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Project Goals:

To install (13) total cameras, this will consist of installing (5) 180 degree cameras. (3) License plate recognition (LPR) cameras, (5) Pan, Tilt. Zoom (PTZ) cameras and (7) antenna pairs. These additions will augment the existing video security footprint of the City of Revere area. All cameras will be transmitted to the head end video servers located at the Revere Police Department. The cameras will be landed on the existing Revere / CIMS video network.

Key Objectives:

- 1. Install cameras for best coverage and saturation of area of interest
- 2. Build out new antenna hub for possible future cameras.

Site Considerations:

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

- 1. There is good line of site to existing antennas and the proposed new antenna hub.
- 2. The availability of 24/7 120 volt power is possibly prevalent in many locations

The Proposed Solution:

The cameras, made by FLIR, are rugged and proven reliable currently for the City of Revere; 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 FLIR technology for over 12 years.

Deployment:

LAN-TEL employes a large crew of union-based field installation technicians. The team of LAN-TEL employees, who currently manage the existing Revere Police camera system also operate the systems in the cities and towns of Boston Winthrop, Everett, Chelsea, Somerville, Brookline, Milton, and Quincy, will be responsible for deploying the cameras for this implementation. The team will utilize a company owned bucket truck to assist with mounting all antennas 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.

Proposed Locations For New Cameras:

- 1. **Brown Circle** To be located on a pole. (1) PTZ, (1) fixed camera and (1) LPR camera
- 2. **Broadway at the Chelsea Line** To be located on a pole. (1) PTZ, (1) fixed camera and (1) LPR camera.
- 3. **Salem Street (by the fire station)** To be located on a pole. (1)PTZ, (1) fixed camera.
- 4. **Squire Rd** @ **Showcase Cinema** To be located on a pole by the Squire Lounge. (1)PTZ and (1) fixed camera. (1) LPR camera.
- 5. **Washington Ave / Park Ave -** To be located on a pole. (1) PTZ and (1) fixed camera, (1) LPR camera.

Equipment Lists:

Brown Circle: 1 PTZ - 1 FIXED - 1 LPR

QTY:	VENDOR	PART#	Description:	EACH	TOTAL
1	FLIR	CP-6302-31-I	Dvtel HD 30 x Zoom CP 4221-301 \$2,143.70		\$2,143.70
1	STOCK	STOCK	Musc Stock Fasteners	\$650.00	\$650.00
1	Chatsworth	NEMA	NEMA Enclosure 16 x 14	\$495.30	\$495.30
1	BV-Tech	SW501G	5 Port Gigabit PoE+ Switch (4 PoE+	\$76.69	\$76.69
1	ALTRONIX	T2428175	24 v Power Supplies	\$58.50	\$58.50
1	FLIR	CMARMX-1	PTZ Bracket Arm	\$71.50	\$71.50
3	FLIR	FLIR	Camera Licenses	\$159.90	\$479.70
1	Fisher	FP283A	120 V photocell adapter	\$143.00	\$143.00
1	Bosch	NER-L2R5-2	Bosch LPR Camera and accessories	\$3,874.00	\$3,874.00
2	Ubiquity	N M5	Antenna	\$136.50	\$273.00
1	FLIR	CM-F150-62	1/4 turn adapter fro CM series 62xx	\$32.50	\$32.50
1	FLIR	CM-6308-P1-I	180 Cam	\$1,293.50	\$1,293,50

Equipment Cost: \$9591.39 Labor Cost: \$2400.00 Total Cost: \$11,991.39

Broadway - Chelsea Line: 1PTZ - 1FIXED - 1 LPR

QTY:	VENDOR	PART#	Description:	EACH	TOTAL
1	FLIR	CP-6302-31-I	Dvtel HD 30 x Zoom CP 4221-301	\$2,143.70	\$2,143.70
1	STOCK	STOCK	Miusc Stock Fasteners	\$650.00	\$650.00
1	Chatsworth	NEMA	NEMA Enclosure 16 x 14	\$495.30	\$495.30
1	BV-Tech	SW501G	5 Port Gigabit PoE+ Switch (4 PoE+	\$76.69	\$76.69
1	ALTRONIX	T2428175	24 v Power Supplies	\$58.50	\$58.50
1	FLIR	CMARMX-1	PTZ Bracket Arm	\$71.50	\$71.50
З	FLIR	FLIR	Cam era Licenses	\$159.90	\$479.70
1	Fisher	FP283A	120 V photocell adapter	\$143.00	\$143.00
1	Bosch	NER-L2R5-2	Bosch LPR Camera and accessories	\$3,874.00	\$3,874.00
4	Ubiquity	N M5	Antenna	\$136.50	\$546.00
1	FLIR	CM-F150-62	1/4 turn adapter fro CM series 62xx	\$32.50	\$32.50
1	FLIR	CM-6308-P1-I	180 Cam	\$1,293.50	\$1,293.50

Equipment Cost: \$9864.39 Labor Cost: \$2880.00 Total Cost: \$12,744.39

Salem St: 1 PTZ - 1 FIXED

QTY:	VENDOR	PART#	Description:	EACH	TOTAL
1	FLIR	CP-6302-31-I	Dytel HD 30 x Zoom CP 4221-301 \$2,143.70		\$2,143.70
1	STOCK	STOCK	Fasteners	\$650.00	\$650.00
1	Chatsworth	NEMA	NEMA Enclosure 16 x 14	\$495.30	\$495.30
1	BV-Tech	SW501G	5 Port Gigabit PoE+ Switch (4 PoE+	\$76.69	\$76.69
1	ALTRONIX	T2428175	24 v Power Supplies	\$58.50	\$58.50
1	FLIR	CM-ARMX-1	PTZ Bracket Arm	\$71.50	\$71.50
3	FLIR	FLIR	Camera Licenses	\$159.90	\$479.70
1	Fisher	FP283A	120 V photocell adapter	\$143.00	\$143.00
0	Bosch	NER-L2R5-2	Bosch LPR Camera and accessories	\$3,874.00	\$0.00
2	Ubiquity	N M5	Antenna	\$136.50	\$273.00
1	FLIR	CM-F150-62	1/4 turn adapter fro CM series 62xx	\$32.50	\$32.50
1	FLIR	CM-6308-P1-I	180 Cam	\$1,293.50	\$1,293.50

Equipment Cost: \$5717.39 Labor Cost: \$2400.00 Total Cost: \$8117.39

Squire Road: 1 PTZ - 1 Fixed - 1 LPR

- T	V VENDOR DARRY B. C.				
QTY:	VENDOR	PART#	Description:	EACH	TOTAL
1	FLIR	CP-6302-31-I	Dvtel HD 30 x Zoom CP 4221-301	\$2,143.70	\$2,143.70
1	STOCK	STOCK	Fasteners	\$650.00	\$650.00
1	Chatsworth	NEMA	NEMA Enclosure 16 x 14	\$495.30	\$495.30
1	BV-Tech	SW501G	5 Port Gigabit PoE+ Switch (4 PoE+	\$76.69	\$76.69
1	ALTRONIX	T2428175	24 ∨ Power Supplies	\$58.50	\$58.50
1	FLIR	CMARMX-1	PTZ Bracket Arm	\$71.50	\$71.50
3	FLIR	₽	Camera Licenses	\$159.90	\$479.70
1	Fisher	FP283A	120 V photocell adapter	\$143.00	\$143.00
1	Bosch	NER-L2R5-2	Bosch LPR Camera and accessories	\$3,874.00	\$3,874.00
2	Ubiquity	N M5	Antenna	\$136.50	\$273.00
1	FLIR	CM-F150-62	1/4 turn adapter fro CM series 62xx	\$32.50	\$32.50
1	FLIR	CM-6308-P1-I	180 Cam	\$1,293.50	\$1,293.50

Equipment Cost: \$9591.39 Labor Cost: \$1920.00 Total Cost: \$11,511.39

Washington and Park: 1PTZ - 1 FIXED - 1 LPR

QTY:	VENDOR	PART#	Description:	EACH	TOTAL
1	FLIR	CP-6302-31-I	D√tel HD 30 x Zoom CP 4221-301	\$2,143.70	\$2,143.70
1	STOCK	STOCK	Fasteners	\$650.00	\$650.00
1	Chatsworth	NEMA	NEMA Enclosure 16 x 14	\$495.30	\$495.30
1	BV-Tech	SW501G	5 Port Gigabit PoE+ Switch (4 PoE+	\$76.69	\$76.69
1	ALTRONIX	T2428175	24 v Power Supplies	\$58.50	\$58.50
1	FLIR	CM-ARMX-1	PTZ Bracket Arm	\$71.50	\$71.50
3	FLIR	FLIR	Camera Licenses	\$159.90	\$479.70
1	Fisher	FP283A	120 V photocell adapter	\$143.00	\$143.00
1	Bosch	NER-L2R5-2	Bosch LPR Camera and accessories	\$3,874.00	\$3,874.00
4	Ubiquity	N M5	Antenna	\$136.50	\$546.00
1	FLIR	CM-F150-62	1/4 turn adapter fro CM series 62xx	\$32.50	\$32.50
1	FLIR	CM-6308-P1-I	180 Cam	\$1,293.50	\$1,293.50

Equipment Cost: \$9864.39 Labor Cost: \$2880.00 Total Cost: \$12,744.39

Total Combined Cost:

Equipment: \$44,631.95

Labor: \$12,480.00

Total: \$57,111.95

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-thru with trim flanges, grounding backbone & bus bars, power, and rubbish removal from the central sweep point will be completed by LAN-TEL.
 - We shall fire-stop and seal only those sleeves, conduits, cores, utilized by LAN-TEL for the work specified.
- 4. We shall provide a one year product warranty under FAC64 against defects and on overall craftsmanship, starting from the date of substantial completion.
- 5. Warranty does not include any repairs of equipment damaged by vandalism, misuse, or "Acts of God".
- 6. Underground utilities are to be marked and located by the owner. LAN-TEL will not be responsible for any underground utilities improperly marked.
- 7. Job permits are included in the total proposal cost.
- 8. Full and uninterrupted access to all the work locations is required.
- 9. This proposal is in effect for 60 days unless otherwise extended by LAN-TEL.

LAN	-Tel Communications, Inc.	City of Revere MA	
By:	Eric Johnson	By:	
Date	12/9/2018	Date:	

LAN-TEL & FLIR