



# School Building Committee Meeting

February 28, 2019



# Amesbury Elementary School

 **DINISCO DESIGN**  
architects + planners

# Agenda

- Design update
- HVAC system update
- Community forum
- Construction delivery method

# Site Plan

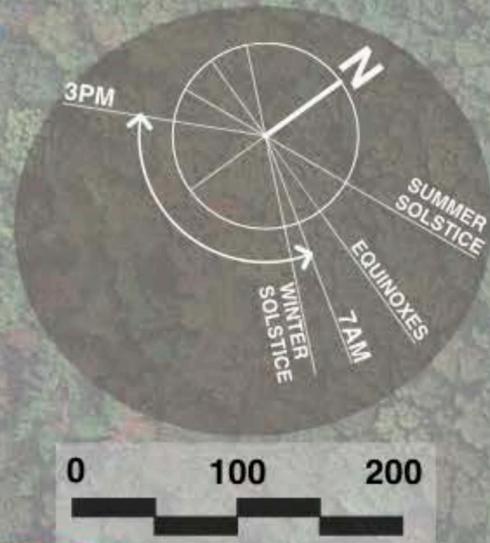
District-wide PK-2  
~98,000 SF



Lions Mouth Road

AES

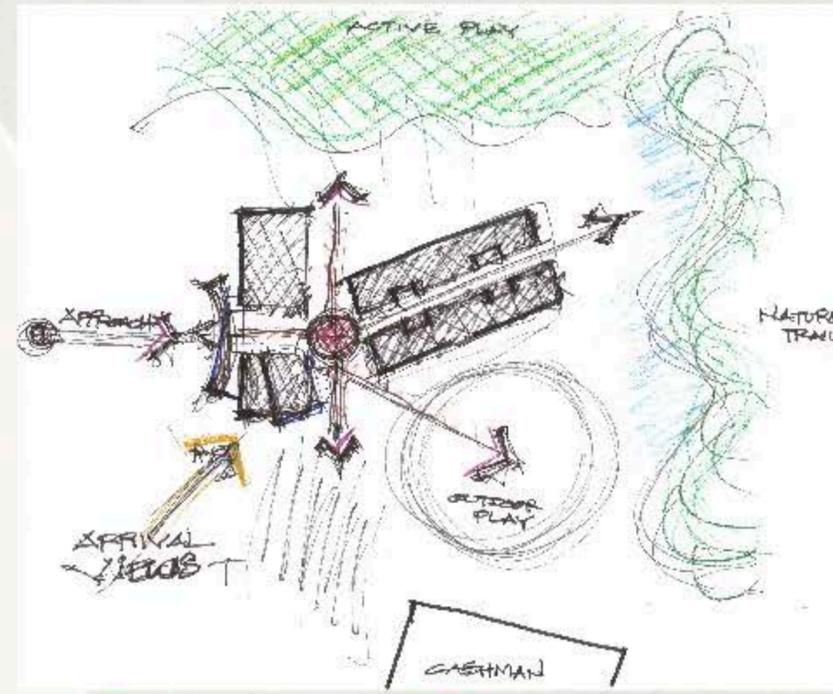
CES





# First Floor Plan

District-wide PK-2  
~98,000 SF

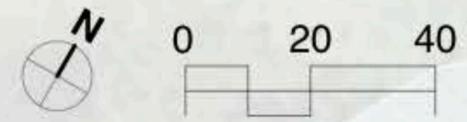


## Concept Plan

- Integration with Site
- Clear Arrival
- Central Core
- Transparency
- Focus on Nature

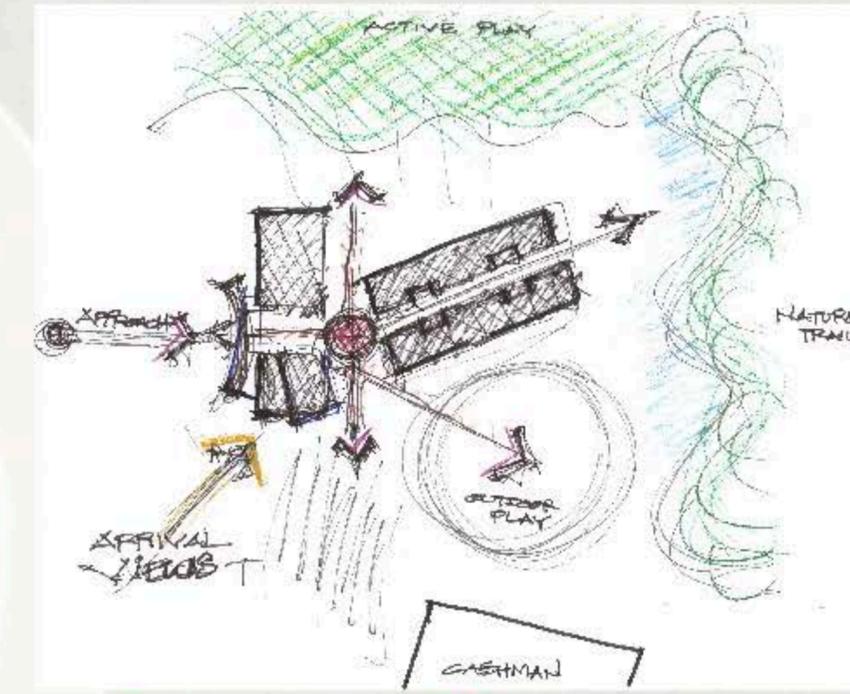
**LEGEND**

Yellow	CLASSROOM
Light Green	SPECIAL EDUCATION
Yellow	LIBRARY
Purple	ART/MUSIC
Blue	STAGE
Red	GYMNASIUM
Orange	KITCHEN/CAFETERIA
Green	ADMINISTRATION
Brown	BUILDING SERVICES
White	CIRCULATION



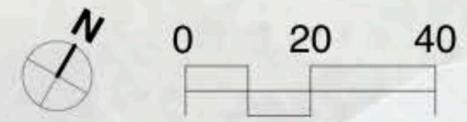
# Second Floor Plan

District-wide PK-2  
~98,000 SF



## Concept Plan

- Integration with Site
- Clear Arrival
- Central Core
- Transparency
- Focus on Nature



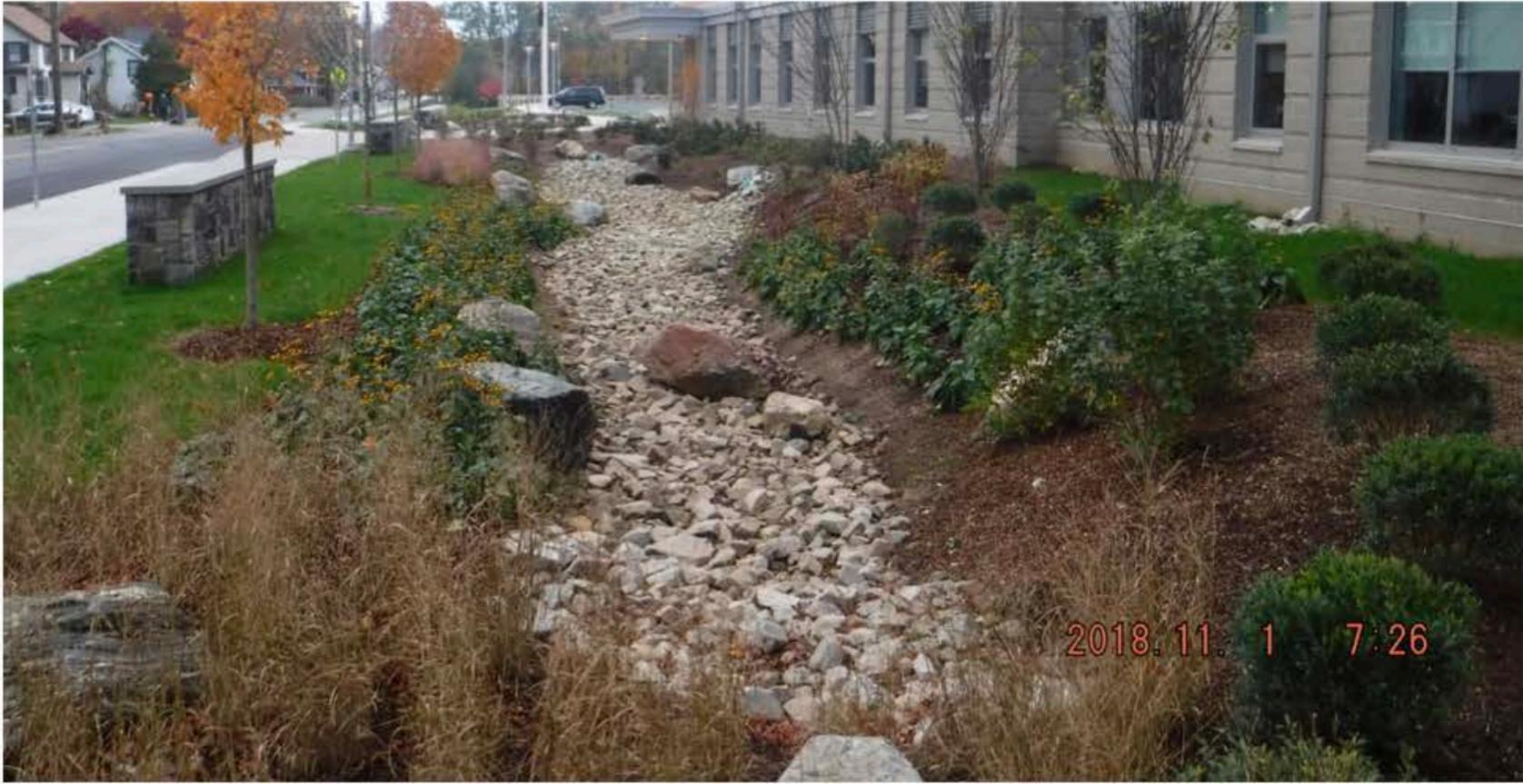
# Building Section



# Exterior Precedent Images



# Exterior Precedent Images



# Front Entrance View



# Front Entrance View



# View from Playground



# View from South West Corner



# Exterior Fly-Through



# HVAC Systems

## Displacement

Total Equivalent Annual Cost - \$3.58/SF

### Pros

Lowest capital cost

Low maintenance requirements & cost

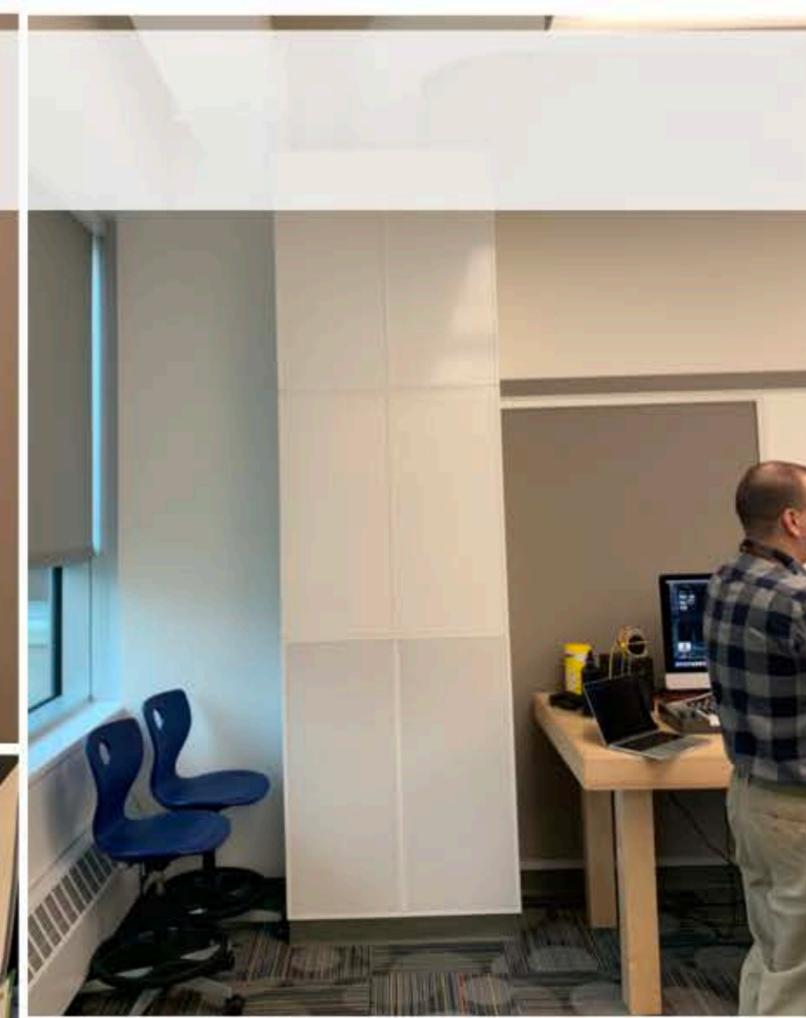
### Cons

Uneven partial cooling (hot & cold spots)

Separate heat via Fin Tube Radiation (FTR)

Requires large chases in classrooms

Compromises layout & function of spaces



# HVAC Systems

## VAV (Variable Air Volume)

Total Equivalent Annual Cost - \$4.21/SF

### Pros

Fairly consistent temperature throughout  
Heat & AC delivered through ceiling  
Mid-range capital cost

### Cons

Many fans and filters to maintain  
Highest maint. requirements & cost  
Noisiest operation  
Increased floor to floor height or lower ceilings/soffits (increase building cost)  
Compromises flexibility of spaces



# HVAC Systems

## Chilled Beam

Total Equivalent Annual Cost - \$4.44/SF

### Pros

- Most consistent temperature
- Heat & AC delivered through ceiling
- Quietest operation
- Low maintenance requirements & cost
- Allows most flexibility of space

### Cons

- Highest capital cost
- Slightly higher EUI



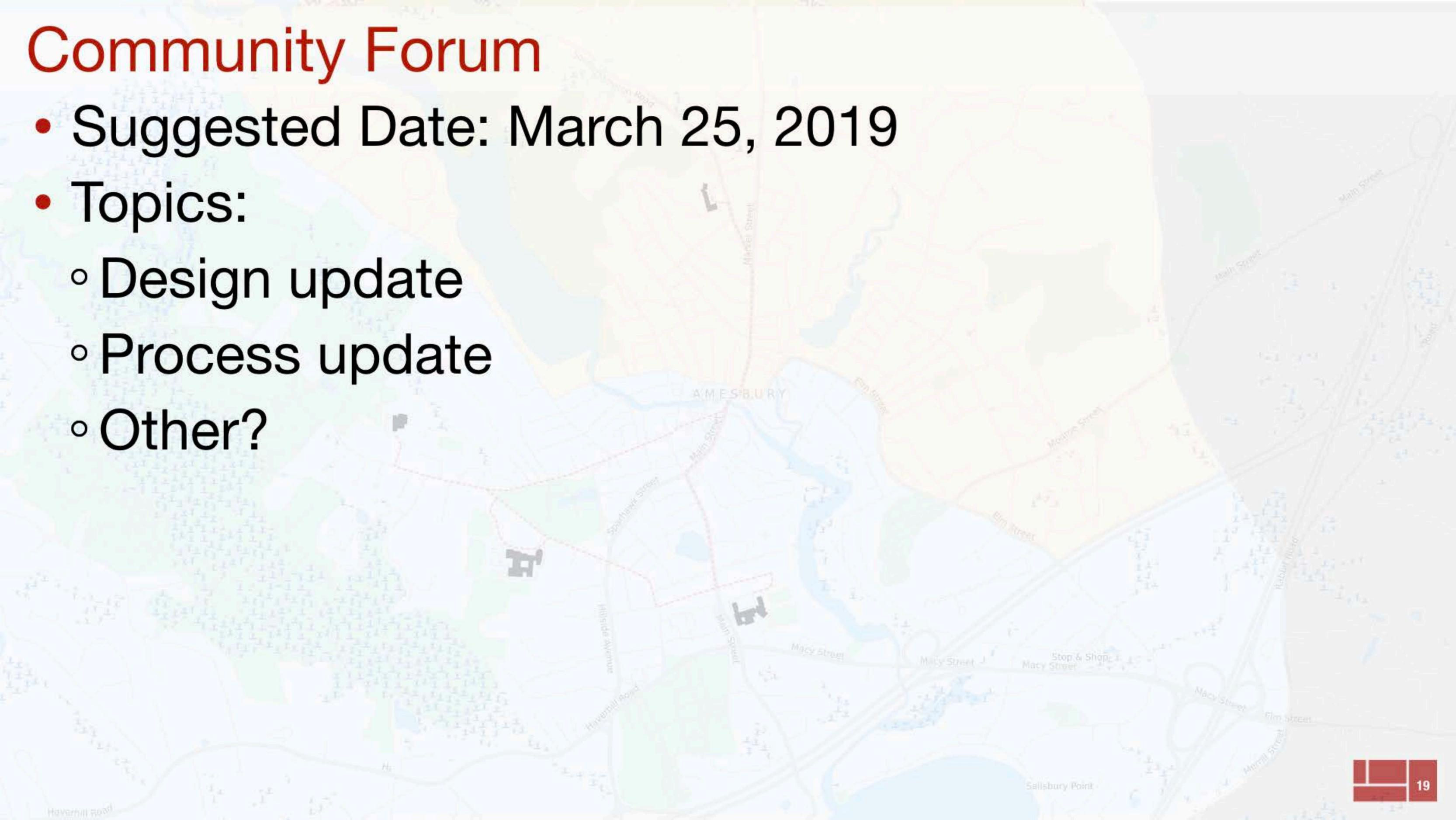
# Summary

System	Impact on Space	Air Conditioning	Heating	Noise	First Cost	Annual Maintenance Cost	TEAC
Displacement	Compromised layout & function	Inconsistent (min. cooling)	Least Consistent	Quiet	\$42/SF (\$4,124,190)	Low	\$3.58/SF
VAV	Compromised flexibility	Consistent temperature	Consistent temperature	Average	\$49/SF (\$4,811,555)	Average	\$4.21/SF
Chilled Beam*	Most Flexible	Most consistent temperature	Most consistent temperature	Quietest	\$52/SF (\$5,106,140)	Low	\$4.44/SF

\*Recommended by Working Group and Design Team  
System carried in Current Cost Estimate

# Community Forum

- Suggested Date: March 25, 2019
- Topics:
  - Design update
  - Process update
  - Other?



# Construction Delivery Method

- Construction Management vs. Design-Bid-Build
- Final Decision March 28, 2019
- IG approval required

# Next Steps

- Room Data Sheet review March 2019
- Public Safety meeting March 21, 2019
- Proprietary items decision April 2019
- SD cost estimate May/June 2019
- Schematic Design submission July 10, 2019
- MSBA Board Meeting August 28, 2019