

POWERS™

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December 8, 2006

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HydroGuard ES150 Emergency Tempering Series

Thermostatic mixing valve for supplying tepid water to emergency fixtures shall feature dual internal cold-water bypass system to ensure flow in the event of valve failure or loss of hot water supply. By-pass shall respond to changes in temperature and pressure. The valve shall provide precise temperature control ($\pm 3^{\circ}\text{F}$) in accordance with ASSE 1017, and effectively shut down on loss of cold-water pressure. The valve shall feature powerful paraffin actuation technology for precise accuracy and include checkstops for easy service. Valve shall have bronze body construction with non-corrosive parts. Valve shall also include a temperature display for visual safety. Valve shall be Powers HydroGuard model ES150-RB (17 gpm). Any alternate must have a written approval prior to bidding.



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HydroGuard ES200 Emergency Tempering Series

Thermostatic mixing valve for supplying tepid water to emergency fixtures shall feature dual internal cold-water bypass system to ensure flow in the event of valve failure or loss of hot water supply. By-pass shall respond to changes in temperature and pressure. The valve shall provide precise temperature control in accordance with ASSE 1017, and effectively shut down on loss of cold-water pressure. The valve shall feature powerful paraffin actuation technology for precise accuracy and include union inlets with strainer checkstops for easy service. Valve shall have bronze body construction with non-corrosive parts. Valve construction shall employ poppets, which are independently seated, balanced, and self-aligning. Valve shall also include a temperature display for visual safety. Valve shall be Powers HydroGuard model ES200-RB. Any alternate must have a written approval prior to bidding.



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HydroGuard ES400 Emergency Tempering Series

Thermostatic mixing valve for supplying tepid water to emergency fixtures shall feature dual internal cold-water bypass system to ensure flow in the event of valve failure or loss of hot water supply. By-pass shall respond to changes in temperature and pressure. The valve shall provide precise temperature control in accordance with ASSE 1017, and effectively shut down on loss of cold-water pressure. The valve shall feature powerful paraffin actuation technology for precise accuracy and include union inlets with strainer checkstops for easy service. Valve shall have bronze body construction with non-corrosive parts. Valve construction shall employ poppets, which are independently seated, balanced, and self-aligning. Valve shall also include a temperature display for visual safety. Valve shall be Powers HydroGuard model ES400-RB. Any alternate must have a written approval prior to bidding.



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HydroGuard 1432 Single-Valve Hi/Lo Series

Master mixing valve for tempered water control shall be of the thermostatic type, capable of maintaining water temperature to set point within the parameters set forth in ASSE 1017 from 40 degrees F to 160 degrees F. Valve must compensate for temperature fluctuations due to changes in inlet temperature or pressure.

Valve shall be capable of providing mixed water within 15°F of hot water supply.

Valve shall have bronze body construction with non-corrosive parts. Valve construction shall employ poppets, which are independently seated, balanced, and self-aligning. Valve must have a patented expandable restrictor, and a paraffin actuator to insure precise control to 1.5 gpm when tested in accordance to ASSE 1017 and CSA B125. Valve must be ASSE listed and CSA certified.

Union inlets with strainers and checkstops must be provided as well as a temperature display for visual monitoring. Valve shall be a Powers HydroGuard model 1432-RB (bronze) or 1432-PC (polished chrome). Any alternate must have a written approval prior to bidding.



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HydroGuard 1434 Single-Valve Hi/Lo Series

Master mixing valve for tempered water control shall be of the thermostatic type, capable of maintaining water temperature to set point within the parameters set forth in ASSE 1017 from 40 degrees F to 160 degrees F. Valve must compensate for temperature fluctuations due to changes in inlet temperature or pressure.

Valve shall be capable of providing mixed water within 15°F of hot water supply (approach temperature).

Valve shall have bronze body construction with non-corrosive parts. Valve construction shall employ poppets, which are independently seated, balanced, and self-aligning. Valve must have a patented expandable restrictor, and a powerful paraffin actuator to insure precise control to 5.0 gpm when tested in accordance to ASSE 1017 and CSA B125. Valve must be ASSE listed and CSA certified. Union inlets with strainers and checkstops must be provided as well as a temperature display for visual monitoring. Valve shall be a Powers HydroGuard model 1434-RB (bronze) or 1434-PC (polished chrome). Any alternate must have a written approval prior to bidding.



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HydroGuard 1434 Triple-Valve Hi/Lo Series

Hi/Lo water temperature control system shall be factory assembled and tested and shall include three thermostatic valves capable of maintaining water temperature to within 15 degrees F (8 degrees C) above set point with an adjustable temperature range of 40 degrees F (4 degrees C) to 160 degrees F (71 degrees C). Valves must compensate for temperature fluctuations due to inlet water temperature and pressure changes and be capable of providing mixed water within 15°F of hot water supply (approach temperature).



Valves shall be of bronze body construction with strainer checkstops and must have advanced, paraffin-based thermal actuation technology to insure precise temperature control when tested in accordance with ASSE 1017 and CSA B125. Thermostatic valves must be ASSE listed and CSA certified. Hi/Lo system must include PRV, ball valves, pressure/temperature gauges, thermometers and mounted on heavy-duty metal struts. Hi/Lo system shall be a Powers model 1434TV. Any alternate must have a written approval prior to bidding.

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HydroGuard 1434 Quad-Valve Hi/Lo Series

Hi/Lo water temperature control system shall be factory assembled and tested and shall include four thermostatic valves capable of maintaining water temperature to within 15 degrees F (8 degrees C) above set point within the range of 40 degrees F (4 degrees C) to 160 degrees F (71 degrees C). Valves must compensate for temperature fluctuations due to changes in inlet temperature and pressure and be capable of providing mixed water within 15°F of hot water supply (approach temperature). Valves shall be of bronze body strainer checkstops and must have advanced, paraffin-based thermal actuation technology in order to insure precise control when tested in accordance with ASSE 1017 and CSA B125. Thermostatic valves must be ASSE listed and CSA certified. Hi/Lo system must include PRV, ball valves, pressure/temperature gauges, thermometers and mounted on heavy-duty metal struts. Hi/Lo system shall be a Powers' 1434QV. Any alternate must have a written approval prior to bidding.

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HydroGuard 430 2-Valve Hi/Lo Series

Hi/Lo water temperature control system shall be factory assembled and tested and shall include two thermostatic valves capable of maintaining water temperature to within 15°F (8 degrees C) above set point within the range of 40°F (4 degrees C) to 160 degrees F (71 degrees C). Valves must compensate for temperature fluctuations due to changes in inlet temperature and pressure. Valves shall be of bronze body with strainer checkstops and must have advanced, paraffin-based thermal actuation technology in order to insure precise control when tested in accordance with ASSE 1017 and CSA B125. Thermostatic valves must be ASSE listed and CSA certified. Hi/Lo system must include PRV, ball valves, pressure/temperature gauges and thermometers. Hi/Lo system shall be a Powers model 430HL series. Any alternate must have a written approval prior to bidding.



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HydroGuard 1430 2-Valve Hi/Lo and DV Series

High capacity water temperature control system will be pre-assembled and pre-tested and mounted on heavy-duty metal struts for stability. The system includes two thermostatic valves capable of maintaining water temperature to within the performance requirements of ASSE 1017 and CSA B125 and be capable of providing mixed water within 15°F of hot water supply (approach temperature). Valves will be ASSE listed and CSA certified. Valves will feature paraffin-based actuation technology with temperature adjustment from of 40 degrees F (4 degrees C) - 160 degrees F (71 degrees C). Temperature adjustment will be vandal resistant and feature a locking mechanism.



Valves will be of bronze body construction and feature triple-duty check stops with screens to filter out debris. The system will include a PRV ("HL" series only), ball valves, pressure gauges and thermometers. The system will be a Powers' Series 1430HL or 1430DV. Any alternate must have a written approval prior to bidding.

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PowerStation

Water temperature control system will include thermostatic mixing valve(s) capable of maintaining water temperature to within 15 degrees F (8 degrees C) above set point within the range 40 degrees F to 160 degrees F (7 degrees - 71 degrees C). Valves must compensate for temperature fluctuations due to inlet temperature or pressure changes. Valves will be of bronze body with triple-duty check stops and must have a paraffin-based thermal actuator to guarantee precise control when tested in accordance with ASSE 1017 and CSA B125.



Control system will be mounted on heavy-duty welded struts with corrosion resistance coating, and factory tested as a complete unit. System will include an internal by-pass loop for fast and easy set-up. It will also includes GFCI protection, engineer specified circulator and combination temperature/pressure gauges. The system will feature optional aquastat and thermostatically controlled balancing valve to maintain system balance. The control system will be a Powers' POWERSTATION series PS. Any alternate must have a written approval prior to bidding.

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HydroGuard 430 Master Tempering Series

Master mixing valve for tempered water control shall be of the thermostatic type, capable of maintaining water temperature to any set point within the range of 40 degrees F to 160 degrees F (7 degrees - 71 degrees C). Valve must compensate for temperature fluctuations due to inlet temperature, or pressure changes and be capable of providing mixed water within 15°F of hot water supply (approach temperature). Valve shall have bronze body construction with non-corrosive parts. Valve construction shall employ poppets, which are independently seated, balanced, and self-aligning. Valve must have advanced, paraffin-based actuation technology to guarantee precise control when tested in accordance to ASSE 1017 and CSA B125. Minimum flows must be tested in accordance with ASSE 1017. Union inlets with strainers and checkstops must be provided. Any alternative must have prior approval prior to bidding.



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HydroGuard T/P e700 Combination Series

Valve shall meet the performance requirements of ASSE 1016-2005, **Type T/P** compensating for 50% fluctuation in supply line pressures and compensate for a 25°F increase in hot water supply temperature. Valve shall be capable of supplying mixed water temperature within 5°F of hot water supply temperature. Valve shall contain a powerful, paraffin-based thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.



Water tempering valve shall not be subject to failure due to the lime build-up or dirt particles and feature a self-contained cartridge for ease of repair and maintenance. Construction shall be conducive to long lasting, trouble free life, and shall not have close fitting, sliding parts, which through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 4 gpm at 45 psid. Valve shall include an adjustable brass-to-brass limit stop, factory set at 110 degrees F and integral checkstops. Valve shall always open through cold water to maximize bather safety. Valve shall be Powers e700 series. Any alternates must have written approval prior to bidding.

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HydroGuard T/P e420 Combination Series

Valve shall meet the performance requirements of ASSE 1016-2005 - **Type T/P**, compensating for 50% fluctuation in supply line pressure, and compensate for a 25°F increases in hot water supply temperature. Valve shall be capable of supplying mixed water temperature within 5 degrees F (2.8 degrees C) of hot water supply temperature. Valve shall contain powerful, paraffin-based actuation technology and feature a self-contained cartridge design for ease of repair and maintenance.



Water tempering valve shall not be subject to failure due to lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble-free life, and shall not have close fitting, sliding parts, which, through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 5.25 gpm (20.8 lpm) at 45 psid. Valve shall include an adjustable brass-to-brass limit stop, factory set at 110 degrees F (43 degrees C). Valve shall always open through cold water to maximize bather safety. Valve shall be Powers e420 series. Any alternates must have written approval prior to bidding.

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HydroGuard e427/e428 High Capacity, Thermostatic Bath & Shower Series

Valve shall meet the performance requirements of ASSE 1016-2005, Type T compensating for 20% fluctuation in supply line pressure, and compensate for 25°F increases in hot water supply temperatures. Valve shall be capable of supplying mixed water temperature within 5 degrees F (2.8 degrees C) of hot water supply temperature. Valve shall contain a powerful, paraffin-based actuator for precise temperature control.



Water tempering valve shall not be subject to failure due to lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble-free life, and shall not have close fitting, sliding parts, which, through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 15.0 gpm (56.8 lpm) at 45 psid. Valve shall include an adjustable brass-to-brass limit stop, factory set at 110 degrees F (43 degrees C). Valve shall always open through cold water to maximize bather safety. Valve shall be Powers No. e427 (concealed) or e428 (exposed). Valve shall deliver 15 gpm at a 45 psid. Any alternates must have written approval prior to bidding.

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Biltmore 900 Pressure Balancing Series

Water mixing valves for tub and shower facilities shall be of the pressure balancing type and shall not be subject to failure due to lime build-up or dirt particles. Construction shall be conducive to long trouble-free life, and shall not have close-fitting, fluid-driven, sliding parts, which, through wear or binding, may impair operation. All materials shall be suitable for potable water supply systems and comply with recognized approved standards where applicable.



Valves shall have an all-cast bronze housing, replaceable cartridge assembly and integral brass checkstops. Valves shall include an adjustable limit stop to be set by the installer. Water inlets and outlets shall be clearly marked on casting. All valves shall be suitable for reverse connection of hot and cold water supply lines and for installation in as small as 2" (51mm) minimum wall depth. Valve shall always open through cold water to maximize bather safety. Valves shall be Powers Biltmore 900 series. Any alternative must have written approval prior to bidding.

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HydroGuard 410 Pressure Balancing Series

Water mixing for shower and tub/shower applications shall be of the pressure balancing type and shall not be subject to failure due to lime buildup or dirt particles. Construction shall not have close fitting, sliding parts, which, through wear or binding, may impair operation. All materials shall be suitable for potable water supply systems and comply with recognized approved standards, where applicable.



Valve shall have an all cast bronze housing and replaceable cartridge assembly. Valve shall include an adjustable limit stop, to be set by the installer. All valves shall be suitable for reverse connection of hot and cold water supply lines. Valve shall always open through cold water to maximize bather safety. Valves shall be Powers HydroGuard 410 series. Any alternates must have written approval prior to bidding.

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VisuGuard 470 Pressure Balancing Series

Water mixing for shower and tub/shower applications shall be of the pressure balancing type and shall not be subject to failure due to lime buildup or dirt particles. Construction shall not have close fitting, sliding parts, which, through wear or binding, may impair operation. All materials shall be suitable for potable water supply systems and comply with recognized approved standards, where applicable.



Valve shall feature an integral Liquid Crystal Display (LCD) thermometer powered by a single AAA alkaline battery. Thermometer shall be adjustable to display water temperature in degrees F or degrees C within 1/10 of degree accuracy. Thermometer and battery shall be sealed in a watertight enclosure and feature a shatterproof Lexan lens for protection. Sensing element to be a stainless steel thermistor located at the outlet of the valve. Valve shall accommodate both shower and/or tub applications.

Valve shall have an all cast bronze housing and replaceable cartridge assembly. Valve shall include an adjustable limit stop, to be set by the installer. All valves shall be suitable for reverse connection of hot and cold water supply lines. Returning to the cold-water start position shall shut off valves. Valves shall be Powers HydroGuard F473 series. Any alternates must have written approval prior to bidding.

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PressureGuard

Pressure balancing unit shall be installed in supply to fixture so as to compensate for all supply pressure fluctuations. Each pressure-balancing unit shall have 12" NPT inlet connections and a capacity to pass 7 GPM (.44 l/s) combined flow, at a maximum differential of 15 psi (103 kPa). Pressure balancing unit shall be Powers PressureGuard 410-0063. Any alternative must have prior approval prior to bidding.



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HydroGuard T/P e480 Lavatory Tempering Series

Combination tempering valve shall be ASSE 1016 Type T/P and ASSE 1070 listed and CSA B125 certified. All internal components shall be from corrosion resistant material. The valve must control each performance standard down to 0.5 gpm (2.2 lpm). Valve will be capable of supplying mixed water temperature within 5°F of hot water supply.



Capacity of the valve must be 4 gpm (15 lpm) @ 45psig differential, and be constructed of solid brass. Control temperature must be adjustable between 80 and 120 degrees F (32-43 degrees C), with a locking nut to prevent unauthorized or accidental adjustment. The valve shall contain integral checks to prevent cross flow and inlet screens to filter debris. The valve shall be a Powers HydroGuard e480 series. Any alternative must have prior approval prior to bidding.

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HydroGuard Series LM490 Lavatory Tempering Series

Thermostatic tempering valve shall be constructed of solid brass. The valve shall feature advanced paraffin actuation technology and union connections for ease of maintenance. All internal components shall be from stainless steel, Teflon, or other corrosion-resistant components. The valve shall be CSA B125 certified and ASSE 1017 listed.



Capacity of the valve must be 23.0 gpm (tested with checks) for 1/2", 3/4" and 1" sizes at 45 psi differential with a minimum flow of 0.5 gpm to ASSE 1017-2003. Control temperature must be adjustable between 90-160 degrees F for LM490 and 60 - 120 degrees F for LM490-10 series. The valve will feature a vandal-resistant lockable handle to prevent tampering with integral checks to prevent cross flow and standard inlet screens to filter out debris. Valve will be capable of supplying mixed water temperature within 10°F of hot water supply.

The valve shall be a Powers' HydroGuard Model LM490 (1/2"), LM491 (3/4") or LM492 (1") for standard temperature range and LM490-10 (1/2"), LM491-10 (3/4") or LM492-10 (1") for low temperature range. Any alternative must have prior approval prior to bidding.

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HydroGuard Series LM495 Lavatory Tempering Series

Thermostatic tempering valve shall be constructed of solid brass. The valve shall feature advanced paraffin actuation technology and union connections for ease of maintenance. All internal components shall be from stainless steel, Teflon, or other corrosion-resistant components. The valve shall be ASSE 1016, 1017, and 1070 listed and CSA B125 certified.



Capacity of the valve must be 12.0 gpm (tested with checks) for 1/2", 3/4" and 1" sizes at 45 psi differential with a minimum flow of 0.5 gpm to ASSE 1017-2003. Control temperature must be adjustable between 90-160 degrees F for LM490 and 60 - 120 degrees F for LM490-10 series. The valve will feature a vandal-resistant lockable handle to prevent tampering with integral checks to prevent cross flow and standard inlet screens to filter out debris. Valve will be capable of supplying mixed water temperature within 10°F of hot water supply.

The valve shall be a Powers' HydroGuard Model LM495 (1/2"), LM496 (3/4") or LM497 (1"). Any alternative must have prior approval prior to bidding.

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HydroGuard T/P e420 Lavatory Tempering Series

Valve shall meet the performance requirements of ASSE 1016 – Type T/P, compensating for 50% fluctuation in supply line pressure, and compensate for increases in hot water supply temperatures. Valve shall be capable of supplying mixed water temperature within 5 degrees F (2.8 degrees C) of hot water supply temperature. Valve shall contain a powerful, thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.



Water tempering valve shall not be subject to failure due to lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble-free life, and shall not have close fitting, sliding parts, which, through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 5.25 gpm (20.8 lpm) at 45 psid. Valve shall include an adjustable brass-to-brass limit stop, factory set at 110 degrees F (43 degrees C) and tamper-resistant temperature adjustment. Valve shall always open through cold water to maximize bather safety. Valve shall be Powers No. e420-RB. Any alternates must have written approval prior to bidding.

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HydroGuard ESP Infrared Sensor Shower for Single and Multiple Shower Applications (PS447S)

Shower control shall be electronic and operate on 24V AC. Shower shall be activated by an infrared sensor, which responds to the presence of a bather in a shower and allows “hands free” activation. Sensor shall be waterproof, housed behind a rugged 304SS surface mount plate and feature both sensor sensitivity adjustment of 2”-48” and maximum shower time adjustment of 0-14 minutes. Sensor assembly shall also feature an LED through the sensor lens to indicate sensor activation. Shower system shall include a commercial grade solenoid valve. All sensor and solenoid electrical connections must be accomplished using modular plug type connectors. Transformer shall be Class 2 type UL and CSA listed, operate on 120VAC, 60 Hz and 24VAC secondary coil, and be of the (box) (plug in) type. Transformer shall power up to eight solenoids, to operate up to eight showers. Any alternative must have prior approval prior to bidding.



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HydroGuard ESP Pushbutton Sensor Shower for Single Shower Applications (PS447P)

Shower control shall be electronic and operate on 24VAC. Shower shall be activated by a proximity sensor, which responds to depression of a pushbutton. Shower must shut off when the pushbutton is depressed again or when the maximum run time has been reached. Sensor shall be waterproof, housed behind a rugged brass, chrome plated pushbutton assembly, and be self-calibrating. Sensor assembly shall also feature an LED to indicate sensor activation and a minimum 5-second “block out” feature to prevent misuse. Control box must feature clearly labeled modular plug receptacles for shower and sensor connection and potentiometer for adjustment of maximum shower time, from 0-7 minutes. Shower system shall include a slow closing commercial grade solenoid valve with straight through flow path. All sensor and solenoid electrical connections must be accomplished using modular plug type connectors. Transformer shall be Class 2 type UL and CSA listed, operate on 120VAC, 60 Hz and 24VAC secondary coil, and be of the (box) (plug in) type. Transformer shall power up to eight solenoids, to operate up to eight showers. Any alternative must have prior approval prior to bidding.



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ESP HydroPanel II Sensor System Single and Multiple Shower System Applications (PS450P)

Shower unit shrouding shall be 304 SS material, with pre-mounted, vandal resistant 2.5-gpm-flow restrictor showerhead and soap dish. Shrouding shall be pre-assembled and pre-piped for easy installation to supply lines.



Shower control shall be electronic and operate on 24 VAC. Shower shall be activated by a proximity sensor, which responds to the pressing of a pushbutton. Shower must shut off when the pushbutton is pressed again or at the pre-set run time. Control box must feature clearly labeled modular plug receptacles for shower and sensor connection, and potentiometer for adjusting maximum shower time. Maximum shower run-time must be on-site adjustable from 0 to 7 minutes. Shower system shall include a slow-closing commercial grade brass solenoid valve with straight through flow path. All sensor and solenoid electrical connections must be accomplished using modular plug type connectors. Transformer shall be Class 2 type UL and CSA listed, operate on 120 VAC, 60 Hz and 24 VAC secondary coil. Transformer shall power up to eight units. Any alternative must have prior approval prior to bidding.

Optional shrouding extensions shall be of 304 stainless steel, modular and compatible with shower unit housing.

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ESP HydroPanel II Infrared Sensor System (PS450S)

Shower unit shrouding shall be 304 SS material, with pre-mounted, vandal resistant 2.5-gpm-flow restrictor showerhead and soap dish. Shrouding shall be pre-assembled and pre-piped for easy installation to supply lines.



Shower control shall be electronic and operate on 24V AC. Shower shall be activated by an infrared sensor, which responds to the presence of a bather in a shower and allows "hands free" activation. Shower must shut off when bather moves beyond sensor sensitivity range, or at the pre-set run time. Sensor shall be waterproof and feature both sensor sensitivity adjustment of 2" to 48", and maximum shower time adjustment of 0 to 14 minutes. Sensor assembly shall also feature an LED through the sensor lens to indicate sensor activation. Shower system shall include a slow-closing commercial grade brass solenoid valve. All sensor and solenoid electrical connections must be accomplished using modular plug type connectors. Transformer shall be Class 2 type UL and CSA listed, operate on 120VAC, 60 Hz and 24 VAC secondary coil. Transformer shall power up to eight solenoids. Any alternative must have prior approval prior to bidding.

Optional shrouding extensions shall be of 304 stainless steel, modular and compatible with shower unit housing.

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Aqua Sentry 2 Series 460 High Temperature Alarm

Temperature alarm system shall utilize a microprocessor based controller and solid-state temperature sensor accurate to within plus/minus 1.0 degrees F (.6 degrees C). Alarm will feature both audible and visual indication. The visual indication will consist of a 3-digit, red LED temperature display.



Alarm will feature both high and low temperature set points adjustable from 40 degrees F (4 degrees C) to 199 degrees F (93 degrees C). A latching circuit will be utilized to "hold" alarm activation, should the temperature return to normal conditions.

Alarm shall not be re-settable while temperature is outside set point. If incorrectly wired, alarm will sound continuously.

Alarm shall be powered by a 24V AC, Class 2, and isolation transformer and mountable in a 4" x 4" electrical box requiring only 1-1/2" wall depth. Alarm module can be mounted up to 1,000' from the solid-state sensor. In addition, series 460 solenoid valve and shock absorber shall be installed and wired to the alarm module. Any alternative must have prior approval prior to bidding.

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Meter One Self-Closing Faucet Series

The faucet shall have push button activation conforming to ANSI A117.1 Building Access Code and meet the performance and activation requirements of the Americans with Disabilities Act (ADA). The valve shall feature a self-cleaning mechanism to prevent clogging and serviceable filter to limit particulate contamination. The faucet shall have an adjustable timing cycle from 1 to 20 seconds, which can be made without turning the water supply off. The valve shall be operable from 10 to 120 psi and 40°F - 140°F.



The valve shall be model P1805 (single hole), P1815 (single hole with 4" plate), P1005 (4" centerset), P1105 (4" with pop-up waste), P1405 (8" widespread), P1505 (8" widespread with pop-up waste) as manufactured by Powers. Any alternative must have prior approval prior to bidding.

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Surface Mounted Shower Systems

Modular surface mounted units shall feature 304 stainless steel construction for durability and a brushed finish for ease of cleaning. Stainless steel shroud shall mount to pre-assembles and pre-tested valve and copper tubing assembly with three vandal resistant mounting screws for ease of access. Units shall feature vandal resistant showerhead (fixed or swivel), hand shower or combination of both. All units shall comply with the activation requirements of the Americans with Disabilities Act and shall be configurable to meet the height and access requirements as well. Units shall also be offered with and without a stainless steel soap dish. All shower valves shall be ASSE listed and CSA certified. Units shall also be offered with optional and modular stainless steel shroud extensions to cover wall-mounted supply piping. Tempering valve options shall include: [Back](#)

Combination, Type T/P e700 Series (Models 450-7100, -7101, -7102, -7103, -7104, -7105, -7106, -7107)

Valve shall meet the performance requirements of ASSE 1016, Type T/P compensating for 50% fluctuation in supply line pressures and compensate for changes in the water supply temperatures. Valve shall be capable of supplying mixed water temperature within 5 degrees F of hot water supply temperature. Valve shall contain a powerful, paraffin-based thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.



Water tempering valve shall not be subject to failure due to the lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble free life, and shall not have close fitting, sliding parts, which through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 4 gpm at 45 psid. Valve shall include an adjustable brass-to-brass limit stop, factory set at 110 degrees F. Valve shall always open through cold water to maximize bather safety. Valve shall be Powers HydroPanel Model _____. Any alternates must have written approval prior to bidding.

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Combination, Type T/P e420 Series (Models 450-4210, -4211, -4212, -4213, -4214, -4215)

Valve shall meet the performance requirements of ASSE 1016 – Type T/P, compensating for 50% fluctuation in supply line pressure, and compensate for increases in hot water supply temperatures. Valve shall be capable of supplying mixed water temperature within 5 degrees F (2.8 degrees C) of hot water supply temperature. Valve shall contain a powerful, thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.



Water tempering valve shall not be subject to failure due to lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble-free life, and shall not have close fitting, sliding parts, which, through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 5.25 gpm (20.8 lpm) at 45 psid. Valve shall include an adjustable brass-to-brass limit stop, factory set at 110 degrees F (43 degrees C). Valve shall always open through cold water to maximize bather safety. Valve shall be Powers HydroPanel Model No. _____. Any alternates must have written approval prior to bidding.

Surface Mounted Shower Systems

Modular surface mounted units shall feature 304 stainless steel construction for durability and a brushed finish for ease of cleaning. Stainless steel shroud shall mount to pre-assembles and pre-tested valve and copper tubing assembly with three vandal resistant mounting screws for ease of access. Units shall feature vandal resistant showerhead (fixed or swivel), hand shower or combination of both. All units shall comply with the activation requirements of the Americans with Disabilities Act and shall be configurable to meet the height and access requirements as well. Units shall also be offered with and without a stainless steel soap dish. All shower valves shall be ASSE listed and CSA certified. Units shall also be offered with optional and modular stainless steel shroud extensions to cover wall-mounted supply piping. Tempering valve options shall include: [Back](#)

Pressure Balancing, Type P, 900 Series (Models 450-4000, -4001, -4002, -4003, -4004, -4005, -4006)

Water mixing valves for tub and shower facilities shall be of the pressure balancing type and shall not be subject to failure due to lime build-up or dirt particles. Construction shall be conducive to long trouble-free life, and shall not have close-fitting, fluid-driven, sliding parts, which, through wear or binding, may impair operation. All materials shall be suitable for potable water supply systems and comply with recognized approved standards where applicable.



Valves shall have an all-cast bronze housing with built-in diverter fitting, replaceable cartridge assembly and integral brass checkstops. Valves shall include an adjustable limit stop to be set by the installer. Water inlets and outlets shall be clearly marked on casting. All valves shall be suitable for reverse connection of hot and cold water supply lines and for installation in as small as 2" (51mm) minimum wall depth. Returning to the cold water starting position shall shut off valves. Valves shall be Powers HydroPanel Model No. _____. Any alternative must have written approval prior to bidding.

Pressure Balancing, Type P, Series 410 (Models 450-0416, -0417, -0418, -0419, -0420, -0421)

Water mixing for shower and tub/shower applications shall be of the pressure balancing type and shall not be subject to failure due to lime buildup or dirt particles. Construction shall not have close fitting, sliding parts, which, through wear or binding, may impair operation. All materials shall be suitable for potable water supply systems and comply with recognized approved standards, where applicable.



Valve shall have an all cast bronze housing and replaceable cartridge assembly. Valve shall include an adjustable limit stop, to be set by the installer. All valves shall be suitable for reverse connection of hot and cold water supply lines. Returning to the cold-water start position shall shut off valves. Valves shall be Powers HydroPanel Model No. _____. Any alternates must have written approval prior to bidding.