Eternal Specification Submital Sheet

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Today's Date:		Bid Date:		Prepared By:	
Project Name:		Project #		Engineer:	
Jobsite Address:				City:	
State:		Zip:		Contractor:	

Contractor shall supply and install Grand Hall Eternal Hybrid Water Heater, Model# _____, QTY _____ Unit(s), rated at the input and output shown on the CSA Rating Label. The unit(s) shall be design certified in compliance to current edition of ANSI Z21.10.3 / CSA 4.3 Standard for Gas Water Heaters, and unit(s) will bear official Rating Labels on the unit chassis. The Power Vent unit(s) shall be design certified for both indoor and outdoor use. The Direct Vent unit(s) shall be design certified for indoor use only.

The combustion system shall consist of a low emission full modulation burner of fan assisted injection design and a full modulation gas valve capable of 500 steps of modulating gas input between rated minimum input and maximum output. The exhaust gases shall be low temperature, having less than 155F Heat Deflection Temperature in compliance with current edition of ANSI Z21.10.3 / CSA4.3 and suitable for installation with plastic venting systems such as Schedule 40 PVC.

The heat exchanger shall be of a straight fire tube design, with each tube containing a stainless steel baffled for enhanced heat transfer. The fire tubes are for gas passage, not water passage, and shall be constructed of stainless steel. The heat exchanger shall be constructed in its entirety out of stainless steel. The heat exchanger shall be of a low volume design holding no more than 6.4 gallons of water in storage. The heat exchanger shall be of a self cleaning design that is capable of ejecting sediment buildup out through the hot water outlet of the unit.

The control system shall consist of a main controller design certified to current edition of UL1998, a set of thermistors at the inlet, outlet, and inside the heat exchanger, a flow sensor, and an electronically controller mixing valve. The control system shall be capable of causing ignition in the combustion chamber through signals generated by either flow or thermostatic change. The control system shall be self diagnosing and capable of displaying codes at the display to signify component failure or improper operations.

The safety system shall consist of 3 stages of overheat protection with 2 stages of reset-able thermostatic switches and a single use thermal fuse, an Oxygen Depletion System, Combustion Fan RPM Check, Dual Stage Gas Valve. The safety system shall render the unit inoperable when critical component failure or improper operations are detected.

The unit(s) shall meet a minimum 86% efficiency. The unit(s) shall be positive pressure venting and shall be vented either vertically or horizontally as a Category III appliance. The unit(s) shall have power supplied by grounded outlet of 120V, single phase, less than 3 Amps.

The unit(s) shall include as standard equipment the following controls and trim:

- Heat Exchanger with full stainless steel construction
- Dual Activation Control System with multiple thermistors at inlet, outlet and heat exchanger
- ANSI Z21.10.3 / CSA 4.3 Design Certification for indoor, outdoor, natural gas and propane use
- ANSI Z21.22 Design Certified Temperature and Relief Valve rated at 150psi / 210F
- Full modulation combustion system with Dual Stage Gas Valve and low emission burner
- Multiple stage overheat protection devices with 2 reset-able thermostatic switches