



USPS CCTV Security Design Requirements

October 1, 2021

Includes Securitas CCTV design drawing requirements

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USPS CCTV Security Design Requirements

Early RFP requests, earlier work order release and earlier contact with the A&E community can serve to improve the Securitas delivery process greatly as it will result in coordinated review process between all disciplines and trades.

The A/E shall therefore provide to Securitas, the direct vendor, the following information for preparation of the direct vendor's preliminary and final cost estimates.

1. Existing cameras located on the floor plan must be shown.
2. Termination locations of existing cameras must be noted.
3. Cabling type for existing cameras must be noted.
4. Where existing analog PTZ infrastructure is to be re-used, it must be clearly specified.
 - a. Functionality of existing cameras must be called out i.e. either working or not working.
 - b. All PTZ command and control signals are very different. Engineering a new system that involves compatibility with older systems requires specific detail such as Make/Manufacturer of Existing PTZ camera(s) and current PTZ protocol being utilized by existing PTZ cameras(s) (Coaxitron, Pelco P, Pelco D, RS 422, RS 485 etc.).
5. Mounting details and mounting heights for new cameras (drop tile, pendant, surface, wall or arm mount, outdoor pole mount, etc.) must be noted on the camera schedule.
6. Proposed camera locations on floor plans must be shown. Exterior (blue sky) cameras must be noted, as this affects whether a camera has fiber cable (exterior blue sky) or UTP cable (interior and exterior building mounted). Exterior building wall mounted cameras are considered "non blue sky" type and shall be connected using "UTP" cable provided with individual surge protection at each end. The camera location also has direct implication on the electronic equipment configuration design for the ISIP head end location and nodes.
 - a. Camera function such as CIS, Security or Robbery Countermeasure shall be clearly noted on the plans.
7. ISIP head end location must be shown on floor plans. This drives rack type depending on whether it is located inside the CIO or not.
8. Monitor (for camera viewing) locations and quantities must be shown on the drawings and in the room location(s) intended.
9. Remote node location(s) must be shown. ALL CAMERAS WILL RESIDE ON SEPARATE SECURITAS PROVIDED ISIP SWITCHES within the headend and/or node(s). No camera utilizing UTP cable can exceed 300 feet. The A/E shall coordinate actual cable routing pathways during the design to avoid cable runs in excess of 300 ft. during installation by the Contractor. The cabling shall be routed parallel and perpendicular to all structural elements and shall avoid all suspended conveyors, etc.
 - a. Intermediate node locations can be well over 300 feet from the head end. Nodes serve as a local termination/communication point for remote cameras in a workspace. A node collects cameras within an area that exceeds 300 feet from the head end. Nodes must communicate over fiber to the head end. Two or more node cabinets can be aggregated at a given node location in a facility.

- Node cabinets require wall space and electrical power on appropriate circuits. Placement effects cable termination locations and cable type.
- b. The number of cameras that can be supported by a single node cabinet is dependent upon the equipment manufacturer, the number of fixed, PTZ or multi-directional cameras, the number of surge protection modules and the quantity of fiber connections.
 - 1) Axis" CCTV Cameras and Equipment (per spec 282305): A node can hold up to (24) ethernet connections and (10) fiber connections of which no more than (16) can be PTZ and/or multi-directional cameras; (16) PTZ and/or multi-directional plus (8) fixed and (10) fiber or (24) fixed and (10) fiber.
 - 2) "Avigilon" CCTV Cameras and Equipment (per spec 282306): A node can hold up to (24) ethernet connections and (10) fiber connections of which no more than (10) can be PTZ and/or multi-sensor cameras; (10) PTZ and/or multi-sensor plus (14) fixed and (10) fiber or (24) fixed and (10) fiber.
 - 3) The A/E must confirm the number of cabinets required at each node location with the CCTV Direct Vendor, prior to issuance of the final construction documents.
 - c. Remote node cabinets shall be mounted high enough to deter unauthorized tampering, but low enough to avoid the use of motorized lifts for future repair or warranty work.
 - 1) Node cabinets mounted within ePACS secured rooms shall typically be wall mounted top at 6 feet AFF.
 - 2) Node cabinets mounted within the workroom and platform areas must be wall or column mounted bottom at no less than 9 feet AFF and no more than 14 feet AFF.
 - d. All exterior cameras (not to be wall mounted on the building), must be served by fiber cabling. These blue-sky cameras must be on a two strand, fiber cable home run to a remote node or the head end rack.
10. Submittals from Securitas shall be formally reviewed and commented on by submitting (1) copy directly to the General Contractor. This gives the General Contractor the opportunity to seek comments from the USPS, design team members and other trades that may have related work.
11. Preliminary and Final design drawings shall include a CCTV Camera Schedule. Refer to page 3 for "sample" schedule. This "sample" CCTV Camera Schedule denotes the information necessary for submission to Securitas. Not all cameras shown are required for each project and the quantities of cameras shown will differ depending on the building configuration. The A/E shall revise and enhance this sample schedule to suit the specific project conditions and requirements.
- a. It is extremely important that the A/E identify which mountings are to be used for the specific cameras noted so Securitas can provide accurate pricing. The pole mount kits, wall arm brackets, recessed housings, surface conduit backboxes and ceiling mounts are furnished by the CCTV Direct Vendor and installed by the Contractor.
 - b. The mounting hardware required for PTZ, fixed and multi-directional outdoor cameras differs based on camera type and mounting application. Refer to the "Listing of Approved Outdoor Camera Mounts" shown on pages 5 thru 9.
12. Each camera shall be labeled by a numbering system requiring no more than three digits. The camera numbering system chosen shall be utilized by the A/E during preparation of the design drawings and by Securitas in preparation of their construction drawings to provide consistent, matching and accurate as-built documentation.
- a. Each pendant or arm mounted, PTZ camera shall be labeled on three sides with 3 inch high numbers supplied by the Direct Vendor.

- b. Each ceiling, wall or pendant mounted, multi-directional camera shall be labeled on three sides with 1 inch high numbers supplied by the Direct Vendor.
 - c. Each ceiling, standard wall or pendant mounted fixed camera shall be labeled on two sides with 1 ½ inch high numbers supplied by the Direct Vendor.
 - d. The outer shroud of each wall or pole arm mounted fixed camera shall be labeled on two sides with 2 inch high numbers supplied by the Direct Vendor.
 - e. The flange of each recessed ceiling mounted PTZ, fixed or multi-directional camera shall be labeled on two sides with 1 inch high numbers supplied by the Direct Vendor.
13. When existing CCTV systems are to be upgraded, the existing CAT-5/5e and fiber optic camera wiring may be reutilized provided the cable is tested as dictated by the SDC, Module 3, 5-10.4.2.
- a. The Testing Company shall perform tests on all presently installed Category 5/5e and fiber optic camera wiring to be reutilized.
 - b. Existing fiber cabling reutilized to serve proposed or replacement cameras and terminated with "ST" type connectors shall be reterminated utilizing "SC" type connectors.
 - c. Any cable found to be defective shall be replaced in its entirety.
 - d. The A/E shall ensure that the existing CAT-5/5e and fiber camera cabling test results, prepared by the Contractor, have been submitted and approved prior to the start of the CCTV work.
14. The A/E shall provide periodic site visits throughout construction to ensure the proper installation of the specified CCTV system and shall specifically perform the following duties and responsibilities during the Construction Phase:
- a. Prior to the start of work, the A/E shall schedule and perform the final camera placement walk-thru meeting on site with the Contractor, Direct Vendor, USPIS and OIG. Walk-thru shall review the camera positions, mounting types and mounting heights shown on the approved construction drawings and establish any required changes.
 - b. The A/E shall ensure that all new CAT-6 and fiber camera cabling have been properly terminated and tested by the Contractor and the results have been submitted to the USPS prior to the installation of equipment by the Direct Vendor.
 - c. The A/E shall provide field progress photographs taken throughout construction to ensure the proper installation of the components within the CCTV terminal cabinets, remote node cabinets, headend rack(s) and NEMA 4SS enclosures. Photographs shall show wiring and placement of fiber media converters, surge protectors, fiber patch boxes and interconnect centers, power supplies, power strips and receptacles. Photographs shall be transmitted to the USPS Project Manager.

Sample CCTV CAMERA SCHEDULE

CAMERA NO.	CABLE DESTINATION ②	CAMERA FIELD OF VIEW - HEADING	CAMERA TYPE	CAMERA ENVIRONMENT	CAMERA MOUNTING	CAMERA SYSTEM	CAMERA MOUNT ⑤	MOUNTING HEIGHT⑥	CAMERA POWER	CABLING	MEDIA CONVERTER/ EXTENDER	EXISTING/ NEW	FUNCTION (CIS SECURITY OR ROBBERY)
C001	NODE #1	RE-4 PERSONNEL ENTRY - DOOR "A4"	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	SURF CLG W/BACKBOX	9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C002	NODE #1	TURNSTILE - EXIT DOOR "A3" (NORTH)	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	CEILING MOUNT	9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C003	NODE #1	TURNSTILE - ENTRY DOOR "A5" (NORTH)	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	CEILING MOUNT	9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C004	NODE #1	RE-4 PERSONNEL ENTRY - DOOR "A4"	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	SURF CLG W/BACKBOX	9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C005	NODE #1	TURNSTILE - EXIT DOOR "A3"	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	SURF CLG W/BACKBOX	9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C006	NODE #1	TURNSTILE - ENTRY DOOR "A5" & EVAC PB (SOUTH)	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	SURF CLG W/BACKBOX	9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C007	NODE #1	LUNCHROOM	PTZ	INDOOR	DROPPED CEILING	AXIS #P5624-EMKII	RECESSED "ACT" CEILING	9'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C008	NODE #1	LUNCHROOM	PTZ	INDOOR	DROPPED CEILING	AXIS #P5624-EMKII	RECESSED "ACT" CEILING	9'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C009	NODE #1	WORKROOM	Multi-D/S	INDOOR	EXPOSED CEILING	AXIS #P3719-PLE	CEILING PENDANT	16'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C010	NODE #1	EXTERIOR BREAK AREA - NORTH	FIXED	OUTDOOR - BLDG MTD	WALL	AXIS #P3245-VE	SURF WALL W/BACKBOX	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C011	NODE #1	EXTERIOR EM. EXIT DOOR "A6"	FIXED	OUTDOOR - BLDG MTD	WALL	AXIS #P3245-VE	SURF WALL W/BACKBOX	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	SECURITY
C012	NODE #1	WORKROOM	PTZ	INDOOR	EXPOSED CEILING	AXIS #P5624-EMKII	CEILING PENDANT	+16'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C013	NODE #1	WORKROOM	Multi-D/S	INDOOR	EXPOSED CEILING	AXIS #P3719-PLE	CEILING PENDANT	+16'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C014	NODE #1	REGISTRY CAGE	FIXED	INDOOR	WALL	AXIS #P3245-VE	WALL BRACKET ARM	+8'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C015	NODE #1	REGISTRY CAGE	FIXED	INDOOR	WALL	AXIS #P3245-VE	WALL BRACKET ARM	+8'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C016	NODE #2	PLATFORM DOCK OPENINGS - NORTH	PTZ	OUTDOOR - COVERED	EXPOSED CEILING	AXIS #P5624-EMKII	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C017	NODE #2	PLATFORM DOCK OPENINGS - NORTH	PTZ	OUTDOOR - COVERED	EXPOSED CEILING	AXIS #P5624-EMKII	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C018	NODE #2	PLATFORM DOCK OPENINGS - NORTH	PTZ	OUTDOOR - COVERED	EXPOSED CEILING	AXIS #P5624-EMKII	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	CAT-6	NONE	NEW	"CIS" CAMERA
C019	NODE #3	RECYCLING - WEST PLATFORM	FIXED	OUTDOOR - BLDG MTD	WALL	AXIS #P3245-VE	WALL BRACKET ARM	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C020	HEADEND	RETAIL LOBBY	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	RECESSED "ACT" CEILING	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	ROBBERY
C021	HEADEND	RETAIL LOBBY	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	RECESSED "ACT" CEILING	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	ROBBERY
C022	HEADEND	RETAIL LOBBY CASHIER STATION	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	RECESSED "ACT" CEILING	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C023	HEADEND	RETAIL LOBBY CASHIER STATION	FIXED	INDOOR	DROPPED CEILING	AXIS #P3245-VE	RECESSED "ACT" CEILING	+9'-0" AFF	SWITCH PoE	CAT-6	NONE	NEW	"CIS" CAMERA
C024	NODE #1	EMPLOYEE PARKING GATE - ENTRY (FRONT)	FIXED	OUTDOOR - BLUE SKY	STANCHION MTD	AXIS #P3245-VE	STRAP MOUNTED	+12'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C025	NODE #1	EMPLOYEE PARKING GATE - ENTRY (REAR)	FIXED	OUTDOOR - BLUE SKY	STANCHION MTD	AXIS #P3245-VE	STRAP MOUNTED	+12'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C026	NODE #1	EMPLOYEE PARKING GATE - EXIT (REAR)	FIXED	OUTDOOR - BLUE SKY	STANCHION MTD	AXIS #P3245-VE	STRAP MOUNTED	+12'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C027	HEADEND	S.W. TRUCK ENTRY GATE - LANE #57 (FRONT)	FIXED	OUTDOOR - BLUE SKY	STANCHION MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C028	HEADEND	S.W. TRUCK ENTRY GATE - LANE #56 (FRONT)	FIXED	OUTDOOR - BLUE SKY	STANCHION MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C029	HEADEND	S.W. TRUCK ENTRY GATE - LANE #56 (DRIVER)	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C030	HEADEND	S.W. TRUCK ENTRY GATE - LANE #57 (DRIVER)	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C031	HEADEND	S.W. TRUCK ENTRY GATE - LANE #57 (REAR)	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C032	HEADEND	S.W. TRUCK ENTRY GATE - LANE #56 (REAR)	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	SECURITY
C033	NODE #1	REMOTE EMPLOYEE PARKING	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	"CIS" CAMERA
C034	NODE #1	REMOTE EMPLOYEE PARKING	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3245-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	NEW	"CIS" CAMERA
035	HEADEND	DOCK OPENING - EAST ③	PTZ	OUTDOOR - COVERED	EXPOSED	AXIS #Q6032-E	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	EXISTING	"CIS" CAMERA
036	HEADEND	DOCK OPENING - EAST ③	PTZ	OUTDOOR - COVERED	EXPOSED	AXIS #Q6032-E	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	EXISTING	"CIS" CAMERA
037	HEADEND	DOCK OPENING - EAST ③	PTZ	OUTDOOR - COVERED	EXPOSED	AXIS #Q6032-E	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	EXISTING	"CIS" CAMERA
038	HEADEND	DOCK OPENING - EAST ③	PTZ	OUTDOOR - COVERED	EXPOSED	AXIS #Q6032-E	CEILING PENDANT	10'-0" AFF	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	EXISTING	"CIS" CAMERA
039	HEADEND	TRUCK EXIT GATE - EAST ③	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3364-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	EXISTING	SECURITY
040	HEADEND	TRUCK EXIT GATE - EAST ③	FIXED	OUTDOOR - BLUE SKY	SITE LTG POLE MTD	AXIS #P3364-VE	STRAP MOUNTED	+16'-0" AFG	H PoE; MID-SPAN-30W	FIBER	FIBER OPTIC	EXISTING	SECURITY
041	NODE #1	EM. EXIT ONLY DOOR ④	FIXED	OUTDOOR - COVERED	WALL	VICON #V910	WALL BRACKET ARM	+9'-0" AFF	24 VAC PWR SUPPLY	CAT-6	ENCODER	EXISTING	SECURITY

CCTV CAMERA SCHEDULE NOTES

- ① THE A/E SHALL REVISE AND ENHANCE THIS "SAMPLE" CCTV CAMERA SCHEDULE TO SUIT THE SPECIFIC PROJECT CONDITIONS AND REQUIREMENTS.
- ② IDENTIFY NODE CABINET OR HEADEND DESTINATION FOR CAMERA CABLING BASED ON LENGTH OF RUN.
- ③ EXISTING OPERATIONAL CAMERA AND ASSOCIATED CABLING TO REMAIN UNDISTURBED.
- ④ EXISTING OPERATIONAL ANALOG CAMERA AND ASSOCIATED CABLING TO REMAIN UNDISTURBED.
- ⑤ IT IS EXTREMELY IMPORTANT THAT THE A/E IDENTIFY WHICH MOUNTINGS ARE TO BE USED FOR THE SPECIFIC CAMERAS NOTED. THE WALL ARM BRACKETS, RECESSED HOUSINGS, SURFACE CONDUIT BACKBOXES AND CEILING MOUNTS ARE FURNISHED BY THE CCTV DIRECT VENDOR AND INSTALLED BY THE CONTRACTOR.
- ⑥ THE A/E SHALL INDICATE MOUNTING HEIGHTS TO SUIT THE SPECIFIC PROJECT CONDITIONS AND REQUIREMENTS.

CABLING REQUIREMENTS

- 1. INTERIOR CABLE RUNS FROM CAMERAS TO NODE CABINETS OR TO THE CCTV HEADEND THAT DO NOT EXCEED 300 FEET (TOTAL HORIZONTAL AND VERTICAL CABLE LENGTH) SHALL BE CATEGORY ⑥ ; UTILIZE PLENUM RATED WHERE REQUIRED.
- 2. INTERIOR CABLE RUNS EXCEEDING 300 FEET FROM CAMERAS TO NODE CABINETS OR TO THE CCTV HEADEND SHALL BE (2) COUNT 62.5/125, OM1, MULTI-MODE, INDOOR RATED FIBER CABLE CONTAINED WITHIN INNERDUCT.
- 3. EXTERIOR CABLE RUNS, ROUTED TO REMOTELY LOCATED "BLUE SKY" CAMERAS, SHALL BE (2) COUNT, 62.5/125, OM1, MULTI-MODE, INDOOR/OUTDOOR RATED CABLE CONTAINED IN CONDUIT.
- 4. INTERIOR CABLE RUNS FROM REMOTE NODE CABINETS TO THE CCTV HEADEND RACK(S) SHALL BE (6) COUNT, 62.5/125, OM1, MULTI-MODE, INDOOR RATED FIBER CABLE CONTAINED WITHIN INNERDUCT.

LISTING OF APPROVED OUTDOOR CAMERA MOUNTS
(SPEC SECTION 282305)

Outdoor Pole Mounted PTZ (Axis #P5654-E) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	01471-001	Steel Straps TX30 100-410 mm (4-16 in) in diameter
Axis	5801-721	T91L61 Wall-and-Pole Mount
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Wall Mounted PTZ (Axis #P5654-E) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5801-721	T91L61 Wall-and-Pole Mount
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Corner Mounted PTZ (Axis #P5654-E) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5017-641	T91A64 Corner Bracket
Axis	5801-721	T91L61 Wall-and-Pole Mount
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Roof or Parapet Mounted PTZ (Axis #P5654-E) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5504-631	T91B62 Parapet Mount
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Pole Mounted Fixed (Axis #P3245-VE) Dome Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	01470-001	T91B57 Pole Mount
Axis	5507-641	T91H61 Wall Mount
Axis	5505-871	T94T01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Wall Mounted Fixed (Axis #P3245-VE) Dome Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5507-641	T91H61 Wall Mount
Axis	5505-871	T94T01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Corner Mounted Fixed (Axis #P3245-VE) Dome Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5017-641	T91A64 Corner Bracket
Axis	5507-641	T91H61 Wall Mount
Axis	5505-871	T94T01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Roof or Parapet Mounted Fixed (Axis #P3245-VE) Dome Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5504-631	T91B62 Parapet Mount
Axis	5505-871	T94T01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

LISTING OF APPROVED OUTDOOR CAMERA MOUNTS
(SPEC SECTION 282305)

Outdoor Pole Mounted, Multidirectional (Axis #P3719-PLE) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	01470-001	T91B57 Pole Mount
Axis	5507-641	T91H61 Wall Mount
Axis	01513-001	T94N01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Wall Mounted, Multidirectional (Axis #P3719-PLE) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5507-641	T91H61 Wall Mount
Axis	01513-001	T94N01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Corner Mounted, Multidirectional (Axis #P3719-PLE) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5017-641	T91A64 Corner Bracket
Axis	5507-641	T91H61 Wall Mount
Axis	01513-001	T94N01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Roof or Parapet Mounted, Multidirectional (Axis #P3719-PLE) Cameras

<i>Mfg</i>	<i>Part#</i>	<i>Description</i>
Axis	5504-631	T91B62 Parapet Mount
Axis	01513-001	T94N01D Pendant Kit
Axis	5505-641	ACI Conduit Adapter 3/4" NPS (2 pieces)

Outdoor Wall Mounted Fixed (Axis #P1375-E) Box Cameras, no additional mounting accessories required.

Outdoor Wall Mounted Fixed (Axis #Q1786-LE) Bullet Cameras, no additional mounting accessories required.

LISTING OF APPROVED OUTDOOR CAMERA MOUNTS
(SPEC SECTION 282306)

Outdoor Ceiling Surface Mounted Multi-Sensor 12C-H4A-4MH-360 & 9C-H4A-3MH-270 Cameras

Mfg	Part#	Description
Avigilon	H4AMH-AD-DOME1	Surface mount adapter for Multi-Sensor
Avigilon	H4AMH-DO-COVR1-SMOKE	Smoke bubble for Multi-Sensor

Outdoor Ceiling Pendant Mounted Multi-Sensor 12C-H4A-4MH-360 & 9C-H4A-3MH-270 Cameras

Mfg	Part#	Description
Avigilon	IRPTZ-MNT-NPTA1	Pendant cap to pipe adapter for PTZ/Mult-Sensor
Avigilon	H4AMH-AD-PEND1	Pendant cap for Multi-Sensor
Avigilon	H4AMH-DO-COVR1-SMOKE	Smoke bubble for Multi-Sensor

Outdoor Wall Mounted Multi-Sensor 12C-H4A-4MH-360 & 9C-H4A-3MH-270 Cameras

Mfg	Part#	Description
Avigilon	IRPTZ-MNT-WALL1	Pendant wall arm for PTZ/Mult-Sensor
Avigilon	H4AMH-AD-PEND1	Pendant cap for Multi-Sensor
Avigilon	H4AMH-DO-COVR1-SMOKE	Smoke bubble for Multi-Sensor

Outdoor Corner Mounted Multi-Sensor 12C-H4A-4MH-360 & 9C-H4A-3MH-270 Cameras

Mfg	Part#	Description
Avigilon	H4-MT-CRNR1	Corner mount
Avigilon	IRPTZ-MNT-WALL1	Pendant wall arm for PTZ/Mult-Sensor
Avigilon	H4AMH-AD-PEND1	Pendant cap for Multi-Sensor
Avigilon	H4AMH-DO-COVR1-SMOKE	Smoke bubble for Multi-Sensor

Outdoor Pole Mounted Multi-Sensor 12C-H4A-4MH-360 & 9C-H4A-3MH-270 Cameras

Mfg	Part#	Description
Avigilon	H4-MT-POLE1	Pole mounting bracket (Require Wall Arm)
Avigilon	IRPTZ-MNT-WALL1	Pendant wall arm for PTZ/Mult-Sensor
Avigilon	H4AMH-AD-PEND1	Pendant cap for Multi-Sensor
Avigilon	H4AMH-DO-COVR1-SMOKE	Smoke bubble for Multi-Sensor

Outdoor Ceiling Surface Mounted Fixed Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-DO1	Surface mounted fixed dome camera
Avigilon	H4A-DO-SMOK1	Smoke bubble for Surface fixed dome camera

Outdoor Ceiling Pendant Mounted Fixed Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-DP1	Pendant mounted fixed dome camera
Avigilon	H4A-MT-NPTA1	Pendant Cap - 1.5" NPT (For ceiling pendant only)
Avigilon	H4A-DP-SMOK1	Smoke bubble for Pendant fixed dome camera

LISTING OF APPROVED OUTDOOR CAMERA MOUNTS
(SPEC SECTION 282306)

Outdoor Wall Mounted Fixed Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-DP1	Pendant mounted fixed dome camera
Avigilon	H4A-MT-WALL1	Pendant wall arm for fixed (pendant cap not req.)
Avigilon	H4A-DP-SMOK1	Smoke bubble for Pendant fixed dome camera

Outdoor Corner Mounted Fixed Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-DP1	Pendant mounted fixed dome camera
Avigilon	H4A-MT-WALL1	Pendant wall arm for fixed (pendant cap not req.)
Avigilon	H4-MT-CRNR1	Corner mounting bracket (Require Wall Arm)
Avigilon	H4A-DP-SMOK1	Smoke bubble for Pendant fixed dome camera

Outdoor Pole Mounted Fixed Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-DP1	Pendant mounted fixed dome camera
Avigilon	H4A-MT-WALL1	Pendant wall arm for fixed (pendant cap not req.)
Avigilon	H4-MT-POLE1	Pole mounting bracket (Require Wall Arm)
Avigilon	H4A-DP-SMOK1	Smoke bubble for Pendant fixed dome camera

Outdoor Ceiling Pendant Mounted PTZ Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-PTZ-DP36	Pendant mounted PTZ dome camera
Avigilon	IRPTZ-MNT-NPTA1	Pendant cap to pipe adapter for PTZ/Mult-Sensor
Avigilon	PTZH5A-SMOK1	Smoke bubble for Pendant fixed dome camera

Outdoor Wall Mounted PTZ Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-PTZ-DP36	Pendant mounted PTZ dome camera
Avigilon	IRPTZ-MNT-WALL1	Pendant wall arm for PTZ (Pendant Cap not req.)
Avigilon	PTZH5A-SMOK1	Smoke bubble for Pendant fixed dome camera

Outdoor Corner Mounted PTZ Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-PTZ-DP36	Pendant mounted PTZ dome camera
Avigilon	IRPTZ-MNT-WALL1	Pendant wall arm for PTZ (Pendant Cap not req.)
Avigilon	H4-MT-CRNR1	Corner mounting bracket (Require Wall Arm)
Avigilon	PTZH5A-SMOK1	Smoke bubble for Pendant fixed dome camera

LISTING OF APPROVED OUTDOOR CAMERA MOUNTS
(SPEC SECTION 282306)

Outdoor Pole Mounted PTZ Dome Cameras

Mfg	Part#	Description
Avigilon	2.0C-H5A-PTZ-DP36	Pendant mounted PTZ dome camera
Avigilon	IRPTZ-MNT-WALL1	Pendant wall arm for PTZ (Pendant Cap not req.)
Avigilon	H4-MT-POLE1	Pole mounting bracket (Require Wall Arm)
Avigilon	PTZH5A-SMOK1	Smoke bubble for Pendant fixed dome camera

Avigilon does not have a Parapet Mount Option.

Avigilon does not have an In-Ceiling Mount Option that meets the specifications.

Avigilon does not have a Ceiling Surface Mount Option for the PTZ Camera.