DESIGN GUIDELINE 8.4
ELECTRICAL PREFERRED MANUFACTURERS LIST

SCOPE

The Electrical Trades Preferred Manufacturers List identifies manufacturers and suppliers who are known to provide good quality products, meet specification and schedule requirements, provide technical support, and provide service after the sales. This list is intended to regulate product quality, standardize electrical designs, and simplify maintenance activities. It is not intended to limit competition. It is not all inclusive. It is a list of manufacturers whose products are well known to the University due to their frequent and successful use.

This List shall be used by A/E's when selecting manufacturers for specification in electrical designs. **A/E'S SHALL SPECIFY ONLY THE LISTED MANUFACTURERS THAT MEET THEIR PROJECT'S REQUIREMENTS, AND SHOULD SPECIFY A MINIMUM OF THREE MANUFACTURERS WHENEVER POSSIBLE.** A/E's may specify manufacturers not on this list to satisfy project requirements, **BUT SHALL OBTAIN UNIVERSITY APPROVAL IN ADVANCE.**

This List **SHALL NOT** be used by Contractors to justify making substitutions for products specified in the construction documents. **CONTRACTORS SHALL PROVIDE THE PRODUCTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS UNLESS THE UNIVERSITY APPROVED THEIR PROPOSED SUBSTITUTIONS AT THE TIME OF BID IN ACCORDANCE WITH THE PROJECT'S STANDARD GENERAL CONDITIONS.**

THIS LIST DOES NOT APPLY to purchases by the University Plant Department of replacement electrical products required to match or maintain existing installations.

This List is revised as needed. Before using it, check the AEC Website for the latest revision.

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SECTION 260513 - MEDIUM, LOW & CONTROL VOLTAGE CABLES

Cables (Medium Voltage)

General Cable, a Brand of Prysmian Group
Kerite
Okonite
Prysmian Group

Cables and Wire (600 Volts)

Alan Wire and Cable
American Insulated Wire
Cerro Wire
CME Wire and Cable, Inc.
Encore
General Cable
Republic Wire
Rockbestos-Surprenant
Service Wire
Southwire

Type MC Cables (600 Volts)

AFC
Encore
Kaf-Tech
Northern Cable Incorporated
Rockbestos-Surprenant
Service Wire
Southwire

2-Hour Fire Rated Cables (600 Volts)

Pyrotenax Mineral Insulated (Type MI) by Pentair

Control Cables and Wire

Belden
Coleman

Cable Splices for Medium Voltage Cable

Raychem

Cable Terminations for Medium Voltage Cable

Raychem

SECTION 260526 - GROUNDING & BONDING FOR ELECTRICAL

Ground Connections

Burndy Hyground (Proper dies must be used)
Cadweld
Harger Lightning & Grounding
Thermoweld
Thomas & Betts Blackburn (Above grade only)

SECTION 260533 - ELECTRICAL MATERIALS AND METHODS

Cable Trays - Center Spline and Wall Mount Types (Use only where ladder and wire basket trays cannot be used, and only with ITCS (Campus projects) or MCIT (UMHHC projects) approval)

B-Line
Legrand Cablofil
Mono-Systems
Thomas & Betts

Cable Trays - Ladder Type

B-Line
Chalfant
Cope, a brand of Atkore International
Globetray (GS Metals)
Legrand Cablofil
Mono-Sysems
MP Husky
Thomas & Betts

Cable Trays – Wire Basket Type (Use only with ITCS (Campus projects) or MCIT (UMHHC projects) approval)

Basor Electric Inc.
B-Line
Chalfant
Cope, a brand of Atkore International
Legrand Cablofil
Mono-Systems
MP Husky
WBT

Conduits, Raceways and Accessories -

EMT, liquid-tight flexible metallic conduit, and/or non-liquid-tight flexible metallic conduit/raceway; plus associated accessories, fittings, junction and pull boxes, and related products

Products of all manufacturers are acceptable as long as they are electro-galvanized steel, have a smooth interior, and are NRTL labeled for the application.

Rigid (galvanized metal), and IMC (intermediate metal) conduits/raceway, plus associated accessories, fittings, junction and pull boxes, and related products

Products of all manufacturers are acceptable, as long as they are hot-dipped galvanized steel inside and out, have a smooth interior, and are NRTL labeled for the application. Boxes shall be cast, not formed. IMC may only be used when tools specifically designed for IMC are used.

PVC conduit/raceway (Type DB, Schedule 40, and Schedule 80), plus associated accessories, fittings, junction and pull boxes, and related products

Products of all manufacturers are acceptable as long as they are sunlight resistant, and NRTL labeled for the application. Products from manufacturers making both the conduit and the fittings are preferred whenever possible.

Fiberglass Reinforced Epoxy (FRE) conduit/raceways, accessories, fittings, and related products

Champion
FRE

Cord Reels
Appleton
Hubbell
Reel-O-Matic Systems
Woodhead

Electrical Enclosures
Carlon (For use with PVC raceways)
Hammond
Hoffman
Park Metal
Rittal

Fire Stop Compounds
A. D. Fire Protection Systems
Flame Safe
Hilti
Nelson
STI SpecSeal
3M Company

Structural Support Materials
Aickinstrut, a brand of Atkore International (Fiberglass)
B-Line
Champion (Fiberglass)
G-Strut
Hilti
Powerstrut, a brand of Atkore International
Unistrut, a brand of Atkore International

Surface and Underfloor Wireways
Carlon
Hubbell
Legrand Evolution Floor Boxes
Legrand Wiremold
Panduit

SECTION 260543 - UNDERGROUND SERVICES FOR ELECTRICAL

Underground Hand Holes, Junction Boxes and Pull Boxes
Carson, a brand of Oldcastle Infrastructure
CDR, a brand of Hubbell Power Systems
Quazite, a brand of Hubbell Power Systems

SECTION 260800 - ELECTRICAL ACCEPTANCE TESTS

Nationally Recognized Testing Laboratory Services
CSA
ETL
MET Laboratories
UL (Northbrook, IL)

Testing Services
Bisbee Infrared Services (Penny Wilson, (517) 787-4620)

RESA Power (Wixom Office, 248-313-6868)
Utilities Instrumentation Services (David Wheeler, (734) 482-1450)

SECTION 261100 - UNIT SUBSTATIONS

Non-Current Limiting Fuses (Primary)
Eaton/Cutler-Hammer Type RBA-400 (With high interrupting capacity adapter)
S & C Type SM-5SS (With high interrupting capacity adapter)

Current Limiting Fuses (Primary)
Eaton/Cutler-Hammer Type CLE
Mersen, Type CL-14

KWHR/Demand Meters
Schneider Electric PowerLogic ION8650 (With options per Master Spec 261100)

15 kV Fused and Unfused Primary Switches (5kV rated switches may only be used for 5 kV (4,160 volt) class motors)
Eaton/Cutler-Hammer
Powercon
Square D

15kV Metal Clad Switchgear and/or Circuit Breakers (5kv rated circuit breakers may only be used for 5 kV (4,160 volt) class motors)
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer
Park Detroit – Park Electric

Circuit Breakers for 600-volt Class Secondary Switchgears and Switchboards
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer

Transformers
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer
MGM
Olsun
Square D
Siemens

Substation Assemblers (Using components from Preferred Manufacturers only)
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer
Park Detroit – Park Electric
Powell Industries

Addresses of above Assemblers
ABB (ASEA Brown Boveri)
12040 Regency Parkway

Cary, North Carolina 27518
Phone: 919 856 2360
FAX: 919 807 5022

Eaton/Cutler-Hammer
McNaughton-McKay Electric Co.
4670 Runway Blvd, Ann Arbor, MI 48108
Phone: 734-327-6251
Fax: 734-327-6285

Eaton/Cutler-Hammer
Service Electric Supply Co.
15424 Oakwood Drive, Romulus, MI 48174
Phone: 734-229-9100
Fax: 734-229-9101

Park Detroit – Park Electric
19197 Sherwood Avenue, Detroit, MI 48234
Phone: 313-214-2877

Powell Industries
7232 Airport Blvd, Houston, TX 77061
Phone: 713-790-1700
Fax: 713-383-5000

SECTION 262000 - LOW VOLTAGE ELECTRICAL DISTRIBUTION

Bus Ducts

Eaton/Cutler-Hammer
Siemens
Square D

Fuses (600 Volts and Below)

Bussmann
Mersen Electrical Power (formerly Ferraz-Shawmut)
Littlefuse

Surge Protective Devices

Current Technology
Eaton/Cutler-Hammer-Tycor
Intermatic (For protection of individual loads and receptacle panels only)
Leviton (For protection of individual loads and receptacle panels only)
Liebert
L.E.A. Dynatech
Square D

Switchboards, Panelboards and Circuit Breakers

Eaton/Cutler-Hammer (Only with U of M Lugs - confirm on shop drawings)
Industrial Electrical Manufacturing (For custom and retrofit applications only)
Siemens
Square D

Time Switches
Intermatic
Paragon
Sangamo
Tork

Transformers (Liquid Filled and Dry Pad-Mounted Type)
Eaton/Cutler-Hammer
Olsun Electrics
Pennsylvania
Pioneer

Transformers (Distribution Dry Type)
Acme
Eaton/Cutler-Hammer
Hammond Power Systems
Hevi-Duty
MGM
Olsun Electrics
Siemens
Square D

SECTION 262726 - WIRING DEVICES
Line Voltage Lighting Controls

120/277 Volt, 20-Ampere Light Switches (Do not specify modular wiring switches, such as the Arrow Hart "ArrowLink", Hubbell "Snap Connect", Legrand "PlugTail", Leviton "Lev-Lok", etc. systems)
Arrow Hart (Cooper)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

Dimmer Switches
Leviton
Lithonia
Lutron

Occupancy Sensors (Infrared, Ultrasonic, Combination Infrared/Microphonic Dual Technology and Combination Infrared/Ultrasonic Dual Technology)
Cooper Controls (Eaton)
Hubbell
Legrand WattStopper
Leviton
Lutron
Sensor Switch
Tork

Low Voltage, Stand-Alone Room Lighting Control System
The following room control systems are intended to be utilized in spaces in which line voltage controls are unable to comply with ASHRAE 90.1 and other building codes. The intent is to provide simple

control solutions in classrooms, offices, toilet rooms, corridors, small conference rooms, and similar spaces. The following systems are not intended to meet sophisticated control system criteria that may be required in auditoriums, theaters, arenas, executive level conference rooms, and similar complicated spaces. The following systems are low voltage, hard-wired, simple to maintain, user friendly, cost effective, and secure; they are not wireless and they do not require software, building networks, servers, firewalls, clouds, or specialty knowledge to operate or maintain.

AcuityControls nLight nPP16 Series
Eaton Cooper WaveLinx Series Room Controllers
Hubbell NXRC Series
Legrand Wattstopper LMRC Series Room Controllers

Pin & Sleeve Connectors
Crouse-Hinds
Hubbell
Killark
Legrand Pass & Seymour
Leviton

Power Poles
Hubbell
Legrand Wiremold
Mono-Systems
Steelcase

120-volt, 20-ampere Receptacles and Plugs (Do not specify modular wiring receptacles, such as the Arrow Hart "ArrowLink", Hubbell "Snap Connect", Legrand "PlugTail", Leviton "Lev-Lok", etc. systems)
Arrow Hart (Cooper)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

120-volt, 20-ampere Receptacles (GFCI, Hospital Grade, TVSS & Child Resistant) (Do not specify modular wiring receptacles, such as the Arrow Hart "ArrowLink", Hubbell "Snap Connect", Legrand "PlugTail", Leviton "Lev-Lok", etc. systems)
Arrow Hart (Cooper)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

Special Power Receptacles and Plugs
Arrow Hart (Cooper)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

USB Charging Port Receptacles
Arrow Hart (Cooper)

Bryant
Hubbell
Legrand Pass & Seymour
Leviton

SECTION 262900 - MOTOR CONTROLS

Capacitors for Power Factor Correction

Aerovox
Eaton/Cutler-Hammer
Myron Zucker
Siemens
Square D

Motor Controls (MCC's, Starters, Contactors, Disc. Switches and Control Devices

Allen-Bradley
Eaton/Cutler-Hammer
Siemens
Square D

Motor Starters (Electronic Soft Starter Type)

Allen-Bradley
Eaton/Cutlet-Hammer
Sprecher & Schuh

SECTION 263000 - ENGINE-GENERATOR SYSTEMS

Natural Gas Fired Engine-Generator Sets

Caterpillar
Cummins
Generac Industrial Power
Kohler
Olympian

Automatic and Manual Transfer Switches (Open and Closed Transition Types)

ASCO
Cummins
Eaton/Cutler-Hammer
GE Zenith Controls
Kohler

Automatic Transfer Switches (Soft-Loading Type)

ASCO
Eaton/Cutler-Hammer
Kohler

Resistive Load Banks

Avtron
Sephco
Simplex

SECTION 263300 - BATTERY EQUIPMENT

Batteries

Chloride Plante
Enersys
Johnson Controls

Battery Chargers

C & D Technologies
Enersys
Hi-Tran
LaMarche
SCI

Uninterruptible Power Supply Systems (Battery type)

A.P.C
Best (Individual small load units only)
Controlled Power
Liebert
MGE
Mitsubishi (Totally solid-state)
Toshiba

Rotary UPS Systems

Designed Power Solutions International (DPSI)

SECTION 264100 - FACILITY LIGHTNING PROTECTION

Lightning Protection Services

Guardian Equipment, Novi, MI (248) 449-5200
Harger Lightning & Grounding (via distributor Young & Champagne, 313-491-6500)
Michigan Lightning Protection, Grand Rapids, MI (616) 453-1174
Orion Services, Wixom, MI (248) 624-2120

SECTION 265100 - INTERIOR LIGHTING

Ballasts (Electronic Compact Fluorescent)

Aculite
Advance Smart Mate
Lightolier
Prescolite

Ballasts (Electronic Rapid Start T-8 Fluorescent)

Signify Advance Optanium
Signify Bodine (For emergency lighting only)
Osram/Sylvania Quicktronic Professional
Universal AccuStart

Ballasts (Electronic Dimming T-8 Fluorescent)

Signify Advance Mark X (5% dimming type)
Signify Lightolier (1% dimming type)
Osram/Sylvania (10% dimming type)

Emergency Power Ballasts (Electronic Rapid Start T-8 Fluorescent)
Signify Bodine (For emergency lighting only)
Lithonia

Ballasts (H.I.D.)
Signify Advance
MagneTek
Universal

Dimming Systems
AMX
Crestron Electric, Inc.
E.T.C.
Leviton (Small single room systems only)
Lithonia
Lutron
Strand (Stage lighting only)

Emergency Lights
Signify Chloride
Dual-Lite
Emergi-Lite
Exide Lightguard
Lightalarms
Lithonia
Sure-Lite

Exit Signs (LED)
Signify Chloride
Dual-Lite
Emergi-Lite
Exide Lightguard
Lightalarms
Lithonia
LSI Industries
Prescolite
Sure-Lites

Lamps
General Electric Ecolux
Osram/Sylvania Ecologic
Philips Alto

Lighting Fixtures (LED)
LED fixtures with a DesignLights Consortium (DLC) listing
LED fixtures with a U.S. Department of Energy (DOE) “LED Lighting Facts” label
LED fixtures with a U.S. Environmental Protection Agency (EPA) ENERGY STAR label
CREE
Man-D-Tec (Elevator cab lighting)

SECTION 265600 - EXTERIOR LIGHTING

Lighting Fixtures (Outdoor Building, Parking Lot and Roadway with poles by fixture supplier)
BEGA (Conditional Approval)

Gardco (Signify)
Holophane
Kim (Hubbell) (Conditional Approval)
Lithonia Hi-Tek
LSI Industries
McGraw-Edison
Sterner
Wide-Lite (Signify)

Lighting Fixtures (Outdoor Pedestrian Area with poles by fixture supplier)
Lumec

Photoelectric Lighting Controls
Crouse-Hinds
Holophane
Hubbell
Intermatic
Tork

SECTION 273523 – EMERGENCY RESPONDER RADIO COVERAGE

Bi-Directional Amplifiers
ADRF – Advanced RF Technologies, Inc.
CommScope
Westell Technologies, Inc.

Emergency Responder Radio Services
Comsource Inc. (Mike Hilverding, 248-853-5430)
Continental Wireless (Breogan Link, 800-527-2000)
Diversified Wire & Cable (Ryan Pylak, 888-833-4592)
Extreme Engineering, Inc. (Jon Hintz, 734-709-1858)
Motor City Electric Technologies, a division of Motor City Electric Co. (David Krausman, 313-957-3459)
RF Connect (Patrick Rhatigan, 734-891-5950)

Emergency Responder Radio Signal Survey
JDRM Engineering (Dave DesJardins, 419-824-2400)

SECTION 275116 - PUBLIC ADDRESS & MASS NOTIFICATION SYSTEMS

Public Announcement and Sound Systems
Aiphone Communications Systems
Atlas/Soundolier
Dukane
Rauland-Borg

SECTION 275126 - ASSISTIVE LISTENING SYSTEM

Hearing Assistance Systems
Phonic Ear (for classroom applications)
Sound Associates (for auditorium and theater applications)

SECTION 275313 - CLOCK SYSTEMS

Central Clock Systems
Primex (GPS synchronous wireless)

Simplex Time Recorder (through Simplex/Grinnell)

Clocks (Battery Powered)
Edwards
Franklin
Howard Miller
Primex (GPS synchronous wireless)

SECTION 281300 - ACCESS CONTROL & MONITORING SYSTEMS

Card Access Control Systems
Diebold/CBORD (for Housing facilities)
Software House (for Campus buildings)

Card Access Control System Designers/Installers
Cabling Concepts (Tim Grady, 248-363-4200)
i2G Systems (248-979-4451, 248-977-1220)
JCI (John Keith, 248-427-5050)
Siemens (Chris Tingley, 734-456-3800 main, 734-386-6741 cell)

SECTION 281600 - SECURITY SYSTEMS

Security Camera Systems
Refer to the University of Michigan Division of Public Safety and Security (DPSS) web site https://dpss.umich.edu/content/services/property-protection/security-cameras/ for technical requirements and a compatible hardware list.

Security Systems
ADT Security Systems
Faraday
Radionics (For small systems only)
Simplex Time Recorder

SECTION 283100 - FIRE DETECTION & ALARM SYSTEMS

Fire Alarm Systems
EST (through Riverside Fire and Security only)
Honeywell (UMHHC only)
National Time & Signal
Notifier
Siemens
Simplex (Tyco SimplexGrinnell)
VESDA by Xtralis (for smoke sampling systems only; subsidiary of Honeywell)