

GENERAL																
Ref. No.	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
00-00	ELECTRONIC SAFETY AND SECURITY	28	00	00		28	00	00						Updated Guidance Notes	See: 02 41 19 for selective demolition of existing electronic safety and security systems. 07 84 00 for firestopping. 08 31 00 for access doors and panels. 08 42 00 for entrances. 08 56 53 for security windows. 08 70 00 for hardware. 08 87 23 for safety and security films. 10 14 63 for electronic message signage. 11 12 00 for parking control equipment. 11 97 00 for security equipment. 11 98 00 for detention equipment. 12 59 00 for systems furniture. 25 38 00 for integrated automation instrumentation and terminal devices for electronic safety and security. 25 58 00 for integrated automation control of electronic safety and security. 25 98 00 for integrated automation control sequences for electronic safety and security. 26 55 53 for security lighting. 27 11 00 for communications equipment room fittings. 27 15 01 for communications horizontal cabling applications. 27 20 00 for data communications. 27 30 00 for voice communications. 27 40 00 for audio-video communications. 27 50 00 for distributed communications and monitoring systems. 32 31 13.53 for high-security chain link fences and gates 33 79 00 for site grounding. 33 80 00 for communications utilities. 34 40 00 for transportation signaling and control equipment. 40 63 00 for control system equipment.	Added additional reference sections. Deleted those with little or no relevance.
01-00	OPERATION AND MAINTENANCE OF ELECTRONIC SAFETY AND SECURITY	28	00	00		28	01	00		X					Includes: maintenance, repair, rehabilitation, replacement, restoration, preservation, etc. of electronic safety and security. Level 4 Numbering Recommendation: level 4 titles for electronic safety and security are provided as examples for user's creation of more detailed titles for other subject as required. Following level 4 numbering is recommended: .51-.59 for maintenance. .61-.69 for repair. .71-.79 for rehabilitation. .81-.89 for replacement. .91-.99 for restoration.	
01-01	Operation and Maintenance of Access Control	28	01	10		28	01	10				X		Title Change from: Operation and Maintenance of Electronic Access Control and Intrusion Detection		Reflects New Level 2 Category Names
01-02	Maintenance and Administration of Access Control	28	01	10	51	28	01	10	51			X		Title Change from: Maintenance and Administration of Electronic Access Control and Intrusion Detection		
01-03	Revisions and Upgrades of Access Control	28	01	10	71	28	01	10	71			X		Title Change from: Revisions and Upgrades of Electronic Access Control and Intrusion Detection		
01-04	Operation and Maintenance of Video Surveillance	28	01	20		28	01	20				X		Title Change from: Operation and Maintenance of Electronic Surveillance		
01-05	Maintenance and Administration of Video Surveillance	28	01	20	TBD (51?)	X	X	X	X		X			New		
01-06	Revisions and Upgrades of Video Surveillance	28	01	20	TBD (71?)	X	X	X	X		X			New		
01-07	Operation and Maintenance of Security Detection, Alarm, and Monitoring	28	28	01	30		01	30				X		Title Change from: Operation and Maintenance of Electronic Detection and Alarm		
01-08	Maintenance and Administration of Security Detection, Alarm, and Monitoring	28	01	30	51	28	01	30	51			X		Title Change from: Maintenance and Administration of Electronic Detection and Alarm		
01-09	Revisions and Upgrades of Security Detection, Alarm, and Monitoring	28	01	30	71	28	01	30	71			X		Title Change from: Revisions and Upgrades of Electronic Detection and Alarm		
01-10	Operation and Maintenance of Security Monitoring and Control	28	01	40			01	40				X		Title Change from: Operation and Maintenance of Electronic Monitoring and Control		
01-11	Maintenance and Administration of Security Monitoring and Control	28	01	40	51	28	01	40	51			X		Title Change from: Maintenance and Administration of Electronic Monitoring and Control		
01-12	Revisions and Upgrades of Security Monitoring and Control	28	01	40	71	28	01	40	71			X		Title Change from: Revisions and Upgrades of Electronic Monitoring and Control		
01-13	Operation and Maintenance of Specialized Systems	28	01	New (50?)		X	X	X			X			New		

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01-14	Maintenance and Administration of Specialized Systems	28	01	New (50?)	TBD (51?)	X	X	X	X		X			New		Not present in 2014 MasterFormat. Additional sections added for completeness.
01-15	Revisions and Upgrades of Specialized Systems	28	01	New (50?)	TBD (71?)	X	X	X	X		X			New		
01-16	Operation and Maintenance of Mass Notification	28	01	New (60?)		X	X	X			X			New		
01-17	Maintenance and Administration of Mass Notification	28	01	New (60?)	TBD (51?)	X	X	X	X		X			New		
01-18	Revisions and Upgrades of Mass Notification	28	01	New (60?)	TBD (71?)	X	X	X	X		X			New		
01-19	Operation and Maintenance of Life Safety	28	01	New (70?)		X	X	X			X			New		
01-20	Maintenance and Administration of Life Safety	28	01	New (70?)	TBD (51?)	X	X	X	X		X			New		
01-21	Revisions and Upgrades of Life Safety	28	01	New (70?)	TBD (71?)	X	X	X	X		X			New		
01-22	Operation and Maintenance of Fire Detection and Alarm	28	01	New (80?)		X	X	X			X			New		
01-23	Maintenance and Administration of Fire Detection and Alarm	28	01	New (80?)	TBD (51?)	X	X	X	X		X			New		
01-24	Revisions and Upgrades of Fire Detection and Alarm	28	01	New (80?)	TBD (71?)	X	X	X	X		X			New		
05-01	COMMON WORK RESULTS FOR ELECTRONIC SAFETY AND SECURITY	28	05	00		28	05	00				X		Updated Guidance Notes	See: 27 11 00 for communications equipment room fittings. 27 15 01 for communications horizontal cabling applications. 27 20 00 for data communications. 27 30 00 for voice communications. 27 40 00 for audio-video communications.	To provide more complete and concise guidance.
05-02	Selective Demolition for Electronic Safety and Security	28	05	05		28	05	05		X						
05-03	Conductors and Cables for Electronic Safety and Security	27	15	01	TBD	28	05	13				X		Move to Division 27 15 01		Division 27 has application oriented cabling categories. This will consolidate safety and security cabling under these. Such cabling may be used also for non-safety and security purposes.
05-04	Video Surveillance Communications Conductors and Cables	27	15	01	TBD	28	05	13	13			X		Move to Division 27 Change title from: CCTV Communications Conductors and Cables		See above. Also, CCTV is too restrictive a title and its use as a descriptor going away.
05-05	Access Control Communications Conductors and Cables	27	15	01	TBD	28	05	13	16			X		Move to Division 27		See above.
05-06	Intrusion Detection Communications Conductors and Cables	27	15	01	TBD	28	05	13	19			X		Move to Division 27		See above.
05-07	Fire Alarm Communications Conductors and Cables	27	15	01	TBD	28	05	13	23			X		Move to Division 27		See above.
05-08	Power Sources for Electronic Safety and Security	28	05	TBD		X	X	X				X		Electronic Low Voltage Power Sources specifically for electronic safety and security purposes	Includes: Electronic Low Voltage Power Sources specifically for electronic safety and security purposes, also covering UL294 and UL294B approved power supplies for access control. Alternate Terms/Abbreviations: UL294, PoE: Power over Ethernet See also: 26 20 22 Low-Voltage Electrical Transmission	Safety and Security has devices that are specifically intended for use in the area. The UL294 standard for access control specifically addresses requirements and approvals for access control power supplies.
05-09	Power Sources for Access Control	28	05	TBD	TBD	X	X	X	X			X		Low Voltage Power Sources specifically for access control, including UL 294 approved supplies	Includes: UL294 and UL294B approved power supplies for access control.	Power devices may be intended for specific applications in safety and security.
05-10	Power Sources for Video Surveillance	28	05	TBD	TBD	X	X	X	X			X		Low Voltage Power Sources specifically for video surveillance		
05-11	Power Sources for Intrusion Detection	28	05	TBD	TBD	X	X	X	X			X		Low Voltage Power Sources specifically for intrusion detection		
05-12	Power Sources for Fire Detection and Alarm	28	05	TBD	TBD	X	X	X	X			X		Low Voltage Power Sources specifically for fire alarm and detection		
05-13	Solar Power Sources for Electronic Safety and Security	28	05	TBD	TBD	X	X	X	X			X		New	See: 48 14 13: solar energy collectors.	Not covered in 2014 MasterFormat.
05-14	PoE Power Sources for Electronic Safety and Security	28	05	TBD	TBD	X	X	X	X			X		New	Includes: Mid-span PoE injectors and PoE switches used to source power to security devices. Does not include: UL294B mid-span injectors or network switches used exclusively for Access Control. See: Ref no. 05-09: Power Sources for Access Control. Alternate Terms/Abbreviations: UL294, UL294B, PoE: Power over Ethernet	

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05-15	Uninterruptible Power Supply	28	05	TBD	TBD	X	X	X	X		X			New	See also: 26 33 53 for Static Uninterruptible Power Supply	Not covered in 2014 MasterFormat for the unique needs of Electronic Safety and Security
05-16	Power Source Monitoring	28	05	TBD	TBD	X	X	X	X		X			New	See also: 26 33 46 for Battery Monitoring	
05-17	Power Source Monitoring Appliances	28	05	TBD	TBD	X	X	X	X		X			New		
05-18	Power Source Monitoring Software	28	05	TBD	TBD	X	X	X	X		X			New		
05-19	Surge Protection for Electronic Safety and Security	28	05	TBD		X	X	X						Surge Protection specifically for electron safety and security purposes	See also: 26 43 13 Surge Protective Devices for Low-Voltage Electrical Power Circuits	Safety and Security has devices that are specifically intended for use in the area.
05-20	Surge Protection for Access Control	28	05	TBD	TBD	X	X	X	X		X			Surge Protection specifically for access control		Surge Protection devices may be intended for specific applications in safety and security.
05-21	Surge Protection for Video Surveillance	28	05	TBD	TBD	X	X	X	X		X			Surge Protection specifically for video surveillance		
05-22	Surge Protection for Intrusion Detection	28	05	TBD	TBD	X	X	X	X		X			Surge Protection specifically for intrusion detection		
05-23	Surge Protection for Fire Detection and Alarm	28	05	TBD	TBD	X	X	X	X		X			Surge Protection specifically for fire alarm and detection		
05-24	Grounding and Bonding for Electronic Safety and Security	27	05	26		28	05	26					X			Follows logic of moving cabling under Division 27
05-25	Pathways for Electronic Safety and Security	27	05	28		28	05	28					X			
05-26	Hangers and Supports for Electronic Safety and Security	27	05	29		28	05	28	29				X	Moved to Incorporate with Same category in Division 27		
05-27	Conduits and Backboxes for Electronic Safety and Security	27	05	33		28	05	28	33				X			
05-28	Cable Trays for Electronic Safety and Security	27	05	36		28	05	28	36				X			
05-29	Surface Raceways for Electronic Safety and Security	27	05	39		28	05	28	39				X			
05-30	Cyber Security Requirements for Electronic Safety and Security	28	05	TBD		X	X	X			X			New Level 3 Category	This is a critical new requirement for safety and security systems of all types.	Not covered in 2014 MasterFormat.
05-31	Servers, Workstations and Storage for Electronic Safety and Security	28	05	TBD		X	X	X			X			New Level 3 Category	Includes: Storage hardware, software, and services supporting security, life safety, and fire alarm multiple requirements. See also: 27 22 16 for Data Communications Storage and Backup See: 27 21 00 for Data Communications Network Equipment. 27 22 16 Data Communications Storage and Backup 27 24 00 for data communications peripheral data equipment.	Servers, workstations and storage dedicated solely to security, and occasionally Life Safety and Fire Alarm are common. Making provision in Division 28 allows the specifier the flexibility to create a security-specific document that does not spill over into Division 27; or, to use the Division 27 entry if he chooses, particularly if security is only part of the planned use of the server and storage equipment. This is similar to what was created in 40 66 00.
05-32	General Requirements for Servers and Storage	28	05	TBD		X	X	X			X			New Level 3 Category under Servers, Workstations and Storage	Includes: requirements on redundancy and resiliency	General Requirements for above.
05-33	Servers for Electronic Safety and Security	28	05	TBD		X	X	X			X				See also: 27 22 19 Data Communications Servers	Servers may be specific for safety and security purposes. Those that are more general may be classified in Division 27.
05-34	Workstations for Electronic Safety and Security	28	05	TBD		X	X	X			X				See also: 27 22 23 Data Communications Desktops	Workstations may be specific for safety and security purposes. Those that are more general may be classified in Division 27.
05-35	Storage Appliances for Electronic Safety and Security	28	05	TBD		28	23	19				X		New Level 3 Category under Servers, Workstations and Storage	Alternate Terms/Abbreviations: DVR: Digital Video Recorder, NVR: Network Video Recorder See Also: 27 42 13 Point of Sale Systems	These were included before under Video Surveillance, but devices have become more general in their capability and are no longer restricted to video.
05-36	Digital Video Recorders	28	05	TBD	TBD	28	23	19	X			X		New Level 4 Category under Storage Appliances		Allowing for specific types of appliances.
05-37	Hybrid Digital Video Recorders	28	05	TBD	TBD	X	X	X	X		X					
05-38	Network Video Recorders	28	05	TBD	TBD	X	X	X	X		X					
05-39	Network Attached Storage for Electronic Safety and Security	28	05	TBD		X	X	X			X			New Level 3 Category under Servers, Workstations and Storage	Alternate Terms/Abbreviations: NAS: Network Attached Storage.	Allows for specific types of network storage.
05-40	Storage Area Network for Electronic Safety and Security	28	05	TBD		X	X	X			X				Alternate Terms/Abbreviations: SAN: Storage Area Network	Allows for specific types of network storage.
05-41	Cloud Based Storage for Electronic Safety and Security	28	05	TBD		X	X	X			X					Allows for specific types of network storage.

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05-42	Archival Systems for Electronic Safety and Security	28	05	TBD		X	X	X			X				See also:	Retention of security information, particularly video and access control, is an important requirement for security systems. Archival systems go beyond network storage. This item addresses a missing area in prior versions of MasterFormat.	
05-43	Digital Tape Storage	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Category under Archival Systems		Allows for specific items in Archival Storage.	
05-44	Storage Media	28	05	TBD	TBD	X	X	X	X		X						
05-45	Storage Management Software for Electronic Safety and Security	28	05	TBD		X	X	X			X						See also: 27 25 00 for Data Communications Software.
05-46	Communications Equipment for Electronic Safety and Security	28	05	TBD		X	X	X			X			New Level 3 Category for Communications Equipment Dedicated Solely to Electronic Safety and Security	See also: 27 00 00 for Data Communications.	Note that Division 40 has adopted similar thinking for communications equipment dedicated to their particular area. See 40 66 00.	
05-47	Safety and Security Network Communications Equipment	28	05	TBD		X	X	X			X			New Level 3 Category under Communications Equipment for Electronic Safety and Security	Includes: Data communications network equipment is to be dedicated for security use only. See also: 27 22 00 for Data Communications Hardware.	Used when electronic security systems (e.g. video surveillance) require data communication network equipment for proper operations, and the data communications network equipment is to be dedicated for security use only. Usually in this case, there are no Div. 27 specifications being utilized except for cabling.	
05-48	Security Data Communications Firewalls	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Categories under Safety and Security Data Communications Network Equipment	See also: 27 21 13 for Data Communications Firewalls.		
05-49	Security Data Communications Routers	28	05	TBD	TBD	X	X	X	X		X				See also: 27 21 16 for Data Communications Routers, CSU/DSU, Multiplexers, Codecs, and Modems.		
05-50	Security Data Communications Power-Over-Ethernet Switches	28	05	TBD	TBD	X	X	X	X		X				See also: 27 21 29 for Data Communications Switches and Hubs.		
05-51	Security Data Communications Non-Power-Over-Ethernet Switches	28	05	TBD	TBD	X	X	X	X		X				See also: 27 21 29 for Data Communications Switches and Hubs.		
05-52	Security Data Communications Media Converters	28	05	TBD	TBD	X	X	X	X		X				See Also: 27 16 16 Communications Media Converters, Adapters, and Transceivers.		
05-53	Security Data Communications Wireless Transmission Equipment	28	05	TBD		X	X	X			X				New Level 3 Category under Communications Equipment for Electronic Safety and Security	See Also: 27 21 33 for Data Communications Wireless Access Points.	
05-54	Microwave Transmission Equipment	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Category under Wireless	See Also: 33 83 16 for Microwave Transmitters and Receivers		
05-55	Security Voice Communications - Distributed Antenna System	28	05	TBD		X	X	X			X			New Level 3 Category under Communications Equipment for Electronic Safety and Security	Includes: Voice communications systems serving a dedicated security function in a standalone security system, and/or when there is no other voice communication distributed antenna system being specified under Div. 27 See also: 27 53 19 for Internal Cellular, Paging, and Antenna Systems	Used when electronic security systems (e.g. video surveillance) require	
05-56	Bi-Directional Amplifiers	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Categories under Distributed Antenna System			
05-57	Repeaters	28	05	TBD	TBD	X	X	X	X		X						
05-58	Remote Repeaters	28	05	TBD	TBD	X	X	X	X		X						
05-59	Antennas	28	05	TBD							X			New Level 3 Category under Communications Equipment for Electronic Safety and Security	Includes: Antennas used when the section for Security Voice Communications Distributed Antenna System is being utilized. See: 27 15 01.53 for Antennas Communications Horizontal Cabling See Also: 27 53 19 for Internal Cellular, Paging, and Antenna Systems.		
05-60	Donor Antennas	28	05	TBD	TBD	X	X	X	X		X						

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05-61	Multi-Band Antennas	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Categories under Antennas		data communication wireless equipment for proper operations, and the data communications network equipment is to be dedicated for security use only.	
05-62	Band Specific Antennas	28	05	TBD	TBD	X	X	X	X		X						
05-63	Radiating Coaxial Cable	28	05	TBD	TBD	X	X	X	X		X						
05-64	Other Antennas	28	05	TBD	TBD	X	X	X	X		X						
05-65	Signal Controllers	28	05	TBD		X	X	X			X			New Level 3 Category under Communications Equipment for Electronic Safety and Security	Includes: Components used when the section for Security Voice Communications Distributed Antenna System is being utilized. See: 27 15 01.53 for Antennas Communications Horizontal Cabling		
05-66	Splitters	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Categories under Signal Controllers			
05-67	Directional Couplers	28	05	TBD	TBD	X	X	X	X		X						
05-68	Security Voice Communications Private Mobile Radio System	28	05	TBD		X	X	X			X			New Level 3 Category under Communications Equipment for Electronic Safety and Security	Includes: Mobile radio equipment used when the section for Security Voice Communications Distributed Antenna System is being utilized. See also: 27 32 43 for Radio Communications Equipment.		
05-69	Base Station	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Categories under Mobile Radio System			
05-70	Handheld Radio	28	05	TBD	TBD	X	X	X	X		X						
05-71	Systems Integration and Interconnection Requirements	28	05	TBD		X	X	X			X			New Level 3 Category	Includes: requirements to integrate various Division 28 and other subsystems into a functional integrated system. See Also: 27 26 00 for Data Communications Programming and Integration Services		
05-72	Mechanical	28	05	TBD	TBD	X	X	X	X		X			New Level 4 Categories under Systems Integration		This is integration specific to electronic safety and security, with a unique series of requirements.	
05-73	Electrical	28	05	TBD	TBD	X	X	X	X		X						
05-74	Information	28	05	TBD	TBD	X	X	X	X		X						
05-75	Vibration and Seismic Controls for Electronic Safety and Security	28	05	48		28	05	48		X							
05-76	Identification for Electronic Safety and Security	28	05	53		28	05	53		X							
06-01	SCHEDULES FOR ELECTRONIC SAFETY AND SECURITY	28	06	00		28	06	00		X					Includes: schedules of items common to multiple titles in Division 28. Notes: a schedule may be included on drawings, in the project manual, or a project book.		
06-02	Schedules for Access Control	28	06	10		28	06	10				X		Title Change from: Schedules for Electronic Access Control and Intrusion Detection			
06-03	Schedules for Video Surveillance	28	06	20		28	06	20				X		Title Change from: Schedules for Electronic Surveillance			
06-04	Schedules for Security Detection, Alarm, and Monitoring	28	06	30		28	06	30				X		Title Change from: Schedules for Electronic Detection and Alarm			
06-05	Schedules for Detention Monitoring and Control	28	06	40		28	06	40				X		Title Change from: Schedules for Electronic Monitoring and Control		Updates titles and adds needed categories.	

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06-06	Schedules for Information Management and Display	28	06	New (50?)		X	X	X			X			New		
06-07	Schedules for Mass Notification	28	06	New (60?)		X	X	X			X			New		
06-08	Schedules for Life Safety	28	06	New (70?)		X	X	X			X			New		
06-09	Schedules for Fire Detection and Alarm	28	06	New (80?)		X	X	X			X			New		
08-01	COMMISSIONING OF ELECTRONIC SAFETY AND SECURITY	28	08	00		28	08	00		X					Includes: commissioning of items common to multiple titles in Division 28. See: 01 91 00 for commissioning of subjects common to multiple divisions.	
08-02	Testing for Baseline Performance Criteria	28	08	TBD		X	X	X			X			New	Includes: parameters that provide the minimum acceptable performance for testing and qualification prior to commissioning, validating all aspects have correct signal strength, consistent signal transmission, perform basic function reliably, are programmed correctly and accurately, etc.	Provides base criteria for performance and function by system or component segment (e.g. cabling, access control, alarm, video, etc.) Present approach has no quality control and baseline criteria for cabling, communication or signal resiliency, or system performance.

ACCESS CONTROL																	
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10-00	28	ACCESS CONTROL	28	10	00		28	13	00	N/A			X		Elevates Access Control to Level 2, replacing Electronic Surveillance. Updated Guidance Notes	Includes: Control and monitoring equipment and systems for controlling access to a facility. See: 08 34 53 for Security Doors and Frames, 08 42 33 for Revolving Door Entrances, 08 71 00 for door hardware, 08 74 00 for access control door hardware, 11 12 00 for parking control equipment, 11 14 00 for pedestrian control equipment, 11 18 00 for security equipment, 26 05 33 for raceway and boxes for electrical, 27 05 28 for pathways for communications, 27 10 00 for structured cabling, 28 16 00 for intrusion detection, 28 20 00 for video surveillance, 28 80 00 for fire detection and alarm, 34 50 00 for transportation fare collection equipment, 41 24 36 for process metal detectors.	Access Control is a major stand-alone security category. Intrusion to be moved to Security Detection, Alarm, and Monitoring (Ref no. 30-00). Access Control and Intrusion are fundamentally different.
10-01	28	Access Control Global Applications	28	TBD	00		28	13	13	N/A			X		Updated Level numbers		
10-02		General Requirements for Access Control Systems	29	TBD	01		X	X	X			X			New Category	Includes: UL Requirements.	
10-03	28	Access Control Software and Database Management	28	TBD	00		28	13	16	N/A			X		Removal of the term "System" and the addition of the term "Software"	See Also: Ref No. 05-31 for servers, workstations, and storage.	
10-04	28	Access Control Software	28	TBD	TBD		X	X	X			X			New Category		Provides more clarity to this title/subject as it relates to the evolution of this specific technology
10-05	28	Access Control Operating Systems	28	TBD	TBD	TBD	X	X	X			X					
10-06	28	Access Control Application Services	28	TBD	TBD	TBD	X	X	X			X					
10-07	28	Access Control Mobile Applications	28	TBD	TBD	TBD	X	X	X			X					
10-08	28	Access Control Software Interfaces	28	TBD	TBD		X	X	X			X		See Also: Ref No. 10-43 for Access Control Interfaces.			
10-09	28	Access Control System Hardware	28	TBD	00		28	13	19	N/A			X		Removal of the term "Infrastructure"	Includes: Access Control hardware that functions at the system level, i.e., set back from and capable of supporting multiple openings.	
10-10	28	Access Control Network Controllers	28	TBD	TBD		X	X	X	X		X			New level 4 category.	This section is shown in a new Level 3 as these Network Controllers are in several applications an additional requirement which need to be clearly defined.	
10-11	28	Access Control Door Controllers	28	TBD	TBD		X	X	X	X		X				This section is shown in a new Level 3 as these Door Controllers are in several applications an additional requirement which need to be clearly defined.	
10-12	28	Access Control Inputs and Outputs	28	TBD	TBD		X	X	X	X		X				This section is shown in a new Level 3 as these Inputs and Outputs are in several applications an additional requirement which need to be clearly defined.	
10-13	28	Access Control Printers and Encoders	28	TBD	TBD		X	X	X	X		X				This section is shown in a new Level 3 as these Printers and Encoders are in several applications an additional requirement which need to be clearly defined.	
10-14	28	Access Control Enclosures	28	TBD	TBD		X	X	X	X		X				Missing Requirement	
10-15	28	Access Control Hardware Devices	28	TBD	00		08	74	00				X		New level 2 category.	Includes devices which are electronic and possibly intelligent See also: Section 08 06 71 for Door Hardware Schedule Ref No. 06-02 for Schedules for Access Control	This is to further define the dividing line between pure mechanical hardware devices and hardware that has electronic content, tied closely to the access control system
10-16	28	Integrated Credential Readers and Field Entry Management	28	TBD	TBD								X		Change in name		
10-17	28	Standard Card Readers	28	TBD	TBD	TBD	08	74	13				X				
10-18	28	Keypads	28	TBD	TBD	TBD	08	74	16				X				
10-19	28	Biometric Identity Devices	28	TBD	TBD	TBD	08	74	19				X				
10-20	28	Combination Reader Devices	28	TBD	TBD	TBD	X	X	X	X		X			New Level 4 Category	Includes multi-technology readers (e.g. proximity, keypad, TWIC readers with prox, PIN code and biometric)	To accommodate for new product developments
10-21	28	Access Control Credentials	28	TBD	TBD		X	X	X			X			New level 3 category.		This section is shown in a new Level 4 as these Credentials and Readers are in several applications an additional requirement which need to be clearly defined.
10-22	28	Access Control Cards	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category		
10-23	28	Wireless Key Fobs	28	TBD	TBD	TBD	X	X	X	X		X					
10-24	28	Electrified Locking Devices & Accessories	28	TBD	TBD		X	X	X			X			New level 3 category.	Includes: Electrified Locking Devices & Accessories (Mortise, Cylindrical, Exit Devices, Electric Strikes, Electro Magnetic Locks)	
10-25	28	Direct Interface Integrated Locking Devices	28	TBD	TBD	TBD	X	X	X			X				Includes: Devices incorporating multiple technologies, such as Wiegand and RS-485	

ACCESS CONTROL																		
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change	
10-26	28	Wireless Integrated Locking Devices	28	TBD	TBD	TBD	X	X	X			X			New level 4 category.		Additional requirement which needs to be clearly defined.	
10-27	28	Intelligent Ethernet Integrated Locking Devices	28	TBD	TBD	TBD	X	X	X			X						
10-28	28	Status Monitoring and Egress Devices	28	TBD	TBD	TBD	X	X	X			X				Includes: Door Position Switches, REX Motion Sensors, Push Buttons, Automatic Operators. Terms/Abbreviations: REX: Request to Exit.		
10-29	28	Egress Management Devices	28	TBD	TBD		X	X	X			X				New level 3 category.		
10-30	28	Magnetic lock delayed egress devices	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.			
10-31	28	Panic hardware delayed egress devices	28	TBD	TBD	TBD	X	X	X	X		X						
10-32	28	Access Control Remote Devices	28	TBD	TBD		28	13	26				X		Category Number Change			
10-33		Smart Phone Interface Requirements	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.	Terms/Abbreviations: NFC: Near Field Communications	New Requirement not previously addressed in MasterFormat.	
10-34	28	Wireless Access Control Devices	28	TBD	TBD	TBD	28	13	26	11			X		Category Number Change	Includes: Transponders and corresponding receivers.		
10-35	28	Telephone Entry Systems	28	TBD	TBD		X	X	X			X			New level 3 category.			
10-36	28	Intercom Entry Systems	28	TBD	TBD	TBD	X	X	X			X			New level 3 category.	See also 11 98 00, 27 50 00, 27 51 00, 27 51 23		
10-37	28	Audio Intercom (analog)	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.		Additional requirement which needs to be clearly defined.	
10-38	28	Audio Video Intercom (analog)	28	TBD	TBD	TBD	X	X	X	X		X						
10-39	28	Audio Intercom (IP)	28	TBD	TBD	TBD	X	X	X	X		X						
10-40	28	Audio Video Intercom (IP)	28	TBD	TBD	TBD	X	X	X	X		X						
10-41	28	Electronic Key Management Systems	28	TBD	TBD		X	X	X			X			New level 3 category.	See Also: 08 79 13 for Key Storage Equipment. 10 41 16 for Emergency Key Cabinets. 11 12 13for Parking Key and Card Control Units.		
10-42	28	Access Control Electronic Turnstiles & Mobility Systems	28	TBD	TBD		X	X	X			X			New level 3 category.	Includes: Turnstile Systems incorporating an electronic access control requirement. See: 11 14 13.19 for Turnstiles.	Turnstile Systems incorporating an electronic access control requirement goes beyond conventional mechanical turnstiles.	
10-43	28	Access Control Interfaces	28	TBD	00		28	13	33				X		Level Number Change	See Also: Ref No. 05-71 for Systems Integration and Interconnections/Requirements. See: 08 34 53 for Security Doors and Frames. 08 42 33 for Revolving Door Entrances. 08 71 00 for door hardware. 08 74 00 for access control door hardware.		
10-44	28	Access Control Interfaces to Access Control Hardware	28	TBD	TBD		28	13	33	16			X					
10-45	28	Access Control Interfaces to Intrusion Detection	28	TBD	TBD		28	13	33	26			X					
10-46	28	Access Control Interfaces to Video Surveillance	28	TBD	TBD		28	13	33	33			X					
10-47	28	Access Control Interfaces to Fire Alarm	28	TBD	TBD		28	13	33	36			X					
10-48	28	Access Control Interfaces to Enterprise Software	28	TBD	TBD		X	X	X			X					Includes: Access Control Interfaces to Enterprise Software business Application Packages Includes: Interfaces to HVAC.	
10-49	28	Access Control Interfaces to Mechanical Systems	28	TBD	TBD		X	X	X			X					Terms/Abbreviations: HVAC: Heating, Ventilation, and Air Conditioning Includes: Interfaces to Lighting.	Interface needs to be clearly identified and defined. Requirement not previously addressed in MasterFormat.
10-50	28	Access Control Interfaces to Electrical Systems	28	TBD	TBD		X	X	X			X			New level 3 category.			
10-51	28	Access Control Interfaces to Electronic Key Management System	28	TBD	TBD		X	X	X			X						
10-52	28	Access Control Interfaces to Elevator Controls	28	TBD	TBD		X	X	X			X					See Also: 14 28 00 for Elevator Equipment and Controls	
10-53	28	Access Control Interfaces to Parking Equipment	28	TBD	TBD		X	X	X			X					See Also: 11 12 00 for Parking Control Equipment	
10-54	28	Access Control Interfaces to Perimeter Security Systems	28	TBD	TBD		X	X	X			X						
10-55	28	Access Control Identification Management Systems	28	TBD	TBD		28	13	43				X					
10-56	28	Visitor Management Systems	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.			
10-57	28	Self Check in and Kiosk Visitor Systems	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.		New Requirement not previously addressed in MasterFormat.	
10-58	28	Contractor & Vendor Management Systems	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.			
10-59	28	Mobile Access Identification Management Systems	28	TBD	TBD	TBD	X	X	X			X			New level 4 category.			
10-60	28	Security Access Detection Equipment	28	TBD	TBD		28	13	53				X		Category Number Change			
10-61	28	Security Access Metal Detectors	28	TBD	TBD	TBD	28	13	53	13			X		Category Number Change			
10-62	28	Security Access X-Ray Equipment	28	TBD	TBD	TBD	28	13	53	16			X		Category Number Change			

ACCESS CONTROL																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
10-63	28	Security Access Explosive Detection Equipment	28	TBD	TBD	TBD	28	13	53	23			X		Category Number Change		
10-64	28	Security Access Sniffing Equipment	28	TBD	TBD	TBD	28	13	53	29			X		Category Number Change		
10-65	28	Access Control Vehicle Identification Systems	28	TBD	TBD		28	13	63				X		Category Number Change		
10-66	28	Loading Dock Access Management Systems	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.	See: 11 13 00 for loading dock equipment	Provides further definition to category
10-67	28	Parking Garage Access Management Systems	29	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.	See: 11 12 00 for parking control equipment	
10-68	28	Perimeter Vehicle Access Management Systems	30	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.	See: Ref no. 31-05 for area and perimeter intrusion detection	

VIDEO SURVEILLANCE																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
20-00	28	VIDEO SURVEILLANCE	28	20	00		28	23	00	N/A			X		Elevates Video Surveillance to Level 2, replacing Electronic Surveillance	Includes: Storage hardware, software, and services supporting security, life safety, and fire alarm multiple requirements. See also: 26 55 53 for Security Lighting. 27 22 16 for Data Communications Storage and Backup See: 27 21 00 for data communications network equipment. 27 24 00 for data communications peripheral data equipment.	The existing category includes Video Surveillance and Electronic Personal Protection Systems, which are not surveillance devices. The latter should be moved to a new Life Safety category and Video Surveillance elevated to a primary Level 2 category.
20-01		Surveillance Cameras	28	TBD	00		28	23	29			X			New level 2 category. Renaming former title of Video Surveillance Remote Devices and Sensors to refer to Video Surveillance Sensors See Ref No. 20-15	Includes: any type of video surveillance camera	Consolidates surveillance cameras into a single section with an unambiguous name. Current name is Video Surveillance Remote Devices and Sensors.
20-02		Analog Camera	28	TBD	TBD		X	X	X			X			New level 3 category.		
20-03		IP Cameras	28	TBD	TBD		X	X	X			X			New level 3 category.	Includes: High Definition and Mega Pixel cameras	
20-04		Panoramic IP Cameras	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 category.	Includes: 180 and 360 degree cameras	Defines specific camera types
20-05		Specialty Cameras	28	TBD	TBD		X	X	X			X			New level 3 category.	Includes: thermal and combination cameras	
20-06		Camera Housings	28	TBD	TBD		X	X	X			X			New level 3 category.	Includes: Housings not integral to the camera.	Not included in 2014 MasterFormat
20-07		Camera Mounts	28	TBD	TBD		X	X	X			X			New level 3 category.	Includes: Mounts not integral to the camera.	Not included in 2014 MasterFormat
20-08		Illuminators	29	TBD	TBD		X	X	X			X			New level 3 category.	Includes: Visible and Infrared camera illuminators	Not included in 2014 MasterFormat
20-09		Video Management System	28	TBD	00		28	23	13	N/A		X			New title to reflect the broader category of video management platforms	Includes: video management platforms and attendant software, licenses, and interfaces See also: Ref no. 05-31 for servers, workstations, and storage. Ref no. 51-32 for control room monitoring equipment, including displays and video walls.	Existing title was too specific and did not provide the broad coverage needed for all types of video management systems.
20-10		Video Management System Analytics	28	TBD	TBD							X			New level 3 category.	Includes: analytics which are integral to the video management system and which may be activated by licenses. Does not include: separate stand-alone analytic equipment.	Not included in 2014 MasterFormat
20-11		Video Management System Interfaces	28	TBD	TBD		28	23	16				X		Change title from "Video Surveillance Monitoring and Supervisory Interfaces" to "Video Management System Interfaces"	Includes: Definition of interfaces with external systems for alarm call-up triggers and events.	Existing title was too specific and did not provide the broad coverage needed for all types of video monitoring.
20-12		Digital Video Recorders and Analog Recording Devices	X	X	X		28	23	19					X	Delete this section and combine in the new proposed Servers, Workstations, and Storage section Ref no. 05-31		As recording devices are common across all the security devices in division 28, it is logical to combine all recording and server information into a new Server and Storage section.

VIDEO SURVEILLANCE																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
20-13		Video Surveillance Systems Infrastructure	X	X	X		28	23	23					X	Delete this section and relocated to Common Work Results and Division 27		As infrastructure is common across all the security devices in division 28, it is logical to combine all infrastructure information into a central point in Common Work Results.
20-14		Video Surveillance Positioning Equipment	28	TBD	00		28	23	26	N/A			X		Change title from "Video Surveillance Remote Positioning Equipment" to "Video Surveillance Positioning Equipment"	Includes: Specialty pan/tilt controllers for camera housings, camera poles and camera lowering equipment.	The term "remote" is redundant as the positioning equipment would be remote from the head-end system. Deleting remote provides a clearer description for the intent of this section.
20-15		Video Surveillance Sensors	28	TBD	00		28	23	29	N/A			X		Change of title from "Video Surveillance Remote Devices and Sensors" to "Video Surveillance Sensors"	Includes: software and hardware not integral to the Video Management System, stand-alone video analytic equipment, video auto-tracking systems, video ranging systems. Does not include: surveillance cameras	This would include video analytic platforms which are not integral/licenses based to the Video Management System. In addition, by deleting "remote" it provides a broader section for surveillance sensors, not including cameras.

SECURITY DETECTION, ALARM, AND MONITORING																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
30-00	28	SECURITY DETECTION, ALARM, AND MONITORING	28	30	00		28	16	00				X				To include the different detection and sensors listed inside this section it is more appropriate to call it Security Detection, Alarm, and Monitoring. Security Detection, Alarm, and Monitoring is more inclusive of contents than restricting it to intrusion detection
31-00	28	Intrusion Detection	28	TBD	00		28	16	00				X		Title change from Intrusion Detection and Section number change and Updated Guidance Notes	Includes: hardware, software and equipment for burglary systems and perimeter protection systems. See: 11 12 00 for parking control equipment. 27 15 01 for intrusion detection communications horizontal cabling. 28 10 00 for Access Control. 28 20 00 for Video Surveillance. 28 40 00 for Security Monitoring and Control. Ref no 51-00 for Information Management and Presentation 28 60 00 for Mass Notification.	To include the different detection and sensors listed inside this section it is more appropriate to call it Security Detection, Alarm, and Monitoring. Security Detection, Alarm, and Monitoring is more inclusive of contents than restricting it to intrusion detection
31-01	28	Building Intrusion Detection	28	TBD	00		28	16	00			X			New level 2 Category	Includes: hardware, software and equipment for burglary systems.	Creates a differentiation between two broad categories of intrusion - indoors and outdoors.
31-02	28	Building Intrusion Detection Control, GUI, and Logic Systems	28	TBD	TBD		28	16	13				X		Level number change		
31-03	28	Building Intrusion Detection Systems Infrastructure	X	X	X		28	16	16				X	X	Delete this sub section		Adequately Covered in Div. 27 and Div. 28 Common Work Results
31-04	28	Building Intrusion Detection Remote Devices and Sensors	28	TBD	TBD								X		Level number change		
31-05	28	Area and Perimeter Intrusion Detection	28	TBD	00		28	16	43				X		Level number change	Perimeter security systems are contained within the remote Devices and Sensors therefore are not needed for this specific break down	Creates a differentiation between two broad categories of intrusion - indoors and outdoors.
31-06	28	Area and Perimeter Intrusion Detection Systems	28	TBD	TBD		X	X	X				X		New Entry	Includes: System packages to provide area and perimeter intrusion detection.	Provides better specifics and definition on systems and components
31-07	28	Fiber Optic Area and Perimeter Security Systems	28	TBD	TBD	TBD	X	X	X	X			X				
31-08	28	Microwave Area and Perimeter Security Systems	28	TBD	TBD	TBD	X	X	X	X			X				
31-09	28	Integrated Video Area and Perimeter Security Systems	28	TBD	TBD	TBD	X	X	X	X			X				
31-10	28	Fixed Optical Beam Area and Perimeter Security Systems	28	TBD	TBD	TBD	X	X	X	X			X				
31-11	28	LIDAR Area and Perimeter Security Systems	28	TBD	TBD	TBD	X	X	X	X			X				
31-12	28	Coaxial Area and Perimeter Security Systems	28	TBD	TBD	TBD	X	X	X	X			X				
31-13	28	Area and Perimeter Intrusion Detection Devices and Sensors	28	TBD	TBD		28	16	19				X			Includes: Detecting area and perimeter devices and sensors provisioned as individual components.	
31-14	28	Intrusion Detection Interfaces	28	TBD	00		28	16	33				X		Level number change		
31-15	28	Intrusion Detection Interfaces to Security Monitoring and Control	28	TBD	TBD	TBD	28	16	33	13			X		Level number change		
31-16	28	Intrusion Detection Interfaces to Access Control Hardware	X	X	X	X	28	16	33	16				X	Delete this sub section		Access control system covers hardware except for items that should be in Division 08. It is our experience that locking hardware belongs in Division 08 and access control system hardware/components is contained within the Div. 28 Access Control subsection.
31-17	28	Intrusion Detection Interfaces to Access Control System	28	TBD	TBD	TBD	28	16	33	23			X		Level number change		
31-18	28	Intrusion Detection Interfaces to Video Surveillance	28	TBD	TBD	TBD	28	16	33	33			X		Level number change		

SECURITY DETECTION, ALARM, AND MONITORING																		
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change	
31-19	28	Intrusion Detection Interfaces to Information Management and Presentation	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 Category		Additional requirement which needs to be clearly defined.	
31-20	28	Intrusion Detection Interfaces to Mass Notification	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 Category			
31-21	28	Intrusion Detection Interfaces to Life Safety	28	TBD	TBD	TBD	X	X	X	X		X			New level 4 Category			
31-22	28	Intrusion Detection Interfaces to Fire Alarm	28	TBD	TBD	TBD	28	16	33	36			X		Level number change			
31-23	28	Intrusion Detection Interfaces to Temperature Controls	28	TBD	TBD	TBD	X	X	X	X		X	X		Level number change	Includes: Interfaces to Food Service Equipment, Freezer Units, Process Controllers, Environmental Control Processors. See Also: 11 41 00 for Food Service Equipment, 23 09 13 for temperature sensors for HVAC.	Important requirement not addressed in 2014 Master Format.	
32-00	28	SECURITY MONITORING AND CONTROL	28	40	00		28	40	00		X				Name change from Electronic Monitoring and Control. Moved Detention related sections to Specialized Systems Category. Added new areas previously missing.	Includes: Requirements for Security Operations Centers, Monitoring and Control Software and Services, Asset and Personnel Tracking Systems	Prior title of "Electronic Monitoring and Control" was not definitive enough and was primarily detention, which has been moved to Specialized Systems. Added categories that appropriately belong in this area.	
32-01	28	Electronic Structural Monitoring Systems	28	41	00		28	41	00		X				No Change			
32-02		Security Operations and Monitoring Center	28	TBD	00		X	X	X			X			New Level 2 Category	References information contained in multiple specifications relative to the construction, wiring, and configuration of equipment in a consolidated environment.	Provides location for definition of layout, equipment, software, interfaces, integration, and accessories for monitoring of systems and Audio Monitoring	
32-03		Security Monitoring and Control Software	28	TBD	00		X	X	X			X						
32-04		Security Monitoring and Control Services	28	TBD	00		X	X	X			X						
32-05		Tracking Systems	28	TBD	00		X	X	X			X					Abbreviations: RF: Radio Frequency	
32-06		Asset Tracking Systems	28	TBD	TBD		X	X	X			X					See Also: 27 53 16 Infrared and Radio Frequency Tracking Systems	
32-07		RF Asset Tracking Systems	28	TBD	TBD	TBD	X	X	X	X		X						
32-08		GPS Asset Tracking Systems	28	TBD	TBD	TBD	X	X	X	X		X						
32-09		Cellular Asset Tracking Systems	28	TBD	TBD	TBD	X	X	X	X		X						
32-10		Personnel Tracking Systems	28	TBD	TBD		X	X	X			X				See Also: 27 53 16 Infrared and Radio Frequency Tracking Systems		
32-11		RF Personnel Tracking Systems	28	TBD	TBD	TBD	X	X	X	X		X						
32-12		GPS Personnel Tracking Systems	28	TBD	TBD	TBD	X	X	X	X		X						
32-13		Cellular Personnel Tracking Systems	28	TBD	TBD	TBD	X	X	X	X		X						
32-14		Audio Monitoring	28	TBD	00		X	X	X			X			New Level 3 Category		Not included in 2014 MasterFormat	
32-15		Audio Monitoring Devices	28	TBD	TBD	TBD	X	X	X			X						

LIFE SAFETY																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
40-00	28	LIFE SAFETY	28	TBD	00		28	30	00			X			New Level 2 Category incorporating Electronic Personal Protection Systems, formerly under Surveillance and a number of Sensor Areas, formerly under Electronic Detection and Alarm. Replaces Electronic Detection and Alarm by moving Fire Detection and Alarm to its own Level 2 Category 28 80 00.	Includes: systems and equipment that monitor and report the need for assistance or potentially life threatening situations. See: 28 40 00 for security monitoring and control. 28 60 00 for mass notification. 28 80 00 for fire detection and alarm.	Categories pertaining to Life Safety had been included under Electronic Surveillance (being changed to Video Surveillance) and Electronic Detection and Alarm Detection and Alarm. Level 2 categories are being recommended for both Security and Life Safety. A distinct Life Safety category will provide a Level 2 category for these systems and sensors and encompass Fire Detection and Notification and Response Systems.
41-00	28	RADIATION DETECTION AND ALARM	28	TBD	00		28	32	00							Includes: systems and equipment for the detection and notification of radioactive presence. Alternate Terms/Abbreviations: GUI: graphical user interface. See: 11 77 00 for radiology equipment. 13 49 00 for radiation protection. 28 40 00 for security monitoring and control. 28 60 00 for mass notification. 28 80 00 for fire detection and alarm.	
41-01	28	Radiation Detection and Alarm Control, GUI, and Logic Systems	28	TBD	TBD		28	32	13				X				
41-02	28	Radiation Detection and Alarm Integrated Audio Evacuation Systems	28	TBD	TBD		28	32	23				X				
41-03	28	Radiation Detection Sensors	28	TBD	TBD		28	32	33				X				
41-04	28	Radiation Dosimeters	28	TBD	TBD		28	32	43				X				
41-05	28	GAS DETECTION AND ALARM	28	TBD	00		28	33	00					X		Includes: systems and equipment for the detection and notification of gas presence. Alternate Terms/Abbreviations: GUI: graphical user interface. See: 23 10 00 for facility fuel systems. Ref no. 41-09 for fuel-oil detection and alarm. 28 40 00 for security monitoring and control. 28 60 00 for mass notification. 28 80 00 for fire detection and alarm. 33 50 00 for fuel distribution utilities.	
41-06	28	Gas Detection and Alarm Control, GUI, and Logic Systems	28	TBD	TBD		28	33	13				X				
41-07	28	Gas Detection and Alarm Integrated Audio Evacuation Systems	28	TBD	TBD		28	33	23				X				
41-08	28	Gas Detection Sensors	28	TBD	TBD		28	33	33				X				
41-09	28	FUEL OIL DETECTION AND ALARM	28	TBD	00		28	34	00					X		Includes: systems and equipment for the detection and notification of fuel oil presence. Alternate Terms/Abbreviations: GUI: graphical user interface. See: 23 11 13 for facility fuel-oil piping. 23 12 13 for facility fuel-oil pumps. 23 13 00 for facility fuel storage tanks. 23 11 13 for facility fuel-oil pumping. 28 40 00 for security monitoring and control. 28 60 00 for mass notification. Ref no. 41-05 for gas detection and alarm. 28 80 00 for fire detection and alarm. 33 52 13 for fuel-oil distribution utilities. 40 21 00 for liquid fuel process piping.	These sensing systems are neither fire nor security sensors, but exist to maintain life safety. Certain guidance note deletions eliminate entries not relevant to the category, while new entries provide for importantly relevant additions.
41-10	28	Fuel Oil Detection and Alarm Control, GUI, and Logic Systems	28	TBD	TBD		28	34	13				X				
41-11	28	Fuel Oil Detection and Alarm Integrated Audio Evacuation Systems	28	TBD	TBD		28	34	23				X				
41-12	28	Fuel Oil Detection Sensors	28	TBD	TBD		28	34	33				X				
41-13	28	REFRIGERANT DETECTION AND ALARM	28	TBD	00		28	35	00					X		Includes: systems and equipment for the detection and notification of refrigerant presence. Alternate Terms/Abbreviations: GUI: graphical user interface. See: 23 23 00 for refrigerant piping. 23 61 00 for refrigerant compressors. 23 62 00 for packaged compressor and condenser units. 23 63 00 for refrigerant condensers. 28 40 00 for security monitoring and control. 28 60 00 for mass notification. 28 80 00 for fire detection and alarm.	
41-14	28	Refrigerant Detection and Alarm Control, GUI, and Logic Systems	28	TBD	TBD		28	35	13				X				
41-15	28	Refrigerant Detection and Alarm Integrated Audio Evacuation Systems	28	TBD	TBD		28	35	23				X				
41-16	28	Refrigerant Detection Sensors	28	TBD	TBD		28	35	33				X				
41-17	28	Water Detection and Alarm	28	TBD	00		28	36	00					X			
41-18	28	Water Detection and Alarm Control, GUI, and Logic Systems	28	TBD	TBD		28	36	13				X				

New Classification Numbers and Selected Guidance Notes Changes.

LIFE SAFETY																		
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change	
41-19	28	Water Detection Sensors	28	TBD	TBD		28	36	33				X					
41-20	28	Building Envelope Water Detection and Alarm	28	TBD	TBD		28	36	43					X				
42-00	28	FIRE DETECTION AND ALARM	28	80	00		28	31	00					X	New Classification Numbers and Selected Guidance Notes Changes.	Includes: monitoring and recording of fire protection devices and fire suppression systems; audio and/or visual warning systems for inhabitants of structures and for fire fighting authorities; activation of elevators and air handling systems to a predetermined fire mode, and other fire protection functions. See: 10 44 00 for fire protection specialties. Division 21 for fire suppression systems. Ref No. 05+047 for fire alarm communications conductors and cables. 28 32 00 for radiation detection and alarm. 28 33 00 for gas detection and alarm. 28 34 00 for fuel-oil detection and alarm. 28 35 00 for refrigerant detection and alarm. 40 10 23 for carbon-monoxide piping.	Maintains Fire Detection and Alarm as a Life Safety category along with associated Life Safety Systems. Terms have been aligned with NFPA 72 Terminology.	
42-01		DETECTION AND INITIATION	28	TBD	00		28	31	43						New Level 2 Category	Includes: All sensors and initiating devices specific to a fire alarm system. Does not include: Interfaces from external systems.	Re-alignment of section on Detection	
42-02		Fire Sensors and Detectors	28	TBD	TBD		28	31	43					X	Terminology change from Fire Detection Sensors		Provide better definition for sensors. Category is broader than sensors.	
42-03		Linear heat Detection Sensors	28	TBD	TBD	TBD	X	X	X	X				X			Alignment to NFPA 72 Terminology	
42-04		Spot-type Heat Detection Sensors	28	TBD	TBD	TBD	X	X	X	X				X			Alignment to NFPA 72 Terminology	
42-05		Smoke Detection Sensors	X	X	X		28	31	46						X	Delete this line	Category is being split out into multiple sensor types.	
42-06		Duct Smoke Detection Sensors	28	TBD	TBD	TBD	X	X	X	X				X			Alignment to NFPA 72 Terminology	
42-07		Beam Smoke Detection Sensors	28	TBD	TBD	TBD	X	X	X	X				X				
42-08		Video Smoke Detection Sensors	28	TBD	TBD	TBD	X	X	X	X				X				
42-09		Carbon-Monoxide Detection Sensors	28	TBD	TBD	TBD	28	31	49	X				X				
42-10		Combination Sensors	28	TBD	TBD	TBD	X	X	X	X				X		New Category	Includes: Sensors which combine 2 or more sensor technologies into one sensing device.	Provide better definition for sensors
42-11		Air Sampling Systems	28	TBD	TBD	TBD	X	X	X	X				X			Alignment to NFPA 72 Terminology	
42-12		Other Sensors	28	TBD	TBD	TBD	X	X	X	X				X			Allows for new technology.	
42-13		Other Initiating Devices	28	TBD	TBD		28	31	53						X	Terminology change from Fire Alarm Initiating Devices.	Sensors and Detectors are also initiating devices. This creates a non-sensor based umbrella category for the other devices without conflicting with NFPA terminology.	
42-14		Fire Alarm Pull Stations	28	TBD	TBD	TBD	28	31	53	13					X			
42-15		Fire Alarm Level Detector Switches	28	TBD	TBD	TBD	28	31	53	23					X			
42-16		Fire Alarm Flow Switches	28	TBD	TBD	TBD	28	31	53	33					X			
42-17		Fire Alarm Pressure Sensors	28	TBD	TBD	TBD	28	31	53	43					X			
42-18		Sprinkler Supervisory Devices	28	TBD	TBD	TBD									X	New Category	Adds an important element previously missing.	
42-19		FIRE ALARM	28	TBD	00													
42-20		Addressable Fire-Alarm Systems	28	TBD	TBD		28	31	11						X	Updated terminology from Digital, Addressable Fire Alarm Systems		
42-21		Conventional Fire-Alarm Systems	28	TBD	TBD		28	31	12						X	Updated terminology from Zoned (DC Loop) Fire-Alarm Systems		
42-22		Fire Detection and Alarm Annunciation Panels and Fire Stations	X	X	X		28	31	23						X	Subject matter will be combined with functionality of other entries in this section.		
42-23		Protected Premise Systems	28	TBD	TBD		X	X	X					X		Added Level 3 Category	Alignment to NFPA 72 Terminology	
42-24		Proprietary Systems	28	TBD	TBD		X	X	X					X				
42-25		Central Station Systems	28	TBD	TBD		X	X	X					X				
42-26		Remote Station Systems	28	TBD	TBD		X	X	X					X				
42-27		Public Emergency Alarm Reporting Syst	28	TBD	TBD		X	X	X					X				
42-28		Network Command Centers, Printers and Peripherals for Fire Systems	28	TBD	TBD		28	31	13						X	Updated terminology from Fire Detection and Alarm Control, GUI, and Logic Systems		
42-29		Fire Alarm Notification Appliances	28	TBD	TBD		28	31	63						X	Changed terminology from Fire Alarm Integrated Audio Visual Evacuation Systems		
42-30		Fire Alarm Homs and Strobes	28	TBD	TBD	TBD	28	31	61	13					X	New Category Number		
42-31		Fire Alarm Speakers	28	TBD	TBD	TBD	X	X	X	X					X	Added Level 4 Category		
42-32		Fire Alarm Low Frequency Sounders	28	TBD	TBD	TBD	X	X	X	X					X			
42-33		Wide Band Sounders	28	TBD	TBD	TBD	X	X	X	X					X	Includes: devices used in directional evacuation systems		

LIFE SAFETY																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
42-34		FIRE DETECTION AND ALARM EMERGENCY CONTROL FUNCTION INTERFACES	28	TBD	00		28	31	33				X		Updated terminology from Fire Detection and Alarm Interfaces	Includes: Interfaces to Remote Monitoring, Access Control Video Surveillance, Intrusion Detection, Elevator Control See: 14 28 16 Elevator Controls Ref no. 10-00 for, Access Control Ref No. 20-00 for Video Surveillance Ref No. 30-00 for Security Detection, Alarm, and Monitoring Ref No. 50-00 for Specialized Systems	Alignment to NFPA 72 Terminology
42-35		Fire Detection and Alarm Interfaces to Remote Monitoring	28	TBD	TBD	TBD	28	31	33	13			X		Category Number Change		As the Functions of Fire Alarm Interfaces continue to increase, it is more convenient to keep this section for general and not try to define specific interfaces
42-36		Fire Detection and Alarm Interfaces to Access Control Hardware	28	TBD	TBD	TBD	28	31	33	16			X				
42-37		Fire Detection and Alarm Interfaces to Access Control System	28	TBD	TBD	TBD	28	31	33	23			X				
42-38		Fire Detection and Alarm Interfaces to Intrusion Detection	28	TBD	TBD	TBD	28	31	33	26			X				
42-39		Fire Detection and Alarm Interfaces to Video Surveillance	28	TBD	TBD	TBD	28	31	33	33			X				
42-40		Fire Detection and Alarm Interfaces to Elevator Control	28	TBD	TBD	TBD	28	31	33	43			X				
42-41		Other Fire Detection and Alarm Interfaces	28	TBD	TBD	TBD	X	X	X	X		X			Added Level 4 Category		This will cover the myriad of other potential interfaces available for fire alarm systems
43-00	28	Mass Notification	28	TBD	00		28	39	00				X		New Level 2 Category, Moved out of Electronic Detection and Alarm	Includes: Includes servers, workstations, software, and system integration. MNS is a life safety system and is integrated with Fire Alarm Systems. MNS may also be integrated with a variety of other system, including A/V, Integrated Security Management System, Controls Systems, depending g on the application. See Also: Ref No 05-33:Servers for Electronic Safety and Security Ref No. 05-34: Workstations for Electronic Safety and Security Ref No. 05-71: Systems Integration and Interconnection Requirements	Mass Notification Systems need a separate section to allow for a variety of applications, modalities and topologies. Most are code-driven; many are not. A separate section with a focus on minimum requirements for code compliance would be beneficial to the industry. The following sections provide the recommended elements.
43-01	28	General Requirements for Mass Notification	28	TBD	00		X	X	X			X			New Level 2 Category under Mass Notification	Includes: Common requirements, redundancy and resiliency Includes: Operating systems, server and client, integration platform, and integration plug-ins or add-ons. Proprietary panels for Mass Notification. Overall methodology and minimum requirements for notification	
43-02	28	Mass Notification Software	28	TBD	00		X	X	X			X					
43-03	28	Mass Notification Control Panels	28	TBD	00		X	X	X			X					
43-04	28	Initiating Devices and Methods	28	TBD	00		X	X	X			X					
43-05	28	Notification appliances and Methods Indoors	28	TBD	TBD		X	X	X			X		New Level 3 Category	Includes: Emergency voice communications (speakers) and Audio/Visual notification appliances (chime strobe) Includes: Emergency voice communications (Big Voice) and Audio/Visual notifications (chime/strobe)		
43-06	28	Notification appliances and Methods Outdoors	28	TBD	TBD		X	X	X			X					
43-07	28	Notification appliances and Methods Distributed Recipient	28	TBD	TBD		X	X	X			X					
43-08	28	Notification appliances and Methods Public Methods	28	TBD	TBD		X	X	X			X		New Level 2 Category	Includes: Broadcast TV, Broadcast radio, Internet media channels Includes: Fire alarm, Security management systems, Energy management systems, Control systems, Network and telephone		
43-09	28	Mass Notification System Interfaces	28	TBD	00		X	X	X			X					
43-10	28	Notification Interfaces to Access Control Systems	28	TBD	TBD		X	X	X					New Level 3 Category			
43-11	28	Notification Interfaces to Video Surveillance Systems	28	TBD	TBD		X	X	X								
43-12	28	Notification Interfaces to Security Detection, Alarm, and Monitoring	28	TBD	TBD		X	X	X								
43-13	28	Notification Interfaces to Security Monitoring and Control	28	TBD	TBD		X	X	X								
43-14	28	Notification Interfaces to Life Safety Systems	28	TBD	TBD		X	X	X								
43-15	28	Notification Interfaces to Fire Detection and Alarm	28	TBD	TBD		X	X	X								
43-16	28	Notification Interfaces to Detention Systems	28	TBD	TBD		X	X	X								
43-17	28	Notification Interfaces to Emergency Response Systems	28	TBD	TBD		X	X	X								
43-18	28	Notification Interfaces to Network and Facilities Monitoring	28	TBD	TBD		X	X	X								

LIFE SAFETY																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
43-19	28	Notification Interfaces to Web Intelligence	28	TBD	TBD		X	X	X								
43-20	28	Notification Interfaces to Traffic Management and Monitoring Systems	28	TBD	TBD		X	X	X								
43-21	28	Notification Interfaces to Smart Phones	28	TBD	TBD		X	X	X								
43-22	28	Notification Interfaces to Other External Subsystems	28	TBD	TBD		X	X	X								
44-00	28	Emergency Response Systems	28	50	TBD							X			New Category	See Also: 27 32 26 Ring-Down Emergency Telephones 27 32 43 Radio Communications Equipment	Fills a gap in the current MasterFormat
44-01	28	Computer Aided Dispatch	28	50	TBD	TBD						X			New Category		
45-00	28	ELECTRONIC PERSONAL PROTECTION SYSTEMS	28	TBD	00		28	26	00				X		Moved from Electronic Surveillance to Life Safety	Includes: systems and equipment that monitor and annunciate the need for assistance. See: 10 43 00 for emergency aid specialties.	This was formerly in a Surveillance category. These systems are not surveillance and align more accurately with Life Safety.
45-01	28	Electronic Personal Safety Detection Systems	28	TBD	TBD		28	26	13				X		New Classification Numbers and Selected Guidance Notes Changes.		Maintains placement under Electronic Personal Protection Systems
45-02	28	Electronic Personal Safety Alarm Annunciation and Control Systems	28	TBD	TBD		28	26	16				X		New Classification Numbers and Selected Guidance Notes Changes.		
45-03	28	Electronic Personal Safety Interfaces to Remote Monitoring	28	TBD	TBD		28	26	19				X		New Classification Numbers and Selected Guidance Notes Changes.		
45-04	28	Electronic Personal Safety Emergency Aid Devices	28	TBD	TBD		28	26	23				X		New Classification Numbers and Selected Guidance Notes Changes.		

SPECIALIZED SYSTEMS																	
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change
50-00	28	Specialized Systems	28	50	00							X			New Level 2 Title to Allow for Systems that draw from a variety of sources, mainly in Division 28, to compose a special purpose system with unique or dedicated functions.	Includes: hybrid and special purpose systems See also: Access Control Video Surveillance Security Detection, Alarm, and Monitoring Security Monitoring and Control Mass Notification Life Safety Fire Detection and Alarm	Current Division 28 does not allow for certain types of systems that either (1) draw from a variety of other systems; (2) are new technology areas; or (3) were categorized in a manner confusing to practitioners, e.g. Detention. Creating a Specialized Systems Category allows for these and future systems that do not fit conventional definition or categorization.
51-00	28	Information Management & Presentation	28	51	00							X			Provide a new Level 3 Title to describe systems that aggregate and present data from multiple security-related subsystems for the purpose of enhancing dispatch, notification, and situation management.	See also: Access Control Video Surveillance Security Detection, Alarm, and Monitoring Security Monitoring and Control Mass Notification Life Safety Fire Detection and Alarm	Purpose to describe Information systems that aggregate and present data from multiple security-related subsystems for the purpose of enhancing dispatch, notification, and situation management.
51-01	28	Information Management & Presentation Architecture	28	51	TBD								X		Provide a new Level 3 Title to describe the management layer data architecture and management.		Describe the management layer data architecture and management, a general requirement for all information and presentation systems.
51-02	28	Data and Information Management	28	51	TBD								X		New Level 3 Title	Includes: Rules Engines, Decision Trees, Data Fusion, Response Planning, Data Retention, and Audit Trail requirements.	Section needed to describe the procedures and requirements for management of information.
51-03	28	Information Interfaces to Connected Subsystems	28	51	TBD								X		New Level 3 Title	Includes: Any connected subsystem or remote data structure. See Also: 26 09 13 Electrical Power Monitoring 26 33 46 Battery Monitoring 27 50 00 Distributed Communications and Monitoring Systems 27 52 00 Healthcare Communications and Monitoring Systems Access Control Video Surveillance Security Detection, Alarm, and Monitoring Security Monitoring and Control Mass Notification Life Safety Fire Detection and Alarm	These Information Systems typically draw from a number of systems in order to aggregate these into a "big picture". This sections and the following subsections allows definition of those interfaces, particularly with how subsystem data is processed and managed.
51-04	28	Information Interfaces to Access Control Systems	28	51	TBD	TBD							X				
51-05	28	Information Interfaces to Video Surveillance Systems	28	51	TBD	TBD							X				
51-06	28	Information Interfaces to Security Detection, Alarm, and Monitoring	28	51	TBD	TBD							X				
51-07	28	Information Interfaces to Security Monitoring and Control	28	51	TBD	TBD							X				
51-08	28	Information Interfaces to Mass Notification Systems	28	51	TBD	TBD							X				
51-09	28	Information Interfaces to Life Safety Systems	28	51	TBD	TBD							X				
51-10	28	Information Interfaces to Fire Detection and Alarm	28	51	TBD	TBD							X				
51-11	28	Information Interfaces to Detention Systems	28	51	TBD	TBD							X				
51-12	28	Information Interfaces to Emergency Response Systems	28	51	TBD	TBD							X				
51-13	28	Information Interfaces to License Plate Recognition Systems	28	51	TBD	TBD							X				
51-14	28	Information Interfaces to Facial Recognition Systems	28	51	TBD	TBD							X				
51-15	28	Information Interfaces to Remote Data Structures	28	51	TBD	TBD							X		New Level 4 Title		
51-16	28	Information Interfaces to Network and Facilities Monitoring	28	51	TBD	TBD							X			Includes: Government Watch lists, Criminal History Databases, License Plate Databases, Identity Management Systems, etc. See Also: 25 10 00 Integrated Automation Network Equipment	
51-17	28	Information Interfaces to Crowd Sourcing	28	51	TBD	TBD							X				
51-18	28	Information Interfaces to Web Intelligence	28	51	TBD	TBD							X				
51-19	28	Information Interfaces to Traffic Management and Monitoring Systems	28	51	TBD	TBD							X			See: 27 42 16 Transportation Information Display Systems 34 41 00 Roadway Signaling and Control Equipment	
51-20	28	Information Interfaces to Environmental Monitoring Systems	28	51	TBD	TBD							X				
51-21	28	Information Interfaces to Directly Connected Sensors	28	51	TBD	TBD							X				
51-22	28	Information Interfaces to Other Safety and Security Subsystems	28	51	TBD	TBD							X				
51-23	28	Information Interfaces to Other External Subsystems	28	51	TBD	TBD							X			See Also: 26 09 13 Electrical Power Monitoring 26 33 46 Battery Monitoring 27 50 00 Distributed Communications and Monitoring Systems 27 52 00 Healthcare Communications and Monitoring Systems	

SPECIALIZED SYSTEMS																			
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change		
51-24	28	Data Presentation	28	51	TBD							X			Provide a new Level 3 Title to describe how processed data is presented to the User.	Includes: Logical presentation of data and alarms to User and User interaction.	Provide a new Level 3 Title to describe how processed data is presented to the User.		
51-25	28	Maps	28	51	TBD							X							
51-26	28	Visualization	28	51	TBD							X							
51-27	28	Events/Alarms/Incidents	28	51	TBD							X							
51-28	28	Video Workspace	28	51	TBD							X							
51-29	28	Dispatch/Notification	28	51	TBD							X							
51-30	28	Review and Investigation	28	51	TBD							X							
51-31	28	Reporting	28	51	TBD							X							
51-32	28	Control Room and Monitoring Equipment	28	51	TBD							X			New Level 3 Title	See Also:11 52 00 Audio-Visual Equipment 27 41 00 Audio-Video Systems 27 42 00 Electronic Digital Systems	Provide a new Level 3 Title to describe the work results for audio/video presentation of the data.		
51-33	28	Display/Workstations	28	51	TBD							X							
51-34	28	Video Walls	28	51	TBD							X							
51-35	28	Audio Equipment	28	51	TBD							X							
51-36	28	Remote Displays	28	51	TBD							X							
52-00	28	Detention Security Systems	28	52	00		28	46	00				X		Changed Title and Categorization from Electronic Detention Monitoring and Control Systems	Includes: electronic equipment and systems for detention applications. See: 05 59 63 for detention enclosures. 08 34 63 for detention doors and frames. 08 56 63 for detention windows. 08 71 63 for detention door hardware. 13 42 63 for detention cell modules. 26 55 63 for detention lighting. 27 51 23.63 for Detention Intercommunications and Program Systems Access Control Video Surveillance 32 31 13.53 for High-Security Chain Link Fences and Gates	Categories in Current 28 are either obsolete or do not mirror the requirements of today's detention security systems.		
52-01		Detention Monitoring and Control Systems	28	52	TBD		28	46	00			X			Added Level 3 Category			Includes: electronic equipment and systems specific to detention monitoring and control	Aggregates the subject areas addressed by successor systems to items currently found in 28 46 13 through 28 46 29
52-02	28	Hard-Wired Detention Monitoring and Control Systems	X	X	X	-	28	46	13				X		Delete Category				
52-03	28	Relay-Logic Detention Monitoring and Control Systems	X	X	X	-	28	46	16				X		Delete Category				
52-04	28	PLC Electronic Detention Monitoring and Control Systems	X	X	X	-	28	46	19				X		Delete Category				
52-05	28	Computer-Based Detention Monitoring and Control Systems	X	X	X	-	28	46	23				X		Delete Category				
52-06	28	Discreet-Logic Detention Monitoring and Control Systems	X	X	X	-	28	46	26				X		Delete Category				
52-07	28	Discreet-Distributed Intelligence Detention Monitoring and Control Systems	X	X	X	-	28	46	29				X		Delete Category				
52-08	28	Detention Interfaces to Connected Subsystems	28	52	TBD							X			Added level 3 Category	Includes: interfaces to subsystems that may not be detention specific	A detention system is composed of a number of sub-systems that are found elsewhere in Division 28 and other divisions		
52-09	28	Detection Interfaces to Access Control Systems	28	52	TBD							X			Added level 4 Category				
52-10	28	Detection Interfaces to Video Surveillance Systems	28	52	TBD							X			Added level 4 Category	See: 28 10 00, Access Control			
52-11	28	Detection Interfaces to Security Detection, Alarm, and Monitoring	28	52	TBD							X			Added level 4 Category	See: 28 20 00 Video Surveillance			
52-12	28	Detection Interfaces to Security Monitoring and Control	28	52	TBD							X			Added level 4 Category	See: 28 30 00 Security Detection, Alarm, and Monitoring			
52-13	28	Detection Interfaces to Duress Alarm Systems	28	52	TBD							X			Added level 4 Category	See: 28 40 00 Security Monitoring and Control			
52-14	28	Detection Interfaces to Distributed Television Systems	28	52	TBD							X			Added level 4 Category	See: 28 70 00 Life Safety Systems			
52-15	28	Detection Interfaces to Perimeter Security Systems	28	52	TBD							X			Added level 4 Category	See: 27 51 23.63 for Detention Intercommunications and Program Systems			
52-16	28	Video Support Systems for Detention	28	52	TBD							X			New Level 3 Title	Includes: Video based systems that provide specific detention support services	Not addressed elsewhere. It is different from video for surveillance purposes.		
52-17	28	Video Interrogation System	28	52	TBD							X							
52-18	28	Video Arraignment System	28	52	TBD							X			New Level 4 Title				
52-19	28	Video Visitation System	28	52	TBD							X							

OTHER REVISIONS																		
Ref. No.	Level 1 #	Title	New Level 1 #	New Level 2 #	New Level 3 #	New Level 4 # (if needed)	Prior Level 1 #	Prior Level 2 #	Prior Level 3 #	Prior Level 4 #	No Change	Add	Modify	Delete	Description of Change	Guidance Notes	Justification/Reason for Proposed Change	
A1	03	Precast Concrete Security Bollards	03	48	13	TBA						X			Add Level 4 category		Missing from 2014 MasterFormat	
A2	32	Manufactured Metal Security Bollards	32	39	13	TBA						X			Add Level 4 category		Missing from 2014 MasterFormat	
A3	11	Schedules for Detention Equipment	11	06	90	TBA						X			Add Level 4 category		Missing from 2014 MasterFormat	
A4	11	Detention Equipment General Requirements	11	98	TBA							X			Add Level 3 category		Missing from 2014 MasterFormat	
A5	11	Detention Doors and Frames	11	98	TBA		08	34	63				X		Move to Div. 11, Detention Equipment. Change guidance notes in Ref No. 52-00, Detention Security Systems.	Includes: doors and frames with specific characteristics for detention applications.	The detention industry specifies detention hollow metal in Div. 11 as part of an interrelated Detention Equipment system.	
A6	11	Steel Detention Doors and Frames	X	X	X	X	08	34	63	13				X	Delete Entry			
A7	11	Steel Plate Detention Doors and Frames	X	X	X	X	08	34	63	16				X	Delete Entry			
A8	11	Detention Door Frame Protection	X	X	X	X	08	34	63	33				X	Delete Entry			
A9	08	Detention Windows	11	98	TBA		08	56	63				X		Move to Div. 11, Detention Equipment. Change guidance notes in Ref No. 52-00, Detention Security Systems.		The detention industry specifies detention windows in Div. 11 as part of an interrelated Detention Equipment system.	
A10	08	Detention Window Screens	11	98	TBA		08	56	66				X					The detention industry specifies detention window screens in Div. 11 as part of an interrelated Detention Equipment system.
A11	08	Detention Door Hardware	11	98	TBA		08	71	63				X		Move to Div. 11		The detention industry specifies detention hardware in Div. 11 as part of an interrelated Detention Equipment system.	
A12	08	Access Control Hardware	28	TBD	TBD		08	74	00				X		Move to Division 28 10 00 Access Control, Ref No. 10-15		This is electronic access control equipment and does not belong on Division 08.	
A13	08	Card Key Access Control Hardware	28	TBD	TBD		08	74	13				X		Move to Division 28 10 00 Access Control, Ref No. 10-17			
A14	08	Keypad Access Control Hardware	28	TBD	TBD		08	74	16				X		Move to Division 28 10 00 Access Control, Ref No. 10-18			
A15	08	Biometric Identity Access Control Hardware	28	TBD	TBD		08	74	19				X		Move to Division 28 10 00 Access Control, Ref No. 10-19			
A16	11	Detention Equipment Fasteners	11	98	TBA							X			Add Level 3 category		Missing from 2014 MasterFormat	
A17	11	Security Control Equipment	11	15	00		X	X	X			X			Add Level 3 Category	Includes: Security kiosks and guard shacks. See Also: 28 10 00 for Access Control	Not adequately addressed in 2014 Master Format	

<i>Current MasterFormat 2014 Division 28</i>					<i>Reference to Proposed</i>
Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Electronic Safety and Security	28	00	00		00-00
Operation and Maintenance of Electronic Safety and Security	28	01	00		01-00
Operation and Maintenance of Electronic Access Control and Intrusion Detection	28	01	10		01-01 & 01-07
Maintenance and Administration of Electronic Access Control and Intrusion Detection	28	01	10	51	01-02 & 01-08
Revisions and Upgrades of Electronic Access Control and Intrusion Detection	28	01	10	71	01-03 & 01-08
Operation and Maintenance of Electronic Surveillance	28	01	20		01-04
Operation and Maintenance of Electronic Detection and Alarm	28	01	30		01-22
Maintenance and Administration of Electronic Detection and Alarm	28	01	30	51	01-23
Revisions and Upgrades of Electronic Detection and Alarm	28	01	30	71	01-24
Operation and Maintenance of Electronic Monitoring and Control	28	01	40		01-22
Maintenance and Administration of Electronic Monitoring and Control	28	01	40	51	01-23
Revisions and Upgrades of Electronic Monitoring and Control	28	01	40	71	01-24
Common Work Results for Electronic Safety and Security	28	05	00		05-01
Selective Demolition for Electronic Safety and Security	28	05	05		05-02
Conductors and Cables for Electronic Safety and Security	28	05	13		05-03
CCTV Communications Conductors and Cables	28	05	13	13	05-04

<i>Current MasterFormat 2014 Division 28</i>					<i>Reference to Proposed</i>
Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Access Control Communications Conductors and Cables	28	05	13	16	05-05
Intrusion Detection Communications Conductors and Cables	28	05	13	19	05-06
Fire Alarm Communications Conductors and Cables	28	05	13	23	05-07
Grounding and Bonding for Electronic Safety and Security	28	05	26		05-24
Pathways for Electronic Safety and Security	28	05	28		05-25
Hangers and Supports for Electronic Safety and Security	28	05	28	29	05-26
Conduits and Backboxes for Electronic Safety and Security	28	05	28	33	05-27
Cable Trays for Electronic Safety and Security	28	05	28	36	05-28
Surface Raceways for Electronic Safety and Security	28	05	28	39	05-29
Vibration and Seismic Controls for Electronic Safety and Security	28	05	48		05-75
Identification for Electronic Safety and Security	28	05	53		05-76
Schedules for Electronic Safety and Security	28	06	00		06-01
Schedules for Electronic Access Control and Intrusion Detection	28	06	10		06-02
Schedules for Electronic Surveillance	28	06	20		06-03
Schedules for Electronic Detection and Alarm	28	06	30		06-09
Schedules for Electronic Monitoring and Control	28	06	40		06-04 & 06-05
Commissioning of Electronic Safety and Security	28	08	00		08-01
Electronic Access Control and Intrusion Detection	28	10	00		10-00 & 30-00

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Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Access Control	28	13	00		10-00
Access Control Global Applications	28	13	13		10-01
Access Control Systems and Database Management	28	13	16		10-03
Access Control Systems Infrastructure	28	13	19		10-09
Access Control Remote Devices	28	13	26		10-32
Wireless Access Control Devices	28	13	26	11	10-34
Access Control Interfaces	28	13	33		10-43
Access Control Interfaces to Access Control Hardware	28	13	33	16	10-44
Access Control Interfaces to Intrusion Detection	28	13	33	26	10-45
Access Control Interfaces to Video Surveillance	28	13	33	33	10-46
Access Control Interfaces to Fire Alarm	28	13	33	36	10-*47
Access Control Identification Management Systems	28	13	43		10-55
Security Access Detection	28	13	53		10-60
Security Access Metal Detectors	28	13	53	13	10-61
Security Access X-Ray Equipment	28	13	53	16	10-62

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<i>Current MasterFormat 2014 Division 28</i>					<i>Reference to Proposed</i>
Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Security Access Explosive Detection Equipment	28	13	53	23	10-63
Security Access Sniffing Equipment	28	13	53	29	10-64
Access Control Vehicle Identification System	28	13	63		10-65
Intrusion Detection	28	16	00		31-00
Intrusion Detection Control, GUI, and Logic Systems	28	16	13		31-02
Intrusion Detection Systems Infrastructure	28	16	16		31-03
Intrusion Detection Remote Devices and Sensors	28	16	29		31-04
Intrusion Detection Interfaces	28	16	33		31-14
Intrusion Detection Interfaces to Remote Monitoring	28	16	33	13	31-15
Intrusion Detection Interfaces to Access Control Hardware	28	16	33	16	31-16
Intrusion Detection Interfaces to Access Control System	28	16	33	23	31-17
Intrusion Detection Interfaces to Video Surveillance	28	16	33	33	31-18
Intrusion Detection Interfaces to Fire Alarm	28	16	33	36	31-22
Perimeter Security Systems	28	16	43		31-05
Electronic Surveillance	28	20	00		20-00
Video Surveillance	28	23	00		20-00

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Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Video Surveillance Control and Management Systems	28	23	13		20-09
Video Surveillance Monitoring and Supervisory Interfaces	28	23	16		20-11
Digital Video Recorders and Analog Recording Devices	28	23	19		05-35 to 05-38
Video Surveillance Systems Infrastructure	28	23	23		20-13
Video Surveillance Remote Positioning Equipment	28	23	26		20-14
Video Surveillance Remote Devices and Sensors	28	23	29		20-01 & 20-15
Electronic Personal Protection Systems	28	26	00		45-00
Electronic Personal Safety Detection Systems	28	26	13		45-01
Electronic Personal Safety Alarm Annunciation and Control Systems	28	26	16		45-02
Electronic Personal Safety Interfaces to Remote Monitoring	28	26	19		45-03
Electronic Personal Safety Emergency Aid Devices	28	26	23		45-04
Electronic Detection and Alarm	28	30	00		40-00
Fire Detection and Alarm	28	31	00		42-00
Digital, Addressable Fire-Alarm Systems	28	31	11		42-20
Zoned (DC Loop) Fire-Alarm Systems	28	31	12		42-21
Fire Detection and Alarm Control, GUI, and Logic Systems	28	31	13		42-28
Fire Detection and Alarm Annunciation Panels and Fire Stations	28	31	23		42-22
Fire Detection and Alarm Interfaces	28	31	33		42-34

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<i>Current MasterFormat 2014 Division 28</i>					<i>Reference to Proposed</i>
Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Fire Detection and Alarm Interfaces to Remote Monitoring	28	31	33	13	42-35
Fire Detection and Alarm Interfaces to Access Control Hardware	28	31	33	16	42-36
Fire Detection and Alarm Interfaces to Access Control System	28	31	33	23	42-37
Fire Detection and Alarm Interfaces to Intrusion Detection	28	31	33	26	42-38
Fire Detection and Alarm Interfaces to Video Surveillance	28	31	33	33	42-39
Fire Detection and Alarm Interfaces to Elevator Control	28	31	33	43	42-40
Fire Detection Sensors	28	31	43		42-01 & 42-02
Smoke Detection Sensors	28	31	46		42-05
Carbon-Monoxide Detection Sensors	28	31	49		42-09
Fire Alarm Initiating Devices	28	31	53		42-13
Fire Alarm Pull Stations	28	31	53	13	42-14
Fire Alarm Level Detectors Switches	28	31	53	23	42-15
Fire Alarm Flow Switches	28	31	53	33	42-16
Fire Alarm Pressure Sensors	28	31	53	43	42-17
Fire Alarm Integrated Audio Visual Evacuation Systems	28	31	63		42-29
Fire Alarm Horns and Strobes	28	31	63	13	42-30

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Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Radiation Detection and Alarm	28	32	00		41-00
Radiation Detection and Alarm Control, GUI, and Logic Systems	28	32	13		41-01
Radiation Detection and Alarm Integrated Audio Evacuation Systems	28	32	23		41-02
Radiation Detection Sensors	28	32	33		41-03
Radiation Dosimeters	28	32	43		41-04
Gas Detection and Alarm	28	33	00		41-05
Gas Detection and Alarm Control, GUI, and Logic Systems	28	33	13		41-06
Gas Detection and Alarm Integrated Audio Evacuation Systems	28	33	23		41-07
Gas Detection Sensors	28	33	33		41-08
Fuel-Oil Detection and Alarm	28	34	00		41-09
Fuel-Oil Detection and Alarm Control, GUI, and Logic Systems	28	34	13		41-10

<i>Current MasterFormat 2014 Division 28</i>					<i>Reference to Proposed</i>
Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Fuel-Oil Detection and Alarm Integrated Audio Evacuation Systems	28	34	23		41-11
Fuel-Oil Detection Sensors	28	34	33		41-12
Refrigerant Detection and Alarm	28	35	00		41-13
Refrigerant Detection and Alarm Control, GUI, and Logic Systems	28	35	13		41-14
Refrigerant Detection and Alarm Integrated Audio Evacuation Systems	28	35	23		41-15
Refrigerant Detection Sensors	28	35	33		41-16
Water Detection and Alarm	28	36	00		41-17
Water Detection and Alarm Control, GUI, and Logic Systems	28	36	13		41-18
Water Detection Sensors	28	36	33		41-19
Building Envelope Water Detection and Alarm	28	36	43		41-20

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Title	Level 1 #	Level 2	Level 3	Level 4	Ref No.
Mass Notification Systems	28	39	00		43-00
Electronic Monitoring and Control	28	40	00		32-00 & 52-00
Electronic Structural Monitoring Systems	28	41	00		32-01
Electronic Detention Monitoring and Control Systems	28	46	00		52-01
Hard-Wired Detention Monitoring and Control Systems	28	46	13		52-02
Relay-Logic Detention Monitoring and Control Systems	28	46	16		52-03
PLC Electronic Detention Monitoring and Control Systems	28	46	19		52-04
Computer-Based Detention Monitoring and Control Systems	28	46	23		52-05
Discreet-Logic Detention Monitoring and Control Systems	28	46	26		52-06
Discreet-Distributed Intelligence Detention Monitoring and Control Systems	28	46	29		52-07