TOWN OF BROOKFIELD
OFFICE OF THE FIRST SELECTMAN

Tara Carr
First Selectman

100 Pocono Road
Brookfield, CT 06804

February 8, 2022

TO: Board of Finance

FROM: Tara Carr, First Selectwoman

RE: **PD OUTSIDE SERVICES FUND REQUEST – DRONE PROGRAM**

At a meeting on February 7, 2022, the Board of Selectmen voted unanimously to forward a request to the Board of Finance for an appropriation of $15,700 from the Police Department Outside Services Fund, for the purchase of Drones and other associated software and equipment to inaugurate a UAS Program within the Police Department, as outlined in a memo dated January 5, 2022.

We thank you for your review and consideration of this matter.

/vg
Attachment

Cc: John Puglisi, Chief of Police

Memo

To:	Ginny Giovanniello
From:	**Chief James L. Purcell**
cc:	Maj. John Puglisi
Date:	January 6, 2022
Re:	Police Outside Services Fund Request – Agenda for BOS and BOF

Hi Ginny,

The attached Police Outside Services Fund Request was passed by the Police Commission at their meeting on Wednesday, January 5th.

Please place it on the agenda for the next Board of Selectmen's Meeting and, when passed by them, please forward to the Board of Finance for action by them.

Thanks, very much. Please let me know if you need any additional information.
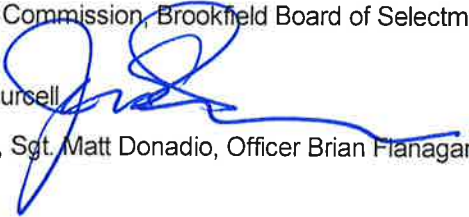
Jay

Memo

To: Brookfield Police Commission, Brookfield Board of Selectmen, and Brookfield Board of Finance

From: Chief James L. Pursell

CC: Maj. John Puglisi, Sgt. Matt Donadio, Officer Brian Flanagan

Date: January 5, 2022

Re: Request for an appropriation of **$15,700.00** from the Police Outside Services Fund for the purpose of developing a UAS (Drone Program) and purchasing Drones and other associated equipment to enhance the response and investigative capability of the Brookfield Police Department.

This is to request funding, through the Police Outside Services Fund, for the capital purchase of Drones and other associated software and equipment to inaugurate a UAS Program within the Brookfield Police Department. The specific proposal is attached to this request. This purchase, through the OSF, is authorized as outlined in the Policy approved by the Brookfield Board of Selectmen on December 3, 2012.

BACKGROUND: The Brookfield Police Department is seeking to inaugurate a Drone Program to assist department personnel in response to various calls for service where such capabilities will be an invaluable resource for safety and efficiency in pursuit of a successful resolution to the incident. In addition, such a program would enable the BPD to assist other town departments, in furtherance of their respective missions, where drone capabilities would enhance that department's ability to provide services to the public. In so doing, BPD Drone Operators would develop additional expertise through collaboration and training with these town departments.

REQUEST: The Brookfield Police Department requests the appropriation of $15,700.00 from the Police Department Outside Services Fund, to purchase the above referenced Drone (UAS) System.

ACTION:

Police Commission: ☑ Approved ☐ Denied DATE: 1/5/22

Board of Selectmen: ☐ Approved ☐ Denied DATE: _____

Board of Finance: ☐ Approved ☐ Denied DATE: _____

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Brookfield Police Department

UAS Proposal

The Brookfield Police Department has identified the need to enhance our capability to respond quickly and safely to emergent situations such as missing persons, natural disasters, reported drownings, and major accident scenes. The department seeks to leverage drone technology to accomplish these goals. Drones have proven to be valuable tools in other municipalities throughout the state.

USE CASES

Disaster Relief

A drone provides the benefit of providing emergency service personnel with real-time situational awareness from an aerial view. Emergency responders can have up-to-date information regarding how best to access someone in distress following a natural disaster, which might include trees and power lines blocking roadways. Officers would otherwise be forced to put themselves in harms way by negotiating around and through these sometimes-hidden obstacles. The ability to quickly identify and document hazards will greatly speed response and aid in FEMA filing when appropriate.

Search & Rescue

A drone can aid in search and recue in similar ways. A drone can search hard to reach areas with fewer personnel in less time than traditional methods. In many missing person cases, temperature extremes make that difference in time invaluable. Using a thermal sensor from as high as 400 feet, a drone pilot can often see a person in complete darkness.

Officer Safety

Visibility from different angles allows officers to more safely respond to calls that might include a threat of violence. The entire exterior of a building can be checked for danger prior to the Officer's arrival. Also, a drone can assist in a K9-based search by checking areas of danger or limited access before subjecting the K-9 and the handler to unnecessary risk.

Accident Reconstruction*

When investigating major accidents, items or marks of evidentiary value may not be visible by investigators on the ground. Drone pictures and videos of the crash scene document specific details of the roadway and surrounding area These details are often out of date on web-based satellite images and could portray an inaccurate picture of the scene. Drones can be used to make detailed 3-D models of the crash scene which can be imported into the crash reconstruction application. The final visual reconstruction information is then more easily interpreted when presented to court.

Water Rescue & Recovery

In the case of a reported drowning or swimmer/boater in distress, time and focusing resources in the correct area can make the difference between life and death. A drone can be on scene and deployed by trained personnel in as little as 5 five minutes from the first call. A drone can search shallow areas and shorelines faster than by foot or boat. A drone can see deep into the water on well-lit days.

Fire Scene Support

Aid Fire commanders with an overhead perspective to aid rescue and containment efforts.

Cooperative Assistance for Municipal Requests

Overflights, pictures, and mapping of municipally-owned land as requested. Town parks and buildings can be documented for a variety of uses. Inspections of otherwise-inaccessible areas on buildings can be performed to identify maintenance or repair needs. Public Works projects can be mapped for pre-planning and project completion.

Rapid Deployment is Key in Many Situations

The expense related to training and equipment to deploy a helicopter is prohibitive for most municipalities. The long lead time from the first call to getting existing regional helicopter assets on scene may force responders to proceed into unknown dangers.

Program Requirements

The listed line items have been identified as primary startup costs to establish a drone program. The majority of the expense is tied to year one establishment hardware, software, and training purchases. Recurring costs will include continued training, subscription-based software services, equipment maintenance and replacement, and end-of-life hardware replacement. Recurring costs have been removed from this proposal to facilitate the initial foundation of the UAS program. This will temporarily reduce some of the capabilities of the system primarily in crash reconstruction and program management.

This request is to purchase:

One Time Expense

- 1 drone kit with a high-resolution optical camera: $4000

- 1 drone kit with a high-resolution thermal camera: $9000

- 2 small consumer grade drone kits to be used for training: $1100

- software to support expedient real-time maps **: $1200

- NIST standard proficiency training course materials: $400

Depending on the amount of use, an in-service drone should be expected to have an operational life span of 3-5 years.

COSTS:

Initial: $15,700

* Integration with current crash reconstruction equipment will depend on the required upgrades which are requested and detailed in a separate and future GNSS crash reconstruction proposal.

**Skybrowse cloud licensing for one pilot.