

SECTION 2
DOOR ACCESS CONTROL AND SECURITY SYSTEM
SONOMA COUNTY AIRPORT
GENERAL

2-1.1 DESCRIPTION

- A.** Furnish and install a Security System – including access control, intrusion detection, and video surveillance, as shown on the drawings and specified herein.

- B.** The Door Access Control and Security System shall comprise of the following related systems and components:
 - 1. New Gate Control System (GCS) for gates as shown on plans (not included).
 - 2. New Access Control System (ACS) for doors in Terminal, Hold Area and Airport Management & Security Office, as shown on plans.
 - 3. New Video Surveillance System (VSS) cameras as shown on plans.
 - 4. Point-to-Multi-Point and/or Point-to-Point Broadband wireless network. For remote Security System Connectivity (not included).

- C.** The Security System shall be comprised of the following components:
 - 1. The Security System contractor to provide a computer-based Access Control System (ACS). The Security System/VSS must interface to allow for alarm exchange conditions and permit the Security System initiated recording and VSS initiated alarm responses with an operating/monitoring workstation/server located in the Airport Management & Security Office Building. Contractor to furnish and install all required input/output field panels, relays, and cabling required to monitor and control the points identified on the system device schedules. The Security System computers/monitors shall be located at the workstation.
 - 2. Security System shall provide the ability to access and interface with any computer on Airport or remotely permitted computer. No license fees will pertain to this. The contractor shall provide new 32" color monitors, computers and network video recorder with the ability to work with no less than 50 cameras. The system is to be configured so that camera views may be selected from any workstation. Furnish and install new VSS cameras and required components to cover the required areas.

- D.** Security System contractor to provide the following support for the Security System:
 - 1. Warranty and service on all components furnished, and workmanship, for the warranty period.
 - 2. Submittals, samples, installation drawings, as-built drawings, system installation and operation manuals.
 - 3. Development and implementation of graphical map layouts.

4. All initial system programming & setup.
5. Development and utilization of a comprehensive system test procedure and perform system testing and commissioning.
6. System administration and operator training for designated staff.
7. Coordination with other site contractors.
8. Reporting to the Owner, General Contractor, and Security consultant for the coordinated and timely execution of work.
9. All system components, relays, power supplies, sensors, enclosures, cabling, raceway, and other components whether or not specifically identified in this specification or on the drawings, required for a completed, fully operational turnkey Security System installation meeting these specifications.
10. All central Security System controllers shall have the ability to be upgraded with single remote software download from manufacturer.

2-1.2 GENERAL FUNCTIONAL DESCRIPTION

- A.** The integrated security system shall support access control, video control, alarm monitoring, temperature monitoring, and photo id capability.
- B.** The security system shall not require a separate computer to operate the software. Access to the security system shall be from any computer with a web browser over a TCP/IP connection, whether LAN, WAN or Internet.
- C.** ACS shall run on standard Ethernet network and not require special cabling. ACS data base shall reside on site and be ODBC compliant.
- D.** ACS shall display integrated ACS/Video map.
- E.** Up to 10 simultaneous operators shall be able to be in the system.
- F.** The access control sub-system shall support any and all readers and be able to utilize existing cards and/or formats. This shall include biometric type readers.
- G.** The video control sub-system shall be able to view any IP camera, view and/or record most any analog camera and view and/or record most IP cameras.
- H.** Ability to view and/or record feature.
- I.** The alarm monitoring sub-system shall support any alarm panel that has key switch capability and indicator of armed/disarmed status.
- J.** The integrated security system shall be able to be updated remotely, without requiring a visit to the site.
- K.** The integrated security system shall provide the ability for remote support, including simultaneous viewing of the operator's screen, without requiring a VPN or other access through the customer's IP firewall.
- L.** The Security System will be able to notify county personnel of alarm events via the Security System or email utilizing the county's email system. System shall include configuration for operational threat settings accessible by system administrator.
- M.** System shall have SSL data protection for browser sessions and enhanced security.

- N. Gate control system will be accessible from workstation and remotely through secure web connections.
- O. The System shall be provided with a minimum forty (40) card reader licenses.

2-1.3 SUBMITTALS

- A. Provide standard manufacturer's cut sheets for all equipment supplied showing dimensions, construction, wiring diagrams, frequency ranges, mounting details, transmission ranges, beam width, bandwidth, and any rating data.

2-1.4 WARRANTY

- A. Contractor shall warranty all equipment and the labor required to install equipment for a period of one year. Warranty shall be for parts and labor for the entire system as proposed, including hardware and software.
- B. A remote, web based, system monitoring program shall be required. Proposals shall include a complete description of remote monitoring, remote diagnostics, and remote repair.
- C. A minimum three hour response, to system problems, by computer or phone during normal hours of operations and 48-hour on-site for repairs shall be required.
- D. During the warranty period, if the chosen operating frequency becomes unreliable or the equipment fails to function properly, or any of the local municipal bodies complains of interference from contractor-installed equipment, the contractor shall respond within seven (7) days to determine the source of interference or the system malfunction and either repair the system or coordinate a new frequency.
- E. Contractor shall provide, as an additive bid item, a extended warranty for years two (2) through five (5). This warranty shall be identical to the initial one year warranty.

PRODUCTS

2-2.1 MANUFACTURERS

- A. Part numbers for designated manufactures are used to establish a level of quality. Approved equal equipment from another manufacturer is also acceptable.

2-2.2 NETWORK CONTROLLER

- A. Provide S2 Security Corporation standard Network Controller (S2NC).
 - 1. Supports 32 network nodes.
 - 2. Intel IXP425 processor.
 - 3. 128 MB RAM, and 48 MB flash ROM.
 - 4. 8 GB compact flash memory.
 - 5. Standard wall mount.

2-2.3 NETWORK NODE

- A. Provide S2 Security Corporation Network Node (S2NN).
 - 1. Support seven (7) blades.
 - 2. 4 MB RAM memory and 2 MB Flash ROM.

3. Static or DHCP IP address determination.
4. One (1) serial interface.
5. Temp. range 0 deg. – 70 deg. F.

2-2.4 ACCESS CONTROL MICRONODE

- A.** Provide S2 Security Corporation NetDoor MicroNode.
1. Two (2) access control readers.
 2. Two (2) supervised input points.
 3. Four (2 wet/dry selectable) relay controlled outputs.
 4. One (1) temperature point.

2-2.5 CARDREADER

- A.** Provide HID Corporation RK40 6130B iClass readers.
1. 3.3" x 4.8" x 1.1" dimension.
 2. 5-16 VDC, linear supply.
 3. Operating temperature -40 deg F to 150 deg F at 5% to 95% relative humidity non-condensing.
 4. 13.56 MHz transmit frequency.
 5. Cable distance with 22 AWG is 500 feet.
 6. UL 294/cUL, FCC certification.
 7. Provide 3000 iClass Cards.

2-2.6 RADIO FREQUENCY CONTROL – ACCESS CONTROL (not included)

- A.** Provide Doorking MicroPLUS RF control at all gates.
1. Receivers shall be Doorking Model 8056.
 2. Transmitters shall be three button, PROXmitters, Doorking Model 8071. Provide 100 units.

2-2.7 DOOR CONTACT (STATUS SENSOR)

- A.** Provide General Electric high security surface mount magnetic contact, Model number 2707A.
1. Three (3) independent Form C biased reed contacts, wired in SPDT configuration.
 2. Supervised loop with a magnetic tamper feature.
 3. Housing made of brushed anodized aluminum.
- B.** Provide General Electric recessed mount door contact, Model number 1078.
1. Hermetically sealed magnetic reed switch.
 2. Contact and housing snap lock into 1" dia. hole.
 3. Magnet shall be made of Alnico V.

2-2.8 GATE CONTACT (not included)

- A.** Provide General Electric industrial wide gap surface mount magnetic contact, Model number 2507A.

1. 30V AC/DC, 0.25Amp max, 3.0w max.
2. UL-634 listed.
3. Up to 3" gap distance.
4. SPDT electrical configuration.
5. Open or closed loop type.
6. 3-foot stainless steel armored cable lead.
7. All contacts shall be dual resistor supervised inputs.

2-2.9 DELAYED EGRESS DEVICE

- A.** Provide Assa Abloy, Securitron, integrated delayed exist locking system, Model iMXD.
1. Device is to operate with Card Readers on secure and non-secure sides of door.
 2. Holding force shall be min. 1200 lbs. (544 Kg.).
 3. Current draw and voltage shall be: 220mA @ 24VDC.
 4. Magnetic bond sensor shall be provided.
 5. Input for interfacing key-switch, and card reader shall be provided.
 6. There shall be a 15 or 30 second adjustable alarm point.
 7. Device shall be UL listed.
 8. Device shall be connected to auxiliary alarm horn device.
 9. Provide power supply for delayed egress devise as recommended by manufacturer.

2-2.10 MAGNETIC LOCK

- A.** Provide Assa Abloy, Securitron, magnetic lock, Model M68.
1. Devise shall have 1200 lb. holding force.
 2. Devise shall have door position and bond sensor.
 3. Devise shall be provided with all mounting hardware needed for complete installation.

2-2.11 ELECTIC DOOR STRIKE

- A.** Provide Assa Abloy, Folger Adam electric door strike, Model 310-2-3/4.
1. Provide all cabling needed for complete installation.
 2. Provide all power connections for door strike.

2-2.12 ALARM HORN DEVICE

- A.** Provide System Sensor, Model HW alarm horn.
1. Operating voltage shall be between 12 & 24 VDC nominal.
 2. Sound output shall be between 71 and 100 dBA. There shall be three (3) levels of temporal sound patterns, and three (3) levels of non-temporal sound patterns.
 3. Device shall be unmarked and white.
 4. Operating temperature 32 deg. To 120 deg. F.

2-2.13 IP VIDEO CAMERA

- A.** Provide Toshiba IP network video camera, Model Number IK-WB15A.
 - 1. 1280 x 960 (SXVGA) resolution at up to 30ips.
 - 2. 2.6x optical zoom, focal length: 2.8 mm to 7.3 mm lens.
 - 3. IEEE 802.3af PoE module.
 - 4. IP66/NEMA 5 enclosure, with pole mount adapter.
 - 5. Operating temperature 14 deg F to 122 deg F.

- B.** Provide Toshiba IP network PTZ mini-dome video camera, Model Number IK-WB21A.
 - 1. 1280 x 960 (SXVGA) resolution at up to 30ips, and imaging of at least 0.18 lux @4s, F1.9 at AGC High.
 - 2. 22x optical zoom, 4.0 mm to 88.0 mm lens.
 - 3. 12 VDC, 100-240 VAC, 10W.
 - 4. Outdoor housing, pole mount, tinted dome cover.
 - 5. Operating temperature 14 deg. F to 104 deg. F.

- C.** Provide Arecont Vision Megapixel IP video camera, Model Number AV8180.
 - 1. Four 2 megapixel CMOS image sensors, 1600(H) x 1200(V) pixel array each sensor ½" optical format.
 - 2. Sensitivity 0.2 lux @ F2.0.
 - 3. Motion JPEG with 21 levels of quality.
 - 4. 100Base-T Ethernet network interface.
 - 5. Power over Ethernet (PoE), IEEE 802.3af.
 - 6. Operating temperature 32 deg. F to 122 deg. F.

- D.** All external cameras shall have blower/heater environmental housings.

2-2.14 VIDEO RECORDER SERVER

- A.** Provide Server that is based on Dell PowerEdge 2950 III, and shall have the following features:
 - 1. 2 Dual-Core processors, 6MB Cache, 3.33GHz, 1333MHz Front Side Bus (FSB).
 - 2. 2GB, 667MHz (4x512MB), Single Ranked DIMMs. Provide 8 DIMM slots.
 - 3. Operating system shall be Windows Server 2003 R2, Web Edition with SP2.
 - 4. Hard drive shall be integrated SAS/SATA, SAS 6/iR integrated, No RAID, 300GB, 10K RPM serial-attach SCSI 3Gbps 3.5-in Hot Plug.
 - 5. Power supply shall be redundant type with Dual Cords.
 - 6. Provide CD/DVD drive: 24x IDE CD-ROM.
 - 7. Server shall have 2U Rack-mountable chassis.

2-2.15 NETWORK VIDEO RECORDER (DISK STORAGE EXPANSION ENCLOSURE)

- A.** The Disk Storage Expansion Enclosure shall be based on a Dell MD1000, and shall have the following features:
1. Storage shall have capacity of 30 days with minimum frame rate of 5 fps for all cameras.
 2. Provide 15 - 1TB, 7.2K SATA disk drives.
 3. PERC 5/E RAID Level 5.

2-2.16 VIDEO SURVEILLANCE MANAGEMENT SYSTEM

- A.** This VSS management system is based on On-Net Surveillance Systems, Inc. (OnSSI), NetDVMS.

- B.** General System and System Administration Requirements:

1. IP Network based Digital Video Surveillance System ("System") shall allow the display of live, record and playback of digital video streams from multiple video surveillance IP cameras, simultaneously, on the System's operator console and/or on other display and control platforms including clients, virtual matrix display, PDA and Cell phone.
2. Shall support F1 function for getting content-sensitive build-in help system.
3. Shall run as a Windows Service without the user interface or as a Windows Application with the user interface.
4. Shall have the option to use Active Directory services to authenticate remote users.
5. Shall communicate and receive video image streams from IP addressable Cameras using IP protocol.
6. Shall be able to support traditional analog cameras via video server adapters using IP protocol.
7. Shall be able to control analog PTZ cameras using IP protocol.
8. Shall support DNS entries.
9. Shall support IP cameras and encoders using MJPEG, MPEG4, Wavelet, H.263 and H.264 compression simultaneously.
10. Shall have the ability to view, record, playback and archive video from cameras located at remote locations over the IP network. (Multi-location recordings).
11. Shall provide the capability to record audio with the associated camera, when audio recording is necessary and the camera has audio feature supported by the software.
12. Shall simultaneously record, playback and display live video and audio (Triplex).
13. Shall allow time synchronized multiple cameras view/playback with motion detection information.
14. Shall allow the access to view/playback multiple cameras from other workstation on the network.
15. Shall have the ability to record and store images at rates between 1 frame per hour to 30 frames per second on a per camera basis.
16. Shall have the ability to store the recorded images on the System's local hard drive or on a Network Attached Storage (NAS), or on attached storage (USB, Firewire, and SCSI) if so required.

17. Shall support cameras running at the background – hidden from the console operator.
18. Shall support unlimited number of cameras per server, from which maximum 64 can be viewed or recorded by operators at the same time.
19. Shall be scalable to support any number of cameras with multiple consoles.
20. Shall support System redundancy by allowing to switchover a current System to a standby System on an N+1 basis (requires 3rd. party SW).
21. Shall have automatic (maintenance free) daily archiving capabilities of recorded video with automatic archive recycling.
22. Shall allow automatic off-premises video archiving on off-premises storage servers.
23. Shall be able to perform multiple archiving per day.
24. Shall have video search capabilities to find video images by Time, Date and Activity/Alarm.
25. Shall provide 24 hours scheduler to activate and deactivate the following features on a per camera basis:
 - a. Bring cameras on/off line.
 - b. Sound audible alarm on motion detection in camera's field of view.
 - c. Send e-mail/text pager/SMS notification on motion detection events with/without video image attachment.
 - d. Start/stop and change patrolling sequence for PTZ cameras.
26. Shall provide red Motion Detection indicator light for each camera, to indicate if motion detected by camera when operator left the station and comes back.
27. Shall provide yellow Event indicator light for each camera, to indicate if event happened on the camera.
28. Shall have an advanced motion detection capabilities with ALL the functions as described bellow. The operator shall have the ability to use one, several or any non-conflicting combinations of the following functions, on a per camera basis:
 - a. Automatically freeze the live video of a camera with no motion in its field of view.
 - b. Stop recording camera images with no motion in it field of view.
 - c. Start recording images up to 999 seconds before a motion is detected in the cameras field of view and continue recording for up to 999 seconds after the motion stopped in the cameras field of view.
 - d. Adjustments of motion level sensitivity from 0 –10,000 units in 1 unit increments.
 - e. Adjustments of low light noise levels from 0 – 256 units in 1 unit increments to avoid false motion detection.
 - f. Up to 1024 inclusion / exclusion motion detection zones per camera.
 - g. Change recorded frame rate when motion is detected.
 - h. Shall have the option to start recording on an event setup by the operator/administrator.
 - i. Shall have the option to speedup the recording FPS on motion detection or on event detected.
 - j. Shall have the ability to adjust image resolution to VGA (4CIF) 640x480 and up to 2,048 x 1,536 lines

- k. Shall have the ability to adjust the compression level of the video image data size, to save on storage size, when needed.
- l. Shall provide the operator with up to 25 presets position per PTZ camera and the ability to quickly cause the camera to move to a preset location upon operator demand.
- m. Shall have the ability to move a PTZ camera to any of the preset positions upon detecting motion at another camera.
- n. Shall have the ability to move a PTZ camera to any of the preset positions upon detecting software command from a 3rd. party software (access control).
- o. Shall have the ability to cause the PTZ camera to go to any of the preset positions on input contact closure/open (such as door sensor, alarm panel input etc.).
- p. Shall have the ability to provide PTZ camera patrolling feature between preset positions.
- q. Shall be able to program unlimited number of patrolling sequences, each with unlimited number of presets list selected from 50 possible presets.
- r. Shall be able to control the patrolling sequences using a 24/7 scheduler.
- s. Shall be able to control PTZ movement speed during patrolling for selected supported PTZ cameras.
- t. Shall be able to resume patrolling an operator manual control times out without moving the PTZ.
- u. Shall have the option not to record while moving between presets and shall stay in a preset position if motion was detected in the camera field of view at that preset position, and shall continue patrolling once motion stopped.
- v. Shall support closure and open of remote relay output at the IP cameras and /or video server adapters.
- w. Shall be able to detect close/open relay input from the camera's location and trigger alarm/event on the System.
- x. Shall have the ability to detect door contacts or PIR motion detector input and cause a PTZ camera to move and zoom into the door and record the activity, to increase protection of sensitive areas.
- y. Shall be able to perform "go to preset" on event even during patrolling sequence.
- z. Shall provide tamper-proof log file on users' activity in the system using encryption and integrity check.

2-2.17 WORKSTATION

- A. **Minimum Database Server capacities:** The CPU shall be 100% IBM PC Pentium compatible and have the following minimum configuration:
 - 1. 2 Dual-Core, 3.16GHz, 6M, VT, 1333MHz FSB.
 - 2. 2GB RAM, 800 Mhz, DDR2 Non-ECC SCRAM.
 - 3. 250GB hard drive.
 - 4. 48x CDRW/CD Combo and 48x CDROM, with Cyberlink Power DVD.
 - 5. 1.44MB 3.5 inch Floppy Drive.
 - 6. Minimum of 6 USB ports.
 - 7. 22" widescreen digital flat panel monitor.

8. Windows VISTA Business Service Pack 1.
9. Network card (if additional Workstations are required).
10. Keyboard & Mouse/Trackball pointing device.
11. Provide Canon laser printer, Model LBP5975.

2-2.18 CARD IDENTITY SYSTEM

- A.** Provide Fargo DTC400 Card Identity System including:
1. Fargo DTC400 direct-to-card printer.
 2. Fargo Asure ID Express Photo ID software.
 3. InPhoto Capture camera software.
 4. USB digital camera – Canon PowerShot A620, and tripod.
 5. Backdrop and backdrop stand.
 6. Four (4) full-color ribbon cartridges (YMCKO with cleaning roller).
 7. USB 2.0 Cable.
 8. 2-year printer warranty, and 1 year free Asure ID software technical support.

2-2.19 POWER SUPPLY

- A.** Provide Altronix power supply, Model number AL1024ULACM.
1. 24VDC @ 10 amp supply current.
 2. Eight (8) independently controlled fuse protected outputs.
 3. Eight (8) Access Control System trigger inputs.
 4. Eight (8) auxiliary power outputs – unswitched.
 5. Input 115VAC, 60 Hz rated at 1.9 amps.
 6. Built-in charger for sealed lead acid or gel type battery.
 7. Enclosure accommodated up to two (2) 12AH batteries that are to be supplied.

2-2.20 UNINTERRUPTIBLE POWER SUPPLY (UPS)

- A.** Provide American Power Conversion Corporation UPS, Model Smart-UPS SC.
1. 120VAC input power.
 2. Output power shall be sized to meet the component loads as indicated on drawings.
 3. Maintenance-free sealed lead-acid battery with suspended electrolyte: leakproof.
 4. DB-9 RS-232 Interface port.
 5. Operating temperature 0 deg F to 104 deg F at 5% to 95% relative humidity non-condensing.

2-2.21 ENCLOSURES

- A.** Enclosures for interior, controlled environments: NEMA/EEMAC Type 1.
1. Door with butt hinges.
 2. Collar studs provided for mounting internal panel. Provide internal panel.

3. Cylinder lock provided.
 4. ANSI 61 gray polyester powder paint finish inside and out over phosphatized surfaces. White solid panel.
 5. Enclosure shall be sized to fit equipment shown on drawings, with 25% spare spacing.
- B.** Enclosures for Exterior Environments: Enclosure based on HyperLink Technologies, Model NB181608-1HF, and shall include the following features:
1. Molded fiberglass reinforced polyester enclosure, with stainless steel quick release latches with padlock hasps.
 2. Fully gasketed raised lids and integral mounting flange.
 3. NEMA Type 3R, IP42 rated.
 4. Provide two 120VAC outlets, power input terminals, grounding lug, and cable conduit connector.
 5. Provide aluminum mounting plate.
 6. Provide thermostat-controlled cooling fans and removable filters, with intake/exhaust covers on outside of enclosure.

2-2.22 EQUIPMENT CABINETS AND RACKS

- A.** Racks shall be 4 post system type.
1. Welded steel construction with 2000 lb. load capacity.
 2. 96.1"H x 23.3"W x 30.2" D. 8 foot rack with 52 rack spaces.
 3. Two-hole ground lug attachment.
 4. Rails shall be #12-24 threaded equipment rails.
- B.** Floor mounted cabinet shall be Panduit Model CN1.
1. Dual hinge perforated front door opens to the left or right.
 2. Split perforated rear doors open in the middle.
 3. Solid side panels.
 4. Two sets of #12-24 threaded equipment mounting rails.
 5. 45 RU cable management on front and rear of front posts.
 6. Ground Kit.
- C.** Wall mounted cabinet shall be Panduit Model NC24W.
1. Rotating wall cabinet with window door.
 2. Multiple access points from front, both sides and rear.
 3. Vertical slack manager (Panduit No. NCSM12)
 4. Ground kit (Panduit No. NCGK).
- C.** Provide Horizontal cable management units, as shown on drawings.

2-2.23 FIBER OPTIC CABLE PATCH PANEL (not included)

- A.** Provide Fiber Optic Cable Patch Panel, Panduit FRME1.

1. Slide out drawer.
2. Provide three (3) fiber adapter panels.
3. Fiber adapter panels shall be Panduit FAP6WEISC.

2-2.24 FIBER OPTIC CABLE (not included)

- A.** Provide 50 micron laser-optimized multi-mode fiber optic cable, OFNR, Panduit Part Number FOCRX06/12Y.
 1. Number of strands as shown on drawings.
 2. Riser rated, indoor/outdoor all-dielectric cable.
 3. UV resistant cable sheathing.
 4. Dry water-blocking technology.

EXECUTION

2-3.1 INSTALLATION

- A.** Systems shall be unaffected by weather, temperature, or any atmospheric conditions. Contractor shall install any heaters, heat-tracing, or weather protection needed for reliable operation.
- B.** Security System Contractor to provide all installation labor, raceway, wire & cable, fasteners, and other materials necessary to install the Security System equipment.
- C.** All equipment shall be installed to be in compliance with all code requirements and meet equipment manufacturer recommendations.
- D.** Security System Contractor shall provide all data base input for all personal (at time of system installation) that shall be enrolled in Access Control Security System.
- E.** If required, exposed raceway type and routing shall be as approved by the Owner. All wiring practices to meet all applicable codes and manufacturer's recommendations.
- F.** All cabling to be uniquely identified at each end of the cable and at all splice locations. Contractor shall ensure that consistent color coding of all wiring be maintained throughout the installation.
- G.** Power for Security System items at gates shall be provided from the existing Gate Operator circuit.
- H.** All existing cardreader cards shall be replaced with new cards, and new data base shall be established.
- I.** All necessary conduits shall be provided for the cardreaders. The existing pedestals on the secure and non-secure side of each gate shall be used for the secure and non-secure side cardreaders, respectively. Pedestals, as indicted on drawings, that do not exist shall be provided and shall be protected with bollards, as describe on drawings.
- J.** Existing "Click-to-Enter" devises installed at gates shall be existing-to-remain. These devices shall not be interfered with and shall remain operational. When these devices are

used they shall not be tied to the new access control system, and shall therefore give a forced open response.

2-3.2 TESTING AND TRAINING

- A.** Contractor shall perform a field survey test for available frequencies in the specified range and shall coordinate with local FAA, Police, and Fire departments to agree on a frequency which is to remain available and without significant interference.
- B.** Manufacturer's or contractor's representative shall appear on site for training for at least (4) hours to train airport personnel in maintenance, troubleshooting, operation, and programming of the telephone entry system. Manufacturer's or contractor's representative shall be required to obtain a signature from the maintenance personnel involved, and from the airport or assistant airport manager, indicating that the training is complete and satisfactory.

MEASUREMENT

- 2-4.1** The Security System shall be measured as a lump sum.

PAYMENT

- 2-5.1** Payment will be made at the CONTRACT unit price for each item bid. This price shall include full compensation for furnishing all materials, labor, equipment, preparation, assembly, wiring, tape, concrete, testing, installation, and incidentals necessary to install and put into operation an Access Control and Video Surveillance System as accepted by Engineer.

END OF SECTION