gone down related to AMR.
   - **Source of funds** – Capital Water Funds for upgrade, Operating Water Funs for the annual maintenance agreement

54. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Water**
Division or Unit (if applicable):	
Submitted by:	Fred Centanni
Date:	12/9/19
Surveillance Technology:	Consumer Engagement, (AMR)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Using water meter data from the Department's AMR system, water customers will be able to view their own daily water usage on-line to promote conservation and detect water leaks. The data will be stored on a remote server, hosted by our vendor. The individual data will be accessible through the City's web page and access will be protected by individual account log-in security which will be approved by our IT Department.

2. **What is the purpose of the Surveillance Technology?**

   - Water customers will be able to view their daily water usage on-line to promote conservation and detect increased usage and/or water leaks.

3. **Where will the Surveillance Technology be deployed? When?**

   - Through the City's web page.

   - The go live date is contingent on the city and vendor signing a contract. The implementation is projected to take 4 months from the kick off meeting.

4. **What privacy impact will the Surveillance Technology have?**

   - None.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - **Initial costs** – The current low bidder cost information is:

		Per Unit Cost (if applicable)	Units	Total Annual Cost
Year 1	Implementation Costs		1	$10,000
	Annual License & Maintenance Fee		15,750 customers	$30,000*
	3-day training & materials			$3,000
	TOTAL COST FOR YEAR 1			**$43,000**
Year 2	Annual License & Maintenance Fee			$31,000*
	TOTAL COST FOR YEAR 2			**$31,000**
Year 3	Annual License & Maintenance Fee			$32,000*
	TOTAL COST FOR YEAR 3			**$32,000**
	TOTAL COST FOR YEAR 1, 2 and 3			**$106,000**

- **Ongoing maintenance** – see above
- **Personnel costs** – no additional personnel costs related to AMR.
- **Source of funds** – capital Water Funds