

Browning Public Schools
Board Agenda Request
Meeting To Be Held: 9-28-17



Recognition: ☐ Students ☐ Staff ☐ Parents
Information: ☐ Building Report ☐ Old Business ☒ Superintendent's Report
Action: ☐ Resignation ☐ Hiring ☐ Contract Service Agreements
 ☐ Travel Out-of-State ☐ Travel In State ☐ Approvals
 ☐ Termination ☐ Legal Matters ☐ Other:
This action request pertains to ☐ Elementary (only) ☐ High School/District Wide

Date: 9-21-17

To: **Corrina Guardipee-Hall**
 Superintendent

From: Glenn Hall
Title: Director of Facilities

Subject: **Discuss adding chilled water system to the New High School**

Justification: This issue was discussed at the 9/14/17 facility meeting and for health and safety reasons the Facility Committee would like to discuss the option of adding the chilled water system to the new high school.

Financial Impact: **\$484,537.00** is the estimate attached for both. We will receive a new estimate broken down into two areas; classrooms and gymnasium.

Attachment(s): Separate estimates for classrooms and gymnasium to be provided at Board Meeting

Approval: Superintendent's Office/Finance/Personnel as applicable (Initial) _____

Comments: _____

Board Action: ☐ N/A (Info) ☐ Approved ☐ Denied ☐ Tabled to: _____

Project: Browning High School - Chilled Water System

Date: 7-Sep-17

CostWorks 2017

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Total	Total Incl. O&P	Sub-Total
01-Air-Cooled Screw Chiller with Remote Evaporator								
Chiller Installation								
1	Vendor Quote	Vemco, 9-5-2017: Dalkin Model AWV015A, Capacity 230.0-tons, 16-Fans, VFD, Including Jobsite Delivery and Startup	L.S.				136,500.00	
1	2364 26 0136	Rotary-Screw Water Chiller, With Standard Controls, 270 -tons (labor only)	L.S.	0.00	13,600.00	13,600.00	13,600.00	
11	3305 340 3850	Misc. Cast-in-Place Conc., Inc. forms, gd. 60 rebar, conc. (Portland cement Type 1) Equipment pad (3000 psi), 10'x10'x12"-thk. Over 5 C.Y.	C.Y.	282.00	47.00	329.00	3,619.00	
Refrigerant piping								
60	22111 323 1330	Pipe, copper, tubing, solder, 4" diameter, type K, Includes coupling & clevis hanger assembly 10' O.C.	L.F.	74.00	19.15	93.15	5,589.00	
30	22111 323 1320	Pipe, copper, tubing, solder, 3-1/2" diameter, type K, Includes coupling & clevis hanger assembly 10' O.C.	L.F.	59.50	17.10	76.60	2,298.00	
30	22111 323 1280	Pipe, copper, tubing, solder, 2-1/2" diameter, type K, Includes coupling & clevis hanger assembly 10' O.C.	L.F.	33.00	12.10	45.10	1,353.00	
120	22071 910 1030	For 1" thick insulation add 30%	(%)				2,366.10	
Electrical Connections								
60	Engineer's Est.	480V/60/3, 600-A Circuit w/ Elect. Feeder	L.F.			55.00	3,300.00	
1	Engineer's Est.	480V/60/3, 600-A Local Fused Disconnect	L.S.			2,600.00	2,600.00	
1	Engineer's Est.	480V/60/3, 600-A Variable-Frequency-Drive	L.S.			36,000.00	36,000.00	
								\$207,225
02-Chiller Room, Pumps, Piping & Components								
Pumps & Equipment Installation								
2	2321 5610	Hydronic pumps, in-line centrifugal, base mounted, bronze impeller, coupling guard, 6" size, 20 HP, to 1350 GPM	Ea.	5,800.00	5,800.00	11,600.00	23,200.00	
2	Vendor Quote	Vemco, 9-5-2017: Taco F13011 w/4" MPV and 4x4 suction diffuser, Inertia base	Ea.	7,237.00			14,474.00	
1	23212 046 2120	Expansion tank, Taco CBX-130, steel, liquid expansion, painted, 100 gallon capacity, ASME	Ea.	1,476.00	197.50	1,673.50	1,673.50	
1	23212 010 0040	Air and Dirt Separator, Taco 4906AD control, air separator, 2" diameter, includes strainer	Ea.	3,030.00	325.50	3,355.50	3,355.50	
1	23212 018 0140	Automatic air vent, cast iron body, stainless steel internals, float type, 300 psi, 3/4" NPT inlet	Ea.	260.00	58.00	318.00	318.00	
8	23052 380 5570	Valves, steel, forged, ball, 150 lb., flanged, 6"	Ea.	2,300.00	305.00	2,605.00	20,840.00	
4	23212 030 1040	Cocks, drains and specialties, boiler drain, bronze, pipe thread to hose, 3/4" size	Ea.	37.40	41.20	78.60	314.40	
1	23212 074 2700	Strainer, basket type, perforated stainless steelbasket, brass or monel available, simplex style, bronze body, flanged, 6" pipe size	Ea.	4,200.00	305.00	4,505.00	4,505.00	
1	Engineer's Est.	Misc. Plant piping, inc. make-up water service & valves	L.S.			25,000.00	25,000.00	
Chilled Water Piping								
120	22111 348 0610	Facility Water Distribution Piping, Pipe includes coupling & clevis type hanger assemblies, 10' O.C., Schedule 10, black, 6" diameter	L.F.	20.50	19.70	40.20	4,824.00	
90	22111 348 0550	Facility Water Distribution Piping, Pipe includes coupling & clevis type hanger assemblies, 10' O.C., Schedule 10, black, 2" diameter	L.F.	9.80	7.55	17.35	1,561.50	
Pipe Insulation								
120	22071 910 6960	Plumbing Piping Insulation, Fiberglass, with all service jacket, 6" iron pipe size	L.F.	2.85	4.38	7.23	867.60	
90	22071 910 6900	Plumbing Piping Insulation, Fiberglass, with all service jacket, 2" iron pipe size	L.F.	1.48	2.63	4.11	369.90	
Electrical Connections								
120	Engineer's Est.	480V/60/3, Pump 20-HP Circuit w/ Elect. Feeder	L.F.			7.75	930.00	
2	Engineer's Est.	480V/60/3, Pump 20-HP Local Fused Disconnect	L.S.			750.00	1,500.00	
2	Engineer's Est.	480V/60/3, 20-HP Variable-Frequency-Drive	L.S.			6,000.00	12,000.00	
								\$115,733
03-Building Chilled Water Piping & Coil Connections								
Chilled Water Piping								
700	22111 348 0610	Facility Water Distribution Piping, Pipe includes coupling & clevis type hanger assemblies, 10' O.C., Schedule 10, black, 6" diameter	L.F.	20.50	19.70	40.20	28,140.00	
400	22111 348 0590	Facility Water Distribution Piping, Pipe includes coupling & clevis type hanger assemblies, 10' O.C., Schedule 10, black, 4" diameter	L.F.	18.05	11.90	29.95	11,980.00	
700	22111 348 0570	Facility Water Distribution Piping, Pipe includes coupling & clevis type hanger assemblies, 10' O.C., Schedule 10, black, 3" diameter	L.F.	10.10	10.65	20.75	14,525.00	
60	22111 348 0550	Facility Water Distribution Piping, Pipe includes coupling & clevis type hanger assemblies, 10' O.C., Schedule 10, black, 2" diameter	L.F.	9.80	7.55	17.35	1,041.00	
Pipe Insulation								
700	22071 910 6960	Plumbing Piping Insulation, Fiberglass, with all service jacket, 6" iron pipe size	L.F.	2.85	4.38	7.23	5,061.00	
400	22071 910 6940	Plumbing Piping Insulation, Fiberglass, with all service jacket, 4" iron pipe size	L.F.	2.40	3.52	5.92	2,368.00	
700	22071 910 6920	Plumbing Piping Insulation, Fiberglass, with all service jacket, 3" iron pipe size	L.F.	1.80	2.92	4.72	3,304.00	
60	22071 910 6910	Plumbing Piping Insulation, Fiberglass, with all service jacket, 2" iron pipe size	L.F.	1.67	2.77	4.44	266.40	
Piping Specialties								
6	23212 018 0140	Automatic air vent, cast iron body, stainless steel internals, float type, 300 psi, 3/4" NPT inlet	Ea.	260.00	58.00	318.00	1,908.00	
6	23052 380 5410	Valves, steel, forged, ball, threaded, 1500 psi, 2"	Ea.	290.00	31.00	321.00	1,926.00	
6	23212 022 0100	Circuit sensor flow meter, metering stations, wafer orifice insert type, 3" pipe size	Ea.	454.00	115.00	569.00	3,414.00	
12	23212 030 1040	Cocks, drains and specialties, boiler drain, bronze, pipe thread to hose, 3/4" size	Ea.	37.40	41.20	78.60	943.20	
6	23212 054 0310	Flow check control, cast iron body, flanged inlet, threaded outlet, 2-1/2" size	Ea.	586.00	87.00	673.00	4,038.00	
12	23212 034 0420	Dielectric unions, female I.P.T. to sweat, straight, 250 psi maximum pressure, 2" pipe size, includes standard gaskets for water and air	Ea.	260.00	87.00	347.00	4,164.00	
Misc. Construction								
1	Engineer's Est.	Remove and Replace T-bar ceilings, inc. Misc. Drywall Repair, Cutting & Patching	L.S.		50,000.00	50,000.00	50,000.00	
								\$133,079
04-Chilled Water/ Hydronic Building Automated Controls System, Direct Digital Controls (DDC)								
1	23 09	Instrumentation and Control for HVAC	L.S.				28,500.00	
								\$28,500
								\$484,537