**Eaton Guide Specification**

**Notes and instructions to Specwriter:**

**The following guide specification is offered for your assistance in specifying this product as part of a CSI (Construction Specification Institute) compliant document.**

**This guide specification has been created in MS Word and uses Word features including Styles and Review to assist in editing and formatting. Notes to the reviewer are bolded and bracketed. Please be sure to update those comments with the relevant project details and delete those that do not apply.**

SECTION 262726 - WIRING DEVICES

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

General-use switches and dimmer switches.

General-grade duplex straight-blade receptacles.

Hospital-grade straight-blade receptacles.

Locking receptacles.

Receptacles with GFCI devices.

* + - 1. ALLOWANCES

Retain this article if products and Work included in this Section are covered by lump-sum, unit-cost, quantity, or testing and inspection allowances.

* + - * 1. See Section 012100 "Allowances" for description of allowances affecting items specified in this Section.
			1. UNIT PRICES

Retain this article if products and Work specified in this Section are measured and paid for under the provisions of unit prices.

* + - * 1. See Section 012200 "Unit Prices" for description of unit prices affecting items specified in this Section.
			1. ALTERNATES

Retain this article if products and Work specified in this Section are proposed to be added to or deducted from the base bid amount under the provisions of alternates.

* + - * 1. See Section 012300 "Alternates" for description of alternates affecting items specified in this Section.
			1. DEFINITIONS

Do not duplicate common acronyms, abbreviations, and terms defined in Section 260010 "Supplemental Requirements for Electrical."

Retain terms that remain after this Section has been edited for a project. Include only essential definitions or acronyms not well understood by the affected industry or trade.

* + - * 1. Commercial/Industrial-Use Cord Reel: A cord reel subject to severe use in factories, commercial garages, construction sites, and similar locations requiring a harder service-type cord.
				2. UL 1472 Type I Dimmer: Dimmer in which air-gap switch is used to energize preset lighting levels.
			1. PREINSTALLATION MEETINGS

Retain "Preinstallation Conference" Paragraph below if Work of this Section is extensive or complex enough to justify a conference.

* + - * 1. Preinstallation Conference: Conduct conference at [**Project site**] <**Insert location**>.

Retain "Preinstallation Coordination Meeting(s)" Paragraph below if Work of this Section does not justify a full preinstallation conference as specified in Section 013100 "Project Management and Coordination," but would benefit from a smaller coordination meeting. Consider videoconference option if Project requires social distancing for meetings, for infection control.

* + - * 1. Preinstallation Coordination Meeting(s): For ceiling-mounted cable reels. Conduct meeting [**as videoconference**] [**or**] [**at Project site**] <**Insert location**> before <**Insert construction activity**>.

Attendees: Installers, fabricators, representatives of manufacturers, and administrants for field tests and inspections. Notify Architect [**, Construction Manager**] [**, and Owner's Commissioning Authority**] of scheduled meeting dates.

* + - 1. ACTION SUBMITTALS

Action submittals are submittals requiring responsive action and return of reviewed documents to Contractor.

* + - * 1. Product Data:

Retain one or more of seven subparagraphs below to suit Project.

Toggle switches.

Rocker switches.

Dimmer switches.

Duplex straight-blade receptacles.

Hospital-grade straight-blade receptacles.

Locking receptacles.

Receptacles with GFCI device.

Retain "Samples" Paragraph below if products have critical features needing hands-on appraisal.

* + - * 1. Samples:

Retain one or more of seven subparagraphs below to suit Project.

One for each kind of toggle switch specified, in each finish and color specified.

One for each kind of rocker switch specified, in each finish and color specified.

One for each kind of dimmer switch specified, in each finish and color specified.

One for each kind of duplex straight-blade receptacle specified, in each finish and color specified.

One for each kind of hospital-grade straight-blade receptacle specified, in each finish and color specified.

One for each kind of locking receptacle specified, in each finish and color specified.

One for each kind of receptacle with GFCI device specified, in each finish and color specified.

Retain "Field Quality-Control Submittals" Paragraph below if Contractor is responsible for field quality-control testing and inspecting.

* + - * 1. Field Quality-Control Submittals:

Field quality-control reports.

* + - 1. INFORMATIONAL SUBMITTALS

Retain "Manufacturers' Instructions" Paragraph below when execution requirements state "in accordance with manufacturer's instructions," especially if those instructions may require preinstallation review and coordination with Construction Documents to verify constructability and commissioning requirements.

* + - * 1. Manufacturers' Instructions: Record copy of official installation instructions issued to Installer by manufacturer for the following:

Dimmers.

Duplex straight-blade receptacles.

Hospital-grade straight-blade receptacles.

Locking receptacles.

Receptacles with GFCI device.

* + - * 1. Sample warranties.
			1. CLOSEOUT SUBMITTALS

Submittals for record documents, operation and maintenance data, software, and software documentation are specified in Section 260010 "Supplemental Requirements for Electrical."

* + - * 1. Sustainable Design Closeout Documentation:

Record floor plan drawings showing as-installed locations of switches and dimmers, indicating lighting zones each device controls, to verify extent of ability of installed Work to provide occupant control for customizing environment.

Record floor plan drawings showing as-installed locations of uncontrolled and marked controlled receptacles superimposed on office furniture layout, to verify extent of ability of installed Work to provide each occupant ability to select at least one uncontrolled receptacle and at least one controlled receptacle for powering workspace equipment. Show locations of UL-approved relocatable power taps and power strips, indicating means of securing for protection from damage and accessibility for inspection. Show locations of temporary extension cords, indicating plan for replacing them with permanent wiring within 90 days.

* + - 1. MAINTENANCE MATERIAL SUBMITTALS

See Section 017700 "Closeout Procedures" for submission of maintenance material items.

Special tools are items that would not be available from a typical hardware store.

* + - * 1. Special Tools:

Proprietary equipment and software required to maintain, repair, adjust, or implement future changes to controlled receptacles.

Proprietary equipment required to maintain, repair, adjust, or implement future changes to cord connectors.

* + - 1. WARRANTY FOR DEVICES

When warranties are required and available, verify with Owner's counsel that special warranties stated in this article are not less than remedies available to Owner, after one-year correction period specified in the Contract, under Contractor's general warranty and prevailing local laws.

Verify durations of extended warranty periods needed.

* + - * 1. Special Manufacturer Extended Warranty: Manufacturer warrants that devices perform in accordance with specified requirements and agrees to provide repair or replacement of devices that fail to perform as specified within extended warranty period.

Extended Warranty Period: [**Three**] [**Four**] [**Five**] <**Insert number**> years from date of Substantial Completion; [**full**] [**prorated**] coverage for labor, materials, and equipment.

Retain transient voltage surges option in "Follow-On Extended Warranty Period" Subparagraph below if device includes surge protection.

Retain "origin" option in subparagraph if recipient assumes ownership of goods when they are shipped. Retain "destination" option if seller retains ownership of goods until they are delivered. Damaged shipping containers labeled "FOB origin" cannot be returned to sender, but carrier is liable to recipient for delay and damage claims.

Follow-On Extended Warranty Period: [**Eight**] <**Insert number**> years from date of Substantial Completion; [**full**] [**prorated**] coverage for materials only, free on board [**origin**] [**destination**], freight prepaid.

1. PRODUCTS
	* + 1. OWNER-FURNISHED PRODUCTS
				1. Basis for Pricing: <**Insert name of manufacturer; model number or series for product that Owner intends to furnish to Contractor**>.
				2. Description: <**Insert description of product, including special features, options, and finishes for Owner-furnished product that may impact Contractor's installation**>.
				3. Accessories: <**Insert accessories that will be provided with product**>.
			2. EXISTING PRODUCTS [**TO BE MODIFIED**] [**TO BE REMOVED AND RE-INSTALLED**]
				1. Basis for Pricing: <**Insert name of manufacturer; model number or series for existing product**>.
				2. Description: <**Insert description of existing product, including special features, options, and finishes that may impact Work**>.
				3. Accessories: <**Insert accessories included with existing product**>.
			3. GENERAL-USE SWITCHES AND DIMMER SWITCHES

Products listed in this article are subset of products specified in Section 262726.11 "General-Use Switches, Dimmer Switches, and Fan-Speed Controller Switches."

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Toggle Switch <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Extra Heavy-Duty, AH1221 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

<**Insert requirements**>.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN WMUZ and UL 20.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Light Almond**].

Configuration:

Retain one of first five subparagraphs below.

Industrial grade, 120-277 V, 15 A, [**single pole**] [**double pole**] [**three way**] [**four way**] [**single pole, lighted toggle**] [**three way, lighted toggle**] [**single pole, pilot lighted red toggle**] [**double, pilot lighted red toggle**].

Industrial grade, 120-277 V, 20 A, [**single pole**] [**double pole**] [**three way**] [**four way**] [**single pole, lighted toggle**] [**three way, lighted toggle**] [**single pole, pilot lighted red toggle**] [**double, pilot lighted red toggle**].

Industrial grade, 120-277 V, 30 A, [**single pole**] [**double pole**] [**double, pilot lighted red toggle**].

Industrial grade, 347 V, 15 A, [**single pole**] [**double pole**] [**three way**].

Industrial grade, 347 V, 20 A, [**single pole**] [**double pole**] [**three way**].

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Rocker Switch <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Commercial Grade, 7621 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

<**Insert requirements**>.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN WMUZ and UL 20.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Almond**] [**Light Almond**].

Configuration:

120-277 V, 20 A [**, single pole**].

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Type I Dimmer Switch <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart phase selectable, SUF7 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN EOYX and UL 1472 Type I dimmer.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Black**] [**Light Almond**].

Switch Style: Rocker.

Dimming Control Style: Slide.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

* + - 1. GENERAL-USE DUPLEX STRAIGHT-BLADE RECEPTACLES

Products listed in this article are subset of products specified in Section 262726.33 "General-Grade Duplex Straight-Blade Receptacles."

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Duplex Straight-Blade Receptacle <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Extra Heavy-Duty, AH5362 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN RTRT and UL 498.

Single-piece, all-brass mounting strap with integral (rivetless) ground contacts.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Light Almond**].

Configuration:

Extra Heavy-duty, NEMA 5-20R.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Tamper-Resistant Duplex Straight-Blade Receptacle <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Extra Heavy-Duty, AHTR5362 or comparable product by one of the following:

<**Insert manufacturer's name**>

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN RTRT and UL 498.

Single-piece, all-brass mounting strap with integral (rivetless) ground contacts.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Light Almond**].

Configuration:

Extra Heavy-duty, NEMA 5-20R.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Isolated Ground Duplex Straight-Blade Receptacle with Type 3 Surge Protective Device <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Heavy-Duty, TRIG5362\_S or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards:

UL CCN RTRT and UL 498.

Surge Protective Devices: UL 1449, Type 3.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Blue**] [**Light Almond**].

Configuration: Heavy-duty, smooth face, NEMA 5-20R.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

* + - 1. HOSPITAL-GRADE STRAIGHT-BLADE RECEPTACLES

Products listed in this article are subset of products specified in Section 262726.35 "Hospital-Grade Straight-Blade Receptacles."

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Hospital-Grade, Tamper-Resistant Duplex Straight-Blade Receptacle <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Extra Heavy-Duty, AHTR8300 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN RTRT and UL 498.

Single-piece, nickel-plated brass mounting strap with integral (rivetless) ground contacts.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Light Almond**].

Configuration:

Extra Heavy-duty, smooth face, NEMA 5-20R.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533 "Raceway and Boxes for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

* + - 1. LOCKING RECEPTACLES

Products listed in this article are subset of products specified in Section 262726.39 "Locking Receptacles."

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. NEMA, 125 V, Locking Receptacle <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart Industrial Grade, NEMA 125 V, 20 A or 30 A locking receptacle or comparable product by one of the following:

<**Insert manufacturer's name**>.

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN RTRT and UL 498.

Options:

For "Device Color" Subparagraph below, there is no official standard for color-coding voltage ratings; however, most manufacturers follow this convention for locking receptacles.

Device Color: Black with yellow voltage indication on face.

Configuration: 2 pole, 3 wire, grounding, [**NEMA L5-20R**] [**NEMA L5-30R**].

* + - 1. RECEPTACLES WITH GFCI DEVICES
				1. Description: Receptacles containing GFCI device for use in accordance with NFPA 70.
				2. Performance Criteria:

Regulatory Requirements:

Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction and marked for intended location and application.

General Characteristics:

For assistance with finding guide information for UL Category Control Numbers and identifying UL-approved manufacturers, consult the UL Product iQ database at https://iq.ulprospector.com.

Reference Standards: UL CCN KCXS, UL 498, and UL 943.

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. General-Grade, Tamper Resistant Duplex Straight-Blade Receptacle with GFCI Device <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart, TRSGF20 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Light Almond**] [**Oil Rubbed Bronze**] [**Silver Granite**].

Configuration: Heavy-duty, NEMA 5-20R.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533.16 "Boxes and Covers for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

Copy and re-edit first paragraph below for each configuration indicated on Drawings.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Hospital-Grade, Tamper-Resistant Duplex Straight-Blade Receptacle with GFCI Device <**Insert drawing designation**>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to require a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide Arrow Hart, TRSGFH20 or comparable product by one of the following:

<**Insert manufacturer's name**>.

Options:

Coordinate "Device Color" Subparagraph below with architectural requirements. Blue, green, office white, almond, and light almond are not defined in NEMA WD 1, so the same color from different manufacturers may not match. Verify availability of colors with manufacturers.

Device Color: [**Ivory**] [**White**] [**Gray**] [**Brown**] [**Black**] [**Red**] [**Light Almond**].

Configuration: Heavy-duty, NEMA 5-20R.

Retain "Accessories" Subparagraph below only if this cover plate must exactly match color of this wiring device. Use Section 260533.16 "Boxes and Covers for Electrical Systems" to specify common covers or cover plates with matching colors or finishes for use with multiple wiring devices.

Accessories:

Cover Plate: 0.060 inch (1.5 mm) thick, high-impact thermoplastic (nylon) with smooth finish and color matching wiring device; from same manufacturer as wiring device.

Securing Screws for Cover Plate: Metal with head color matching wallplate finish.

1. EXECUTION
	* + 1. EXAMINATION
				1. Receptacles:

Verify that receptacles to be procured and installed for Owner-furnished equipment are compatible with mating attachment plugs on equipment.

* + - 1. SELECTION OF GFCI RECEPTACLES
				1. Healthcare Facilities: Unless protection of downstream branch-circuit wiring, cord sets, and power-supply cords is required by NFPA 70 or NFPA 99, provide non-feed-through GFCI receptacles.
			2. INSTALLATION OF SWITCHES
				1. Comply with manufacturer's instructions.

NFPA 70 and NECA NEIS 1 are already specified in Section 260010 "Supplemental Requirements for Electrical." Retain "Reference Standards" Paragraph below to specify other standards applicable to Work specified in this Section.

* + - * 1. Reference Standards:

Unless more stringent requirements are specified in Contract Documents or manufacturers' instructions, comply with installation instructions in NECA NEIS 130.

Mounting Heights: Unless otherwise indicated in Contract Documents, comply with mounting heights recommended in NECA NEIS 1.

Consult Architect for resolution of conflicting requirements.

* + - * 1. Identification:

Identify cover or cover plate for device with panelboard identification and circuit number in accordance with Section 260553 "Identification for Electrical Systems."

Retain first subparagraph below if self-adhesive labels on cover or cover plate are unacceptable.

Mark cover or cover plate using hot, stamped, or engraved machine printing with [**black**] [**white**] [**red**]-filled lettering and provide durable wire markers or tags inside device box or outlet box.

Retain "Healthcare Facilities" Subparagraph below to provide the distinctive color or marking required by Article 517 of NFPA 70 and NFPA 99.

Healthcare Facilities: Distinctively identify covers or cover plates of device boxes and outlet boxes that are supplied from life safety and critical branch power supplies following facility's standard practice.

* + - * 1. Interfaces with Other Work:

Coordinate installation of new products for <**Insert system or product group**> with existing conditions.

<**Insert requirements for transition between new and existing**>.

Coordinate with <**Insert Section number and title**> for <**Insert description of interfacing related Work**>.

<**Insert requirements for transition between this Section and related Work**>.

* + - 1. INSTALLATION OF STRAIGHT-BLADE RECEPTACLES
				1. Comply with manufacturer's instructions.

NFPA 70 and NECA NEIS 1 are already specified in Section 260010 "Supplemental Requirements for Electrical." Retain "Reference Standards" Paragraph below to specify other standards applicable to Work specified in this Section.

* + - * 1. Reference Standards:

Unless more stringent requirements are specified in Contract Documents or manufacturers' instructions, comply with installation instructions in NECA NEIS 130.

Mounting Heights: Unless otherwise indicated in Contract Documents, comply with mounting heights recommended in NECA NEIS 1.

Receptacle Orientation: Unless otherwise indicated in Contract Documents, orient receptacle to match configuration diagram in NEMA WD 6.

Requirement in first subparagraph below is recommended by IEEE 602.

Hospital-Grade Receptacle Orientation: Orient receptacle with ground pin or neutral pin at top.

Consult Architect for resolution of conflicting requirements.

* + - * 1. Identification:

Identify cover or cover plate for device with panelboard identification and circuit number in accordance with Section 260553 "Identification for Electrical Systems."

Retain first subparagraph below if self-adhesive labels on cover or cover plate are unacceptable.

Mark cover or cover plate using hot, stamped, or engraved machine printing with [**black**] [**white**] [**red**]-filled lettering and provide durable wire markers or tags inside device box or outlet box.

Retain "Healthcare Facilities" Subparagraph below to provide the distinctive color or marking required by Article 517 of NFPA 70 and NFPA 99.

Healthcare Facilities: Distinctively identify covers or cover plates of device boxes and outlet boxes that are supplied from life safety and critical branch power supplies following facility's standard practice.

* + - * 1. Interfaces with Other Work:

Surge protection works by creating an intentional ground fault to divert the surge current, which will cause nuisance tripping of upstream ground-fault devices. This nuisance tripping is a frequent problem for wet laboratory workbenches when occupants plug their own SPDs for computing equipment into a GFCI-protected outlet.

Do not install Type 3 SPD, including surge-protected relocatable taps and power strips, on branch circuit downstream of GFCI device.

Coordinate installation of new products for <**Insert system or product group**> with existing conditions.

<**Insert requirements for transition between new and existing**>.

Coordinate with <**Insert Section number and title**> for <**Insert description of interfacing related Work**>.

<**Insert requirements for transition between this Section and related Work**>.

* + - 1. INSTALLATION OF LOCKING RECEPTACLES
				1. Comply with manufacturer's instructions.

NFPA 70 and NECA NEIS 1 are already specified in Section 260010 "Supplemental Requirements for Electrical." Retain "Reference Standards" Paragraph below to specify other standards applicable to Work specified in this Section.

* + - * 1. Reference Standards:

Unless more stringent requirements are specified in Contract Documents or manufacturers' instructions, comply with installation instructions in NECA NEIS 130.

Mounting Heights: Unless otherwise indicated in Contract Documents, comply with mounting heights recommended in NECA NEIS 1.

Receptacle Orientation: Unless otherwise indicated in Contract Documents, orient receptacle to match configuration diagram in NEMA WD 6.

Consult Architect for resolution of conflicting requirements.

* + - * 1. Identification:

Identify cover or cover plate for device with panelboard identification and circuit number in accordance with Section 260553 "Identification for Electrical Systems."

Retain first subparagraph below if self-adhesive labels on cover or cover plate are unacceptable.

Mark cover or cover plate using hot, stamped, or engraved machine printing with [**black**] [**white**] [**red**]-filled lettering and provide durable wire markers or tags inside device box or outlet box.

Retain "Healthcare Facilities" Subparagraph below to provide the distinctive color or marking required by Article 517 of NFPA 70 and NFPA 99.

Healthcare Facilities: Distinctively identify covers or cover plates of device boxes and outlet boxes that are supplied from life safety and critical branch power supplies following facility's standard practice.

* + - * 1. Interfaces with Other Work:

Coordinate installation of new products for <**Insert system or product group**> with existing conditions.

<**Insert requirements for transition between new and existing**>.

Coordinate with <**Insert Section number and title**> for <**Insert description of interfacing related Work**>.

<**Insert requirements for transition between this Section and related Work**>.

* + - 1. FIELD QUALITY CONTROL OF SWITCHES
				1. Testing Preparation:

<**Insert requirements**>.

Retain first paragraph below to require that field quality-control tests be witnessed. Local ordinance or custom may require that authorities having jurisdiction witness the testing.

* + - * 1. Field tests and inspections must be witnessed by [**Architect**] [**Tenant**] [**authorities having jurisdiction**] <**Insert names or titles of witnesses**>.
				2. Tests and Inspections:

Perform tests and inspections in accordance with manufacturers' instructions.

<**Insert tests and inspections**>.

See Section 014000 "Quality Requirements" for retesting and reinspecting requirements and Section 017300 "Execution" for requirements for correcting the Work.

* + - * 1. Nonconforming Work:

Unit will be considered defective if it does not pass tests and inspections.

Remove and replace defective units and retest.

* + - * 1. Assemble and submit test and inspection reports.

Retain "Manufacturer Services" Paragraph below if manufacturer's representative is required to support or supervise the administrant specified in Section 260010 "Supplemental Requirements for Electrical" for field tests and inspections performed by Installer or third-party agencies.

* + - * 1. Manufacturer Services:

Retain "supervise" option in subparagraph below when third-party tests and inspections must be witnessed and approved by factory-authorized service representative to satisfy special extended warranty requirements. In some cases, Installer may be factory authorized under warranty provisions to fulfill this role.

Engage factory-authorized service representative to [**support**] [**supervise**] field tests and inspections.

* + - 1. FIELD QUALITY CONTROL OF STRAIGHT-BLADE RECEPTACLES
				1. Testing Preparation:

<**Insert requirements**>.

Retain first paragraph below to require that field quality-control tests be witnessed. Local ordinance or custom may require that authorities having jurisdiction witness the testing.

* + - * 1. Field tests and inspections must be witnessed by [**Architect**] [**Tenant**] [**authorities having jurisdiction**] <**Insert names or titles of witnesses**>.
				2. Tests and Inspections:

Insert and remove test plug to verify that device is securely mounted.

Verify polarity of hot and neutral pins.

Measure line voltage.

Measure percent voltage drop.

Measure grounding circuit continuity; impedance must be not greater than 2 ohms.

Retain "Healthcare Facilities" Subparagraph below to comply with Requirement 6.3.3.2.4 of NFPA 99.

Healthcare Facilities: Test straight-blade receptacles in patient care spaces with receptacle pin tension test instrument in accordance with NFPA 99. Retention force of ground pin must be not less than 115 g (4 oz).

Perform additional installation and maintenance inspections and diagnostic tests in accordance with NECA NEIS 130 and manufacturers' instructions.

<**Insert tests and inspections**>.

See Section 014000 "Quality Requirements" for retesting and reinspecting requirements and Section 017300 "Execution" for requirements for correcting the Work.

* + - * 1. Nonconforming Work:

Device will be considered defective if it does not pass tests and inspections.

Remove and replace defective units and retest.

* + - * 1. Assemble and submit test and inspection reports.

Retain "Manufacturer Services" Paragraph below if manufacturer's representative is required to support or supervise the administrant specified in Section 260010 "Supplemental Requirements for Electrical" for field tests and inspections performed by Installer or third-party agencies.

* + - * 1. Manufacturer Services:

Retain "supervise" option in subparagraph below when third-party tests and inspections must be witnessed and approved by factory-authorized service representative to satisfy special extended warranty requirements. In some cases, Installer may be factory authorized under warranty provisions to fulfill this role.

Engage factory-authorized service representative to [**support**] [**supervise**] field tests and inspections.

* + - 1. FIELD QUALITY CONTROL OF LOCKING RECEPTACLES
				1. Testing Preparation:

<**Insert requirements**>.

Retain first paragraph below to require that field quality-control tests be witnessed. Local ordinance or custom may require that authorities having jurisdiction witness the testing.

* + - * 1. Field tests and inspections must be witnessed by [**Architect**] [**Tenant**] [**authorities having jurisdiction**] <**Insert names or titles of witnesses**>.
				2. Tests and Inspections:

Insert and remove test plug to verify that device is securely mounted.

Verify polarity of hot and neutral pins.

Measure line voltage.

Measure percent voltage drop.

Measure grounding circuit continuity; impedance must be not greater than 2 ohms.

Perform additional installation and maintenance inspections and diagnostic tests in accordance with NECA NEIS 130 and manufacturers' instructions.

<**Insert tests and inspections**>.

See Section 014000 "Quality Requirements" for retesting and reinspecting requirements and Section 017300 "Execution" for requirements for correcting the Work.

* + - * 1. Nonconforming Work:

Device will be considered defective if it does not pass tests and inspections.

Remove and replace defective units and retest.

* + - * 1. Assemble and submit test and inspection reports.

Retain "Manufacturer Services" Paragraph below if manufacturer's representative is required to support or supervise the administrant specified in Section 260010 "Supplemental Requirements for Electrical" for field tests and inspections performed by Installer or third-party agencies.

* + - * 1. Manufacturer Services:

Retain "supervise" option in subparagraph below when third-party tests and inspections must be witnessed and approved by factory-authorized service representative to satisfy special extended warranty requirements. In some cases, Installer may be factory authorized under warranty provisions to fulfill this role.

Engage factory-authorized service representative to [**support**] [**supervise**] field tests and inspections.

* + - 1. SYSTEM STARTUP FOR SWITCHES
				1. [**Engage a factory-authorized service representative to perform**] [**Perform**] startup service.

Complete installation and startup checks for momentary switches, dimmer switches, and fan-speed controller switches in accordance with manufacturer's instructions.

* + - 1. ADJUSTING
				1. Occupancy Adjustments for Controlled Receptacles: When requested within [**12**] <**Insert number**> months from date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to [**two**] <**Insert number**> visits to Project during other-than-normal occupancy hours for this purpose.
				2. Cord Reels and Fittings: Adjust spring mechanisms and moving parts of cord reels and fittings to function smoothly and lubricate as recommended in writing by manufacturer.
			2. PROTECTION
				1. Devices:

Schedule and sequence installation to minimize risk of contamination of wires and cables, devices, device boxes, outlet boxes, covers, and cover plates by plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other materials.

After installation, protect wires and cables, devices, device boxes, outlet boxes, covers, and cover plates from construction activities. Remove and replace items that are contaminated, defaced, damaged, or otherwise caused to be unfit for use prior to acceptance by Owner.

* + - * 1. Connectors, Cords, and Plugs:

After installation, protect connectors, cords, and plugs from construction activities. Remove and replace items that are contaminated, defaced, damaged, or otherwise caused to be unfit for use prior to acceptance by Owner.

END OF SECTION 262726