



LAN-TEL

COMMUNICATIONS, INC.

Connecting & Protecting the Future

Schroeder Plaza Camera Surveillance Proposal



LAN-TEL Communications, Inc.
1400 Providence Highway, Norwood, MA 02062
(P) 781-551-8599 (F) 781-551-8667
www.lan-tel.com

Schroeder Plaza Camera Surveillance Proposal

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Schroeder Plaza Camera Surveillance Proposal

Project Goals:

Twenty-one new security IP cameras will be installed on the building perimeter of The Boston Police Schroeder plaza Headquarters located in Roxbury, MA. The video management system and camera solution used by the Boston Police Department will also be the solution deployed for this project. These cameras will assist in deterrence and act as a proactive and reactive force multiplier first layer of security as well as record video to help with prosecution of any incidents in and around Schroeder Plaza. The existing analog cameras will be integrated into the IP network.

Key Objectives:

1. Deploy security cameras to “cover” the perimeter of Schroeder Plaza and the surrounding neighborhood and bike path
2. Provide reliable live and recorded video of the area utilizing Day / Night camera technology
3. Allow Boston Police Department to monitor and record all cameras
4. Require minimal maintenance

Site Considerations:

Upon several visits to the site, the following points were collected:

1. General lighting is good in this area itself as well as street lighting along surrounding streets.
2. The existing servers housed on-site will work as the connection to the BPD camera network.
3. Concrete street light poles are located on the surrounding streets and will provide a good mounting location for the cameras planned to be installed across from Schroeder Plaza.
4. Constant power is required to keep the cameras operational. It is noted during the site walks that “photocell” light controllers are located on the poles which means constant power is available at each desired camera pole location.

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The Proposed Solution:

LAN-TEL will install a combination of outdoor -rated security cameras and wireless transmission devices to connect all new cameras back to Boston Police Headquarters. All cameras will be recorded on existing DVTEL software and computing hardware already deployed at BPD. Structured cabling and wireless technology will be used. Site costs related to construction will be minimized and time to completion will be much faster to provide a fully operational system. Below is a picture of the actual assembly already being deployed in other areas of Boston and monitored by Boston Police Department.



The cameras, made by DVTEL, are rugged and proven reliable in and around the City of Boston as well as in many other cities and towns in Massachusetts. Other large cities, such as Los Angeles and Baltimore, have been using DVTEL technology for almost 10 years.

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Please see the rendered pictures below which depict how the camera assemblies will look on the recommended poles for mounting locations.



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Coverage:

Several cameras will be installed at the facility as well along the surrounding streets. We have taken Google Earth images of the location and depicted the camera coverage to be provided. All access and possible paths of flight are covered.

Please refer to the image below:



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Deployment:

LAN-TEL employs a large crew of union-based field installation technicians. The team of LAN-TEL employees, who currently manage the existing Boston Police Department system as well as the systems in the surrounding cities of Winthrop, Revere, Everett, Chelsea, Somerville, Brookline, Milton, and Quincy, will be responsible for deploying the cameras for the Schroeder Plaza Camera project. The team will utilize a company owned bucket truck to assist with mounting all cameras to the desired pole locations. LAN-TEL is familiar with the jurisdiction of local authorities and can work with the authorities to provide site access and traffic control to allow for a safe system deployment.

Cameras will be aligned and focused to cover the areas of interest and the corresponding wireless antenna will be adjusted and tuned to transmit video signals back to Boston Police Headquarters. All field wiring will be dressed for an outdoor environment and comply with local codes.

Maintenance and Service:

Inherently, the system is low maintenance by design and the proposed electronics are all solid state with minimal moving parts. Proper installation practices, such as strain relief of cabling and proven outdoor hardware mounting practices, improve the integrity of the system and help to minimize regular maintenance.

No system is maintenance free; therefore, we have included a service and maintenance package to help maintain the deployed solution.

The service provides real-time monitoring of all connected cameras. A system health monitoring tool is used to notify if any abnormalities occur. LAN-TEL technicians will be deployed to remedy any issues to ensure all cameras are running at all times.

Regular maintenance, such as cleaning of camera lens and housing, along with system integrity (wire termination) checks are included. Product warranty is included in this maintenance service as well.

Schroeder Plaza Camera Surveillance Proposal

Date: November 11, 2014

To: Shawn Romanowski
Director of Communications
Boston Police
Schroeder Plaza
Boston, Ma.

From: John Bartolomucci
Lan-Tel Communications Inc. 1400 Providence Highway
Suite 2000, Building 2
Norwood, Ma. 02062
(Ph) 781-352-4056
(Fax) 781-551-8667
Jbarts@lan-tel.com

Re: Schroeder Plaza CCTV Upgrade

LAN-Tel is pleased to submit the attached proposal. This is based on the information, instruction and requirements mutually reviewed. This proposal will include the installation of Schroeder Plaza cameras.

I am confident you will find our quote to be complete in terms of scope, and compliance, with FAC 64 as well as consistent with information received.

If you have any questions, please call me at (781) 352-4056, or simply e-mail me at jbarts@lan-tel.com.

We look forward to reviewing our proposal with you and thank you again for your continued consideration of LAN-TEL Communications, Inc.

Quote Summary:

LAN-TEL Communications, Inc.'s lump sum quotes include the supply of all labor, cable, coring, required equipment, project management, insurances and permits for successful installation of the equipment reviewed and stated herein.

- Provide and install (2) Quasar DVTeI 30 X zoom PTZ IP cameras and (1) Quasar Mini dome Fixed IP camera on north side of building exterior
- Provide and install (6) Quasar Mini dome Fixed IP cameras on east / front entrance of building exterior.

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- Provide and install (2) Quasar Mini dome Fixed IP camera on west side of building exterior
- Provide and install (2) Quasar DVTeI 30 X zoom PTZ IP and (4) Quasar Mini dome Fixed IP camera at parking gates of south side parking lot.
- Provide and install (3) Quasar Mini dome Fixed IP camera and (1) Quasar DVTeI 30 X zoom PTZ IP camera on designated light poles facing front entrance.
- Integrate existing analog cameras into existing IP network server.
- Program, labor, hardware, camera licenses and cable as needed.

Total cost for equipment will be: \$ 42,638.31
Total cost for labor will be: \$ 40,280.00
Total cost will be: \$ 82,918.31

Qualifications:

1. Normal working hours are between 7:00AM and 4:00PM Monday through Friday, excluding holidays, unless otherwise directed, with premium labor adjustments applied per approved change order protocol.
2. All security work is to be coordinated and completed by LAN-TEL.
3. We assume all conduits, coring, sleeves, workboxes, floor boxes, poke-thrus with trim flanges, grounding backbone & bus bars, power, and rubbish removal from the central sweep point will be completed by LAN-Tel.
4. We shall fire-stop and seal only those sleeves, conduits, cores, utilized by LAN- TEL for the work specified.
5. We shall provide a one year product warranty under FAC64 against defects and on overall craftsmanship, starting from the date of substantial completion.
6. Warranty does not include any repairs of equipment damaged by vandalism, misuse, or "Acts of God".
7. Underground utilities are to be marked and located by the owner. LAN-Tel will not be responsible for any underground utilities improperly marked.
8. Job permits are included in the total proposal cost.
9. Full and uninterrupted access to all the work locations is required.
10. This proposal is in effect for 60 days unless otherwise extended by LAN-Tel.

John Bartolomucci

Schroeder Plaza Camera Surveillance Proposal

Equipment Pricing for Wardman Camera Project		QTY
DVTEL CP-4221-301	Quasar Pan, Tilt & Zoom Vandal Outdoor IP HD 1080p Camera 30x Optical zoom, 360 continuous pan, auto iris/focus, D/N, True WDR, IR Cut Filter, ½.8” CMOS imager. H.264 dual streaming, Bracket Mount 24VAC or POE++	5
DVTEL CM-4221-11	Quasar Vandal Mini-dome Indoor/Outdoor Color IP HD 1080p Camera, D/N, WDR, 3-9mm AF Motorized VF Auto-Iris Lens, IR Cut Filter, H.264 30FPS, CMOS, Surface Mount, 12VDC/24VAC or POE.	16
DVTEL CX-ARMX-1	Long Wall Mount Bracket to be used with all CM-Series and CP-Series Cameras (excluding CM-4021 model)	21
DVTEL LAT-NT- CHAN	One (1) Channel license for a single camera scene connection from encoder, IP camera, analog monitor or Mentor	21
DVTEL SSA-GLD-1Y	One (1) Year Gold Software Service Agreement. Includes Phone and Remote Access Support during local office work hours. Provides Guaranteed Response Time & Software Version Upgrades for duration of contract	1
DVTEL SER-CLD-1Y	One (1) Year subscription for DVTEL Cloud Services. Online system health monitoring, directory database backup, email alerts and more	1



QUASAR CM-4221 SERIES

HD 1080p Mini-dome



The Quasar CM-4221 series of HD 1080p cameras has expanded to include an IR illuminated broadcast video quality camera that guarantees frame rates in high motion, complex and low light scenes, and lowers your utility costs and carbon footprint.

Offering the industry's lowest bandwidth through its broadcast motion processing architecture, the CM-4221 series delivers predictable storage, lower utility costs and a reduction in your Total Cost of Ownership (TCO).

Now you can...deploy a CCTV HD H.264 1080p surveillance solution that easily handles wide variations in motion and lighting found in airports, city surveillance projects, critical infrastructure sites, commercial offices and campuses utilizing the most technologically advanced HD IP camera.

Features	Benefits
• Broadcast quality multi-stream H.264 video	• Crisp, clean video for supreme identification
• Guaranteed frame rates in complex, high motion scenes	• Maintains evidentiary integrity of video in challenging surveillance conditions
• Broadcast quality motion processing	• Maintains lowest bit rates regardless of motion/scene complexity; lowers TCO with predictable storage and network requirements
• Auto-tune technology	• Best out-of-the-box experience with no adjustments; auto scene adaptation eliminates service calls
• Snap-in modular camera system	• Ease of installation, service and upgrades
• 4 year+ warranty*	• Manages lifecycle costs / TCO
• Edge-based recording and meta data	• Protects against network outages
• IR model delivers more uniform high quality illumination	• Reduces utility costs, carbon footprint and TCO

* No less than 4 years from date of purchase

FEATURES

- HD Broadcast Quality H.264 Video
- Multi-streaming at the highest frame rates
- HD 1080p at the lowest bit rate
- IR Illumination option
- Full-time analog output
- Included analytics:
 - Tamper Detection
 - Multi-zone VMD
- Wide Dynamic Range
- Privacy Masking
- Bi-directional audio
- Web interface for viewing and configuration



QUASAR CM-4221 SERIES

HD 1080p Mini-dome

General Specifications

Camera	
Image Sensor	1/2.7" CMOS
Sensor Resolution	2.1MP 1920 x 1080
Scanning Mode	Progressive
Sensitivity	0.3 (color)/0.04 (BW), 0 Lux with IR illuminator ON, measured with DSS OFF at 30 IRE
Lens Type	Varifocal: 3-9 mm F1.2 Auto Iris D/N Horizontal viewing angle: 36.7 to 110° Optional motorized with auto-focus
Automatic Electronic Shutter (AES)	1.0 to 1 / 10,000 (auto)
Digital Slow Shutter (DSS)	1/1 to 1/25 or 1/30 with up to 32x sensitivity boost in color or night mode
White Balance	Auto / indoor / outdoor
Automatic Gain Control	Auto
Back Light Compression	On / Off
Iris Control	DC auto
Wide Dynamic Range (WDR)	On / Off - 3 levels
3D Noise Reduction	On / Off - 6 levels
Tamper Detection	On / Off
Privacy Zones	On / Off - 5 zones
Video Motion Detection	Up to 10 independent zones
Day / Night Mode	Smart IR / auto / on/off
Mechanical IR Cut Filter	Yes
Signal to Noise Ratio (SNR)	±50 dB
Video	
Compression	Fully compliant multi-stream H.264 main profile + MJPEG
Maximum Performance	H.264 30/25 FPS @ HD 1080 + 30/25 FPS @ D1 or 30+30 / 25+25 @ HD720
Resolution Range	Scalable from CIF to HD 1080p
Bandwidth	Configurable between 64Kbps and 8Mbps
Rate Control	CBR/VBR
SD Card Recording*	SDHC up to 32 GByte
Audio	
Bi-Directional Audio	Full duplex, line / mic in and line out, G.711, G.726
Audio Connections	Terminal block
IR Illuminator	
Distance	15 m (50 ft.)
Angle of Illumination	Full 90°
Number of IR LEDs	24
Peak Emission Wavelength (nm)	850

Network	
Network Protocols	IPv4/v6, TCP/IP, UDP Unicast / Multicast, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, SNTp, QoS, ONVIF Profile S, IEEE 802.1X
Ethernet	10 / 100 Base-T auto sensing, half / full duplex (RJ45)
Configuration	Remote: via web access or supported video management software
Firmware Upgrade	Flash memory for upgrade of camera firmware over the network (1GB Flash / 2GB RAM)
Supported Web Browser	Internet Explorer 6.0+
Security	User account and password protection
Alarm	
Input	1 dry alarm contact
Output	1 relay contact, 60V AC / DC at 130 mA maximum
Physical	
Enclosure	Indoor: Tamper resistant surface mount plastic case or Indoor/Outdoor: IK10 rated vandal IP66
Dimensions	Indoor / Outdoor: 151 x 130 mm (5.9 x 5.1 in.)
Unit Weight	Indoor: 0.8 Kg (1.8 lbs.) Outdoor: 1.3 Kg (2.9 lbs.)
Mechanical	
Bubble Rating	IK10 vandal resistant polycarbonate
Bubble F-Stop	F0.0 - clear bubble / F1.0 - smoke bubble (option)
Pan / Rotate / Tilt	350, 350 and ±90°
Electrical	
Input Voltage	12 VDC / 24 VAC ±10% or 802.3af PoE
Power Consumption	6W indoor or 13W outdoors with heater / fan / IR
Power Connector	AC / DC terminal block or PoE
Environmental	
Operating Temperature**	Indoor: 0° to 50° C (32° to 122° F) Outdoor: -30° to 50° C (-22° to 122° F)
Storage Temperature	-20° to 70° C (-4° to 158° F)
Humidity	95% (non-condensing)
Warranty & Regulatory	
Warranty	According to DVTEL RMA Policy and Process Notice document
USA	UL, FCC Part 15 (subpart B, class A)
International	CE marked, EN55022-1998 class A, EN55024, RoHS

Camera Ordering Information

Type	Series	Camera Resolution	Included Analytics	Lens Options	Environmental	IR Illuminator
CM	- 42	2	1	X	X	I
Mini-Dome Camera	- 42 = Quasar	2 = HD 1080p	1 = Intelligent Multi-zone VMD and Tamper Detection	0 = 3-9mm Auto Iris / 1 = 3-9mm Motorized Auto Focus	0 = Indoor Tamper Resistant / 1 = IP66 Vandal with Heater/Fan	I = 90° illuminator

Note: IR illuminator option is available only with motorized varifocal lens cameras

Accessories

A complete list of mounts, brackets, pole mounts and recess kits for cameras can be found in the DVTEL Price List and Camera Accessory Guide.

* Excluding countries where disallowed

** Outdoor IR models support -30 with 12 VDC and 24 VAC only, not with PoE



QUASAR CP-4221-301

HD 1080p PTZ

The Quasar family now offers an HD 1080p PTZ camera, offering broadcast video quality and guaranteed frame rates in high motion, complex and low light scenes.

The DVTEL Quasar CP-4221-301 HD PTZ delivers one of the lowest bandwidths in the industry through its advanced H.264 motion processing technology.

Now you can...reduce your Total Cost of Ownership (TCO) by deploying this high quality surveillance solution that easily handles the wide variations in motion and lighting found in airports, city surveillance projects, critical infrastructure sites, commercial offices and campuses.



FEATURES

- HD Broadcast Quality H.264 Video
- Multi-streaming at the highest frame rates
- HD 1080p at the lowest bit rate
- Included analytics:
 - Tamper Detection
 - Multi-zone VMD
- Wide Dynamic Range (WDR)
- 30x Indoor or Outdoor continuous auto focus HD precision zoom lens
- Privacy Masking
- Bi-directional audio
- PTZ models offer 24 VAC and PoE options
- Web interface for viewing, control & configuration

Features	Benefits
• Broadcast quality multi-stream H.264 video	• Crisp, clean video for supreme identification
• Guaranteed frame rates in complex, high motion scenes	• Maintains evidentiary integrity of video in challenging surveillance conditions
• Broadcast quality motion processing	• Maintains lowest bit rates regardless of motion/scene complexity; lowers TCO with predictable storage and network requirements
• Auto-tune technology	• Best out-of-the-box experience with no adjustments; auto scene adaptation eliminates service calls
• Edge-based recording and meta data	• Protects against network outages



QUASAR CP-4221-301

HD 1080p PTZ

General Specifications

Camera	
Image Sensor	1/2.8" CMOS
Maximum Resolution	1920x1080 (HD 1080p)
Scanning Mode	Progressive
Optical Zoom	30x
Digital Zoom	1 to 12 variable
Focal Lengths	4.3 to 129 mm
Focus Mode	Auto / Manual
White Balance	Auto / Indoor / Outdoor / ATW / Manual
Iris Control	Auto / Manual
Digital Slow Shutter (DSS)	1.0 to 1 / 10,000 with up to 32x sensitivity boost in color or night mode
AGC Control	Auto / Manual
Back Light Compensation	On / Off
Wide Dynamic Range (Multi-shutter)	On / Off
Tamper Detection	On / Off
Electronic Image Stabilization	On / Off
Video Motion Detection	On / Off - up to 10 independent zones
Privacy Zones	On / Off - 16 zones
Day / Night: IR Cut Filter	Auto / Manual
Image Rotation	Normal / Flip / Mirror
Minimum Illumination	0.3 (color) / 0.04 (BW), measured with DSS Off at 30 IRE
Signal to Noise Ratio (SNR)	±50 dB
PTZ	
Pan Travel	360° continuous
Tilt Travel	-10° to 190°
Manual Speed	0.13° to 90° / s
Horizontal Viewing Angles	65.3° (Wide) to 2.2° (Tele)
Presets	256
Preset Accuracy	0.225°
Preset Speed	5° to 400° / s
Sequence	8
Auto Pan	4
Pattern	8
Auto Flip	Digital / Mechanical / Off
Proportional Pan & Tilt	On / Off (pan and tilt speed proportional to zoom ratio)
Resume After Power Loss	Yes
Home Function	Preset / Sequence / Auto Pan / Pattern
Alarm	
Alarm	Input: 4 dry alarm contact Output: 2 relay contact, 30 VDC at 2A or 125 VAC at 0.5A max
Alarm Reaction	Preset / Sequence / Auto Pan / Pattern
Electrical	
Input Voltage	PoE++ 802.3at (indoor/outdoor), AC 24V ±10%
Power Consumption	Max 65W outdoor with heater operating
Power Connector	Terminal block
Video	
Compression	Dual Streaming H.264 / H.264 or H.264 / MJPEG
Maximum Performance	30fps @ HD 1080p + 30fps @ D1 or 15+15 @ HD 1080p

Resolution Range	Scalable from CIF to HD 1080p
Bandwidth	Configurable between 64 Kbps and 8 Mbps
Rate Control	CBR / VBR
SD Card Recording*	SDXC up to 64 GByte
Audio	
Bi-Directional Audio	Full duplex, line / mic in and line out, G.711, G.726
Bandwidth	Configurable between 16 kbps & 64 Kbps (depending on compression method)
Audio Connections	Terminal block
Network	
Network Protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, Sntp, IEEE 802.1X, QoS, ONVIF Profile S
Ethernet	10 / 100 Base-T auto sensing, half / full duplex (RJ45)
Configuration	Remote: via web access or supported video management software
Firmware Upgrade	Flash memory for upgrade of camera firmware over the network (1GB Flash / 2GB RAM)
Supported Web Browser	Internet Explorer 6.0+
Security	User account and password protection
Physical	
Enclosure Rating	Tamper resistant surface mount or IK10 rated vandal IP66 outdoor housing
Dimensions	191.97 x 282.11 mm (7.55 x 11.1 in.)
Unit Weight	2.32 Kg (5.11 lbs.)
Mechanical	
Bubble Rating	IK10 vandal resistant polycarbonate
Bubble F-Stop	F0.0 - clear bubble
Environmental	
Operating Temperature	-45° to 50° C (-49° to 122° F)
Storage Temperature	-20° to 70° C (-4° to 158° F)
Humidity	95% (non-condensing)
Warranty & Regulatory	
USA	UL, FCC Part 15 (Subpart B, class A)
International	CE Marked, EN55022-1998 Class A, EN55024, RoHS

Camera Ordering Information

Type	Series	Camera Resolution	Included Analytics	Lens Option	Environmental
CP	- 42	2	1	- XX	X
PTZ Camera	- 42 = Quasar Series	2 = HD 1080p	1 = Intelligent Multi-zone VMD and Tamper Detection	- 30 = 30x Optical Zoom	1 = Outdoor IP66 Vandal with Heater/Fan

Note: Warranty - According to DVTEL RMA Policy and Process Notice document

* Excluding countries where disallowed

Accessories

A complete list of mounts, brackets, pole mounts and recess kits for cameras can be found in the DVTEL Price List and Camera Accessory Guide.