MIT
Design Standards

Campus Safety and Security Services

T20 Thematic Folder

Issued 2022

Department of Facilities

Table of Contents

1. **MIT IS&T Campus Safety Services SYSTEM Overview**

Information Systems and Technology (IS&T) is MIT's central IT organization, tasked with supporting MIT's core mission: "...to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world in the 21st century."

The organization's role is to provide modern, efficient, and cost-effective IT services to the entire MIT community. MIT's physical security and access control systems include more than 750 panels for access control and intrusion alarm systems and more than 4,700 card readers supporting both physical ID cards and MIT's digital ID for smartphones.

IS&T's Campus Safety and Security Team manages all MIT's physical security systems with the exception of Automated Electronic Defibrillators which is managed by the MIT Emergency Management System team. The security systems within MIT are: Genetec Security System (Video, Access Control), Bosch for intrusion and panic alarms, and Deister for key box and Asset Management System. Please refer to appendix for shop drawings.

MIT's Campus Safety services consists of the following services

- Video Surveillance
- Access Control
- Alarms
- Key Box Management
- Audio/Visual Intercoms
- Emergency Phones

2. **PURPOSE**

MIT Information Systems & Technology has developed this document to establish a uniform standard for IS&T Campus Safety Services. The purpose of the IS&T Standards is to ensure that secure, appropriately sized, environmentally controlled, and sustainable systems are built consistently for IS&T at MIT.

MIT IS&T will provide design guidance for these safety and security systems, and the MIT Project team, designer and builders shall coordinate implementation with MIT IS&T.

3.0 TERMINOLOGY

See appendix for terminologies used through the document.

4.0 MIT IS&T Campus Safety and Security Governance

The MIT Campus Safety Working Group (CSWG) provides oversight and guidance for MIT's access control and physical security systems, and the data associated with those systems and their elements.

https://cswg.mit.edu/

The following requires approval from MIT Campus Safety Working Group prior to installation or removal;

- Emergency Phones
- Surveillance Cameras
- Camera Viewing Accounts
- Panic/Duress Button
- Intrusion Alarms

5.0 Related Documents

DIV. 21 – Fire Protection
DIV. 26 - Electrical

DIV. 27 - Communications

6.0 Requirements

- Vendor must be authorized and certified in the systems, devices and components, for all makes and manufacturers that is contained within the project scope.
- As Built drawings must be provided to MIT both in AutoCAD and PDF prior to closing a project.
- Consult with MIT IS&T as part of design
- All MIT Campus Safety and Security systems need to be designed according the current local, state, and federal codes

7.0 SERVICES

7.1 VIDEO SURVEILLANCES SERVICES

MIT has design requirements for internal and external video surveillance cameras and video surveillance camera monitoring stations.

- Minimum mounting height for a camera is nine feet (9’) from final grade or floor finish.
- Maximum mounting height is twelve feet (12') from final grade or floor finish.
- Cameras installed in exterior locations, or interior locations that may require a stricter environmental requirement (such as garages) – should be an exterior type camera. See vendor cameras specifications for details.
- Exterior cameras have several mounting options – wall mount, pole mount, ceiling mount, and roof mount.
- Use vendor compatible mounting solutions, and associated peripherals
- Wiring should Comply with DIV. 27
- Cameras location should not have an obstructed view. This includes:
    - Any bright light sources or excessive sunlight
    - Any building components, systems, devices, or infrastructure (emergency exit signs, pipes, banners, flags, posts, etc.).
    - Open doors or hatches.
- See vendor camera specs sheets for field of view for cameras.
- No lightning rods shall be attached to camera mounts.
- Pan/Tilt/Zoom (PTZ) cameras on roof tops should hang out over the building's edge with a minimum of 6 inches of clearance beyond the edge of the building and should not be obstructed by anything that is attached to or hangs off the building.
- Any exceptions to these guidelines must be approved in advance by IS&T.

MIT has requirements that the following spaces requires exterior camera(s). Consult with MIT IS&T for require ment details.

- All exterior doors/entry points to buildings
- Roof Top and hatches entrances
- All TR entrances
- All Terraces

Video Surveillances: Monitoring Stations

- If required, end user monitoring stations to monitor cameras shall be furnished by the MIT Customer.
- See vendor requirements for minimum system requirements.
- Any Monitoring Station request must be approved by MIT CSWG.

See appendix for approved hardware and cabling

7.2 ACCESS CONTROL SERVICES

- MIT has design requirements for access control services.
- Access Control can only be implemented with MIT IS&T approved electrified hardware. See appendix for list.
- The following spaces requires access control. Consult with MIT IS&T for requirement details.
    - All exterior door/entry points to the building. Some exterior doors may require MPT.
    - Roof Top door

- All TRs
- Terraces

7.2.1 Door typicals

- Design must comply with the MIT door typical.
- All exceptions must be approved by MIT IS&T prior.
- See appendix for details and shop drawings

7.2.2 Door Package

- Design must comply with the MIT door package requirements
- All exceptions must be approved by MIT IS&T prior.
- See appendix for details

7.2.3 Access Control Points

- Access Control Points are doors equipped with card readers, electric locking hardware, door contacts, and request to exit devices. They may need to be interfaced with an Auto Door Opener, device or a Magnetic Door Hold Open device. Door functions such as fail safe/fail secure, interface with ADO, delayed egress, and positive latch for smoke compartmentalization determine electric locking hardware choices from MIT approved list.
- Door Locks - MIT requirements for electric lock type options and design.
- All electric locking hardware in use at the Institute shall be Fail-Secure unless prescribed to be Fail-Safe by building code or as directed by MIT' to be setup as Provisional Unlock.
- MIT does not approve the use of electro-magnetic door locking hardware ("Mag-Locks) unless previously approved.
- Please see appendix for details

  7.2.3.1 Access Control Point Cabling and Devices:
    - Cable Bundles: See approved list of cables in Appendix
    - Horizontal or Vertical Penetrations out of the TR: See DIV. 27 to follow section 5 – Communications cable system support infrastructure.
    - Horizontal Cable Runs: See DIV. 27 to follow section 5 – Communications cable system support infrastructure.
    - Pathways: See DIV. 27 to follow section 5 – Communications cable system support infrastructure.
    - Extra Cable Lengths: Extra cable length and unused conductors shall be labeled on both ends and stored at each Access Control Point in junction box for future use and at each ACP in 6 by 6-inch cable trough for future use.
    - Each RDR shall be mounted in accordance ADA requirements.
    - See appendix for list of approved hardware

7.2.4 Magnetic Hold Open Devices

- These devices are usually used on smoke compartmentalization doors that need to close on an active fire event. As such, they are hosted on and powered from the building's automated fire detection system and are part of the fire system project scope.
- The security system does not host these devices. The security system merely provides a normal schedule for the energizing/de-energizing of these devices (utilizing a downstream relay).

7.2.5 Monitor Points (MPT)

- Monitor Points (MPT) are alarmed doors equipped with door contacts (DC), a local alarm sounder (S) and request-to-exit device (RTE where free egress is allowed) that is used for emergency exit only doors or roof doors/hatches.
- MPT must have the same cable page as an access control door and must consists of door contacts, REX, and local sounders.
- See appendix for details and shop drawings

7.2.6 Access Control Panels

- All card reader equipped doors shall be hosted on an Access Control Panel (ACP) and each ACP and all of its systems components shall be housed in a single enclosure.
- See DIV.27 for panel location in TR
- Refer to DIV. 26 for Fire Alarm Connection
- See appendix for details and shop drawings

7.2.7 Access Control Master Controller

- A Cloudlink is required – Master Controller for all access control infrastructure.
- CloudLink to be located in the BDF/MDF of the building it supports.
- See appendix for list of approved hardware

7.2.8 Access Control Device Cabling

- Standards for Device Cabling – All cabling out to field devices to support an Access Control Point (RDR) or a Monitor Point (MPT) can make use of all low voltage pathways.
- Any card access control doors that also has an auto door openers (ADO) needs to be noted in the security drawings and scope – in addition to the standard cable bundle there is a requirement for an additional 22/12 cable bundle.
- Consult with MIT IS&T for the appropriate cable fill ratios for all applicable pathways.

7.2.9 Using a Card Reader for Access Authentication on Non-Standard Devices

- MIT supports using card reader authentication as a means of controlling access to other devices which are non-native to MIT infrastructure such as elevators, turnstiles, overhead doors, machinery, power equipment, etc with the following conditions:
- There must be a clear delineation of support from the systems, devices, and components with which it interfaces.
- MIT will be responsible for the card reader authentication logic and changing the state of an output relay to provide the desired interface.
- Prior approval of the downstream device and its requirements from MIT IS&T is required – including requirements on any downstream low voltage logic-level input, voltage and current specifications.

7.2.10 Elevator Access Control

MIT has design requirements for elevator access control

- Elevator Access Control – There are two types of card reader access control for elevators – Call Button Access Control and In-Cab Floor Access Control.
  - Call Button Access Control – A card reader is mounted outside the elevator cab next to the elevator call button. The security system interrupts the function of the elevator call button when the elevator is in controlled access in the security system. A passenger presents a card and if authorized for use, the security system changes the state of a relay connected to the elevator controller allowing the call button to function.
  - In-Cab Floor Control – A card reader is mounted inside the elevator cab near the elevator controls. The card reader is connected to conductors in the elevator's travelling cable (six 18-gauge conductors, two of which must be plenum-shielded). The elevator controller is interfaced with the security system so that each floor button is controlled similarly to how the call button is controlled. When a floor is in controlled access, the floor button will not be operable. A passenger presents a card and if authorized for floor access, all floors that passenger is authorized to access then become operational as the security system changes the state of a relay connected to the elevator controller allowing only the authorized floor button(s) for that passenger to function. Once that passenger selects any of the floor buttons authorized for their use, all floor buttons then revert to their previous controlled (or uncontrolled) access state.
- MIT Standard is for in-cab floor control is called for in an elevator as part of a project, all floors shall be equipped for individual floor control even if the initial intent of the project is for only some floors to be controlled. The exception is the egress or fireman's floor which cannot be controlled.

- Integration of the security system and the elevator controller(s) falls on both the security vendor and the elevator vendor. Both vendors need to include systems integration as part of their project scopes including the technician time necessary for both vendors to coordinate the interface of the two systems.
- The integration of the security system and elevator controller shall be contained in an enclosure mounted outside of the elevator control room (so the security system portion of the interface can be serviced and maintained without requiring access to the elevator machine room).
- The integration of the security system and elevator controllers shall be "fail safe" meaning the operation of the elevator will default to the control of the fire system when there is an active event in the building's automated fire detection system (as required by code) and failure of any electronic components in the security system will result in the elevator defaulting to an uncontrolled state to the extent possible as it relates to the security system.
- The card reader ground wire shall be contiguous the entire length of the wire from the card reader through the elevator travelling cable to the hosting security panel. The ground wire shall be isolated at the card reader end and grounded at the panel end.
- See appendix for approved hardware and cabling

7.2.11 Parking Lots and Gates

- MIT has design requirements for access-controlled parking lots and gates
- Design of Parking lot must be coordinated with MIT IS&T and MIT Parking office.
- All MIT access-controlled parking lots must be equipped with at least one gate, access control readers and License Plate Readers (LPR) for access. See vendor's requirement for LPR camera installation/location requirements.
- See appendix for approved hardware and cabling

7.3 Alarms

- MIT supports Intrusion alarms for a physical area, Asset Management, Life Safety Panic Alarms
- All Intrusion Alarm Zones must have at least one arm/disarm LCD Keypad located close to the area entrance
- Each ACP enclosure that houses an Intrusion Alarm Panel shall have an arm/disarm LCD Keypad mounted on the outside of the panel enclosure to be used for servicing/maintaining the Intrusion Alarm Panel.
- All intrusion alarms and panic alarms must be approved by MIT CSWG prior.
- Panic Alarms must be integrated with a camera
- See appendix for approved hardware and cabling

7.4 Key Box Management

- See attached for approved hardware and requirements

7.5 Audio/Visual Intercoms

- See attached for approved hardware and shop drawings

7.6 Emergency Phones

- Emergency Phones, enclosures, and accessories installed on campus when activated dials MIT police department's dispatch center in case of an emergency.
- MIT supports 2 types of emergency phones. Wall-mount and Stanchion style deployments. For outdoor Emergency Phones, use Stanchion vs Wall unless otherwise specified. All Emergency Phones must be integrated with a Camera and each camera should have visual sighting of the next camera.
- Emergency power and data cabling pathway considerations and specifications in accordance with DIV. 26 & 27 apply when planning to provision emergency phones. Pathways approved by MIT IS&T Infrastructure representative. The 120 VAC dedicated electrical circuit on standby power where available.
- Exact Emergency phone placement locations must be approved by MIT CSWG
- See attached for approved hardware and shop drawings

8.0 IT Telecommunication Room Requirements

- Refer to DIV. 27 – for Tel/Data Design Layout Drawings and Design Standards.

- Refer to Campus Safety and Security Thematic folder appendix for hardware requirements.

9.0 Building Roof Tops Doors and Hatches Requirements

- Doors will be outfitted as an access control door with sounders and exterior cameras
- Hatches will be outfitted as an MPT with sounders and exterior cameras
- Approved MIT door signage required
- See appendix for approved hardware and cabling

Appendix - Electric Locks

- All electric locking hardware in use at the Institute shall conform to the requirements of State and Federal Building Code.
- All electric locking hardware in use at the Institute shall be Fail-Secure unless prescribed to be Fail-Safe by building code or as directed by MIT's Campus Safety & Security Infrastructure Team (CSSI) to be setup as Provisional Unlock.

Electric Lock Type Options	Classroom Function	Storeroom Function	Delayed Egress	Key Over-ride	Fail Safe	Fail Secure	Auto Door Opener	Positive Latch (Smoke)	Notes
Mortise Electric Lock	X	X		X	X	X		X	Preferred Solution
Cylindrical Electric Lock	X	X		X	X	X		X	Not Allowed at Institute without CSSI approval
Electric Strike (function by other hardware)	n/a	n/a		X	X	X	X		Frame side/header or inactive door/leaf; replaces flat strike
Surface Mounted Electric Strike (function by other hw)	n/a	n/a		X	X	X	X		Frame or inactive door/leaf; used w/Rim Panic Bars
Rim Panic Bar (ELR)	X	X		X		X	X		Devices are "dogable"; Prefer QEL Solution
Mortise Panic Bar	X	X		X	X	X		X	Devices are "dogable"; can do ADO but lose positive latch
Vertical Rod w/Electric Bar	X	X		X		X	X		Devices are "dogable"; Surface only; Concealed not allowed
Vertical Rod w/Electric Trim	X	X		X	X	X		X	Devices are "dogable"; Surface only; Concealed not allowed
Vertical Rod w/Electric Bar and Electric Trim	X	X		X	X	X	X		Devices are "dogable"; Surface only; Concealed not allowed
Shear Style Lock		X			X		X		Not Allowed
Electromagnetic Lock		X			X		X		Not Allowed
Delayed Egress Using Electromagnetic Lock			X		X				Initiated by attempt to egress (switch in bar)
Delayed Egress Using Dedicated Electromagnetic Lock			X		X				Initiated by door movement (REX)
Delayed Egress Using Electric Bar (Chex-It)			X		X				Initiated by attempt to egress (switch in bar); preferred solution
Delayed Egress Using Electric Bar (Chex-It w/Mortise)			X	X	X			X	Initiated by attempt to egress (switch in bar); preferred solution

Appendix – MIT Approved Standard Devices, Components, and Cabling Standards

Refer to the Master MIT Campus Security Standard Devices, Components, and Cabling standards Appendix after this document.

Appendix – Shop Drawings

Refer to the Master Security PDF at the end of this document for all shop drawings for security panels, readers, monitor points, surveillance cameras, intercoms and Emergency phones. ***Note: All shop drawings are to be printed in larger sizes to read**.

Appendix – Terminologies

There are a number of names and acronyms used to describe the components of the MIT security environment. Abbreviations and assumed sub components throughout this document and related standards include:

- MITPD – Massachusetts Institute of Technology Police Department
- IS&T – Information Systems and Technology, MIT's Information Technology department
- CSSI: MIT, IS&T, Campus Safety & Security Infrastructure Team
- BMS – Building Management Systems DIV. 27
- VOIP – Voice over IP
- PAS – Public Address System
- NPT – National Standard Pipe Thread (American)
- POE – Power Over Ethernet
- IP – Internet Protocol
- PTZ – Pan Tilt Zoom
- DITR – Distributed IT Resources
- ACP: Access Control Panel
- IAP: Intrusion Alarm Panel
- AZ: Intrusion Alarm Zone
    - Includes:
        - A/D-KP: Arm/Disarm Keypad
        - A/D-RDR: Arm/Disarm Reader
        - MS: Motion Sensor
        - DC: Door Contacts
        - S: Sounder
- INT-CRTLR: Intercom Controller
    - Includes:
        - INT-DU: Intercom Door Unit
        - INT-RCVR: Intercom Receiver Unit (wall or desk mounted)
- DRB: Door Release Button
- CR: Card Reader/Access Control Points
    - Includes:
        - RDR: Card Reader
        - LCK: Electric Locking Hardware
        - DC: Door Contacts
        - RTE or REX: Request to Exit Device (embedded in Mortise Locks)
        - S: Sounder (May or may not apply to card reader doors)
- CR-ADO: Card Reader door with auto door opener
    - Includes:

        - CR – Card Reader
        - ADO – Automatic Door Opener
        - PDL-IN: Inbound Paddle
        - PDL-OUT: Outbound Paddle

- Magnetic Door Hold Open device (DHO).
- MPT or M: Monitor Point Doors
    - Includes:
        - DC: Door contacts
        - RTE or REX: Request to Exit Device
        - S: Sounders
- TR: Telecommunications Rooms
- AED: Automated External Defibrillators
- SC: Security Contractor
- Fail-Safe – An electric lock that has a mechanical state of being unlocked and requires power to lock it. Allows Free Ingress when unpowered.
- Fail-Secure – An electric lock that has a mechanical state of being locked and requires power to unlock it. Prevents Free Ingress when unpowered.
- "Provisional Unlock" – An electric lock that has a mechanical state of being locked (Fail-Secure) which is powered during an active fire systems event thereby allowing Free Ingress during a fire emergency. Typically used on main entrances to the MIT building and electrically locked Fail-Secure doors on the path the emergency responders would use to reach the Fire Command Center in the building. Allows Free Ingress on active Fire Systems emergency but prevents Free Ingress on building loss of power.
- Delayed Egress – A delay between the attempt to exit and the ability to exit. In door hardware systems, it is accomplished by the triggering of a switch within a component of the door hardware during the course of an exit attempt. The switch starts an irrevocable 15 second timing sequence leading to the unlocking of the door in the direction of egress. There can be only one Delayed Egress electric lock on the path of egress.

END OF DOCUMENT

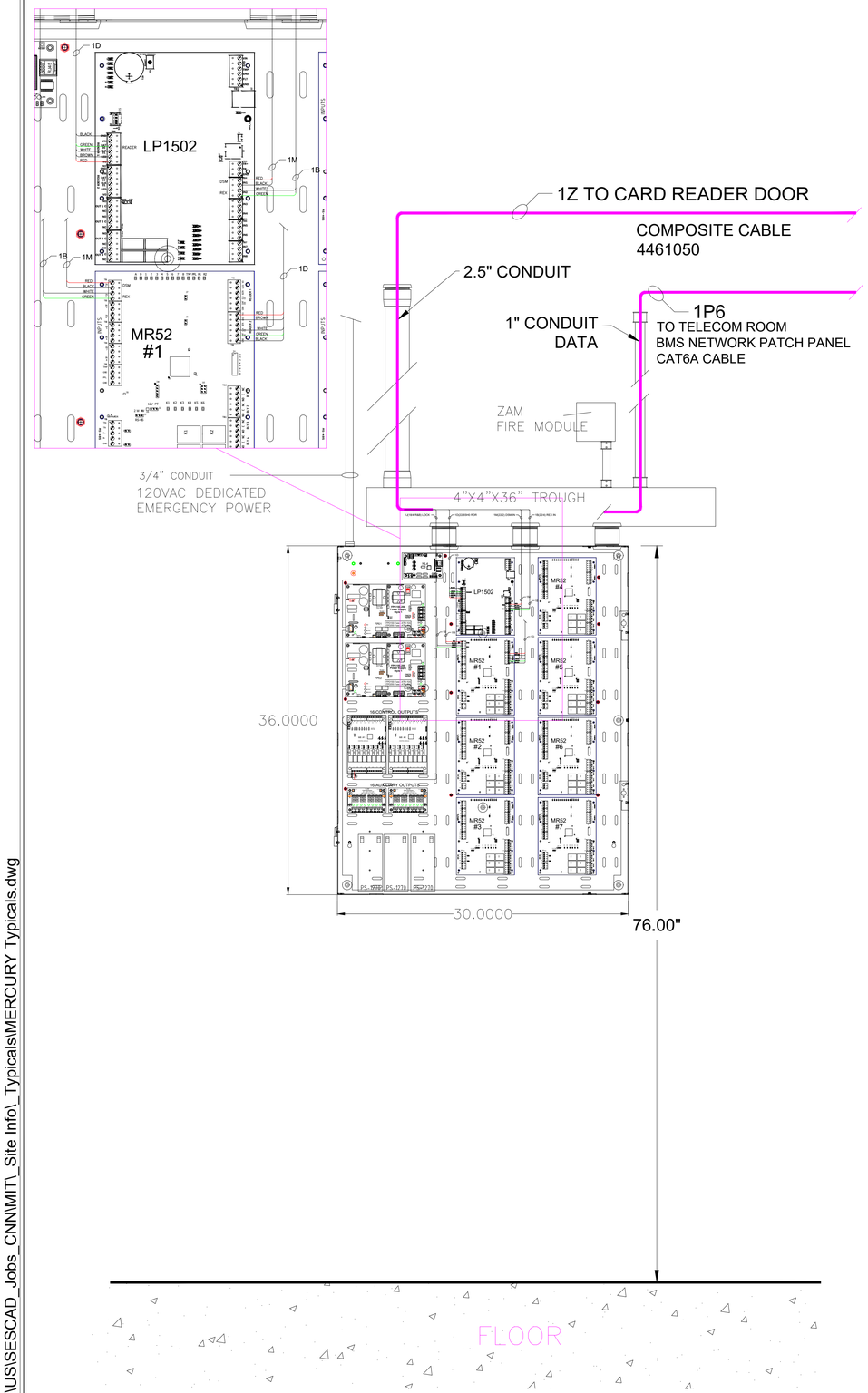
Campus Security Standards Devices and Components Appendix					
Access Control Buidling controller	**Make**	**Model**	**Notes**		
Synergis Cloud Link (SCL) controller	Genetec	SY-CLOUDLINK	Device is PoE. Only required when a building doesn't already have one.		
Access Control Panels	**Make**	**Model**	**Notes (requires Power, Network, and Fire System Connections)**		
Arlington Non Metallic Enclosure with Back Plate	Arlington	EB1212BP			
Mercury Controller Bd	Mercury	LP1502			
Mercury Controller Bd	Mercury	LP1501			
Mercury Reader Interface Module	Mercury	MR52			
Mercury Power Supply	Mercury	FP0150/250 P16A			
8 Input Board -I8	Mercury	MR16IN	Input Board		
8 Output Board -R8	Mercury	MR16OUT	Output Board		
Life Safety Supply Power Supply	LSPS	ISCAN 150/250-16			
Access Control Card Readers	**Make**	**Model**	**Notes**		
HID Signo - 20 (Mullion)	HID	20NKS-00-0001T9	Mullion. Includes programming for Apple wallet		
HID Signo - 40 (Wallswitch)	HID	40NKS-00-0001T9	Wallswitch. Includes programming for Apple wallet		
Access Control Electrified Locking Hardware	**Make**	**Model**	**Notes**		
Electric Mortise Lock w/Integrated REX Switch	Schlage	L9092 W/RX Switch	Preferred Electric Mortise Lock w/Built-in REX Device		
Electric Mortise (does both EU & EL)	Schlage	L9092	Electric Mortise Lock w/o REX (Requires REX Motion Sensor)		
Electric Strike	Von Duprin	6111 US32D 24VDC FS/FSE	Preferred Surface Mounted Electric Strike		
Electric Strike	Von Duprin	6210 US32D 24VDC FS/FSE	Preferred Electric Strike (fits an ANSI cutout)		
Electric Strike	Von Duprin	6211 US32D 24VDC FS/FSE	Preferred Electric Strike (fits an ANSI cutout)		
Electric Strike	Von Duprin	6215 US32D 24VDC FS/FSE	Preferred Electric Strike for Solid Wood Frame		
Electric Strike	Von Duprin	6223 US32D 24VDC FS/FSE	Preferred Electric Strike for Double Wood Door		
Electric Strike	Von Duprin	6300 US32D 12/24VDC FS/FSE	Preferred Electric Strike Surface Mounted		
Electric Strike	Adams Rite	7100-510-628-00	Electric Strike for Storefront (not preferred)		
Electric Strike	Adams Rite	7140-510-313-00	Electric Strike for Storefront (not preferred)		
Electric Strike	HES	9400-12/24D-613	Electric Strike for Certain Surface Mount (not preferred)		
Electric Strike	HES	9600 12/24V-630	Electric Strike for Certain Surface Mount (not preferred)		
Electric Strike	HES	4500 12/24V-630	Electric Strike for Certain Circumstances (not preferred)		
Electric Strike Surface Mounted	Folger Adams	310-4-1 F24D630	Electric Header Strike (preferred for all-glass doors)		
Electric Latch Retraction Crashbar (Can be rim or vertical)	**Von Duprin**	**QEL 9927**	**Notes (Whatever Model with "Q" at beginning like "QEL" and w/RX)**		
Power Supply w/battery back up	Von Duprin	PS914-2RS-BB (replaces 873-2)	Necessary When Too Many QEL's on Panel (more than two)		
QEL+ Conversion Kit 3'	Von Duprin	QEL+ Conversion Kit 3'	Converts Existing Crashbar to Electric		
QEL+ Conversion Kit 4'	Von Duprin	QEL+ Conversion Kit 4'	Converts Existing Crashbar to Electric		
Electric Mortise Crashbar	Von Duprin	E7500 US32D 24VDC FS	Preferred Mortise Crashbar		
Electric Trim for Crashbar	Von Duprin	E996L-M US32D 24VDC 06 LHR	Preferred Fail Safe to Match Up w/Mech Crashbar		
Delayed Egress Crashbar	Von Duprin	Chex-It	Used for Alarmed Only Delayed Egress Doors		
Delayed Egress Crashbar w/Mortise	Von Duprin	Chex-It w/Mortise	Used for Alarmed Only Delayed Egress Doors		
Access Control Electric Power Transfer	**Make**	**Model**	**Notes**		
4.5"x4.5" 8 wire hinge	Stanley	CECB179-58	Electric Transfer Hinge		
Power Transfer Arm	Von Duprin	EPT-10	Electric Power Transfer Arm		
Access Control Door Cords (Not preferred)	**Make**	**Model**	**Notes**		
18" 3/8" Aluminum door cord	Keedex	K-DL38A	Aluminum Power Transfer Cord		
18" 3/8" Black door cord	Keedex	K-DL38BLK	Black Power Transfer Cord		

18" 3/8" Dark Brown door cord	Keedex	K-DL38B	Duranotik Power Transfer Cord		
Door Contacts	**Make**	**Model**	**Notes**		
3/4" SPST DSM-Door Switch Monitor-Brown	GR	GR-18012WGBR	A7F30058076; 3/4" Recessed PF Cont CC, Brown, Wide Gap		
3/4" SPST DSM-Door Switch Monitor-White	GR	GR-18012WGWH	A7F30065993; 3/4" Recessed PF Cont CC, White, Wide Gap		
SPST Surface Mount Contact	GR	GI-4400A	GRI Wide Gap Surface Contact, Normally Open, Closed Loop		
Access Control Request to Exit Motion Sensors	**Make**	**Model**	**Notes (Only to be used where integrated REX is not available)**		
Gray PIR/REX	Bosch	DS160	Grey Request-to-Exit Motion Sensor		
Black PIR/REX	Bosch	DS161	Black Request-to-Exit Motion Sensor		
Cabling - Access Control	**Make**	**Model**	**Notes (all low voltage, see Div 27)**		
Plenum Access Control Composite Cable (Purple)	Windy City Wire	4461050	(Door Cabling) Pulled per door or double door with inactive leaf. Overall Jacket is Purple. P/N for 1000' spool, append -500-all monitored doors		
Plenum 22-6 (Purple)	Windy City Wire	444391-50	Additional wiring points such as ADO doors or intercom		
Plenum 22-12 (Purple) non shielded	Windy City Wire	444394-50	Used for ADO integration and additional points		
OSP Cable -Multi-Conductor Shielded Non-Plenum Cable with Water Block Tape (Use for CR Bollards at door / Parking Gate pedestals)	Windy City Wire	416400WBT	22 AWG 6 Conductor Bare Cooper, Shielded Non-Plenum with Water Block Tape, UL listed C(UL)US CMR		
Cabling - Communications (Emergency Phones, Inter	**Make**	**Model**	**Notes (all low voltage, see Div 27)**		
Plenum 22-6 (Purple)	Windy City Wire	444391-50	Additional wiring points such as ADO doors or intercom		
OSP Cable -Multi-Conductor Shielded Non-Plenum Cable with Water Block Tape (Use for Emergency Phone Stanchions)	Windy City Wire	416400WBT	22 AWG 6 Conductor Bare Cooper, Shielded Non-Plenum with Water Block Tape, UL listed C(UL)US CMR		
DITEK Surge Protection, Modular Low Voltage Surge Protectors. (DTK-2MHLPF Series)	DITEK	DTK-2MHLP24BWB	Approved Surge Protection required at all Code Blue Emergency Phone Stanchions as well as Telecommunications room at for 22/6 Windy City		
Category 6A U/UTP Cable, white jacket, 4 pair count. 2091B GR 4/23 R1000, GigaSPEED X10D	CommScope	760105940	CommScope Interior Ethernet cabling. Please refer to IS&T Design Specifications.		
GigaSPEED X10D® MGS600 Series Information Outlet, white.	CommScope	760092429	CommScope Information outlet to be used at end device, terminated in back box. Please refer to IS&T Division 27 Design Specifications		
GigaSPEED X10D® MGS600 Series Category 6A U/UTP Patch Panel, 24 port. 360-IPR-1100-E-GS6-1U-24, SYSTIMAX 360	CommScope	760152587	CommScope Telecommunication room rack mounted panel. Please refer to IS&T Division 27 Design Specifications		
CommScope Category 6A U/UTP CS44P-IO indoor/outdoor Cable, black jacket, 4 pair count.	CommScope	874036404-10	CommScope INDOOR/OUTDOOR Ethernet cabling to be used for Emergency Phone free standing stanchions		
CAT6A Surge Protection - Modular Protection, 4 pair.	SurgeGate	CAT6A-75	Approved Surge Protection required at all Code Blue Emergency Phone Stanchions as well as Telecommunications room at for OSP cabling.		
Cabling - Cameras	**Make**	**Model**	**Notes (all low voltage, see Div 27)**		
Category 6A U/UTP Cable, white jacket, 4 pair count. 2091B GR 4/23 R1000, GigaSPEED X10D	CommScope	760105940	CommScope Interior Ethernet cabling. Please refer to IS&T Design Specifications.		

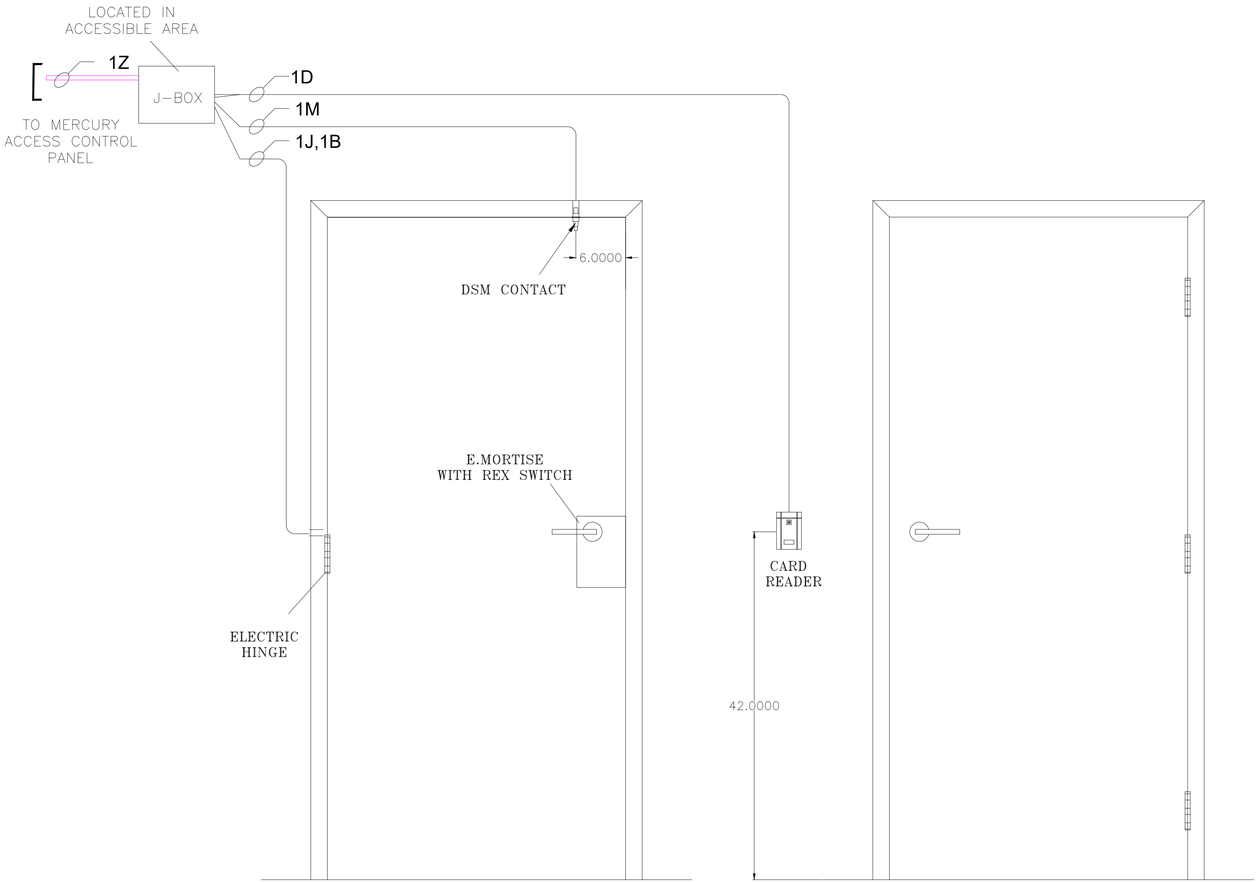
GigaSPEED X10D® MGS600 Series Information Outlet, white.	CommScope	760092429	CommScope Information outlet to be used at end device, terminated in back box. Please refer to IS&T Division 27 Design Specifications		
GigaSPEED X10D® 1100GS6 Evolve Category 6A U/UTP Patch Panel, 24 port. 360-IPR-1100-E-GS6-1U-24, SYSTIMAX 360	CommScope	760152587	CommScope Telecommunication room rack mounted panel. Please refer to IS&T Division 27 Design Specifications		
CommScope Category 6A U/UTP CS44P-IO indoor/outdoor Cable, black jacket, 4 pair count.	CommScope	874036404-10	CommScope INDOOR/OUTDOOR Ethernet cabling to be used for Emergency Phone free standing stanchions		
Intercoms	**Make**	**Model**	**Notes (1 CAT and 1 22/6 per intercom device)**		
Exterior: 2N IP Force w/1 Button and HD Camera	Axis	MFR#: 01337-001|9151101CHW	Part # 952456		
Exterior: Brick Flush Mounting Box	Axis		Part # 9151001		
Exterior: Plasterboard Flush Mounting Box	Axis		Part # 9151002		
Interior: 2N IP Solo with Camera – Flush Mounted	Axis	MFR #01300-001 |9155301CF	Part # 952420		
Interior: 2N IP Solo with Camera – Surface Mounted	Axis	MFR #0130-001 | 9155301CS	Part # 952419		
Interior: 2N IP Solo without Camera – Flush Mounted	Axis	MFR #01300-001 |9155301F	Part # 9155301BF		
Interior: 2N IP Solo without Camera – Surface Mounted	Axis	MFR #0130-001 | 9155301S	Part # 9155301BS		
Intrusion Alarm Devices	**Make**	**Model**	**Notes**		
Bosch Kit (B9512G, B8103, 01640)	Bosch	B9512G-C			
Bosch G Series Intrusion Panel Connection	Bosch	GSC-1AP-Bosch			
Bosch B9512G Panel	Bosch	B9512G	Panel		
12"x12"x6" Nema-1 Enclosure	Hoffman	A12N126	Infrastructure Enclosure for Alarm Panel Power & Tel/Data		
12V 7AH AGM .250 SLA Battery		WKA12-7F2			
8 input module for SD12 Bus	Bosch	B208			
8 relay moduel for SD12	Bosch	B308			
Color Graphic Touch Screen Keypad with Pox (Black)	Bosch	B942			
20'x20' TriTech PIR/MW Tritech Motion detector	Bosch	ISC-BDL2-WP6G	Motion Sensor		
40'x40' TriTech PIR/MW Tritech Motion detector	Bosch	ISC-BDL2-WP12G	Motion Sensor		
60'x80' TriTech PIR/MW Tritech Motion detector	Bosch	ISC-BDL1-W18G	Motion Sensor		
70'x360* passive infrared ceiling mount Motion detecto	Bosch	DS939	Motion Sensor		
3/4" SPST DSM-Door Switch Monitor-Brown	GR	GR-18012WGBR	A7F30058076; 3/4" Recessed PF Cont CC, Brown, Wide Gap		
3/4" SPST DSM-Door Switch Monitor-White	GR	GR-18012WGWH	A7F30065993; 3/4" Recessed PF Cont CC, White, Wide Gap		
SPST Surface Mount Contact	GR	GI-4400A	GRI Wide Gap Surface Contact, Normally Open, Closed Loop		
Radion Pir/Microwave tritech 35ft by 35ft 100lb pet imm	Bosch	FRDL-11-A	Wireless Motion Detecor		
Radion Wireless Receiver SD12 Compatible panels	Bosch	B810			
Door Window Contact - surfact mount	Bosch	RFDW-SM-A			
Universal Transmitter	Bosch	RFUN-A			
Panic Button - Single Button	Bosch	RFPB-SB-A			
Cameras	**Make**	**Model**	**Notes ($250 one-time and annual $350 recurring costs for customers)**		
External PTZ Camera	Axis	Q6075-E PTZ (#01752-004)			
Indoor/Outdoor PTZ	Axis	Q6315-LE 60 Hz (01925-004)			
Indoor/Outdoor Fixed Dome	Axis	Q3538-LVE (02225-001)			
Internal Camera TP3201 Recess Mount Kit	Axis	TP3201 (#01757-001)			
Specialty Camera F41 Main Unit	Axis	F41 (#0658-001)			
Specialty Sensor Unit	Axis	F1005-E (#0676-001)			
Specialty Camera: F8212 Trim Ring for F1005-E/F1035-E	Axis	F8212 Trim Ring (#5507-111)			
T91D61 Wall Mount	Axis	T91D61 (#5507-111)			

T94K01D Pendant Kit	Axis	T94K01D (#5505-081)			
T91B47 Pole Mount	Axis	T91B47 (#01164-001)			
Roof: Pelco, Parapet Rooftop Mount	Pelco	Anixter (#PP451)			
Roof: Pelco, Parapet Rooftop Mount	Pelco	Anixter (#PP450)			
Roof: Use T94K01D Pendant Kit	Axis	T94K01D (#5505-081)			
Emergency Phones Forward Facing Camera	**Make**	**Model**	**Notes**		
Emergency Phone	Code Blue	IP5000			
Emergency Phone Wall Mount (requires 4 CAT-6A and de	Code Blue	**Z0661-12332**	Consists of: • Enclosure/Unit: CB-2e w/PAS • Enclosure Finish: Safety Blue - Clear Coat • Enclosure Graphics Color: White • Enclosure Graphics Wording: Emergency • Phone: IP5000 Single Button w/EMERGENCY Bezel • Phone: Painted & Clear Coated • Power Option: Line Power • Communication Option: Line Communications • Lighting: LED Beacon Strobe • Public Address System		
Emergency Phone Stanchion (requires 6 CAT-6A and ded	Code Blue	MIT's custom part number **Z0657**	Consists of : • Stanchion Unit: CB 1-s w/Dual Faceplates • Stanchion Finish: Safety Blue / Clear Coat • Stanchion Graphics Color: White • Stanchion Graphics Wording: Emergency • Stanchion Second Opening: Blank Plate /Painted Clear Coated • Phone: IP5000 Single Button w/ EMERGENCY Bezel • Phone: Painted/Clear coated • Power Option: Line Power • Communication Option: Line Communications • Lighting: A-700 LED Area Light / LED Beacon Strobe • Vent: Active Vent • Top: PAS System & Overhead Camera Mount S. Blue		
Emergency Phone Forward Facing Camera	**Make**	**Model**	**Notes (Forward Facing Camera Required for Stanchion or Wall Mount)**		
Main Unit	Axis	F41 (0658-001)			
E Sensor Unit	Axis	F1005 (0676-001)			
Trim Ring (pack of 10)	Axis	F8212 (5507-111)			
Emergency Phone PTZ for Stanchion	**Make**	**Model**	**Notes (PTZ camera for Stanchion/Tower Only)**		
PTZ Network Camera	Axis	Q6075-E (01752-004)			
Pendant Kit	Axis	T94A01D (5502-431)	This comes with most Axis mounts but does not come with the Code Blue camera arm and is needed to mount the Q6075 PTZ camera to the Code Blue mount.		

NOTE: For emergency phones, the following component	Stanchion or Wall Mount				
	Forward Facing Camera				
	(For Stanchion only) PTZ Camera				
Access Control Key Management	**Make**	**Model**	**Notes (Forward Facing Camera Required for Stanchion or Wall Mount)**		
Deister	ProxSafe	flex II 12u			



01 MERCURY PANEL WIRING TYPICAL



02 DOOR TYPICAL WIRING

SIEMENS PROPRIETARY INFORMATION

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

1. UNLESS CONCEALED (OR IN BASKET/TRAY) THERE NEEDS TO BE A 1" CONDUIT FROM TRAY OR PANEL TO THE JBOX ABOVE THE DOOR AND IF THERE NO PATHWAYS IN THE WALLS TO THE DOOR, THERE NEEDS TO BE 3/4" CONDUIT FROM THE JBOX TO THE IDENTIFIED LOCATIONS.

2. INFRASTRUCTURE REQUIREMENTS FOR ALL ACCESS CONTROL PANEL INSTALLATIONS INCLUDE NETWORK(4-CAT6A CABLES), 120VAC DEDICATED EMERGENCY POWER, AND ZAM FIRE MODULE (ALL BY OTHERS)

3. 8 – WIRE ELECTRIC TRANSFER HINGE OR VON DUPRIN EPT-10 POWER TRANSFER.

4. ALL ELECTRIFIED LOCKING HARDWARE SHOULD HAVE AN INTEGRATED REX.

5. 4X4 JBOX VERTICAL SINGLE GANG RING FOR READER

6. STANDARD COMPOSITE CABLE TO ALL CARD READER AND MONITOR POINT ALARMED DOORS PLUS AN EXTRA SET OF CONDUCTORS FOR ANY DOOR WITH AN AUTO OPENER

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

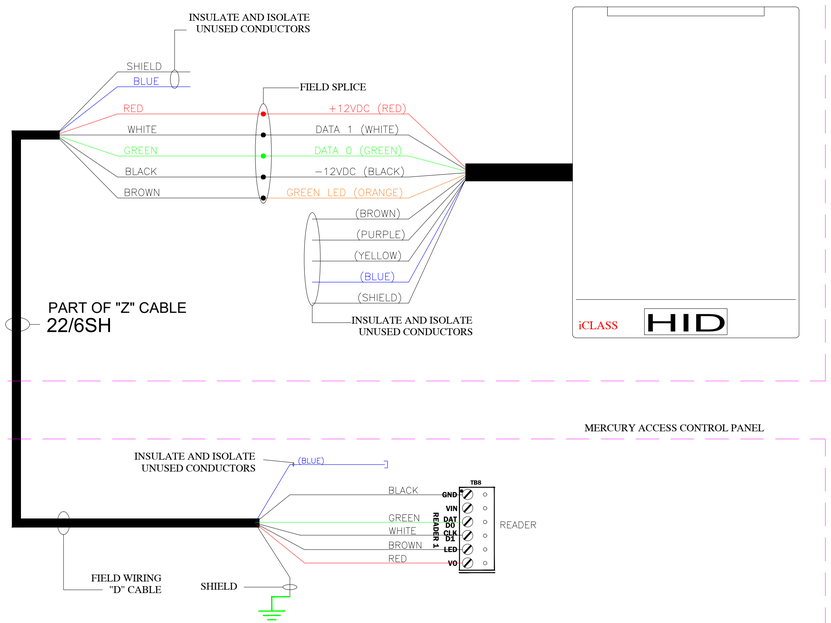
SHEET TITLE
Security System
FPO150/250-3D8P2M8NL4E8M2/P16-A
Pre Wireed Power Supply
For Mercury 16 RDR Panel
Typical Wiring Diagram
With Card Reader Door

APPROVALS		DATE
DRAWN	VB	05.02.22
CHECKED		
ISSUED	VB	05.02.22
Project		
Scale	NTS	

Sheet
SES-500.1

5/2022

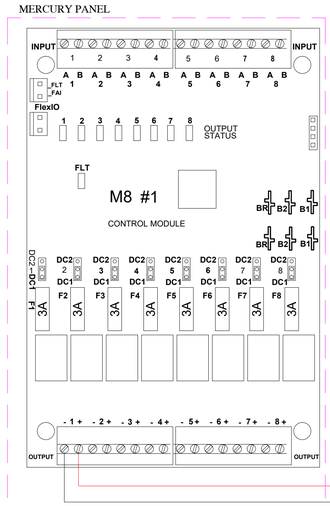
CARD READER R40 WIRING DIAGRAM

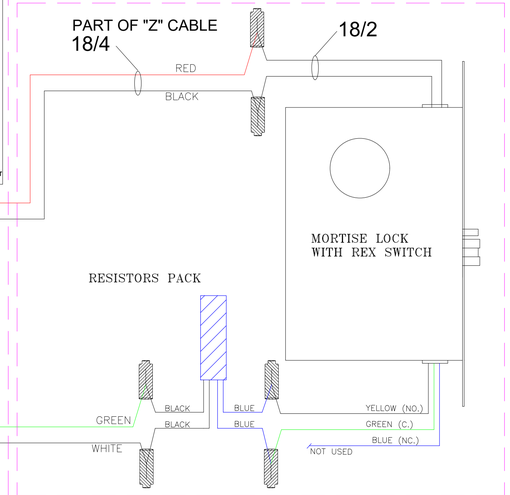


MERCURY ACCESS CONTROL PANEL

01 CARD READER TO MERCURY PANEL

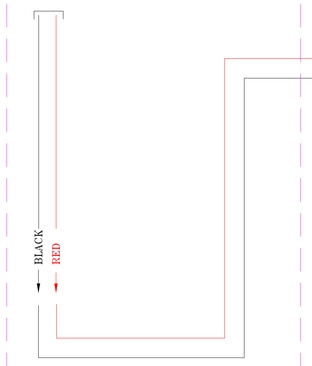
MERCURY PANEL



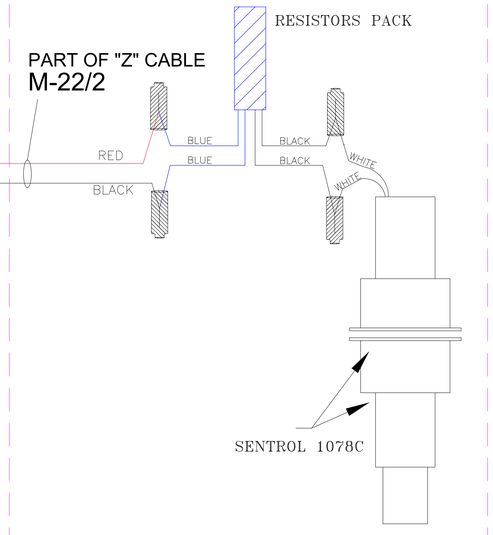


01 CARD READER TO MERCURY PANEL

MERCURY PANEL

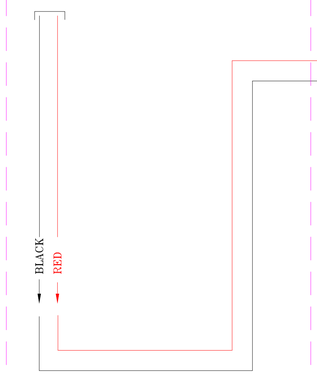


DOOR CONTACT 1078C WIRING DIAGRAM (SINGLE DOOR)

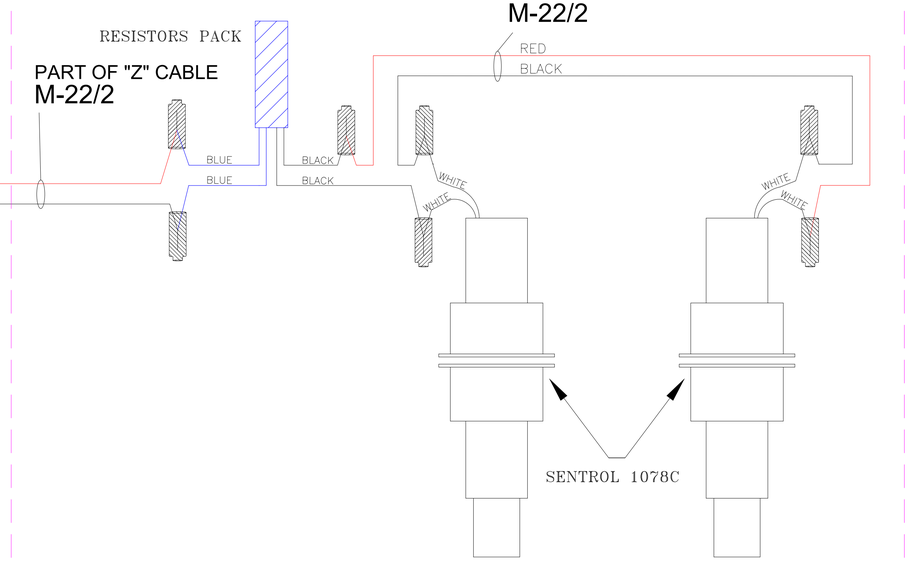


02 DOOR CONTACT TO MERCURY PANEL (SINGLE DOOR)

MERCURY PANEL



DOOR CONTACT 1078C WIRING DIAGRAM (DOUBLE DOOR)



02 DOOR CONTACT TO MERCURY PANEL (DOUBLE DOOR)

SIEMENS PROPRIETARY INFORMATION

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER 120.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

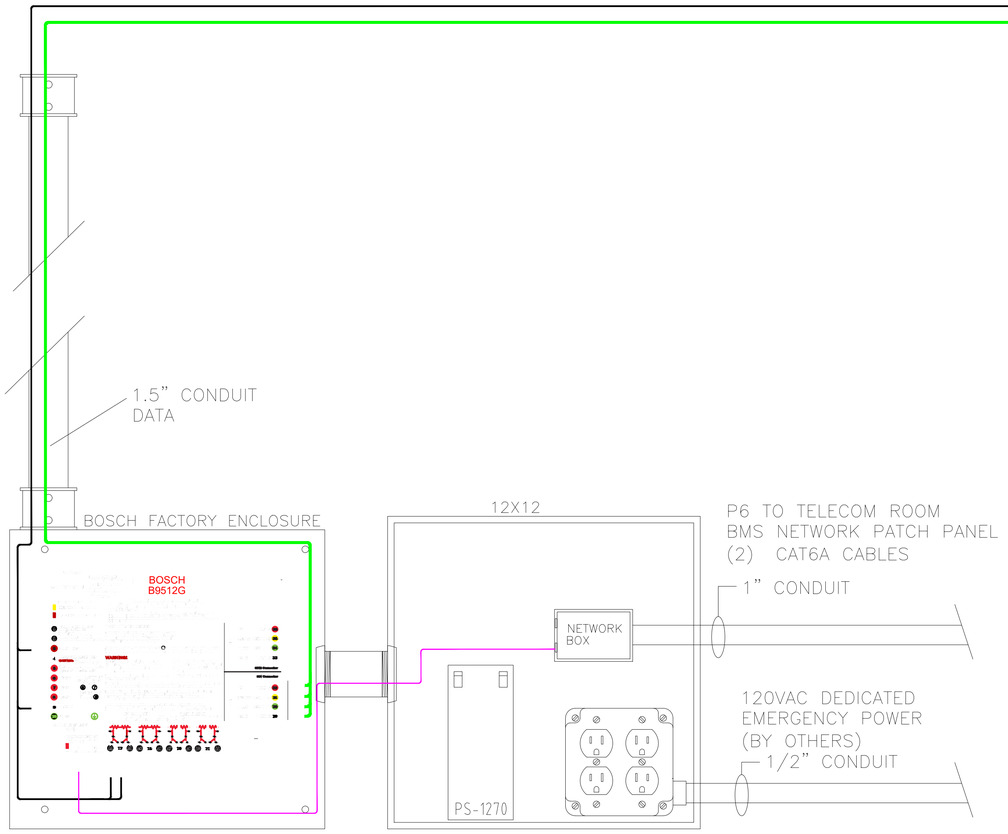
Project Name and Address
MIT

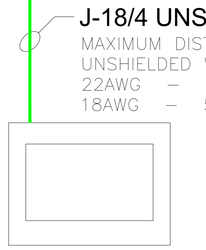
SHEET TITLE
Security System
Device Typical
Wiring Diagram

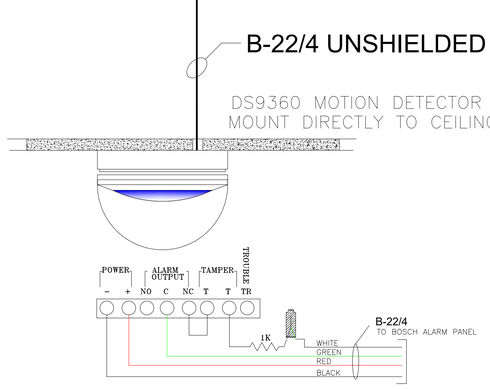
APPROVALS		DATE
DRAWN	VB	05.02.22
CHECKED		
ISSUED	VB	05.02.22
Project		
Scale	NTS	

Sheet
SES-500.2

Z:\US\SESCAD_Jobs_CNNMIT_Site Info_Typicals\MERCURY Typicals.dwg







CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

ALL INFRASTRUCTURE FOR ALL BOSCH FACTORY ENCLOSURES INSTALLATIONS INCLUDE (2– NETWORK CAT6A CABLES) AND 120VAC DEDICATED EMERGENCY POWER.

MIT NETWORK CABLING BY OTHERS; AWARDED TEL/DATA LOW–VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

SHEET TITLE
Security System
Bosch Alarm Control Panel
Wiring Diagram

APPROVALS		DATE
DRAWN	VB	05.02.22
CHECKED		
ISSUED	VB	05.02.22
Project		
Scale	NTS	

Sheet
SES-500.3

SECURITY SYMBOLS

CABLE LEGEND - BELDEN

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023850
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444396-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

SYMBOL LEGEND

- CR — CARD READER PACKAGE
- M — MONITOR POINT
- ACP — ACCESS CONTROL PANEL
- EL — ELECTRIC LOCK
- REX — REQUEST–TO–EXIT
- S — LOCAL SOUNDER

SYMBOL DESCRIPTION

CR — DEVICE SYMBOL AND TYPE
PROXIMITY READER
DOOR# X001 — LOCATION (DOOR, ROOM, OR ELEVATOR)
XXX — SIEMENS LOCATION No.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Industry, Inc.
Building Technologies
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address

MIT

SHEET TITLE

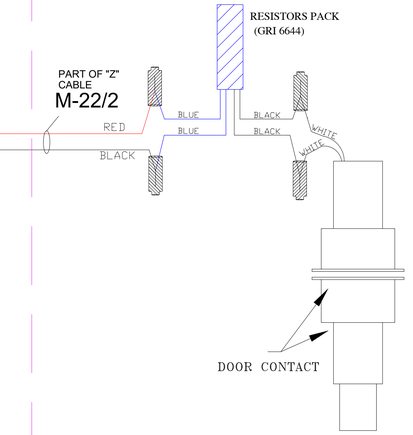
Security System Access System Typical Wiring Diagram

APPROVALS	DATE
DRAWN	
CHECKED	
ISSUED VB	05.02.22
Siemens Project #	
Customer Project #	
Sheet NTS	

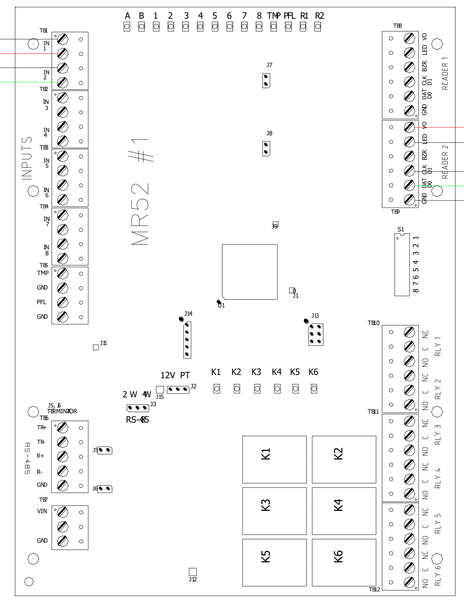
Drawing SES-500.1

MERCURY PANEL WIRING TYPICALS

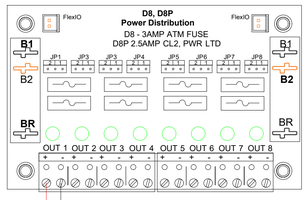
DOOR CONTACT 1078C WIRING DIAGRAM (SINGLE DOOR)



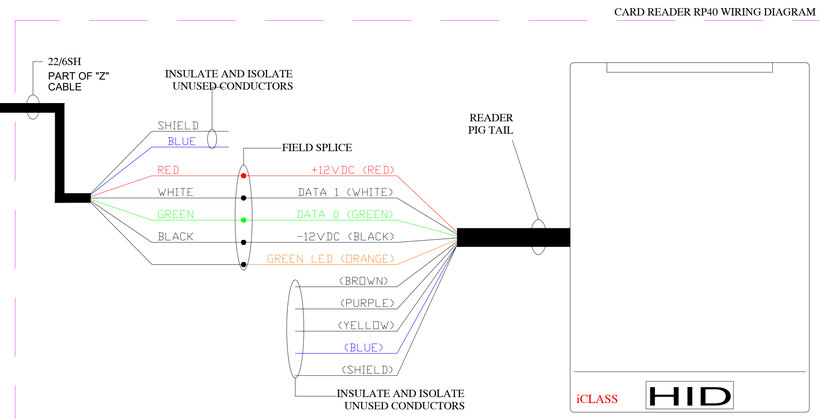
MERCURY ACCESS CONTROL PANEL



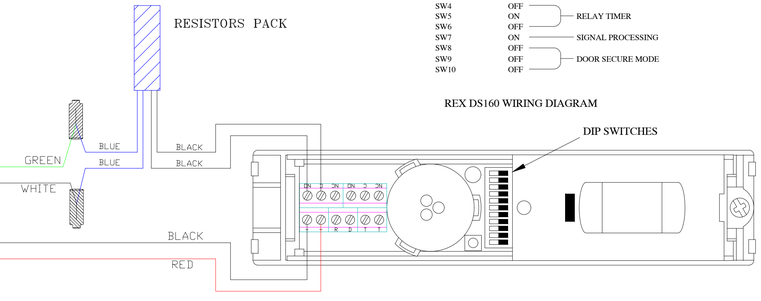
16 AUXILIARY OUTPUTS



CARD READER RP40 WIRING DIAGRAM



REX DS160 WIRING DIAGRAM



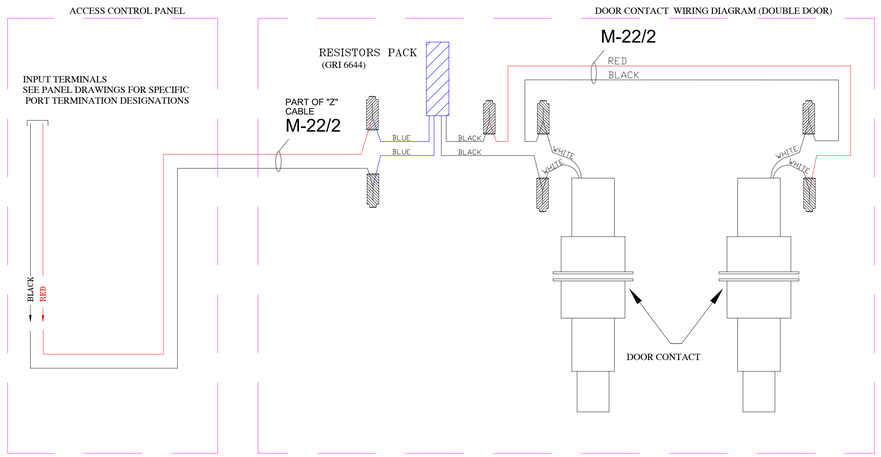
DIP SWITCH SETTINGS FOR DS160 ON STANDARD DOOR

ON = CLOSED
OFF = OPEN

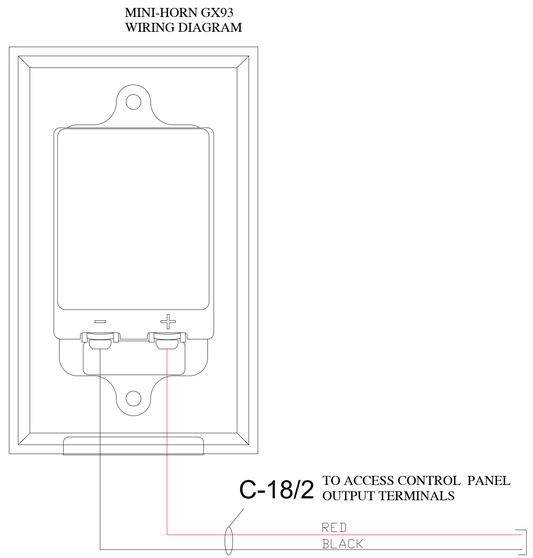
SW1	ON	LED OPERATION
SW2	OFF	TIMER RESET MODE
SW3	ON	RELAY MODE
SW4	OFF	
SW5	ON	RELAY TIMER
SW6	OFF	
SW7	ON	SIGNAL PROCESSING
SW8	OFF	
SW9	OFF	DOOR SECURE MODE
SW10	OFF	

REX DS160 WIRING DIAGRAM

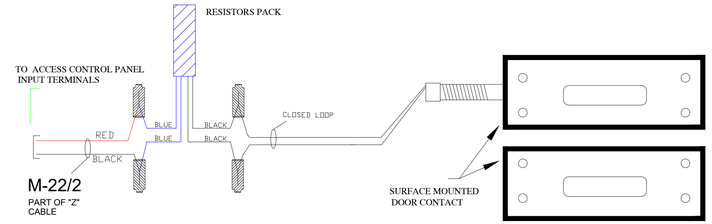
5/2022



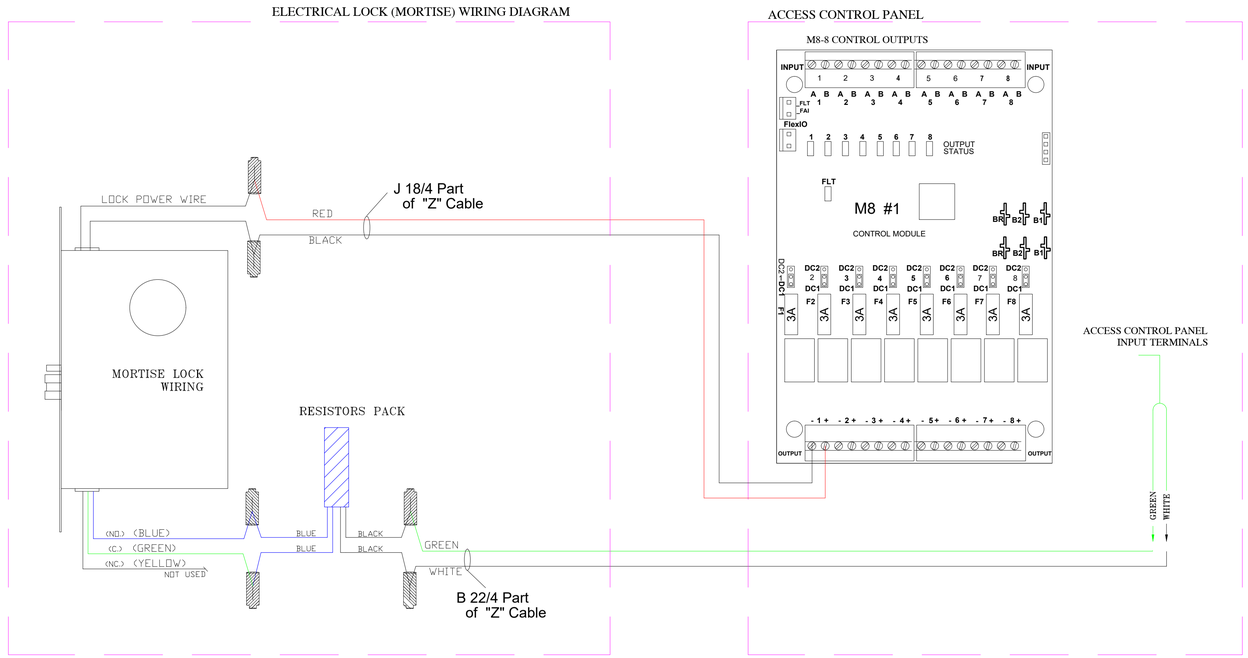
01 DOOR CONTACT (DOUBLE DOOR)



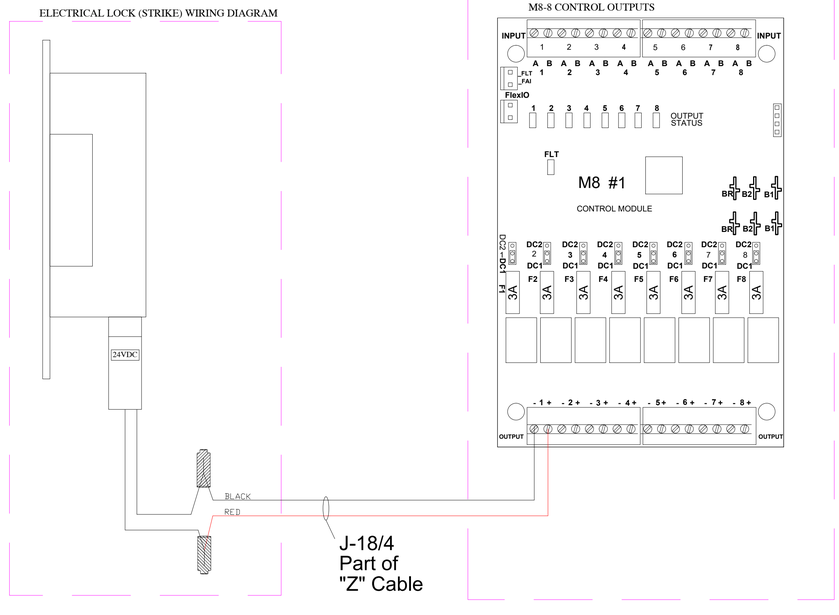
02 GX93 SOUNDER



03 DOOR CONTACT (SURFACE MOUNDER)



04 MORTISE LOCK WITH REX SWITCH



05 E.STRIKE

SECURITY SYMBOLS

CABLE LEGEND - BELDEN

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023850
D	22Awg	6 Cond.SH.(Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043850
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

SYMBOL LEGEND

CR	CARD READER PACKAGE
M	MONITOR POINT
ACP	ACCESS CONTROL PANEL
EL	ELECTRIC LOCK
REX	REQUEST-TO-EXIT
S	LOCAL SOUNDER

SYMBOL DESCRIPTION

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Industry, Inc.
Building Technologies
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address

MIT

SHEET TITLE

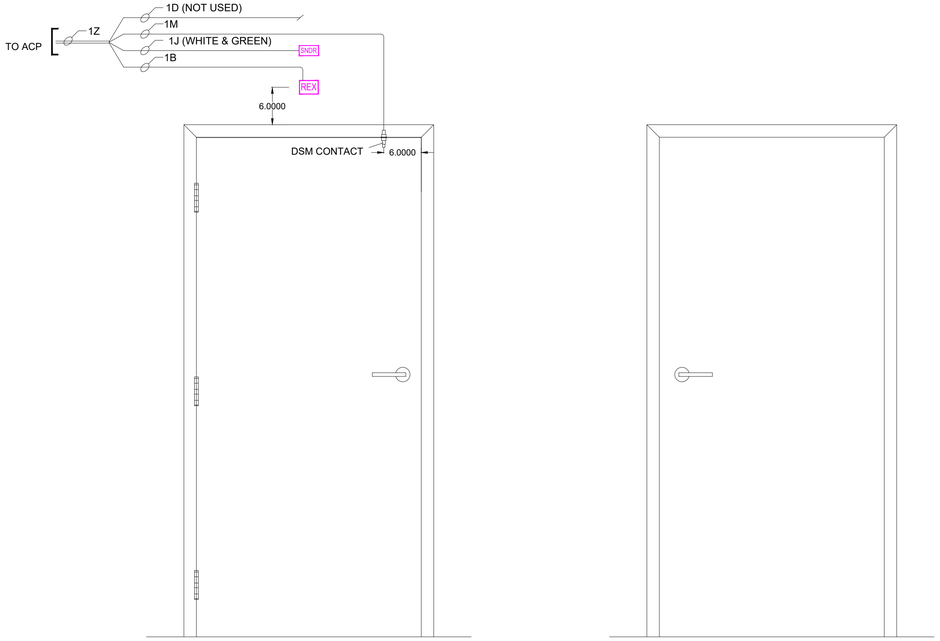
Security System
Access System
Typical Wiring Diagram

APPROVALS	DATE
DRAWN	
CHECKED	
ISSUED VB	05.02.22
Siemens Project #	
Customer Project #	
Sheet NTS	

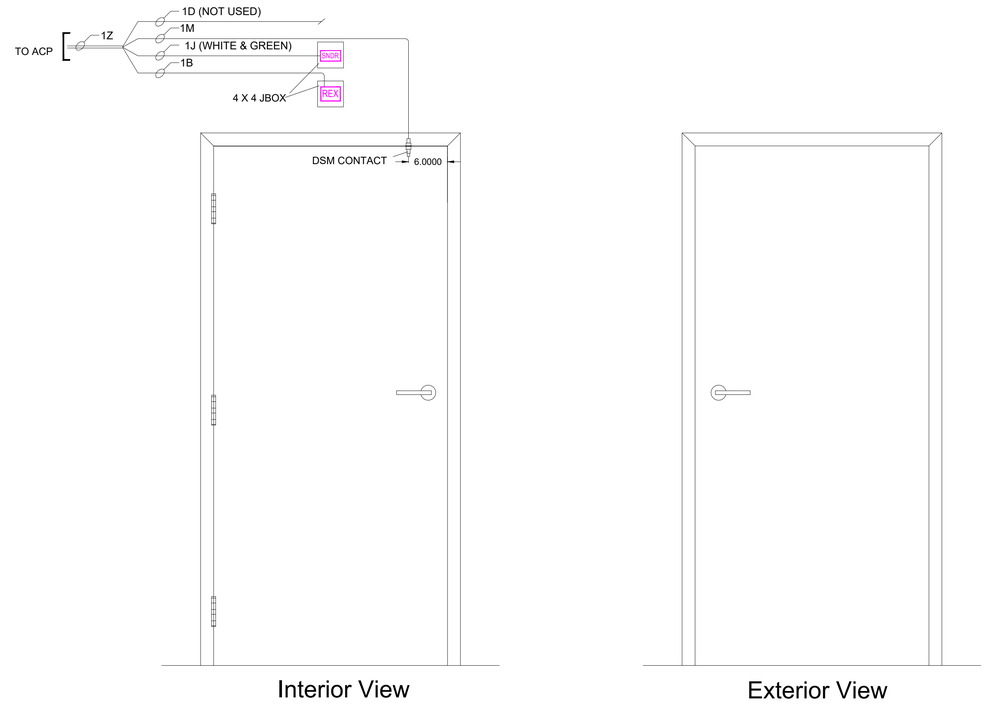
Drawing

SES-500.2

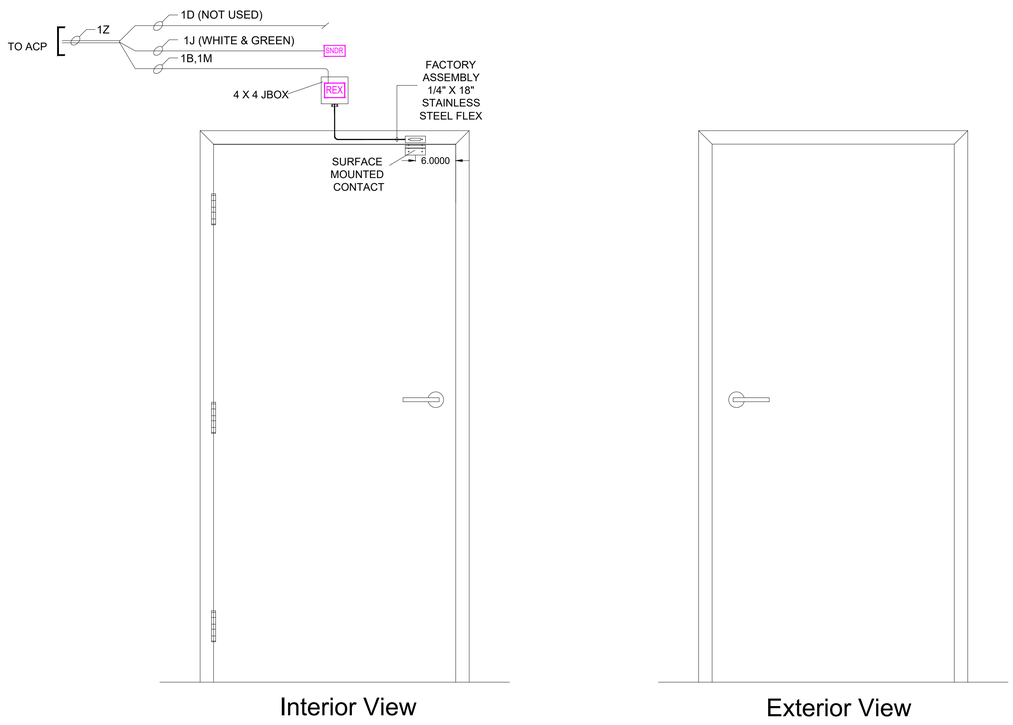
Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Access System Typical).dwg



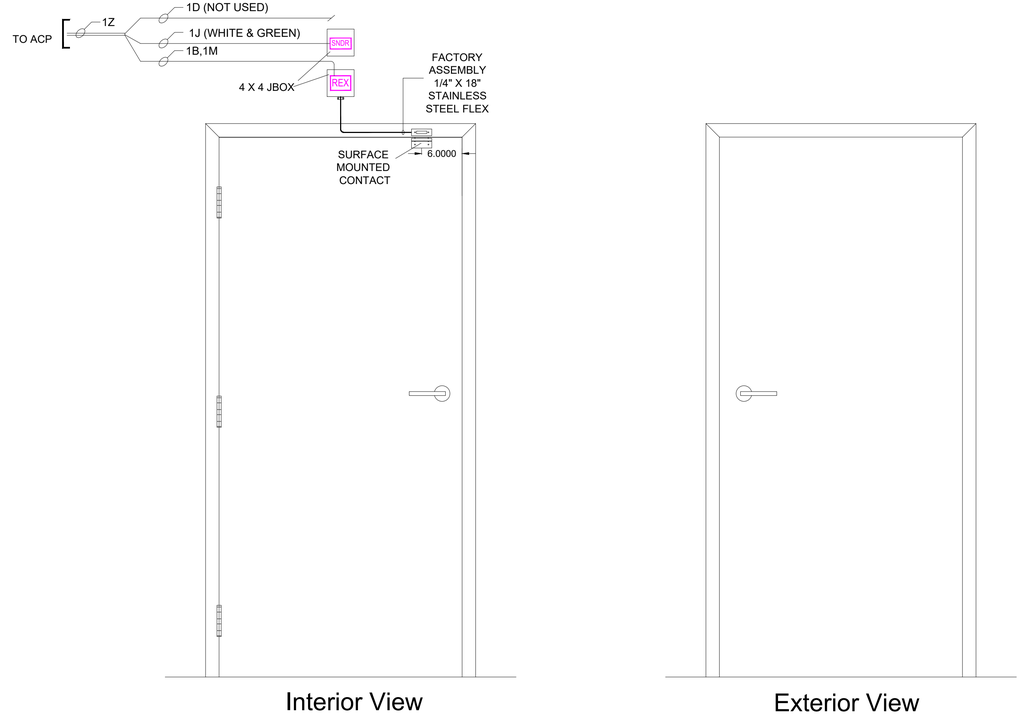
01 SINGLE DOOR w/FLUSH CONTACT, LOCAL SOUNDER AND REX PIR IN THE WALL WIRING LAYOUT



02 SINGLE DOOR w/FLUSH CONTACT, LOCAL SOUNDER AND REX PIR ON THE J-BOX WIRING LAYOUT



03 SINGLE DOOR w/SURFACE CONTACT, LOCAL SOUNDER AND REX PIR IN THE WAL WIRING LAYOUTL



04 SINGLE DOOR w/SURFACE CONTACT, LOCAL SOUNDER AND REX PIR ON HTE J-BOX WIRING LAYOUT

SECURITY SYMBOLS

CABLE LEGEND - BELDEN

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

LEGEND

- CR — CARD READER PACKAGE
- M — MONITOR POINT
- ACP — ACCESS CONTROL PANEL
- SNDR — LOCAL SOUNDER
- CX — CHEXIT DELAYED EGRESS CRASH BAR
- ADO — AUTOMATIC DOOR PACKAGE
- PB — PUSH BUTTON
- REX — REQUEST-TO-EXIT

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

Project Name and Address

MIT

SHEET TITLE

Security System
Door Typicals
Single Monitor Point Door
Wiring Layout

APPROVALS		DATE
DRAWN	VB	05.03.22
CHECKED		
ISSUED	VB	05.03.22
Project		
Scale	NTS	

Sheet

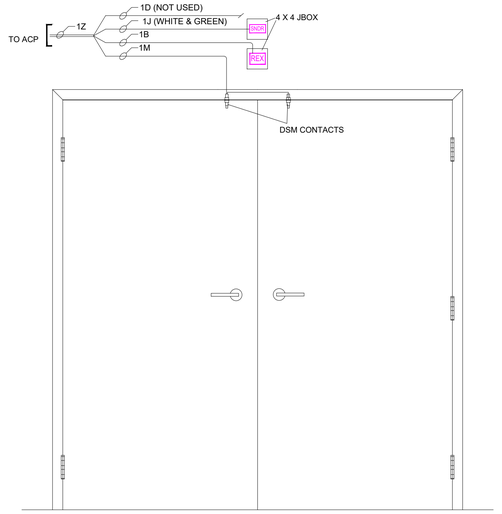
SES-500.1

Interior View

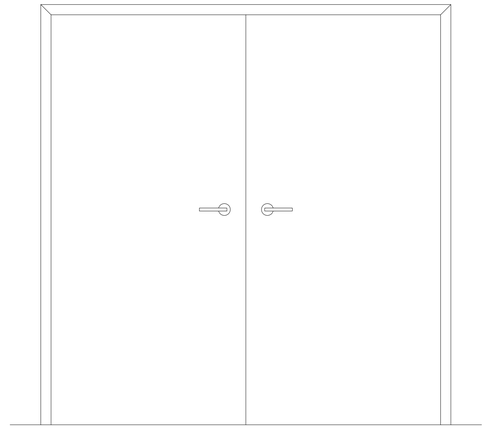
Exterior View

DOUBLE DOOR w/FLUSH CONTACTS, LOCAL SOUNDER AND REX PIR IN THE WALL WIRING LAYOUT

01



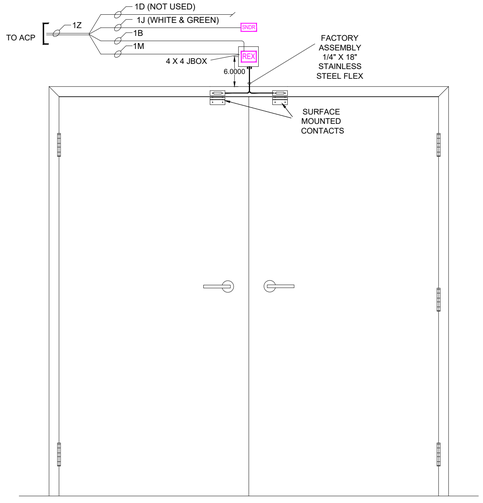
Interior View



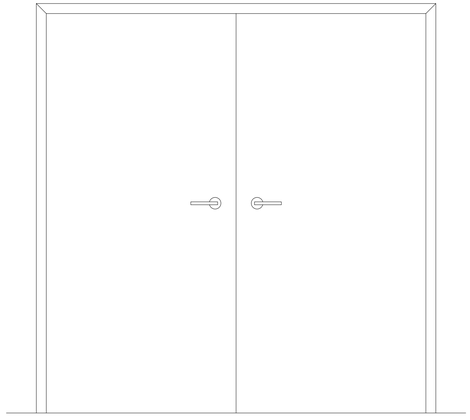
Exterior View

DOUBLE DOOR w/FLUSH CONTACTS, LOCAL SOUNDER AND REX PIR ON THE J-BOX WIRING LAYOUT

02



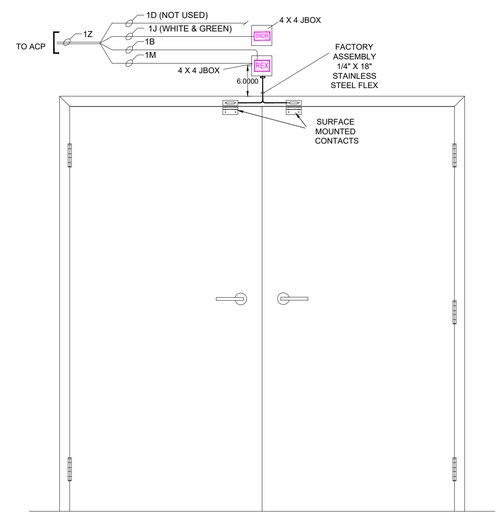
Interior View



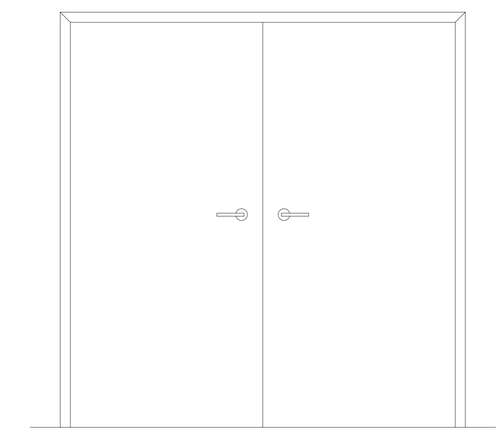
Exterior View

DOUBLE DOOR w/SURFACE CONTACTS, LOCAL SOUNDER AND REX PIR IN THE WALL WIRING LAYOUT

03



Interior View



Exterior View

DOUBLE DOOR w/SURFACE CONTACTS, LOCAL SOUNDER AND REX PIR ON THE J-BOX WIRING LAYOUT

04

SECURITY SYMBOLS

CABLE LEGEND - BELDEN

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

LEGEND

- CR — CARD READER PACKAGE
- M — MONITOR POINT
- ACP — ACCESS CONTROL PANEL
- SNDR — LOCAL SOUNDER
- CX — CHEXIT DELAYED EGRESS CRASH BAR
- ADO — AUTOMATIC DOOR PACKAGE
- PB — PUSH BUTTON
- REX — REQUEST-TO-EXIT

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

Project Name and Address

MIT

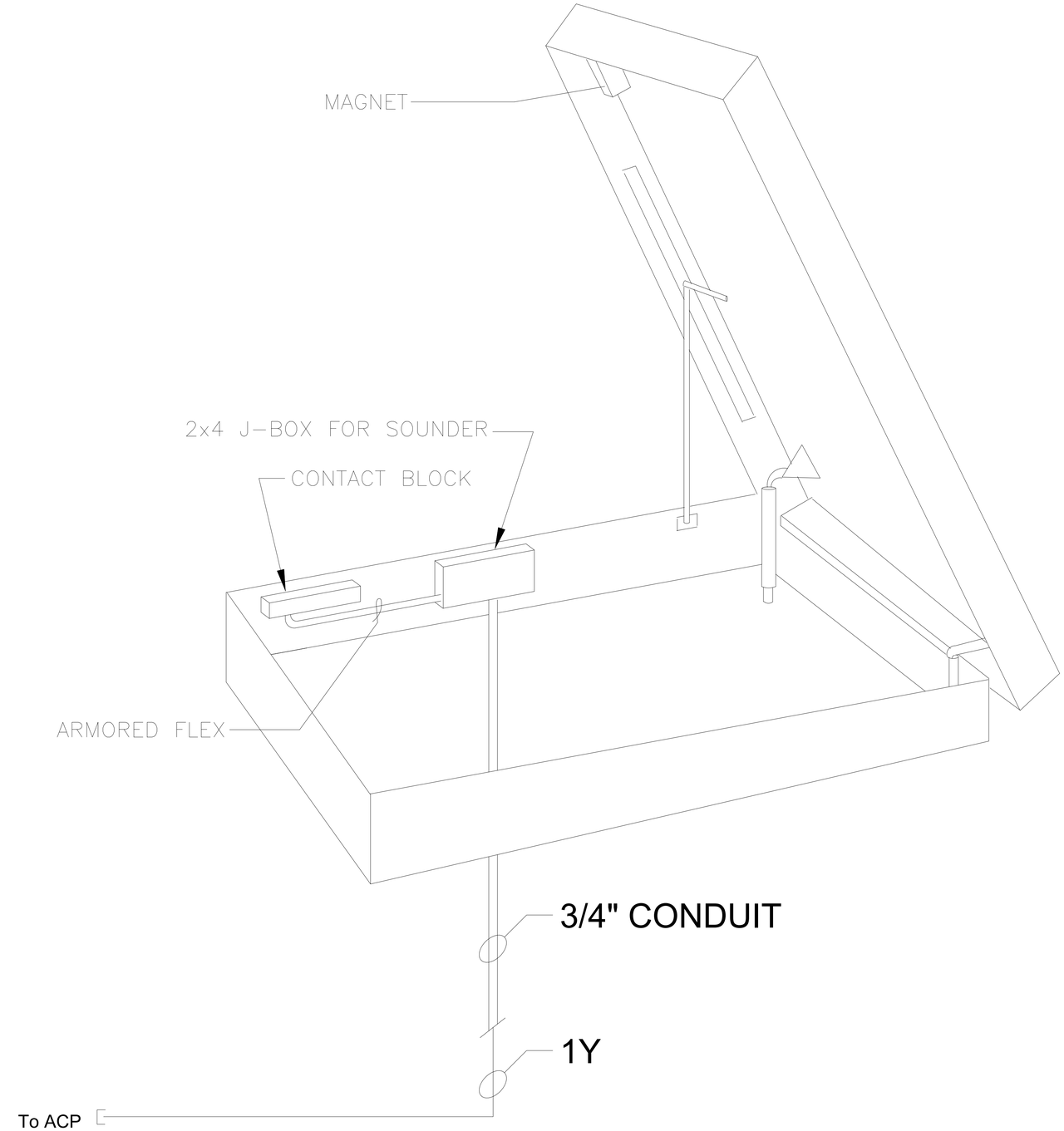
SHEET TITLE

Security System
Door Typicals
Double Monitor Point Door
Wiring Layout

APPROVALS		DATE
DRAWN	VB	05.03.22
CHECKED		
ISSUED	VB	05.03.22
Project		
Scale	NTS	

Sheet

SES-500.2



SECURITY SYMBOLS

CABLE LEGEND - BELDEN

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

LEGEND

- CR — CARD READER PACKAGE
- M — MONITOR POINT
- ACP — ACCESS CONTROL PANEL
- SNDR — LOCAL SOUNDER
- CX — CHEXIT DELAYED EGRESS CRASH BAR
- ADO — AUTOMATIC DOOR PACKAGE
- PB — PUSH BUTTON
- REX — REQUEST-TO-EXIT

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

Project Name and Address

MIT

SHEET TITLE

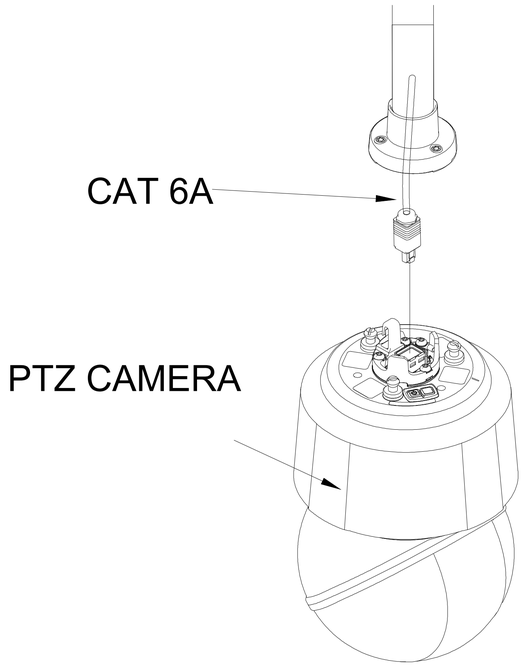
Security System
Door Typicals
Roof Hatch Wiring Layout

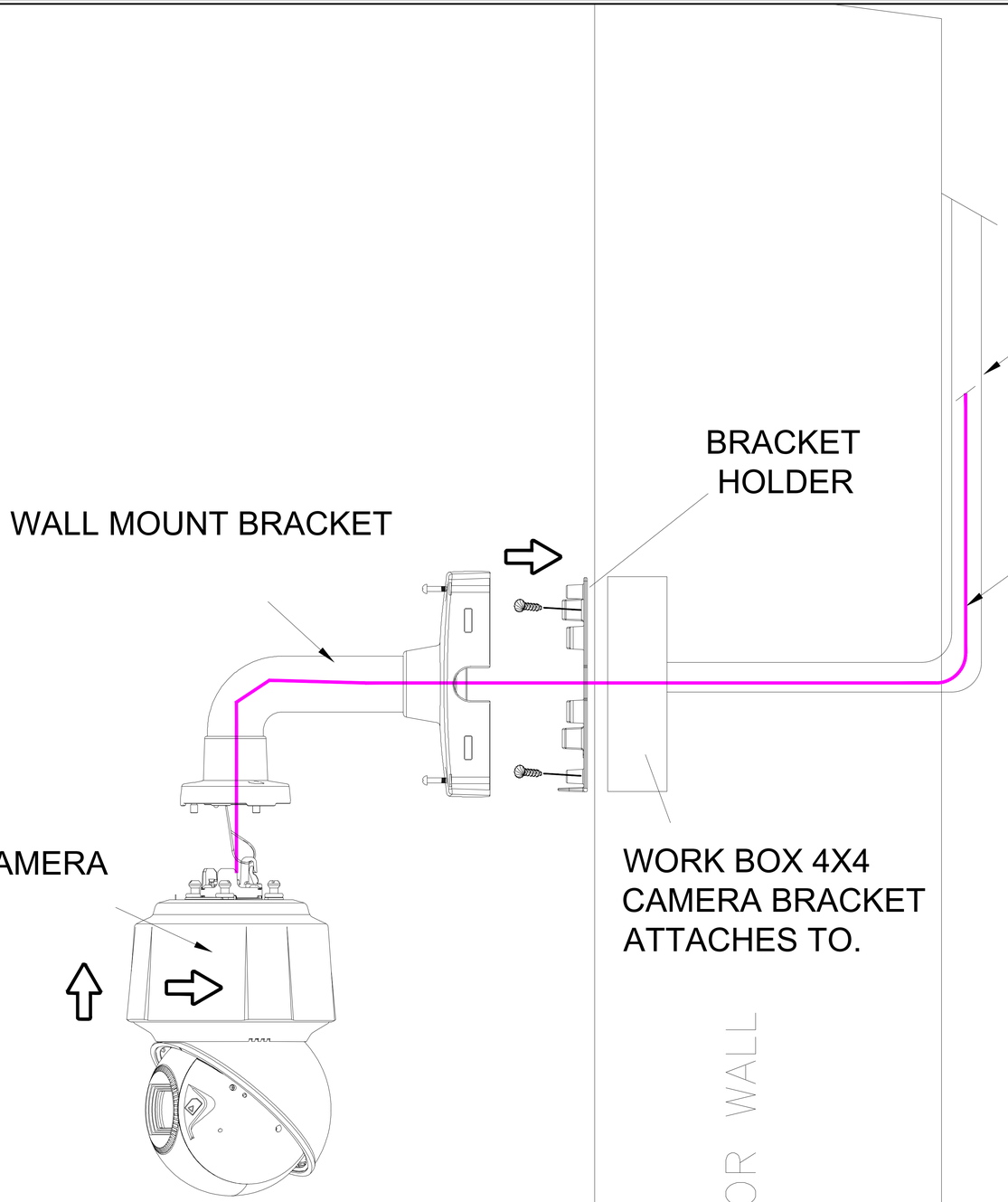
APPROVALS		DATE
DRAWN	VB	05.03.22
CHECKED		
ISSUED	VB	05.03.22
Project		
Scale	NTS	

Sheet

SES-500.3

5/4/2022





SIDE VIEW

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

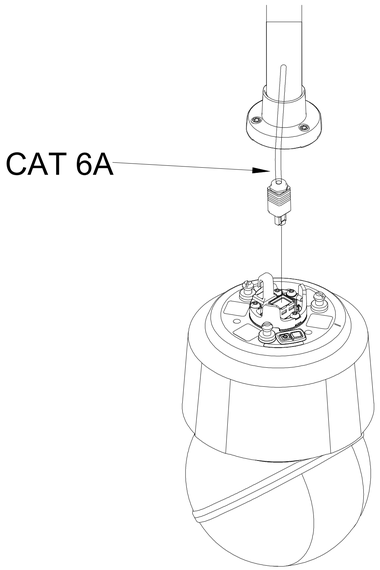
Project Name and Address
MIT

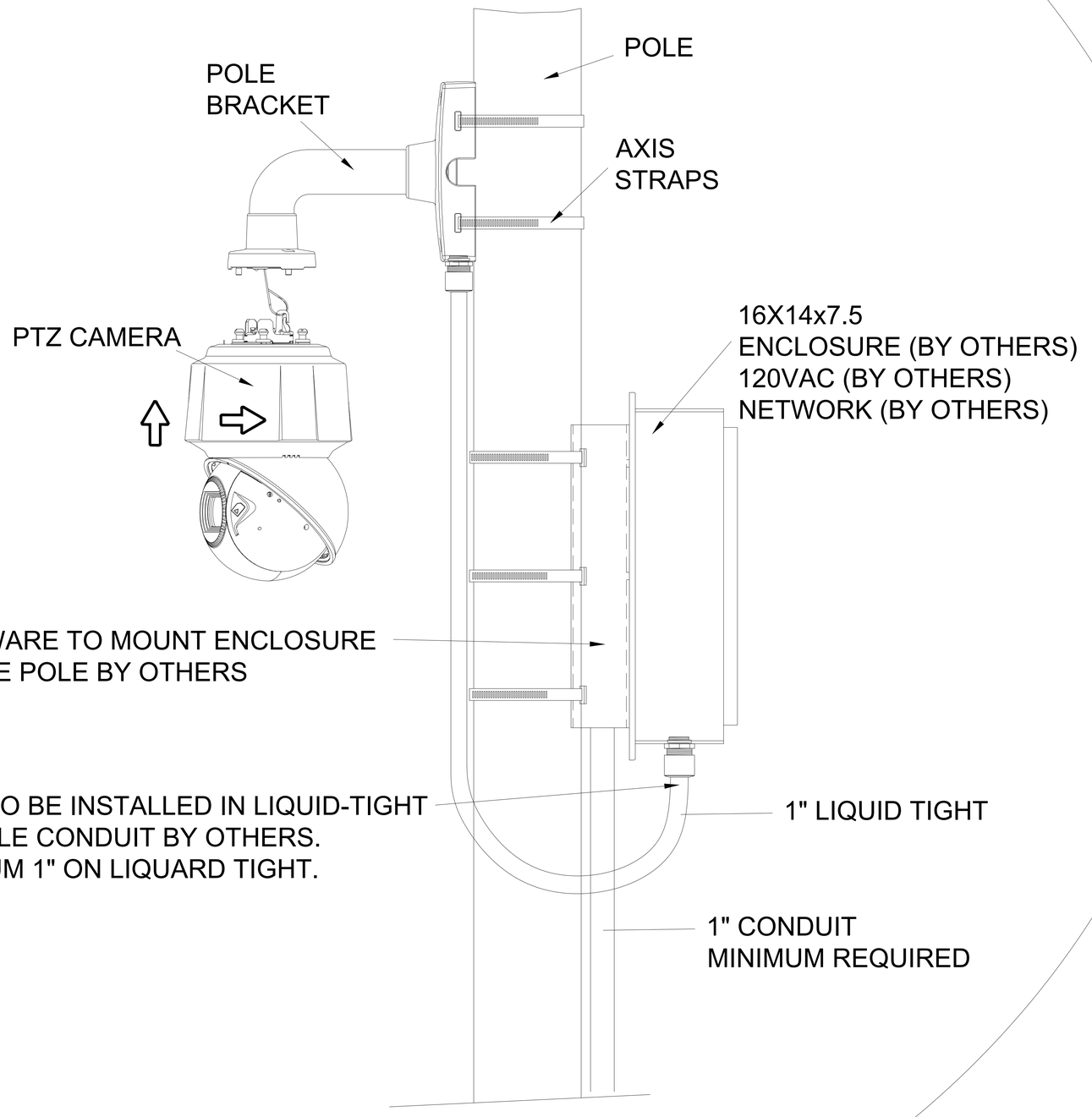
SHEET TITLE
Security System
Device Typicals
Axis Q6075-E PTZ Camera

APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.1

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg





CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

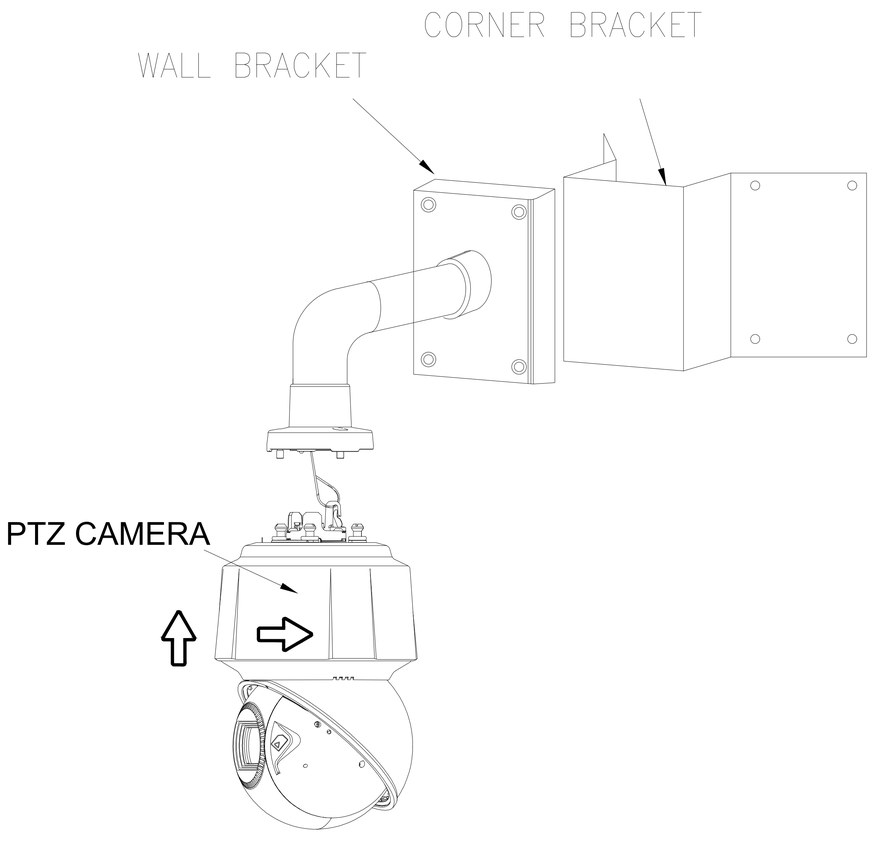
Project Name and Address
MIT

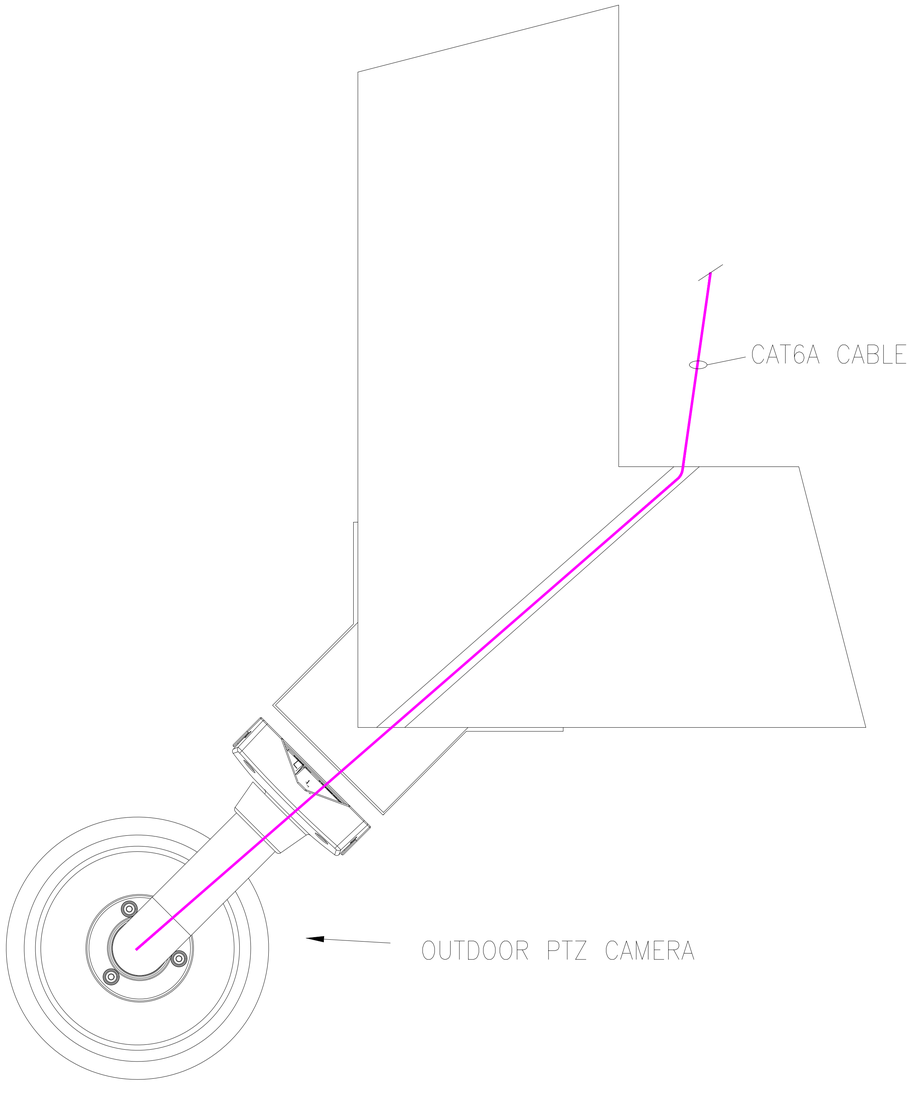
SHEET TITLE
Security System
Device Typicals
Axis Q6075-E PTZ Camera

APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.2

5/16/22





CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

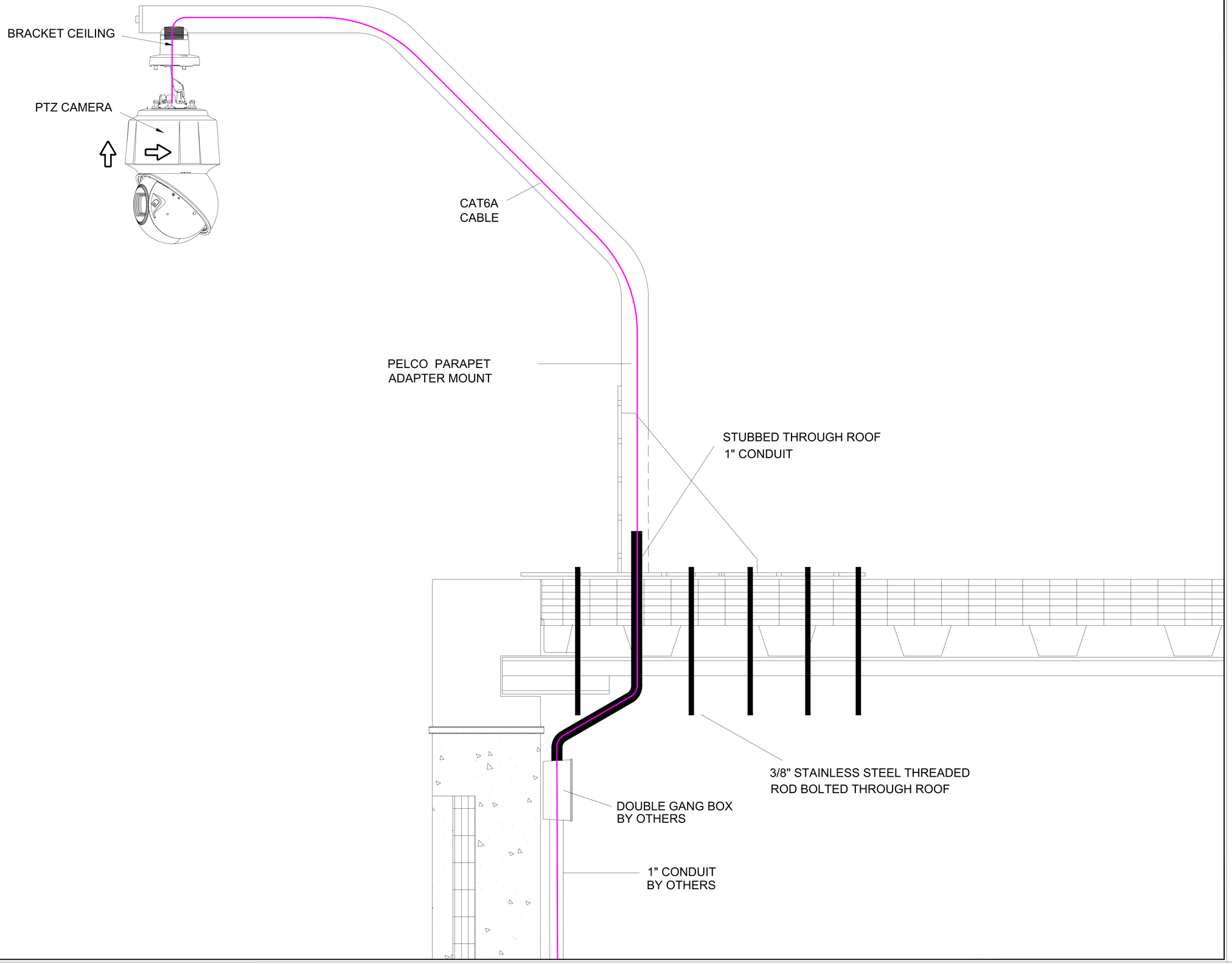
Project Name and Address
MIT

SHEET TITLE
Security System
Device Typicals
Axis Q6075-E PTZ Camera

APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.3

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg



CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-3590

Project Name and Address
MIT

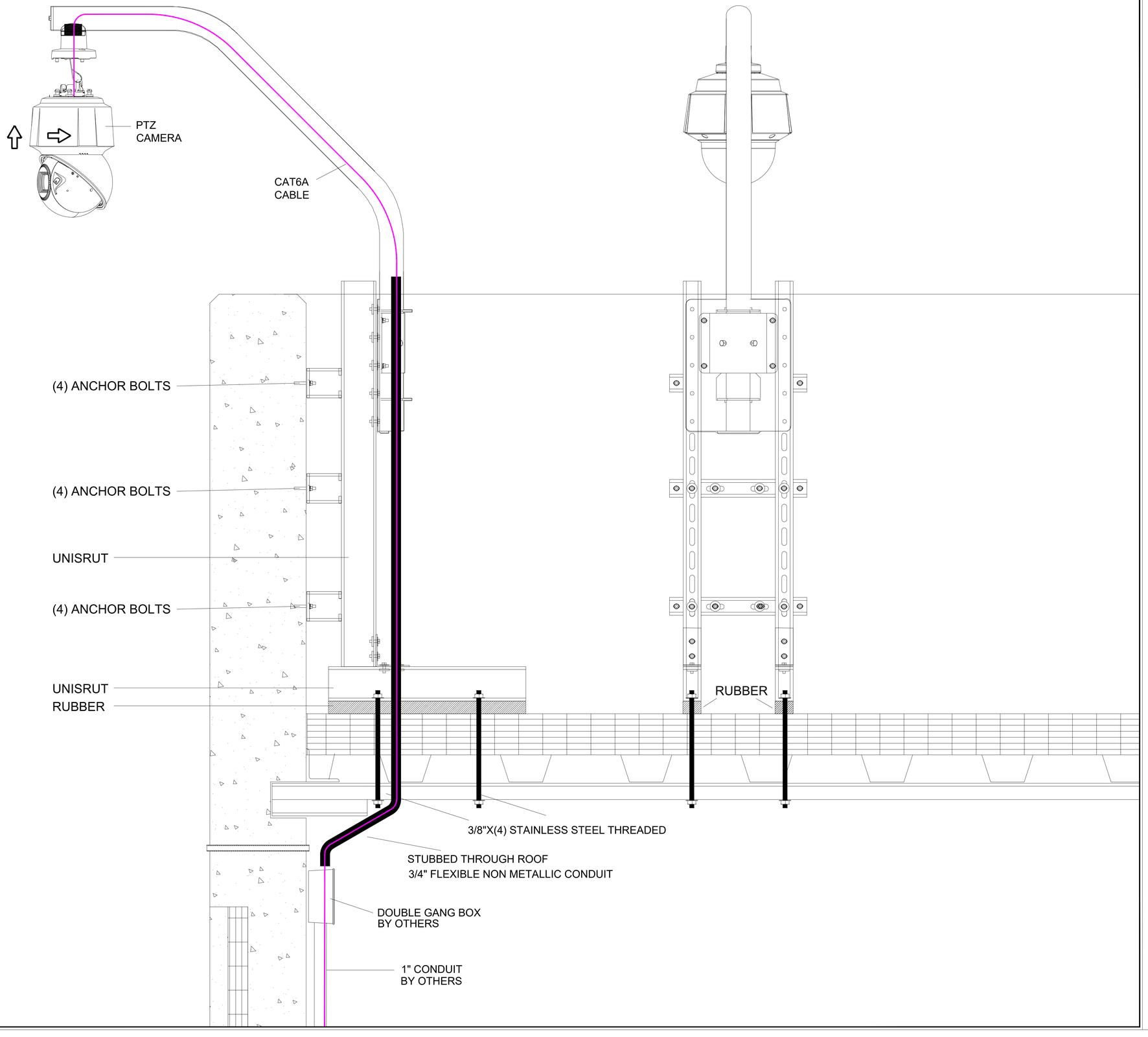
SHEET TITLE
Security System
Device Typicals
Axis Q6075-E PTZ Camera

APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.4

5/4/2022

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg



CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

SHEET TITLE
Security System
Device Typicals
Axis Q6075-E PTZ Camera

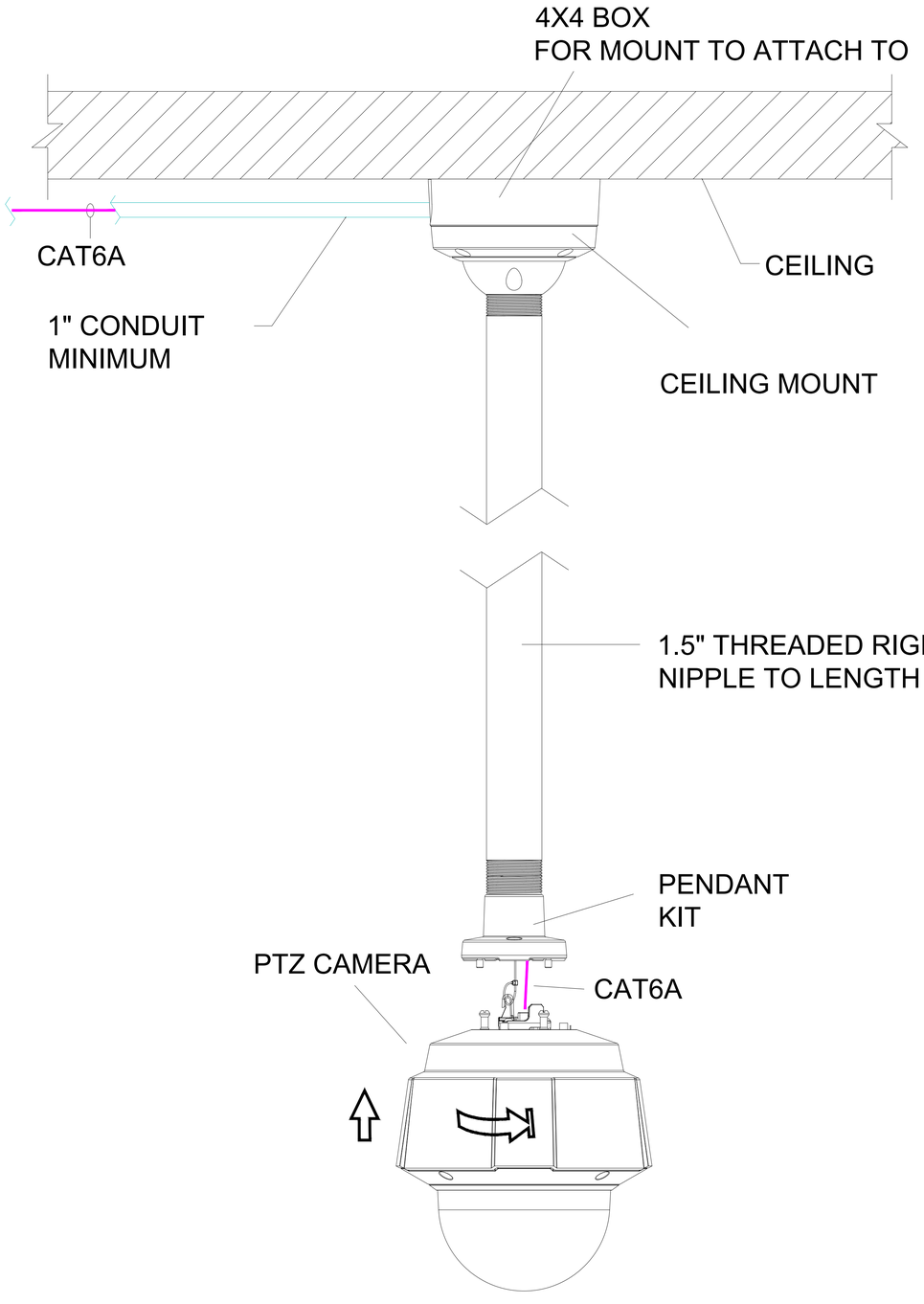
APPROVALS	DATE
DRAWN VB	
CHECKED	
ISSUED VB	
Project	
Sheet NTS	

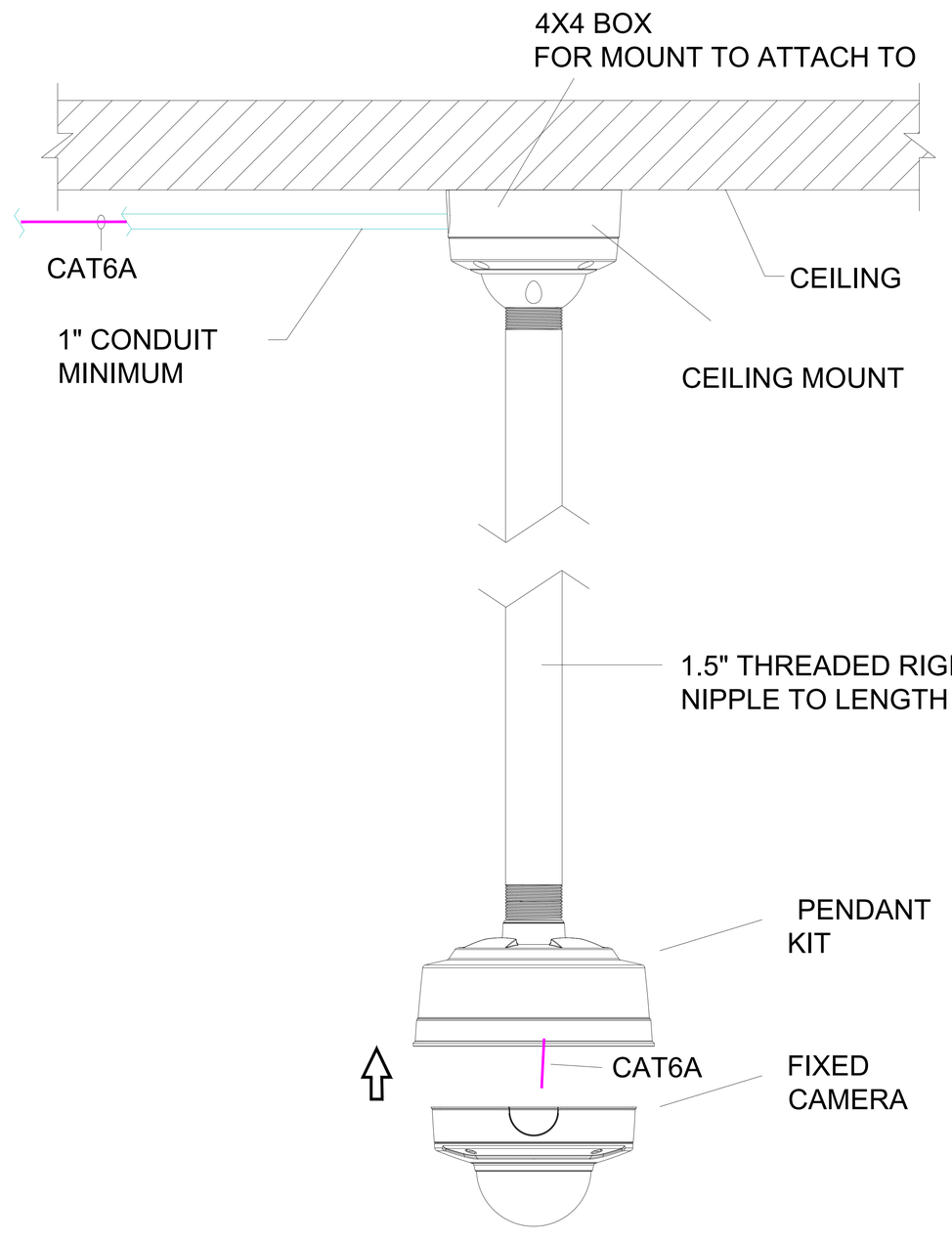
Drawing
SES-500.5

5/16/22

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg

5/1/2022





CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

SHEET TITLE
Security System
Device Typicals
Axis Q6075E & Q3538-LV
Pendant Mounted

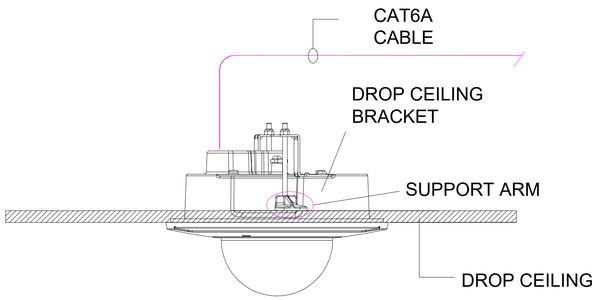
APPROVALS		DATE
DRAWN	VB	----
CHECKED		
ISSUED	VB	----
Project		
Sheet	NTS	

Drawing
SES-500.6

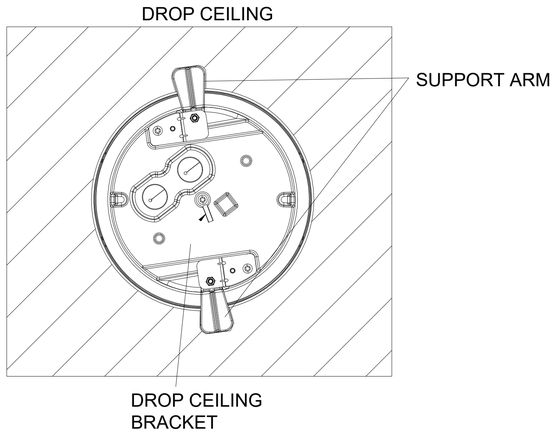
Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg

5/4/2022

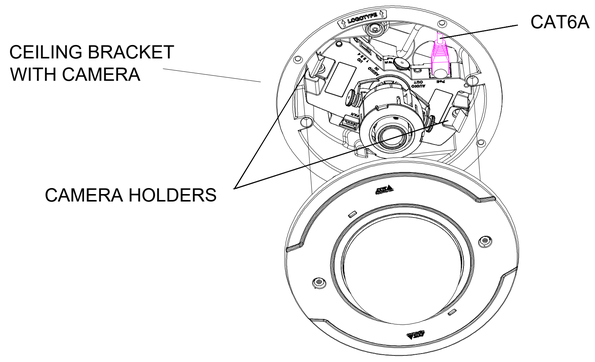
FIXED CAMERA
CEILING MOUNTED SIDE VIEW



FIXED CAMERA
CEILING MOUNTED TOP VIEW



FIXED CAMERA
CEILING MOUNTED BOTTOM VIEW



CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

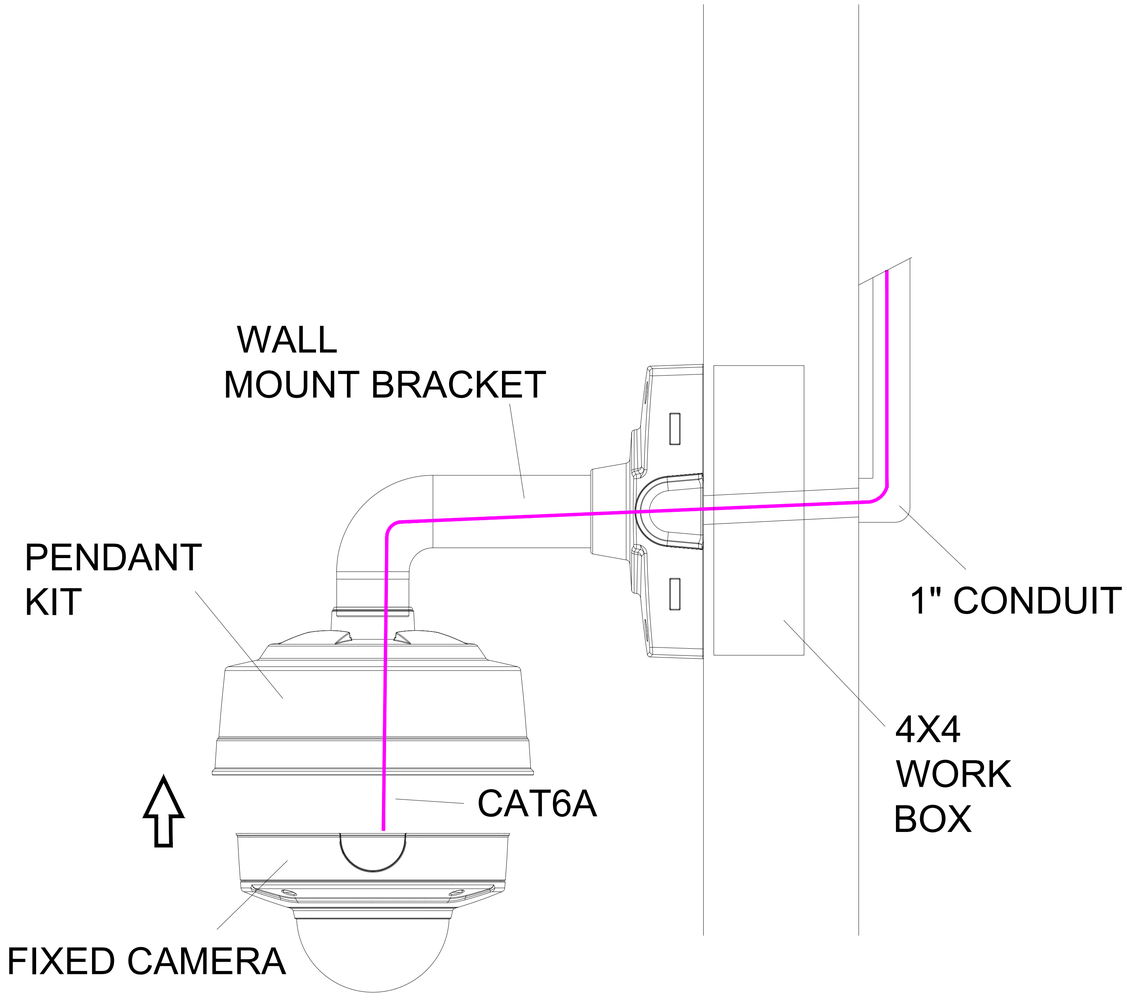
Project Name and Address
MIT

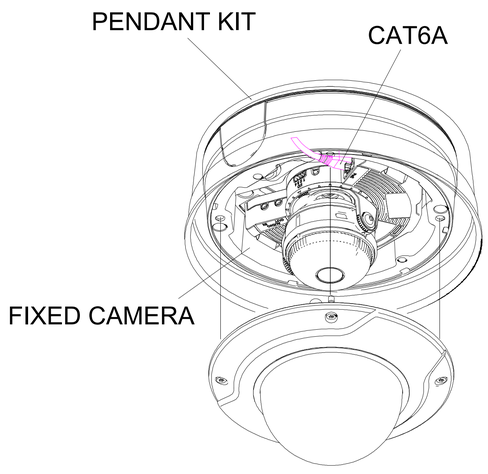
SHEET TITLE
Security System
Device Typicals
Axis Q3538-LV
Ceiling Mounted

APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.7

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg





CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

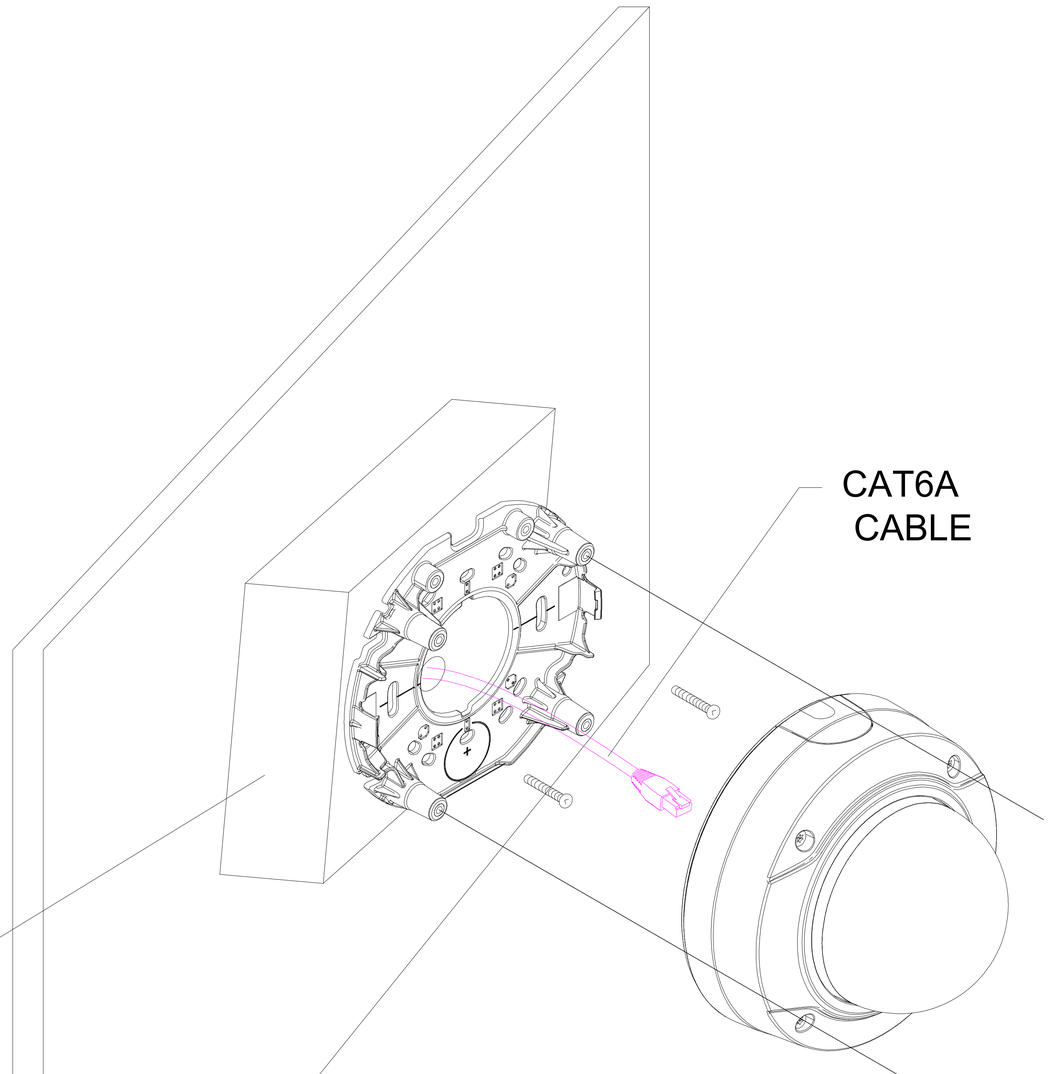
Project Name and Address
MIT

SHEET TITLE
Security System
Device Typicals
Axis Q3538-LVE
Wall Mounted

APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.8

5/4/2022



FIXED CAMERA
WALL & CEILING MOUNT
TYPICAL

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

INFRASTRUCTURE FOR AXIS CAMERAS INSTALLATIONS INCLUDE
(1 NETWORK CAT6A CABLE)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSTITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

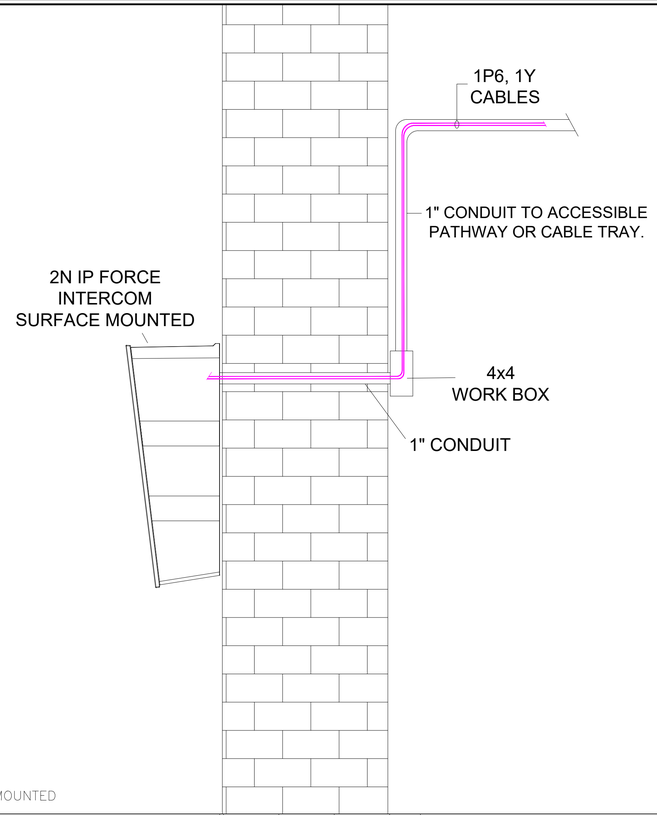
Project Name and Address
MIT

SHEET TITLE
Security System
Device Typicals
Axis Q3538-LVE
Wall & Ceiling Mounted

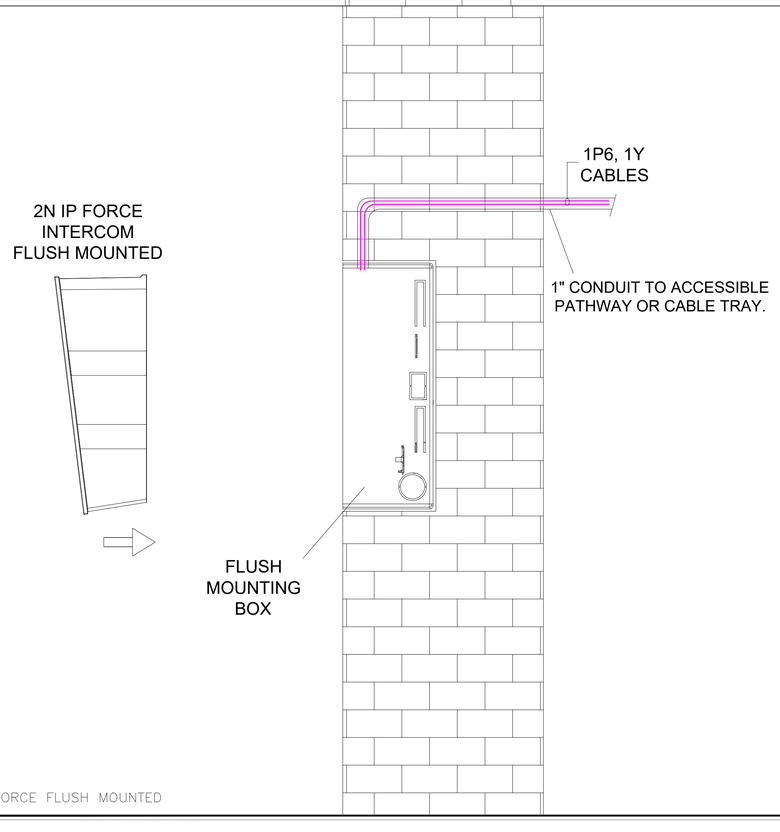
APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	05.04.22
Project		
Sheet	NTS	

Drawing
SES-500.9

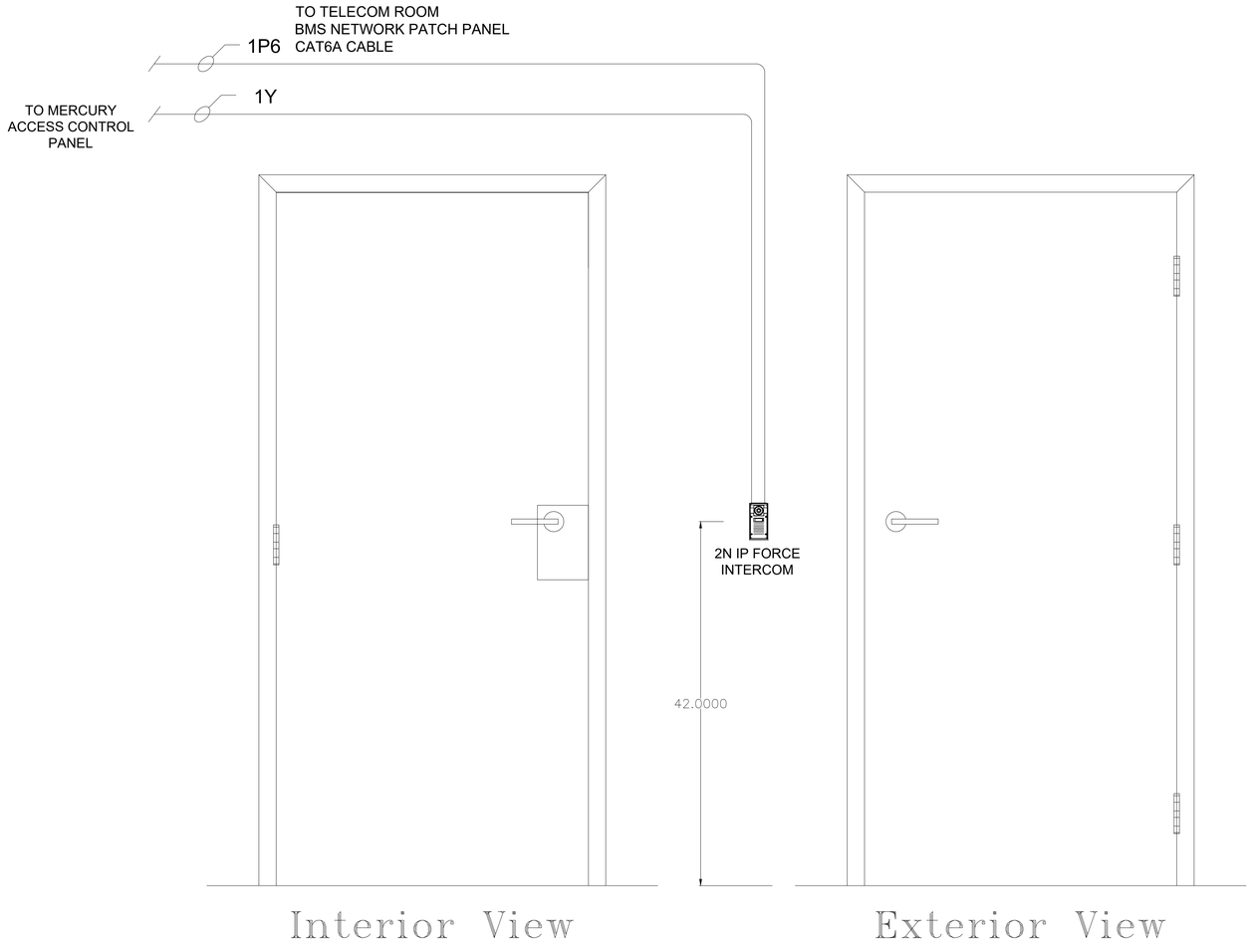
Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\SES-500(Axis Typical).dwg



01 2N IP FORCE SURFACE MOUNTED



01 2N IP FORCE FLUSH MOUNTED



02 2N IP FORCE INTERCOM DOOR TYPICAL WIRING

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

ALL INFRASTRUCTURE FOR ALL 2N INTERCOM INSTALLATIONS INCLUDE
(2– NETWORK CAT6A CABLES)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW–VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDATDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

SHEET TITLE
Security System
2N IP Force Intercom Installation Typical

APPROVALS	DATE
DRAWN VB	04.25.22
CHECKED	
ISSUED VB	04.25.22
Project	
Scale NTS	

Sheet
SES-500.1

5/2022

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\2N Intercom.dwg

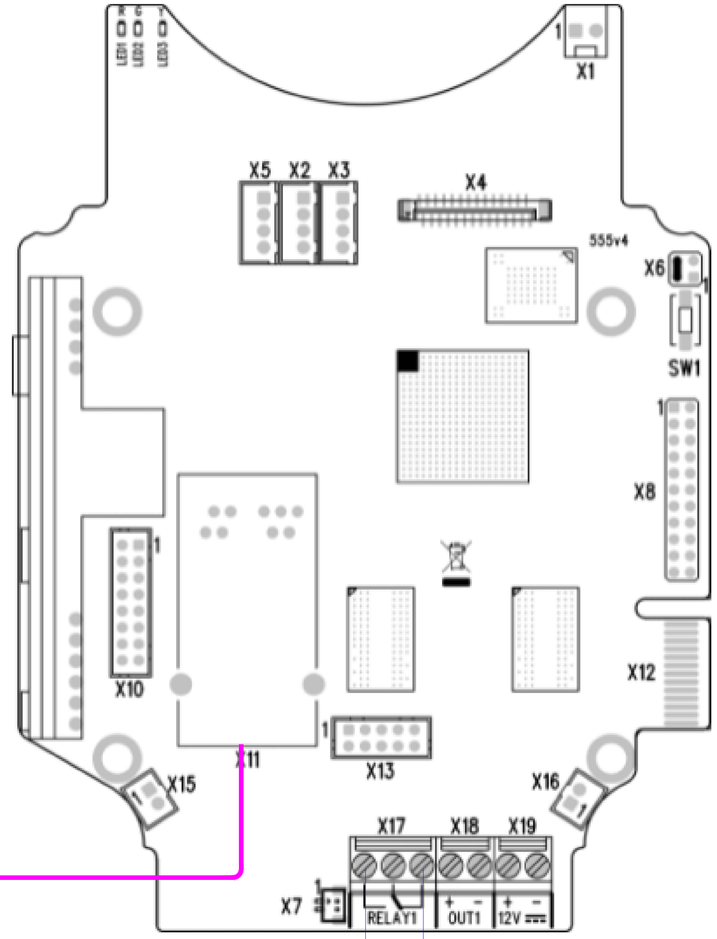
CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

ALL INFRASTRUCTURE FOR ALL 2N INTERCOM INSTALLATIONS INCLUDE
(2– NETWORK CAT6A CABLES)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW–VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDATDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS



TO TELECOM ROOM
BMS NETWORK PATCH PANEL
CAT6A CABLE

1P6

MERCURY INPUT TERMINALS
SEE PANEL DRAWINGS FOR SPECIFIC
PORT TERMINATION DESIGNATIONS

RESISTORS PACK

USE "B" STANDARD WIRING DIAGRAM
FOR ALL NETWORK CONNECTION

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

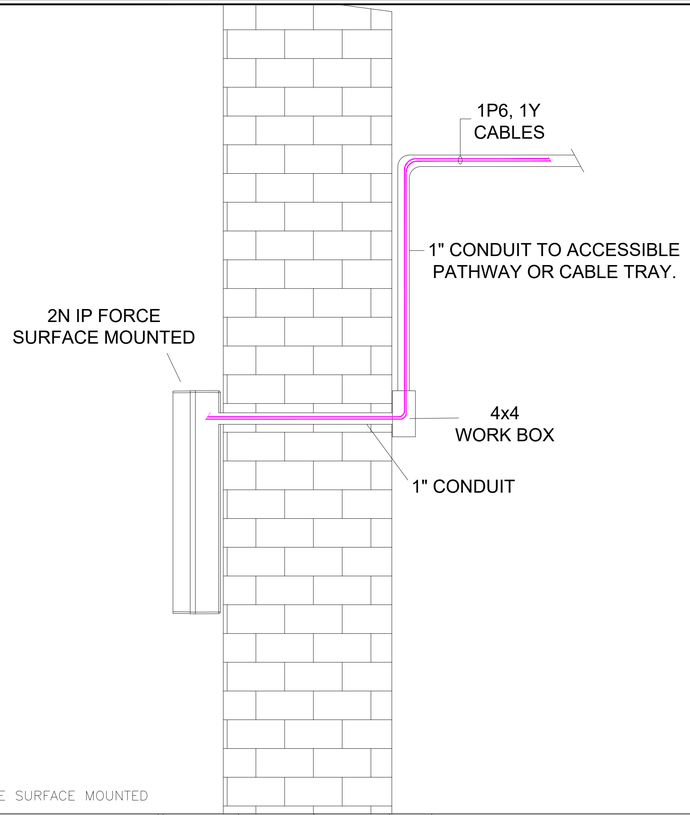
Project Name and Address
MIT

SHEET TITLE
Security System
2N IP Force Intercom Wiring Typical

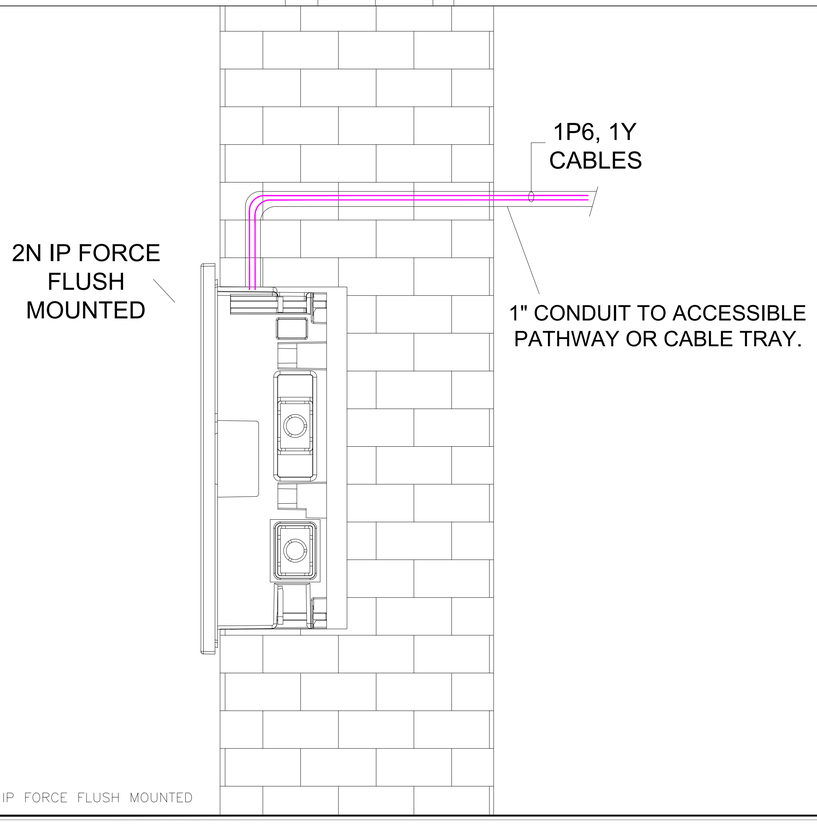
APPROVALS		DATE
DRAWN	VB	04.25.22
CHECKED		
ISSUED	VB	04.25.22
Project		
Scale	NTS	

Sheet
SES-500.2

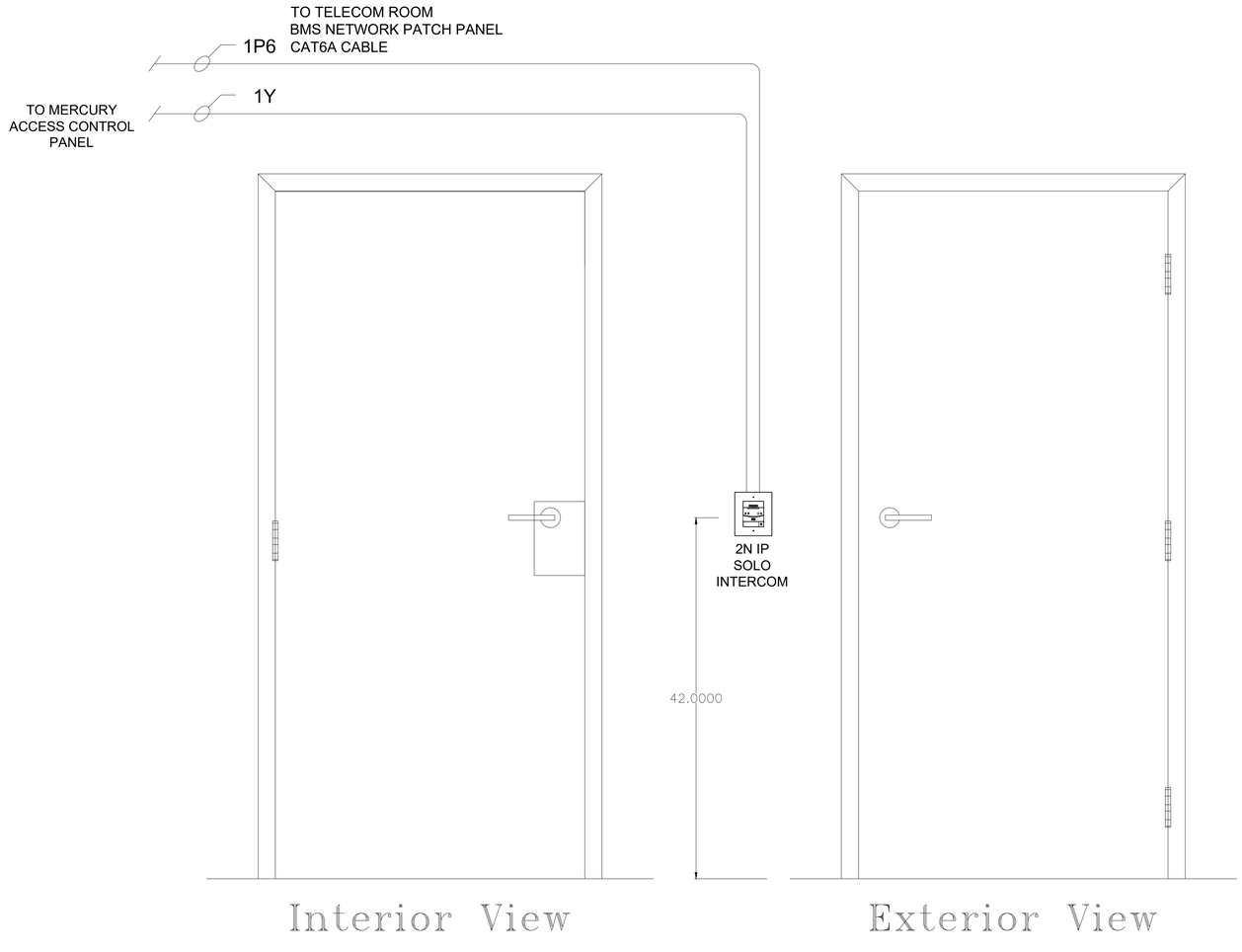
5/2022



01 2N IP FORCE SURFACE MOUNTED



02 2N IP FORCE FLUSH MOUNTED



03 2N IP FORCE INTERCOM DOOR TYPICAL WIRING

Z:\US\SESCAD_Jobs_CNN\MIT_Site Info_Typicals\2N Intercom.dwg

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

ALL INFRASTRUCTURE FOR ALL 2N INTERCOM INSTALLATIONS INCLUDE
(2– NETWORK CAT6A CABLES)

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW–VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDATDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

SHEET TITLE
Security System
2N IP Force Intercom Installation Typical

APPROVALS		DATE
DRAWN	VB	----
CHECKED		
ISSUED	VB	----
Project		
Scale	NTS	

Sheet
SES-500.3

CABLE LEGEND - FOR MIT

	Type	Description	Part Number
B	22Awg	4 Cond.(Purple)	4443850
C	18Awg	2 Cond.(Purple)	0023650
D	22Awg	6 Cond.SH (Purple)	444351-50
J	18Awg	4 Cond.(Purple)	00234850
F	22Awg	12 Cond.(Purple)	444394-50
M	22Awg	2 Cond.(Purple)	0043650
P6	Cat 6A	Cat 6A	760105940
Z		Multi Composite-Access	4461050
Y	22Awg	6 Cond.(Purple)	444391-50

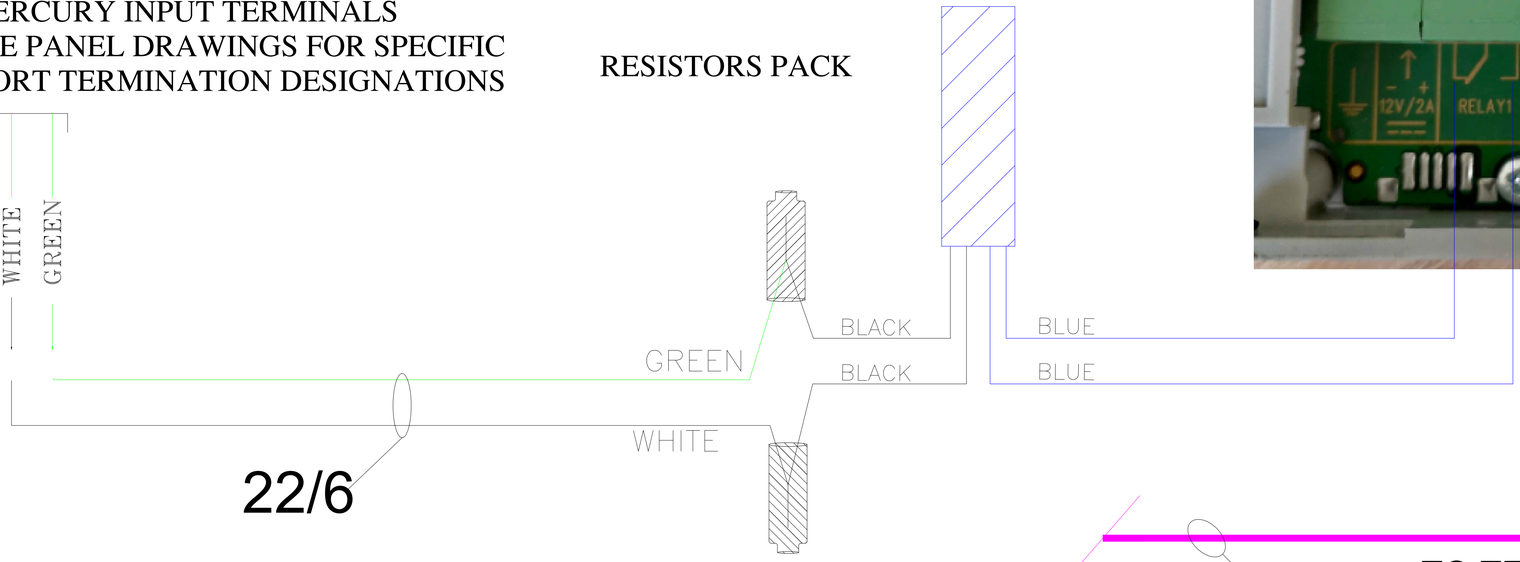
ALL INFRASTRUCTURE FOR ALL 2N INTERCOM INSTALLATIONS INCLUDE
(2– NETWORK CAT6A CABLES)

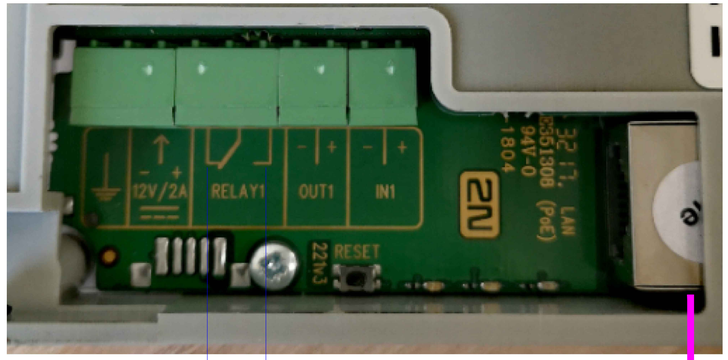
MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW–VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDATDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

MERCURY INPUT TERMINALS
SEE PANEL DRAWINGS FOR SPECIFIC
PORT TERMINATION DESIGNATIONS

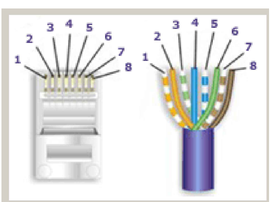
RESISTORS PACK





1P6 TO TELECOM ROOM
BMS NETWORK PATCH PANEL
CAT6A CABLE

USE "B" STANDARD WIRING DIAGRAM
FOR ALL NETWORK CONNECTION



No.	Revision/Issue	Date

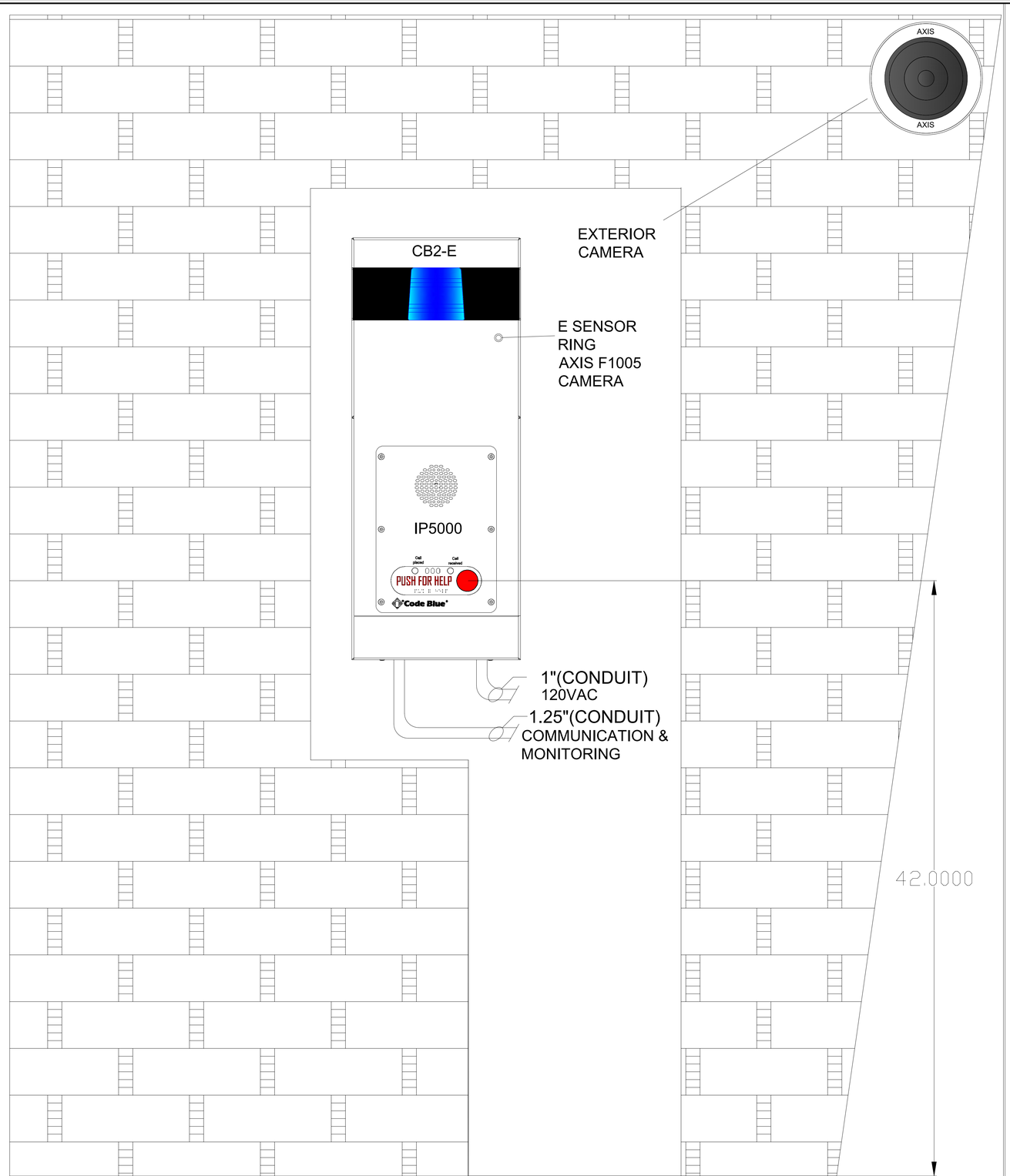
SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
MIT

SHEET TITLE
Security System
2N IP Force Intercom Wiring Typical

APPROVALS		DATE
DRAWN	VB	05.02.22
CHECKED		
ISSUED	VB	05.02.22
Project		
Scale	NTS	

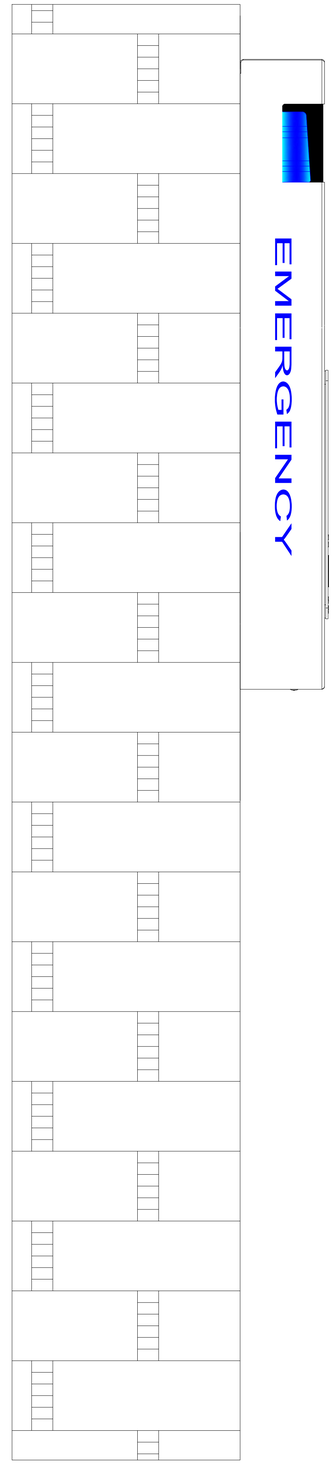
Sheet
SES-500.4



FRONT VIEW

CB2-E

01



SIDE VIEW

CB2-E

02

CABLE LEGEND:

(4) CAT6A CABLES
(8) CAT6 SURGE PROTECTORS
(1) 22/6 WINDY CITY
(1) SURGE PROTECTION BLOCK FOR 22/6

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address

MIT

SHEET TITLE

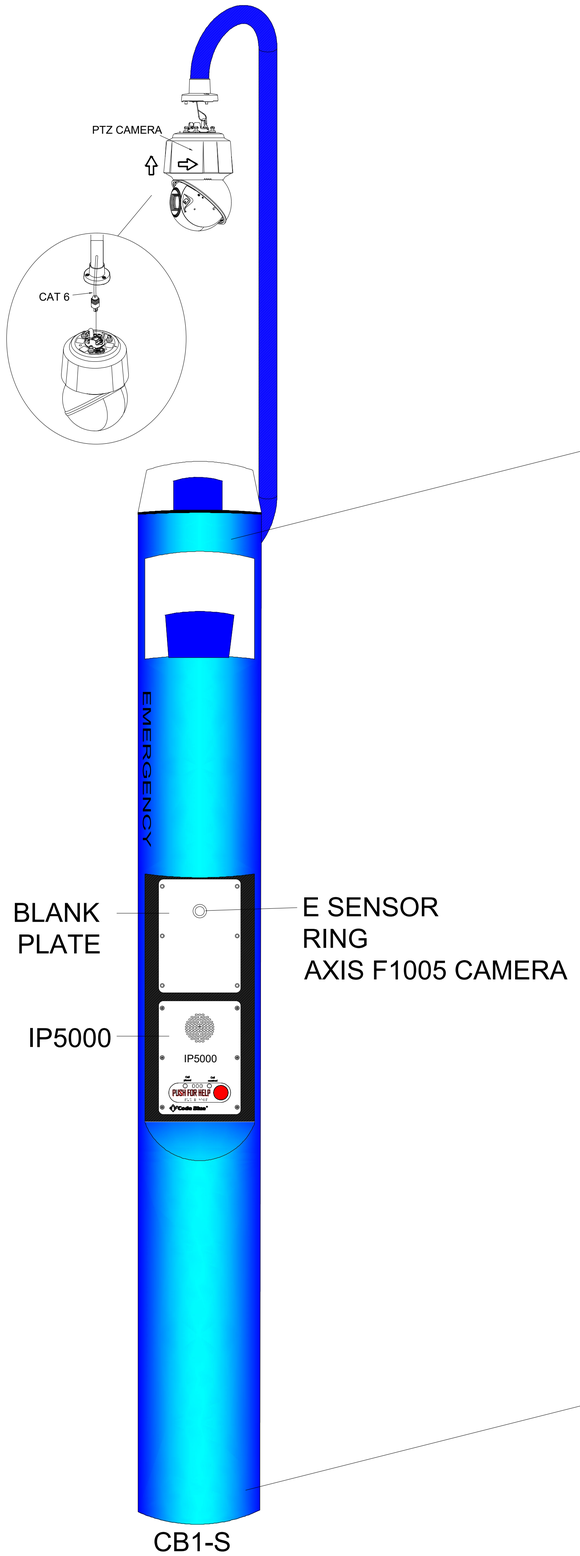
Security System
Device Typical
Code Blue CB2-E
Wall Mounted

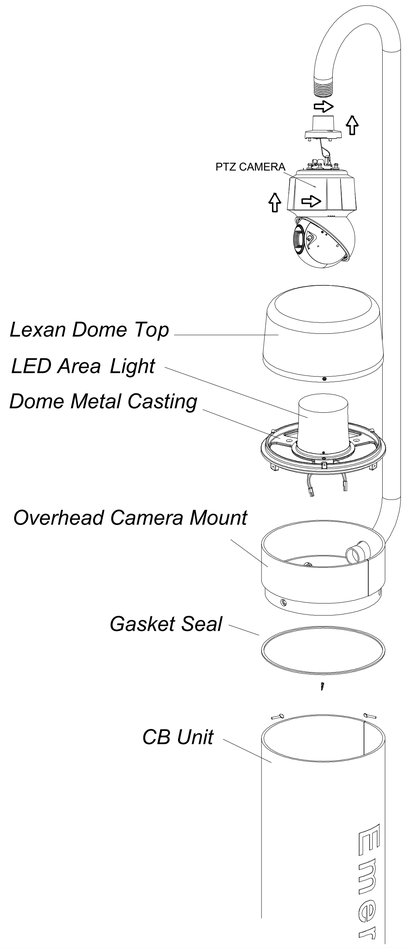
APPROVALS		DATE
DRAWN	VB	05.02.22
CHECKED		
ISSUED	VB	05.04.22
Project	TBD	
Scale	NTS	

Sheet

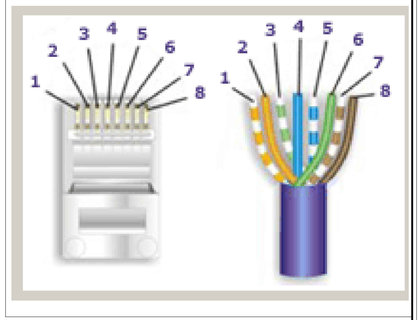
SES-500.1

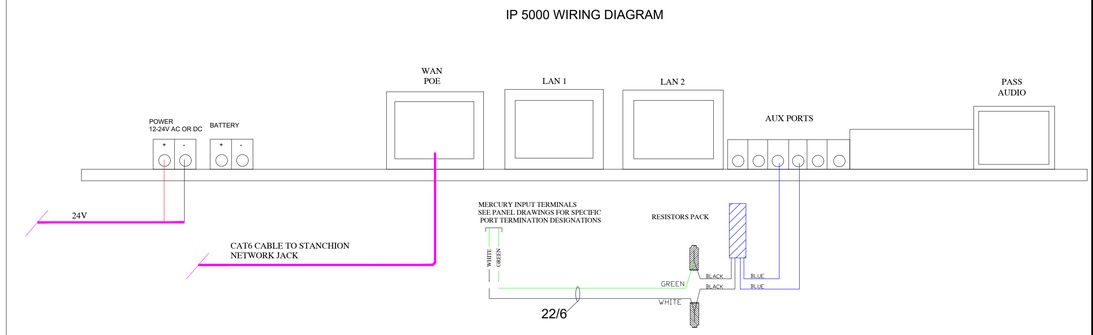
5/4/2022

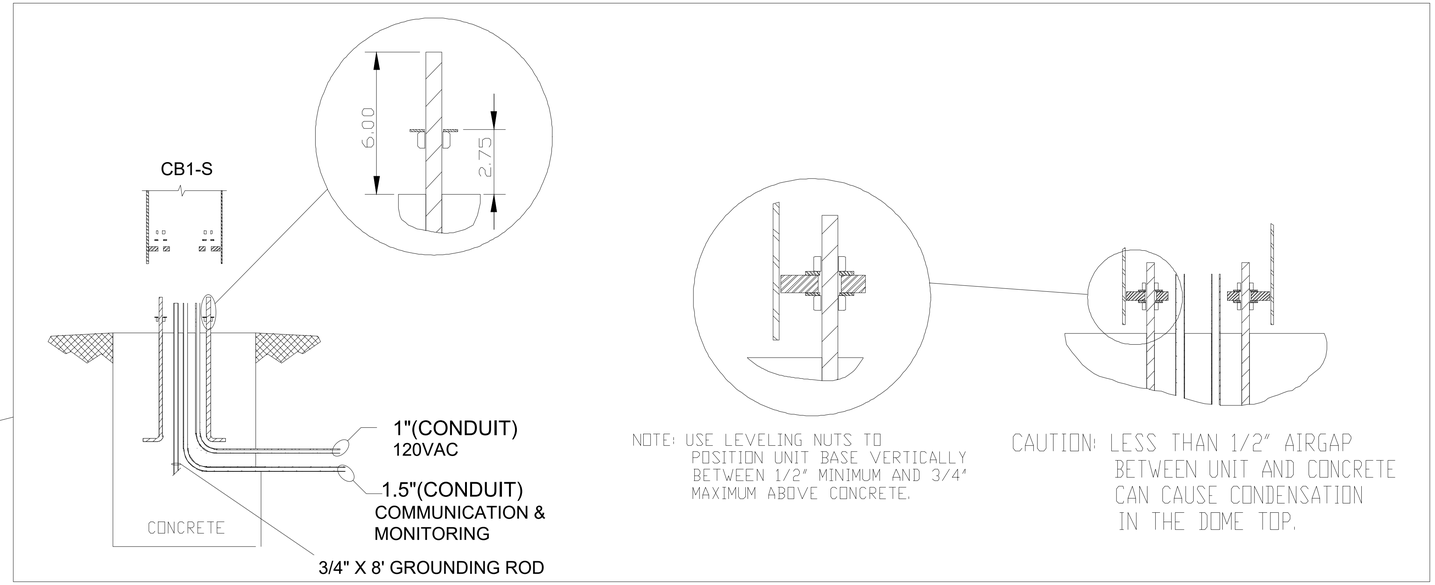




USE "B" STANDARD WIRING DIAGRAM FOR ALL NETWORK CONNECTION







CABLE LEGEND:

(6) CAT6A CABLES
(12) CAT6 SURGE PROTECTORS
(1) 22/6 WINDY CITY
(1) SURGE PROTECTION BLOCK FOR 22/6

MIT NETWORK CABLING BY OTHERS;
AWARDED TEL/DATA LOW-VOLTAGE CONTRACTOR.

REFER TO DIV 27 STANDARDS PATHWAY AND CABLE TRAYS AND INDEX FOR ASSOCIATED CABLE AND PART NUMBERS.
REFER TO CAMPUS SECURITY THERMATIC FOLDER T20.
NO SUBSITUTIONS

No.	Revision/Issue	Date

SIEMENS
Siemens Building Technologies, Inc.
SECURITY SOLUTIONS
150 Royall Street, Suite 201, Canton, MA 02021
(781) 575-1900 FAX: (781) 575-9590

Project Name and Address
Siemens

SHEET TITLE
Security System
Device Typical
Code Blue CB1-S
Tower Mounted w/Overhead
PTZ Camera Mount

APPROVALS		DATE
DRAWN	VB	05.02.22
CHECKED		
ISSUED	VB	05.04.22
Project	TBD	
Scale	NTS	

Sheet
SES-500.2

Z:\US\SESCAD_Jobs_CNNMIT_Site Info_Typicals\Code Blue Typical.dwg