

SECTION 281300 - ACCESS CONTROL AND SECURITY MANAGEMENT SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Provide a copy of all applicable drawings, including shop drawings and specifications, at the site during all work covered under this Section, including any addenda and changes related to RFI's.

1.02 SUMMARY

- A. The intent of this document is to specify the minimum criteria for the supply, installation, integration and activation of video surveillance, access control systems and related sub-systems within properties owned, leased and operated by the University of the District of Columbia (UDC).
- B. The UDC Integrated Security Management System operates on the Honeywell Pro-Watch, MaxPro and Salto platforms.
- C. All work MUST be coordinated and approved by the UDC Police Department in coordination with UDC's existing security systems integrator. NOTE: UDC operates a complex, integrated, multi-campus security management system which it relies on to protect its Students, Staff, Visitors and Assets. No individual and/or organization are permitted to conduct work on any portion of the system without authorization from UDC Police Department and review by UDC's security systems integrator. Work conducted without such authorization and review shall be considered an acceptance by the individual and/or organization of all liability regarding security management system performance in the protection of life and property.
- D. All work MUST be supplied, installed, and programmed by a Honeywell ProWatch PLATINUM Certified Systems Integrator. NOTE: Security Dealer's (to include all Installers and programmers) name must appear on Honeywell Integrated Security Certified Dealer's List. Contractors are subject random on-site compliance inspections by UDC Police. To ensure compliance all integrators/installers must carry proof of individual certification at all times (on their person).
- E. All programming to be coordinated, approved and inspected by UDC's existing security systems integrator or manufacturer. The technician providing programming must hold an active Honeywell Pro-Watch Basic and Advanced Certification, Honeywell MAXPRO VMS Certification and Salto Certification.
- F. Security integrator must provide verifiable documentation that the above listed experience/certification has been met. The security integrator MUST provide verifiable documentation that they have provided similar services within the last three years in a higher

education environment, comparable to UDC. Specifically an environment that has an integrated Pro-Watch (at least version 4.2), Honeywell MAXPRO and Salto System (at least version 9.2.1.123). UDC Police will not approve any projects without having the documentation in hand.

- G. All associated cabling must conform to UDC IT Infrastructure Standards and Best Practices. Contact UDC OIT for the most current version of the Standards.
- H. Bidder must provide three references from current (or recent within last 3 years) higher education or government customers purchasing similar services. Include business name, contact name, phone number and description of system installed.
- I. Applicable parties should ALWAYS request the most recent version of this document from UDC Police Department, as this document will be updated regularly.
- J. All work that integrates with an IT component requires authorization from IT, regardless if it is not mentioned in this document. This document is designed to help applicable parties move quickly through the design and install process by following UDC best practices. IT authorization IS REQUIRED prior to the start of ANY project regardless of initiating party and also will inspect jobs after completion to verify job was completed satisfactory.

1.03 REFERENCES

- A. Reserved.

1.04 SECURITY MANAGEMENT SYSTEM DESCRIPTION

- A. The UDC Integrated Security Management System (UDC-ISMS) functions as an electronic access control system and integrates alarm monitoring, CCTV, ID badging and database management into a single platform.

1.05 SUBMITTALS

- A. Manufacturer's Product Data: Submit manufacturer's data sheets indicating systems and components proposed for use, prior to the start of work.
- B. Shop Drawings: Submit complete shop drawings indicating system components, wiring diagrams and load calculations, prior to start of work and prior to requesting programming of the SMS.
- C. As-Built Drawings: Submit complete as-built drawings for the SMS and supporting system connections. Supporting systems include electrical for SMS power, Fire Alarm for initiation of electronic door lock release, Door & Door Hardware, Mechanical Systems for operator inter-connections, Data Network for connection of SMS Ethernet devices. SMS Ethernet devices include ProWatch Intelligent Controllers, MAXPRO Network Video Recorders and IP Cameras. As-built drawings are required for programming as they provide the information required for graphical representation of devices, association of related logical devices, and the wiring configuration of all device and supporting system connections. Devices are defined as any SMS or supporting system product and hardware to include but not be limited to controllers, power

supplies, computers, network video recorders, cameras, card readers, sensors, relays, punch down/patch panels, and network switches. Without this information programming cannot be provided. All drawings and listed information must be legible, complete, uniform and accurate. As-built drawings at a minimum must include:

1. SMS floor plan Drawings must indicate the physical location of all SMS devices and supporting systems' inter-connections. The SMS floor plan drawings should be drafted on the project's architectural drawings. The drawings are to indicate building, floor, door numbers, room or area numbers and descriptive names and are to be to scale. Device icons are to be consistent from drawing to drawing and must be accurately identified in the legend. Device icons are to indicate mounting location (wall, ceiling, pole...).
2. Riser Drawings also referred to as Single-line drawings. These drawings are to indicate the specific wiring (cabling) configuration of all SMS devices and supporting system connections. It is critical that this information is accurate as the program will be written based on this information. It shall include all connections, to include but not be limited to, communications, power, data, relay, grounding, and device status. The wiring configuration is to indicate specific terminal to terminal wiring from device to device with the color of each conductor indicated. It shall indicate the type of wire to include AWG (American Wire Gauge), number of conductors, twist and shielding. All relay and device status connections must indicate the configuration such as normally closed or normally open. "Typical" drawings are acceptable as long as they are for identical devices.

- D. Record Drawings: During construction maintain record drawings indicating location of equipment and wiring. Submit an electronic version of record drawings for the Security Management System not later than Substantial Completion of the project.
- E. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, customized to the Security Management System installed. Include system and operator manuals.
- F. Maintenance Service Agreement: Submit a sample copy of the manufacturer's maintenance service agreement, including cost and services for a two year period for Owner's review.

1.06 QUALITY ASSURANCE

- A. Installer and Security Integrator must be Platinum certified by Honeywell Integrated Security Dealer Service Certification Program (DSCP). Platinum certification ensures that the Installer and Security Integrator is Integration Capable and has met the highest standards of technical competence and customer service.
- B. Installer and Security Integrator must be PRO-WATCH Security Management System (SMS) certified by Honeywell Integrated Security. Certification must be evidenced by the full time employment of multiple PRO-WATCH SMS certified technicians (successful completion of manufacturer training).
- C. Installer and Security Integrator must be MAXPRO Video Management System (PRO-WATCH Video Manager) certified by Honeywell Integrated Security. Certification must be evidenced by

the full time employment of multiple MAXPRO VMS certified (successful completion of manufacturer training) technicians.

- D. Installer and Security Integrator must be Enterprise certified by Honeywell Integrated Security. Certification must be evidenced by the full time employment of multiple MAXPRO VMS certified (successful completion of manufacturer training) technicians.
- E. Installer and Security Integrator must be a Salto Trained Inspired Business Partner (TIBP). TIBP must be evidenced by the full time employment of multiple Salto certified (successful completion of manufacturer training) technicians.
- F. Installer and Security Integrator must also show evidence by the full time employment working in an integrated environment with Pro-Watch & Salto working seamlessly (same as in the University of the District of Columbia).
- G. It is not permissible to have a Honeywell Platinum Certified integrator/installer to commission the work of non-certified integrators/installers.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's labeled packages. Store and handle in accordance with manufacturer's requirements.

1.08 WARRANTY

- A. Manufacturer's Warranty: Refer to the UDC Contract Documents for requirements.

PART 2 - PRODUCTS

2.01 INTEGRATION REQUIREMENTS

- A. The UDC-ISMS, herein referred to as System or SMS, and the Sub-systems shall be modular and networkable. The System shall be controlled by UDC's existing Honeywell PRO-WATCH Version 4.2 software (or latest installed version). All work shall be coordinated and approved through the UDC Police Department and UDC's existing security integrator. All work must be supplied, installed and programmed by a Honeywell Integrated Security Platinum Certified Systems Integrator.
- B. This System Integrator must also be certified and manufacturer trained for the following:
 - 1. Assa Abloy Certified IWP Integrator,
 - 2. Honeywell PRO-WATCH SMS,
 - 3. Honeywell MAXPRO VMS,
 - 4. Honeywell Enterprise and Salto Virtual Networked Access Control system integrated as one system.
- C. Any required Security Workstations, Servers, Storage Arrays, Laptops, Touch screens, Network Switches, Racks/Enclosures and UPSs indicated in the drawings or specifications for this project must be pre-approved by UDC OIT and by UDC's existing Security Systems Integrator. Pre-

approval must be evidenced by a compliance document listing the required technical specifications of each item.

- D. Provide products as specified or the most current version, meeting or exceeding the performance requirements, that is released at project award date. An approved substitution request will still be required to be approved by UDC Police Department.
 - 1. UDC's Security Management System includes multiple sub-system integrations and interfaces. These include MAXPRO VMS, Salto, HIS Intrusion Detection & Emergency Notification, Salto, Stentofon, HIS DTU, Banner (pending) and others. Prospective bidders must provide the respective manufacturer certifications and also document at least 5 other similar installations utilizing ProWatch and the listed sub-systems.
 - 2. All projects must include at a minimum a ProWatch High Density Enclosure with Power Supply & 4 hours of battery back-up, a ProWatch 6000 Series Intelligent Controller, a ProWatch 6000 Series Dual-Reader Modules, a ProWatch Daisey Chain Cable and an Altronix AL600ULACM Power Supply & 4 hours of battery back-up, as well as the indicated field components. Utilizing existing capacity is not acceptable as this spare capacity has been planned for system resiliency and redundancy.

2.02 MANUFACTURER

- A. Security Management System Manufacturer: Pro-Watch® Security Management Suite by Honeywell, www.honeywellintegrated.com.

2.03 SECURITY MANAGEMENT SYSTEM REQUIREMENTS

- A. Software Requirements: The Security Management System is a modular and network-enabled access control system. The Security Management System is capable of controlling multiple remote sites, alarm monitoring, video imaging, ID badging, paging, digital video and CCTV switching and control that allows for easy expansion or modification of inputs and remote control stations.
 - 1. Additional card read licenses, camera licenses, additional Pro-Watch CE Client Licenses as well as additional MAXPRO VMS client licenses (as needed to support the installation of new devices or equipment) shall be provided by the bidder as a part of this project. In addition to the manufacturer's software support agreement (SSA) for all Pro-Watch licenses and sub-system licenses shall be included for the first year of the system operation. All required programming or licensing shall be coordinated through and provided by UDC's existing security systems integrator.

2.04 HARDWARE REQUIREMENTS

- A. INTELLIGENT CONTROLLERS
 - 1. Manufacturers: Subject to compliance with requirements, provide Field Controllers or comparable product by one of the following:
 - a. Honeywell Security PW-6000
 - b. Honeywell Security PW-6101ICE
- B. FIELD HARDWARE

1. The security management system shall be equipped with access control field hardware required to receive alarms and administer all access granted/denied decisions. All field hardware shall meet UL requirements.
2. Intelligent Controller Board
 - a. Honeywell Security PW6K1IC
3. Dual Reader Module (DRM)
 - a. Honeywell Security PW6K1R2
4. Alarm Input Module (AIM)
 - a. Honeywell Security PW6K1IN
5. Relay Output Module (ROM)
 - a. Honeywell Security PW6K1OUT
6. Card Readers
 - a. Honeywell Security
 - 1) iClass R40SE BLT Mobile Enabled, 13.56MHz Smart Card Reader, Single-gang Mount - Readers to be factory addressed with the unique UDC mobile key.
 - 2) iClass R15SE BLT Mobile Enabled, 13.56MHz Smart Card Reader, Mullion Mount - Readers to be factory addressed with the unique UDC mobile key.
 - 3) iClass R90SE, 13.56MHz Smart Card Reader, Long Range

2.05 Biometric Readers

- A. Suprema Biometrics
- B. MorphoTrak

2.06 SYSTEM INTERFACES

A. Digital Video Recording Systems

1. The Security Management System shall provide fully integrated support for a powerful digital video recording and transmission system. The Security Management System shall record, search and transmit video, and shall provide users with live, pre- and post- event assessment capabilities. The DVRs shall be seamlessly integrated with existing video equipment and incorporated into any TCP/IP network. The DVRs shall provide multiple levels of integration with the Security Management System software, providing control of the digital video system from the access control application.
2. Manufacturer(s) and part numbers:
 - a. Honeywell MAXPRO® VMS with PRO-WATCH Connector (PRO- WATCH VIDEO MANAGER)
 - b. Recorder shall provide at least 12TB of storage utilizing a MAXPRO PE NVR with a minimum capacity of 32 cameras. All projects including the addition of cameras must include at least one MAXPRO NVR for every 20 cameras installed (i.e. 40 cameras requires two MAXPRO NVR's and so forth). Utilizing existing capacity is not acceptable as this spare capacity has been planned for system resiliency and redundancy. Include a rack- mount 1500 VA UPS for each NVR. Recorder storage capacity must support 24/7 recording at 7FPS/7GOP with no less than 30 days of retention of recorded video.

B. Video Management Systems (VMS):

1. With integration to VMS, Security Management System shall control multiple sources of video subsystems in a facility to collect, manage and present video in a clear and concise manner. VMS intelligently determines the capabilities of each subsystem across various sites, allowing video management of any analog or digital video device through a unified configuration and viewer. Disparate video systems are normalized and funneled through a common video experience. Drag and drop cameras from the Security Management System hardware tree into VMS views. Leverage Security Management System alarm integration and advanced features such as pursuit that help the operator track a target through a set of sequential cameras with a single click to select a new central camera and surrounding camera views.
2. Manufacturer(s) and part numbers:
 - a. Honeywell Security MAXPRO VMS
 - b. Cameras - To be as listed or as pre-approved by UDC Police Department. Pre-approval requires written approval prior to bid or proposal due date. All CAT6 data cabling to cameras must terminate in a RJ45 (ICC 107L6BC or pre-approved equal) Biscuit at the each camera's junction box.
 - c. Approved Cameras:

FIXED POSITION CAMERAS – ALL CAMERAS ARE TO INCLUDE A SCAN DISK 128GB MICRO SD CARD OR APPROVED EQUAL.		UDC Standard	To be used if Specified
Indoor Camera (Fixed Position) - Use appropriate mount			
H3W4GR1	Network TDN Low-Light, 120db Wide Dynamic, IR Indoor Dome Camera, 1/3" Imager, 4MP, 2.7-12 mm MFZ Lens, 3 IR LEDs, PoE, H.264	X	
H3W2GR2	Network TDN Low-Light, 120db Wide Dynamic, IR Indoor Dome Camera, 1/2.7" Imager, 2MP, 7-22 mm MFZ Lens, 3 IR LEDs, PoE, H.264		X
Outdoor/Indoor Camera (Fixed Position) - Use appropriate mount			
H4L2GR1	Network TDN Ultra Low-Light, 140db Wide Dynamic, IR Rugged Dome Camera, 1/2.8" Imager, 2MP, 2.7-12 mm MFZ Lens, 3 IR LEDs, PoE, H.264		X
H4W4GR1	Network TDN Low-Light, 120db Wide Dynamic, IR Rugged Dome Camera, 1/3" Imager, 4MP, 2.7-12 mm MFZ Lens, 3 IR LEDs, PoE, H.264	X	
H4W2GR2	Network TDN Low-Light, 120db Wide Dynamic, IR Rugged Dome Camera, 1/2.7" Imager, 2MP, 7-22 mm MFZ Lens, 3 IR LEDs, PoE, H.264		X

H4L6GR2	Network TDN Low-Light, Digital Wide Dynamic, IR Rugged Dome Camera, 1/1.8" Imager 6MP, 4.1-16.4mm MFZ Lens, 3 IR LEDs, PoE H.264/5		X
H4D8GR1	Network TDN Low-Light, Digital Wide Dynamic, IR Rugged Dome Camera, 1/7" Imager, 12MP, 4.1-12.8 mm MFZ Lens, 3 IR LEDs, PoE, H.265/H.264		X
Special Application 360° Fisheye lens Camera – Use Appropriate Mount			
HFD6GR1	Network TDN 6MP IR Fisheye,12VDC/PoE IEEE 802.3 af, H.264, H.265, NTSC/PAL, ONVIF		X
HFD8GR1	Network TDN 12MP IR Fisheye,12VDC/PoE IEEE 802.3 af, H.264, H.265, NTSC/PAL, ONVIF		X
Special Application Multi-Sensor Camera – Use Appropriate Mount			
HM4L8GR1	Low Light , 1/1.8 " CMOS (4X), 8MP IR Rugged Dome Camera,4* 5mm/M12 fixed lens, H.264, H.265, NTSC/PAL, ONVIF		X
HMBL8GR1	Low Light, 1/2.8 " CMOS (4X), 8MP IR Rugged Bullet Camera, 4*3mm/M12 fixed lens, H.264, H.265, NTSC/PAL, ONVIF		X

Fixed Position Camera Mounts and Accessories		Use as Required
HD3-MK2	Indoor Mini-Dome Wall Mount Bracket	X
HD4CHIP-WK2	Rugged Dome Wall Mount Bracket	X
HD4CHIP-PK2	Rugged Dome Pendant Mount Bracket	X
HB4G-PM	Pole Mount Adapter	X
HB34G-CM	Corner Mount Adapter	X
HBG-BB	Bullet Camera Back Box	X
HFG-WK	Fisheye Wall Mount Bracket	X
HFG-PK	Fisheye Pendant Mount Bracket	X

PAN TILT ZOOM (PTZ) CAMERAS – ALL CAMERAS ARE TO INCLUDE A SCAN DISK 128GB MICRO SD CARD OR APPROVED EQUAL.		UDC Standard	To be used if Specified
Outdoor PTZ Camera - Use appropriate Mount			
HDZ302LIW	IP TDN IR PTZ Dome. 1080p, 30x Zoom, WDR, H.264, IP67, Wiper, Up to 492' (150 m) IR range, micro SD Card Compatible		X

HDZ302LIK	IP TDN IR PTZ Dome. 1080p, 30x Zoom, WDR, H.264, IP67, IK10, Up to 656' (200 m) IR range, micro SD Card Compatible	X	
Indoor PTZ Camera - Use Appropriate Mount			
HDZ302D	IP 5" TDN Pendant PTZ Dome 1080P, 30X WDR indoor/outdoor, H.264/5, IP66, IK10, ONVIF, clear bubble	X	
HDZ302DE	IP 6" TDN Pendant PTZ Dome 1080P, 30X WDR indoor/outdoor, H.264/5, IP67, IK10, ONVIF, clear bubble		X

PAN TILT ZOOM (PTZ) Mounts		Use as Required
HDZCM1	Ceiling Pendant Mount base with 235.5mm extension with G1.5 thread	X
HDZCM2	Pendant Mount extension 220mm with G1.5 thread	X
HDZCM3	Pendant Mount extension 420mm with G1.5 thread	X
HDZWM1	Wall mount with G1.5 thread	X
HDZWM2	Wall mount with access plate with G1.5 thread	X
HDZCMA	Corner adapter for wall mount	X
HDZPMA	Pole mount adapter for wall mount	X
HDZJB	HDZ Junction Box to be used with wall mount	X
HDZNPTA	1.5NPT Adapter to Pendant PTZ mount	X
HDZGM	Gooseneck Wall mount with G1.5 thread (HDZ302D Only)	X
HDZ302DIN	In Ceiling Mount 5", conduit KO in back can	X

C. Intrusion Detection Panels:

1. Honeywell Vista 128BPT, and Vista 250BPT Controllers
 - a. All projects including Intrusion Detection must include a Honeywell TUXW Controller. Controller must be configured on the UDC network as indicated by UDC Police.
 - b. All projects including Intrusion Detection must provide integration with ProWatch for Disarming by entry card reader and arming by a dedicated arming card reader.

D. Intercom Interface:

1. Manufacturer(s) and part numbers:
 - a. Stentofon/Zenitel Alphacom series intercoms

E. Salto SNV Integration:

1. Manufacturer(s) and part numbers:
 - a. PWWRDR for locks purchased through Honeywell
 - b. PWWRDR3P for locks purchased through a 3rd party
2. Pro-Watch Hardware Requirements

- a. PW6K1IC Controller
- b. Salto Wireless Gateway
- c. Salto Wireless HUB

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine site conditions to determine site conditions are acceptable without qualifications. Notify UDC in writing if deficiencies are found. Starting work is evidence that site conditions are acceptable.

3.02 INSTALLATION

- A. Security Management System, including but not limited to access control, alarm monitoring, CCTV and ID badging system shall be installed in accordance with the manufacturer's installation instructions.
- B. Supervise installation to appraise ongoing progress of other trades and contracts, make allowances for all ongoing work, and coordinate the requirements of the installation of the Security Management System.

3.03 FIELD TESTING AND CERTIFICATION

- A. Conduct a complete inspection and test of all installed access control and security monitoring equipment. This includes testing and verifying connection to equipment of other divisions such as life safety and elevators.
- B. Provide staff to test all devices and all operational features of the Security Management System for witness by the Owner's representative and authorities having jurisdiction as applicable.
- C. Correct deficiencies until satisfactory results are obtained.
- D. Submit written copies of test results
- E. Installer and Security Integrator are required to obtain sign off from UDC Police Department on all camera views and or access control functionality and operation. Installer and Security Integrator must coordinate an appointment to display all video views to the UDC Police representative and make any requested changes to positioning, focal length and focus.

3.04 ACCEPTANCE

- A. Contractors work shall be considered complete after the following conditions have been met:
 - 1. As-builts in electronic (CAD) and hard copy formats have been approved.
 - 2. Systems installation is complete and all components have been tested and documented to be installed according to specifications and drawings.
 - 3. Owner technology representative has successfully tested the "LIVE" system.

4. All punch list items have been reconciled.
5. All disturbed ceiling panels, firestopping materials, covers, etc. have been properly reinstalled.
6. All materials and trash have been removed from the site.
7. A 2-Year Installers warranty has been given to UDC Security representative.
8. Submit Manufacturers Extended Warranty Application.

END OF SECTION 281300