



University of Colorado at Boulder

**Department of Facilities Management
Office of Planning, Design & Construction - Engineering**

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January 30, 2020

Christopher Mirto, AIA
PEH Architects
1319 Spruce Street, Suite 207
Boulder, CO 80302

RE: Project Variance Request - CP288992 - MRS DHLL 030 - Dining Hall Building Structure Deck Replacement

Dear Mr. Mirto,

The University has reviewed your variance request for the above mentioned project and provides the determinations listed below. Please be aware that these determinations are only applicable to this specific variance request and this project. No precedent is being set for future determinations.

Variance Request #1 – Allow the use of Type A PEX (Uponor or equivalent) for domestic water distribution

Due to the condition of a freeze prone environment, the University accepts the variance request provided the following conditions are met.

- The installation of PEX shall be done with a certified installer with a minimum of 5 years' experience with similar installations. The contractor shall submit certification and experience history for University review.
- The installer shall provide quality control procedures for University review, specifically addressing calibration of crimping tools.
- Valves and other distribution components must still comply with Facility Standards. No plastic valves or components shall be installed.
- Fittings shall all be expander type fittings manufactured by the same PEX manufacturer.
- The installer shall provide an extended warranty of 5 years for parts and labor.
- The operation and maintenance staff at the Mountain Research Station are made aware that they will need the tools and training to maintain this system.

Variance Request #2 – Allow circuit venting in the kitchen area rather than individual vents for all floor drains and floor sinks.

The University accepts the variance request provided the following conditions are met.

- The designer shall ensure combination waste and vent piping meets IPC size requirements as well as all other code requirements for such system. It is the University's understanding that the current piping is undersized for such a system and may need to be upsized.

Variance Request #3 – Due to ceiling requirements, the ductwork serving the kitchen will be located in a hard soffit with limited access and minimal structural space. It would be very difficult to provide balancing dampers at the take offs in these locations and we would therefore use opposed blade dampers for these diffusers. The drawings will call for 45° takeoffs where space allows, but several locations will likely not have space for these.

The University currently disallows opposed blade dampers as they are prone to user manipulation and may prevent the system from meeting code air requirements. The University feels that there are other alternatives that should be explored such as exposed duct work, which would allow the designers to meet CU Facility Standards without the use of opposing blade dampers. This determination does not preclude PEH Architects from resubmitting a variance request if alternatives are investigated and determined to be technically infeasible.

Thank you,

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