initial engineers

Contract 200508

DS 2021-052

September 8, 2021

Mr. Mo Madani
Department of Business and Professional Regulation
1940 North Monroe Street, Suite 90
Tallahassee, FL 32399

Re: Petition for Declaratory Statement before the Florida Building Commission
Florida Building Code - Plumbing 2020
Section 606.1, 8.

Dear Mr. Madani:

This is to request that the Florida Building Commission issue a Declaratory Statement on the referenced Code section. We have multiple commercial office projects under design at this time that are affected by the referenced section. The projects are office suites in high-rise and mid-rise office buildings. The Florida Building Code - Plumbing 2020, 606.1, 8, applies. Florida Building Code - Plumbing 607.1.1 also applies. The former section requires full open valves to be provided on the water supply pipe to every water heater. The latter section (in effect) requires tempering valves to be provided at the discharge of every water heater.

The question is the following:

> When a water heater is fitted with a tempering valve, does Florida Building Code - Plumbing 2020, Section 606.1, 8 require separate full open valves for the water heater and its dedicated tempering valve?

We offer the following additional comments:

1. The sketch that follows on Page 3 of this letter indicates a diagram of the proposed installation. A full open valve is provided in accordance with 606.1, 8, and a tempering valve is provided in accordance with 607.1.1. The Code is silent on the need to separate the water heater and the tempering valve with two separate full open valves.

2. If a single valve is provided, as illustrated on the diagram, and if the flow is shut off to the water heater, the complete hot water system is deprived of flow, which is exactly what needs to happen in the event of a leak or in the event service is to be performed.

3. If separate valves are provided for the water heater and the tempering valve, service personnel could potentially shut off the supply to the water heater without also shutting off the supply to the tempering valve, introducing the potential for undesired backflow, disabling quick control of any leak, and prohibiting service.

7145 S.W. 42nd Terrace • Miami, Florida 33155 • (305) 669-9393 • (305) 669-9178 (fax)

4. There are products on the market such as those illustrated on Page 4 of this letter that feature factory-installed tempering valves. None have separate shutoff valves for the tempering valve and the associated water heater. Any valve that shuts off flow to the water heater also shuts off flow to the assemblies' tempering valve. Since there is no practical difference between the factory assembled system and the field assembled system, there should be no need for a second valve on the field assemblies any more than there is a need for separate valves in the factory assemblies.

5. The verbiage in the International Plumbing Code and the cited sections of the Florida Building Code - Plumbing, is identical. I contacted the International Code Council and spoke to staff member Chris Holland regarding this matter. Mr. Holland indicated that a single valve, as proposed, is all that is necessary and sufficient per the International Plumbing Code (the source Code).

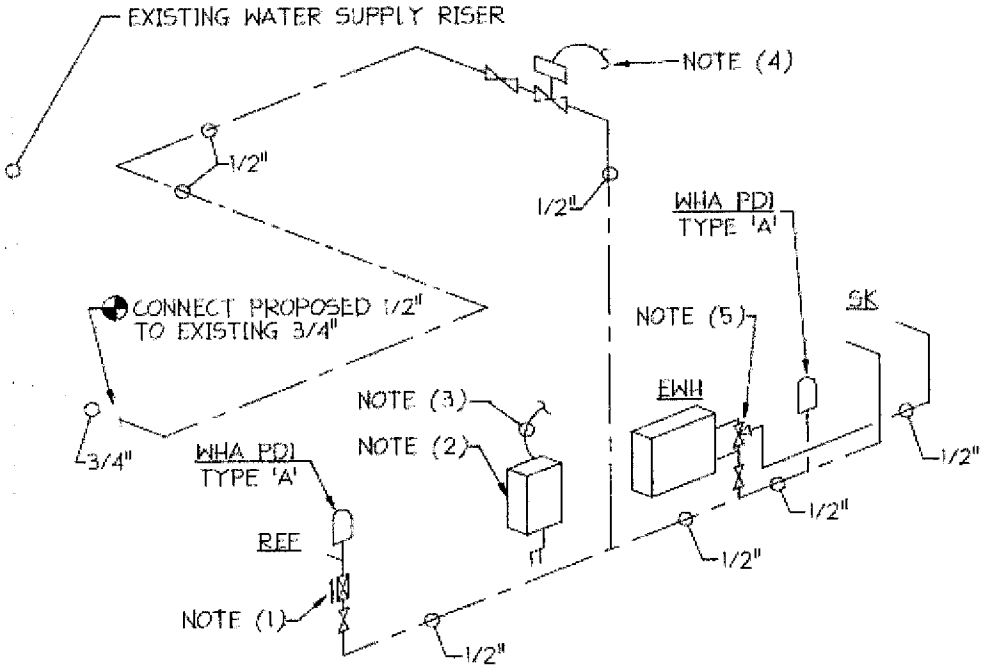
6. The commentary to the International Plumbing Code indicates that the intent of the water heater shutoff valve is to allow for replacement of the water heater and its accessories without interrupting the supply of cold water to the building. This intent is met in a better, faster, more efficient, and more trouble-free manner with one valve than with two.

Please respond to my inquiry and thank you for giving this matter your prompt attention.

Very truly yours,
INITIAL ENGINEERS, P.A.

ALFONSO FERNANDEZ-FRAGA, P.E.
President

M:\WORDPROC\LETTERS\Letters2021\FBPRMadaniDECStatementFBCP606.1_8.wpd



WATER DIAGRAM

N.T.S.

NOTES:

(1) PROVIDE INLINE BACKFLOW PREVENTER WATTS 9D2 SERIES. INSTALL IN AN ACCESSIBLE LOCATION.

(2) PROVIDE WATER LEAK DETECTOR W/ WATER DETECTION SENSOR BELOW SINK. SIMILAR TO FLOODSTOP.

(3) CONDUIT & WIRING TO SOLENOID VALVE.

(4) LEAK DETECTOR SHUTOFF SOLENOID VALVE.

(5) PROVIDE TEMPERING VALVE: ACORN CONTROLS ST70 SERIES, ASSE 1070 CERTIFIED.

EWH
CHRONOMITE TANKLESS INSTANT WATER HEATER E-46S/277, 4600 WATTS 17 AMPS.

ADDITIONAL FEATURES:

- Heater plus integrated direct coupled thermostatic mixing valve meets ASSE 1069, CSA B125.3-12 and ASSE 1070 compliancy
- Uses a digital microprocessor for temperature control, ultra quick response times for temperature variations - 120 times per second. Microprocessor use is the most energy efficient means of heating water
- Unlimited hot water
- Ideal for sensor/ hands-free faucet with 104°F (40°C) factory preset setting
- Ultra Low Flow Activation - 0.20 GPM (0.75 LPM)
- Saves water and energy - 99% energy efficient
- Meet all CAL GREEN low flow requirements
- Vandal-resistant rugged cast aluminum housing
- Space saving compact size: 6 1/4" (H) x 12 7/8"x 2 3/4" (159 (H) x 327 x 70mm)
- Meets applicable building codes including ADA, UL, IAPMO, UPC, CSA
- Environmentally friendly
- Made in the U.S.A.
- Patent Pending

SPECIFICATION:

Chronomite CompliantMix™ - Low Activation Models are manufactured to provide reliable point-of-use hot water. There is no pressure and temperature relief valve needed*, saving time and money on installation.

Housing is fabricated from rugged cast aluminum alloy.

Element assembly is fabricated from Celcon plastic.

Heating coils are nichrome.

Faucet flow controls are supplied with each unit. 3/8" compression fittings are supplied (standard). Optional 1/2" male NPT water connections available.

CMI Series
CompliantMix™

CM Series
Instant-Flow® C-Micro

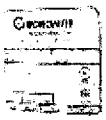
PROS
Low flow activation with 0.2 GPM
Meets HERO version 4
Can be used on any fixture

CONS
No integrated mixing valve

M-MM Series
Instant-Flow® Micro-Mix® Water Heater

PROS
External mix valve
Certified ASSE 1070

CONS
Longer assembled unit
Mix valve is exposed
No 0.2 GPM flow activation
Can only be used for hand washing



PROS
Low flow activation with 0.2 gpm
Integrated mixing valve
Certified ASSE 1070 and 1069
Can be used on hand washing or showers

CONS
None

*unless required by code