

- i. **Updates to the below sections of the [Consultant Procedures and Design Guidelines](#) / Section 3 – Division Guidelines / Division Guidelines / Divisions 14 - 33**

DIVISION 21 – FIRE PROTECTION

210100 Fire Protection System Design: Added sentence to paragraph 2 of Design Guidelines about a standing exception for Ag buildings. Added sentence to paragraph 3 of Design Guidelines for projects requiring FM Global adherence. Added sentence to paragraph 14 of the Specifications to address FM approved equipment, materials and services whenever they are applicable and available.

DIVISION 22 – PLUMBING

220100 Plumbing System Design: Revised section 7. Pressure Boosting Equipment.

220719 Plumbing Piping Insulation: Revised paragraph 2 and added 3 for clarification regarding insulation for hot water systems. Minor modification to the first item in table 1. Corrected references in asterisk under Table 1. Added note 17 to address the extent of insulation of piping for roof drains to prevent condensation or acoustical concerns.

22 1000 Plumbing Piping and Specialties: Added paragraph 2.c to include PEX-A tubing up to 2”; Updated paragraph 3.c and 7.a due to change in 2024 version of IMC regarding plenums; Moved paragraphs i and ii related to epoxy coated cast iron pipe under paragraph 3.d and 7.a for clarity; Updated paragraph 4.a to clarify when epoxy coated cast iron piping is to be used; Added Note 2 under Table 2 Valves to address preference at S&T for balance valves; and other minor changes due to changes in paragraph locations forementioned.

DIVISION 22 PLUMBING MUHC SUPPLEMENT: Minor change to paragraph 5 Water Closets of the 22 4000 Plumbing Fixtures section.

DIVISION 23 – HEATING, VENTILATING, AND AIRCONDITIONING

23 0003 General Chemistry Laboratories: Revised 2.4 Plumbing Requirements to address campus option for floor drains at emergency showers.

23 0900 JCI Control Systems (MU): Lowered valve body rating from 150 to 125 psi working pressure in paragraph 2.01 C.2.b; 2.01.I. New language for low limit controllers; 3.01F.3 has been modified; and new paragraph at 3.01.H.

23 2100 Building Hydronic Piping and Pump Systems of the Specification Requirements: Revised paragraphs 1 and 2 for consideration in designing for facilities connected to geothermal systems. Revised Table 1: Piping for Hydronic Systems to address option for PEX-A tubing (2” and smaller). Revised note 5 of Table 1 on page 8 for the mechanical press sealed fittings option. Added note 2 on Table 2: Valves for Hydronic Systems on page 9 to address S&T preference.

23 2200 Steam and Condensate Piping and Pump Systems: Updated Valve table to address the medium pressure side of the steam and condensate systems inside a building.

23 7000 Central Air Handling Units: Numerous updates to this section to provide minimum requirements for most packaged air handling applications as noted in the left margin.

23 7323 Custom Air Handling Units: New section to address design applications requiring semi-custom and custom air handling units. Requirements in Section 23 7000 still apply.

DIVISION 26 – ELECTRICAL

26 0519 Low Voltage Electrical Power Conductors and Cables: Updated link on paragraph 9.1. Lowered maximum length of MC cable on paragraph 10.3.2 from 50’ to 30’.

DIVISION 27 – COMMUNICATIONS

Annotations used to indicate markups in design guidelines

| = Revisions. → = Section deletion (Notations used in updated documents to show revisions.)

No Changes

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

28 3100 Fire Detection and Alarm: Added language to paragraph 3 regarding FM Approved materials. Inserted note 5.5 for MU campus projects to address the need for field programmability. Inserted sentence into paragraph 6.1.2.1 exempting Ag buildings whose primary purpose is storage or animal holding. Section 6.1.9 on page 7 was reformatted to match these guidelines.

DIVISION 33 - UTILITIES

No changes