

BRS Town Building Committee Meeting

January 20, 2010

CALL TO ORDER: Mr. King called the meeting to order (6:35 PM).

COMMITTEE MEMBERS PRESENT: David King, Chair; David Barkin, Vice Chair; Tim Cohen, Marc Estra, Jon Gorham, Jeff Kaufman (6:43 PM), Sheila McCreven, and Sandy Stein (6:43 PM).

STAFF MEMBERS PRESENT: Dr. Guy Stella, Superintendent; Charles Zettergren, WSD Business Manager; Marsha DeGennaro, Clerk.

OTHERS: Jim Elmasry and Steven Orlansky, Newman Architects; and Alan Aldag, BVH Integrated Services.

PUBLIC COMMENT – None

MOTION #1 – APPROVAL OF MINUTES

Move that we approve the minutes of January 6, 2010 Meeting.

Mr. Estra

Second by Mr. Cohen

UNANIMOUS

Mr. King apprised the Committee that at their January 13 meeting the Board of Selectmen approved the RFP for the Construction Manager as well as funding for the alternate energy consultant, Source One. Members received a draft of the Terms and Conditions submitted by SourceOne earlier in the day. Committee members were asked to forward any comments and/or changes to Town Counsel Gerry Weiner.

The committee reviewed an updated communication chart and project schedule drafted by Mr. Elmasry. It was noted that the proposed timeline did not allow adequate time should two votes on the referendum be required. Ms. Stein agreed to contact Messrs. Sheehy and Genovese for strategic guidance for timing and funding. Newman Architects will contact Mr. Zettergren to gain access to various parts of the building in the coming week. It was agreed Dr. Stella should form a school-based advisory committee and disseminate information to staff and parents immediately to build a consensus of support for this project. It is also important to have the solicitation of suggestions orchestrated by the architect, so that the data attained can inform the project. A subcommittee comprised of Mr. Newman, Dr. Stella, Mr. Zettergren and Ms. McCreven will focus on the public relations aspects of this project.

Mr. Aldag, BVH Integrated Services, presented four HVAC system options. Regardless of the system selected, heating and ventilation are the largest components of energy usage with cooling fairly minimal. The CSDE requires all purchases to be “energy star rated, the new heating/ventilation/cooling equipment will also achieve a rebalancing of all systems and efforts will be made to reuse duct work and piping when possible. The four options presented were:

Option 1 – Central Plant Hot Water Heat/Dx Cooling

Pros:

- Easiest Installation
- Lowest First Cost

Cons:

- ◆ Least Energy Efficient
- ◆ Acoustics
- ◆ Multiple Compressors

Option 2 – Central Plant Hot Water Heat/Chilled Water Cooling

Pros:

- Good energy efficiency
- Controlled acoustics

Cons:

- ◆ Harder to phase with central chiller
- ◆ Less maintenance

Option 3 – Water Source Heat Pumps

Pros:

- Better energy efficiency
- Less piping than Option 2
- Hot water available for thermal units

Cons:

- ◆ More maintenance than boiler/chiller
- ◆ Acoustics
- ◆ Multiple Compressors

Option 4 – Ground Source Heat Pump

Pros:

- Best energy efficiency
- Boilers/chillers
- Only maintenance at individual heat pumps

Cons:

- ◆ Highest first cost
- ◆ Acoustics
- ◆ No hot water available

While all the options are possible, machinery located on the roof may require more maintenance and have less durability as a result of being located outside. Ground source heat pump system would require significant drilling around the grounds and the use of electric heat in some locations. Suggestions were made to eliminate Option 1 with Options 2, 3 and 4 remaining feasible. The district may also qualify for a clean energy grant should ground source heating prove viable.

Four classroom installation schemes were presented:

Scheme 1 – Pipe Unit Ventilator (UV) with Central Outside Air (Heat Recovery Unit on Roof)

Pros:

- Heat recovery
- Boilers/chillers
- Only maintenance at individual heat pumps

Cons:

- ◆ Noise
- ◆ Chiller room required
- ◆ Maintenance
- ◆ Comfort

Scheme 2 – Pipe Fan Coil Unit with Central Outside Air (Heat Recovery Unit on Roof)

Pros:

- Heat recovery
- Good control for temperature and humidity
- Best comfort
- Good maintenance

Cons:

- ◆ Noise
- ◆ Chiller Room Required
- ◆ Requires closets to house units

Scheme 3 – Ground Source Heat Pump with Central Outside Air (Heat Recovery Unit on Roof)

Pros:

- Heat recovery
- Low maintenance

Cons:

- ◆ Requires closets to house units

Scheme 4 – Variable Air Volume (VAV) with Packaged Rooftop Units (Roof Mounted Air Handling Unit w/Hot and Chilled Water Coils)

Pros:

- Quiet
- Low maintenance

Cons:

- ◆ More difficult installation
- ◆ Architectural modifications
- ◆ Less controllability

Unit ventilators are too noisy, difficult to control well and do not meet the acoustic criteria. The challenge with Schemes 2 and 3 is finding accessible space within the classroom to house the fan coils/heat pumps. Closets are ideal, however, the configuration of classroom space is different in each wing. While Scheme 4 is great in theory, the reality is that it would be quite challenging to implement. It may be possible to develop a more cost effective hybrid system comprised of a ground source heat pump with small cooling towers and boilers. Solar hot water and ice storage may also be feasible dependent upon demand usage and the impact of the pool. It was requested that Messrs. Elmasry and Aldag consult with Source 1 representatives and solicit alternate “green” recommendations. Long-term maintenance remains a concern and it is important to know the specifics for what will, and will not, work.

Additional meetings were scheduled for:

February 4 (including Newman/BVH/Source 1 representatives)	6:30 PM
February 10 (Interviews for CM)	5:30 PM
February 11 (including Newman/BVH/ representatives)	6:30 PM
March 10	6:30 PM
March 24	6:30 PM

OTHER BUSINESS - None

ADJOURN: (8:27 PM)

Ms. McCreven
Second Ms. Stein
UNANIMOUS

Recorded by Marsha DeGennaro, Clerk