

**HOLLIS SCHOOL BOARD
JANUARY 4, 2017
MEETING MINUTES**

A regular meeting of the Hollis School Board was conducted on Wednesday, January 4, 2017 at 6:04 p.m. at the Hollis Upper Elementary School.

Chairman Robert Mann presided:

Members of the Board Present: Tammy Fareed, Vice Chairman
 Michelle St. John, Secretary
 Tom Enright
 Laurie Miller

Members of the Board Absent:

Also in Attendance: Andrew Corey, Superintendent
 Gina Bergskaug, Assistant Superintendent

AGENDA ADJUSTMENTS

Superintendent Corey noted the Board’s previous discussion around consideration of a vote to increase the not-to-exceed amount of the contract entered into with Innovative Natural Resource Solutions LLC. He requested the item be placed under Deliberations.

Chairman Mann stated a desire to include a motion relative to the final presentation by the Energy Study Working Group (ESWG).

He also requested the agenda be adjusted by moving the item relative to the Tentative Agreement reached with the Hollis Teachers Association to be the first item considered under Deliberations.

There being no objection, the agenda was adjusted as requested.

APPROVAL OF MEETING MINUTES

Hollis School Board December 7, 2016

The following amendments were offered:

Page 2, Line 17; delete “the” after “and”
Page 3, Line 15; delete “versus” before “and”

**MOTION BY MEMBER FAREED TO ACCEPT AS AMENDED
MOTION SECONDED BY MEMBER MILLER
MOTION CARRIED**

4-0-1
Member Enright Abstained

NOMINATIONS / RESIGNATIONS / CORRESPONDENCE

Superintendent Corey informed the Board of receipt of an email from the Hollis Brookline Cavalier Soccer Club, a non-profit club that teaches the fundamentals of soccer to children from Hollis and Brookline. They requested a meeting with him to discuss their ability to provide financial assistance towards the SAU field. They see the benefit of doing some upgrades; smoothing out, filling some holes, and improving the grass, which would also benefit the students from HPS that utilize the field during recess and playtime. He has scheduled a meeting with the club, and will provide an update on the specifics of their discussion at the Board’s next meeting.

PUBLIC INPUT - None

PRINCIPALS' REPORT

Superintendent Corey stated the reports provided with the agenda were informational in nature. He commented on the Hollis Brookline Chem. Club once again offering 1st, 2nd and 3rd grade students at HPS an opportunity to experience chemistry. Mrs. Debra Maloney, Club Advisor, will host the workshops. The sessions will consist of demonstrations and hands-on activities that introduce chemistry in a fun, safe, and accessible manner.

He spoke of the many charitable activities students have participated in, and of the students who participated in the art reflections contest. Enrollment remains current, and class sizes are basically unchanged since last reported (+2 in 3rd grade).

When asked if exit interviews are conducted when students leave the district for reasons other than a family moving out of district, Superintendent Corey responded, when students leave the district the Principals are aware of the reasoning. What is being seen are primarily family moves; generally the result of a parental work-related transfer. The District is not experiencing students leaving for other academic offerings. Families who choose a different educational choice typically engage in multiple conversations with the Administration. He spoke of the efforts of the Principals over the past few years regarding acceleration, differentiation, utilization of the Makerspace, and the things occurring in Science, which has assisted the District in retaining some of its best and brightest.

The Board is scheduled to receive a Science presentation in February. A request will be made to add information on the Chemistry Club.

DISCUSSION

- FY18 Draft Budget Information - Maintenance Trust

Superintendent Corey noted the information included with the [agenda](#). No changes have been made since the information was last provided. It was noted the recommendations of the ESWG have the potential to impact the Maintenance Trust.

Superintendent Corey provided a brief description of the documentation provided. Chairman Mann noted the FY17 approved operating budget was in the total amount of \$11,484,111.94. The \$11,698,162.00 represents the proposed FY18 operating budget (\$10,615,973.00), the SAU Expendable Trust (\$13,000.00) and Warrant Articles for the Expendable Trust (\$252,500.00), contingency (\$95,000.00) SAU assessment (\$444,685.00), Teacher Collective Bargaining Agreement (CBA) (\$229,166.00) and support personnel CBA (\$47,838.00), which represents an increase over FY17 of \$214,050.06 or 1.9%.

Superintendent Corey noted the Budget Committee allowed an exception to guidance with regard to the increases associated with the costs of healthcare and the New Hampshire Retirement System.

Chairman Mann questioned the will of the Board with regard to taking a formal position on the operating budget.

When asked about the funding for the boiler replacement, Superintendent Corey responded should the taxpayers not support the recommendations of the ESWG there would have to be an alternate funding source for the boiler replacement. Vice Chairman Fareed commented, in the instance the taxpayers support the recommendations of the ESWG, the cost of the boiler could be reduced from the budget at the Annual Meeting.

MOTION BY MEMBER FAREED TO APPROVE THE PROPOSED FY18 OPERATING BUDGET IN THE TOTAL AMOUNT OF TEN MILLION SIX HUNDRED FIFTEEN THOUSAND NINE HUNDRED SEVENTY THREE DOLLARS (\$10,615,973.00)

MOTION SECONDED BY MEMBER ENRIGHT

MOTION CARRIED

5-0-0

- Energy Study Working Group (ESWG) - Update

Mr. Dick Henry, HotZero, provided a summary of the recommendations of the ESWG:

At HPS, the recommendation is for the installation of air source heat pumps and using the existing oil burner that was purchased two years ago as backup through the air ventilation system, which also would be replaced. The current four units would be replaced with energy recovery ventilation.

With regard to the building, the recommendation is to insulate the shell, reduce the window area particularly in the older part of the building, install heat recovery ventilation and new air handlers on the roof, utilize Phase Change Materials (PCM) (above hump ceilings), new control system to replace the old DOS based system, and complete replacement of lighting in the building with LED lights. A 100kW roof mount solar photovoltaic (PV) system is also recommended. The current net metering arrangement allows for anyone who installs up to 100kW to roll their meter backwards when they are generating electricity through their panels and get 100% of their cost (currently about 16.2 cents a kW/hour). There is a docket at the Public Utilities Commission (PUC), which is about to change all of that. It is believed that docket will come out with a solution early summer. What is being sought is a reduction to somewhere between 4 and 8 cents. However, if you sign up now, fill out the paperwork and get in the queue, as long as there are places in the queue for Eversource, which there are now, then your project is grandfathered to the current system. There is no penalty if you want to drop out of the queue. He strongly urged the Board to consider getting in the queue with two projects; one for each school. The \$32,500/year that each one of the arrays generates is critical to the payback in what is being proposed.

Mr. Henry stated the PCM for the pilot program was delivered the previous day, and should be installed by the end of the following week. The pilot room will be #202 at the Hollis Upper Elementary School (HUES). Room #s 200 and 202 have had data collected through data loggers for the past 2-3 months. There is side-by-side data and it is known how each room behaves. The data loggers are logging above and below the hump ceiling. The gap is still in both of those rooms. A few weeks ago a manometer test was conducted identifying the air pressure difference between the gap outside of the wall and inside of the room, and there was no difference, which means there is complete free flow of air from the outside into the inside through this gap. The desire is to collect data for a month or so with the PCM in place, and while the cold weather remains, seal both of the rooms and continue to collect data for another month to see what kind of a difference that would make. It is believed that would make a difference in the room as well as in the effectiveness of the PCM. When asked, he stated temperature as well as humidity is being logged. Ms. Miller stated a desire to understand the change in humidity levels as she questioned if that is the reasoning for the gap, e.g., the mold issue that was experienced in 2009/2010. Mr. Henry commented it is better to have a space that is controllable rather than to rely on what outside air is.

Vice Chairman Fareed commented on the prior mold situation noting that year was an extraordinarily wet year whereas this year has been very dry. She understood the point made, but questioned if there is a level of confidence that if everything is sealed off the interior environment could be controlled without having to fight the exterior environment in bad years. Mr. Henry stated agreement, and responded this is why they have been talking with Building Science Corp. with regard to providing an opinion.

When asked if part of the feedback would come from the measurements that will be taken. Mr. Henry responded they were unsure on how the project was going to proceed, subject to this meeting, and if things looked as if they were stalled they didn't see any point in going further with outside consultants, but if things do go forward, they will bring them in as quickly as possible. They would look to address both buildings (review moisture in wall issue at HPS as well).

Mr. Henry commented both buildings were reviewed, and the only place where gaps were identified is in the new part of HUES where the wall meets the actual roof. That reduced the linear footage by a reasonable amount. The original estimate was 1,100'. However, he believes there to be a question of whether it is worth stopping the gap in the area of the gym as they are trying to keep the room as cool as possible; there are two air handlers and four exhaust fans in there. The amount of additional air from the outside that is coming through the gap in the gym is likely trivial. It is a large issue in the classrooms where the desire is to keep the temperature around 70 degrees. The gym is kept around 60-62 degrees as the desire is to keep it cool for athletic reasons. Mr. Henry noted the figure included in the budget would cover doing all 1,100'.

Mr. Henry was asked to contact the architectural firm that has addressed the building in the past to ascertain the reasoning for the gap.

Chairman Mann commented, with any proposals that change the shell of the building, there is the need to ensure the Munters unit continues to operate as intended. Mr. Henry stated that has been done, and the engineer has talked to the manufacturer and received all of the drawings that were done and the design for the system. They now understand the controls, etc. Chairman Mann asked for clarification, based on that, it is not believed any of the proposals are going to undermine that system's functional capabilities in any way. Mr. Henry stated his belief, as a result of the communication between the engineer and the manufacturer, there is a thorough understanding of how the system is supposed to work.

He shares the desire to understand, before the gap is closed, what that may do to the outside space between the cinderblock wall and the insulation. He stated that to be why he would like to bring in Building Science Corp.

Vice Chairman Fareed questioned if the manufacturer of the Munters unit installed the unit, and was told they did not. She questioned if the individuals who designed the installation have been contacted. Mr. Henry responded the engineer has worked with that firm before on other installations and felt better talking directly to the manufacturer. When asked, he stated the unit was installed some time ago. He commented there was a catastrophic event and the opening of school was close. The District had to have some kind of an immediate solution. There are building science issues that caused the problem that could have been addressed differently, but because of the urgency of the situation at the time, they went with a solution they knew would work. Had there been more time and a better opportunity to analyze what was actually going on, there may have been other solutions that might have been better and/or less expensive. In talking to other folks this was not the first time this problem had been seen. The mold problem had been experienced for a number of years, but had been a much less intense condition, and that particular summer was particularly bad.

When asked what that means for long-term implications, Mr. Henry stated he believes the solutions that are being proposed will go a long way towards improving the situation, reducing potentially the demand on the system, and hopefully meeting the conditions and reducing the energy costs. He reiterated he will be a lot more confident about making specific recommendations after having a consultant that specializes in these kinds of problems review the situation.

Mr. Henry stated right now, it appears to him, that what is happening is an attempt to dehumidify the outside. That is difficult to do. If you control the space and eliminate the infiltration from the outside then the dehumidification / humidification issues become manageable. He remarked there is a construction situation here that he does not want to make worse. The way that the building was built, as far as they can tell, was different from what the design was; architectural drawings are different from the "as built". The typical way of doing this kind of a project would be to have a cinderblock wall (CBU) put in place followed by insulation flush against that wall, and a gap between it and the sheathing on the outside. That gives you air ventilation and all kinds of good things. What occurred is that they put in a 2" steel stud system on the outside of the CBU and then the insulation, and it appears that that gap between the outside of the wall and the insulation is open to the outside. That gives you a lot of convective ventilation in there, which essentially negates much of the value of the insulation. That is not on the drawings.

Mr. Henry remarked at some future date if there was the desire to take the siding off and do the insulation correctly and then put it back on again, that could be done, but that is not cheap, and is beyond the scope of what they were asked to do. He reiterated until they do some destructive testing, they know that situation exists behind the stucco portions of the wall, but it looks from the drawings as though there is a different setup behind the ceramic type tiles. There is the possibility there is a different structure behind the tiles. It is not known if the gap problem is in a relatively small portion of the outside wall or pervasive throughout the whole thing.

The recommendation for HUES is a brand new propane system that would cover the entire building under its somewhat reduced load due to the other measures being taken. Air source heat pumps would be put into the classrooms only. Also recommended is that the CO₂ monitors in the rooms be connected to the control system so that the control system can then regulate air ventilation quality and quantity into the rooms and minimize energy expended unnecessarily in ventilation. They recommend some retro commissioning of the ventilation system and controls, which hasn't been done since the control system was first installed in the 1990s. They propose fixing the gap in the leaky walls with foam insulation. Also proposed is the installation of PCMs, LED lighting, and roof mounted 100kW solar PV array.

When asked about the relative cost of propane to oil, Mr. Henry stated it is running about \$13 per million BTUs for propane and around \$16-\$17 for oil. Mr. Henry commented on the benefits, particularly to HUES, of going to propane; you avoid having to install a new chimney; flue gas temperature coming out of the condensing boilers is between 130-167 °F, and all that is needed is an 8" polypropylene pipe going out the side of the building. Down the road it avoids the replacement cost of the oil storage tank.

Ms. Miller commented when you install air source heat pumps in a room that is exposed to the outside it is trivial, and questioned what would be done for interior classrooms. Mr. Henry stated there to be so much room in the plenum that you can just run it.

Chairman Mann questioned why the LED lighting was ranked low on the priority list noting the quick payback. Mr. Henry stated he would agree with moving that item up to the first phase of the project.

Chairman Mann questioned the estimated cost for the propane boilers at HUES. Mr. Henry stated \$119,000 was the quote from a local vendor who wants to put in 7 boilers and possibly 4 of 1 brand. He has subsequently talked to the engineer who would really like to put in a duplex system, e.g., 2 boilers not 7. He has been looking at another manufacturer and has been trying to get a price. He expects to have a price by next week. The two boilers would be 100% redundancy of the heating needs. The installation of this system would allow you to postpone the recommended changes to HUES.

When asked, Mr. Henry stated his belief the heat pumps would not require a change in behavior in the classrooms, e.g., open or closed doors. The air exchange system currently in place is supplying air to the rooms and then having a plenum return through the halls. The way it is set up now, it is going out through a jumper (exhaust vent that goes into the hall) and is pulled away by air handler 3. That would not necessarily change.

Mr. Henry called attention to the financial summary noting the numbers for the total capital cost include 10% for soft costs and contingency. He stated he is not 100% confident 10% is enough. If you include construction manager costs it might go up to 15%. First year operating savings are nearly \$195,000 and 25-year operating savings are nearly \$4.9 million. Net present value for HUES is a slam dunk. It is not as convincing for HPS, but he believes there is educational benefit gained by insulating the building and reducing huge heat fluctuations in some of the classrooms. Jointly there is a net present value that is quite convincing. Mr. Henry stated his belief they have been conservative with the savings numbers.

Chairman Mann remarked the average energy costs are \$250,000 and the conservative estimate is an anticipated savings of \$194,000, which represents a 76% savings in the heating cost across the district. Vice Chairman Fareed added it is also really important to note Mr. Henry conjectured moisture problems at HPS and the walls that have had moisture problems repaired before having evidence of a continuing issue and the gap in the walls at HUES. When thinking about these kinds of upgrades to the systems we're actually talking about preserving the structure of the buildings against unnecessary degradation that would require additional repair down the road. It seems to be increasing in probability that by taking these steps we are avoiding unnecessary costs in the hardware of this building in an anomaly kind of year.

When asked about life expectancy, Mr. Henry stated the solar panels are running between 25-35 years. The PCM, as far as they know, there is nothing there to break. It should remain functional 30+ years. It has been in place in some places for more than 30 years. This particular product is a new product; it is salt, clay, and water. When asked about performance guarantees, Mr. Henry stated he would have to look into that. With regard to the heat pumps, he stated he has spoken with the manufacturer, Mitsubishi, and they are saying the life expectancy is believed to be 16-18 years. They have seen units go as much as 25 years. There are a lot of the heat pumps, they will not all go down at once, and the replacement parts are relatively inexpensive. It was noted the life expectancies were factored into the net present value calculations. An assumption was made about a certain number failing 16-20 years out; 50%. With regard to the propane boilers, they are very simple; running with a very clean fuel, and 30 years would not be an unreasonable expectation.

Mr. Enright asked for clarification Mr. Henry has indicated he would be more comfortable with a 15% contingency, and was informed that is the case.

Mr. Henry stated there are three components; architect design, engineering design, and construction manager, which he believes to be very important during the renovation. He strongly recommended against design build as he believes it to be an invitation for trouble. A construction manager onsite testing equipment as it goes in, etc., is money in the bank. When asked if a construction manager can be put in place on a technical job like this. Mr. Henry stated the Resilient Buildings Group, Inc. does construction management on just thing kind of job, and are experienced in it.

When asked, Superintendent Corey stated he would be comfortable with a contingency set at 15% noting in previous projects his experience has been a contingency between 10-20%. He remarked when dealing with older buildings, it is not unusual to come across unanticipated issues.

When asked, Mr. Henry stated the two questions he is looking to Building Science Corp. to answer are: 1) what is going on outside of the wall; was that gap there for a reason and is it doing something that if it is closed up will cause more problems and 2) the moisture in the HPS walls could be from two different sources; condensation in the wall because of outside temperatures and inside temperatures being so different with no insulation or it could be what is called rising damp, which is capillary action drawing moisture up through the wall. He stated he was very concerned with the rest of the building that was not treated in 2006. It appears the exact same problem was there, and he is concerned with the cost of pulling out that vermiculite and drying it, etc. because the foaming insulator said they would not touch the wall until it is dried out. The solution he came up with is insulating the outside of the wall with rock wool. Rock wool is totally vapor permeable so as the wall heats up it dries out and draws that vapor to the outside. He is looking for confirmation that

solution would work. The problem with old buildings is you can't lift them up and put a hydrostatic barrier in the way you do in new construction. If it is a rising damp problem, that will be there forever and needs a way to dry out.

DELIBERATIONS

- To see what action the Board will take regarding the Tentative Agreement Reached with the Hollis Teachers Association

Chairman Mann stated the negotiation team was able to reach a tentative agreement with the professional staff.

MOTION BY MEMBER FAREED TO RATIFY THE HOLLIS SCHOOL BOARD AND HOLLIS EDUCATION ASSOCIATION FINAL TENTATIVE AGREEMENT REGARDING THE COLLECTIVE BARGAINING AGREEMENT FOR THE PERIOD OF 2017-2019 MOTION SECONDED BY MEMBER MILLER

ON THE QUESTION

Chairman Mann noted a marked up copy of the tentative agreement was included with the agenda. Not all of the proposed changes have cost impacts.

Ms. Miller noted the additional paragraph under Article 7.4 - Professional Development Stipend, which reads: "5. Each part time employee will have up to \$1,500 available to him/her as an "Individual Limit" from the annual pool, to be distributed, by pre-payment or reimbursement, on a first come first served basis, according to the date the request is first submitted for approval." She questioned if that refers to professional development funds and not to the stipends. Vice Chairman Fareed responded it refers to the professional development resources that are expended on purchasing programming for those staff members. Sometimes these things are placed in parts of the CBA that have sort of an internal logic to the Association that maybe upon reading it again one would think it should be placed elsewhere within the CBA or that the language could have been more explicit, but it is definitely everyone's understanding that that money is to be spent on purchasing programming not as payment to the staff members for their participation in the programs.

Superintendent Corey remarked he believes the response provided to be accurate. However, he will check with Attorney Closson noting it does not necessarily impact the contract. It does seem to be more about paying professional development rather than receiving a professional development stipend.

Mr. Enright questioned if there are any management right issues that are of concern to the Superintendent. Superintendent Corey stated they made a significant amount of progress during negotiations when they bargained for some of the management right pieces. It is his opinion the District gained back language in exchange for compensation. Vice Chairman Fareed provided the example of an area that was improved upon with respect to management rights; there had been some practices around accumulation of hours that had gotten kind of soft over the years, and has been shored up. Superintendent Corey stated his opinion overall it is a fair agreement that keeps our professional staff, which does a tremendous job for the district, very competitive with surrounding districts. He stated his comfort with the job the negotiating team did in what he believes to have been a fair and equitable negotiation.

MOTION CARRIED 5-0-0

- To see what action the Board will take regarding the proposal submitted by the Energy Study Working Group (ESWG)

MOTION BY MEMBER FAREED TO ACCEPT THE ENERGY STUDY WORKING GROUP'S FINAL PROPOSAL FOR THE HOLLIS PRIMARY SCHOOL AND THE HOLLIS UPPER ELEMENTARY SCHOOL, AS AMENDED TO IDENTIFY A FIFTEEN PERCENT (15%) CONTINGENCY, CONTINGENT UPON APPROVAL OF A FUNDING MECHANISM MOTION SECONDED BY MEMBER MILLER

ON THE QUESTION

Superintendent Corey stated the desire to identify the position of the Board that can be taken to the Budget Committee. It is his belief, once the Budget Committee has been made aware of the Board's support of the proposal, they will wish to discuss funding mechanisms.

MOTION CARRIED 5-0-0

Chairman Mann commented on possible funding models. He remarked what he is hearing is a little different than the original proposal in that discussion has taken place around a possible boiler change, identifying the ranking for the LED lighting as priority 1, etc. He noted he has been discussing the issue with the Budget Committee in terms of the proposed cost, etc. Some of the members have suggested the possibility of bonding the project as opposed to warrant articles year after year. Ms. St. John questioned what the reasoning would be for not bonding the project. Chairman Mann responded one of the reasons he provided to the Budget Committee was the timeframe (10 weeks in each summer) available for the work to be done, which would not allow for all of the bonded funds to be utilized at once. He had spoken of presenting warrant articles for phases of the project, which has its own inherent risks. He provided a spreadsheet identifying the funding models inclusive of tax impacts (copy attached).

If looking at phases, as presented, a warrant article to conduct the first phase of the project would be a request of \$1.3 million. Total project cost would be \$1.9 million. That would have a tax impact of \$500 on a house assessed at \$400,000. Ms. St. John commented some of the items listed as priority 1 are intended to be done in phases, e.g., building wrap (\$522,088) and air source heat pumps (\$204,172). Prior discussion was that in doing these items in phases we would have the advantage of looking at a whole year's worth of data to see how it works and whether or not the estimates are correct. She questioned if the intent would be to ask for the \$1,396,304 or only ask to cover the cost of wrapping the sections that are being done initially. Chairman Mann responded it is a worst-case figure because we don't have that level of granularity of what the phases would be.

Superintendent Corey remarked when it was priced out in one of the previous pieces they broke the \$522,088 into three years of \$174,000 each. Part of the problem with that is if you do say one side of the building; putting in heat pumps, etc. you still have the R factor of 3. If the decision were to seek funding through warrant articles priorities should be discussed as before you could do anything to really save heat you would need to insulate. If asked what the biggest need is at HUES it would be the propane boiler and then if it is determined the gap should be closed, that would be the second thing. The project would likely run in the area of 3-5 years.

When considering bonding you would typically look to bond over a number of years so that those who gain from the project also support the funding through taxes. There is the concern, if bonding, some of the funding borrowed would sit for a period of time given the windows of opportunities available for the work to be conducted. The work would be done over the next few summers. He spoke to the benefit of being able to move forward if some of the work is able to be accelerated, e.g., work being done in both buildings simultaneously.

Vice Chairman Fareed remarked if the approach were to bond, the individual aspects of the project would be phased in. Utilizing this funding mechanism would not force our hand on how to implement.

Ms. St. John questioned the potential for other bonding requirements of the SAU or the Town. Superintendent Corey responded the known piece for the SAU is the COOP School District, at some point, looking at some sort of field (#1 priority) and space needs (robotics program returning to the High School). In the Town of Brookline, there is one older building. The Maintenance Trust Fund has been used effectively over there, and he does not see anything in the way of a major bond. Looking at the SAU as a whole, it is in good shape.

He added the piece of this project that is somewhat unknown is the electrical. There is always a concern when opening up an older building with regard to the unanticipated expenses that could arise. There could be a scenario where something is found that causes the schedule of other work to be delayed.

Vice Chairman Fareed commented one of the things that was discussed with respect to how to wire for the air source heat pumps is conduit on the visible surfaces of the wall rather than re-wiring, which would leave everything mummified so that could be avoided. Mr. Henry remarked there could be a dedicated drop on the outside line just for the air source heat pumps. The figure provided is the result of an engineer talking to an electrical contractor that has stated this is what he has seen in the schools he has worked on. These buildings have not been inspected. Chairman Mann added they were speaking from an extensive invasive change; go in, get out the old stuff and put in the new stuff.

Vice Chairman Fareed questioned if the drop from the outside that would be dedicated to the kitchen would necessitate the kitchen project also be done (new grease tank and electrical wiring brought up to today's code as discussed at the Board's [6-1-16](#) meeting), and if that project was expected to require a bond. Superintendent Corey stated there will be a cost to the kitchen, which is contingent on the septic. There was extensive work done over this past summer. The company that did the septic evaluation felt quiet comfortable. However, it is one of those pieces that cannot be predicted. We're very fortunate in our community that we provide a contingency. He does not believe the work on the kitchen would be in excess of what could be funded through the contingency fund. He stated he would want more information on these

drops and what they would mean as he is more concerned about the overall power to the building as we continue to expand. The work that has been done puts us at a confident ballpark number.

Chairman Mann remarked the model for the bond scenario is a \$2 million bond; total proposal cost (includes 15% contingency). If wishing to include the electrical the rough number would be \$2.5 million. Ms. St. John questioned why the desire would not be to bond for the electrical as well. Chairman Mann agreed that approach could be taken. It was noted the cost of the air source heat pumps for HUES is not included in the bond modeling. Chairman Mann stated he was trying to give the best approach that moves the entire proposal forward and minimizes the tax burden to give a bond initiative the best chance of passing as a super majority is needed for passage.

Vice Chairman Fareed commented the consultants have indicated we are sizing the plan for what we think is needed, and we have a sense that it could be that we will need a lot less; fewer units for example. We're really sure we need the propane boiler, we're really sure we need the wrapping of HPS and the priority 1 and priority 2 items. The air source heat pumps at HUES would be a great to have not a must have. The idea of the bond request would be to ask the Town to get our schools up to speed, and if it turned out at a future date that the air source heat pump system at HPS was such a no brainer and it would make sense fiscally, etc., a request could be made for a warrant article to make a purchase of the number known to be needed.

Mr. Henry commented the spreadsheet utilizes the first year savings at 100% of face value. Chairman Mann noted the spreadsheet is in need of updating. The takeaway is a proposal with a cost between \$2 million and \$2.5 million. He stated the desire for the Board to consider putting forward a bond initiative with the understanding were it to fail, the Board would ask for a warrant article that would fund Phase I.

Ms. Miller questioned the best case scenario in terms of project completion. Superintendent Corey stated he can envision wrapping taking place over one summer at HPS, if the entirety of the bond were passed, being able to do the propane boilers, the PCMs and the Solar PV. The construction manager would come on board and work with the District in completing as much as possible and looking at it from a cost savings point of view as well, e.g., if a particular aspect of the project would result in cost savings, getting that aspect in place as soon as possible would be beneficial. When asked what the best case scenario would be were the project fully funded from the start. Mr. Henry stated the one thing that concerns him is the electrical aspect; if going to re-do the electric that would require the opening of the wall, which could result in unforeseen delays.

When asked, Chairman Mann stated his recommendation for a single warrant in an amount that covers the costs associated with Phase I. There would be a separate presentation that would accompany the warrant article that would identify what Phase I would do and provide a cost. It is the amount identified in the warrant that the taxpayers would be voting on. Ms. St. John stated her desire for the bond request to cover all costs associated with the full project, e.g., should include all electrical needs. Chairman Mann noted the exact dollar amounts of each would have to be worked out. A general idea is understood.

Ms. St. John suggested a bond request also include the cost of the necessary kitchen upgrades. She remarked it is not yet known what the economic climate will be next year. This might be a perfect opportunity to make this last long-term. Vice Chairman Fareed commented the strength of the Budget Committee is they have the data to help them generate the sense of what is a reasonable ask of the tax base, and what is too much.

Chairman Mann questioned the will of the Board. Superintendent Corey stated he would want to be able to bring the sense of this Board to the Budget Committee. If the Budget Committee is not in favor of supporting a bond he is uncertain if the Town would. It may be that the School Board has to conduct an additional meeting to finalize the proposal to be put forth. He stated his belief if there is overall consensus by both groups any proposal has a much better chance of moving forward.

The Board discussed attending the meeting of the Budget Committee, and that members be prepared to take a more formalized position following that meeting.

Ms. Miller stated her understanding had been that there would be required changes to the kitchen if the septic were to fail. Vice Chairman Fareed remarked as long as the septic field remains whole, and the testing that was performed this past year shows that it is intact and is healthy, then we are grandfathered with regard to the existing grease trap, and everything that is in place is fine. Chairman Mann commented in theory there is no timeline around the kitchen/septic issues. Vice Chairman Fareed stated her belief it was indicated the expected age of such a septic field is around 50 years and the existing system is at 38 years. Superintendent Corey remarked the difference is that a school system does not use its septic during the summer months so it tends to dry out and gets a greater life expectancy. Hollis Construction

visited the site along with Meridian Land Services. Meridian is the expert on the septic and Hollis Construction the construction expert. They dug multiple test pits all with positive outcomes. Meridian continues work on a plan with the intent to have it finalized and stamped by the State so that were the system to fail construction on a new system could begin with 4 days.

Ms. St. John questioned the timeframe in which the Superintendent would like to see the kitchen work completed. Superintendent Corey responded the kitchen functions well, we wouldn't be talking about it were it not for the septic system. When looking at the educational piece, the heating of the building will impact students' education. Monitoring CO₂ levels, having the ability to keep room temperatures consistent, and in those fall and spring days that are excessively hot, air source heat pumps would potentially allow more learning to take place. One of the biggest things the consultants have talked about is by doing this we're adding decades of useful life to the building. What is being proposed is not a band-aid that will buy an additional 5 years before constructing a new building it is a solution that will take the District out another 20 years easily.

Vice Chairman Fareed commented the kitchen can potentially last another 10-15 years. If the septic remains healthy for the projected time, it may be that a bond is sought for that work close to the end of the bond that would be requested for the energy project. Superintendent Corey stated right now he feels quite comfortable with the existing septic system. He added the new septic field is anticipated to be a cost of \$78,000, which is covered in the contingency.

Ms. St. John questioned if the proposal would be for a bond to include the cost of electrical work. Chairman Mann stated his opinion any electrical changes would be approached such that we are not evasively ripping open walls. If it is a matter of running conduit to supply air source heat pumps and perhaps add some additional capacity for auxiliary plug-in if needed, he believes that could be addressed without being too invasive. Ms. St. John questioned if that approach would allow the project to have the desired outcome of extending the lifespan of the buildings the 30+ years. Superintendent Corey stated his recommendation would be for the \$600,000+ that the consultants have estimated to be included in the proposal. He stated a concern that there are some components at HPS that are original to when the building was constructed. His concern is with what may be discovered during the process, and that if continuing to push 21st Century skills we need more than 4 outlets in a room. Ms. St. John remarked what is being stated is that including the electrical components supports the educational needs.

Ms. St. John stated her support of a bond that funds both. Ms. Miller stated her agreement, and requested the LED lighting be identified as Priority 1 in the first phase of the warrant to be sure that is addressed if a warrant scenario is the approved funding mechanism. Superintendent Corey stated his recommendation the propane boiler and the LED lighting be funded utilizing the Maintenance Trust Fund. Those items could be taken out of the proposal. The boilers are required at this time, and the lighting would result in instant savings. If the Budget Committee stated concern with the dollar amount coming from the Maintenance Trust, he would recommend that the funds proposed for Rocky Pond are replaced with LED lighting.

Mr. Enright stated agreement with a bond proposal including the electrical work. If the end result is that the project is piecemealed, it should be in reasonable increments. Vice Chairman Fareed stated her agreement as did Chairman Mann.

Chairman Mann noted the request received from the consultants relative to the not-to-exceed number of the contract. Warrant Article #4 at last year's Annual Meeting approved \$100,000 to conduct an energy study. The Board put together the ESWG, which identified the boundaries to work under. One of those boundaries was a not-to-exceed number (\$79,500). As of December 1, 2016, invoices total \$70,928.75. The amount of \$71,500 has been allocated. What remains is \$8,000.

Mr. Henry stated the actual amount came in below \$79,500 as the two sub-contractors that had been allocated a total of \$34,000 towards came in at a total of \$26,000 (\$8,000 below).

Chairman Mann stated the total requested increase to the not-to-exceed amount to be \$15,500, which will bring the total to \$95,000.

Charlie Niebling, INRS, stated the detailed work specification was based on what was known at the time. A fair amount of time was spent early on in the project building consensus with the ESWG and the members of the Hollis Energy Committee. The amount of time expended on that had not been anticipated. The bulk of the time that exceeded the initial estimate was in the analysis of the buildings, and taking the data analytics that was collected, and understanding how the buildings are operating. They did not anticipate spending as much time on that as they did. It was understood in the October timeframe that they would likely be over the not-to-exceed amount. As of the December 1 invoice, they are over

by about \$8,000; the portion of the total budget allocated to the consultants. The work plan with respect to activities intended to occur following the ESWG and the School Board determining the approach to move forward with includes financial analysis, identifying additional funding sources, public education and outreach, and preparation for the March meeting. If the desire is for that work to continue the not-to-exceed amount would be exceeded.

Vice Chairman Fareed commented this has been discussed previously, and the time has come to address it. Mr. Niebling remarked what is being proposed corresponds very closely with what was originally anticipated for the total project. That had been paired back. Early on they were advised to try to produce a budget that was significantly below what the voters had appropriated, which they did.

Chairman Mann added there is additional work that has been discussed tonight around needed clarity with regard to electrical work, sharpening the numbers around a potential bond, and a proposal for proceeding with a phased approach.

It was noted the budget to date includes the monies for the PCM. The concept of a pilot was something that had not been thought of initially. Vice Chairman Fareed added there is also the Building Science work that is necessary. She stressed none of the work done to date has been done without advance approval from the Superintendent and/or Chairman. The level of communication has been noteworthy.

Vice Chairman Fareed suggested a motion that would amend the contract by increasing the not-to-exceed amount by \$15,500 due to an increased scope of work relative to the gaps identified within the walls at HUES. When asked if the increase is due solely to the gaps identified within the walls, Vice Chairman Fareed stated her recollection of Mr. Henry indicating multiple times that the discoveries of the structural anomalies in HUES took an enormous amount of time.

Mr. Henry questioned if the Board wished the motion to include the new work associated with digging into the electrical cost. Superintendent Corey stated the electrical piece is not necessarily part of the heating component. Now as we go into a bond the concern that has come up is running the heat source pumps and the different pieces on our present electrical. He stated his belief it would give further credibility to the project if the consultants continue their due diligence in this area.

Mr. Henry remarked if the bond passes and the desire is to start work this summer it is very important that they get on the schedule of the architect, the engineer, and the construction manager now. He suggested they begin the process of developing whatever documentation is needed that identifies the players, their availability, and that the understanding is in place that work is contingent upon funding approval at the March meeting. Chairman Mann stated his belief there is a requirement to go through a bidding process given the dollar value of the project.

MOTION BY MEMBER FAREED TO APPROVE THE AMENDMENT TO THE CONTRACT BETWEEN THE HOLLIS SCHOOL DISTRICT AND INNOVATIVE NATURAL RESOURCE SOLUTIONS LLC, APPROVED AT THE BOARD'S JULY 18, 2016 MEETING, BY INCREASING THE NOT TO EXCEED AMOUNT BY FIFTEEN THOUSAND FIVE HUNDRED DOLLARS (\$15,500), DUE TO AN INCREASED SCOPE OF WORK RELATIVE TO GAPS IDENTIFIED WITHIN THE WALLS AT HUES AS WELL AS ELECTRICAL INFRASTRUCTURE UPGRADES. SOURCE OF FUNDING IS THE APPROPRIATION APPROVED THROUGH THE PASSAGE OF WARRANT ARTICLE #4 AT THE DISTRICT ANNUAL MEETING CONDUCTED ON MARCH 17, 2016
MOTION SECONDED BY MEMBER ENRIGHT
MOTION CARRIED
5-0-0

- To see what action the Board will take regarding the Energy Study Working Group (ESWG) Invoices

To date, no invoices have been received for work performed in the month of December.

- Start-Time Committee - Update

Superintendent Corey stated the committee will meet next on January 13, 2017. Two tentative dates have been identified for public forums; January 23rd and 30th.

NON-PUBLIC SESSION

MOTION BY MEMBER FAREED THAT THE BOARD, BY ROLL CALL, GO INTO NON-PUBLIC SESSION PURSUANT TO RSA 91-A:3 II (a) THE DISMISSAL, PROMOTION OR COMPENSATION OF ANY PUBLIC EMPLOYEE
MOTION SECONDED BY MEMBER ST. JOHN

A Viva Voce Roll Call was conducted, which resulted as follows:

Yea: Tammy Fareed, Robert Mann, Tom Enright, Laurie Miller, Michele St. John
5
Nay: 0

MOTION CARRIED

*The Board went into non-public session at 8:30 p.m.
The Board came out of non-public session at 9:20 p.m.*

**MOTION BY MEMBER MILLER TO ACCEPT THE HOLLIS SCHOOL BOARD'S INPUT TO THE SUPERINTENDENT'S
EVALUATION TO BE PRESENTED AT THE NEXT MEETING OF THE SAU GOVERNING BOARD
MOTION SECONDED BY MEMBER ENRIGHT**

MOTION CARRIED

5-0-0

ADJOURNMENT

**MOTION BY MEMBER MILLER TO ADJOURN
MOTION SECONDED BY MEMBER FAREED
MOTION CARRIED**

5-0-0

The January 4, 2017 meeting of the Hollis School Board was adjourned at 9:23 p.m.

Date _____ Signed _____

**NH Municipal Bond Bank
25 Triangle Park Drive
Concord, NH 03301**

LEVEL PRINCIPAL
8 YEAR **ESTIMATED** DEBT SCHEDULE FOR
HOLLIS SCHOOL DISTRICT

2016 ASSESSED VALUATION: \$0
 ESTIMATED YEARLY INCREASE: 0%
 DATE PREPARED: 01/04/17
 BONDS DATED: June 2017 08/15/17
 INTEREST START DATE: 211 Days 07/14/17
 FIRST INTEREST PAYMENT: 02/15/18
 NET INTEREST COST: 2.4980% *

DEBT YR	PERIOD ENDING	PRINCIPAL OUTSTANDING	PRINCIPAL	RATE	INTEREST	TOTAL PAYMENT	FISCAL YEAR TOTAL PAYMENT	ASSESSED VALUATION
	02/15/18				\$43,958.33	\$43,958.33	\$43,958.33	0
1	08/15/18	\$3,000,000.00	\$375,000.00	2.500%	37,500.00	412,500.00		
	02/15/19				32,812.50	32,812.50	445,312.50	0
2	08/15/19	2,625,000.00	375,000.00	2.500%	32,812.50	407,812.50		
	02/15/20				28,125.00	28,125.00	435,937.50	0
3	08/15/20	2,250,000.00	375,000.00	2.500%	28,125.00	403,125.00		
	02/15/21				23,437.50	23,437.50	426,562.50	0
4	08/15/21	1,875,000.00	375,000.00	2.500%	23,437.50	398,437.50		
	02/15/22				18,750.00	18,750.00	417,187.50	0
5	08/15/22	1,500,000.00	375,000.00	2.500%	18,750.00	393,750.00		
	02/15/23				14,062.50	14,062.50	407,812.50	0
6	08/15/23	1,125,000.00	375,000.00	2.500%	14,062.50	389,062.50		
	02/15/24				9,375.00	9,375.00	398,437.50	0
7	08/15/24	750,000.00	375,000.00	2.500%	9,375.00	384,375.00		
	02/15/25				4,687.50	4,687.50	389,062.50	0
8	08/15/25	375,000.00	375,000.00	2.500%	4,687.50	379,687.50	379,687.50	0
TOTALS			\$3,000,000.00		\$343,958.33	\$3,343,958.33	\$3,343,958.33	

***These interest rates are based on the current market as of 11/14/16.
The market is very volatile. Please check with us periodically for current rates**

**NH Municipal Bond Bank
25 Triangle Park Drive
Concord, NH 03301**

LEVEL PRINCIPAL
12 YEAR **ESTIMATED** SCHEDULE FOR
HOLLIS SCHOOL DISTRICT

2016 ASSESSED VALUATION: \$0
 ESTIMATED YEARLY INCREASE: 0%
 DATE PREPARED: 01/04/17
 BONDS DATED: June 2017 08/15/17
 INTEREST START DATE: 211 Days 07/14/17
 FIRST INTEREST PAYMENT: 02/15/18
 NET INTEREST COST: 2.9990% *

DEBT YEAR	PERIOD ENDING	PRINCIPAL OUTSTANDING	PRINCIPAL	RATE	INTEREST	TOTAL PAYMENT	FISCAL YEAR TOTAL PAYMENT
	02/15/18				\$52,750.00	\$52,750.00	\$52,750.00
1	08/15/18	\$3,000,000.00	\$250,000.00	3.000%	45,000.00	295,000.00	.
	02/15/19				41,250.00	41,250.00	336,250.00
2	08/15/19	2,750,000.00	250,000.00	3.000%	41,250.00	291,250.00	
	02/15/20				37,500.00	37,500.00	328,750.00
3	08/15/20	2,500,000.00	250,000.00	3.000%	37,500.00	287,500.00	
	02/15/21				33,750.00	33,750.00	321,250.00
4	08/15/21	2,250,000.00	250,000.00	3.000%	33,750.00	283,750.00	
	02/15/22				30,000.00	30,000.00	313,750.00
5	08/15/22	2,000,000.00	250,000.00	3.000%	30,000.00	280,000.00	
	02/15/23				26,250.00	26,250.00	306,250.00
6	08/15/23	1,750,000.00	250,000.00	3.000%	26,250.00	276,250.00	
	02/15/24				22,500.00	22,500.00	298,750.00
7	08/15/24	1,500,000.00	250,000.00	3.000%	22,500.00	272,500.00	
	02/15/25				18,750.00	18,750.00	291,250.00
8	08/15/25	1,250,000.00	250,000.00	3.000%	18,750.00	268,750.00	
	02/15/26				15,000.00	15,000.00	283,750.00
9	08/15/26	1,000,000.00	250,000.00	3.000%	15,000.00	265,000.00	
	02/15/27				11,250.00	11,250.00	276,250.00
10	08/15/27	750,000.00	250,000.00	3.000%	11,250.00	261,250.00	
	02/15/28				7,500.00	7,500.00	268,750.00
11	08/15/28	500,000.00	250,000.00	3.000%	7,500.00	257,500.00	
	02/15/29				3,750.00	3,750.00	261,250.00
12	08/15/29	250,000.00	250,000.00	3.000%	3,750.00	253,750.00	253,750.00
TOTALS			\$3,000,000.00		\$592,750.00	\$3,592,750.00	\$3,592,750.00

*These interest rates are based on the current market as of 11/14/16.
 The market is very volatile. Please check with us periodically for current rates

**NH Municipal Bond Bank
25 Triangle Park Drive
Concord, NH 03301**

LEVEL PRINCIPAL
10 YEAR **ESTIMATED** DEBT SCHEDULE FOR
HOLLIS SCHOOL DISTRICT

2016 ASSESSED VALUATION: \$0
 ESTIMATED YEARLY INCREASE: 0%
 DATE PREPARED: 01/04/17
 BONDS DATED: June 2017 08/15/17
 INTEREST START DATE: 211 Days 07/14/17
 FIRST INTEREST PAYMENT: 02/15/18
 NET INTEREST COST: 2.4990% *

DEBT YR	PERIOD ENDING	PRINCIPAL OUTSTANDING	PRINCIPAL	RATE	INTEREST	TOTAL PAYMENT	FISCAL YEAR TOTAL PAYMENT	ASSESSED VALUATION
	02/15/18				\$43,958.33	\$43,958.33	\$43,958.33	0
1	08/15/18	\$3,000,000.00	\$300,000.00	2.500%	37,500.00	337,500.00		
	02/15/19				33,750.00	33,750.00	371,250.00	0
2	08/15/19	2,700,000.00	300,000.00	2.500%	33,750.00	333,750.00		
	02/15/20				30,000.00	30,000.00	363,750.00	0
3	08/15/20	2,400,000.00	300,000.00	2.500%	30,000.00	330,000.00		
	02/15/21				26,250.00	26,250.00	356,250.00	0
4	08/15/21	2,100,000.00	300,000.00	2.500%	26,250.00	326,250.00		
	02/15/22				22,500.00	22,500.00	348,750.00	0
5	08/15/22	1,800,000.00	300,000.00	2.500%	22,500.00	322,500.00		
	02/15/23				18,750.00	18,750.00	341,250.00	0
6	08/15/23	1,500,000.00	300,000.00	2.500%	18,750.00	318,750.00		
	02/15/24				15,000.00	15,000.00	333,750.00	0
7	08/15/24	1,200,000.00	300,000.00	2.500%	15,000.00	315,000.00		
	02/15/25				11,250.00	11,250.00	326,250.00	0
8	08/15/25	900,000.00	300,000.00	2.500%	11,250.00	311,250.00		
	02/15/26				7,500.00	7,500.00	318,750.00	0
9	08/15/26	600,000.00	300,000.00	2.500%	7,500.00	307,500.00		
	02/15/27				3,750.00	3,750.00	311,250.00	0
10	08/15/27	300,000.00	300,000.00	2.500%	3,750.00	303,750.00	303,750.00	0
TOTALS			\$3,000,000.00		\$418,958.33	\$3,418,958.33	\$3,418,958.33	

***These interest rates are based on the current market as of 11/14/16.
 The market is very volatile. Please check with us periodically for current rates**

Implementation Plan

HPS			
Priority Level	Description	Cost	Notes
1	Building Wrap	\$ 522,088.00	
1	ASHP	\$ 204,172.00	
1	Solar PV 100KW	\$ 295,100.00	
	Sub Total	\$ 1,021,360.00	
2	Heat Recovery Ventilation	\$ 140,200.00	
	Sub Total	\$ 140,200.00	
3	Phase Change Material	\$ 97,657.00	
3	Replace Lighting	\$ 10,150.00	Move to Phase 1: Shortest Payback
	Sub Total	\$ 107,807.00	

HPS Total \$ 1,269,367.00

HPS			
Priority Level	Description	Cost	Notes
None	Electrical Upgrade	\$ 630,000.00	Not in Proposal

HPS Electrical Total \$ 630,000.00

HUES			
Priority Level	Description	Cost	Notes
1	Propane Boilers	\$ 150,000.00	
1	Solar PV 100KW	\$ 295,100.00	
	Sub Total	\$ 445,100.00	
2	Foam Insulte "GAP"	\$ 20,000.00	
2	Management Sys Prog	\$ 97,200.00	<=== Seems high
	Sub Total	\$ 117,200.00	
3	Phase Change Material	\$ 93,435.00	
3	Replace Lighting	\$ 14,193.00	Move to Phase 1: Shortest Payback
	Sub Total	\$ 107,628.00	
4	ASHP	\$ 238,005.00	
	Sub Total	\$ 238,005.00	

HUES Total \$ 907,933.00

Funding Models & Tax Impact

Annual Phase Model

Phase	Total Phase Cost	Tax Impact			Notes
		One Time Hit per \$1k	One time Hit For \$400k Home	% of Total	
1	\$ 1,466,460.00	\$ 1.22	\$ 487.00	67%	Higher if add Lighting, Yikes!
2	\$ 257,400.00	\$ 0.21	\$ 86.00	12%	
3	\$ 215,435.00	\$ 0.18	\$ 72.00	10%	
4	\$ 238,005.00	\$ 0.24	\$ 94.00	11%	
Total		\$ 1.85	\$ 739.00		

Bond Model

Total Proposal Cost		Avg Payment		Notes	Assumptions
		Byr @2.5%	10Yr @2.5%		
\$	2,177,300.00	\$ 412,500.00	\$ 337,500.00	12yr @3.0%	Used \$3M Increase we add Electrical upgrade for HPS (worst case)
		Annual Tax Impact per \$1k		12yr @3.0%	
\$	3,000,000.00	\$ 0.34	\$ 0.28	0.25	12yr bond payments roughly equivalent to Phase 2,3,4 cost & impacts: 12yr term also approx equivalent to calc payback time
		Annual Tax Impact per \$400k Home		98.00	
\$		\$ 137.00	\$ 112.00	\$	

1st Year Savings		% Savings		Notes
		Reg Op Eng Cost		
\$	194,902.00	\$ 255,000.00	76%	Should be Higher % if add Lighting and Subsequent years should be higher as more of the proposal is implemented

12 Yr Bond Payment	
Net Energy Savings	\$ 100,098.00