

Name of Committee: Runkle School Building Committee

Meeting Date: 9 November 2011 Time: 8:30 a.m. Meeting Location: Town Hall, Room 103

Nancy Daly	x		
Kenneth Kaplan	x	Anthony Guigli	x
Vanessa Beauchaine	x	Charles Simmons	x
William Lupini	x		
Sean Cronin	x	Jennifer Fischer-Mueller	
Michael Shepard	x	Gregg Schroeder	x
Peter Rowe	x	Bob Bell	x
Mel Kleckner	x		
Helen Charlupski	x		

Others Present: Janet Fierman, Building Commission, Jim Stoddard, Runkle Vice Principal, Vin Pelleriti, Design Partnership of Cambridge, Ralph Gifford and Scott Battles, Thompson Consulting Engineers, Dan Green, Brookline High School

Public Present: Michael Oates, Chad Ellis, Harvey Finkel, Roger Tackeff, Luisa Bryan abutters. Sue Sturman, Rosemary McElroy, Charles Mou, Dascha Weir, Mini Kolluri, Emily Dolbear parents, Gill Fishman, George Opel and Pam Lodish, neighborhood.

Topic: Approval of Meeting Minutes

Meeting Minutes of 24 October 2011 unanimously approved.

Topic: Date of next Meetings

The date and time of the next meeting is Wednesday 23 November 2011 at 8:30 a.m. in Room 103, Town Hall. The meeting after that is tentatively scheduled for Monday 5 December 2011 at 8:30 a.m. in the Selectmens' Conference Room, 6th Floor, Town Hall.

Topic: Traffic and Parking:

Postponed.

Topic: Project Schedule and Budget Update:

Postponed.

Topic: Early purchase of furniture and equipment:

Postponed.

Topic: Roof top equipment:

N. Daly and H. Charlupski opened this part of the discussions by stating that while they had seen the drawings that showed some roof top equipment as the design progressed, they did not fully comprehend what they would look like from abutters homes when actually installed. Nor did the architect point out the impact to the rooftop and Dean Road abutters of moving the building back 18 feet. They noted some of this may be due to the fact that, with respect to architectural/engineering design, they are lay people. In addition, some of the drawings do not appear to accurately represent what the roofs look like from upper stories of neighbors homes nor do they accurately reflect what the actual construction documents show.

B. Bell of Design Partnership of Cambridge (DPC) then gave a presentation (with graphics) of how the design of the building and roof top equipment evolved and developed from feasibility through construction documents, summarized as follows:

Around the time of the ZBA approval, and during Design Development, the building design was pulled back about 18' from the Clinton Road side to reduce bulk and length, largely in response to Dean Road neighbors concerns. Consequently, the Music Room was moved to the upper level of the building (this occurred prior to ZBA hearing).

April 13, 2010 rendering showed roof top units and was presented and discussed at Building Commission Meeting(s) and Runkle Building Committee Meeting(s).

HVAC units increased in height on top of classroom wings, others increased in length.

The physical limitations of the existing building to remain and preferences by the Town limited the design options with respect to the HVAC system. These include the fact that the existing building has a low 10'10" floor to floor ceiling height which means that there is not sufficient room for a fully ducted air system. Cannot have unit ventilators in administration areas. The major spaces required their own separate mechanical systems. In addition, there was a decision made to limit roof-top ductwork because it requires more maintenance, has a shorter life span (10-15 years verses unlimited within the building) and there is a tendency to develop air quality issues over time with exposed ductwork. The gym had a requirement of 22' clear to the structure to be the same as other schools, this meant the ductwork had to be run in between the joists. There were similar structural issues with the kitchen.

The later changes to the HVAC system came about as a result of a variety of factors including coordination with the structure as described above, the decision to add A/C in the Multi-Purpose Room and acoustic and energy modeling needs which affect unit sizes.

The acoustic screens were designed to meet the intent of the noise by-law and to provide greater noise protection to the neighbors. The height of the screen is relative to the units as installed.

Shadow studies were presented showing the shadows cast before the current roof conditions and with the current roof conditions. At most times the shadow cast by the HVAC units stays on the roof of the building. In December in the a.m. the shadows extend into neighboring properties on Dean Road. There is some added shadow onto one of the abutters properties.

Among the constraints on the design of the HVAC system are the structural capacity of the existing building. Locating mechanical units on existing roofs would require buttressing or replacing steel all the way to the foundation, triggering seismic and other structural issues.

G. Fishman stated that neighbors had never seen designs with the current scope and magnitude of roof top equipment. R. Bell noted the elevations showing much of the current configuration were part of Runkle Building Committee and Building Commission presentations made by the architect.

R. Bell then described potential options to mitigate concerns, as follows;

Option 1 is to lower all mechanical units and their acoustic screens. There are kits that can be purchased to retrofit the mechanical units and will result in lowering them 12-18". The "value cost" of this is about \$30K per unit. He warned, however, that the actual cost is likely to be significantly higher as the work would be done as a change order and therefore the benefit of competitive pricing would not be realized. DPC is of the opinion the time frame to design and construct is 8-12 weeks. This will result in some added roof top ductwork.

The second option is to move the units and/or rotate away from visibility. This will result in more ductwork on the roof and have a "value cost" of about \$70K per unit. He also described a more aggressive version of this option that involves more structural and seismic related work.

The third option is to delete the music room on the top floor and relocate up to 2-3 HVAC units in this location. The "value cost" of this option is \$120K per unit.

The last option currently looked at is to build a structure in the courtyard to support up to three HVAC units. It would result in a roof over about half of the courtyard.

In all cases there is added ductwork on the roof; some options more than others.

J. Fierman asked if there is some way to make the HVAC units/screens more pleasing to look at, as current options are not particularly desirable in terms of cost/effectiveness, in keeping with the overriding opinion expressed at the Building Commission meeting last night. The Building Commission is concerned that the current budget is already tight and may not be able to accommodate some of the suggested options. There are also scheduling issues as the contractor has requested a 30 day time extension based solely on

current job conditions. There is also the intangible effect on enthusiasm and performance with changes of this magnitude. Maintaining effective noise mitigation is important and finally, none of the options suggested give the neighbors any meaningful solutions. This last point was acknowledged by the neighbors who attended last night's Building Commission meeting.

A discussion followed of some possibilities that have not been looked at by the design team, as follows.

In response to a question, G. Schroeder stated that the acoustical engineer is not aware of acoustic panels that are translucent.

If the A/C were eliminated to those limited areas that have it, the unit sizes would only be slightly reduced, as ventilation is still required.

Splitting up the HVAC units into smaller units involves significant modifications described above along with other costs to modify the design for air delivery, power, temperature controls, etc. Locating smaller units on the ground has added issues including modifying the ductwork design from top-down discharge to side wall discharge. Air quality would also be reduced with plantings and other ground conditions.

Running ductwork between joists in the gym and relocating the units was discussed but because of the orientation of joists the relocated equipment would actually look worse to neighbors.

G. Schroeder noted that the design of the acoustic panels was done to not only meet, but exceed the requirements of the Noise By-Law and in response to neighbors concerns relative to noise.

R. Tackeff said that all of the options presented so far were untenable and undesirable and urged the committee and design team to continue to look for other options.

The Design team to further explore the following:

- Relocate or rotate 2 units at Druce Street and Dean Road corner of the building.
- Cut down acoustic screening by 18"
- "Greening" of roofs
- Acoustic screen options
- Relocating some units over computer room
- Dividing up units (substituting smaller units for larger ones)

Respectfully submitted,

Tony Guigli
Project Director

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