

**VILLAGE OF LOMBARD**  
**REQUEST FOR BOARD OF TRUSTEES ACTION**  
**For Inclusion on Board Agenda**

**DISTRICT #**

Resolution or Ordinance (Blue)      Waiver of First Requested \_\_\_\_\_  
\_\_\_\_ Recommendations of Boards, Commissions & Committees (Green)  
\_\_\_\_ Other Business (Pink)

**TO:**                      PRESIDENT AND BOARD OF TRUSTEES

**FROM:**                 Joe Grage, Deputy Chief of Police

**DATE :**                 May 10, 2023                 B of T    May 18, 2023

**SUBJECT:**             SOLAR POWERED SURVEILLANCE TRAILER

**SUBMITTED BY:**     Joe Grage, Deputy Chief of Police

**BACKGROUND/POLICY IMPLICATIONS:**

This resolution seeks approval to enter into a 36 month subscription agreement with LiveView Technologies, Inc. for the use of a solar powered sureveillance trailer. The cost would be \$87,948.00 and would be inclusive of all costs related to software, hardware, maintenance, and repair.

Review (as necessary):

Finance Director \_\_\_\_\_ Date \_\_\_\_\_  
Village Manager \_\_\_\_\_ Date \_\_\_\_\_

**NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda distribution.**



**To:** Scott Niehaus, Village Manager  
**From:** Deputy Chief Joe Grage, Police Department  
**Through:** Tom Wirsing, Chief of Police  
**Date:** May 10<sup>th</sup>, 2023  
**Subject:** BOT Agenda Item for Subscription Agreement with LiveView Technologies Inc. for use of Solar Powered Surveillance Trailer

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As you are aware, Chief Wirsing recently tasked me with investigating the availability and cost for solar powered surveillance trailers. Such a trailer would be a considerable asset to the Village and the police department in that it would allow remote viewing and recording of video footage for the following applications:

- Privately sponsored community events such as carnivals, and festivals
- Publicly sponsored community events such as Cruise Nights, etc.
- Areas that may need temporary monitoring of a higher vigilance level such as locations experiencing vehicle burglaries or street racing.

While investigating the available options, Deputy Chief Ranallo and I came across a solar powered surveillance trailer offered by LiveView Technologies (LVT). You may have seen their "D3 Security" trailers in the area, specifically at Dick's Sporting Goods as well as some other locations in the Village.

The D3 trailer offered by LVT offers the following:

- Four cameras (2 PTZ, 1 thermal)
- Flood lights
- Strobe lights for visibility
- A two-way speaker
- Cloud-based automatic alerts (email and SMS)
- Active deterrence (trigger-based flood light and strobe light activation)
- Self-sufficient power management (batteries can last up to 5 days with no sunlight)
- Mobile (Apple, android) apps.
- Thirty (30) days of memory for recordings
- Remote viewing of live video or recorded video via web or app.

Additional technical specifications are attached to this memo along with quotes. =

We were unable to locate another vendor whose product matched the capabilities of the LVT surveillance trailer. Additionally, LVT provided a sole source letter (attached) for the D3 trailer that established no other vendor offers a product with the same capabilities.

The recent event at the carnival at Highpoint Center on April 14<sup>th</sup> supports the procurement of this type of technology to help the police department monitor events as well assist in subsequent investigations of crimes that may have occurred by capturing them on recorded video. In addition to multiple cameras, the flood lights and flashing blue strobe lights add to the deterrent effect of the cameras. Lastly, the two way speak allows for public announcements to be made in case of emergency or an impending weather event.

LVT offers two procurement options:

1. Purchase of the trailer for \$44,446.50 and \$15,000.00 additional per year (\$1,250 per month) for service (access to cameras, monitoring, etc.)
2. Subscription based pricing (similar to lease) that includes twelve months of service at \$29,316.00 with 24-month and 36-month agreement terms available.

Quotes for both of these options are attached.

Based on the above, I recommend procuring the trailer utilizing the subscription agreement with a 36 month term. There are several significant advantages to this:

- The Village is not responsible for maintenance or repairs of the trailer or its onboard electronics.
- The Village is not responsible for damage to the trailer.
- Subscription based pricing is all inclusive and eliminates the likelihood of unexpected software or hardware costs.

Please let me know if you have any further questions.

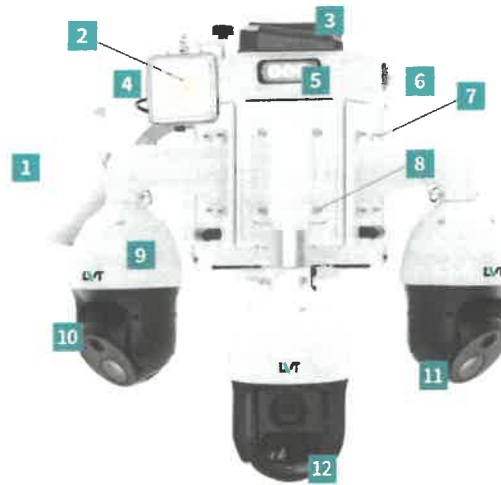
# D3 SECURITY

DISCOVER, DETER, DEFEND

LVT

## KEY FEATURES

- Cloud-based automated alerts (email, SMS)  
Active deterrence (flood light, two-way speaker, strobe lights)
- Live streaming and 24/7 recording accessible through cellular connectivity
- Thermal analytics detect day and night
- Self-sufficient power management with tamper-resistant battery backup
- iOS and Android apps
- Optional live monitoring services
- Control camera access and add or remove users at any time



1. TWO-WAY SPEAKER
2. FLOOD LIGHT
3. ANTENNA
4. STROBE LIGHT (L)
5. STROBE LIGHT CENTER
6. STROBE LIGHT (R)
7. EDGE CONTROLLER 2TBSSD (INSIDE)
8. TOOL-LESS INSTALLATION
9. 360° PTZ BI-SPECTRUM CAMERA
10. THERMAL CAMERA
11. OPTICAL CAMERA
12. 360° PTZ CAMERA

The D3 Live Unit is a cutting-edge, cloud-based security system. It provides a turn-key mobile solution for perimeter detection, deterrence, and alert-based monitoring. It is completely portable and is easy to deploy, relocate, or remove because it does not require hardwired connections. Instead, The D3 Live Unit combines solar power and batteries with cellular connectivity and proprietary software to protect your property.

## TECHNICAL SPECIFICATIONS

WEIGHT	1,900 lbs
SUSPENSION	3,500 lbs axle & springs
TIRE SIZE	13"
POWER	24 V DC @ 24 watts (disarmed) @ 35 watts (armed) @ 100 watts (max, floodlight on)
SOLAR GENERATION	800 watts
BATTERY CAPACITY	460 AH

## MEASUREMENTS

	DEPLOYED	TRANSPORT	TOW
LENGTH	103"	100"	135"
HEIGHT	264"	102"	102"
WIDTH	96"	67.75"	67.75"





Quote Prepared For: Lombard Police Department  
Quote Prepared By: Chris Parker  
Quote Subscription Term (Months):12

D3 Security System					
	MSRP	QTY	Monthly Total / unit	Term Total / unit	Contract Total
Hybrid SaaS	\$1,250.00	1.00	\$1,250.00	\$15,000.00	\$15,000.00
Hybrid Hardware - EFOY	\$63,495.00	1.00	\$0.00	\$44,446.50	\$44,446.50
EFOY Mobile Unit	\$0.00	1.00	\$0.00	\$0.00	\$0.00
Setup Fee	\$0.00	1.00	\$0.00	\$0.00	\$0.00
Shipping Fee	\$0.00	1.00	\$0.00	\$0.00	\$0.00
Subtotal (pre-tax):	\$64,745.00			\$59,446.50	\$59,446.50

**Quote Total:**

**Pre-Tax Quote Total: \$59,446.50**

**Equipment Relocation/Shipping Costs**

Onsite relocations are subject to a \$250.00 move fee. Offsite relocations are subject to a relocation install fee of \$400.00 plus applicable shipping.

**Additional Terms**

All quoted prices are listed pre-tax. LVT will make the Services available through the use of Cellular data connectivity. Unless otherwise agreed to in writing, customer will have access to 5 gigabytes of cellular data per month for a standard LVT Omni trailer. Customer will have access to 15 gigabytes of cellular data per month for a LVT D3 or security trailer. Data usage will be reset to zero on the first day of each month. Customers who go over their data usage will be charged \$10.00 per gigabyte.





LIVEVIEW TECHNOLOGIES  
**MSLA SCHEDULE**

Schedule No.

This **Schedule**, the attached **Quote**, together with the LiveView Technologies, Inc.'s ("LVT") Master SaaS and Service Level Agreement ("**MSLA**"), which is available at <https://www.lvt.com/legal> sets forth the terms and conditions under which LVT will provide Lombard Police Department ("**Customer**") with the products and services ordered below (the "**Services**").

**Services:** Customer agrees to purchase and/or subscribe to the following Equipment and/or Services:

See Attached Quote.

**Binding Agreement:** The person executing and submitting this Schedule hereby represents and warrants to LVT that he/she has the legal authority to bind the Customer to the purchase and/or subscription of the Equipment and/or Services under this Schedule and the terms and conditions of the MSLA at <https://www.lvt.com/legal>. Upon LVT's acceptance of this Schedule, this Schedule and the terms and conditions of the MSLA represents the entire agreement between the Customer and LVT regarding the provision of Services by LVT to Customer.

**BY EXECUTING AND SUBMITTING THIS SCHEDULE TO LVT YOU ARE AGREEING TO PURCHASE AND/OR SUBSCRIBE TO THE LVT EQUIPMENT AND/OR SERVICES PURCHASED UNDER THIS SCHEDULE AND BE BOUND BY THE TERMS AND CONDITIONS OF THE LVT MASTER SAAS AND SERVICES LEVEL AGREEMENT ("MSLA"). THE MSLA GOVERNS YOUR AND YOUR END USERS USE OF THE LVT SERVICES. THE CURRENT VERSION OF THE MSLA IS AVAILABLE AT: <https://www.lvt.com/legal>. THE TERMS AND CONDITIONS OF THE MSLA WILL BE LEGALLY BINDING ON YOU AND YOUR END-USERS. YOU SHOULD CAREFULLY READ THE MSLA BEFORE EXECUTING AND SUBMITTING THIS SCHEDULE. THIS SCHEDULE AND THE MSLA WILL NOT BE BINDING ON LVT UNLESS AND UNTIL IT CONFIRMS ACCEPTANCE OF THIS SCHEDULE.**

Agreed and Accepted on \_\_\_\_\_

**Lombard Police Department**

\_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Name]

\_\_\_\_\_  
[Title]

Agreed and Accepted on \_\_\_\_\_

**LiveView Technologies**

\_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Name]

\_\_\_\_\_  
[Title]





LIVEVIEW TECHNOLOGIES

## Sole Source Letter

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### Introduction

This letter confirms that LiveView Technologies, Inc. (LVT), as owner and manufacturer, is the sole-source provider of LVT's mobile security systems, the only of its kind. These systems are comprised of the LVT security cameras, the solar powered mounting structure and deep cycle batteries, camera management software (LiveView, VMS and Command Center), cellular connected real-time link with redundant dual sim cards, and within each of these is a combination of advanced AI technologies and processes that make LVT the industry's most effective turn-key remote security monitoring system available.

There are a number of companies that provide individual components for a virtual guard solution, such as a solar-powered mounting structure, security cameras, camera software, or security monitoring services. They do not, however, offer an affordable, completely turn-key (with all necessary components integrated together and ready to be stood up and used) solution. LVT is the only company that provides a complete system that enables customers to implement a solution with enterprise level uptime and latency while significantly reducing the total cost of ownership (human and technology investment).

LVT's **patented technologies**<sup>1</sup> and trade secrets that set us apart from any other company or provider trying to deploy cellular connected, solar powered, complete virtual guarding solutions. These differences provide the most affordable, intuitive, agile, and reliable product available. We are trusted by eight (8) of the top ten (10) largest retailers in the United States. (The LVT systems are easily identified in retail parking lots throughout the Country). We have sole sourced, bid and won a number of Requests for Proposal ("RFP") contracts, or is currently Piloting our systems with government agencies, Departments of Transportation (for example: UDOT, CDOT, WYDOT, and ND DOT), law enforcement departments (for example: NYPD and Virgin Islands Police Department), entertainment companies, power-grid providers (for example: NY Power Authority, NRG Energy, Tucson Electric Power and others), oil & gas companies, and construction companies in the world.

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<sup>1</sup> Patent Info. (1-3):

- 1) MANAGING LIVE VIDEO STREAM CONNECTIONS AND DATA USAGE. Patent date: Issued May 15, 2020. Patent issuer and number.US 10,798,249. Patent description - Method of streaming live video over costly metered data connections (cellular / satellite) including Content Delivery Network (CDN), web browser video player, user management, and cyber security.
- 2) DEVICES, SYSTEMS, AND METHODS FOR REMOTE VIDEO RETRIEVAL. Patent date: Issued Apr 5, 2020. Patent issuer and number. US 10,645,459. Patent. Description. This patent teaches a cost-effective method of providing 24/7 video recording of camera(s) that are connected via cellular (or other metered data connections) and allowing an end-user a convenient way using a Web Browser to search for and retrieve video clips of interest.
- 3) DYNAMICALLY MAPPING NETWORK ADDRESSES. Patent date: Issued Nov 17, 2017. Patent issuer and number. US 9,935,916. Patent description: Allows for simple cellular management of systems spread across a wide geography.



In 2020, LVT was awarded the BIRD Foundation research project funded by the United States Department of Homeland Security Science and Technology Directorate and the Israel Ministry of Public Security. The awarding of this project was granted on LVT's unique ability to deploy artificial intelligence-based computer vision systems running on renewable energy and connected via cellular/satellite networks. As the global leader in rapid and remote deployable video, audio, and Internet of Things (IoT) sensory systems, LVT is uniquely positioned to take advantage of the next generation machine, renewable energy, and 5G cellular connected world.

### **Individual Components and Systems That Make This Product Unique:**

**Cyber Security** - Data security and privacy has never been more important than now. At the same time, mobile connectivity via LTE and 5G mobile networks have never provided so many possibilities. The challenge for most of our competitors is providing mobile connectivity while maintaining data/system security and privacy. LVT was born in the cloud, applying robust cyber security standards from camera to end-user. LVT intentionally engineered the software and infrastructure stack to ensure data security and data privacy as the highest priority. Using the LVT platform ensures that end-users never have direct access to IoT devices, hackers do not have access to any edge or cloud systems, and the entire system can be managed by a single administration portal.

**Up Time and Reliability** - Any system is only good if it's up and running. LVT has built into its technology solution robust real-time health monitoring, diagnosing, and self-healing capabilities unmatched in the industry.<sup>2</sup> What's even more impressive is that it can do so without a costly IT staff hired within the Franklin County system or the U.S. Border Patrol to keep the system(s) up and running. On average, the LVT platform is above 99.9% uptime.

**Affordability (Low Cost of Ownership)** - The upfront costs of implementing most technology can be daunting. LVT has solved this problem by implementing a pure Cloud + Edge solution that takes care of its IT services. LVT's platform and infrastructure Software-as-a-Service (SaaS) allows you to focus on your core competency while being able to use technology in a cost-effective way. LVT will handle the stand up and maintenance of all communications infrastructure; stand up and maintain all cloud infrastructure; write new cutting-edge software services; ensure your systems are secure from hackers; provide backup and disaster recovery and keep all firmware and software service up to date. For a modest monthly or annual fee, you can immediately start using LVT's complete security solutions and get an immediate return on investment.

Data centers, network infrastructure/connectivity, software licensing, IT staffing for support and maintenance, etc., are typical costs that are a significant roadblock for most organizations. LVT's proprietary and patented technology manages and provides these technologies for you, the end-user, at a fraction of the typical cost.<sup>3</sup> The advanced technological cellular data cost measures alone that LVT utilizes has saved our customers nearly 90% of similar data usage plan costs.

Additionally, our unique patented technologies provide the method allowing a camera over a mobile network, a typically cost prohibitive solution for commercial applications given the data consumption, to stream only when a user is actively watching the video. (See LVT Patent US 10,798,249). Video streaming

<sup>2</sup> The LVT Edge Controller boasts 12-30VDC input. CPU: Quadcore ARM Cortex-A53, 1.2GHz. Full power cycling done remotely and automatically based on unique device health analysis. Advanced networking capable (supports a hybrid of public/private, VPN, SD WAN and other topologies).

<sup>3</sup> Latency times vary by cellular provider but average 500 milliseconds for most US cellular carriers.

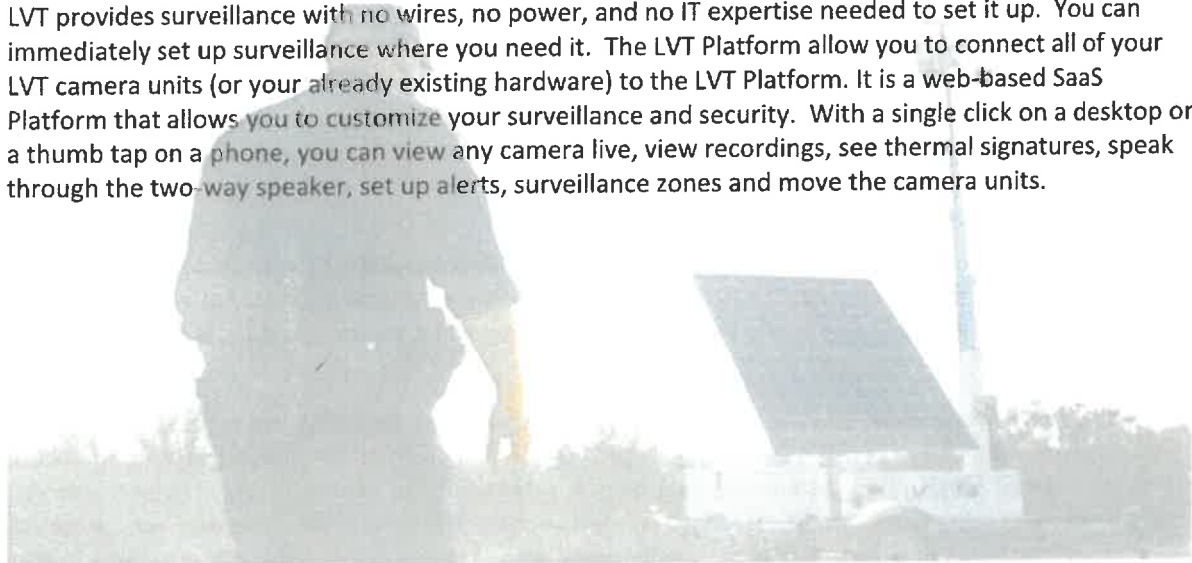




is one of the most data consuming, and expensive services transmitted over data networks. Even with advances in video compression, video streaming may consume over 50 Gigabytes of data per month. This cost prohibitive problem worsens when the number of simultaneous viewers viewing a camera increases resulting in a linear multiplier of data usage equal to the number of users.

**Flexibility** - The LVT platform is built with the future in mind. Technology development is at an unprecedented pace. Although it is exciting to think of new capabilities technology brings, it is critical to consider how technology implemented today can stay relevant to the operational needs of the future. The modular nature of the LVT platform allows virtually any hardware to plug into it and quickly begin adding value. The LVT platform also allows third-party software services to plugin to the system quickly and begin adding immediate value. As the operational needs of your organization change overtime, you can be confident that the LVT Platform can adapt with you and your unique needs.

LVT provides surveillance with no wires, no power, and no IT expertise needed to set it up. You can immediately set up surveillance where you need it. The LVT Platform allow you to connect all of your LVT camera units (or your already existing hardware) to the LVT Platform. It is a web-based SaaS Platform that allows you to customize your surveillance and security. With a single click on a desktop or a thumb tap on a phone, you can view any camera live, view recordings, see thermal signatures, speak through the two-way speaker, set up alerts, surveillance zones and move the camera units.



**Real Time Video and Powerful Archiving** - LVT provides the most responsive live video streaming experience in the market. It is a fully self-contained cloud solution. No on-premise ("OnPrem") PC/software is required to be installed with the camera, or in a data center, or installed on a user's desktop to use the LVT system. Removing this need for OnPrem software drastically reduces the overall cost of ownership. Our customers no longer need to maintain software or servers within their facility. Considering the uniqueness of this lightweight tech stack, LVT provides the most responsive live video streaming experience in the market. In fact, LVT has the lowest video streaming latency of any of its competitors when using mobile connected cameras streaming via the cloud. LVT also is able to provide 24/7 video archiving unmatched by its competitors.

The LVT system also provides unique PTZ camera digital security patrols at the cadence the end-user prefers. This enables the cameras to pan around a determined area and capture live footage and store it for future use. Digital patrols reduce the need for manual surveillance as well as expensive hired guard units and increase the reliability and likelihood of capturing actual events as they happen. As with all of our video, it is time/date stamped and retrievable from the cloud.



**Automated Detection and Deterrence** - Adding to the unique automated live streaming and archiving capabilities is LVT's unique ability to use low-power edge-based AI computer vision to accurately detect human, vehicle, animal, license plate, or even behaviors. This unique computer vision technology is faster and more accurate than using humans to monitor video streams resulting in lower cost in manpower and increasing the likelihood of detecting threats.

In addition to automatically detecting threats, the LVT system automatically activates robust deterrence in the form of two-way audio talk down and turn on strobes and flood lights. This unique LVT capabilities provides an immediate response to the threat in real-time while security operators are notified and respond to the threat alert. No other system is able to provide this level of deterrence automation.<sup>4</sup>

**Fully Self-Contained** - The LVT security systems are fully supported with their own self-generated solar power, internal power storage, backup battery, redundant mobile communication links, and self-healing proprietary software and hardware.<sup>5</sup> Additionally, in the head unit sits a full terabyte (with the option of 2TB) of video storage that sits on the edge, thus allowing users to extract archived video and alerts remotely.<sup>6</sup> LVT leverages the computational power of low power ARM processors and Graphical Processing Units (GPU) instead of high-power draw CPUs (like Windows PCs) to reduce power consumption which enables us to provide a very reliable solution running entirely on solar power. The unique LVT system is wholly mobile and the footprint, when fully deployed, easily fits within a single parking stall.<sup>7</sup>

The LVT security system has two-way talk down speakers, strobe lights, LED flood light, and several PTZ cameras capable of capturing both optical and thermal video/events that can be controlled remotely, manually or automatically by triggered event.

**Conclusion**

We are confident our mobile security system is the best and only technology of its kind in the market. The only one capable of meeting all of your security needs. If there are any addition questions, please reach out to your dedicated LVT Account Executive at 801.221.9408 or via email at

Regards,

Bryce Higbee  
 General Counsel  
 bryce.higbee@liveviewtech.com  
 o 801.221.9408  
 c 801.636.4229  
 w LVT.com

<sup>4</sup> The D3 Security System has three arms with various camera configurations available for each arm. Thermal, PTZ, fixed, panoramic and bi-spectrum attachments are all available for use. Two-way speaker capable of 120db, LED flood light 13,000 lumens, and complete security with built in tongue, cabinet and boom locks.  
<sup>5</sup> Each LVT system utilizes two 400-watt solar panels (800 total watts) that generate energy stored in the 8 deep cycle AGM batteries (total of 460 AH) within the system. This power supports all functions of the unit and requires no routine maintenance or external power source.  
<sup>6</sup> Within the head unit that sits 22 feet in the air when fully deployed, the LVT video and data is connected via redundant links primarily connected to Verizon, and redundancy provided via ATT. Both utilized the fastest 5G/LTE mobile networks available. Edge video storage available in either 1tb or 2tb of SSD storage.  
<sup>7</sup> Technical Specifications. Weight is 1,800 lbs. Deployed: length 103", Height 264", Width 96"