

CCTV / ALPR PROJECT

2-8-2016

CORAL GABLES

THE CITY BEAUTIFUL

System Proposed By:



SENSITIVE SECURITY INFORMATION (SSI)

Exhibit "B"

Safeware® SAFETY • SERVICE • RESPONSE
ATCI COMM What matters to you, matters to us.

City of Coral Gables- City Surveillance Effort

Summary - Location ID	LPR, CCTV, Electrical	Wireless Infrastructure per milestone	TOTAL DUE AT MILESTONE COMPLETION
EOC Head- End Equipment requirements (Limited to Storage)	\$ 42,500.00	\$ 27,118.58	69,618.58
Location (1A)	\$ 79,646.14	\$ 27,118.58	106,764.72
Location (2A)	\$ 74,543.64	\$ 27,118.58	101,662.22
Location (3A)	\$ 85,984.32	\$ 27,118.58	113,102.90
Location (4A)	\$ 39,951.59	\$ 27,118.58	67,070.17
Location (5A)	\$ 42,798.86	\$ 27,118.58	69,917.44
Location (6A)	\$ 62,580.91	\$ 27,118.58	89,699.49
Location (7A)	\$ 56,638.18	\$ 27,118.58	83,756.76
Location (8A)	\$ 73,677.05	\$ 27,118.58	100,795.63
Location (9A)	\$ 58,916.82	\$ 27,118.58	86,035.40
Location (10A)	\$ 87,292.95	\$ 27,118.58	114,411.53
Location (11A)	\$ 62,475.00	\$ 27,118.58	89,593.58
TOTAL INVESTMENT			\$ 1,092,428.47

Project Contingency Budget \$ 109,242.85

Maintenance and Preventative Maintenance year 2-5

ONSSI VMS, Semiannual Battery maintenance, 4 G connections	Included
ONSSI VMS, Semiannual Battery maintenance, 4 G connections	\$ 65,545.71
ONSSI VMS, Semiannual Battery maintenance, 4 G connections	\$ 68,822.99
ONSSI VMS, Semiannual Battery maintenance, 4 G connections	\$ 72,264.14
ONSSI VMS, Semiannual Battery maintenance, 4 G connections	\$ 75,877.35

Clarifications:

Bonding fees not included If requested Safeware team can add at an additional investment
 Project contingency is recommended for unforeseen items not able to be determined at this quoting phase of the project, examples might be, MOU agreements not reached unforeseen underground conditions found after locates are conducted, and other unforeseen intergovernmental changes not known or foreseen at quoting time.
 Delays caused outside Safeware Team control may incur additional fees
 No workstation provisions have been provided due to ongoing Fusion Center project provided by others
 MOT provisions to be provided by the City of Coral Gables.
 Permitting and engineered drawings to be provided at cost plus 5% handling fees
 Above pricing reflects 1 year maintenance parts and labor under normal manufacturer covered warranties
 ALPR Learn Server contract (Direct through manufacturer) cost is \$9,000.00 Annually (\$500.00 per camera).
 Metro -E connection allocated at 8MpS for Cartagena circle est. at \$500 per month
 ONSSI licenses for system included in Maintenance \$ 13,743.00
 Miracle Mile Contingency only applicable if redevelopment project does not proceed \$ 29,498

Individual Site Deployments

Wireless Network Infrastructure - Required

The intent of the following network is to provide connectivity to all City designated surveillance and license plate reader locations. To accomplish this, multiple levels and types of networks have been deployed:

- **OSP, Outside Plant.** In this case the use of Fiber available from multiple sources
- **Transport Backhaul – Microwave and Millimeter wave radios.** These radios allow high throughput communications in a point-to-point configuration. In this network, they act as the transport layer of the network. They transport the high capacity connections to down-line distribution points.
- **Distribution Network - Microwave** is used to communicate from the distribution points to the end points via point to point and point to multi-point radio configurations.
- **End Point/Subscribers** are the communications devices at each of the remote locations designated by the City that require service.

In this figure you can see all components and locations the network covers. These components will be broken down and explained in the following pages.



Distribution Points

The network originates at the Regions building. The Regions building is connected to the Police network via Fiber Optic connections that will be expanded for this system.

Transport Network

The lines shown in this figure in red depict the microwave links from the Regions location to each of the distribution points. The links tie each of the locations to the network. During the engineering process, details regarding the mounting types, channel plan and sizes of the radios will be determined. Please note; the fiber-connected point in the Miracle Mile, are not shown as they are being supplied in another project.



The radios recommended for the transport portion of the network, is a tower or rooftop level deployment. These radios are physically mounted at a typical height of over 100' above ground. At this height, they are capable of receiving signal from sources multiple miles around. With the proliferation of consumer and light commercial radios, this can amount to thousands of competing signals. This can be mitigated at the distribution layer with tight beam antennas and physical blocking methods, but at a height over 100' it is difficult to manage.

WIRELESS REQUIREMENTS PER LAUNCH POINTS TO INTERSECTIONS:

Loc/Line	Description	Qty	Notes
Regions			
	AF24HD	2	High end point to point
	Rocket 5 AC radio with 60 degree antenna	1	60 degree "kit
7A	RD-5G31-AC	1	Directional Subscriber unit with 31dBi gain

Loc/Line	Description	Qty	Notes
Alhambra Tower			
	AF24HD	1	High end point to point
1A	RD-5G31-AC	3	Directional Subscriber unit with 31dBi gain
6A	RD-5G31-AC	2	Directional Subscriber unit with 31dBi gain

Loc/Line	Description	Qty	Notes
Mastec			
	AF24HD	1	High end point to point
	Rocket 5 AC radio with 60 degree antenna	1	60 degree "kit
2A	RD-5G31-AC	3	Directional Subscriber unit with 31dBi gain

Loc/Line	Description	Qty	Notes
Fire Station 2			
	Ethernet Connection Supplied by Customer		
	Rocket 5 AC radio with 60 degree antenna	3	60 degree "kit
8A	RD-5G31-AC	3	Directional Subscriber unit with 31dBi gain
9A	RD-5G31-AC	2	Directional Subscriber unit with 31dBi gain

Loc/Line	Description	Qty	Notes
Edgewater			
	AF24HD	1	High end point to point
	Rocket 5 AC radio with 60 degree antenna	1	60 degree "kit
	RD-5G31-AC	2	PtP link to distribution
10A	RD-5G31-AC	2	Directional Subscriber unit with 31dBi gain

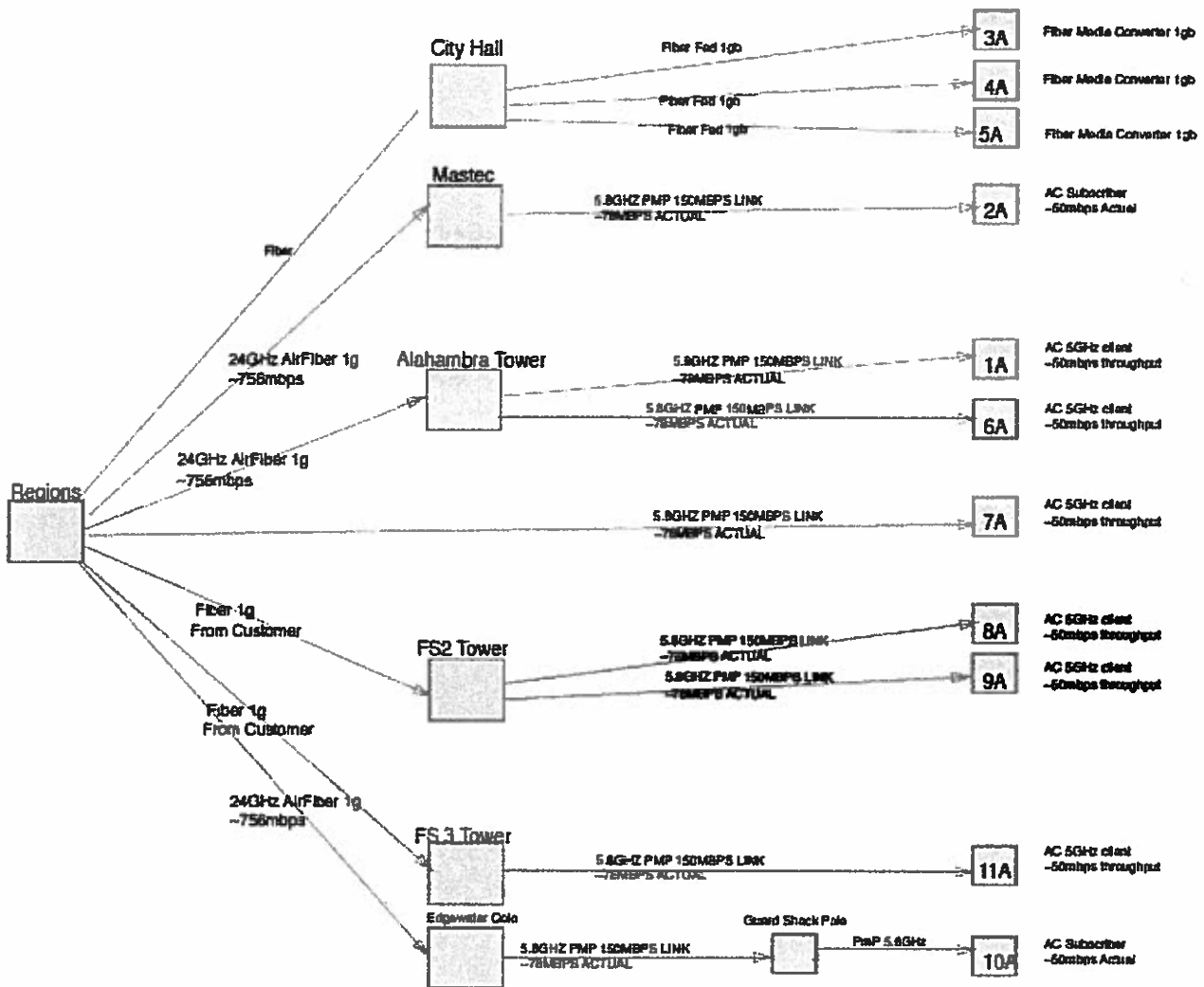
OVERVIEW NETWORK CONECTIONS



NORTH NETWORK



LOGICAL DIAGRAM

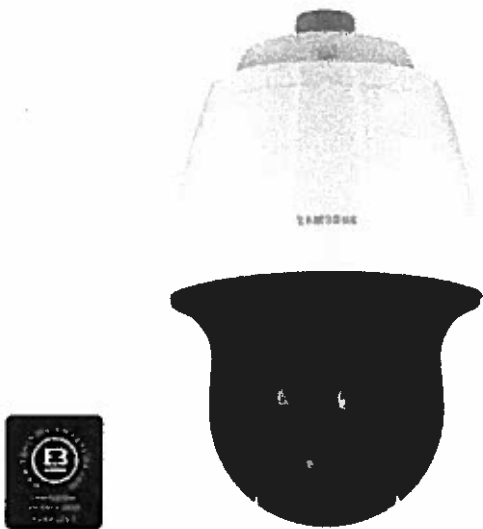


NOTE: Wireless Investment broken out into individual 12 sites per agreement.

Product Details

WiseNet III Plus Night Tracker

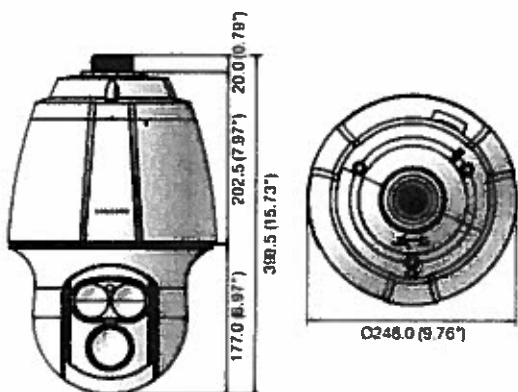
2Megapixel Full HD 32x Network IR PTZ Dome Camera



Key Features

- Max. 2M (1920 x 1080) resolution
- 16 : 9 Full HD (1080p) resolution support
- 4.4 ~ 140.8mm (32x) IR corrected optical zoom, 16x digital zoom
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Auto tracking, intelligent video analytics
- SD/SDHC/SDXC memory slot, Bi-directional audio support
- IP66, IK10, IR LED (2ea)

VIDEO	
Imaging Device	1/2.8" 2.38M CMOS
Total / Effective Pixels	1,952(H) x 1,116(V) 2.16M pixels / 1,944(H) x 1,104(V) 2.14M pixels
Scanning System	Progressive
Color	0.3Lux (1/30sec, F1.6, 50IRE), 0.005Lux (2sec, F1.6, 50IRE)
Min. Illumination	0.1Lux (1/30sec, F1.6, 30IRE), 0.0005Lux (2sec, F1.6, 30IRE)
	b/W : 0Lux (IR LED on)
S/N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω composite 720 x 480i@ 720 x 576i@ for installation
LENS	
Focal Length (Zoom Ratio)	4.4 ~ 140.8mm (Optical 32x)
Max. Aperture Ratio	F1.6(Wide) / F4.9(Tele)
Angular Field of View	H: 63.88°(Wide) ~ 2.21°(Tele) / V: 37.52°(Wide) ~ 1.28°(Tele)
Min. Object Distance	1.5m (4.92ft)
Focus Control	AF / One-shot AF / Manual
Lens / Mount Type	DC auto iris (IR corrected) / E-mount type
PAN / TILT / ROTATE	
Pan / Tilt Range	360° Endless / 190° (5° ~ 185°)
Pan / Tilt Speed	Preset: 25°/sec, Manual: 0.024°/sec ~ 120°/sec
Sequence / Preset Accuracy	Preset (255sec), Swing Group (6sec), Trace Tour Auto (1), Schedule / ±0.2°
Azimuth	yes (E / W / S / N / NE / SE / NW / SW USD)
Auto Tracking	Off / On
OPERATIONAL	
IR LED	2ea
Viewable Length	150m (492.13ft)
Camera Title	Off / On (Displayed up to 15 characters)
Day & Night	Auto (ICR) / Color / B/W
Backlight Compensation	Off / BLC / HLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (Off / On)
Digital Noise Reduction	SMR III (2D+3D noise filter) (Off / On)
Digital Image Stabilization	Off / On
Defog	Off / Auto / Manual
Motion Detection	Off / On (Area, Rectangular zones)
Privacy Masking	Off / On (2ea, Rectangular zones)
Gain Control	Color / Grey / Green / Red / Blue / Black / White, Zoom ratio applies for mask mode
White Balance	Off / Low / Medium / High / Manual
Electronic Shutter Speed	ATW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium
Digital Zoom	Minimum / Maximum / Anti Flicker (2 ~ 1/12, 0.005sec)
Flip / Mirror	16x, area zoom function support digital zoom 2x
Intelligent Video Analytics	Off / On
Alarm I/O	Tampering (Scene change) Virtual line Enter / Exit (Dis)appear
Remote Control Interface	Audio detection, Face detection
RS-485 Protocol	Input 4ea / Output 3ea (Relay type)
Alarm Triggers	RS-485/422
Alarm Events	Samsung-T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vicon, Bosch, GE
	Alarm input, Motion detection, Intelligent video analytics, Network disconnect
	File upload via FTP and E-mail, Notification via E-mail,
	Local storage (SD/SDHC) or NAS (network) storage disconnect, External control PTZ (only)



Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (infrared and color) ANPR / ALPR Camera with integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:1A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on SW 8th Street and the pole being installed by the entrance to the residential through Country Club Prada. At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths *.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

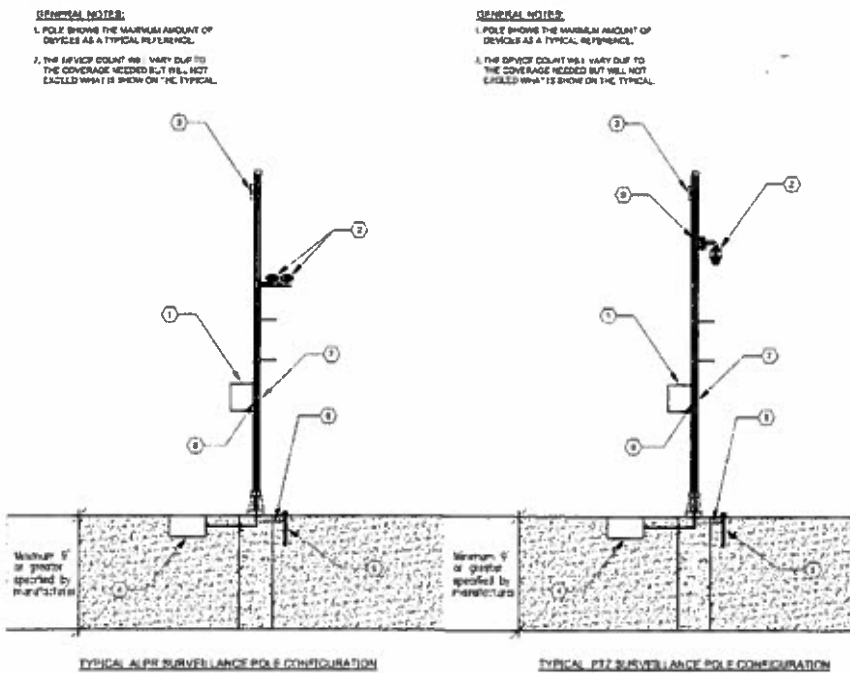
Constant 120V Electrical connection will be obtained from the electrical panel located at the southern point of the park as identified during the walkthrough with Public works and City personnel for site ID 1A. Electrical standard by NEC code and best practices will be followed during the installation.

Wireless Communication:

Location ID 1A:

This intersenction will have a High End Point to Point Radio from the Rocket Line to connect to Alhambra Tower. The Radio equipment will be provided by the Safeware Team, directional subscribers will be installed at each end point for point to point communication to the Backhaul Point which will use an AirFiber for its link.

Pole Details at this Location:



Backhaul Wireless Communication End Point-Alhambra Tower:

Loc/Line	Description	Qty	Notes
Alahambra Tower			
	AF24HD	1	High end point to point
1A	RD-5G31-AC	3	Directional Subscriber unit with 31dBi gain
6A	RD-5G31-AC	2	Directional Subscriber unit with 31dBi gain

Bill of Material Location ID 1A

No	Description	UM	MANUFACTURER	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION-(Includes breaker into existing panel source up to 30')	EA	ATCI	2	2
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed Z07	EA	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	1	1
	10' Black Aluminum Pole	EA	EAT	3	3
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	3	3
	Delivery of Poles from supplier flatbed	EA	PCSI	1	1
	Installation of 10 and 20 foot pole	EA	PCSI	3	3
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis, alignment and setup-Z07	EA	ATCI	3	3
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSFH00XW-DL	EA	VIGILANT	2	2
	VIGILANT LPR Basic Service Package -VSBSVC-04	EA	VIGILANT	2	2
	VIGILANT LPR Standard Service Package - VSPK15VC-04	EA	VIGILANT	2	2
	VIGILANT System Start Up and Comissioning - SSUP55-COM	EA	VIGILANT	2	2
	VIGILANT END USER TRAINING for LPR System -VSPTRNG	EA	VIGILANT	2	2
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	2	2
	VMS Intergration license for Vigilant ALPR	EA	C2	2	2
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, 6 Port POE Switch, Interior Fan, 485-232 Converter, 120V DITEK Surge Protector)	EA	VIGILANT	1	1
	Exterior PTZ SNP-6200RH-SAMSUNG	EA	SAMSUNG	1	1
	MOUNTING KIT-SBP-300PM-SAMSUNG	EA	SAMSUNG	1	1
	Fiber Optics LU Connector Housing for field mount-Z07	EA	CORNING	1	1
	VMS NEMA ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets)-Z07	EA	Custom	1	1
	1-Channel of Net Video. -Z07	EA	VMS	1	1
	1-Channel of Net Video. -SUSP	EA	VMS	1	1
	1-Channel Video Wa License	EA	VMS	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA	1	1
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA	2	2
	1 PORT SURGE SUPPRESION DEVICE-Z07	EA	NITEK	3	3
	12 PORT SURGE SUPPRESION DEVICE-Z07	EA	NITEK	1	1
	CABLING INFRASTRUCTURE- COPPER-Z07	FT	ATCI	1	1
	CABLING INFRASTRUCTURE- FIBER OPTICS-Z07	FT	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP-Z07	HR	ATCI	1	1
	AS BUILTS DRAWINGS AND ENGINEERING-Z07	EA	ATCI	1	1
	PROJECT MANAGEMENT	EA	ATCI	1	1
	MISCELLANEOUS COST-CONNECTORS, Boxes-Z07	EA	ATCI	1	1

Intersection Total Investment: \$ 79,646.14 *

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

Product Details

Product Images



Key Features

- Single cable Power-over-Ethernet Installation
- Low-profile, Compact, Dual-lens (Infrared and color) ANPR / ALPR Camera with Integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:2A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on SW 8th Street private property and the locations being installed on the tower/clock in and out of Coral Gables. At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths *.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

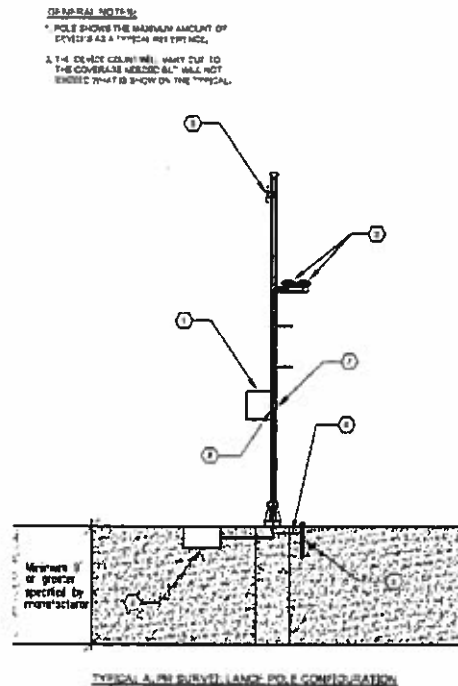
Constant 120V Electrical connection will be obtained from the electrical panel on the located at the south/ east point of the tower on Ponce de Leon as identified during the walkthrough with Public works and City personnel for site ID 2A. Electrical standard by NEC code and best practices will be followed during the installation.

Wireless Communication:

Location ID 2A:

This intersenction will have a High End Point to Point Radio from the Rocket Line to connect to Mastec. The Radio equipment will be provided by the Safeware Team, documentation will be a shared responsibility when required directional subscribers will be installed at each end point for point to point communication to the Backhaul Point which will use an AirFiber for its link.

Pole Details at this Location:



Backhaul Wireless Communication End Point – Mastec building:

Loc/Line	Description	Qty	Notes
Mastec	AF24HD	1	High end point to point
	Rocket 5 AC radio with 60 degree antenna	1	60 degree "kit"
2A	RD-5G31-AC	3	Directional Subscriber unit with 31dBi gain

Head End Components

Bill of Material Location ID 2A

No	Description	UM	MANUFACTURER	MODEL	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION-(includes breaker into existing panel source up to 30')	EA	ATCI	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed 207	EA	ATCI	ATCI	1	1
	Directional Boring	EA	ATCI	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	ATCI	1	1
	10' Black Aluminum Pole	EA	EAT	UBNT	2	2
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	UBNT	2	2
	Delivery of Poles from supplier flatbed	EA	PCSI	UBNT	1	1
	Installation of 10 and 20 foot pole	EA	PCSI	UBNT	2	2
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis,alignment and setup-207	EA	ATCI	ATCI	2	2
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSFHX00W-DL	EA	VIGILANT	VIGILANT	3	3
	VIGILANT LPR Basic Service Package -VSBSCSVC-04	EA	VIGILANT	VIGILANT	3	3
	VIGILANT LPR Standard Service Package - VSPK15VC-04	EA	VIGILANT	VIGILANT	3	3
	VIGILANT System Start Up and Commissioning -SSUPSYS-COM	EA	VIGILANT	VIGILANT	3	3
	VIGILANT END USER TRAINING for LPR System-VSPTRNG	EA	VIGILANT	VIGILANT	3	3
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	VIGILANT	3	3
	VMS Intergration license for Vigilant ALPR	EA	C2		3	3
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, UPS, Hardened PC, Internal Wire management, Injectors, Interior Fan, 485-232 Converter, 120V Surge Suppressors/Arrestors)	EA	VIGILANT	VIGILANT	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA		1	1
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA		2	2
	1 PORT SURGE SUPPRESSION DEVICE-207	EA	NITEK	DTK-MRI-POE	2	2
	12 PORT SURGE SUPPRESSION DEVICE-207	EA	NITEK	12 Port	1	1
	Public Wi-Fi Antenna	EA	Ruckus	Locked	1	1
	Subscriber Radio Inst.	EA	UBNT	Locked	1	1
	CABLING INFRASTRUCTURE COPPER AND FIBER	FT	ATCI	ATCI	1	1
				ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP, SPECIALTY EQUIP.INFRASTRUCTURE CERTIFICATION,TERMINATIONS, PROJECT COORDINATION REQ.	HR	ATCI	ATCI	1	1
	DESIGN, ENGINEERING, AS-BUILTS, SUBMITTALS, CLOSEOUT	EA	ATCI		2	2
	PROJECT MANAGEMENT	EA	ATCI		4	4
	GENERAL MOUNTING HARDWARE, BOXES, FLEX, IP66 CONNECTORS, CONSUMABLES	EA	ATCI		1	1

Intersection Total Investment: \$ 74,543.64 *

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

Pan Tilt Zoom Camera specifications

This location will be outfitted with one (1) Pan Tilt Zoom Camera model number SNP-6320 Samsung night Tracker camera for general intersection overview of the intersection areas.

Product Details

WiseNet III Plus Night Tracker

2Megapixel Full HD 32x Network IR PTZ Dome Camera



Key Features

- Max. 2M (1920 x 1080) resolution
- 16 : 9 Full HD (1080p) resolution support
- 4.4 ~ 140.8mm (32x) IR corrected optical zoom, 16x digital zoom
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Auto tracking, Intelligent video analytics
- SD/SDHC/SDXC memory slot, Bi-directional audio support
- IP66, IK10, IR LED (2ea)

VIDEO	
Imaging Device	1/2.8" 2.38M CMOS
Total / Effective Pixels	1,952(4) x 1,116(4), 2.18M pixels / 1,944(4) x 1,104(4), 2.14M pixels
Scanning System	Progressive
Min. Illumination	Color : 0.3Lux (1/30sec, F1.6, 50IRE) 0.005Lux (2sec, F1.6, 50IRE) 0.1Lux (1/30sec, F1.6, 30IRE) 0.005Lux (2sec, F1.6, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω composite, 720 x 480(1), 720 x 576(2) for installation
LENS	
Focal Length (Zoom Ratio)	4.4 ~ 140.8mm (Optical 32x)
Max. Aperture Ratio	F1.6(Wide) / F4.9(Tele)
Angular Field of View	H : 63.68(Wide) ~ 2.24(Tele) / V : 37.52(Wide) ~ 1.28(Tele)
Min. Object Distance	1.5m (4.92ft)
Focus Control	AF / One shot AF / Manual
Lens / Mount Type	DC auto lens (IR corrected) / Board-in type
PAN / TILT / ROTATE	
Pan / Tilt Range	360° Endless / 190° (-5° ~ 185°)
Pan / Tilt Speed	Preset : 250°/sec, Manual : 0.024°/sec ~ 120°/sec
Sequence / Preset Accuracy	Preset (255ea), Swing, Group (8ea), Trace, Tour, Auto Pan, Schedule / ±0.2°
Auto Tracking	Yes (E / W / S / N / NE / SE / NW / SW OSD)
OPERATIONAL	
IR LED	2ea
Viewable Length	150m (492.13ft)
Camera Title	On / Off (Displayed up to 15 characters)
Day & Night	Auto (ICR) / Color / B/W
Backlight Compensation	On / BLC / HLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (On / Off)
Digital Noise Reduction	SSNR(1) (2D-3D noise filter) (On / Off)
Digital Image Stabilization	On / Off
Defog	Off / Auto / Manual
Motion Detection	On / Off (2ea, Rectangular zones)
Privacy Masking	On / Off (32ea, Rectangular zones) - Color : Grey / Green / Red / Blue / Black / White - Zoom ratio option for mask mode
Gain Control	On / Low / Medium / High / Manual
White Balance	AWB / AWG / Manual / Indoor / Outdoor / Mercury / Sodium
Electronic Shutter Speed	Minimum / Maximum / Anti Flicker (2 ~ 1/12.00(1sec))
Digital Zoom	16x, area zoom function support digital zoom 2x
Flip / Mirror	On / Off
Intelligent Video Analytics	Tampering (Scene change), Virtual line, Enter / Exit (DisAppear)
Alarm I/O	Audio detection, Face detection
Remote Control Interface	Input 4ea / Output 3ea (Relay type)
RS-485 Protocol	RS-485/422
Alarm Triggers	Samsung-I/O, Pelco-P/I, Panasonic, Honeywell, AD, Vivanco, Bosch, GI
Alarm Events	Alarm input, Motion detection, Intelligent video analytics, Network disconnect File upload via FTP and e-mail Notification via E-mail Local storage/SD/SDHC or NAS recording at network disconnected External output PTZ pres

Product Images



Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (infrared and color) ANPR / ALPR Camera with integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

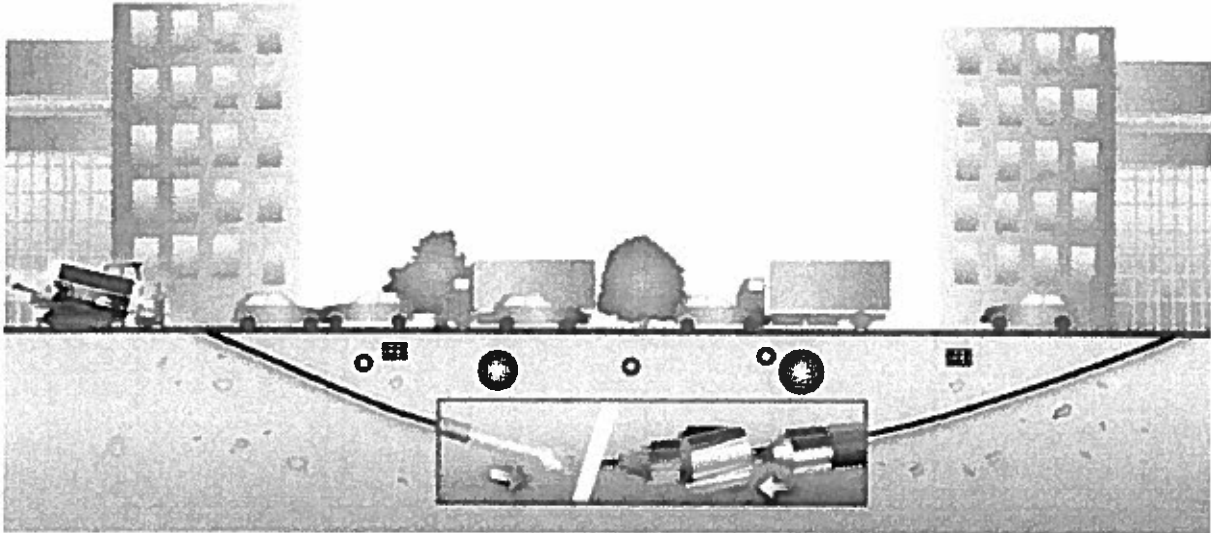
Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:3A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on the East side entrance to Miracle Mile for equipment to be installed at Miracle Mile and the North East corner for the Pan Tilt Zoom camera.

At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths*.

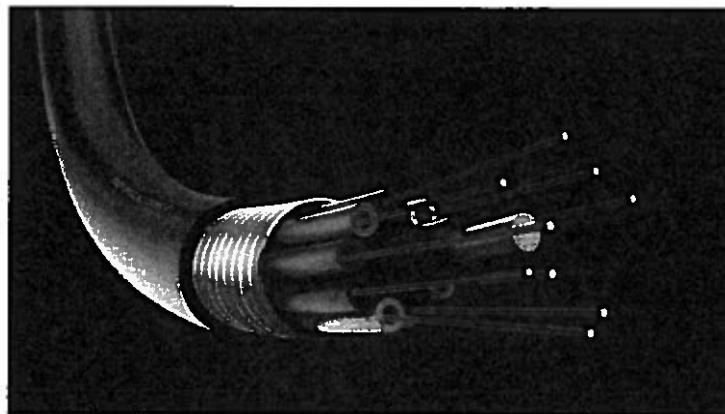
Standards Safeware Team Directional Boring



Fiber-Fed Communication:

Location ID 3A:

This intersection will have a direct fiber fed connection between this intersection and its City Fiber Network with Gigabit uplink between this intersection and the next location, the Safeware Team will run a 12 Strand Fiber underground rated cable to the 4A intersection NEMA enclosure.



- Provide bucket- truck or man lift as required
- Provide all grounding as required by NEC
- Provide all fire stopping for electrical work done by the Safeware team as needed
- Provide submittals, closeout documents and training.
- Fiber connections and certifications.
- Provide patch panels, LIUs.

Wiring

- All cameras to receive Cat 6 rated wire and follow industry requirements for wet locations, plenum, or PVC.
- All cameras to receive proper surge suppression.
- All Cabling, patch panels, terminations, and faceplates to be properly labeled following industry standards.

Bill of Material Location ID 3A

No	Description	UM	MANUFACTURER	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION-(includes breaker into existing panel source up to 30')	ea	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed 207	EA	ATCI	1	1
	Directional Boaring	EA	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	1	1
	20' Black Aluminum Pole	EA	EAT	3	3
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	3	3
	Delivery of Poles from supplier flatbed	EA	PCSI	1	1
	Installation of 20, and 30 foot pole	EA	PCSI	3	3
	Labor installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis,alignment and setup-207	EA	ATCI	3	3
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSFHX00W-DL	EA	VIGILANT	2	2
	VIGILANT LPR Basic Service Package -VSBSCSVC-04	EA	VIGILANT	2	2
	VIGILANT LPR Standard Service Package - VSPK15VC-04	EA	VIGILANT	2	2
	VIGILANT System Start Up and Comissioning - SSUPSYS-COM	EA	VIGILANT	2	2
	VIGILANT END USER TRAINING for LPR System -VSPTRNG	EA	VIGILANT	2	2
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	2	2
	VMS integration license for Vigilant ALPR	EA	C2	2	2
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, 6 Port POE Switch, Interior Fan, 485-232 Converter, 120V DITEK Surge Protector)	EA	VIGILANT	1	1
	Exterior PTZ SNP-6200RH-SAMSUNG	EA	SAMSUNG	1	1
	MOUNTING KIT-SBP-300PM-SAMSUNG	EA	SAMSUNG	1	1
	Fiber Optics LIU Connector Housing for field mount-207	EA	CORNING	1	1
	VMS NEMA ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets)-207	EA	Custom	2	2
	1-Channel of Net Video. -207	EA	VMS	1	1
	1-Channel of Net Video. -SUSP	EA	VMS	1	1
	1-Channel Video Wall License	EA	VMS	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA	2	2
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA	4	4
	1 PORT SURGE SUPPRESSION DEVICE-207	EA	NITEK	3	3
	12 PORT SURGE SUPPRESSION DEVICE-207	EA	NITEK	1	1
	CABLING INFRASTRUCTURE- COPPER-207	FT	ATCI	1	1
	CABLING INFRASTRUCTURE- FIBER OPTICS-207	FT	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP-207	HR	ATCI	1	1
	AS BUILTS DRAWINGS AND ENGINEERING-207	EA	ATCI	1	1
	PROJECT MANAGEMENT	EA	ATCI	1	1
	MISCELLANEOUS COST-CONNECTORS, Boxes-207	EA	ATCI	1	1

Intersection Total Investment: \$ 85,984.32 *

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

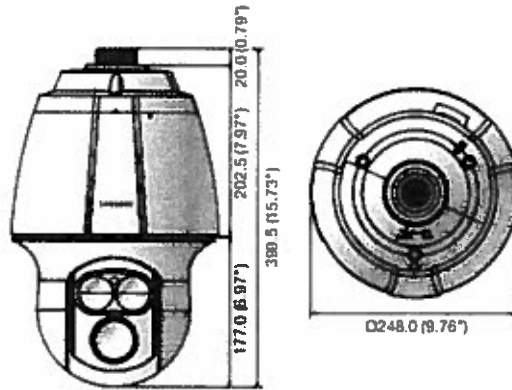
2Megapixel Full HD 32x Network IR PTZ Dome Camera



VIDEO	
Imaging Device	1/2.8" 2.38M CMOS
Total / Effective Pixels	1,952(0) x 1,116(0), 2.18M pixels / 1,944(0) x 1,104(0), 2.14M pixels
Scanning System	Progressive
Color	0.3Lux (1/30sec, F1.6, 50IRE) 0.005Lux (2sec, F1.6, 50IRE)
Min. Illumination	0.1Lux (1/30sec, F1.6, 30IRE) 0.005Lux (2sec, F1.6, 30IRE)
	B/W, 0Lux (IR LED on)
S / N Ratio	50dB
Video Output	CVBS, 1.0Vpp / 75Ω composite, 720 x 480(30), 720 x 576(30), for installation
LENS	
Focal Length (Zoom Ratio)	4.4 ~ 140.8mm (Optical 32x)
Max. Aperture Ratio	F1.6(Wide) / F4.3(Tele)
Angular Field of View	H: 63.68°(Wide) ~ 2.24°(Tele) / V: 37.52°(Wide) ~ 1.28°(Tele)
Min. Object Distance	1.5m (4.92ft)
Focus Control	AF / One-shot AF / Manual
Lens / Mount Type	DC auto iris (IR corrected) / Board-in type
PAN / TILT / ROTATE	
Pan / Tilt Range	360° Endless / 193° (-5° ~ 185°)
Pan / Tilt Speed	Preset, 250°/sec; Manual, 0.0247°/sec ~ 120°/sec
Sequence / Preset Accuracy	Preset (255ea), Swing, Group (6ea), Trace, Tour, Auto (in, Schedule) ±0.2°
Azimuth	Yes (E / W / S / N / NE / SE / NW / SW OSD)
Auto Tracking	Off / On
OPERATIONAL	
IR LED	2ea
Viewable Length	150m (492.13ft)
Camera Title	Off / On (Displayed up to 15 characters)
Day & Night	Auto (ICR) / Color / B/W
Backlight Compensation	Off / BLC / HLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (Off / On)
Digital Noise Reduction	SSNRF (2D + 3D noise filter) (Off / On)
Digital Image Stabilization	Off / On
Defog	Off / Auto / Manual
Intrusion Detection	Off / On (4ea, Rectangular zones)
Privacy Masking	Off / On (32ea, Rectangular zones)
Gain Control	Off / Low / Medium / High / Manual
White Balance	AW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)
Digital Zoom	16x, area zoom function support digital zoom 2x
Flip / Mirror	Off / On
Intelligent Video Analytics	Tampering (Scene change), Virtual line, Enter / Exit (Dis)Appear
Audio detection	Face detection
Alarm I/O	Input 4ea / Output 3ea (Relay type)
Remote Control Interface	RS-485/422
RS-485 Protocol	Samsung, T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vicon, Bosch, GE
Alarm Triggers	Alarm input, Motion detection, Intelligent video analytics, Network disconnect
Alarm Events	File upload via FTP and E-mail, Notification via E-mail, Local storage (SD/SDHC) or NAS recording at Network disconnect, External output, PIZ (pass

Key Features

- Max. 2M (1920 x 1080) resolution
- 16/9 Full HD (1080p) resolution support
- 4.4 ~ 140.8mm (32x) IR corrected optical zoom, 16x digital zoom
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Auto tracking, Intelligent video analytics
- SD/SDHC/SDXC memory slot, Bi-directional audio support
- IP66, IK10, IR LED (2ea)

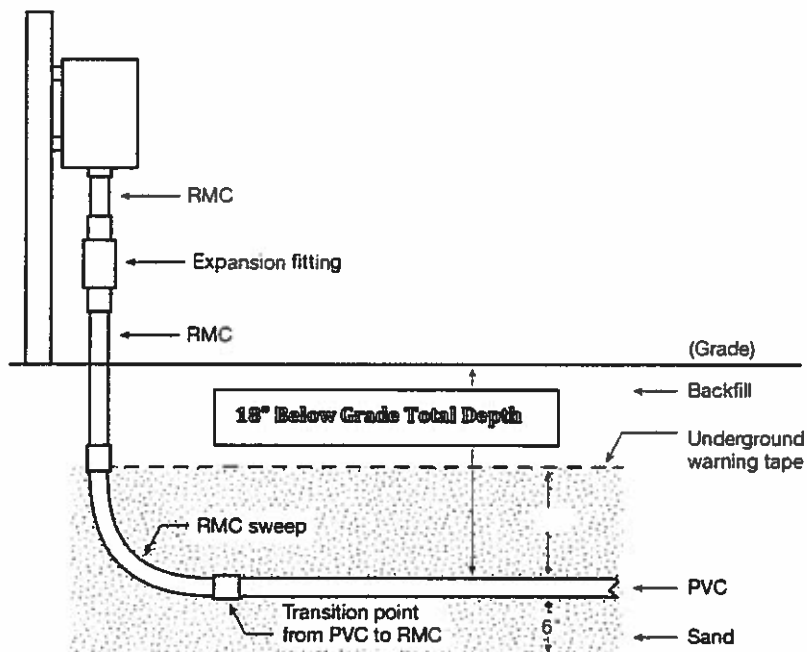


Sunshine811

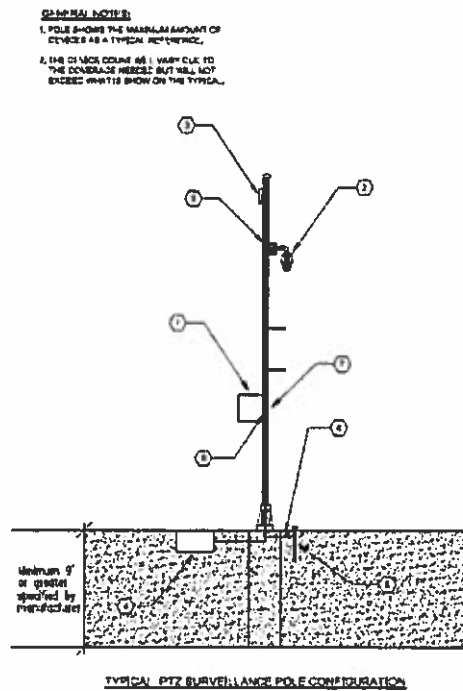
** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

Constant 120V Electrical connection will be obtained from the electrical panel located at the closest existing High Voltage Panel within Miracle Mile as identified during the walkthrough with Public works and City personnel for site ID 4A. Electrical standard by NEC code and best practices will be followed during the installation.

Standard Safeware Team Electrical Trenching



Pole Type for this Intersection:



Head End Components

All Head End components located on Site ID12, Public Safety building.

Notes: Vigilant System will be done through LEARN Server and TAS Alerting at the Criminal Investigation Center (CIC). Video Management System (VMS) will be ONSSI Occularis 5.0 or latest version.

Requirements by City of Coral Gables * -

- MOT.
- Pole Logistical Placement approval per Safeware Team requirement.
- Electrical panel on location (identified during walkthrough).
- Payment of Permit fees, if any.
- Underground Conduit through Miracle Mile (From Miracle Mile Improvement project).
- City Network Connection at City Hall Network closet.

Electrical requirements by Safeware Team

- Conduit runs per code (branch out only from backbone to edge devices, for all cameras, and Pole installations).
- Provide liquid tight flex connections from junction boxes to cameras.
- Provide Nema rated enclosure with all required ventilation requirements for active components.
- Provide bucket- truck or man lift as required.

Ponce de Leon and Miracle Mile ID5A

Overview

This intersection was chosen as a critical area of pedestrian traffic for the City of Coral Gables on the South East corner of the intersection.

This location will also have one (1) Pan Tilt Zoom camera for general traffic and pedestrian surveillance, this site was specifically important due to the large event gathering which takes place for special annual events.

Intersection overview (diagram)



LOCATION ID: 5A (14)

ADDRESS: LE JEUNE RD & CORAL WAY

Pan Tilt Zoom Camera specifications

This location will be outfitted with one (1) Pan Tilt Zoom Camera model number SNP-6320 Samsung night Tracker camera for general intersection overview of the intersection areas.

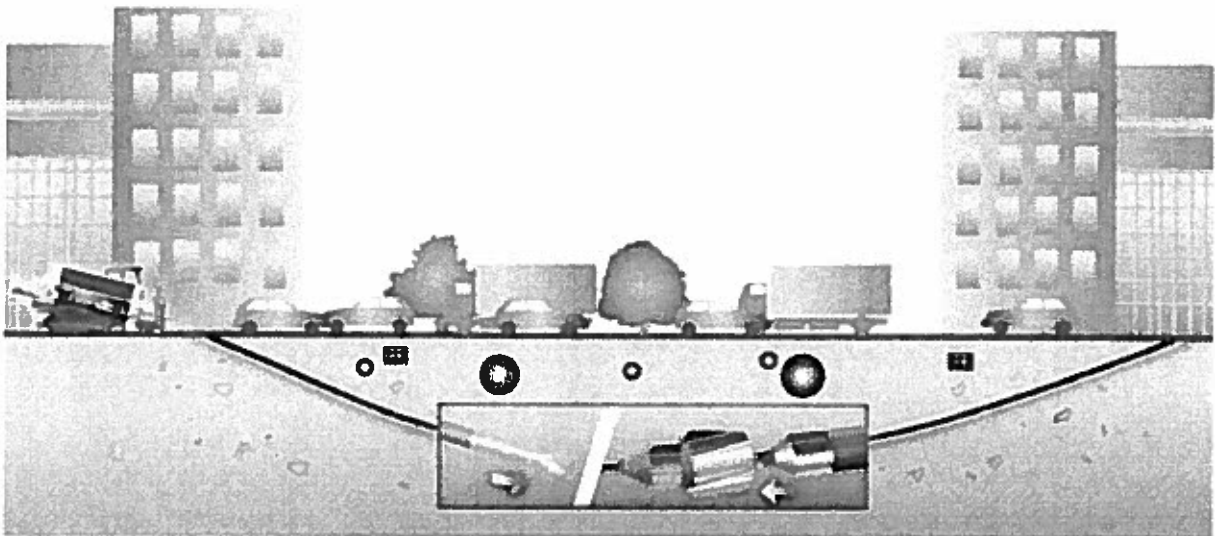
NETWORK	
Ethernet	RJ-45 (10/100BASE-T)
Video Compression Format	H.264 (MPEG 4 Part 10/AVC) Main / Baseline / High, MJPEG
Resolution	1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 720 x 576, 640 x 480, 640 x 360, 320 x 240, 320 x 180
Max. Framerate	H.264 : Max. 60fps at all resolutions MJPEG : 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 : Max. 15fps 800 x 600, 720 x 576, 640 x 480, 640 x 360, 320 x 240, 320 x 180 : Max. 30fps
Smart Codec	Manual mode (Area-based, 5ea), Face detection mode
Video Quality Adjustment	H.264 : Compression level, Target bitrate level control, MJPEG : Quality level control
Bitrate Control Method	H.264 : CBR or VBR, MJPEG : VBR
Streaming Capability	Multiple streaming (Up to 10 profiles)
Audio In	Selectable (Mic in / Line in), Supply voltage : 2.5V DC (4mA) Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm stereo mini jack), Max output level : 1 Vrms
Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz, G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps
Audio Communication	Bi-directional audio (2-way)
IP	IPv4, IPv6
Protocol	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS(SSL) login authentication, Digest login authentication, IP address filtering, User access log, 802.1x authentication (EAP-TLS, EAP-LEAP)
Streaming Method	Unicast / Multicast
Max. User Access	15 users at unicast mode
Edge Storage	SD/SDHC/SDXC (Up to 128G) Motion Images recorded in the SD/SDHC/SDXC memory card can be downloaded
Application Programming Interface	NAS (Network Attached Storage), Local PC for instant recording
Webpage Language	ONVIF profile S, SUNAPI (HTTP API), S/NMP 1.2, Samsung Techwin Open Platform English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatian, Hungarian, Greek, Finnish, Norwegian
Web Viewer	Supported OS : Windows XP / VISTA / 7 / 8, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 8 - 11), Mozilla Firefox (Ver. 9 - 19), Google Chrome (Ver. 15 - 25), Apple Safari (Ver. 6.0.2 (Mac OS X 10.8, 10.7 only), 5.1.7) * Mac OS X only
Central Management Software	SmartViewer, SSM
ENVIRONMENTAL	
Operating Temperature / Humidity	-50°C ~ +55°C (-58°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection / Vandal Resistance	IP66 / IK10
ELECTRICAL	
Input Voltage / Current	24V AC only / 6A
Power Consumption	Max. 36W (Heater off) / Max. 35W/90W (Heater off/on, IR on)
MECHANICAL	
Color / Material	Ivory / Aluminum
Dimensions (WxH)	Ø248.0 x 399.5mm (Ø9.76" x 15.73")
Weight	7.1Kg (15.65 lb)

Infrastructure

Upon commencement of Site ID:5A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on the South East Side of the West entrance to Miracle Mile for equipment to be installed at Miracle Mile corner for the Pan Tilt Zoom camera.

At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths*.

Standards Safeware Team Directional Boring

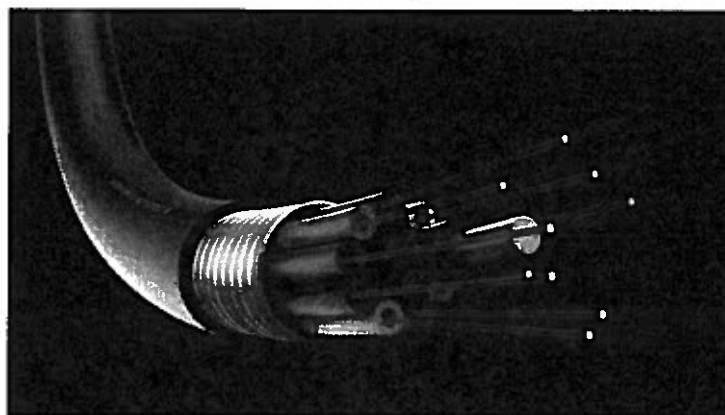


Directional Boring will take place between the Miracle Mile West entrance and over to the City Park across from City Hall and then migrate over to the City Hall side for eventual connection with the IT Closet at the City Hall South West corner.

Fiber Fed Communication:

Location ID 5A:

This intersenction will have a direct fiber fed connection between this intersection and its City Fiber Network with Gigabit uplink between this intersection and the City hall Network closet for tie in to the City Network, the Safeware Team will run a 12 Strand Fiber underground rated cable from to the 5A intersection to the City Hall Network Closet, this will be the fiber connection point with the City Network and the rest of the Miracle Mile Intersections (3A,4A, and 5A) .



- Provide bucket- truck or man lift as required.
- Provide all grounding as required by NEC.
- Provide all fire stopping for electrical work done by the Safeware team as needed.
- Provide submittals, closeout documents and training.
- Fiber connections and certifications.
- Provide patch panels, LIUs.

Wiring

- All cameras to receive Cat 6 rated wire and follow industry requirements for wet locations, plenum, or PVC.
- All cameras to receive proper surge suppression.
- All Cabling, patch panels, terminations, and faceplates to be properly labeled following industry standards.

Bill of Materials Location ID 5A

No	Description	Loc. 5A	MANUFACTURER	MODEL	QTY	TOTAL
	INTERSECTION CAMERAS					
	ELECTRICAL SERVICE AT LOCATION (includes breaker into existing panel source up to 30')	UM				
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to cameras	EA	ATCI	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed 20'	EA	ATCI	ATCI	1	1
	Directional Boring	EA	ATCI	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	ATCI	1	1
	20' Black Aluminum Pole	EA	EAT	UBNT	1	1
	Concrete Base for 20' and 30' decorative pole	EA	PCSI	UBNT	1	1
	Delivery of Poles from supplier flatbed	EA	PCSI	UBNT	1	1
	Installation of 20, and 30 foot pole	EA	PCSI	UBNT	1	1
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis, alignment and setup-207	EA	ATCI	ATCI	1	1
	Exterior PTZ SNP-6200RH-SAMSUNG	EA	SAMSUNG	SNP-6200RH	1	1
	MOUNTING KIT-SBP-300PM-SAMSUNG	EA	SAMSUNG	SBP-300PM	1	1
	Fiber Optics LIU Connector Housing for field mount-207	EA	CORNING	LIU	2	2
	VMS NEMA ENCLOSURE PACKAGE (includes: All necessary Mounting Brackets)-207	EA	Custom	Custom	1	1
	1-Channel of Net Video.-207	EA	VMS	314001	1	1
	1-Channel of Net Video.-SUSP	EA	VMS	314001	1	1
	1-Channel Video Wall License	EA	VMS	314001	1	1
	10 Port High Temp Field Switch	EA	AHTAIRA		1	1
	SFP Module for Switch and fiber Uplink	EA	AHTAIRA		2	2
	1 PORT SURGE SUPPRESSION DEVICE-207	EA	HITEK	DTK-MRI-POE	1	1
	12 PORT SURGE SUPPRESSION DEVICE-207	EA	HITEK	12 Port	1	1
	OSCO SWITCH ** -207	EA	Cisco	WS-C2960S-24TS-L	1	1
	OSCO SWITCH WITH GBIC MODULES-207	EA	Cisco	GBIC	2	2
	Public Wi-Fi Antenna	EA	Ruckus	Locked	1	1
	CABLING INFRASTRUCTURE: COPPER AND FIBER	FT	ATCI	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP, SPECIALTY EQUIP. INFRASTRUCTURE CERTIFICATION, TERMINATIONS, PROJECT COORDINATION REQ.	HR	ATCI	ATCI	1	1
	DESIGN, ENGINEERING, AS-BUILTS, SUBMITTALS, CLOSEOUT	EA	ATCI		1	1
	PROJECT MANAGEMENT	EA	ATCI		1	1
	GENERAL MOUNTING HARDWARE, BOXES, FLEX, IP66 CONNECTORS, CONSUMABLES	EA	ATCI		1	1

Intersection Total Investment: \$ 42,798.86*

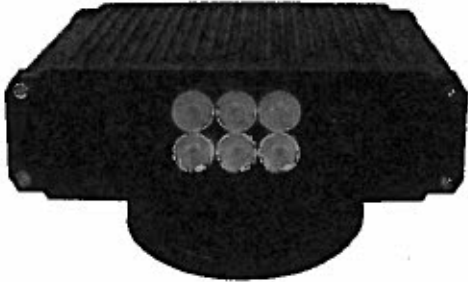
Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

Product Details

Product Images



Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (infrared and color) ANPR / ALPR Camera with integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:6A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on park property on Coral Way entry way into Coral Gables from South Miami. At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths *.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

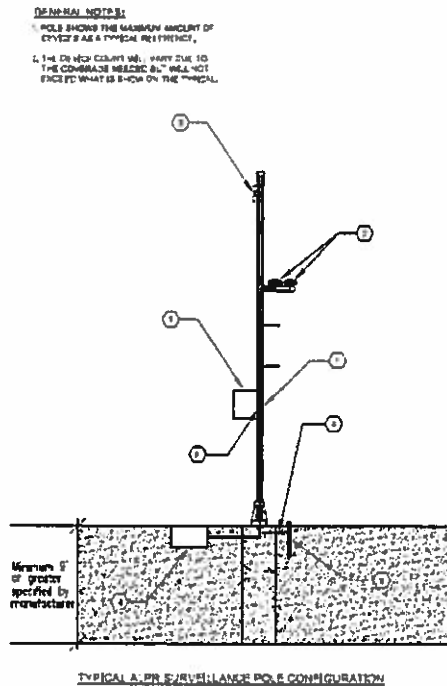
Constant 120V Electrical connection will be obtained from the electrical panel on each of the panel in the electrical closet inside the decorative archway as identified during the walkthrough with Public works and City personnel for site ID 6A. Electrical standard by NEC code and best practices will be followed during the installation.

Wireless Communication:

Location ID 6A:

This intersenction will have a High End Point to Point Radio from the Rocket Line to connect to Alhambra Tower. The Radio equipment will be provided by the Safeware Team, directional subscribers will be installed at each end point for point to point communication to the Backhaul Point which will use an AirFiber for its link.

Pole Details at this Location:



Backhaul Wireless Communication End Point - Alhambra Tower:

Loc/Line	Description	Qty	Notes
Alhambra Tower			
	AF24HD	1	High end point to point
1A			
	RD-5G31-AC	3	Directional Subscriber unit with 31dBi gain
6A			
	RD-5G31-AC	2	Directional Subscriber unit with 31dBi gain

Bill of Material Location ID 6A

No	Description	UM	MANUFACTURER	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION-(Includes breaker into existing panel source up to 30')	EA	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed Z07	EA	ATCI	1	1
	Directional Boaring	EA	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	1	1
	10' Black Aluminum Pole	EA	EAT	2	2
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	2	2
	Delivery of Poles from supplier flatbed	EA	PCSI	1	1
	Installation of 10 and 20 foot pole	EA	PCSI	2	2
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis,alignment and setup-Z07	EA	ATCI	2	2
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSFH00KW-DL	EA	VIGILANT	2	2
	VIGILANT LPR Basic Service Package -VBS5CSVC-04	EA	VIGILANT	2	2
	VIGILANT LPR Standard Service Package - VSPK1SVC-04	EA	VIGILANT	2	2
	VIGILANT System Start Up and Comissioning - SSUPSYS-COM	EA	VIGILANT	2	2
	VIGILANT END USER TRAINING for LPR System-VSPTRNG	EA	VIGILANT	2	2
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	2	2
	VMS Intergration license for Vigilant ALPR	EA	C2	2	2
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, 6 Port POE Switch, Interior Fan, 485-232 Converter, 120V DITEK Surge Protector)	EA	VIGILANT	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA	1	1
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA	2	2
	1 PORT SURGE SUPPRESION DEVICE-Z07	EA	NITEK	2	2
	12 PORT SURGE SUPPRESION DEVICE-Z07	EA	NITEK	1	1
	CABLING INFRASTRUCTURE- COPPER-Z07	FT	ATCI	1	1
	CABLING INFRASTRUCTURE- FIBER OPTICS-Z07	FT	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP-Z07	HR	ATCI	1	1
	AS BUILTS DRAWINGS AND ENGINEERING-Z07	EA	ATCI	1	1
	PROJECT MANAGEMENT	EA	ATCI	1	1
	MISCELLANEOUS COST-CONNECTORS, Boxes-Z07	EA	ATCI	1	1

Intersection Total Investment: \$ 62,580.91*

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

Product Details

Product Images



Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (Infrared and color) ANPR / ALPR Camera with integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:7A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on park property on Bird road entry into Coral Gables for vehicles traveling East bound. At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths *.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

Constant 120V Electrical connection will be obtained from the electrical panel on the City owned property on the NW corner of the street (girl scout house) as identified during the walkthrough with Public works and City personnel for site ID 7A. Electrical standard by NEC code and best practices will be followed during the installation.

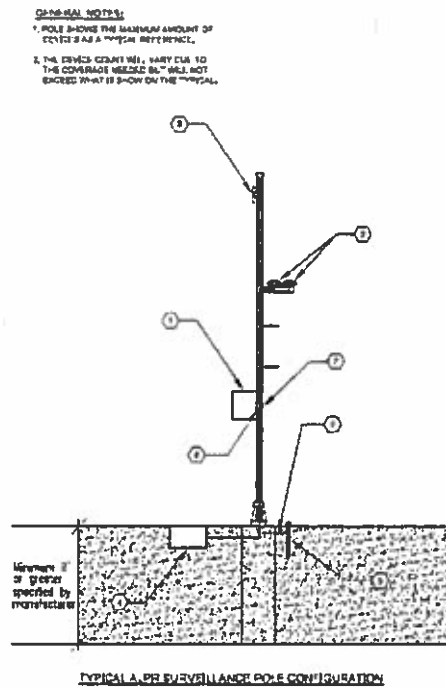
Standard Safeware Team Electrical Trenching

Wireless Communication:

Location ID 7A:

This intersenction will have a High End Point to Point Radio from the Rocket Line to connect to Regions Tower. The Radio equipment will be provided by the Safeware Team, directional subscribers will be installed at each end point for point to point communication to the Backhaul Point which will use an AirFiber for its link.

Pole Details at this Location:



Backhaul Wireless Communication End Point - Regions tower :

Loc/Line	Description	Qty	Notes
Regions	AF24HD	2	High end point to point
	Rocket 5 AC radio with 60 degree antenna	1	60 degree "kit
7A	RD-5G31-AC	1	Directional Subscriber unit with 31dBi gain

Bill of Material Location ID 7A

No	Description	UM	MANUFACTURER	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION-(includes breaker into existing panel source up to 30')	EA	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed 207	EA	ATCI	1	1
	Directional Boaring	EA	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	1	1
	10' Black Aluminum Pole	EA	EAT	1	1
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	1	1
	Delivery of Poles from supplier flatbed	EA	PCSI	1	1
	Installation of 20, and 30 foot pole	EA	PCSI	1	1
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and wind/load analysis,alignment and setup-207	EA	ATCI	1	1
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSPHXXXW-DL	EA	VIGILANT	1	1
	VIGILANT LPR Basic Service Package -VSBSCSVC-04	EA	VIGILANT	1	1
	VIGILANT LPR Standard Service Package - VSPK1SVC-04	EA	VIGILANT	1	1
	VIGILANT System Start Up and Comissioning - SSUPSYS-COM	EA	VIGILANT	1	1
	VIGILANT END USER TRAINING for LPR System-VSPTRNG	EA	VIGILANT	1	1
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	1	1
	VMS Intergration license for Vigilant ALPR	EA	C2	1	1
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, 6 Port POE Switch, Interior Fan, 485-232 Converter, 120V DITEK Surge Protector)	EA	VIGILANT	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA	1	1
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA	2	2
	1 PORT SURGE SUPPRESION DEVICE-207	EA	NITEK	2	2
	12 PORT SURGE SUPPRESION DEVICE-207	EA	NITEK	1	1
	CABLING INFRASTRUCTURE- COPPER-207	FT	ATCI	1	1
	CABLING INFRASTRUCTURE- FIBER OPTICS-207	FT	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP-207	HR	ATCI	1	1
	AS BUILTS DRAWINGS AND ENGINEERING-207	EA	ATCI	1	1
	PROJECT MANAGEMENT	EA	ATCI	1	1
	MISCELLANEOUS COST-CONNECTORS, Boxes-207	EA	ATCI	1	1

Intersection Total Investment: \$ 56,638.18 *

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

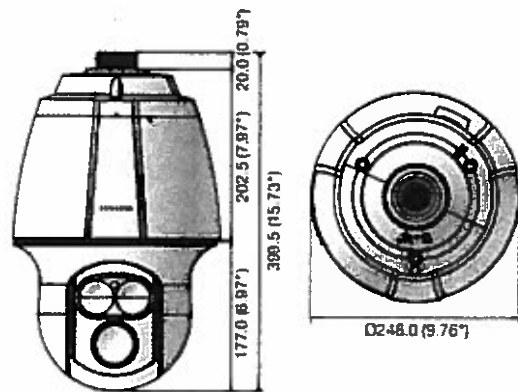
2Megapixel Full HD 32x Network IR PTZ Dome Camera



Key Features

- Max. 2M (1920 x 1080) resolution
- 16:9 Full HD (1080p) resolution support
- 4.4 ~ 140.8mm (32x) IR corrected optical zoom, 16x digital zoom
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Auto tracking, Intelligent video analytics
- SD/SDHC/SDXC memory slot, Bi-directional audio support
- IP66, IK10, IR LED (2ea)

VIDEO	
Imaging Device	1/2.8" 2.35M CMOS
Total / Effective Pixels	1,952(H) x 1,116(V), 2.18M pixels / 1,944(H) x 1,104(V) 2.14M pixels
Scanning System	Progressive
Color	0.3Lux (1/30sec, F1.6, 50IRE) 0.005Lux (2sec, F1.6, 50IRE)
Min. Illumination	0.1Lux (1/30sec, F1.6, 30IRE) 0.005Lux (2sec, F1.6, 30IRE)
	B/W: 0Lux (IR LED on)
S/N Ratio	50dB
Video Output	CVBS: 1.0Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation
LENS	
Focal Length (Zoom Ratio)	4.4 ~ 140.8mm (Optical 32x)
Max. Aperture Ratio	F1.6(Wide) / F4.5(Tele)
Angular Field of View	H: 63.68°(Wide) ~ 2.24°(Tele) / V: 37.52°(Wide) ~ 1.28°(Tele)
Min. Object Distance	1.5m (4.92ft)
Focus Control	AF / One-shot AF / Manual
Lens / Mount Type	DC auto iris (IR corrected) / Board-in type
PAN / TILT / ROTATE	
Pan / Tilt Range	360° Endless / 195° (+5° ~ 185°)
Pan / Tilt Speed	Presel: 250°/sec, Manual: 0.024°/sec ~ 120°/sec
Sequence / Preset Accuracy	Presel (255ea), Swing, Group (6ea), Trace, Tour, Auto run, Schedule / ±0.2°
Auto Tracking	Yes (E/W/S/N/NE/SE/NW/SW OSD)
	Off / On
OPERATIONAL	
IR LED	2ea
Viewable Length	150m (492.13ft)
Camera Title	Off / On (Displayed up to 15 characters)
Day & Night	Auto (ICR) / Color / B/W
Backlight Compensation	Off / BLC / HLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (Off / On)
Digital Noise Reduction	SSNR (2D+3D noise filter) (Off / On)
Digital Image Stabilization	Off / On
Defog	Off / Auto / Manual
Motion Detection	Off / On (4ea, Rectangular zones)
Privacy Masking	Off / On (32ea, Rectangular zones)
Gain Control	- Color / Gray / Green / Red / Blue / Black / White, Zoom ratio option for mask mode
White Balance	Off / Low / Medium / High / Manual
Electronic Shutter Speed	ATW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium
Digital Zoom	Minimum / Maximum / Anti Flicker (2 ~ 1 / 2, 0.005sec)
Flip / Mirror	10x area zoom function support digital zoom 2x
Intelligent Video Analytics	Off / On
Alarm I/O	Tampering (Scene change), Virtual line, Enter / Exit (Dis-Appear)
Remote Control Interface	Audio detection, Face detection
RS-485 Protocol	Input 4ea / Output 3ea (Relay type)
Alarm Triggers	RS-485/4-22
Alarm Events	Samsung-T.E, Pelco-P.D, Panasonic, Honeywell, AD, Vicon, Bosch, GE
	Alarm input, Motion detection, Intelligent video analytics, Network disconnection
	File upload via FTP and E-mail, Notification via E-mail
	Local storage (SD/SDHC) or NAS required at Network disconnected, External output, PTZ, reset



Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (infrared and color) ANPR / ALPR Camera with integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:8A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on the areas denoted by the Parking lot for the City Fire Station #2.

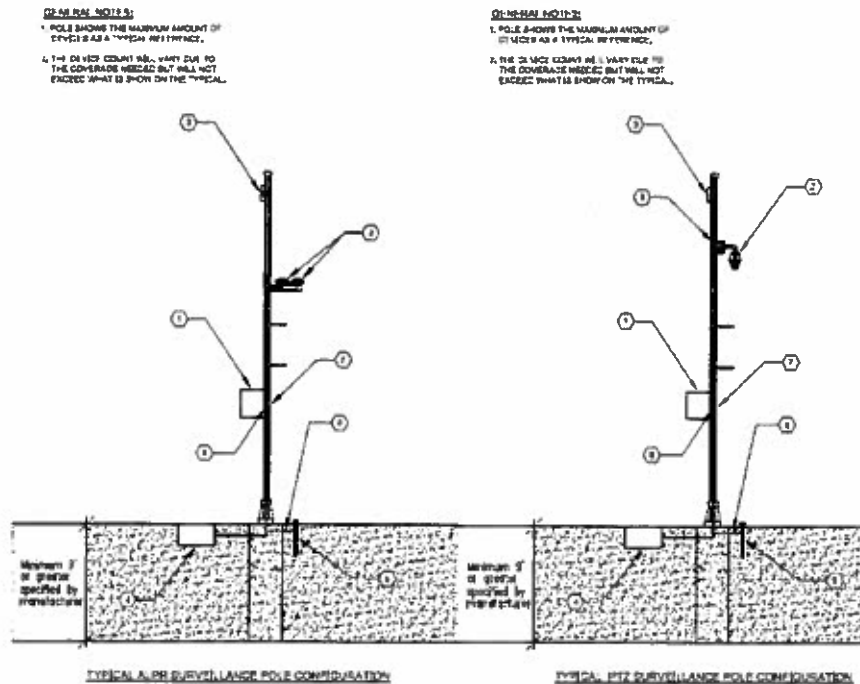
Pan Tilt Zoom camera will be mounted on a second decorative pole for general overview monitoring.

At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths*.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

Constant 120V Electrical connection will be obtained from the electrical panel located at the closest existing High Voltage Panel within the Fire Department as identified during the walkthrough with Public works and City personnel for site ID 8A. Electrical standard by NEC code and best practices will be followed during the installation.



Head End Components

All Head End components located on Site ID12, Public Safety building.

Notes: Vigilant System will be done through LEARN Server and TAS Alerting at the Criminal Investigation Center (CIC). Video Management System (VMS) will be ONSSI Occularis 5.0 or latest version.

Requirements by City of Coral Gables * -

- MOT.
- Electrical panel on location (identified during walkthrough).
- Payment of Permit fees, if any.
- City Network Connection at Fire Station #2 Network closet.

Electrical requirements by Safeware Team

- Conduit runs per code.
- Underground Infrastructure.
- Provide liquid tight flex connections from junction boxes to cameras.
- Provide Nema rated enclosure with all required ventilation requirements for active components.
- Provide bucket- truck or man lift as required.
- Provide all grounding as required by NEC.
- Provide all fire stopping for electrical work done by the Safeware team as needed.

Dixie HWY and Madruga Ct. (Gas Station) Location ID9A

Overview

This intersection was chosen as a critical area to add to the Geo Fence at Coral Gables. This intersection is located on one of the critical borders of the City. The technology outfit will include (2) License plate capture cameras placed on the West bound border capturing the traffic going East bound on Dixie HWY from the West Entry to the City of Coral Gables Border. Both LPR cameras will be mounted on decorative pole (1).

Intersection overview (diagram)



LOCATION ID: 9A

ADDRESS: S. DIXIE HWY. & MADRUGA COURT

License Plate Recognition camera

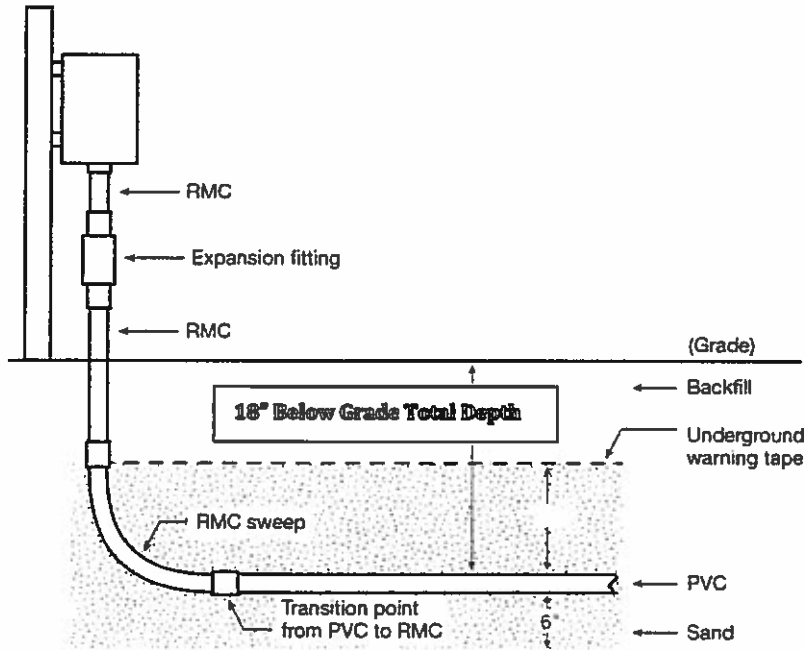
This location will be outfitted with Vigilant Raptor 3 LPR cameras. Two (2) LPR cameras to capture east bound Traffic from the West Entrance to the City through Dixie HWY.

Product Details

Product Images



Standard Safeware Team Electrical Trenching

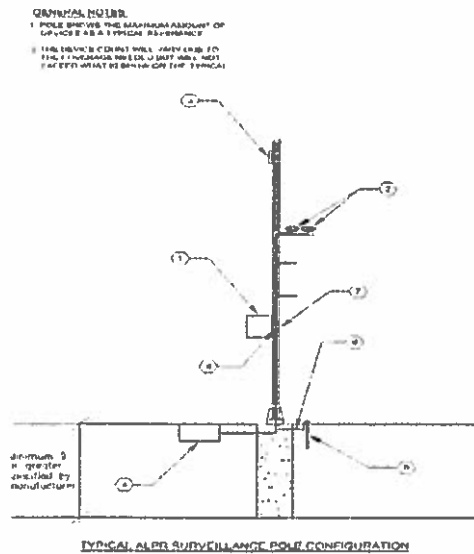


Wireless Communication:

Location ID 9A.

This intersenction will have a High End Point to Point Radio from the Rocket Line. The Radio equipment will be provided by the Safeware Team, directional subscribers will be installed at each end point for point to point communication to the Backhaul Point.

Pole Details at this Location:



Wiring

- All cameras to receive Cat 6 rated wire and follow industry requirements for wet locations, plenum, or PVC.
- All cameras to receive proper surge suppression.
- All Cabling, patch panels, terminations, and faceplates to be properly labeled following industry standards.

Bill of Materials Location ID 9A

No	Description	UM	MANUFACTURER	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION-(includes breaker into existing panel source up to 30')	EA	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed 20'	EA	ATCI	1	1
	Directional Boring	EA	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	1	1
	10' Black Aluminum Pole	EA	EAT	1	1
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	1	1
	Delivery of Poles from supplier flatbed	EA	PCSI	1	1
	Installation of 10, and 20 foot pole	EA	PCSI	1	1
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis, alignment and setup-207	EA	ATCI	1	1
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSFH00XW-DL	EA	VIGILANT	2	2
	VIGILANT LPR Basic Service Package -VSBSVC-04	EA	VIGILANT	2	2
	VIGILANT LPR Standard Service Package - VSPK1SVC-04	EA	VIGILANT	2	2
	VIGILANT System Start Up and Commissioning - SSUPSYS-COM	EA	VIGILANT	2	2
	VIGILANT END USER TRAINING for LPR System-VSPTRNG	EA	VIGILANT	2	2
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	2	2
	VMS Intergration license for Vigilant ALPR	EA	C2	2	2
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, 6 Port POE Switch, Interior Fan, 485-232 Converter, 120V DITEK Surge Protector)	EA	VIGILANT	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA	1	1
	SFP Module for Switch and fiber UpLink	EA	ANTAIRA	2	2
	1 PORT SURGE SUPPRESSION DEVICE-207	EA	NITEK	2	2
	12 PORT SURGE SUPPRESSION DEVICE-207	EA	NITEK	1	1
	CABLING INFRASTRUCTURE- COPPER-207	FT	ATCI	1	1
	CABLING INFRASTRUCTURE- FIBER OPTICS-207	FT	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP-207	HR	ATCI	1	1
	AS BUILTS DRAWINGS AND ENGINEERING-207	EA	ATCI	1	1
	PROJECT MANAGEMENT	EA	ATCI	1	1
	MISCELLANEOUS COST-CONNECTORS, Boxes-207	EA	ATCI	1	1

Intersection Total Investment: \$ 58,916.82*

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

Product Details

WiseNet III Plus Night Tracker

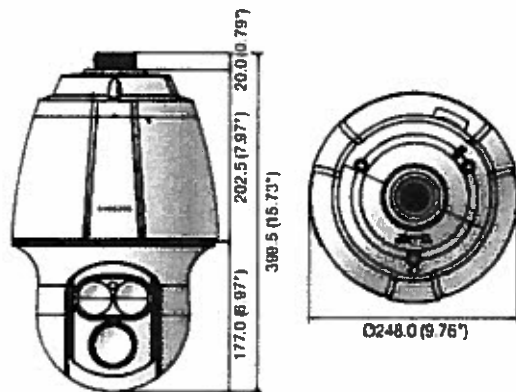
2Megapixel Full HD 32x Network IR PTZ Dome Camera



Key Features

- Max. 2M (1920 x 1080) resolution
- 16 : 9 Full HD (1080p) resolution support
- 4.4 – 140.8mm (32x) IR corrected optical zoom, 16x digital zoom
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Auto tracking, Intelligent video analytics
- SD/SDHC/SDXC memory slot, Bi-directional audio support
- IP66, IK10, IR LED (2ea)

VIDEO	
Imaging Device	1/2.8" 2.38M CMOS
Total / Effective Pixels	1,952(H) x 1,116(V), 2.18M pixels / 1,944(H) x 1,104(V), 2.14M pixels
Scanning System	Progressive
Color	0.3Lux (1/30sec, F1.6, 50IRE), 0.005Lux (2sec, F1.6, 50IRE)
Min. Illumination	0.1Lux (1/30sec, F1.6, 30IRE), 0.0005Lux (2sec, F1.6, 30IRE)
	B/W, 0Lux (IR LED on)
S / N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω (composite), 720 x 480 @ 720 x 576 @ (for installation)
LENS	
Focal Length (Zoom Ratio)	4.4 – 140.8mm (Optical 32x)
Max. Aperture Ratio	F1.6(Wide) / F4.9(Tele)
Angular Field of View	H: 63.68(Wide) – 2.24(Tele) / V: 37.52(Wide) – 1.28(Tele)
Min. Object Distance	1.5m (4.92ft)
Focus Control	AF / One-shot AF / Manual
Lens / Mount Type	DC auto iris (IR corrected) / Board-in type
PAN / TILT / ROTATE	
Pan / Tilt Range	360° Endless / 190° / 5° - 185°
Pan / Tilt Speed	Preset: 250°/sec, Manual: 0.0247°/sec – 120°/sec
Sequence / Preset Accuracy	Preset (255ea), Swing, Group (8ea), Trace, Tour, Auto (1/4), Schedule / - (1/7)
Azimuth	Yes (E / W / S / N / NE / SE / NW / SW OSD)
Auto Tracking	On / Off
OPERATIONAL	
IR LED	2ea
Viewable Length	150m (492.13ft)
Camera Tilt	On / Off (Displayed up to 15 characters)
Day & Night	Auto (ICR) / Color / B/W
Backlight Compensation	On / Off / BLC / HLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (On / Off)
Digital Noise Reduction	SSH-III (2D+3D noise filter) (On / Off)
Digital Image Stabilization	On / Off
Defog	On / Auto / Manual
Motion Detection	On / Off (4ea, Rectangular zones)
Privacy Masking	On / Off (32ea, Rectangular zones)
	- Color : Grey / Green / Red / Blue / Black / White - Zoom ratio option for mask mode
Gain Control	On / Low / Medium / High / Manual
White Balance	ATW / AWB / Manual / Indoor / Outdoor / Mercury / Sodium
Electronic Shutter Speed	Minimum / Maximum / Anti Flicker (2 - 1/12, 0.01sec)
Digital Zoom	15x, area zoom function support digital zoom 2x
Flip / Mirror	On / Off
Intelligent Video Analytics	Tampering (Scene change), Virtual line Enter / Exit (On/Appear)
Alarm I/O	Audio detection, Face detection
Remote Control Interface	Input: 4ea / Output: 3ea (Relay type)
RS-485 Protocol	RS-485/422
Alarm Triggers	Samsung-T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vision, Bosch, Gif
Alarm Events	Alarm input, Motion detection, Intelligent video analytics, Network disconnect
	FBI upload via FTP and E-mail, Notification via E-mail
	Local storage (SD/SDHC) or NVR recording at Network disconnect, E-mail output, P/T/Zoom



Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (infrared and color) ANPR / ALPR Camera with Integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:10A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on the areas denoted on Cartagena Circle, Coral Gables.

Pan Tilt Zoom camera will be mounted on a second decorative pole for general overview monitoring.

At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths *.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

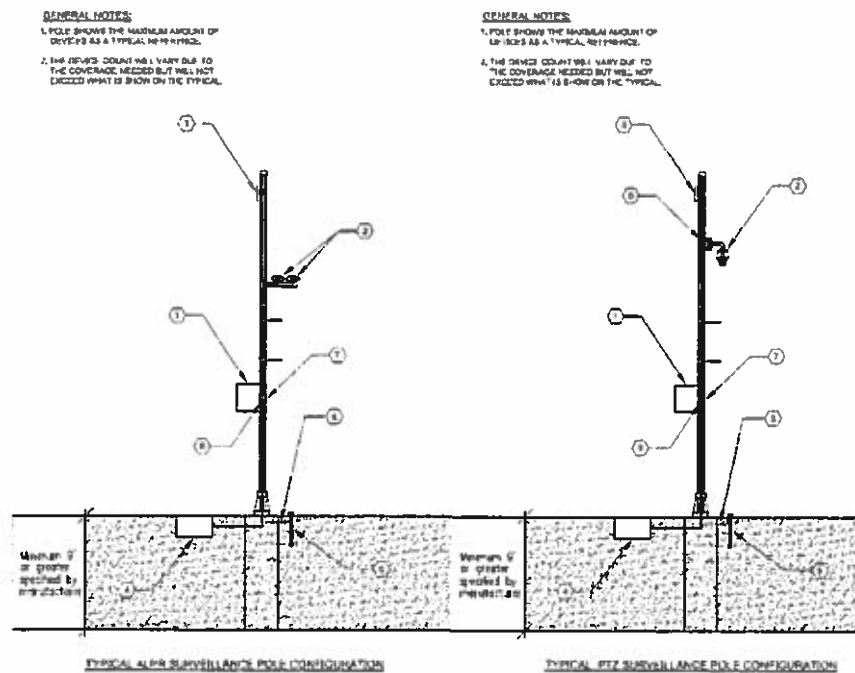
Constant 120V Electrical connection for the PTZ circle camera will be obtained from the electrical panel located on the North East side of the round-about, across from the Circle as identified during the walkthrough with Public works and City personnel for site ID 10A. The LPR cameras will be powered through constant power from a panel located in the park. Electrical standard by NEC code and best practices will be followed during the installation.

Wireless Communication:

Location ID 10A:

This intersenction will have a High End Point to Point Radio from the Rocket Line to connect to Edgewater. The Radio equipment will be provided by the Safeware Team, directional subscribers will be installed at each end point for point to point communication to the Backhaul Point which will use an AirFiber for its link.

Pole Details at this Location:



Backhaul Wireless Communication End Point – Edgewater:

Edgewater	
AF24HD	1 High end point to point
Rocket 5 AC radio with 60 degree antenna	1 60 degree "kit
RD-5G31-AC	2 PtP link to distribution
10A	
RD-5G31-AC	2 Directional Subscriber unit with 31dBi gain

Bill of Material Location ID 10A

No	Description	UM	MANUFACTURER	MODEL	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION (includes breaker into existing panel source up to 30')	EA	ATCI	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed Z07	EA	ATCI	ATCI	1	1
	Directional Boring	EA	ATCI	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	ATCI	1	1
	10' Black Aluminum Pole	EA	EAT	UBNT	2	2
	Concrete Base for 10' and 20' decorative pole	EA	PCSI	UBNT	2	2
	Delivery of Poles from supplier flatbed	EA	PCSI	UBNT	1	1
	Installation of 20, and 30 foot pole	EA	PCSI	UBNT	2	2
	Labor Installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis, alignment and setup Z07	EA	ATCI	ATCI	2	2
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SYS-1 model # VSFHX00W-DL	EA	VIGILANT	VIGILANT	2	2
	VIGILANT LPR Basic Service Package -VS8CSVC-04	EA	VIGILANT	VIGILANT	2	2
	VIGILANT LPR Standard Service Package - VSPK1SVC-04	EA	VIGILANT	VIGILANT	2	2
	VIGILANT System Start Up and Comissioning - SSUPSYS-COM	EA	VIGILANT	VIGILANT	2	2
	VIGILANT END USER TRAINING for LPR System-VSPTRNG	EA	VIGILANT	VIGILANT	2	2
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	VIGILANT	2	2
	VMS Intergration license for Vigilant ALPR	EA	C2		2	2
	FIXED LPR ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets for LPR Enclosure, UPS, Hardened PC, Internal Wire management, Injectors, Interior Fan, 485-232 Converter, 120V Surge Suppressors/Arrestors)	EA	VIGILANT	VIGILANT	1	1
	Exterior PTZ SNP-6200RH-SAMSUNG	EA	SAMSUNG	SNP-6200RH	1	1
	MOUNTING KIT-SBP-300PM-SAMSUNG	EA	SAMSUNG	SBP-300PM	1	1
	Fiber Optics LIU Connector Housing for field mount-Z07	EA	CORNING	LIU	2	2
	VMS NEMA ENCLOSURE PACKAGE(Includes: All necessary Mounting Brackets)-Z07	EA	Custom	Custom	1	1
	1-Channel of Net Video -Z07	EA	VMS	314001	1	1
	1-Channel of Net Video -SUSP	EA	VMS	314001	1	1
	1-Channel Video Wall License	EA	VMS	314001	3	3
	10 Port High Temp Field Switch	EA	ANTAIRA		3	3
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA		6	6
	1 PORT SURGE SUPPRESSION DEVICE-Z07	EA	NITEK	DTK-MRJ-POE	3	3
	12 PORT SURGE SUPPRESSION DEVICE-Z07	EA	NITEK	12 Port	1	1
	Public Wi-Fi Antenna	EA	Ruckus	locked	1	1
	CABLING INFRASTRUCTURE: COPPER AND FIBER	FT	ATCI	ATCI	1	1
				ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP, SPECIALTY EQUIP INFRASTRUCTURE CERTIFICATION,TERMINATIONS, PROJECT COORDINATION REQ.	HR	ATCI	ATCI	1	1
	DESIGN, ENGINEERING, AS-BUILTS, SUBMITTALS, CLOSEOUT	EA	ATCI		1	1
	PROJECT MANAGEMENT	EA	ATCI		1	1
	GENERAL MOUNTING HARDWARE, BOXES, FLEX, IP66 CONNECTORS, CONSUMABLES	EA	ATCI		1	1

Intersection Total Investment: \$ 87,292.95 *

Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites

Key Features

- Single cable Power-over-Ethernet installation
- Low-profile, Compact, Dual-lens (Infrared and color) ANPR / ALPR Camera with integral processor
- Low power consumption at <8W average
- Automated speed calculation
- Outdoor rated, IP67, NEMA4
- Full-featured and well documented API
- Dynamic LPR camera control via Ethernet
- Point Control (aim precision)

Product Description

Vigilant Solutions' Reaper Series camera is a low-profile, compact, ANPR / LPR camera and integrated processing unit for use in both mobile and fixed LPR applications. The Reaper is environmentally sound (IP67) and friendly (<8W average power), easy to install and deploy (single PoE cable), and feature rich (direct connection to LEARN, speed calculation, ONVIF compliant video stream).

Infrastructure

Upon commencement of Site ID:11A project intersection, The Safeware team will start by a physical walk of the individual intersections, this process will include white line marking exact pole locations located on the areas denoted.

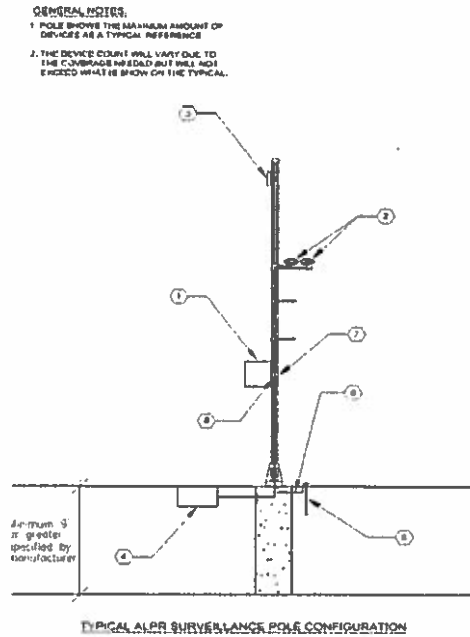
At this time all intended underground paths for underground infrastructure to its designated end points will be marked and locate tickets will be opened through sunshine 811. Upon discovery of existing underground details, the Safeware Team will proceed with underground paths or look for alternate paths*.



** If dramatic changes to intended paths occur due to underground unforeseen this would be the point for contingency discussions that would be mutually agreeable by all parties.*

Constant 120V Electrical connection will be obtained from the electrical panel located at the closest existing High Voltage Panel within the Fire Station #3 MOU as identified during the walkthrough with Public works and City personnel for site ID11A. Electrical standard by NEC code and best practices will be followed during the installation.

Pole Details at this Location:



Backhaul Wireless Communication End Point-Fire Station #3.

Loc/Line	Device Description	Qty	Notes
FIRE STATION 3			
	Ethernet Connection Supplied by Customer		
	Rocket 5 AC radio with 60 degree antenna	2	60 degree "kit"
11A			
	RD-5G31-AC	2	Directional Subscriber unit with 31dBI gain

Head End Components

All Head End components located on Site ID12, Public Safety building.

Notes: Vigilant System will be done through LEARN Server and TAS Alerting at the Criminal Investigation Center (CIC). Video Management System (VMS) will be ONSSI Occularis 5.0 or latest version.

Requirements by City of Coral Gables * -

- MOT.
- Electrical panel on location (identified during walkthrough).
- Payment of Permit fees, if any.
- Access to Fire Station #3 for Launch Point Access.

Bill of Materials Location ID 11A

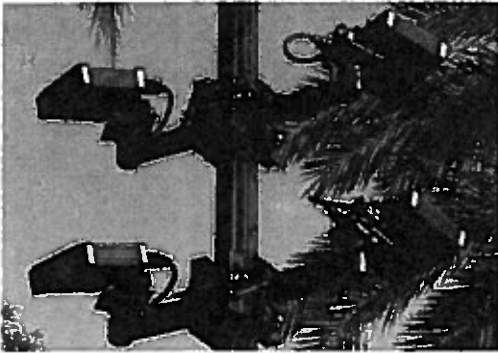
INTERSECTION CAMERAS		Loc. 11A			
No	Description	UM	MANUFACTURER	QT	TOTAL
	ELECTRICAL SERVICE AT LOCATION (includes breaker into existing panel source up to 30')	EA	ATCI	1	1
	Conduit Infrastructure- Miscellaneous only, exposed from backbone to camera	EA	ATCI	1	1
	TRENCHING ELECTRICAL- not to exceed 207	EA	ATCI	1	1
	Directional Boring	EA	ATCI	1	1
	Locates Marking by contractor for conflict mediation	EA	ATCI	1	1
	10" Black Aluminum Pole	EA	EAT	1	1
	Concrete Base for 20' and 30' decorative pole	EA	PCSI	1	1
	Delivery of Poles from supplier flatbed	EA	PCSI	1	1
	Installation of 20, and 30 foot pole	EA	PCSI	1	1
	Labor installation for standard poles, roof and towers. Includes brackets, straps, engineering, and windload analysis, alignment and setup-207	EA	ATCI	1	1
	VIGILANT Car Detector Fixed Camera LPR System - Camera System-LPR SVS-1 model # VSFHX00W-DL	EA	VIGILANT	2	2
	VIGILANT LPR Basic Service Package -VSBSCSVC-04	EA	VIGILANT	2	2
	VIGILANT LPR Standard Service Package - VSPK1SVC-04	EA	VIGILANT	2	2
	VIGILANT System Start Up and Commissioning - SSUPSYS-COM	EA	VIGILANT	2	2
	VIGILANT END USER TRAINING for LPR System-VSPTRNG	EA	VIGILANT	2	2
	VIGILANT SHIPPING AND HANDLING-VS-SHP-02	EA	VIGILANT	2	2
	VMS Integration license for Vigilant ALPR	EA	C2	2	2
	FIXED LPR ENCLOSURE PACKAGE (Includes: All necessary Mounting Brackets for LPR Enclosure, 6 Port POE Switch, Interior Fan, 485-232 Converter, 120V DITEK Surge Protector)	EA	VIGILANT	1	1
	10 Port High Temp Field Switch	EA	ANTAIRA	1	1
	SFP Module for Switch and fiber Uplink	EA	ANTAIRA	2	2
	1 PORT SURGE SUPPRESSION DEVICE-Z07	EA	NITEK	2	2
	12 PORT SURGE SUPPRESSION DEVICE-Z07	EA	NITEK	1	1
	CABLING INFRASTRUCTURE- COPPER-Z07	FT	ATCI	1	1
	CABLING INFRASTRUCTURE- FIBER OPTICS-Z07	FT	ATCI	1	1
	LABOR INSTALLATION, DEVICE MOUNTING, PROGRAMMING AND SETUP-Z07	HR	ATCI	1	1
	AS BUILTS DRAWINGS AND ENGINEERING-Z07	EA	ATCI	1	1
	PROJECT MANAGEMENT	EA	ATCI	1	1
	MISCELLANEOUS COST-CONNECTORS, Boxes-Z07	EA	ATCI	1	1

Intersection Total Investment: \$ 62,475.00*

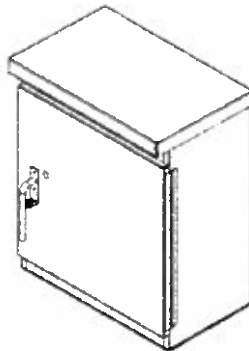
Wireless Total Investment: \$ 27,118.58 **

*Subject to Milestones/ Payments as outlined

** Required Wireless infrastructure broken out into the 12 individual sites



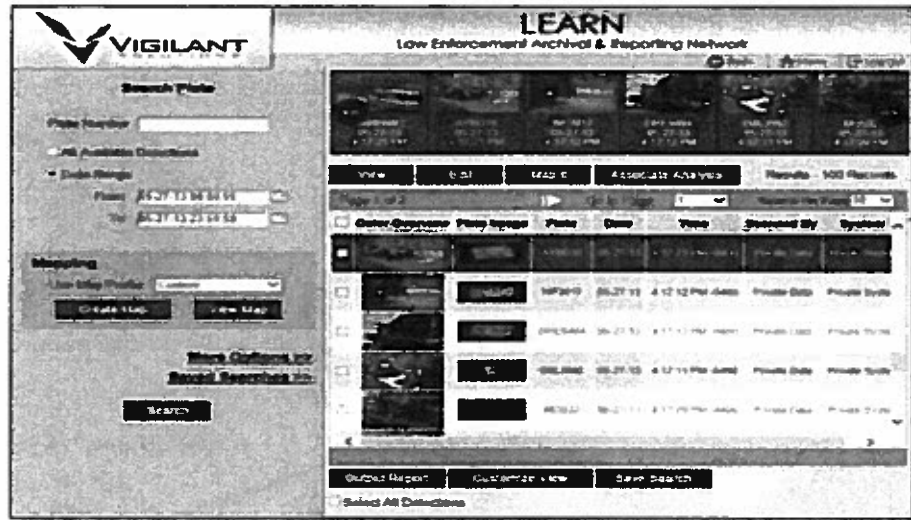
ALRP NEMA ENCLOSURES



- Hardened Weatherproof Enclosure with internal vented thermostat controlled fans
- Cellular or Line of Sight Radio Connectivity Options
- Real Time Hit Alerts via
- Vigilant's TAS Client
- Made in USA construction

Features - License Plate Query

LEARN allows the user to leverage Vigilant's LPR data in a number of ways, including advanced vehicle location query capabilities. Whether using a known license plate number, full or partial, date/time, and/or a geographical location as input criteria, the user-friendly interface simply and quickly conducts historical and real time queries against the search parameters. Filters can be applied to include or exclude variables such as the source of the LPR data, systems, users, and more. Search criteria may also be saved for later review against incoming (refreshed) data to further enhance the success of any investigation.



License Plate Query - Search Results

A filmstrip appears at the top of the return page, allowing the user to scroll through the list of color overview photos, and hovering on a photo produces a large image for more thorough inspection of the photograph. Individual or multiple license plate scans may be viewed for further analysis, exported to a PDF or Excel document for inclusion in a case file, or plotted on a map for location and clustering analysis.



Vehicle Detection Report in PDF Format

Vigilant Fixed LPR Image Capture Technology

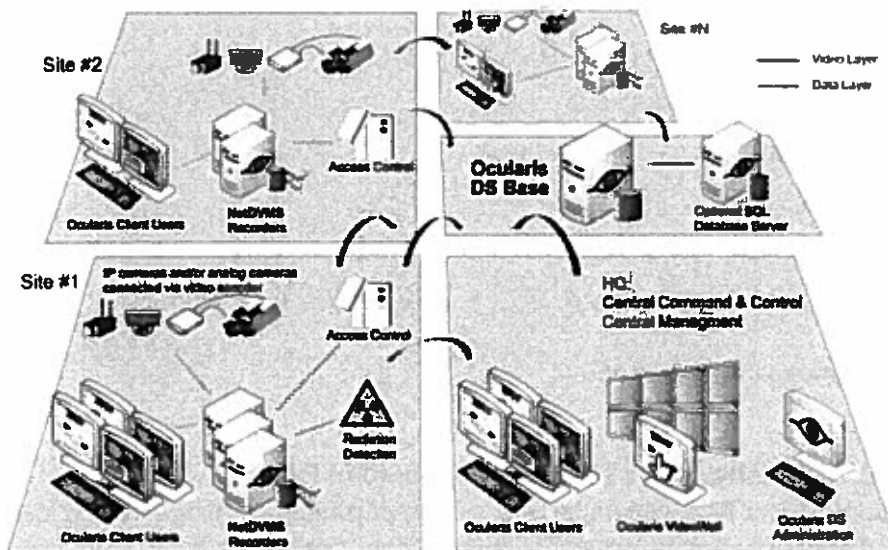
Vigilant's Fixed LPR Image Capture Technology includes a ruggedized camera and digital signal processing (DSP) unit using analog inputs, for non-proprietary video-feed. The camera is Nitrogen purged to protect internal components from outside atmospheric conditions and prevent condensation inside the camera housing. The camera also includes infrared (IR) light

ONSSI - VIDEO MANAGEMENT SOLUTION (VMS)



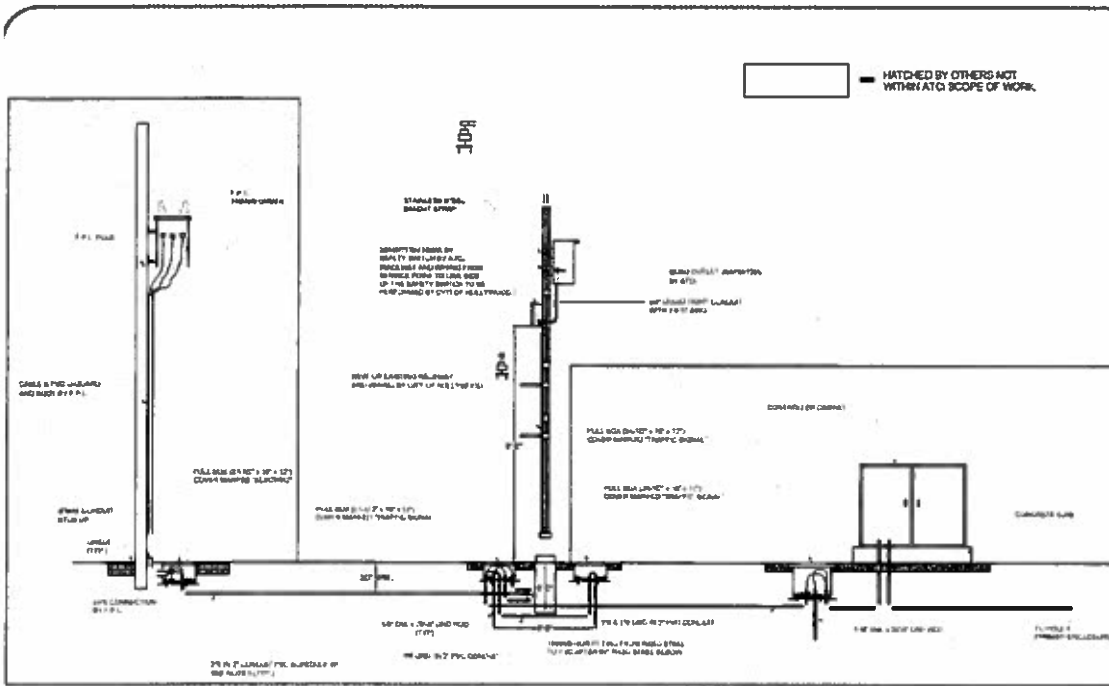
Key Benefits

- Unlimited cameras per server allow for greater scalability and density
- Enhance collaboration by sharing your display with remote operators with the Video Wall option
- Get closer to prevention with advanced alerts from third-party integrations for video analytics, facial recognition, access control, POS, ATM, LPR
- Centralized recorder management for easier configuration with advanced system monitoring capabilities



Additional Information - Typical

Typical Camera installation and connection to City Source:



ALRP Installation and Lane Capture:

