SOLE SOURCE

The following products are sole sourced for use at Colorado State University. No substitutions are permitted without written approval of University Representative. Refer to Building Construction Standards Manual for additional standards that may apply to each of the products listed below.

08 41 13 – ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

1. Pivot Hinges - Rixson.

08 71 00 - DOOR HARDWARE

1. Combination Locks - Alarm Lock/Trilogy T2, key override. Removable core key access cylinder. IC cores are not allowed.
2. Retrofit Lever Handles - Sargent 11 Line only. IC cores are not allowed.
4. Exit Devices: Von Duprin 98/99, keyed dogging. Exterior doors: NL or DT trims. Interior doors: L or NL trim. Thumb piece handle sets or vertical rods are not allowed.
5. Double Doors:

08 74 00 – CARD KEY ACCESS CONTROL HARDWARE

1. Card Reader – SWH 4100
2. Door Contacts – 1” diameter, GE Security Products 1076D-M
3. Motion Detectors – DS 160
4. Panel – Software House International C*CURE 800/8000, iStar
5. Strike and Door products – Von Duprin, HES, Securitron

09 50 00 - ACOUSTICAL CEILINGS

2. Ceiling grid - Chicago Metallic, Fire Front 250, intermediate duty, white.

09 65 00 – RESILIENT FLOORING

1. Rubber Base - Burke.
10 28 00 – TOILET, BATH, AND LAUNDRY ACCESSORIES
   1. Contact CSU Custodial Services.

10 56 00 - STORAGE ASSEMBLIES
   1. Adjustable Shelving - Knape and Vogt Styles KV 80 or KV 255.

12 20 00 - WINDOW TREATMENTS
   1. Window Blinds - Levolor Riviera.

20 05 31 - INSULATION
   1. Underground Direct Buried Pipe Insulation - American Thermal Products, Inc. Gilsulate 500 XR.

21 00 00 – FIRE SUPPRESSION
   1. Addressable fire alarm network devices must be compatible with Notifier 640 / 3030 systems.

22 30 00 - PLUMBING EQUIPMENT
   1. Domestic water circulation pumps - Bell & Gossett series 100.

22 40 00 - PLUMBING FIXTURES
   1. Flush Valves – Sloan or Zurn

23 09 00 - CONTROLS
      a. Non-programmable – JCI, Honeywell
      b. Programmable – JCI (Extendable Architecture), Seimens
      c. Interface – Iconics (Genesis32)

23 21 00 – HYDORNIC PIPING AND PUMPS
   1. HVAC hydronic horizontal in-line pumps - Bell & Gossett Series 100.

23 23 13 – REFRIGERANT PIPING VALVES
   1. Chilled Water Control Valves – Flow Control Industries “DP Valve” pressure independent control valve for all loads directly connected to the chilled water utility on Main and South Campus.

23 25 00 – HVAC WATER TREATMENT
   1. Water treatment chemicals and equipment supplier – Ashland Hercules Water Technologies. Bob Hyatt (970) 481-6635, (800) 526-1015, rhyatt@ashland.com
   2. Includes water treatment equipment for hot water, chilled water, steam, feed-water, and condenser water systems.
   3. Includes one-shot feeders, automatic chemical feed systems, manual chemical feed systems,
and treatment chemicals.

23 30 00 - AIR DISTRIBUTION

1. VAV Box Pneumatic controllers - Kreuter CSC-3011.
2. Pneumatic controllers – JCI, Honeywell
3. JCI, VMA ASC equipment
4. Controlled air flow stations – Phoenix Controls

23 33 00 - STEAM AND CONDENSATE PIPING AND PUMPS

2. Steam Traps F&T and Bucket – Armstrong for steam plant and distribution, Hoffman for building systems.
3. Steam Traps Radiator Thermostatic Bellows - Hoffman ITT.
4. Steam Radiator Temperature Control Valves - Macon.

26 10 00 - MEDIUM-VOLTAGE ELECTRICAL DISTRIBUTION

1. Transformers
   a. ABB
   b. Cooper Power Systems
   c. General Electric
   d. Pauwels
2. 15 kV Primary Cable – EPR insulation, CPE Jacket, MV-105, 133% Insulation Level
   a. Okonite
   b. General Cable

26 20 00 – LOW-VOLTAGE ELECTRICAL DISTRIBUTION

1. Panel Boards, Switches, Relays, Circuit Breakers - Square D Co.

26 56 00 – EXTERIOR LIGHTING

1. Pole-Top Luminaires
   a. Older Areas
   b. New Areas
      i. Pedestrian – Kim Lighting, Model SAR, 175 W, M.H., Lt. Grey
2. Light Poles – Round tapered fiberglass (if Tenon needed, make changes as needed)
   a. Pedestrian – 15 feet (Above Ground)
APPENDIX – SOLE SOURCE PRODUCTS


b. Street/Parking Lots – 30 feet (Above Ground) with 8 feet arm

28 10 00 – ELECTRONIC ACCESS CONTROL AND INTRUSION DETECTION

3. Digital Video Recorder (DVR) – Dedicated Micros American Dynamics.
5. IP Digital Archive Equipment – ONSSI
6. See Division 08 74 00 for Card Key Access Control Hardware

28 31 00 - FIRE DETECTION AND ALARM

1. Fire Alarm Control Panel - Notifier

32 80 00 - IRRIGATION

1. Central Control Units - Motorola ICC IRRInet Control Center.
2. Satellite Control Unit - Motorola ICC IRRInet M or ACE Pedestal Mount.

33 61 33 – Hydronic Energy Distribution

1. Building Chill Water Utility Meter:
   Thermal energy/BTU meter transit-time ultrasonic flow meter.
   Note: Lite selection and installation is critical for accurate measurement.
   a. Manufacturer – Innova-Sonic™ Thermal Energy Flow meter
   b. P/N – 205-Modbus-1-S-30-PRTDI
   c. Installation Method – Wall mount
   d. Display – 20*2, alphanumeric, backlit LCD
   e. Flow Range – ±0 to 40ft/s (±0 to 12 m/s)
   f. Keypad – 16 touch keys (4*4)
   g. Output – 0/4~20mA DC, OCT, Relay (SPST)
   h. Frequency power supply – 90 – 250VAC, 48 to 63 Hz and 10 to 36 VDC
   i. Accuracy 0.5% of reading repeatability 0.5% of reading pipes 1” to 200” (25mm – 5000mm)
   j. Two direct-wired RTD inputs. Energy monitoring software standard (kjoules or BTU)
   k. 1G SD card high memory data logging, maximum memory 512 days of data
   l. Transducer hazard area classification – Ex d II BT4 (Not ATEX or IECEx approved)
   m. Modbus – Modbus RTU
   n. 1: NEMA 4X (IP 65) Die-cast aluminum machined enclosure
APPENDIX – SOLE SOURCE PRODUCTS

- S: Clamp on transducer, operation temperature: -40ºC to 80ºC (-40ºF to 176ºF)
- PRTDI – 30ft (9m) standard cable length

33 63 33 – Steam Energy Distribution Metering

Building Steam Utility Meter: VORTEK Instruments

Note: Selection of inline versus insertion will be determined based on each application per steam flow rates. Proper sizing, selection, and installation are critical for accurate measurement.

1. **Inline** mass flow vortex meter with pressure and temperature compensation (if line is 3” or less)
   - P/N – 240VTP-##E2-DD-PS-V4M-ST-MP2
   - ## - size-inch ANSI 150lb flanged, 316L
   - E2 – Transmitter mounted on flow body. May require remote mount option if not accessible.
   - DD – Digital Display
   - PS – 100-240 VAC, 50/60 Hz Line Power, 25 Watts
   - V4M – One analog output (4-20mA), one alarm, one pulse, and Modbus
   - ST – Process temperature -40ºF to 500ºF (-40ºC to 260ºC)
   - MP2 – Maximum 100 psia (7bara), Proof 200 psia (14bara)

2. **Insertion** mass flow vortex meter with pressure and temperature compensation (if line is > 3”)
   - P/N – 241VTP-LS-E2-DD-PS-V4M-ST-MP2-PM
   - LS – Standard length probe
   - E2 – Transmitter mounted on flow body. May require remote mount option if not accessible.
   - DD – Digital Display
   - PS – 100-240 VAC, 50/60 Hz Line Power, 25 Watts
   - V4M – One analog output (4-20mA), one alarm, one pulse, and Modbus
   - ST – Process temperature -40ºF to 500ºF (-40ºC to 260ºC)
   - MP2 – Maximum 100 psia (7bara), Proof 200 psia (14bara)
   - PM – Packing Gland
   - 2” Male NPT, 50 psig (3.5 barg) maximum process pressure without removable retractor
   - Installation hardware for insertion type:
     - Full Port Bronze Gate Valve, 2” Female NPT nipple
     - Mounting Kit includes – two 2” x 3” nipples, one 2” Female NPT mounting adapter and one pipe coupler.