Reihl Engineering, LLC
Sustainable Engineering for a Better Tomorrow

April 26, 2019

Mr. Tim Crockett
President, Smart Water Valve Texas

Subject: Adjustable **Smart Water Valve™** Performance Engineer Review

Dear Mr. Crockett:

We are pleased to conduct our third-party engineering services to provide an independent assessment of the **Smart Water Valve™** effectiveness in reducing a property's monthly water (and related sewer) utility expenses. Reihl Engineering, LLC was engaged to review the data and attest to the validity of the testing methodology and results on three valves that were installed in two Hartman REIT buildings in Houston, Texas. The plumbing configurations included: A 4" and 6" valve installed on a line supplying a house tank at two properties and a 2" installed on an irrigation system line directly dependent upon the city's water pressure for its operation.

The valve is installed on the downstream side of the water meter. It reduces the pressure drop across the meter; thus, keeping entrained gas in a dissolved mode (limiting its volume) as the water passes through the meter - so that a volumetric meter more accurately measures the actual water usage. In some installation configurations, such as when the volume of water or psi is reduced at its final point of use, the valve will also reduce the actual amount of water used. Because the valve is adjustable, it may be very easily adjusted by the building engineer in-situ if conditions unexpectedly change.

Data reviewed: manufacturer's information; monthly comparisons to the previous year's data of dollars spent, gallons used and **gallons used per day** - both before and after each valve was installed; summary spreadsheets; and an affirmation by the Houston area property engineer that the buildings had no significant changes in operation, occupancy, leaks or drain-downs that could skew the results in the favor of the valve.

Based on my review of this information, it is my professional opinion that the Smart Water Valve™ performed as predicted and enabled the properties to achieve monetary savings in excess of 20% as evidenced by the City of Houston utility bills based upon meter readings of City Meters.

For references purposes, in addition to being a Licensed PE in Texas, I am the Energy Code Chair for the City of Houston, am Past President of the ASHRAE Houston Chapter and past Chair of Houston Chapter of USGBC. I also hold the following Professional designations:

CEM - Certified Energy Manager - Assoc. of Energy Engineers
GBE - Green Building Engineer - Assoc. of Energy Engineers
CSDP - Certified Sustainable Development Professional - Assoc. of Energy Engineers
HBDP - High Performance Building Design Professional through the American Society of Heating, Refrigerating and Air Conditioning Engineers
EBCP - Existing Building Commissioning Professional - Assoc. of Energy Engineers
CBCP - Certified Building Commissioning Professional - Assoc. of Energy Engineers
LEED™ Accredited Professional 2004
GPRO FUND & CM faculty to teach
AVS - Associated Value Specialist - Society of American Value Engineers
LEED™ Accredited Professional Operations + Maintenance Specialty
CEA - Certified Energy Auditor - Assoc. of Energy Engineers

It is understood that you may use and share this letter with others as additional and objective evidence as to the effectiveness of the **Smart Water Valve™**. If you have further questions, please feel free to contact us.

Respectfully,

Keith Reihl, TX PE #83377 President Reihl Engineering, LLC
TX Engineering Firm #9879

STATE OF TEXAS
KEITH H REIHL
83377
LICENSED
PROFESSIONAL ENGINEER

11407 Lake Louise Court, Cypress Texas
Phone (713) 459-1044
Email reihl@reihlengineering.com