

FOX CHAPEL AREA SCHOOL AUTHORITY
Business Meeting Agenda – Staff Development Room
November 20, 2023
8:00 AM

- I. CALL TO ORDER
- II. ROLL CALL
- III. PUBLIC COMMENT
- IV. BUSINESS ITEMS UPDATE
 - A. Dorseyville Middle School Window Project
 - B. Hartwood Elementary School HVAC Project
- V. ACTION ITEMS
 - A. Approval of Minutes:
 - Approval of the October 30, 2023 Authority Business Meeting Minutes
 - B. Approval of November 20, 2023 Disbursements totaling: \$8,700.00
 - Fund 10: \$ 1,200.00
 - Fund 31: \$ 7,500.00
 - C. Solicitor's Report
- VI. OTHER BUSINESS
- VII. NEXT MEETING:
 - Monday, December 18, 2023 – 8:00 AM Staff Development Room
 - Tuesday, January 16, 2023 – 8:00 AM Staff Development Room
- VIII. EXECUTIVE SESSION
- VIII. ADJOURNMENT

Fox Chapel Area School Authority
Business Meeting Minutes
October 30, 2023

A meeting of the Fox Chapel Area School Authority was held in the Administrative Staff Development Room on Monday, October 30, 2023. The meeting was called to order at 8:00 a.m.

Roll Call

Members were present as follows: Keith Fenton, Richard Ranii, and Bob Saunders.

Others present at the meeting were: Mary Catherine Reljac, David McCommons, Daniel Breitreutz, Paul Giuffre, Ron Frank, Adam Goode, Dan Macek, Jon Thomas and Linda Casile. There were no members of the public present.

Public Comments

There were no public comments.

Business Items Update

A. Dorseyville Middle School Window Project

Mr. Macek, representing CJA, reported that the project was awarded to MacBracey Corporation for approximately \$689,00.00. Late last week the installation of two window mock-ups were made. Mr. Breitreutz reported that he is very pleased with the Pella windows that were selected. Mr. Breitreutz did caution the Authority of a possible concern regarding the interior jams of the windows due to previous water damage.

B. Hartwood Elementary School HVAC Project

Mr. Thomas, of Thomas & Williamson, informed the Authority that a kickoff meeting was held with the H.F. Lenz Company, which is the design engineer for the Hartwood Elementary HVAC project. H.F. Lenz is going to looking a several options: geothermal, gas fired heat and continuing with hot water heat. In addition, H.F. Lenz is also exploring different options with the existing duct work in the building.

Action Items

A. Approval of Minutes

On a motion made by Mr. Fenton and seconded by Mr. Ranii, the Authority business minutes from August 28, 2023 were unanimously approved.

B. Approval of the October 30, 2023 Disbursements

On a motion made by Mr. Ranii and seconded by Mr. Fenton, the disbursements from Fund 10 totaling \$9,062.75 were unanimously approved.

C. Solicitor's Report

Mr. Ranii asked a question about a potential legal matter in regard to the Kerr chiller, which Mr. Giuffre replied to.

Mr. Giuffre had nothing else to report at this time.

Other Business

No other business was reported.

Adjournment

On motion by Mr. Ranii and seconded by Mr. Fenton, it was unanimously resolved to adjourn the meeting at 8:58 a.m.

Respectfully submitted,

Bryan Thomas
Secretary

Disbursement Report Fund 10 For The Period of 10/31/23 - 11/20/23

| | Vendor Name | Budget Unit Title | Account Title | Transaction Amount |
|------------------------|-----------------------------------|-------------------|-----------------------|--------------------|
| 102350 | INDIANA TOWNSHIP | LEGAL SRV | DUES&FEES | \$275.00 |
| 102350 - Total | | | | \$275.00 |
| 104600 | CANZIAN/JOHNSTON & ASSOCIATES LLC | CONSTRUC-ARR-DMS | PROFESSIONAL SERVICES | \$925.00 |
| 104600 - Total | | | | \$925.00 |
| Overall - Total | | | | \$1,200.00 |

Disbursement Report Fund 31 For The Period of 10/31/23 - 11/20/23

| Vendor Name | Budget Unit Title | Account Title | Transaction Amount |
|-----------------------|-------------------|------------------------|--------------------|
| 314600 H.F. LENZ CO. | CP- CONSTRUCTION | DUES&FEES | \$7,500.00 |
| 102350 - Total | | Overall - Total | \$7,500.00 |



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H.F. LENZ ENGINEERING PROJECT UPDATE FOR



HVAC UPGRADES TO THE HARTWOOD ELEMENTARY SCHOOL

Prepared by:

H.F. LENZ
ENGINEERING

Mr. George A. McMillan IV, P.E.
Principal

HFL File No. 2023-1023.01

November 20, 2023

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AGENDA

- Introduction
- Goals
- Progress Update
- Options Considered
 - Option No. 1
 - Option No. 2
 - Option No. 3
- Advantages vs. Disadvantages
- Energy Reduction
- Schedule & Next Steps
- Questions





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PROJECT TEAM



FOX CHAPEL AREA SCHOOL
DISTRICT



George A. McMillan IV, P.E.
Principal-in-Charge



Steven J. Gridley, P.E.
Quality Control



Paul A. Montagna, P.E.
Mechanical Engineer



Cody W. Belnap, CPPD
Plumbing/Fire Protection Designer



Lane T. King
Electrical Engineering Designer



David A. Blackner, P.E.
Structural Engineer



➤ The team has completed the following since 2018:

- **30+ Total K-12 projects**
- **20+ K-12 projects as the Prime Professional**
- **10+ K-12 projects working with a third party ESCO (Energy Savings Performance Contracts)**



GOALS

- ✓ Life cycle equipment replacement;
- ✓ Provide equipment & systems that are accessible and maintainable;
- ✓ Optimize energy efficiency (Convert multi-zone units to more energy efficient system, upgrade controls, & LED lighting);
- ✓ Enhance the quality of the learning environment.
- ✓ Maintain budget (\$6.5M)
- ✓ *Important Notes:*
 - *This project is not intended to be a complete building renovation*
 - *Equipment replacement is not intended to be one-for-one (size equipment appropriately)*



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PROGRESS UPDATE

- ✓ Gathered existing documents
- ✓ Field Verification of existing conditions (2-Visits completed to date)
- ✓ 95% Complete with documentation of existing conditions
- ✓ Completed heating/cooling load calculations for the building
- ✓ Completed energy model (Compared 3-Systems)
- ✓ Obtained equipment selections for 2 of the 3 options
- ✓ Currently on track to meet the schedule (Pending FCASD HVAC system selection)



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EXISTING HVAC ROOF PLAN



EQUIPMENT CAPACITY

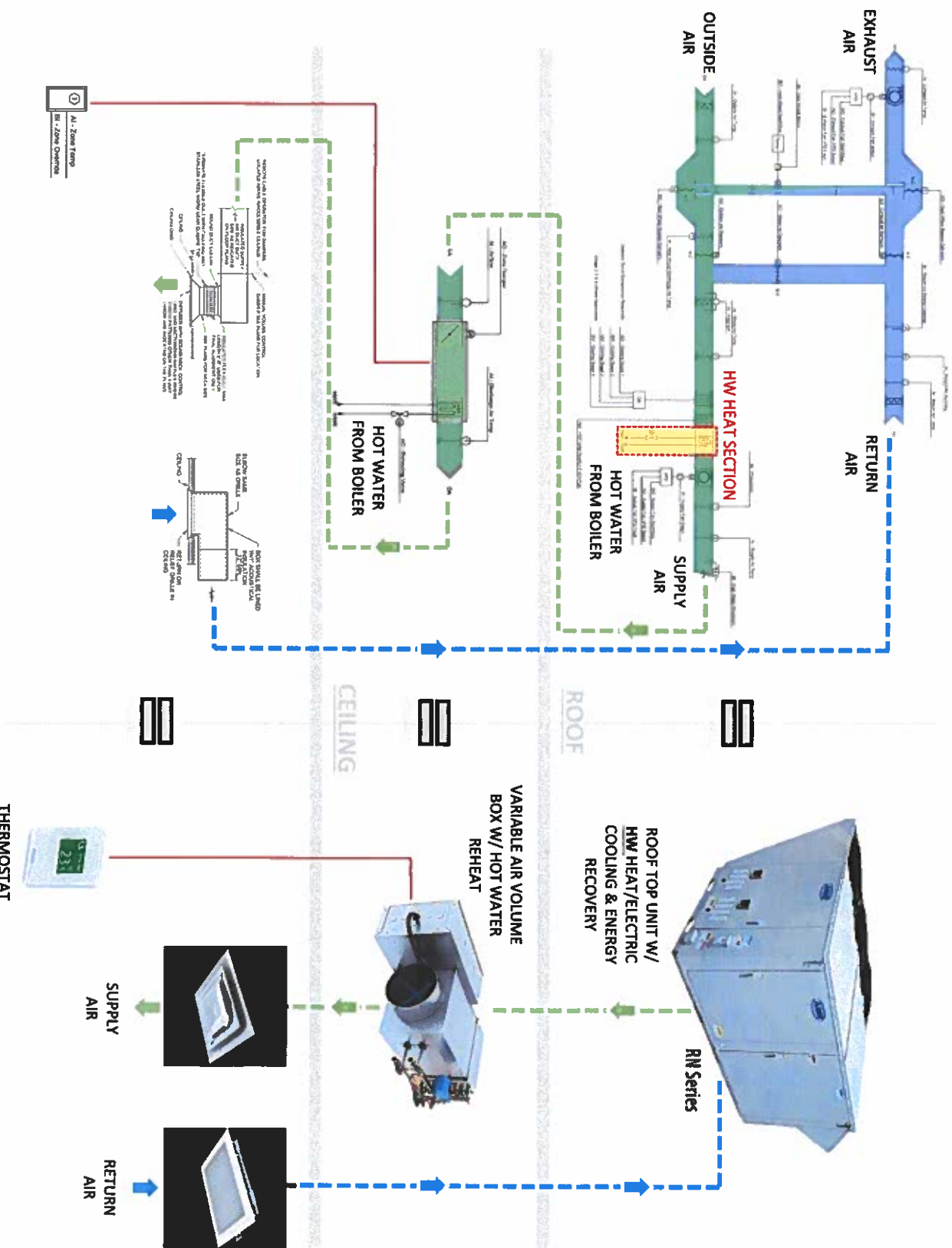
- RTU-1: 12,180 CFM
- RTU-2: 10,920 CFM
- RTU-3: 13,600 CFM
- RTU-4: 4,500 CFM
- RTU-5: 7,600 CFM
- RTU-6: 9,600 CFM
- RTU-7: 10,920 CFM
- AHU-1: 18,000 CFM

**UNITS MANUFACTURED
BY ENGINEERED AIR**



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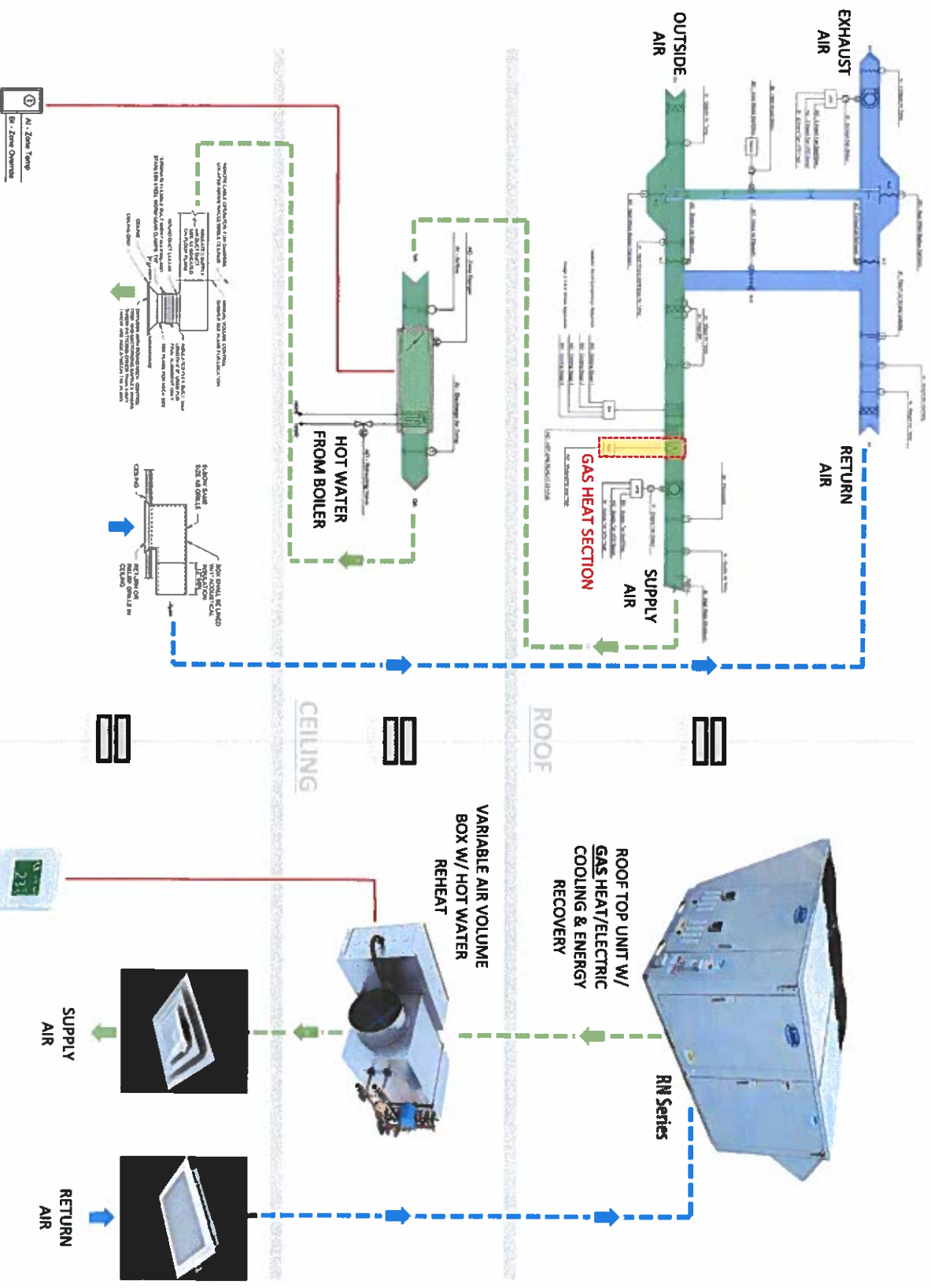
OPTION No. 1 – HOT WATER ROOF TOP UNITS





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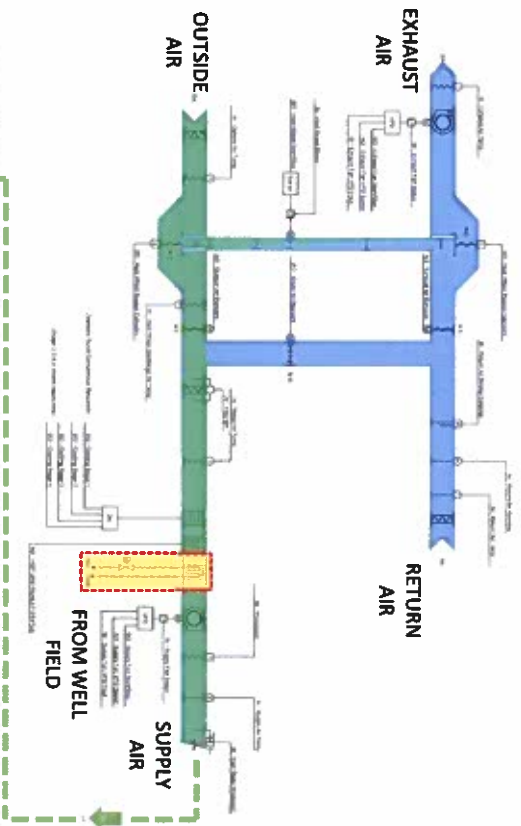
OPTION No. 2 – GAS FIRED ROOF TOP UNITS





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OPTION No. 3 – GEOTHERMAL HEAT PUMPS



ROOF

DEDICATED OUTDOOR AIR
UNIT W/ ENERGY
RECOVERY

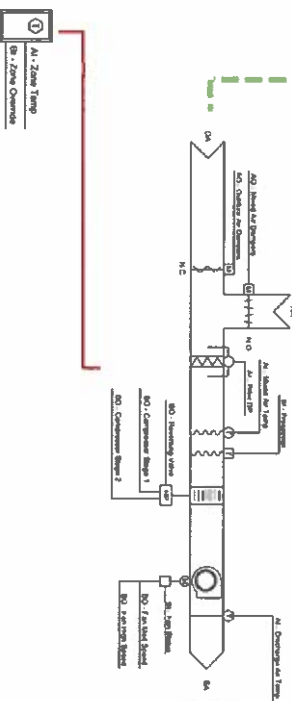


RIN Series

OUTSIDE
AIR

OUTSIDE
AIR

CEILING



CLASSROOM

THERMOSTAT



VERTICAL UNIT
VENTILATOR/HEAT
PUMP

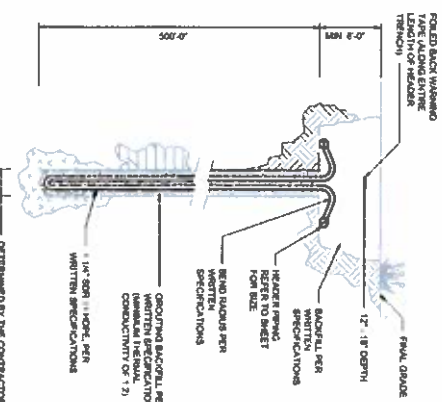


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OPTION No. 3 – GEOTHERMAL HEAT PUMPS



WELL FIELD LOCATION OPTIONS



TYPICAL VERTICAL WELL

**188 TONS OF
COOLING
REQUIRED**



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ADVANTAGES VS DISADVANTAGES

| DESCRIPTION | OPTION No. 1 (HW RTU) | OPTION No. 2 (GAS RTU) | OPTION No. 3 (GEOTHERMAL) |
|--|--------------------------|---------------------------|------------------------------|
| Life Cycle Upgrades | + | + | + |
| Equipment Accessibility | + | + | + |
| Energy Efficient | + | + | + |
| Enhance Learning Environment | + | + | + |
| Maintain Budget | + | + | - |
| Maintain Schedule | + | + | - |
| Control | + | + | + |
| Smaller HW Boilers | - | + | + |
| Smaller Piping | - | + | - |
| Eliminate Glycol | - | + | - |
| No Gas Service Modification | + | - | + |
| Lose Heat if Boiler Fails | - | + | + |
| Operate Upon Loss of Power | + | + | - |
| No Major Electrical System Upgrades | + | + | - |

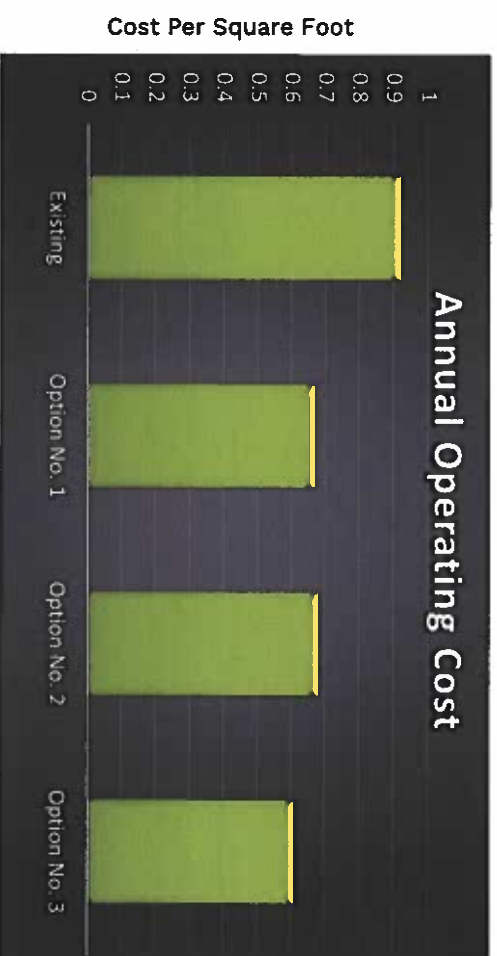
+ - Advantage

- - Disadvantage



ENERGY COST REDUCTION

➤ *There will be an energy cost reduction regardless of which option is selected:*



- Existing System: \$.92/sq.ft. x 72,400 sq.ft. = **\$66,608**
- Option No. 1: \$.67/sq.ft. x 72,400 sq.ft. = **\$48,508**
- Option No. 2: \$.68/sq.ft. x 72,400 sq.ft. = **\$49,232**
- Option No. 3: \$.61/sq.ft. x 72,400 sq.ft. = **\$44,164**



SCHEDULE & NEXT STEPS

I. Schedule

- e. Roof Top Equipment Pre-Purchase Specifications 11/22/2023 **(Critical Path)**
- f. Design Development 12/1/2023
- g. 50% Construction Documents 12/22/2023
- h. FCASD Roof Top Equipment Award 1/9/2024 **(Critical Path)**
- i. 75% Construction Documents 1/12/2024
- j. 100% Construction Documents 1/26/2024
- k. Bidding 2/5-2/23/2024
- l. FCASD Project Award 3/2024
- m. Construction 3/2024-8/16/2024
 - i. Abatement (Owner) 3/25-3/29/2024 *(None has been identified at this time)*
 - ii. Boiler Room (Early Start) 4/8/2024
 - iii. Last Day of School 6/6/2024
 - iv. Construction 6/7-8/16/2024
- n. FCASD Cleaning & Prep 8/19-8/27/2024
- o. School Start 8/28/2024

This schedule is valid for the scope of work indicated in the RFP. If the District decides to move forward with a geothermal system, the schedule will be extended and construction will not start in the summer of 2024 as indicated.



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QUESTIONS?

THANK YOU FOR THE OPPORTUNITY!

