

CITY OF MARIANNA
COMMISSION AGENDA MEMO
April 5, 2022

ITEM# _____

MARIANNA HEALTH & REHABILITATION CENTER
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- Subject:** Approval of emergency purchase of water softener system replacement.
- Subject Background:** The Culligan water softener system is inoperable and must be replaced to prevent buildup of calcium and cause damage to the boilers. Also, due to the water usage and water chemistry, Culligan will perform semi-annual preventative maintenance service calls at a cost of \$165.00.
- Detail:** The installed water softener system is Culligan so it will be replaced with a Culligan system. The quote is attached. Approval from the City Manager to proceed with purchasing the water softener system replacement from Culligan Water Conditioning of Panama City in the amount of \$19,256.89 was received on March 2, 2022.
- Recommendation:** Approve emergency purchase of the water softener system replacement from Culligan Water Conditioning of Panama City, as stated under "Detail" per recommendation of Administrator and Board of Trustees.
- Potential Motion:** I move to approve the emergency purchase of the water softener system replacement from Culligan Water Conditioning of Panama City per recommendation of the Administrator and the Board of Trustees of Marianna Health and Rehabilitation Center.

Prepared by: Melinda Gay, Administrator	Approved for Agenda by:
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Quotation MHRC-replacement

Date: 02/10/2022

Prepared By:
Tra Dykes
Culligan Water Conditioning of Panama City
315 E 15th St
Panama City , FL 32405
United States
Telephone: 8505275147
Email: tra.dykes@culliganpc.com

Quoted To:
Jesse Rich
Marianna Health & Rehabilitive
PO Box 240
Marrianna, FL 32447
United States
Telephone: 850-718-5229
Email: jrich@mhrc.care

Quote No: MHRC-replacement
RE: Marianna Health & Rehab

We are pleased to provide the following proposal for equipment designed to meet your water treatment needs based on the provided water conditions...

Culligan Equipment/Services:

Qty	Part No	Description	Price
2	Hcr_10x_29612	CTM-210-DF Softener with 10% High Crosslink Resin and Hard Water Bypass	\$11,842.46
1	Hcr_10x_29611	CTM-150-DF Softener with 10% High Crosslink Resin and Hard Water Bypass	\$5,289.43
1	Services	Shipping, Installation, and Materials	\$2,125.00
Equipment and Services Total:			\$19,256.89

Culligan Terms and Conditions:

The above products and services are provided by Culligan Water Conditioning of Panama City and will be assembled by an authorized Culligan representative on site. Prices and terms are based on approved credit and are subject to change.

Quote Valid Until: 05/10/2022

I have read and agree to the terms and conditions above and attached.

Accepted: Melinda Gay
Signature

Date: 3/02/2022
Title: Administrator

Accepted: Melinda Gay
Printed

Purchase Order #: _____



Quotation MHRC-replacement

ADDITIONAL COMMENTS & EXCEPTIONS

Maintenance, Service and Repair

- Regular service hours are 8 AM to 5 PM Monday through Friday. Emergency service is available 24 hours a day, seven days per week. Emergency service rates apply.
- Preventative maintenance via semi-annual service calls are essential for this product to perform properly. The Suggested Preventative Maintenance Schedule would be our guideline and the service call to inspect all 3 systems would cost \$165.00

Preventative Maintenance

Suggested Preventive Maintenance Inspection Schedule

The Culligan CTM 2.0 commercial water softener has been designed to provide a good, consistent service life. Routinely inspecting the system may help avoid potentially costly breakdowns related to circumstances outside of the control of the dealer and/or user.

Table 9

Component	Suggested Inspection Frequency	Reason for Maintenance
Entire System	At Startup, after infrequent use (idle for one week or more) or every 3-6 months if on a private water supply.	On private supplies, the appearance of off-tastes and odors, particularly if musty or "rotten egg" (caused by harmless sulfate-reducing bacteria) may indicate a need for the system to be sanitized.
Drain Line Flow Control	Every 12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal (or unexpected) wear.
Control Valve	Every 6-12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal (or unexpected) wear.
Softening Media	Every 2-3 years	Chlorinated water supplies can break-down/destroy resin material. Resin material may also perform poorly if subjected to other materials (sediment, iron, alum, etc) found in some water supplies (but not necessarily all).
Pilot Strainer	Every 6-12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal (or unexpected) wear.
Softening Cartridge, if equipped	Every 6-12 months or every time service is performed on the system.	Exhausted cartridge. Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal (or unexpected) wear.



CTM Water Softener System Design Data

Project Name: Marianna Health & Rehab
Design By: Tra Dykes

Date: 02/10/2022

Softener System Selected is: CTM 210-DF 21in Tank with Hard Water Bypass and 1.5in Plumbing Adapter

Design Based On Peak Flow
Based on Input Conditions Each Tank Will Regenerate Every 13836 Gallons Treated
Based on Daily Usage the Regeneration Frequency Per Tank is Every 1.8 Days

Input Parameters:

Water Hardness, gpg	: 15	Flow Rate, gpm	: 65
Soluble Iron, mg/l as ion	: 0	Daily Water Usage, gpd	: 7500
Eff. Hardness, gpg @ 100% Cap.	: 15	Salt Dosage, lbs/ft ³	: 15
Daily Capacity Req'd, kgr	: 112.5		

The CTM will Provide (Each Unit):

Design Flow, gpm	: 65 @ 19.29 psi loss
Continuous Flow, gpm	: 65 @ 15 psi loss
Peak Flow, gpm	: 85 @ 25 psi loss
Min. Recommended Flow, gpm	: 5
Design Softening Rate, gpm/ft ²	: 27.08
Resin Quantity, ft ³	: 7
Unit Capacity, kgr	: 208 @ 105 lbs Salt
Maximum Capacity, kgr	: 210 @ 105 lbs Salt
Minimum Capacity, kgr	: 140 @ 42 lbs Salt
Tank Size, in.	: 21x62
Tank Area, ft ²	: 2.4
Freeboard, in.	: 28



Regeneration Data (Each Unit):

Brine Tank Size, in.	: 30x50	Backwash Flow Req'd, gpm	: 8
Max. Salt Load, lbs	: 1200	Recond. Water Req'd, gals	: 369
Number of Regens/Salt Fill	: 11.43	Total Regen Time, min.	: 68
Salt Usage, lbs/Regen	: 105		

System Requirements:

Operating Press., psi	: 35-125	Voltage	: 120 Volts AC, 50/60 Hz, 1 Ph
Operating Temp., °F	: 40-120	Full Load, Amps	: < 1
Pipe Conn, in NPT...			
Inlet	: 2		
Outlet	: 2		
Drain	: 1.5		
Weight, lbs...			
Shipping	: 660		
Operating	: 2075		
Overall Dimensions, in....			
Width x Height x Depth	: 55 x 88.5 x 21.5		



The Culligan® Top Mount Series WATER SOFTENER SYSTEM

Superior Flow. Superior Savings. Superior Water for Commercial and Industrial Needs.

The Culligan® Top Mount (CTM) Series softener models use the latest control valve technology to offer superior flow rates and long-lasting performance for commercial and industrial applications. The top-mounted control minimizes the system's footprint and is constructed of a corrosion-resistant, heavy duty plastic tested in extreme operating conditions to service all types of problem water (high chloramines, heavy iron, etc.). The CTM valve and system also carry certification for testing and passing the highest drinking water standards. The CTM includes integrated vacuum breakers and pressure relief valves to protect the system in addition to possessing an integrated flow meter for highly accurate reporting. Each CTM operates with a Culligan® Smart Controller which provides users access to the Culligan® technology platform of intercommunicating systems, remote monitoring and water and energy saving accessories.

The CTM Softener Series forms part of the Culligan® Commercial and Industrial product portfolio that has been offering durable, high-quality equipment to the world for over 80 years. For those customers who need a more customized solution Culligan's application engineering and project management team will provide professional, technical expertise through the initial project scope to the expedited delivery and start-up process. Our expansive dealership network will provide aftermarket support and technical expertise and trusted service to users in every market. Contact Culligan® today to learn more about the CTM and other water treatment products.

Markets Served:

Clinics
Educational Facilities
Energy / Power
Food / Beverage Production
Food Service / Restaurants
Grocery
Healthcare / Hospitals / Bio-Pharmaceutical
Hospitality / Lodging
Manufacturing
Municipal Drinking Water
Oil / Gas

CULLIGAN® ADVANTAGES:

- Global Product Platform with Flexible Modular Configurations
- Simple Integration into Existing Systems
- Quick Delivery & Installation
- Exclusive Culligan Features
 - Universal Electronic Controller
 - Aqua-Sensor®, Progressive Flow and Other Operational Cost-Saving Technology
 - Remote Monitoring Capabilities with Multiple Alarm Recognitions
 - Cloud Storage for Historical Data
 - U.S. Standard and Metric Readings with Multiple Interface Languages for Programming Interface



PRE-TREATMENT SOLUTIONS.

SYSTEM SPECIFICATIONS

Warranty

Culligan's CTM Water Softeners are backed by a limited 2-year warranty against defects in material, workmanship and corrosion. In addition, sediment tanks are warranted for a period of 5 years.

For complete warranty details, Culligan® will provide a copy of the warranty upon request. Some limitations include: water softeners cannot correct the condition of a city water supply system. Liability for the cost of plumbing, electrical, or water-using equipment is the customer's responsibility. Culligan® is not responsible for any damage to property caused by the use of the product.

System Specifications

Specification	US	Metric
Inlet Pressure (Pressure)	45-125 psig	3.0-8.6 barg
Power Voltage (Frequency)	110-220 Volts (50/60 Hz)	
Flow Rate (Flow Rate)	1-100 gpm	1-42 L/min
Flow Rate	None	None
Capacity (Gallons/Day)	5-150,000 gal (200-600,000 L)	

1.125" (29.27 mm) inlet pipe size. Inlet pipe size may increase to 1.5" (38.1 mm) for flow rates up to 100 gpm (3.8 L/min).

2. See local code for inlet pipe size.



Tested and Certified by NSI to NSF/ANSI 61 and 223

Examples of Softener Applications

- Food and Beverage—Improved taste
- Educational Facilities—Boiler and cooling tower make-up water for scale reduction and improve energy costs
- Restaurants—For dishwashing, cleaning material savings, scale reduction
- RO/DI Pretreatment
- Car washes—Quality results, detergent and water heating savings, scale reduction
- Apartment buildings, assisted living facilities and hotels—Quality water for laundry, dishwashers, boilers
- Grocery/Retail—Quality water for aesthetics and help extend equipment life

- Light industry—For process and make-up water, boiler and cooling system pretreatment, general housekeeping
- Office buildings—For heating plant pretreatment, tenant convenience, general housekeeping

Standard Features

- Single or Multiple Tank Configurations available for hardness removal capacities up to 600,000 grains per tank
- Continuous Flow rates up to 76 gpm per tank, Peak Flow rates up to 104 gpm per tank
- Corrosion-resistant control valve body certified for drinking water applications
- Integrated flow meter, vacuum breaker and pressure relief valve
- Down flow regeneration type controllers available with your choice of initiation (Time Clock, In-Line or Aqua-Sensor® In-Line)
- Telemetric data capabilities with remote monitoring

- No special tools required for servicing
- Robust piston valve technology uses retained radial seals in the body for improved longevity and reliability. Ideal for challenging water conditions.
- Control complies with CUL, CE, UL 507/508 and UL 716c standards for NEMA 3F enclosure rating

Optional Features & Accessories

- 1.5" or 2" Flow adapters are available to provide every CTM unit the flexibility to use different inlet pipe sizes with minimal impact to flow rates
- Potent Progressive Flow—Culligan's Smart Controller can monitor flow demands bring in additional softening tanks on-line or off-line as flows increase or decrease
- Brine Reclaim—reduces operating costs by recycling brine for a efficient use of brine during regeneration
- Aqua-Sensor® Control—initiates regeneration only when needed based upon water hardness, automatically adjusts to changes in raw water hardness and water conditions
- Remote Display
- RS-485, RS-485, Modbus PLC Output

Culligan® Top Mount (CTM) Water Softener System

CTM Family Group**	Media Qty. (BU/ft³)	Inlet Size*** (in./mm)	Service Flow Rates		Tank Size**** (in./mm)	
			Continuous** (gpm @ 15 psi drop / Lpm @ 103 kPa drop)	Peak** (gpm @ 75 psi drop / Lpm @ 517 kPa drop)	Softwater (in./mm)	Brine**** (in./mm)
CTM-50	2	1.5" (38.1)	51		24 x 47	24 x 49
	57	25.4 & 50.8	193		356 x 1194	610 x 1016
CTM-80	3	1.5" (38.1)	77		36 x 51	24 x 50
	95	25.4 & 50.8	216	254	406 x 1346	610 x 1016
CTM-120	4	1.5" (38.1)	103		36 x 65	24 x 50
	113	25.4 & 50.8	208	4	406 x 1651	610 x 1271
CTM-150	5	1.5" (38.1)	129		36 x 65	24 x 50
	142	25.4 & 50.8	222		457 x 1651	610 x 1270
CTM-210	7	1.5" (38.1)	176		21 x 67	24 x 50
	199	25.4 & 50.8			558 x 1725	610 x 1270
CTM-300	10	1.5" (38.1)	237		21 x 72	30 x 50
	286	25.4 & 50.8	263		610 x 1829	762 x 1270
CTM-450	15	1.5" (38.1)	355	8	30 x 72	30 x 50
	474	25.4 & 50.8	268	114	762 x 1829	762 x 1270
CTM-600	20	1.5" (38.1)	473	4	36 x 72	30 x 50
	567	25.4 & 50.8	311	3	914 x 1829	991 x 1219

** Flow rates are based on 15 psi drop. Flow rates may vary based on inlet pipe size and water quality.

*** Inlet pipe size may vary based on inlet pipe size and water quality.

**** Brine tank size may vary based on inlet pipe size and water quality.



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For 80 years, Culligan® has made better water. Our global network, comprised of 800+ dealers and international licensees in over 90 countries, is dedicated to addressing your water-related problems. As a worldwide leader in water treatment, our sales representatives and service technicians are familiar with the local water conditions in your area. Being global and local position us to deliver customized solutions to commercial and industrial water issues that affect your business and your bottom line.

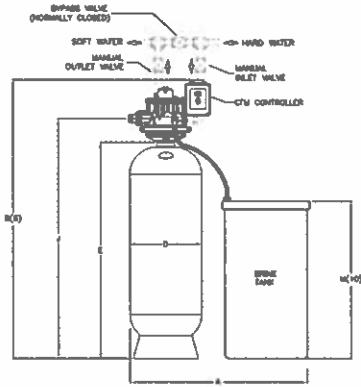
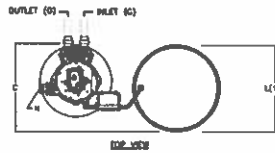
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Culligan® reserves the right to change the specifications listed in this brochure at any time without notice.

NOTES

- (1) ITEMS SHOWN IN BRACKET LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ±1" (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) LINES SHOULD BE LOCKED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM, THE USE OF NONCONDUCTIVE (INSULATED) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) A TEN FOOT POWER CORD (LONGER LENGTHS AVAILABLE) AND BALL VALVE TRANSFORMER ARE PROVIDED. THE CUSTOMER SHOULD PROVIDE A RECEPTACLE, PREFERABLY ONE NOT CONTROLLED BY A SWITCH THAT CAN BE TURNED OFF ACCIDENTALLY. OBSERVE THE LOCAL ELECTRICAL CODES.
- (6) ALLOW 8-12 INCHES BEHIND THE UNIT FOR PLUMBING AND DRAIN LINES AND 12 INCHES ABOVE OVERALL HEIGHT FOR SERVICE ACCESS AND FILLING THE SALT CONTAINER.
- (7) SYSTEM USES RPP LINES WHICH MUST NOT BE SUBJECT TO VACUUM. INSTALL SYPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SOURCE LINE IS SUBJECT TO A VACUUM.
- (8) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST TWO TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (9) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM.
- (10) SHOPPING AND OPERATING WEIGHTS SHOWN ON THIS DRAWING INCLUDE THE BRINE SYSTEM.

MODEL	DIMENSIONS (INCHES)										UNIT DATA PER TANK									
	WIDTH A	HEIGHT B(E)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET PIPE SIZE F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. I(L10)	BRINE TANK HEIGHT J(M10)	MAX. CAPACITY K(DOSAGE)	RESIN VOLUME L(R3)	CONTINUOUS FLOW FLOW @ 15 psi drop	PEAK FLOW FLOW @ 25 psi drop	DRAIN FLOW FLOW @ 15 psi drop	MIN. DRAIN PIPE SIZE R4	INLET PIPE SIZE R5	INLET OPER. WT. R6	INLET UNIT WT. R7	
T																				
CW-110-D1	30	35.5	21.5	21	27	2.0	1.5	77	24	80	210 @ 100	7	85	80	8	1.0	1745	885		



DO NOT SCALE DRAWING

SIZE	Change	By	Date

Culligan®
ENGINEERED SYSTEMS
 ROSEMONT, ILLINOIS

NAME: CW-110-D1
 METERED DOWN FLOW AND UP FLOW
 AUTOMATIC SOFTENER SINGLE
 TECHNICAL DATA SHEET
 DESIGNED BY: []
 DATE: 6/24/10 LB: 6/16/10 SHEET: 1 OF 1
 REV. NO.: [] PRINT NO.: []
 DRAWING NO.: DRW-2125

NOTE: SEE BILL OF MATERIALS AND GO TO 40 USED THROUGH THE HISTORY COLUMN OF CULLIGAN WATERWORKS, CO.