

**Project:** Randolph Lyons School**Meeting Date:** April 7, 2021**Time:** 1:08 PM**Meeting Location:** Zoom**Meeting:** School Building Committee**Report By:** Tieshia Walton**Attending:** Ida Gordon, Chair (IG)  
Andrea Nixon, Vice Chair (AN)\*  
William Alexopoulos \*  
Thea Stovell (TS)\*  
Carlos Colley (CC)\*  
Ron Lum\*  
Brian Howard (BH)\*  
Adam Smith (AS) \*  
Cindy Lopez (CL)\*  
Jesse Saylor/TSKPTieshia Walton/Daedalus  
Christina Opper / Daedalus  
Keith Wortzman (KW)\*  
Thomas Gatzunis / Daedalus  
Randall Luther / TSKP  
Yugon Kim/ TSKP  
Mohamed Shaker/TSKP  
Mike Bouchard/CES  
Christina Tangishaka  
Holly German  
Lisa Frenette

\* Building Committee Member

**Absent:** Lisa Millwood\*  
Paul McDermott \*Pam Davis (PD)\*  
Steve Nesterak (SN)\*

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**Item**

1. The meeting was called to order by the Chair Ida Nixon at 1:08
2. Approval of Meeting Minutes:

Andrea Nixon made a motion to approve the meeting minutes from March 10, 2021, seconded by Ron Lum. Andrea called for a roll call and voting was as follows;

- a. Carlos Colley-Yes
- b. Andrea Nixon- Yes
- c. Ida Gordon-Yes
- d. Thea Stovell- Yes
- e. Cindy Sypher-Lopez-Abstain
- f. William Alexopoulos-Abstain
- g. Ron Lum- Yes
- h. Adam Smith- Yes

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### 3. Design Updates

Ida thinks we should get feedback from the Town Council in reference to re-districting. Ida wants to schedule a meeting with the Town Council to keep them abreast of what is going on with the project. William Alexopoulos says the Town Council is aware of what is going on.

TSKP and CES (TSKP's Mechanical Consultant) presented the attached presentation on different mechanical systems. Some of the discussion included the following;

- The MSBA requires the building to be solar ready but will not reimburse for solar.
- The High Efficiency VRF is built into the cost estimate.
- Maintenance will need to be taken into consideration when choosing a system.
- A maintenance contract will be needed once the warranty expires.
- VRF is similar to a mini split concept and can be tied in with 50 systems.
- The main unit will be installed on the roof.
- Different units may be installed in different rooms depending on the room size.
- Heating, fully cooling and doubling the square footage of the building will raise operating cost.
- If the school is used for summer school AC or De-Humidification is highly recommended.
- The consensus was to use the High Efficiency VRF system.
- The MSBA will reimburse an additional 2% if the project exceeds the current energy code by 20%.

#### LEED Certification:

- The project is aiming for LEED Silver Certification
- The difference between Silver and Gold depends on the materials selected, low VOC, construction practices, operating procedures, etc.
- Controllability of mechanical systems can't be determined at this time, but there are a number of ways it can be achieved.
- TSKP will put a list together on what is needed to achieve Gold.

#### March 17<sup>th</sup> Public Presentation Feedback:

- During the March 17<sup>th</sup> presentations there were issues with the links not working, that were resolved. More people need to get involved.
- There have been some comments on Facebook.
- Parents are concerned about the relocation to the Devine site, with students having to cross a major road. It was noted that at either location some students will need to cross a major road.
- Parents raised concerns over the proximity of Donovan to Devine causing traffic issues.
- Need a plan on re-districting.

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Website Updates:

- Christina Opper continues to build pages in the background, they will be activated when completed
- Christina Opper and Judy Littlejohn continue to check the project email account every couple of days.

Meetings dates will be moved to the 1<sup>st</sup> and 3<sup>rd</sup> of each month. The next meeting will be on May 5<sup>th</sup>. Andrea made a motion to cancel the April 21<sup>st</sup> meeting, seconded by Carlos. Andrea called for a roll call and voting was as follows;

- a. Carlos Colley-Yes
  - b. Andrea Nixon- Yes
  - c. Ida Gordon-Yes
  - d. Thea Stovell- Yes
  - e. Ron Lum- Yes
  - f. Adam Smith- Yes
  - g. Keith Wortzman- Yes
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3. Invoice Approval:

Andrea made a motion to approve Daedalus Invoice # 39149-01, in the amount of \$ 12,000 and TSKP's Invoice # 10 in the amount of 34,748.84, seconded by Carlos. Andrea called for a roll call and voting was as follows;

- a. Carlos Colley-Yes
  - b. Andrea Nixon- Yes
  - c. Ida Gordon-Yes
  - d. Thea Stovell- Yes
  - e. Ron Lum- Yes
  - f. Adam Smith- Yes
  - g. Keith Wortzman- Yes
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4. Public Comment Response

At the last meeting there was some concerns about outreach to parents and that there were no additional meetings scheduled. The project website contains all meeting presentations, meeting minutes from past meetings, agendas, and dates of all upcoming meetings.

A request was made to provide more details on the re-districting plan before a final decision is made. *The Randolph School Committee policy states that the Superintendent makes the re-districting recommendation and the School Committee votes. The District has begun the process of moving Pre-Kindergarten students back to their local schools for kindergarten and that new enrollees are placed in schools based on the redistricting plan. At the July 9, 2020 School Building*

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*Committee Meeting redistricting was discussed. The topic will be added to the next School Committee Agenda for discussion and consideration*

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6. Meeting Adjournment

Andrea made a motion to adjourn, seconded by Ida. Andrea called for a roll call and voting was as follows;

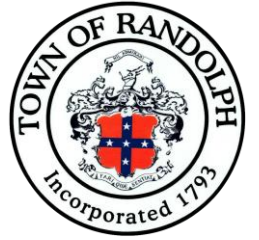
- a. Carlos Colley-Yes
- b. Andrea Nixon- Yes
- c. Ida Gordon-Yes
- d. Thea Stovell- Yes
- e. Ron Lum- Yes
- f. Adam Smith- Yes
- g. Keith Wortzman- Yes

Next Meeting will be Wednesday May 5, 2021 at 1:00 PM

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# ELIZABETH G. LYONS ELEMENTARY SCHOOL

RANDOLPH, MA



## BUILDING COMMITTEE PRESENTATION

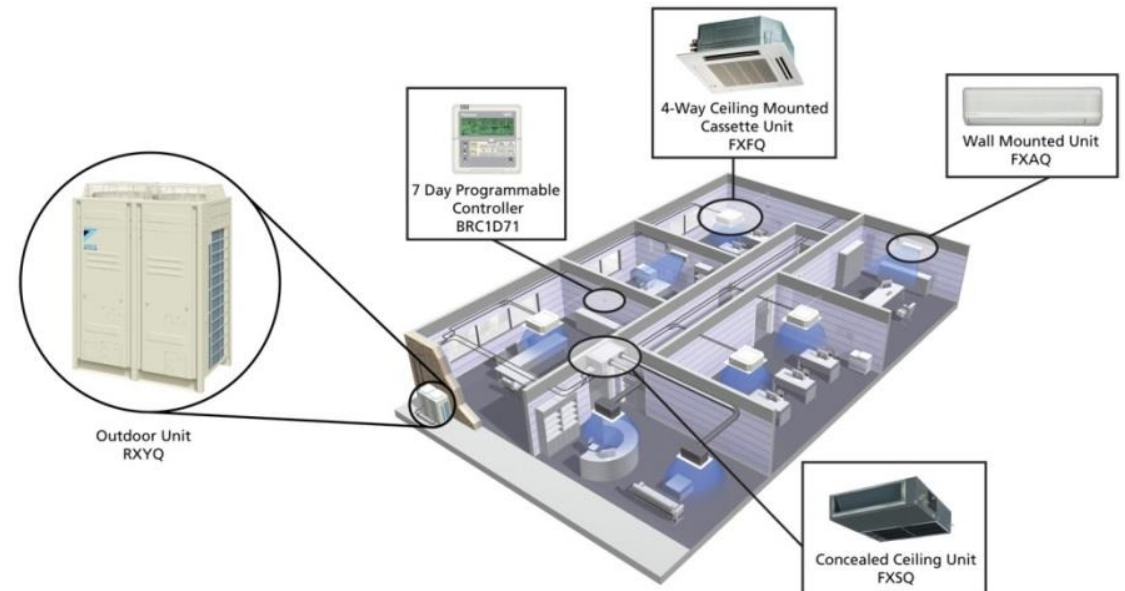
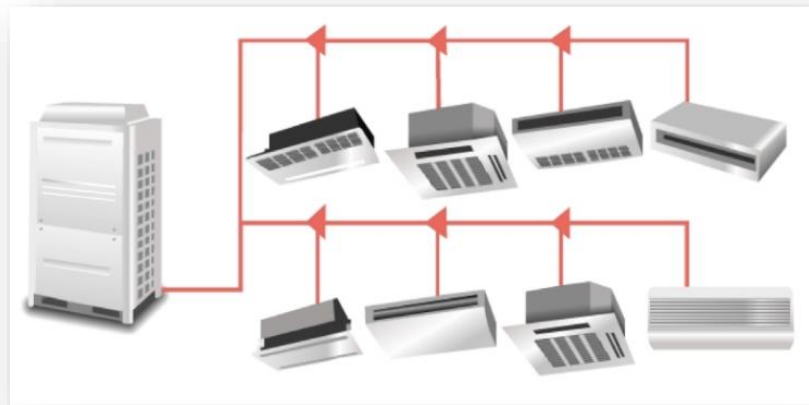
APRIL 7, 2021

TSKP  
STUDIO

DAEDALUS  
A CHA Company

# LYONS ELEMENTARY SCHOOL | GOALS OF THE MEETING

- Review HVAC system pathways and MSBA requirements
- Understand preferences of the Building Committee



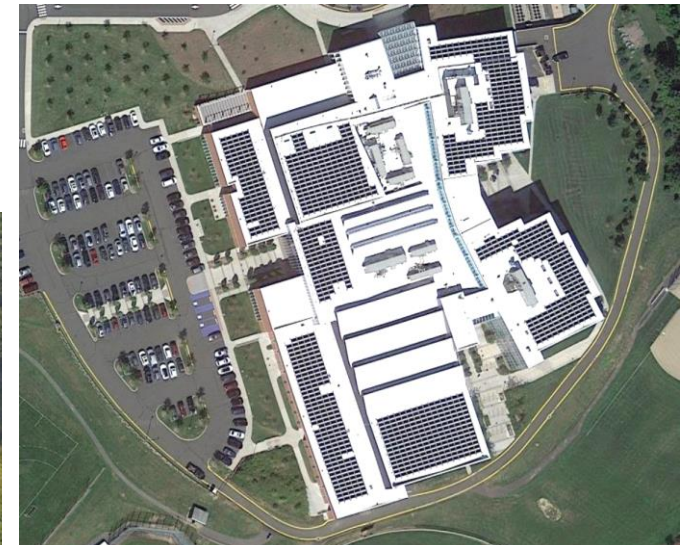
Minimum Requirements for funding:

- 1) LEED v4 Certified, or NE-CHPS Verified
- 2) 10% better than energy code

Platinum	(80+ points)
Gold	(60 – 79 points)
Silver	(50 – 59 points)
Certified	(40 - 49 points)

2% additional reimbursement for projects that can exceed energy code by at least 20%

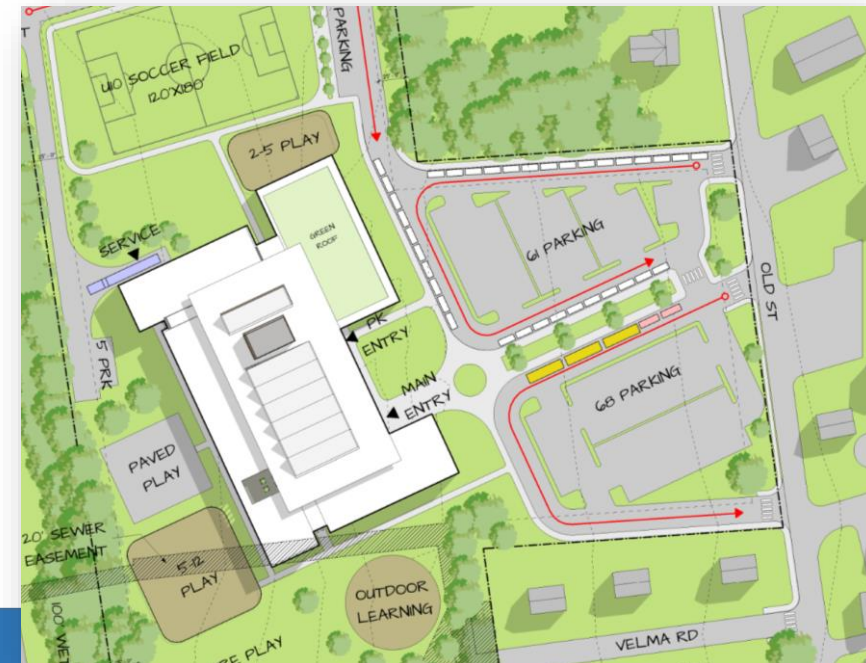
“Solar-ready” (MSBA does not fund solar)





# • System Selection Criteria

- Maintenance
- Standardize throughout building and district
- Identify environmental requirements
- Reliability
- Energy Efficiency / Environmental Impact
- First Cost / Return on Investment





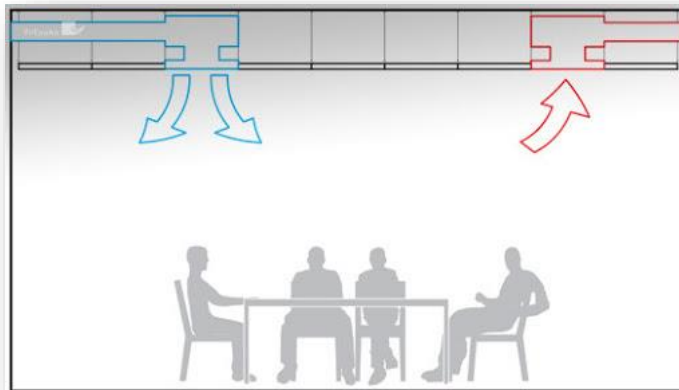


# • HVAC Design Pathways

	“Traditional”	“High Efficiency” VRF	“Path to Net-Zero” Geothermal	“Hybrid”
Description	Central air handling units and VAV’s	Modular Variable Refrigerant Flow (VRF)	Geothermal Heat Pumps	Partial VRF cooling, Full dehumidification
Energy Use Intensity (EUI) (lower is better)	50	40	20	30-40
First Cost Magnitude (\$/SF)	60	55	70	Under 55
Overall HVAC Const. Cost (\$)	\$6.6M	\$6.2M	\$7.8M	\$4.0M - \$5.4M (cooling 5k – 55k SF)

- **“Traditional”  
Variable Air Volume (VAV)**

- System consists of:
  - Outdoor Air Cooled Chiller
  - Multiple VAV Air Handlers
  - Multiple Reheat VAV Boxes
  - Chilled & Hot Water Piping
  - Pumps



Pros:

- System Familiarity
- Centralized Filter Locations

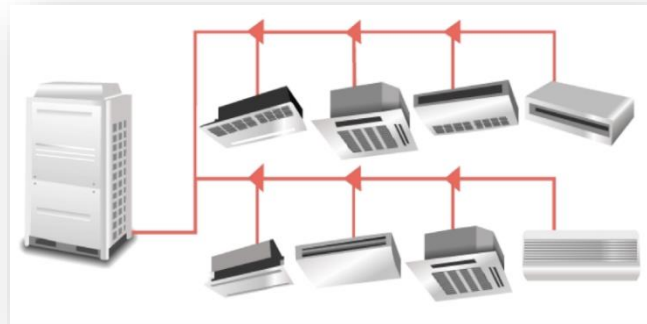
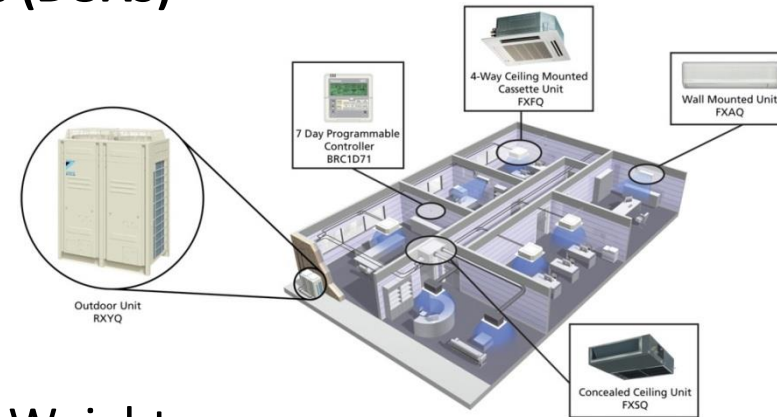
Cons:

- Air Handler + Ductwork Size / Weight
- Duct Size
- **Mixing air throughout system**



- **“High Efficiency”**  
**Variable Refrigerant Flow (VRF)**

- System consists of:
  - Multiple **Dedicated Outdoor Air Systems (DOAS)**
  - Roof mounted Heat Pump Units
  - Multiple Indoor Refrigerant Air Handlers
  - Refrigerant Piping



**Pros:**

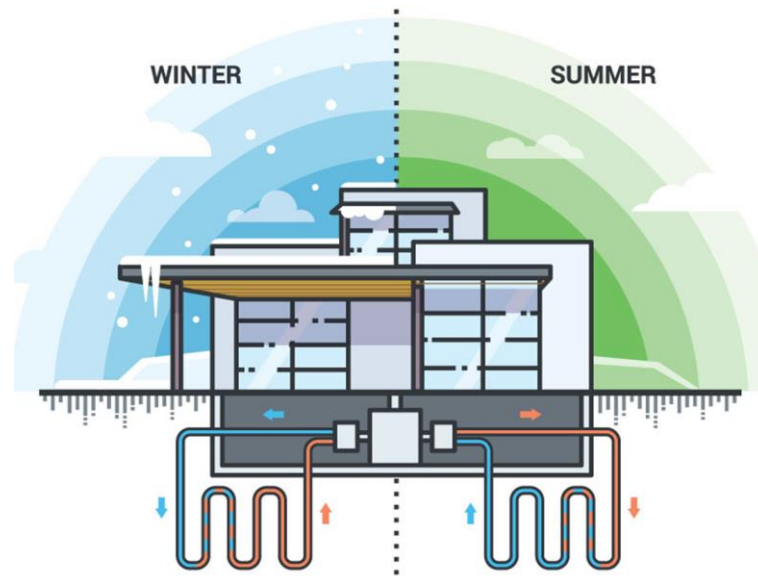
- Heat Pump Weight
- Low Noise Levels
- **Non-Mixing. 100% Fresh + Exhaust Air**
- Ductwork Size

**Cons:**

- Distributed Filters/Compressors
- Less Familiar System

- “Path to Net Zero”  
**Geothermal**

- System consists of:
  - Geothermal Bore field
  - Roof or indoor mounted Heat Pump Units
  - Condenser Piping



Pros:

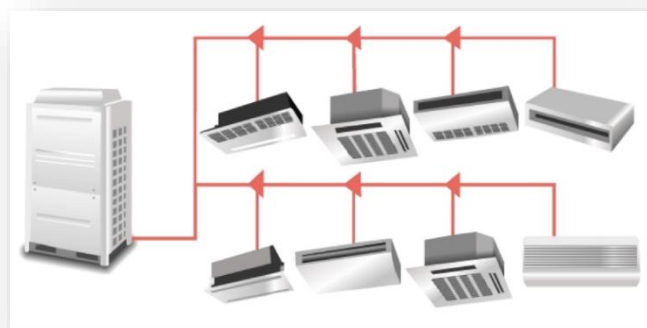
- Low Noise Levels
- **Non-Mixing. 100% Fresh + Exhaust Air**
- Highest Efficiency

Cons:

- High initial cost : 30-40yr “payback”
- Unfamiliar System

- **“Hybrid”**  
**Partial cooling – Full Dehumidification**

- System consists of:
  - Dedicated outside air – cool dry ventilation air throughout
  - VRF Cooling where desired. Modular system



Pros:

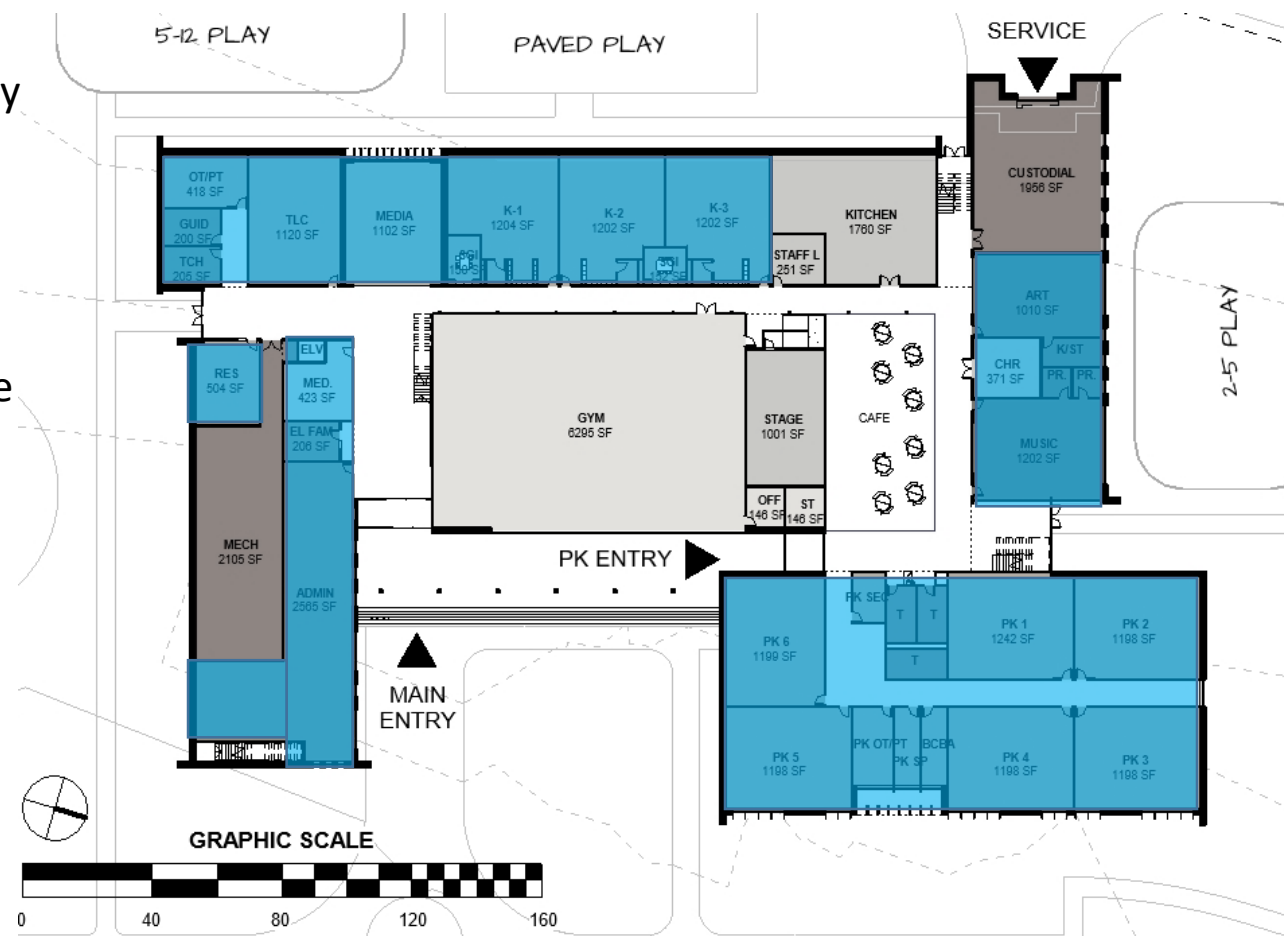
- Reduced cost
- **Non-Mixing. 100% Fresh + Exhaust Air**
- High efficiency + limited usage

Cons:

- User perception

- “Hybrid”  
**Partial cooling – Full Dehumidification**

- Full cooling zones
  - 72 degrees, under 50% humidity at any time
- Dehumidification-only zones
  - **Approximately 78 degrees,** under 50% humidity at any time
  - Eliminate VRF units at \$20/SF
- Spaces to discuss
  - Main Office
  - Cafeteria
  - Gymnasium
  - Library/Media
  - Classrooms





# • HVAC Design Pathways

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